

**BIODIVERSITY ENHANCEMENT
PLAN SURVEY & REPORT**

at

**806-810 Manchester Road
Castleton
Rochdale
Lancashire
OL11 3AW**

**Client:
Jamil Akhtar**

**Client Address:
R&M Residential
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**JCA Ref:
19102/AD**

Date of Report: 11/10/22



Quality Assurance

JCA ref.	Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Reviewed:	
		Date	Name	Date	Name	Date	Name	Date	Name
19102/AD	Planning	N/A	N/A	11/10/22	Amy Donaldson Eve Goodwin	11/10/22	Amy Donaldson	17/10/22	Helen Chambers
								20/10/22	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development* and the *CIEEM's Code of Professional Conduct*.

Risk Assessment Completed	N/A
Bio-security Procedure Completed	
Lone Worker Procedure Completed	



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1 Introduction

1.1 Purpose of the Report

- 1.1.1 A Biodiversity Enhancement plan has been requested for **806-810 Manchester Road, Castleton**, as recommended by Rochdale Borough City Council. This is described in the following:

“NPPF encourages net gains for biodiversity to be sought through planning decisions. Core Strategy Policy G7 seeks to increase the value of biodiversity. This policy states that we will expect development proposals to “take opportunities to promote biodiversity and create new habitats through new development using landscaping and building and construction features wherever possible (e.g. ponds, species of vegetation, green roofs and walls, bat boxes, roof space, appropriate nest boxes and landscaping)”. In this instance, the use of bat boxes, nest boxes and landscaping could assist. Given the site's brownfield status, a proportionate assessment can be made on how net gains will be achieved.”

- 1.1.2 This report will aim to fulfil the planning conditions set by Rochdale Borough City Council, with the ultimate aim of enhancing the site's value to wildlife, through the retention of any existing features of value to wildlife, the creation of new habitats and the provision of new roosting/nesting opportunities within the proposed development.

1.2 Terms of Reference

- 1.2.1 We have been instructed by **R&M Residential** to produce a Biodiversity Enhancement Plan.
- 1.2.2 For this purpose, a site visit was conducted on 11/10/12 to conduct an ecological appraisal of the site.

1.3 Scope of the Report

- 1.3.1 This report is compiled in accordance with guidance outlined in the *National Planning Policy Framework* (NPPF) so that the development takes into account the value of ecosystem services and enhance ecological networks.

1.4 Details of Proposed Development

- 1.4.1 The proposal is for the development of a block of 10 flats, with adjoining parking, bin storage and enclosed amenity space.

1.5 Site Description

- 1.5.1 **806-810 Manchester Road, Castleton** is situated 3km south-east of central



Rochdale, at grid reference: SD 88206 10638.

- 1.5.2 The site is bordered to all sides by residential properties. A railway lies to the near east, which is likely to form a significant barrier to terrestrial wildlife. However, the vegetated land bordered the railway line is likely to form a commuting corridor that is able to support bats and birds.



2 Local Biodiversity Action Plan

2.1.1 If possible, JCA Ltd aim to incorporate Local Biodiversity Action Plan (LBAP) habitats within our enhancement plans. We also aim to attract and support LBAP species, through either directly planting LBAP floral species, or creating habitats that will attract these species. The LBAP that covers **806-810 Manchester Road** is the Lancashire BAP.

2.1.2 The habitats listed within the Lancashire BAP are;

Table 1: Lancashire BAP Habitats

LBAP Habitats	
Arable Farmland	Broadleaved and Mixed Woodland
Calcareous Grassland	Limestone Pavement
Moorland and Fell	Mossland
Reedbed	Rivers and Streams
Saltmarsh Estuarine Rivers	Sand Dunes
Species Rich Neutral Grassland	

2.1.3 The species listed within the Lancashire BAP are;

Table 1: Lancashire BAP Species

LBAP Species	
Natterjack Toad (<i>Epidalea calamita</i>)	Great Crested Newt (<i>Triturus cristatus</i>)
Southern Wood Ant (<i>Formica rufa</i>)	Shining Guest Ant (<i>Formicoxenus nitidulus</i>)
Skylark (<i>Alauda arvensis</i>)	Twite (<i>Linaria flavirostris</i>)
Linnet (<i>Linaria cannabina</i>)	Hen Harrier (<i>Circus cyaneus</i>)
Corn Bunting (<i>Emberiza calandra</i>)	Lapwing (<i>Vanellinae</i>)
Reed Bunting (<i>Emberiza schoeniclus</i>)	Black-tailed Godwit (<i>Limosa limosa</i>)
Yellow Wagtail (<i>Motacilla flava</i>)	Tree Sparrow (<i>Passer montanus</i>)
Yellowhammer (<i>Emberiza citronella</i>)	Song Thrush (<i>Turdus philomelos</i>)
Grey Partridge (<i>Perdix perdix</i>)	Belted Beauty (<i>Lycia zonaria</i>)
White-clawed Freshwater Crayfish (<i>Austropotamobius pallipes</i>)	Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)
High Brown Fritillary (<i>Fabriciana adippe</i>)	Whorl Snails (<i>Vertigo moulinsiana</i>)
Northern Brown Argus (<i>Arícia Artaxerxes</i>)	Pearl- bordered Fritillary (<i>Boloria Euphrosyne</i>)
Large Heath (<i>Coenonympha tullia</i>)	Black-poplar (<i>Populus nigra</i>)
Hoverfly (<i>Syrphidae</i>)	Jenning's Ribbon Worm (<i>Prostoma jenningsi</i>)
Wall Mason Bee (<i>Osmia bicornis</i>)	Flat sedge (<i>Cyperus eragrostis</i>)
Sea Bindweed (<i>Calystegia soldanella</i>)	Narrow Small- Reed (<i>Calamagrostis stricta</i>)
Dwarf Cornel (<i>Cornus suecica</i>)	Lady's-Slipper (<i>Cypripedium acaule</i> Aiton)
Purple Ramping- Fumitory (<i>Fumaria purpurea</i>)	Greater Butterfly-Orchid (<i>Platanthera chlorantha</i>)



Rock Sea- lavender (<i>Limonium</i>)	Bird's-eye Primrose (<i>Primula farinose</i>)
Brown Hare (<i>Lepus europaeus</i>)	Lancaster Whitebeam (<i>Sorbus lancastriensis</i>)
Bats	Red Squirrel (<i>Sciurus vulgaris</i>)
Otter (<i>Lutra lutra</i>)	



3 Retention of Ecologically Valuable Features

3.1 Pre-development

- 3.1.1 A comprehensive appraisal of the site's current ecological value was undertaken on 11/10/22 . A summary of the habitats and features present can be seen below.
- 3.1.2 The site consists entirely of sparsely vegetated land. This was species poor, consisting of only common floral species typical of improved land. Himalayan balsam, a Schedule 9 (WCA, as amended) designated species, was identified on site.
- 3.1.3 The site has low potential for foraging and commuting bat species.

3.2 Features to be Retained and Protected

- 3.2.1 The overall site holds potential to support foraging and commuting bats, as well as a range of invertebrates. These features are to be lost to facilitate the development, and need compensating for within the proposed development plans.



4 Invasive Weed Eradication

4.1 Invasive plant species are those plants listed under Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended) or described on the Non-Native Species Secretariat (NNSS) website. Invasive species include; Giant Hogweed, Giant Kelp, Japanese Knotweed, Japanese Seaweed, Himalayan Balsam, Horsetail and Floating Pennywort. Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to plant or cause the spread of Invasive Plant Species in the wild and therefore it is a legal obligation to remove them.

4.2 **Himalayan Balsam (*Impatiens glandulifera*)**: Occurs in a patch to the north-east of the site (see **Appendix 2, Photo 3**). Before development starts, this needs to be removed.

Eradication Strategies: Himalayan Balsam is an annual plant which means it completes its lifecycle from germination through growth, flowering and the production of seed within the year and then dies without any regeneration of that plant. Thanks to this, it is quite simple to stop any further spread of the plant in the coming seasons.

Chemical Eradication: It is possible to use non-residual herbicides which are safe to use near watercourses. However, this method requires repeated applications every 3-4 weeks from late March until late July, and other non-chemical alternatives are available which require similar timeframes.

Mechanical Eradication: There is a choice of methods including trampling by machine or foot or whacking with a stick or cane. Following the destruction of the initial plant other seeds will have the opportunity to grow where the Himalayan Balsam grew before. It is also possible that residual Himalayan Balsam seeds may germinate, so this method should be repeated every 4 weeks.

Whichever method is chosen, the simple rule to follow is to not let the plant flower. Pollination of the flowers is the process that leads to seed production. As with most flowering plants which grow from seed, some seed remains in the soil beyond the first season which has the potential to grow in subsequent seasons. Best practice would check for the presence of Himalayan Balsam every April/May for the following 3-5 years. As long as the plant is not permitted to re-seed, the number plants each year will reduce significantly.



5 Habitat Creation

5.1 Summary

- 5.1.1 As the site contains only habitats of low conservation value, there is scope to greatly enhance the sites wildlife value post development.
- 5.1.2 The site is roughly 332m², with no amenity and garden spaces available. The entirety of the site will be used to develop the proposed building and corresponding hard standing.
- 5.1.3 Enhancement of the site has been proposed through the inclusion of faunal provisions on the proposed building.



6 Faunal Boxes

6.1 Summary

- 6.1.1 In total **1** bat box and **1** bird box have been recommended. The location of each faunal box to be erected can be seen in **Appendix 1**.

6.2 Bat Roosting Opportunities

- 6.2.1 All British bat species are protected by UK legislation. This is in response to the declines experienced by many bat species over the past century. The cause of the decline could be linked to a number of factors, including habitat loss, pesticide over-use, habitat fragmentation, loss of roost sites and roost disturbance.
- 6.2.2 Box Selection & Positioning: There is a wide range of different bat boxes available, including both internal and external designs. External designs include the traditional wooden and woodcrete boxes. Internal designs include boxes that can be built into the walls, with a front that mimics the brickwork of the building, essentially becoming invisible. Other roost opportunities include cutting slots into soffit boxes, using bat bricks that lead into cavity walls and using lifted tiles to allow access into the loft.
- 6.2.3 **One bat box** has been selected to be incorporated onto the new building, specifically a 'Beaumaris Woodstone Bat Box' (see **Appendix 3**). This should be attached to an external wall and should be sited as high up as possible, at a height of at least 3m from the ground. This is suitable for crevice roosting bats such as the common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Nathusius' pipistrelle (*Pipistrellus nathusii*), Brandt's bat (*Myotis brandti*) and whiskered bat (*Myotis mystacinus*).
- 6.2.4 Where lighting is required, conditions should be imposed to ensure the impact of the lighting on the bats is kept to a minimum. Lighting will be situated away from areas of both retained and new trees and shrubs. Any lighting should be of a low level of luminance. The use of low pressure sodium lamps or high pressure sodium lamps is recommended instead of mercury or metal halide lamps. Overall levels on site should be as low as planning permits. Lighting column height near hedgerows or trees should be kept to a minimum as this reduces the ecological impact. Where lighting can be directed downwards at a more acute angle, taller columns can be used. Please refer to the Bat Conservation Trust's Bats and Lighting in the UK (2009).

6.3 Bird Boxes

- 6.3.1 In the UK there are approximately 600 species of bird, each occupying a different habitat and present in a different region of the country. A small number of these regularly visit gardens and will quickly adopt new nest boxes, but only when the right box design is selected and situated correctly. Each species prefers a specific



nest box design, with different dimensions and hole sizes. It is recommended that a breeding bird survey is carried out on site to inform and produce a robust and tailored Biodiversity Enhancement Report for this site.

- 6.3.2 **One bird box** has been selected to be incorporated onto the new building, this could be any standard bird box under the specifications set out below (see **Appendix 4**). We have recommended the 'Vivaria Pro Seville 32mm WoodStone Nest Box'.
- 6.3.3 Standard bird boxes: Birds such as most tit species, tree sparrows and nuthatches prefer standard nest boxes with a small hole opening and a perch at the entrance. The size of hole can vary depending on the bird species. The openings should not be obstructed by vegetation or other structures. Bird boxes on buildings should be securely fastened below the eaves, at least 4m above ground level (to prevent predation by cats). Boxes should be positioned so that the front is facing in an easterly direction, as to avoid direct heat of the sun and prevailing wind and rain.



7 Conclusion

7.1 Retention of Ecologically Valuable Features

- 7.1.1 The site contains only habitats of low conservation value, with no features deemed likely of supporting protected species, other than nesting birds and foraging/commuting bats.
- 7.1.2 The development involves the removal of all the habitats on site.

7.2 Habitat Creation

- 7.2.1 The Himalayan Balsam identified on site is to be removed before works can commence.

7.3 Faunal Boxes

- 7.3.1 1 bat box and 1 standard bird box are to be erected onto the proposed building. The recommended location of each faunal box can be seen in **Appendix 1**.

7.4 Management and monitoring

- 7.4.1 Monitoring of faunal boxes and wildlife features over a 5-year period is recommended. Monitoring is key to understanding how habitat and wildlife features are being used by wildlife on site after the development. Without monitoring, and effective and adaptive management a scheme can't be maintained and revised.
- 7.4.2 It is recommended that a full management plan is created to inform people what is required on site to maintain biodiversity. Management plans can also be useful at later stages for fund bidding, by demonstrating that the proposed actions are a product of a logical decision-making process.



8 References

Ausden, M. (2007) *Habitat management for conservation: A handbook of techniques*. Oxford, United Kingdom: Oxford University Press, USA.

Bat Mitigation Guidelines (Jan. 2004). A. J. Mitchell-Jones. English Nature.

Bat Survey Guidelines: Good Practice Guidelines (2007). Bat Conservation Trust (BCT).

Bat Workers Manual (3rd Edition 2004). A. J. Mitchell-Jones & A. P. McLeish. Joint Nature Conservation Committee (JNCC).

Bunnell, T. (2014) *The disappearing Hedgehog*. United Kingdom: Independent Publishing Network.

Kirby, P. (2013) *Habitat management for invertebrates: A practical handbook*. Exeter: Pelagic Publishing.

Perrow, M.R. (2008) *Handbook of ecological restoration: Volume 1, principles of restoration: V. 1: Principles of restoration*. Edited by Martin R. Perrow and Anthony J. Davy. Cambridge, United Kingdom: Cambridge University Press.

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>

Relevant Legislation:

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

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

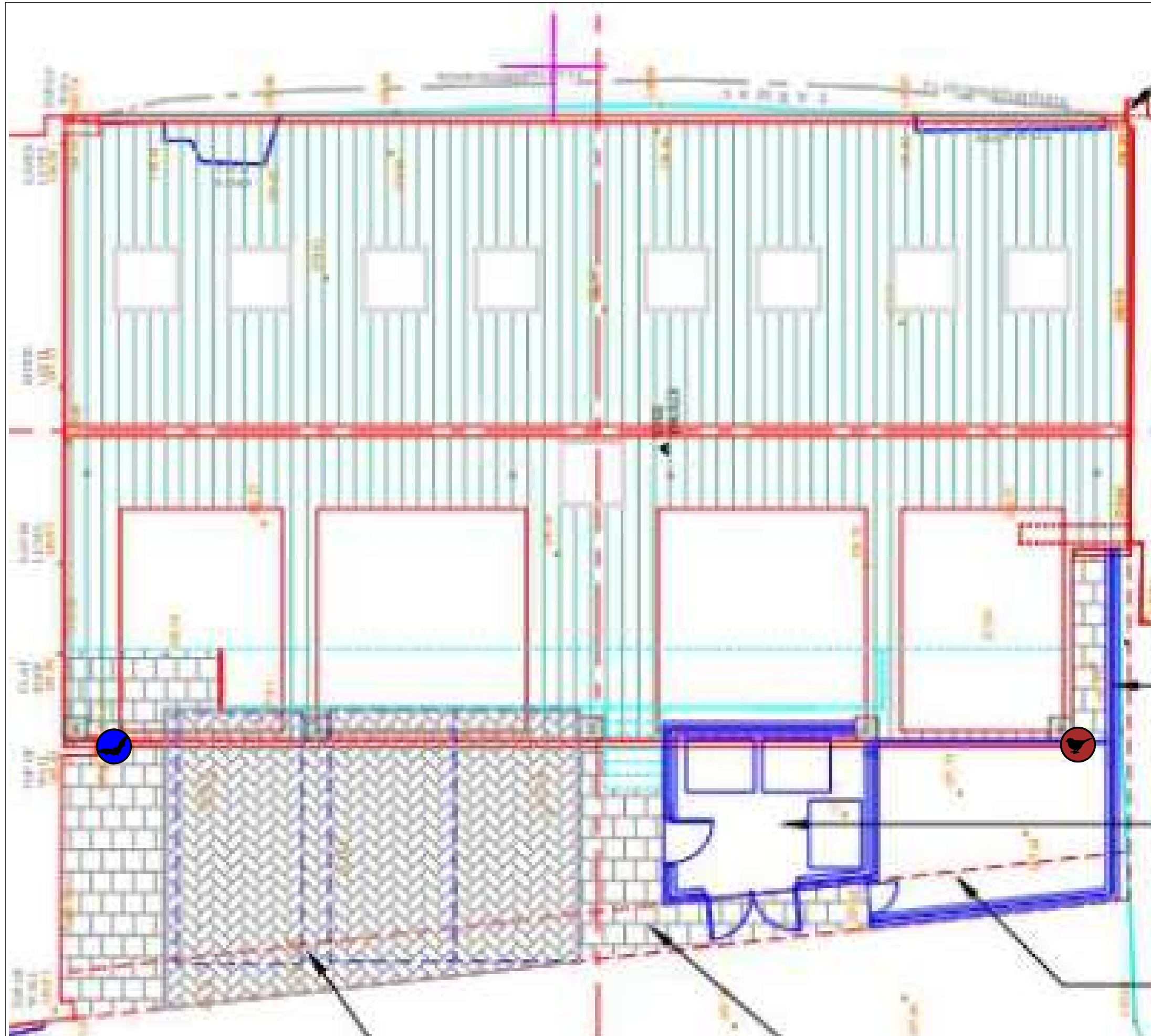
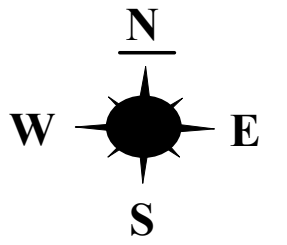
Countryside and Rights of Way Act 2000
<http://www.legislation.gov.uk/ukpga/2000/37/pdfs/ukpga_20000037_en.pdf?view=interweave>



Appendices

Appendix 1: Faunal Boxes Plan





**Appendix 1:
Planting and Faunal Box Plan**

Address: 806-810
Manchester Road, Castleton,
Rochdale, OL11 3AW.
Job Ref: 19102/AD

	Vivara Pro Seville 32mm WoodStone Nest Box
	Beaumaris Woodstone Bat Box
	Proposed Development

Appendix 2: Photographic Evidence



Photo 1: The overall site.



Photo 2: The brick and rubble piles on site.



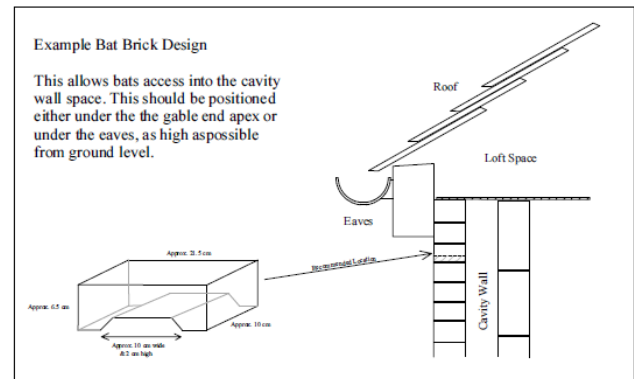
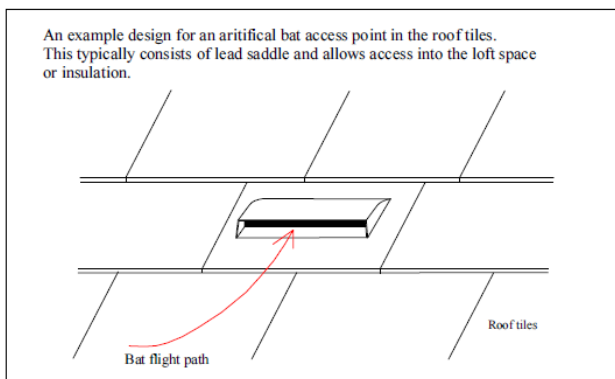
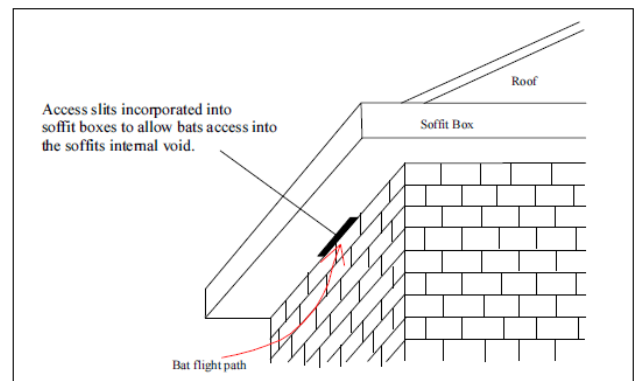
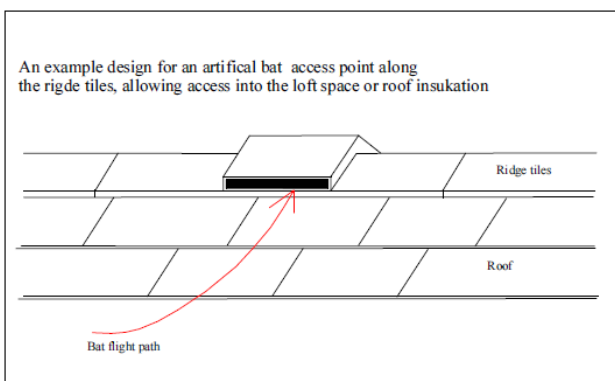
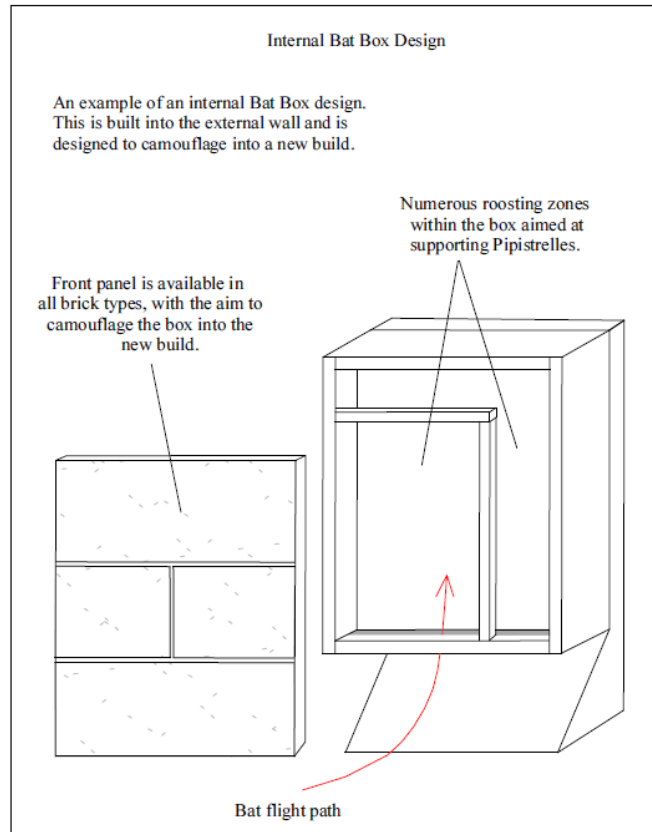
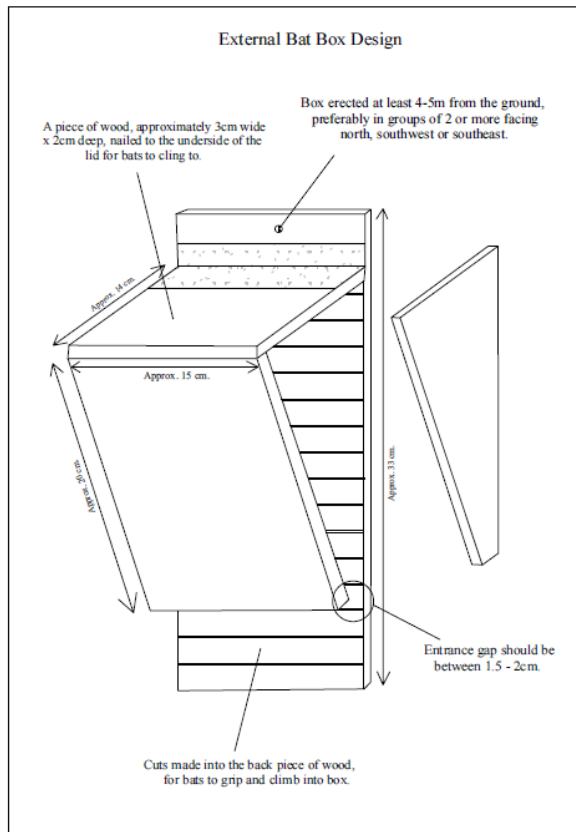
Photo 3: The Himalayan Balsam identified on site.



Photo 4: One of the felled scattered trees present on site.

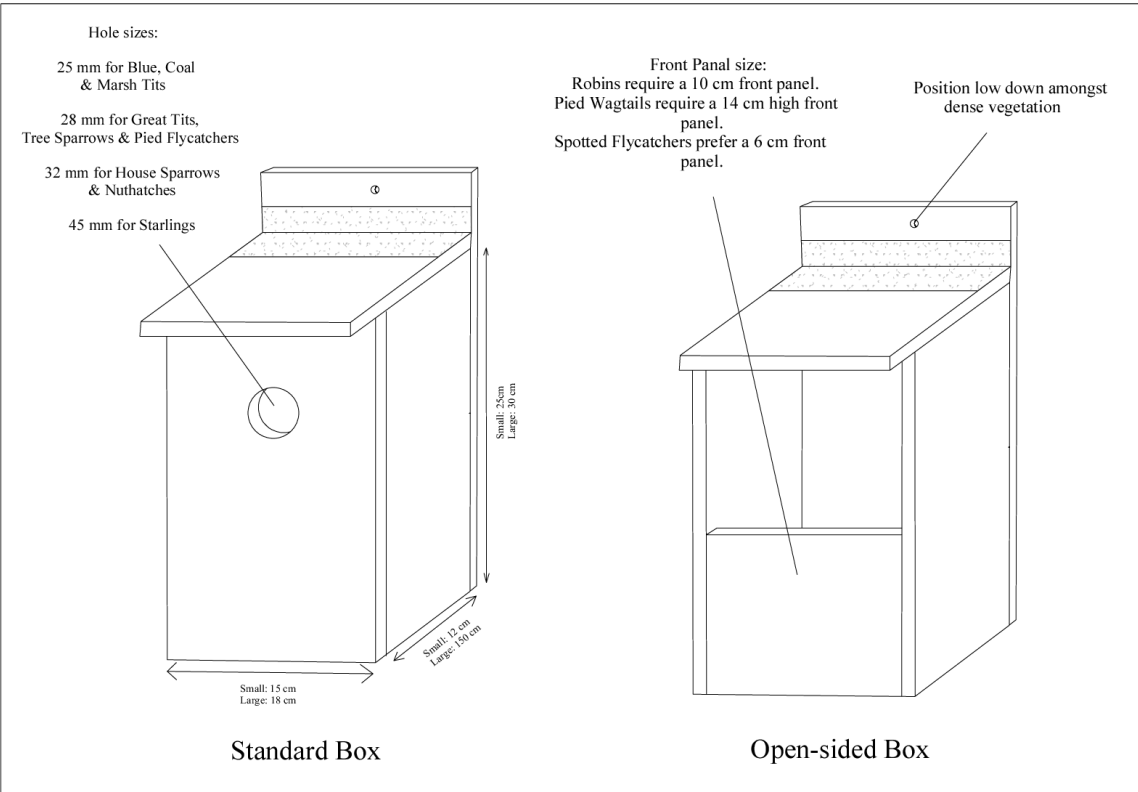


Appendix 3: Examples Artificial Bat Box Designs

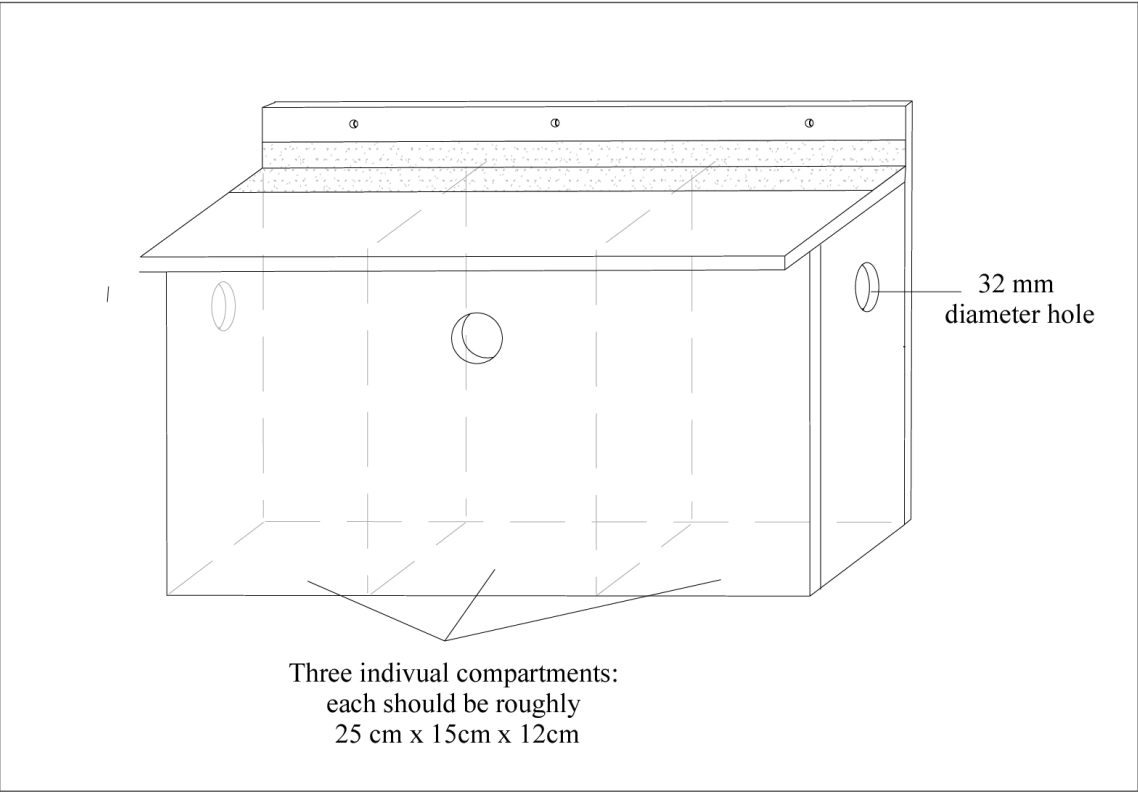


Appendix 4: Examples Artificial Bird Box Designs

An example of two different bird box designs



An example of a House sparrow box design



Appendix 5: Author Qualifications

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.

Amy Donaldson, Graduate Ecologist

BSc (Hons) Zoology (International).

Amy joined JCA in 2022 after graduating with a First Class Honours from the University of Leeds. Amy volunteered for numerous years with the Northumberland wildlife trust to develop a variety of field surveying skills. In 2020 Amy began bat surveying, where she gained practical knowledge and experience in the field. Amy is looking forward to developing her report writing and data analysis skills with JCA, and is working towards her Level 1 bat survey class licence.

Eve Goodwin, Graduate Ecologist

BSc (Hons) Plant Biology

Eve gained her Royal Society of Biology accredited undergraduate degree in 2019 from Aberystwyth University in Plant Biology. She has good plant identification skills which were developed through her academic studies and field work. She has since worked as a CAD technician and has joined JCA in 2022 where she hopes to develop her field skills further.

Helen Chambers, Graduate 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.



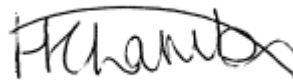
The information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed



.....
Amy Donaldson
11/10/22

Reviewed by



.....
Helen Chambers

17/10/22

Reviewed and authorised by



.....
Adam West *ACIEEM*

20/10/2022



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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
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

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

Advice for Engineers, Loss Adjusters and Insurers

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

Advice for Local Authorities and Social Housing

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

Tree Advice for the Legal Profession

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

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

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



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