

PHASE 1 HABITAT SURVEY REPORT- REVISION 1

at

Land off Cross Street
Monk Bretton
Barnsley
South Yorkshire
S71 2EP

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1. Introduction

1.1 Purpose of the Report

1.1.1 A report is required for **Land off Cross Street, Monk Bretton** to assess the ecological value of the site by documenting the habitat types present and the site's potential for supporting rare and protected species.

1.2 Terms of Reference

1.2.1 I am instructed by **Bellway Homes Yorkshire Ltd** to visit the site and prepare my findings in a report.

1.2.2 For this purpose I have been supplied with a site map (drawing: **Promap Land off Cross Street Monk Bretton.pdf**) and brief details of the proposal.

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with the Joint Nature Conservation Committee's (JNCC's) *Handbook for Phase 1 habitat survey - A technique for environmental audit* (Revised reprint 2010).

1.4 Details of Proposed Development

1.4.1 The development proposed on this site is currently unknown by JCA Ltd.

1.5 Site Description

1.5.1 **Land off Cross Street, Monk Bretton** is situated 1.8km north-east of Barnsley town centre, at grid reference: SE 361 076.

1.5.2 The site is located within a residential area of Barnsley, and encompasses two fallow arable fields and an unoccupied residential bungalow with the surrounding garden. This report separates the site into two plots; the two arable fields are Plot 1 and the bungalow and garden are Plot 2. The arable fields form an 'L' shape, the top of which points north-west, and the property is adjacent to the north-eastern horizontal edge of the 'L' shape (please refer to the plan in **Appendix 1**). A cricket ground borders the site to the north within the inside of the 'L' shape. Rough grassland lies to the north-east, and a steep vegetated slope borders the site to the south-west. The south-eastern edges of the fields are bordered by an area of rough grassland. Residential housing lies to the east of the site; the property within the site lies within a row of housing along Cross Street.

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2. Desktop Study

2.1 Methodology

2.1.1 A desktop study has been undertaken in order to obtain any relevant ecological records that may be present within a 1.5km radius of the site. This includes protected and notable species records, as well as nature conservation designations.

2.1.2 The National Biodiversity Network (NBN) Gateway website was used to obtain any protected species records that were recorded within the last 10 years, relating to this site. The NBN gateway website holds ecological records collected across the UK from a variety of sources and is available for public use. The website operates by dividing the country into a series of 10km square grids, and so the records held for the 10km grid containing the survey site (Grid SE30) has been reviewed.

2.1.3 The Multi-Agency Geographic Information for the Countryside (MAGIC) website was used to locate any designated sites that may be present within 1.5km of the survey site, such as; Local Nature Reserves (LNR), Special Areas of Conservation (SAC) or Sites of Special Scientific Interest (SSSI).

2.2 Results

2.2.1 Protected and Notable Species: The NBN Gateway records obtained for this site can be seen in **Table 1** below.

Table 1: List of protected and notable species recorded within the 10km grid square SE30.

Group	Common Name	Scientific Name	No. of Records	Most Recent Record
Amphibian	Common Frog	*Rana temporaria*	1	2008
	Great Crested Newt	*Triturus cristatus*	2	1991
Bird	Kingfisher	*Alcedo atthis*	3	1999
	Linnet	*Carduelis cannabina*	2	2009
	Goldfinch	*Carduelis carduelis*	23	2012
	Cuckoo	*Cuculus canorus*	1	1981
	Mute Swan	*Cygnus olor*	2	2014
	House Martin	*Delichon urbica*	2	2003
	Reed Bunting	*Emberiza schoeniclus*	2	2000
	Kestrel	*Falco tinnunculus*	1	1981
	Brambling	*Fringilla montifringilla*	2	2009
	Swallow	*Hirundo rustica*	1	1981
	Grasshopper Warbler	*Locustella naevia*	1	1981
	Red Kite	*Milvus milvus*	1	2012

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Bird	Grey Wagtail	*Motacilla cinerea*	2	2009
	Willow Tit	*Parus montanus*	1	1981
	House Sparrow	*Passer domesticus*	37	2009
	Willow Warbler	*Phylloscopus trochilus*	2	1986
	Marsh Tit	*Poecile palustris*	2	2009
	Dunnock	*Prunella modularis*	29	2009
	Bullfinch	*Pyrrhula pyrrhula*	5	2009
	Turtle Dove	*Streptopelia turtur*	1	1981
	Starling	*Sturnus vulgaris*	22	2009
	Redwing	*Turdus iliacus*	1	1992
	Blackbird	*Turdus merula*	52	2009
	Song Thrush	*Turdus philomelos*	7	2009
	Fieldfare	*Turdus pilaris*	1	1996
	Mistle Thrush	*Turdus viscivorus*	3	2009
	Barn Owl	*Tyto alba*	1	1987
Terrestrial Mammal	Water Vole	*Arvicola terrestris*	9	2001
	Hedgehog	*Erinaceus europaeus*	2	2013
	Harvest Mouse	*Micromys minutus*	1	2000
	Leisler's Bat	*Nyctalus leisleri*	1	1985
	Nyctalus Bat species	*Nyctalus sp.*	1	1981

2.2.2 Local Data Centre Records: The Barnsley Biological Records Centre has been commissioned to provide the records held for protected and notable species within a 1.5km radius of the survey site. The result has been summarised in **Table 2** below.

Table 2: Barnsley Biological Records Centre's records of protected and notable species within a 1.5km radius of the site. An asterisk * denotes records that are within 500m of the site.

Group	Common Name	Scientific Name	No. of Records	Most Recent Record
Amphibian	Common Toad	*Bufo bufo*	1	2003
	Common Frog	*Rana temporaria*	1	2013
Bird	Kingfisher	*Alcedo atthis*	5	2013
	Shoveler	*Anas clypeata*	1	2013
	Lesser Redpoll	*Carduelis cabaret*	1	1994
	Linnet	*Carduelis cannabina*	1	1994
	Goldfinch *	*Carduelis carduelis*	21	2013
	Cuckoo	*Cuculus canorus*	1	1994
	Yellowhammer	*Emberiza citrinella*	1	1994
	Swallow	*Hirundo rustica*	1	2007
	Mew Gull	*Larus canus*	2	2009

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Bird	House Sparrow *	*Passer domesticus*	42	2013
	Willow Warbler	*Phylloscopus trochilus*	1	1994
	Green Woodpecker	*Picus viridis*	2	2003
	Willow Tit	*Poecile montanus*	3	2005
	Dunnock *	*Prunella modularis*	30	2013
	Bullfinch	*Pyrrhula pyrrhula*	2	2005
	Water Rail	*Rallus aquaticus*	1	2013
	Goldcrest	*Regulus regulus*	2	2009
	Starling *	*Sturnus vulgaris*	22	2009
	Blackbird *	*Turdus merula*	56	2009
	Song Thrush	*Turdus philomelos*	5	2013
	Mistle Thrush	*Turdus viscivorus*	4	2009
Conifer	Juniper	*Juniperus communis*	1	1994
Insect - Butterfly	Small Heath	*Coenonympha pamphilus*	3	2013
	Dingy Skipper	*Erynnis tages*	3	2013
	Wall	*Lasiommata megera*	1	2003
Insect - Moth	Cinnabar	*Tyria jacobaeae*	1	2013
Terrestrial Mammal	Water Vole	*Arvicola terrestris*	3	2001
	Bat	*Chiroptera*	2	2005
	Hedgehog	*Erinaceus europaeus*	2	2012
	Otter	*Lutra lutra*	2	2007
	Badger *	*Meles meles*	4	2010
	Harvest Mouse	*Micromys minutus*	1	1992
	Daubenton's Bat	*Myotis daubentoni*	36	2012
	Noctule	*Nyctalus noctula*	2	1987
	Common Pipistrelle Bat *	*Pipistrellus pipistrellus*	12	2007
	Soprano Pipistrelle Bat	*Pipistrellus pygmaeus*	1	2001

2.2.3 Nature Conservation Designations: This search revealed that the only nature conservation designation within a 1.5km radius of the site is Dearne Valley Park LNR, which is located approximately 600m to the south of the site. However, urban development and a major road, the A633, lie between the site and the LNR and form a barrier to wildlife. Therefore, the development at this location will not impact the designated conservation site.

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3. Site Assessment

3.1 Survey Conditions

3.1.1 The site was surveyed on 5th March 2015 by Alice Palmer.

3.1.2 The weather conditions during this survey were as follows: Temperature: 4°C, Wind Speed: 23km/h, Precipitation: dry.

3.1.3 There were no perceived limitations to this survey.

3.2 Methodology

3.2.1 A thorough site assessment was undertaken; following the guidelines set out in the JNCC's *Handbook for Phase 1 habitat surveys*.

3.2.2 The entire site was walked over by an experienced consultant who mapped and described each habitat type that was present. The dominant floral species of each habitat was noted as well as any faunal species that were encountered.

3.2.3 Whilst conducting the site walk-over, any features that may be of value to or have the potential to support protected species were noted, and photographic evidence taken (please refer to **Appendix 2**). Such protected species include, but are not limited to; Badgers, Bats, Dormouse, Great Crested Newts, Nesting Birds, Otter, Reptiles, Water Vole, White-Clawed Crayfish (please see **Appendix 5**).

3.3 Habitat Types Present

3.3.1 Phase 1 Habitat maps showing all habitat types present in Plots 1 and 2 can be found at **Appendix 1**.

3.3.2 The following habitat types are present at **Land off Cross Street** (in alphabetical order):

- Amenity grassland
- Arable
- Bare ground
- Buildings
- Ephemeral/short perennial
- Hard standing

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- Intact hedgerow (species-poor)
- Introduced shrubs
- Scattered broad-leaved trees
- Scattered scrub
- Tall ruderal

3.3.3 Overview: Plot 1 mainly consists of two arable fields which have been left fallow. The edges of the fields are buffered by a strip of tall ruderal vegetation, featuring a few scattered broad-leaved trees and scattered scrub. A public footpath follows the buffer line around the edge of the plot, and there are three patches of bare ground within the fields. Plot 2 is more complex as it consists of a bungalow and its surrounding garden. The buildings within the plot include the bungalow and separate garage. The driveway leads to the garage from Cross Street to the east, and there is additional hard standing in the form of footpaths around the buildings and paving across a disused vegetable patch in the south-western corner. At the time of the survey the vegetable patch contained only ephemeral/short perennial vegetation. Intact, species-poor hedgerows line the western, northern and eastern edges of the garden. The amenity grassland lawn within the garden is bordered and interspersed by beds of introduced shrubs. Two trees flank the driveway entrance and another tree is located along the eastern edge of the garden. The plot also includes a strip of amenity grassland which lies outside of the property, which forms a verge along Cross Street.

3.3.4 Amenity grassland: Amenity grassland is located within the garden of Plot 2. The majority of this habitat forms a lawn which wraps around the northern end of the bungalow from the front to back gardens (please refer to **Appendix 2**). There is a separate section of the lawn within the back garden adjacent to the western hedgerow, and a narrow strip of grassland along the southern edge of the driveway. An additional area of amenity grassland lies beyond the garden and forms a verge along Cross Street to the east. This habitat was very species poor as is typical of regularly mown lawns and verges. The only species recorded during the survey was Perennial Rye-grass (*Lolium perenne*).

3.3.5 Arable: The majority of Plot 1 is occupied by arable land in the form of two fallow arable fields. These fields have been recolonised by grassland vegetation (please refer to **Appendix 2**). The species recorded within this habitat include: Rape (*Brassica napus*), Spear Thistle (*Cirsium vulgare*), Meadow Cranesbill (*Geranium pratense*), Wood Avens (*Geum urbanum*), Perennial Rye-grass (*L. perenne*), Purple Moor-grass (*Molinia caerulea*), Broad-leaved Dock (*Rumex obtusifolius*), Common Ragwort (*Senecio jacobaea*), Charlock (*Sinapis arvensis*), Common Dandelion (*Taraxacum officinale*) and Common Field-speedwell (*Veronica persica*).

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3.3.6 Bare ground: There are three moderately sized patches of bare ground within the arable fields in Plot 1. One bare area is located in the south-eastern corner of the larger field. This area features tyre tracks so is likely to have been caused by vehicular activity (please refer to **Appendix 2**). The other two bare patches are located within the smaller field, but it is unclear what has caused them.

3.3.7 Buildings: Plot 2 features a bungalow and a separate garage within the property.

3.3.8 Ephemeral/short perennial: A disused vegetable patch is located in the south-western corner of Plot 2. This is now overgrown and features ephemeral/short perennial vegetation within raised beds (please refer to **Appendix 2**). The species recorded within this habitat include: Hairy Bittercress (*Cardamine hirsuta*), Rough Chervil (*Chaerophyllum temulum*), Rosebay Willowherb (*Chamerion angustifolium*), Cotoneaster (*Cotoneaster sp.*), Foxglove (*Digitalis sp.*), Cleavers (*Galium aparine*), Ivy (*Hedera helix*), Charlock (*S. arvensis*), Common Dandelion (*T. officinale*) and several horticultural species.

3.3.9 Hard standing: Hard standing exists in Plot 2 in the form of a driveway and footpaths through the garden. The driveway leads from the eastern edge of the plot to the garage. A footpath surrounds the bungalow and leads behind the garage. Additionally, loose paving slabs form a footpath through the vegetable patch (please refer to **Appendix 2**).

3.3.10 Intact hedgerow (species-poor): Intact hedgerows form the boundary around the property in Plot 2 (please refer to **Appendix 2**). A tall Beech (*Fagus sp.*) hedgerow lies along the western edge of the plot, forming a boundary between Plot 2 and Plot 1. A tall Laurel (*Laurus sp.*) hedgerow lines most of the northern border of Plot 2; there is a gap in the hedgerow in the north-western corner. A lower Beech hedgerow borders the front of the property in the east of the plot. These hedgerows are species-poor and well maintained.

3.3.11 Introduced shrubs: Introduced shrubs are located in beds throughout the garden of Plot 2 (please refer to **Appendix 2**). A small bed of roses is located close to the north-eastern edge of the bungalow. Extensive shrub beds lie either side of the driveway, inside the eastern hedgerow and across the back garden. A narrow strip of introduced shrub is located between the vegetable patch and the southern border of the plot, and a large, angular Cotoneaster (*Cotoneaster sp.*) bush lies in the northern corner of the patch. A few shrubs are scattered within the small patch of lawn inside the western hedgerow. The species recorded within this habitat include: Buddleia (*Buddleja sp.*), Hairy Bittercress (*C. hirsuta*), Rough Chervil (*C. temulum*), Rosebay Willowherb (*C. angustifolium*), Cotoneaster (*Cotoneaster sp.*), Crocus (*Crocus sp.*), Foxglove (*Digitalis sp.*), Spurge (*Euphorbia sp.*), Snowdrop (*Galanthus nivalis*), Cleavers (*G. aparine*), Ivy (*H. helix*), Holly (*Ilex aquifolium*), Laurel (*Laurus sp.*), Leylandii (*Leylandii sp.*), Daffodil (*Narcissus sp.*), Rhododendron (*Rhododendron sp.*), Dog Rose (*Rosa canina*), Bramble (*Rubus fruticosus*), Charlock (*S. arvensis*), Common Dandelion (*T. officinale*), Thyme (*Thymus sp.*) and several horticultural species.

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3.3.12 Scattered broad-leaved trees: Within Plot 1 a few broad-leaved trees are scattered throughout the buffer of tall ruderal vegetation surrounding the arable fields (please refer to **Appendix 2**). Three Silver Birch (*Betula pendula*) trees are located along the northern border of the smaller field, and a Sycamore (*Acer psuedoplatanus*) tree is growing along the edge of the eastern point of Plot 1. Two Laburnum (*Laburnum anagyroides*) trees flank the entrance of the driveway in Plot 2, and another Laburnum tree is located within the shrubs inside the eastern hedgerow.

3.3.13 Scattered scrub: Within Plot 2 scrub is scattered throughout the buffer of tall ruderal vegetation surrounding the arable fields (please refer to **Appendix 2**). This scrub consists of stunted Hawthorn (*Crataegus monogyna*), Bramble (*R. fruticosus*) and Beech (*Fagus sp.*) and Ash (*Fraxinus excelsior*) saplings.

3.3.14 Tall ruderal: The arable fields within Plot 2 are bordered by a buffer of tall ruderal vegetation (please refer to **Appendix 2**). This buffer varies in width from approximately 2m to 0.5m. The species recorded within this habitat include: Rough Chervil (*C. temulum*), Cleavers (*G. aparine*), Ivy (*Hedera helix*), Bracken (*Pteridium sp.*) and Common Nettle (*Urtica dioica*).

3.4 Target Notes

3.4.1 **Target Note 1**: A dry stone wall forms the border between the two arable fields in Plot 1 (please refer to **Appendix 2**). Dry stone walls can provide shelter for small mammals, reptiles and amphibians.

3.4.2 **Target Note 2**: A piece of metal sheeting lies on the north-eastern side of the dry stone wall in Plot 1, and is partially overgrown with vegetation (please refer to **Appendix 2**). This may form a suitable shelter for small mammals, reptiles and amphibians.

3.4.3 **Target Note 3**: There is refuse within the scrub vegetation in the northern corner of the smaller field in Plot 1 (please refer to **Appendix 2**). This may form a suitable shelter for small mammals, reptiles and amphibians.

3.4.4 **Target Note 4**: A green-house stands in the south-western corner of Plot 2 within a disused vegetable patch (please refer to **Appendix 2**).

3.5 Fauna Species Encountered

3.5.1 The following species were either seen or heard during the site investigation within Plot 1: House Sparrow (*Passer domesticus*). The species seen in Plot 2 include: Long-tailed Tit (*Aegithalos caudatus*), Rock Dove (*Columba livia*), Robin (*Erithacus rubecula*), Wren (*Troglodytes troglodytes*) and domestic cat.

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3.6 Potential for Protected Species

3.6.1 Amphibians: The data search revealed records of Common Toad (*Bufo bufo*), Common Frog (*Rana temporaria*) and Great Crested Newt (*Triturus cristatus*) in the area surrounding the site. However, the site has no potential to support breeding amphibians as it does not feature standing water habitat. The tall ruderal vegetation bordering the fields provides a suitable habitat for amphibians within their terrestrial life stage. However, there is no potential breeding habitat in the area surrounding the site which reduces the likelihood that the site supports amphibians.

3.6.2 Badgers: No evidence of badger activity or setts was seen during the site survey, and badgers are likely to be deterred from the site by the proximity to human activity. However, the data search revealed records from 2010 of badger activity within 500m of the site.

3.6.3 Barn Owls: The site does not feature any suitable nesting sites for barn owls, although the buffer of tall ruderal vegetation surrounding the arable fields may provide suitable foraging habitat. However, the urban surroundings of the site are likely to deter barn owls from the area, so it is very unlikely that barn owls use the site.

3.6.4 Bats: The data search revealed records of Leisler's bats within the surrounding 10km, and of Daubenton's, Noctule, Common Pipistrelle and Soprano Pipistrelle bats within a 1.5km radius of the site. Common Pipistrelles have been recorded within 500m of the site. No potential roost sites for bats were observed within Plot 1. The buffer around the field edges is not distinctive enough to be used by foraging and commuting bats. However, the tall vegetation just beyond the western boundary of the larger field may be a suitable commuting route. The bungalow in Plot 2 may feature potential roost sites.

3.6.5 Dormice: The site has no potential to support dormice as it does not contain the required floral species, Hazel (*Corylus sp.*). Additionally, the data search did not reveal any records of dormice.

3.6.6 Nesting Birds: The scattered trees, scattered scrub and hedgerows have the potential to support nesting birds. The data search revealed records of a number of birds which nest within this habitat within 500m of the site. These species include: Goldfinch (*Carduelis carduelis*), House Sparrow (*Passer domesticus*), Dunnock (*Prunella modularis*), Starling (*Sturnus vulgaris*) and Blackbird (*Turdus merula*). House Sparrow, Dunnock and Starling are currently declining species. The tall ruderal vegetation that buffers the arable fields provides suitable habitat for ground nesting birds, although traffic along the public footpath around the fields is likely to deter ground nesting birds from the site.

3.6.7 Otters: The site has no potential to support otters as it does not feature the required aquatic habitat. The data search revealed records of otters within a 1.5km radius of the

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site, although there is no aquatic habitat nearby that could be impacted by the development.

3.6.8 Reptiles: The data search did not reveal any records of reptiles within the surrounding area. The tall ruderal vegetation and the target features noted within it may provide suitable shelter for reptiles, although the proximity of the site to human activity is likely to deter reptiles from the site.

3.6.9 Water Voles: The site has no potential to support water voles as it does not feature the required aquatic habitat. The data search revealed records of water voles within a 1.5km radius of the site, although there is no aquatic habitat nearby that could be impacted by the development.

3.6.10 White Clawed Crayfish: The site has no potential to support white clawed crayfish as it does not feature the required aquatic habitat. Additionally, the data search did not reveal any records of crayfish.

*The absence of any signs of or features considered valuable for supporting protected species, can **not** be considered evidence that these species are absent from a site, or that these species will not occupy the site in the future. It must therefore always be recommended that work be conducted with care and vigilance. Should any protected species be encountered during work (please see **Appendix 5**), work should stop immediately and JCA or Natural England contacted.*

3.7 Invasive Plant Species

3.7.1 No invasive plant species were found at this site whilst conducting the site investigation.

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4. Conclusions and Recommendations

4.1.1 After conducting a thorough site investigation and a detailed Desktop Study, we consider **Land off Cross Street, Monk Bretton** to contain habitats of **low** ecological value (please see **Section 3.3**).

4.1.2 The habitats featured within the site consist of the following: Plot 1 contains arable fields, bare ground, scattered broad-leaved trees, scattered scrub and tall ruderal vegetation. Plot 2 contains amenity grassland, buildings, ephemeral/short perennial, hard standing, intact hedgerow (species-poor), introduced shrub and scattered broad-leaved trees.

4.1.3 No nature conservation designations will be impacted upon by proposed development.

4.1.4 The data search revealed recent records of badger activity within 500m of the site.

4.1.5 The scattered trees, scattered scrub and hedgerows within the site have the potential to support nesting birds.

4.1.6 The bungalow in Plot 2 may provide suitable roost sites for bats, especially Common Pipistrelles which have been recorded within 500m of the site. Additionally, the tall vegetation beyond the western boundary of the large field in Plot 1 may be used by foraging and commuting bats.

4.1.7 Recommendations:

4.1.8 The close proximity of recent badger activity to the site leads to the recommendation of badger surveys within Plot 1 before any works begin. Surveys are not necessary within Plot 2 as it does not provide any suitable habitat for badgers.

4.1.9 It is recommended that any clearance work that affects the habitats which could support nesting birds should be completed outside of the breeding bird season. If work within the breeding season (March to August) is unavoidable then a nesting bird survey should be commissioned prior to work starting. If nesting birds are found, vegetation works scheduled around these nests cannot begin until it can be confirmed that the young have fledged and the nest is therefore no longer in use.

4.1.10 As demolition of the bungalow is intended a Bat Scoping survey should be performed before works begin, to determine if there is potential for bat roosts within the structure. If the scoping survey results confirm potential further emergence surveys will be required.

4.1.11 Within the current site boundary there is no threat to bat habitat. However, if the development expands to include the tall vegetation along the western boundary of the larger field it is recommended that bat transect surveys are carried out along that boundary.

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4.1.12 It is recommended that if reptiles are found on the site during the development all works should be stopped until a reptile survey has been carried out. A survey is not necessary at this juncture as the site has a very low potential to support reptiles.

JCA Ltd. can provide these and other ecological surveys if required, please do not hesitate to contact us for further information.

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Appendices



Appendix 1: Phase 1 Habitat Map

TITLE: Plot 1
Land off Cross Street
Monk Bretton
Barnsley
S71 2EP
JCA Ref: 12107

SCALE : 1:1000	PAPER SIZE : A2

KEY

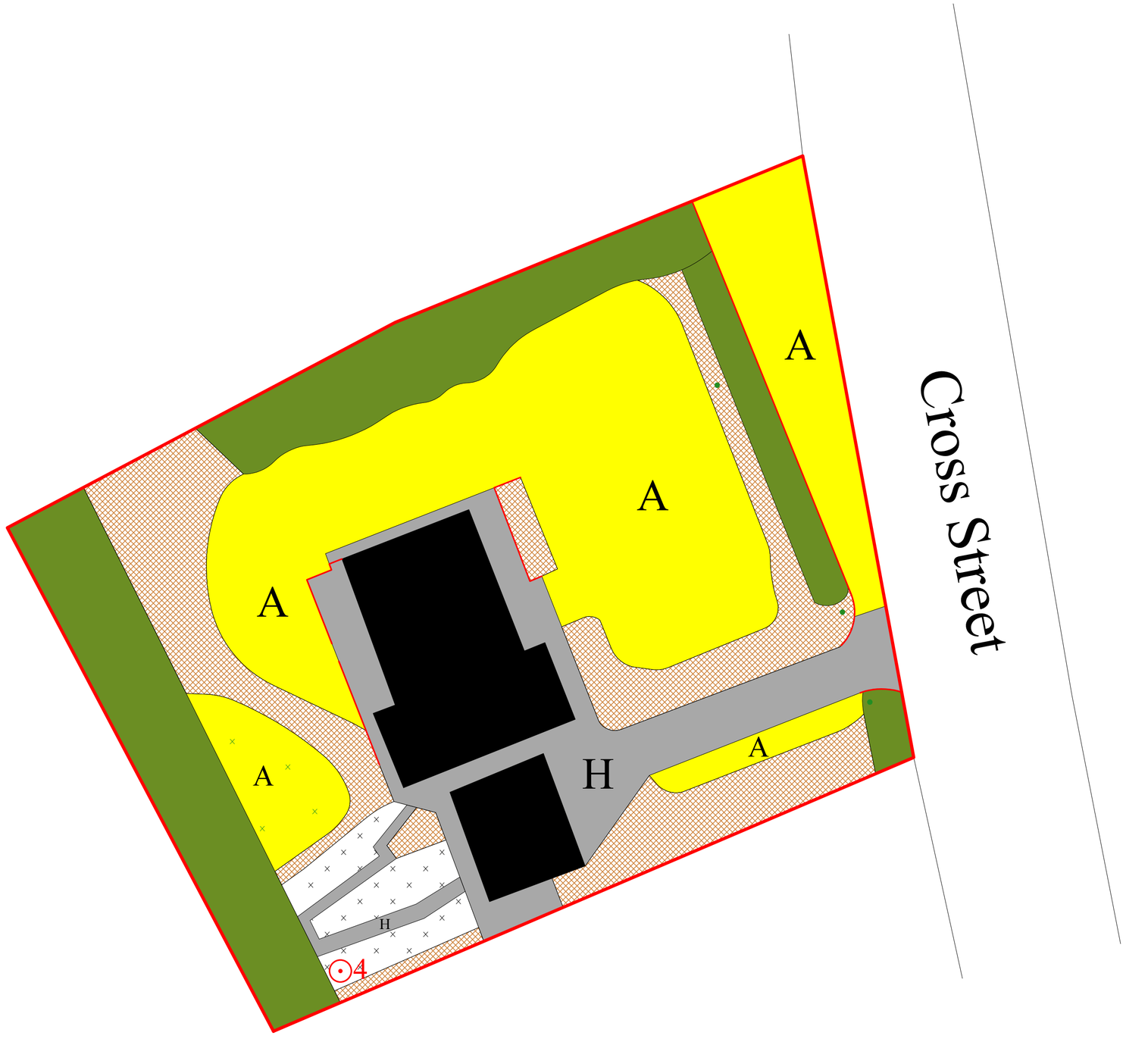
A	Arable
	Tall ruderal
	Scattered broad-leaved trees
	Scattered scrub
	Bare ground
	Wall
	Target note

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S



Appendix 1: Phase 1 Habitat Map

TITLE: Plot 2
Land off Cross Street
Monk Bretton
Barnsley
S71 2EP
JCA Ref: 12107

SCALE : 1:200 | **PAPER SIZE : A2**

KEY

- A — Amenity grassland
- Introduced shrub
- Intact hedgerow (species-poor)
- Scattered broad-leaved trees
- Scattered shrubs
- Ephemeral/short perennial
- H — Hard standing
- Buildings
- Wall
- Target note

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Appendix 2: Photographic Evidence



Photo 1: View within Plot 2 showing amenity grassland, laurel and beech hedgerows, Laburnum tree and shrub bed.



Photo 2: View within Plot 1 showing arable field, tall ruderal buffer and scattered trees and scrub.

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Photo 3: Bare ground within Plot 1 showing tyre tracks.



Photo 4: Disused vegetable patch within Plot 2, featuring ephemeral/short perennial vegetation, paving and green-house.

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Photo 5: View of the back garden in Plot 2, showing beech hedgerow, lawn, shrub beds and hard standing.



Photo 6: Scattered Silver Birch trees within Plot 1.

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Photo 7: Dry stone wall between the two fields in Plot 1.



Photo 8: Overgrown metal sheeting within Plot 1.

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Photo 9: Potential shelter for wildlife formed from refuse within scrub in Plot 1.

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Appendix 3: Site Map



Figure 1: Google Maps image of **Land off Cross Street, Monk Bretton** showing the survey site (red boundary) in relation to the surrounding landscape and habitats.

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Appendix 4: Floral Species List

Table 3. List of floral species recorded during the site survey.

Common Name	Scientific Name	Common Name	Scientific Name
Sycamore	*Acer psuedoplatanus*	Holly	*Ilex aquifolium*
Silver Birch	*Betula pendula*	Laburnum	*Laburnum anagyroides*
Rape	*Brassica napus*	Laurel	*Laurus sp.*
Buddleia	*Buddleja sp.*	Leylandii	*Leylandii sp.*
Hairy Bittercress	*Cardamine hirsuta*	Perennial Rye-grass	*Lolium perenne*
Rough Chervil	*Chaerophyllum temulum*	Purple Moor-grass	*Molinia caerulea*
Rosebay Willowherb	*Chamerion angustifolium*	Daffodil	*Narcissus sp.*
Spear Thistle	*Cirsium vulgare*	Bracken	*Pteridium sp.*
Cotoneaster	*Cotoneaster sp.*	Rhododendron	*Rhododendron*
Crocus	*Crocus sp.*	Dog Rose	*Rosa canina*
Foxglove	*Digitalis sp.*	Bramble	*Rubus fruticosus*
Spurge	*Euphorbia sp.*	Broad-leaved Dock	*Rumex obtusifolius*
Beech	*Fagus sp.*	Common Ragwort	*Senecio jacobaea*
Ash	*Fraxinus excelsior*	Charlock	*Sinapis arvensis*
Snowdrop	*Galanthus nivalis*	Common Danelion	*Taraxacum officinale*
Cleavers	*Galium aparine*	Thyme	*Thymus*
Meadow Cranesbill	*Geranium pratense*	Common Nettle	*Urtica dioica*
Wood Avens	*Geum urbanum*	Common Field-speedwell	*Veronica persica*
Ivy	*Hedera helix*		

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Appendix 5: Protected Species Information

The following species are protected under EU law, such as the Conservation (Natural Habitats, &c.) Regulations (2010):

- All UK bat species
- Dormouse
- Great Crested Newt
- Large Blue Butterfly
- Natterjack Toad
- Otter
- Scottish Wild Cat
- Smooth Snake and Sand Lizard
- Various aquatic and plant species

These species are afforded the highest protection in the UK. Under this protection it is an offence to; deliberately capture, injure or kill any wild animal of a European protected species; deliberately disturb wild animal of any such species; deliberately take or destroy the eggs of such an animal, or damage or destroy a breeding site or resting place of such an animal.
In addition to this it is an offence to be in possession of, or to control, transport, sell or exchange, or to offer for sale or exchange, a European Protected species.

The following species are protected under UK law, such as the Wildlife and Countryside Act 1981:

- Badger
- Nesting birds
- Red Squirrel
- Reptiles (Adder, Common lizard, Grass snake, Slow worm)
- Water Vole
- Pine Martin
- White Clawed Crayfish
- Various bird species i.e. Barn Owl
- Various plant species

Therefore under this protection it is an offence to; kill, injure or take any of the above species.

Nesting birds are only protected during the breeding season whilst on their nest. In addition to the adults being protected, the eggs, young and nest itself whilst in use are protected.

Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to; take, injure, kill, or cruelly ill-treat a badger; interfere with a badger sett; sell or possess a live badger; or mark or ring a badger.

The following habitat types are protected under UK Law:

- Habitats that are used by protected species
- Habitats that fall within designated sites
- Hedgerows
- Individual trees/woods can be protected under Tree Preservation Orders

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Appendix 6: References

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The Dormouse conservation handbook (second edition). Paul Bright, Pat Morris and Tony Michell-Jones. Natural England.

Websites:

Bat Conservation Trust (BCT). <http://www.bats.org.uk/>

Google Maps. <http://maps.google.co.uk/>

Multiple-Agency Geographic Information for the Countryside (MAGIC). <http://www.magic.gov.uk/>

National Biodiversity Network (NBN) Gateway. <data.nbn.org.uk>

Natural England. < http://www.naturalengland.org.uk/>

Nature on the Map. Natural England. <www.natureonthemap.org.uk>

Royal Society for the Protection of Birds (RSPB). <http://www.rspb.org.uk/>

Relevant Legislation:

Wildlife and Countryside Act 1981 <http://jncc.defra.gov.uk/page-3614>

Conservation (Natural Habitats, &c.) Regulations 1994 (The Habitats Directive) (Amended 2010) <http://www.legislation.gov.uk/uksi/2010/490/contents/made>

Countryside and Rights of Way Act 2000 <http://www.legislation.gov.uk/ukpga/2000/37/pdfs/ukpga_20000037_en.pdf?view=interweave>

Hedgerow Regulations 1997 < http://www.legislation.gov.uk/uksi/1997/1160/contents/made>

Protection of Badgers Act 1992 <http://www.legislation.gov.uk/ukpga/1992/51/contents>

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Appendix 7: Author Credentials

Consulting Staff: Arboriculture

Andy Bagshaw *FdSc (Arboriculture).* Andy joined JCA in 2005 having gained several years experience in tree surgery and landscaping. Andy has obtained a foundation degree in Arboriculture at the University of Central Lancashire, is QTRA qualified and is a JCA team leader who manages an office of Consulting Arboriculturists.

Toby Parsons *Cert. Arb. (RFS), Tech. Cert. (Arbor.A).* Toby joined JCA after spending 6 years working as a senior climber for various Arboricultural contractors in the East Midlands and the South-West. He has gained the Level 2 Certificate in Arboriculture (RFS) and an Arboricultural Technicians Certificate. Toby is LANTRA certified in Professional Tree Inspection.

Scott Reid *ND (Arboriculture and Forestry)*. Scott joined JCA after working with other consultancy companies in the south of England. He specialises in trees in relation to development and holds a National Diploma, various NPTC qualifications and is currently studying for his Level 4 Diploma in Arboriculture.

Andrew Bussey Andrew joined JCA having spent 12 years working as a tree surgeon for various private companies and a Local Authority. He has NPTC qualifications, is QTRA qualified and is studying for his Arboricultural Technicians Certificate.

Phil Humeniuk *FdSc (Arboriculture).* Phil joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. He also has several years experience working as a consultant both for JCA and for another consultancy. Phil obtained his foundation degree in Arboriculture at the University of Central Lancashire and has various NPTC's and is LANTRA certified in Professional Tree Inspection.

Flora Harding *BSc (Hons) Fd.BSc. (Arboriculture and Tree Care).* Flora has a degree in Rural Resource Development (in Wildlife and Landscape Conservation). She has previously worked for a local authority and has a licence for QTRA. In 2012, Flora published an article to enable industry based research for the purpose of gaining Chartered Arboriculturist status.

Michelle Ryan *BSc (Hons) Arboriculture.* Michelle has recently joined JCA having previously worked for a Local Authority. She obtained a degree in Arboriculture at the University of Central Lancashire and has various NPTC qualifications. Michelle is seeking to become LANTRA certified in Professional Tree Inspection.

Liam Plummer *BSc (Hons) Ecology.* Liam graduated from Bangor University in Ecology. He has recently joined JCA having worked for the Forestry Commission Scotland and previously in the Arboriculture and Conservation sectors. Liam has various NPTC qualifications and has completed several National Diploma (Arboriculture) units.

Consulting Staff: Ecology

David Ryder. David joined JCA in 2013 as our in-house ecologist. He brings with him over 8 years experience in the field of ecological consultancy conducting Phase 1 habitat and species surveys for Badgers, Bats, Nesting Birds, Otters & Reptiles among others. David has a specialism in Bats and holds registration (No. CLS03231) with the Class 18 Natural England Licence to disturb and handle bats. David is currently undergoing assessment for Chartered Institute of Ecology & Environmental Management (CIEEM) membership. In addition David is bolstering his experience and academic credentials and is enrolled on the Postgraduate Certificate in Ecological Survey Techniques at the University of Oxford starting later in 2014.

Alice Palmer: Alice Palmer. *BSc (Hons) Ecology, MSc (Dist) Biodiversity and Conservation.* Alice joined JCA in 2014 after graduating from the University of Leeds, having obtained a BSc in Ecology and an MSc in Biodiversity and Conservation. Alice is a student member of the Chartered Institute of Ecology & Environmental Management (CIEEM), and is working towards a graduate membership of CIEEM and a Class 18 Natural England bat licence.

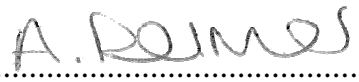
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Simeon Haigh *BSc (Hons).* IT Officer.
Lorraine Spink Administrative Assistant.
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I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

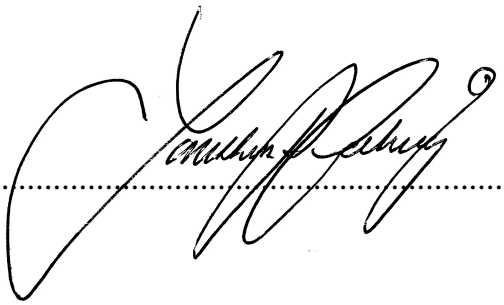
Signed



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Alice Palmer. BSc (Hons) Ecology, MSc (Dist) Biodiversity & Conservation.

Reviewed and approved by



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Jonathan Cocking. MIEEM, F.R.E.S., Tech.Cert. (Arbor.A), P. Dip.Arb (RFS), F.Arbor A, CBiol MIBiol, MICFor.

12th March 2015

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

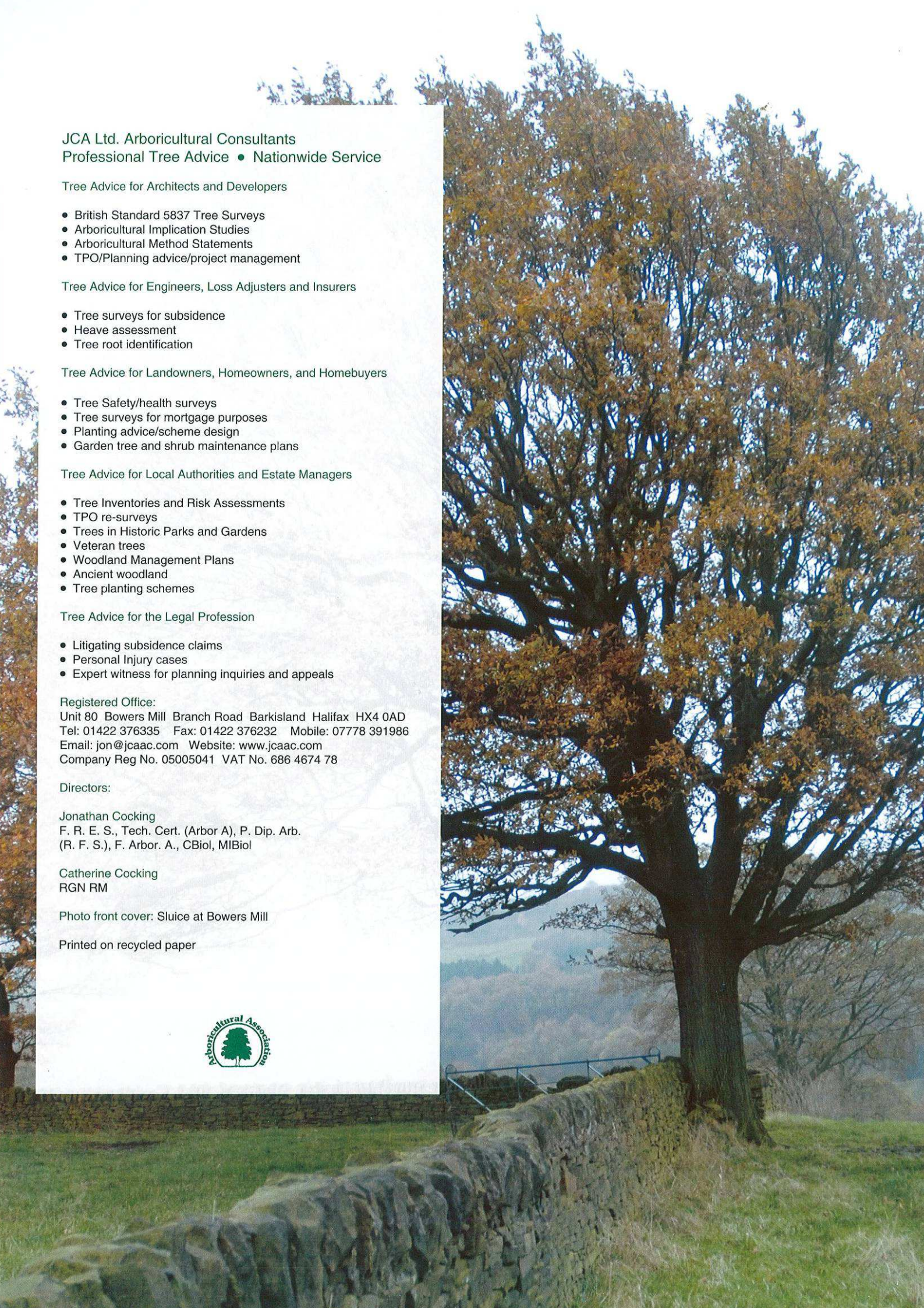
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