Bat and Barn Owl Survey
Arbtech Consulting Ltd

The Surveyor

The surveyor and principle author of this report is Jo Gregory BA (Hons), MSc, Surveyor, bat licences N.E. 20122461; S.N.H. 13660; C.C.W 39248.

The Client

Arbtech Consulting Ltd was instructed by Mr and Mrs Billings of The Moor House, Overton Road, Biddulph, Staffordshire ST8 7SQ.

Site of Proposed Development

The client is preparing a planning application to demolish an existing residential dwelling and possibly convert a garage into a second residential dwelling at the above address. The grid reference at the centre of the application site is SJ898601.

The Survey Brief

The client commissioned Arbtech Consulting Ltd to undertake a scoping bat survey; referring to a method of ecological assessment outlined in the Bat Conservation Trust publication "Bat Surveys—Good Practice Guidelines" (BCT 2007).

These guidelines state that the aim of the scoping bat survey is to observe and catalogue "*the **potential value of the habitat** for bats*" and further, to make recommendations for further survey work as appropriate.

The client commissioned Arbtech Consulting Ltd to undertake a barn owl survey; referring to best practice guidelines issued by IEEM (Shawyer 2011).

Data Searches

A search of the National Biodiversity Network Gateway[1] and the Department for Environment, Food and Rural Affairs MAGIC[2] service returned relevant records that can be found in *Survey Results* section of this report.

Date of the Survey

11th December 2012.

Limitations

The survey was conducted at a time of year when flora and fauna may not be present or active, these surveys provide a 'snap-shot' of the potential habitat and wildlife

[1] http://data.nbn.org.uk/
[2] http://magic.defra.gov.uk/

value of the sites at the time of survey and may require follow-up surveys to provide evidence of any species likely absence.

Informative: Statutes and English Law

Bats

All 18 species of bat common in the UK are fully protected under the Wildlife and Countryside Act 1981 as amended through inclusion in Schedule V. All bat species in the UK are also included in Schedule II of the Habitats Regulations 2010 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

Cumulatively, this legislation makes it illegal to:

1. Intentionally or deliberately kill, injure or capture bats.
2. Deliberately disturb bats, whether at roost or not.
3. Damage, destroy or obstruct access to bat roosts.
4. Possess or transport a bat or any part of a bat, unless acquired legally.
5. Sell, barter or exchange bats, or any part of a bat.

A bat roost is defined by the Bat Conservation Trust publication Bat Surveys—Good Practice Guidelines as "*the resting place of a bat*" (Hundt, 2012). Generally however, the word roost is interpreted as "*any structure or place, which any wild bat uses for shelter or protection.*"

Bats tend to re-use the same roosts; therefore legal opinion is guided by recent case law precedents[3], that a roost is protected whether or not the bats are present at the time. This can include for summer roosts, used for breeding; or winter roosts, used for hibernating.

[3]Internet search for e.g. the Woolley case (R. Simon Woolley v. Cheshire East Borough Council) and see here: http://www.naturalengland.org.uk/Images/WoolleyVsCheshireEastBC_tcm6-12832.pdf

Barn Owl

All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Barns owls are afforded special protection through inclusion in Schedule 1 of the Act.

Under the legislation it is an offence to:

1. Intentionally kill, injure, or take (handle) any wild barn owl.
2. Intentionally take, damage or destroy any wild barn owl nest whilst it is in use or being 'built' (barn owls do not 'build' a nest but may make a nest scrape).
3. Intentionally take or destroy any wild barn owl egg.
4. Possess or control a wild barn owl (dead or alive), or egg, (unless it can be shown that it was obtained legally).
5. Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on or near a nest containing eggs or young.
6. Intentionally or recklessly disturb any dependent young of wild barn owls.

<u>Informative: Planning Policy</u>

In addition to the statutes described above, various local planning policy imposes duties upon would-be planning applicants to take account of protected species and habitats at sites of proposed development and in particular, protected species. The objective of these policies is to prevent a net loss of species and habitats diversity identified as priorities for the U.K. as a consequence of development activity.

Further, The National Planning Policy Framework (NPPF) states the following when EU protected species may be affected:

'119. The presumption in favour of sustainable development (paragraph 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.'

The Survey Methodology

Bats

The Survey Methodology

In order to fully assess the potential value of bat habitat at this site this scoping bat survey has observed widely accepted national standards set out in the Bat Conservation Trust publication Bat Surveys—Good Practice Guidelines (BCT 2012).

The survey includes for a thorough internal and external inspection of all buildings (and trees) referred to in the *Survey Results* section below for cracks, holes, cavities and voids in buildings and cracks, fissures and voids in trees.

Inspections are internal and external, making use of torches, ladders, endoscopes, mirrors, binoculars and cameras where appropriate to do so.

The survey is performed during daylight hours and provides an opportunity to exclude the need for further survey work, if the following triggers can be confirmed absent from the site of proposed development:

1. Bats.
2. Evidence of recent bat activity e.g. droppings, prey remains, urine staining.
3. Features suitable for roosting.

If bats, evidence of their recent activity and or features suitable for roosting cannot be confirmed absent from the site of proposed development, this report will make recommendations for further survey work and or mitigation where this is consistent with the BCT (2012) guidelines and considered appropriate by the surveyor in the context of the proposed development.

Recommendations for further survey work may include so-called "*Roost emergence surveys*" (BCT 2012) which enable e.g. population numbers and species to be confirmed present, indeterminate or absent.

Barn owl

The building on site was inspected on the interior and exterior for evidence of past or present usage by barns owls *Tyto alba*. The survey makes use of torches, ladders, binoculars and cameras where appropriate to do so.
The survey is performed during daylight hours and provides an opportunity to exclude the need for further survey work, if the following triggers can be confirmed absent from the site of proposed development:

1. Barn owls present on site.
2. Evidence of barn owls which includes:

- Droppings (white vertical streaks on roof beams and large white splashes on floors).

- Pellets. Barn owls generally swallow their prey whole and regurgitate the indigestible parts (bones, fur etc.) as pellets. The colour and condition of pellets can give an indication as to when a site was last used by barn owls.

- Feathers. Barn owl nestlings begin their initial moult at 11 months. Adult barn owls tend to shed their largest and most noticeable feathers (wing feathers) in the summer.

- Nest debris. Barn owls do not build nests but nesting areas may contain nestling fluff and pellet debris.

- Potential entrance points.

- Suitable nesting platforms. Barn owls need a level area to lay their eggs usually >3m in length and >3m off the ground. Typical nesting places include tops of walls, between bales and attic floors.

Bat Potential

Table 1: Bat roost **habitat value** defined by the Bat Conservation Trust (BCT 2007):

Confirmed	✓ Bats are found to be present during the survey. ✓ Evidence of bats is found to be present during the survey. e.g. droppings, prey remains, urine staining, fur staining.
High	✓ Buildings, trees or other structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, ice houses and cellars. ✓ Habitat of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. ✓ Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. ✓ Site is close to known roosts.
Medium	✓ Several potential roosts in buildings, trees or other structures. ✓ Habitat could be used by foraging bats e.g. trees, shrub, grassland or water. ✓ Site is connected with the wider landscape by linear features that could be used by commuting bats e.g. lines of trees and scrub or linked back gardens.
Low	✓ A small number of potential roosts, most likely less significant roosts. ✓ Isolated habitat for foraging e.g. a lone tree or patch of scrub but not parkland. ✓ An isolated site not connected by prominent linear features.
Negligible	✓ No features suitable for roosting, foraging or commuting.

*"There are no clearly defined categories of **habitat value**; rather there is a continuum from low to high value for bats. Expert judgment will be required when assessing the relative value of a site for bats based on the features identified and the context in which the site or survey area is located."* (BCT 2012).

All buildings and or trees within the site of proposed development referred to in the *Survey Results* section have been assessed in accordance with the criteria in Table 1 under the judgment of the surveyor [expert].

Barn Owl Potential:

Table 2: Barn Owl habitat value defined by IEEM (2011) and the Barn Owl Trust (2012):

Confirmed	✓ Barn owls are found to be present during the survey. ✓ Evidence of barn owl is found to be present during the survey. e.g. nesting material, pellets, droppings.
High	✓ Structures with features of particular significance for nesting barn owls e.g. barns, old farm buildings, mature trees. ✓ Mixed habitat of high quality for foraging barn owls e.g. broadleaved woodland, rough tussocky grassland, field margins, hedgerows. ✓ Site is close to known barn owl sites.
Medium	✓ Several potential roosts in buildings, trees or other structures. ✓ Habitat with some potential to be used by foraging barn owls e.g. mature trees, hedgerows, rough grassland. ✓ Site is connected with the wider landscape by features that could be used by foraging barn owls e.g. lines of hedgerows.
Low	✓ Isolated habitat for foraging e.g. a patch of scrub. ✓ An isolated site with no connectivity to areas of ecological value.
Negligible	✓ No features suitable for roosting, foraging or commuting.

Survey Results

Table 2:

Desk Study Records	The National Biodiversity Network (NBN) www.nbn.org.uk was searched for records of protected species within the 10km OS grid square SJ86. *Species from the NBN data search cannot be published without the owner's permission.* *The NBN has been checked for records and protected species have been recorded from the site.*
Local Environment	The grid reference for the site is SJ898601. The site consists of the main house (The Moor House), and The Coach house and a garage located approx. 53m to the north of the main house. There is woodland on the site in the immediate vicinity of the garage. The woodland extends to approx. 92m to the north, approx. 230m to the northwest, approx. 130m to the south (running parallel to the main house), and approx. 305m to the northwest of the garage. Further woodland is located approx. 109m to the north, approx. 48m to the east, approx. 197m to the south and approx. 79m to the west of the site. Open water is located on the site in the form of a pond located approx. 89m to the south of the garage (approx. 17m south of the main house), further open water in the form of 2 ponds is located approx. 326m and approx. 407m southwest, and a further pond is located within the woodland approx. 230m northwest of the site. The garage (B1) is to be demolished and a new garage built under planning permission. The garage is constructed of brick with wood cladding on all elevations with a corrugated sheet metal roof. An open sided lean-to with exposed beams and a deteriorating felt roof is attached to the northern elevation. The garage has wood cladding walls and ceiling internally creating a cavity between the inner and outer wood cladding. One of the wooden boards has come lose on the eastern side and a hole is visible in the ceiling. No evidence of bats or barn owls could be located internally. Ornate barge boards are present on the northern and southern elevations, with a section missing on the southern elevation resulting in an exposed mortis and tenor joint in the apex. Two holes are present within the wood cladding above the metal framed window and wooden door on the southern elevation and a single bat dropping was located on the wood cladding between the hole and the window. The eastern elevation has an additional wooden roofed section and gaps are present. Numerous large gaps are also present on the western elevation between the tops of the wood cladding and the sheet metal roof providing access into the cavity. A further bat dropping was located in the cobwebs beneath the sheet roof in close proximity to these gaps. A circular hole is present on the southern elevation approx. 1m from ground level. **Weather conditions [at time of survey]:** Temperature: -0.5°C Cloud Cover: 0% Precipitation: None. Wind: 0/8

Building; Tree; Group of trees	Actual bat species observed on survey:	Evidence of bat activity on survey:	Habitat Value for Bat (Negligible/Low/Medium/High potential roosting habitat.)
B1	Negative. No bats found.	Confirmed. Evidence of bats found on the exterior.	High. Bat droppings were located on the wall beneath the holes in the wood cladding on the southern elevation and the gaps between the wood cladding and roof on the western elevations. Further gaps were located between the wood cladding and wooden roof section on the eastern elevation providing access into the cavity. A large gap was located within the wooden barge board on the southern elevation providing access into the ornate wooden apex. The site is well connected to the surrounding landscape with contains woodland and open water.

Barn Owl

Building; Tree; Group of trees	Actual barn owls observed on survey:	Evidence of barn owl activity on survey:	Habitat Value for Barn Owl (Negligible/Low/Medium/High potential nesting habitat.)
B1	Negative. No owls found.	Negative. No evidence found.	Medium. The open sided lean-to structure attached to the southern elevation of the garage provides potential nesting areas for barn owls. The surrounding habitat has potential to be used by foraging barn owls e.g. mature trees, hedgerows, rough grassland. Site is connected with the wider landscape by features that could be used by foraging barn owls e.g. lines of hedgerows.

Conclusions and Recommendations

Table 3: Buildings, Groups or Trees referred to by number and in accordance with the sketch plan at Appendix I.

Bats

Building; Tree; Group of trees	**Habitat Value [As defined in Table 1]**	**Are emergence survey works necessary?**	**Is an EPSL necessary?**
B1	High.	Yes. The garage shows evidence of use by roosting bats. Recommendations: 3x dusk surveys, 2x surveyors May to September inclusive.	Possible. Bat boxes could be built into the development to provide roosting opportunities.

Barn Owls

Building; Tree; Group of trees	**Habitat Value [As defined in Table 1]**	**Are further survey works necessary?**	**Recommendations**
B1	Medium. Suitable accessible habitat.	Yes. No evidence of barn owls was observed on site however there are suitable nesting areas located within the lean-to section of the building. Barn owl surveys can be completed during the above bat surveys.	It should be noted that barn owls may nest in inaccessible areas which may not be visible from the interior/exterior of the building. Therefore, if barn owls/evidence of barn owls is observed during the bat surveys compensation for barn owls must be incorporated into the development. It should be noted that all breeding birds are protected by law and therefore the works should avoid the breeding bird season (March - August inclusive) to avoid any

			harm coming to bird species utilising the site. If this is not possible a breeding bird survey must be conducted.

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More information about our company, people and services can be accessed via our Web site, at the URL: http://www.arbtech.co.uk.

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Bibliography

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust ISBN-13: 9781872745985

http://www.bats.org.uk/publications_detail.php/1127/bat_surveys_good_practice_guidelines_2nd_edition.

National Planning Policy Framework, 2012
http://www.communities.gov.uk/publications/planningandbuilding/nppf.

Office of the Deputy Prime Minister (2005). Circular 06/2005: Biodiversity and Geological Conservation. Para.99

http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf

Shawyer, C. R. 2011. Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.

Barn Owl Trust website http://www.barnowltrust.org.uk/ Last accessed: 16th February 2012.

Document Production and Approval

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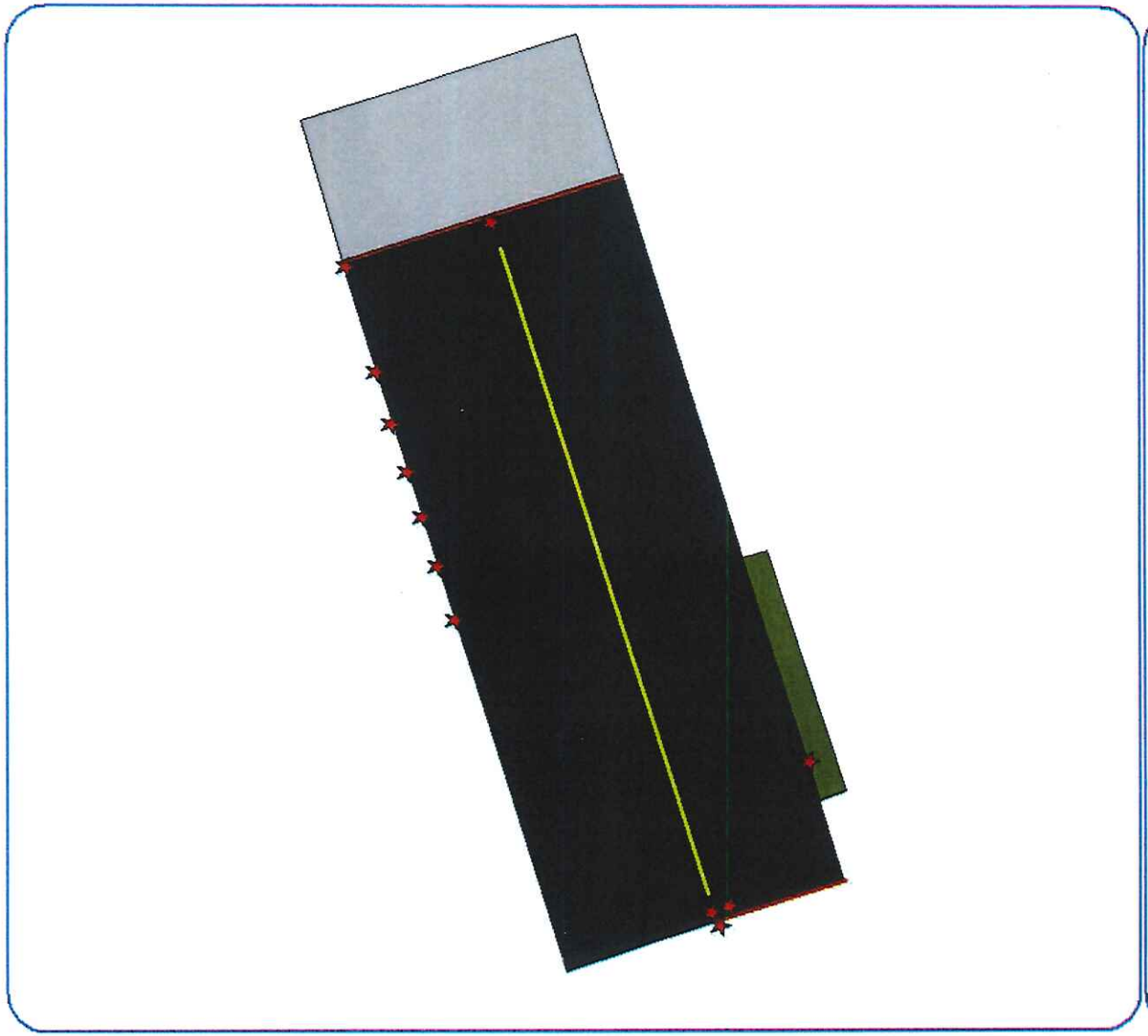
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Appendix 1. Sketch Plan



Legend

- Garage (B1)
- Open sided lean-to (felt roof)
- Additional section with wooden roof
- Central ridge line (sheet metal roof)
- Ornate barge boards
- Gaps & holes in wood cladding & barge board apex

Drawn by: JG
Signed off by: MOC

Scale:

Not to scale

N

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