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Initial Assessment Bat Survey

Summary of Recommendations

If bats, evidence of their activity and suitable locations for roosting bats, are all absent from the site, then no further visits are normally required. Otherwise, a single, daytime initial assessment, in which no bats were found, is not normally considered sufficient (Hundt 2012).

Taking into consideration the desk study and site survey findings, this report concludes that it is not possible to adequately manage or exclude the risk of harm to bats without the need for further survey effort.

Therefore, in order to provide adequate support for this planning application, bat emergence surveys should be undertaken, compliant to industry best practice, such as are set out in the Bat Conservation Trust publication, Bat Surveys—Good Practice Guidelines (Hundt 2012).

A full specification for bat emergence surveys that is appropriate to the scale and scope of the proposed development can be found in the 'Conclusions' and 'Recommendations' sections of this report.

The Company and Contact Information

Established in 2005, Arbtech Consulting Limited provides arboricultural and ecological consultancy services in respect to planning and development, throughout the UK.

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The Surveyor

The surveyor and principal author of this report is Jo Gregory BA (Hons), MSc GradIEEM.

Bat Licence Number

England: CLS02941.

Wales: 39248.

Scotland: 13660.

The Client

The client is Mr. Paul Padden.

The Site of Proposed Development

The client is preparing a planning application to demolish at Hillside, Stubbins Lane, Chinley, High Peak, Derbyshire SK23 6EB.

The Survey Brief

The client has commissioned Arbtech 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 authored by L. Hundt, 2012.

These guidelines state that the aim of the initial assessment bat survey is to observe and catalogue *"informing and identifying the type and extent of further bat survey work needed (if any)"* (Hundt 2012).

Data Searches

The author's preparation of this report has been assisted by a search of the National Biodiversity Network Gateway.

No other data searches or desk study has been undertaken.

Date of the Survey

3 September 2013.

Seasonality

This type of assessment can be conducted at any time of year.

Informative

Table 1: Summary of Pertinent Legislation and Planning Policy Relevant to the Protection of Bats in the UK

This table is adapted from Table 2.1 and Section 2.5 of the Bat Surveys—Good Practice Guidelines (Hundt, 2012).

Location of Roost	Transposing EC Habitats Directive	Other Relevant Legislation	Planning Policy
England	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	National Planning Policy Framework ("NPPF").
Wales	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	Technical Advice Note ("TAN") 5.
Scotland	Conservation (Natural Habitat & c.) Regulations 1994 as amended.	Wildlife and Countryside Act 1981 as amended. The Nature conservation (Scotland) Act 2004.	National Planning Policy Guidance ("NPPG") 14 and Planning Advice Note ("PAN") 60.

Cumulatively, this legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.

- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat, unless acquired legally.
- Sell, barter or exchange bats, or any part of a bat.

A bat roost is defined by Hundt (2012) as “the resting place of a bat”. Generally however, the word roost is interpreted to mean “any structure or place, which any wild bat uses for shelter or protection.”

The Survey Methodology

In order to fully assess the potential value of bat habitat at the site, the surveyor has observed the widely accepted industry best practice standard; set out in the Bat Conservation Trust publication Bat Surveys—Good Practice Guidelines (Hundt 2012).

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

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

An initial assessment bat 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:

- Bats.
- Evidence of recent bat activity e.g. droppings, prey remains, urine staining.
- 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 design mitigation, where this is consistent with the Hundt (2012) and considered appropriate by the surveyor in the context of the proposed development.

Recommendations for further survey work may include “emergence surveys” (Hundt 2012) which enable e.g. apertures through which roosts are accessed, population numbers and species to be identified and quantified. Essentially, the survey is designed so that with confidence, the surveyor can confirm bats to be present, indeterminate or absent.

Bat Potential and Habitat Value

Table 2: Bat roost habitat value assessment criteria, adapted from the Bat Surveys—Good Practice Guidelines (Hundt 2012).

Bat Habitat Value	Trigger or Description
Confirmed Bat Presence	Bats are found to be present during the survey. Evidence of bats is found to be present during the survey. Bats heard 'chattering' inside a roost on a warm day or at dusk.
Significant Habitat Value	Buildings, trees or other structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses 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 proximate to known roosts.
Moderate Habitat Value	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 Habitat Value	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 Habitat Value	No features suitable for roosting, minor foraging or commuting.

Table 2 (above) presents a scale continuum adapted from Hundt (2012) against which the significance of habitat value and roosting opportunities at the site can be graded. By referring to this continuum and using their expert judgment, surveyors classify features of buildings or trees as representing low, medium or high value as habitat for bats.

Survey Results

Table 3: The Desk Study Results

Desk Study Records	A study of data from the National Biodiversity Network Gateway for the grid square (SK08) SK038826 has informed the preparation of this report. No other data set has been consulted.
Notes on the Local Environment	The site is surrounded by housing and fields in the immediate vicinity. Woodland is located approx. 149m away to the west (Chinley Local Nature Reserve), approx. 387m to the east, approx. 524m to the southeast and approx. 370m to the south of the site. Open water is located approx. 925m to the southeast of the site. Fields are located approx. 10m to the north, approx. 658m to the east, approx. 34m to the south and approx. 240m to the west of the site. Hedgerows and tree-lined roads are located immediately adjacent to the site offering commuting routes to and from the woodland and other foraging areas. Weather conditions at time of survey: Temperature: 17˚C. Cloud Cover: 100%. Precipitation: None. Wind: 1/8.

Table 4: The Site Survey Results

Buildings and trees are referred to by number, in accordance with the sketch plan at Appendix I.

Reference Number	Habitat Value Table 2 Refers	Description of Roosting Features Access to Roosting Features	Confirmation of Bat Presence
B1	Confirmed Bat Roost	A small detached house with a loft conversion forming the second floor. Brick built with stone cladding and pebble dash render and a wooden porch as the main entrance on the south elevation. Windows and doors are a combination of wood and UPVC framed and are tight fitting. A wood clad dormer window is present on the north elevation roof. The building has a pitched concrete tiled roof and plastic soffit boxes at the eaves. Internally there is a small roof void crawl space within the converted bedroom. The roof is felt lined and tight fitting. A small gap is visible at the far eastern side of the roof void and exposed wall tops are visible. A second larger loft room that is partially converted with a UPVC framed window is located on the western side of the building. The floor is partially boarded with loft insulation present in the un-boarded sections. A large chimney stack is in the centre of the room and has been plastered. The roof is felt lined and tight fitting. Externally gaps are visible beneath the lead flashing around the chimney and dormer window. Missing mortar is visible in the ridge tiles on the far eastern side of the north elevation roof next to the dormer window.	Four bat droppings resembling those of pipistrelle species were located within the crawl space roof void. These were hanging in cobwebs at the far eastern side of the roof void below the exposed wall top. This area correlates with the missing mortar in the ridge tile and gaps in the lead flashing around the dormer window externally. Droppings appeared to be fresh being dark brown in colour, approx. 1.5mm wide and approx. 7mm in length and tapered to the ends. A sample was subjected to the 'crumble test' and the texture was fine with insect remains visible through the use of a 30x magnification hand lens and torchlight. Further samples were retained for DNA analysis should this be required. Seven different species of bats have been recorded in the area including several crevice dwelling species.
B2	Significant Habitat Value	A detached two storey brick built garage that is stone clad and pebble dash rendered. The pitched roof comprising of cement tiles. Windows and doors are wood framed and tight fitting and a metal up-and-over garage door is present on the south elevation. Wooden barge boards are present on all elevations. The lower ground floor on the northern side of the building is used for the storage of garden equipment. There was no access to the upper floor from this side of the building. The up-and-over garage door was padlocked. Missing mortar is visible at the apexes of the north and south elevations.	No evidence of the presence of bats could be located internally or externally. The building is in close proximity to the confirmed roost in building B1 and offers several features suitable for roosting bats within the roof structure.

Any additional notes:

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Conclusions

Table 5: Summary of Conclusions

Reference	Habitat Value [Table 2 refers]	Are emergence survey works necessary? [1]	Best Estimate of Roost Type
B1	Confirmed ☒ Significant ☐ Moderate ☐ Low ☐ Negligible ☐	Yes. The evidence gathered during this initial assessment implies that there is an unacceptable probability (risk) of harm to bats if the development is allowed to progress without further surveys.	Transitional ☒ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.
B2	Confirmed ☐ Significant ☒ Moderate ☐ Low ☐ Negligible ☐	Yes. The evidence gathered during this initial assessment implies that there is an unacceptable probability (risk) of harm to bats if the development is allowed to progress without further surveys.	Transitional ☒ Maternity ☐ Hibernation ☐ Check boxes are left blank if Habitat Value is 'negligible'.

[1] Hundt (2012) states that "*If a building or built structure is considered to have a moderate or high likelihood of use by bats, the preliminary roost assessment, even if negative for bats, should be followed by several presence/absence surveys.*"

Recommendations

The surveyor has used the industry best practice publication Bat Surveys—Good Practice Guidelines (Hundt 2012) to guide the following conclusions and recommendations of this report.

Table 6: Specification for Further Surveys

Reference	Specification for Surveys [2]	Seasonality for Emergence Surveys
B1	This is a confirmed transitional roost. 3 further dusk emergence surveys should be undertaken. 2 surveyors are required to provide full coverage of the building*.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive – will require a greater survey effort and justification.
B2	This is a suspected transitional roost. 2 further dusk emergence surveys should be undertaken. * Both buildings can be surveyed simultaneously as they are very close to each other.	Optimal: Mid May to August inclusive. Sub-optimal: May to September inclusive – will require a greater survey effort and justification.

The purpose of further surveys is to determine the species of bats, their population and the type of roost – or to confirm a negative result beyond doubt.

If the further surveys positively identify bats roosting at the site, the results will enable the client to design appropriate mitigation and if necessary, apply for a European protected species licence.

[2] If bats are discovered emerging from any of the buildings during surveys, the survey effort may need to be appropriately increased pursuant to table 8.5, Bat Surveys—Good Practice Guidelines (Hundt 2012).

Bibliography

Hundt, L. (2012). Bat Surveys—Good Practice Guidelines, 2nd edition, Bat Conservation Trust, London.

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

Document Production and Approval

Status	Issue	Surveyor	Date
Draft	1	J Gregory	09/09/2013
Final	2	J Gregory	10/09/2013

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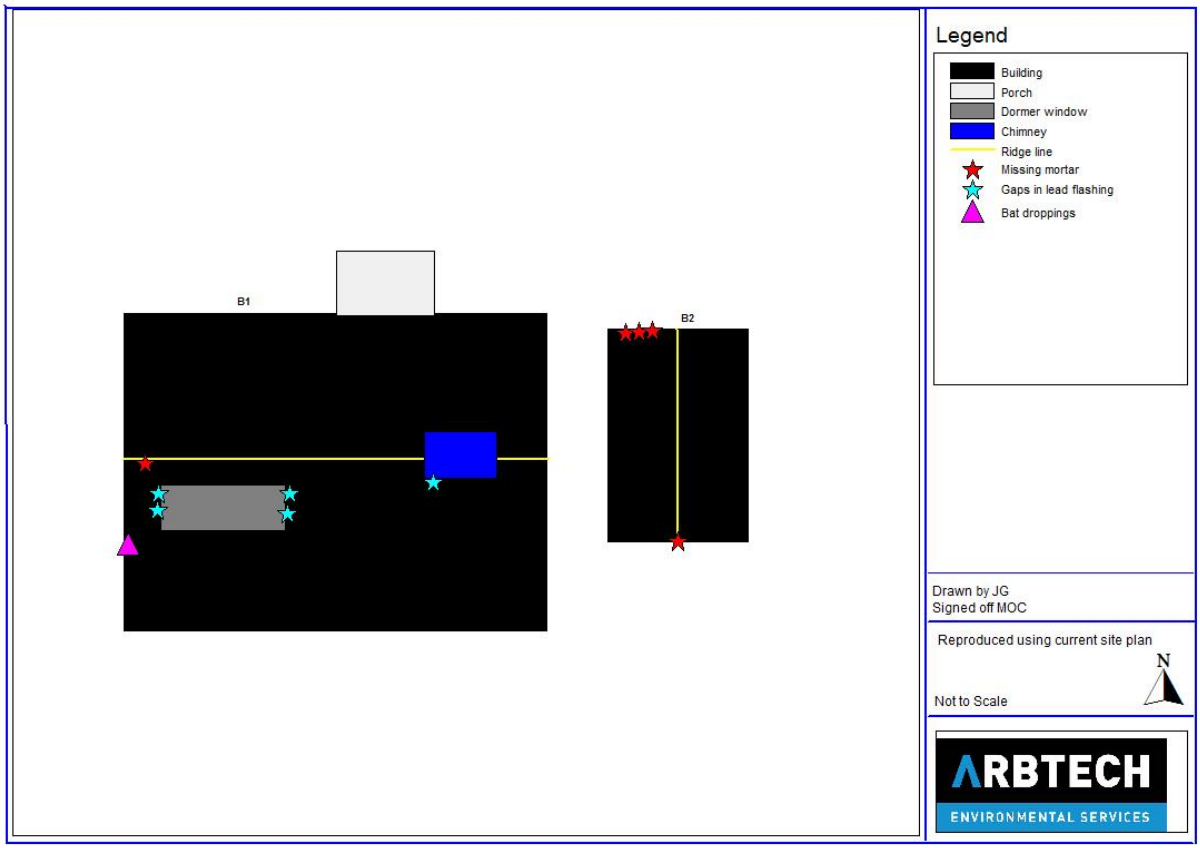
Appendix 1 Plan



Appendix 2 Photos



Figure 1: North elevation (building B1).



Figure 2: South elevation (building B1).



Figure 3: East elevation (building B1).



Figure 4: West elevation (building B1).



Figure 5: Missing mortar and gaps around dormer window (building B1).



Figure 6: Gaps in lead flashing around chimney (building B1).



Figure 7: North elevation of garage (building B2).



Figure 7: South elevation of garage (building B2).



Figure 8: West elevation (building B2).



Figure 9: Missing mortar and overhanging tiles on south elevation (building B2).



Figure 10: Missing mortar at apex of north elevation (building B2).