



BJ Collins
PROTECTED SPECIES SURVEYORS

BAT MITIGATION STRATEGY

THE COACH HOUSE
RECTORY LANE
MARKET BOSWORTH
LEICESTERSHIRE

A report to:

Mr and Mrs Sherwin

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August 2024

Client:	Mr and Mrs Sherwin
Report Title:	Bat Mitigation Strategy for The Coach House, Market Bosworth

Survey Site/Job:	Coach House, Rectory Lane, Market Bosworth, Leicestershire, CV13 0LS
OS Grid Reference:	SK 4070 0294

Survey Date(s):	20 th of May and 10 th of June 2024
Lead Surveyor(s):	Mr P A Collins BSc (Hons)

Architect/Agent:	David Granger Architectural Design
Planning Reference:	22/01133/FUL

Versioning and Quality Assurance

Report Status	Date	Author(s)	Reviewed by
Final Version	16/08/2024	Mr P A Collins BSc (Hons)	Mr B J Collins MSc MCIEEM

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The evidence which we have prepared and provided is true and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

RELIANCE - The report describes the conditions and ecological features on the site (and possibly its environs) at the time of survey and that this may (is likely to) change over time. Reliance upon the findings of this report should be determined in accordance with the Chartered Institute of Ecology and Environmental Management guidance on the longevity of ecological surveys, see Advice Note (April 2019) *On the Lifespan of Ecological Reports and Surveys* CIEEM.

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SUMMARY

This report has been prepared by BJ Collins – Protected Species Surveyors Limited for David Granger Architectural Design Limited on behalf of Mr and Mrs Sherwin.

The development proposal is the conversion of the coach house into a residential dwelling. Protected species surveys were undertaken to the former Coach House by this company in 2022 and 2024 which ultimately confirmed the presence of an individual common pipistrelle (*Pipistrellus pipistrellus*) day roost and night roosting for two brown long-eared bats and an individual Brandt's bat (*Myotis brandtii*).

A mitigation strategy formed by this company in 2022 remains relevant and this strategy is contained under this separate report titled "Bat Mitigation Strategy for The Coach House, Market Bosworth, August 2024". This has been submitted to the local planning authority for the sake of good order and in order to demonstrate compliance with planning condition number 9.

Note that this is not a pre-commencement condition and as such does not delay the application for a European protected species derogation licence:

*9. The development hereby permitted shall be implemented in strict accordance with the measures stated in the Section 6 (Bat Mitigation Strategy) of the Ecology and Bat Surveys 2022 report (submitted: 30.11.2022). **Should the building works be delayed for more than 1 year, the Bat Mitigation Strategy should be updated to reflect any changes in bat usage within the building.***

While the development works will require compensation in the form of habitat provisions as outlined below, there would be no constraints to do with timing of works.

1. INTRODUCTION

1.1 Background to commission

BJ Collins Protected Species Surveyors Ltd was commissioned by Mr & Mrs Sherwin to provide updated ecological support in relation to the development proposal for the Coach House in Market Bosworth, Leicestershire (the 'site').

A suite of protected species surveys were undertaken to the former Coach House by this company in 2022¹, which included a preliminary ecological appraisal of the building and surrounding habitats, subsequently followed up by two emergence and activity surveys after the building was categorised as being of “‘moderate bat roost suitability’ as per the Good Practice Guidelines (Collins, 2016; 2023).

The 2022 surveys confirmed the presence of an individual common pipistrelle (*Pipistrellus pipistrellus*) day roost, brown long-eared bats night roosting and an individual Brandt's bat (*M. brandtii*) night roost. Sonogram analysis using the BTO pipeline and further examination separated this species from the other potential candidate, the very similar whiskered bat (*M. mystacinus*).

As the 2022 surveys are out of date, B J Collins returned to site to undertake two further emergence and activity surveys in the active season of 2024 in support of the required European Protected Species Derogation Licence, this confirm the presence of just one roost type in 2024, that was a total of 2 brown long eared bats emerging from the structure.

1.2 Description of project

The development proposals are for the renovation and conversion of the coach house into a residential dwelling.

1.3 Purpose of this report

The purpose of this report is to provide an updated bat mitigation strategy as per the requirements of Planning Condition 9 of 22/01133/FUL (29 November 2022, Hinckley and Bosworth Borough Council).

This will be submitted to the local planning authority to demonstrate compliance with planning condition number 9, but it should be noted that this is not a pre-commencement condition:

*9. The development hereby permitted shall be implemented in strict accordance with the measures stated in the Section 6 (Bat Mitigation Strategy) of the Ecology and Bat Surveys 2022 report (submitted: 30.11.2022). **Should the building works be delayed for more than 1 year, the Bat Mitigation Strategy should be updated to reflect any changes in bat usage within the building.***

While the development works will require compensation in the form of habitat provisions as outlined below, there would be no constraints to do with timing of works.

¹ Ecology Surveys 2022 – The Coach House, The Old Rectory, Market Bosworth – BJ Collins PSS Ltd

2. BAT MITIGATION STRATEGY

The fundamentals of the mitigation strategy are to safeguard roosting bats from harm during works and to provide permanent alternative roosting habitat proportionate to the species and roosts identified during the surveys.

Temporary roost habitat

Temporary roosting habitat in the form of timber bat boxes will need to be installed prior to the commencement of works, to act as temporary habitat provision and as a receptor site for any bats located by the soft strip detailed below.

Process of soft demolition

Then prior to the commencement of demolition, and only after the award of a derogation license, the roost features and potential roost features will be excluded under the supervision of a licensed bat ecologist. This work will be carried out when the contractors are ready to commence and in advance of the closure of the building with doors and windows.

The roof of the building will not be coming off and therefore exclusion of the roof ridge board will be by the process described below.

In advance of works commencing the ecologist will check for any bats roosting in obvious open areas and bats found will be transferred by hand to the timber bat boxes, only by the licensed bat ecologist.

At that point the underlining of the roof covering will commence with the boards at the apex of the roof being left to facilitate exclusion. To achieve this, by board or similar will be installed adjacent to the rafters to result in a gap of approximately 50mm along the length of the ridge board. A heavy plastic similar to 'Visqueen' will then be fixed either side of the 50 mm gap. This provides a gap in which bats can emerge from the ridge but the plastic prevents bats returning to roost. The design of this exclusion feature, which reflects a common exclusion technique, as identified below:

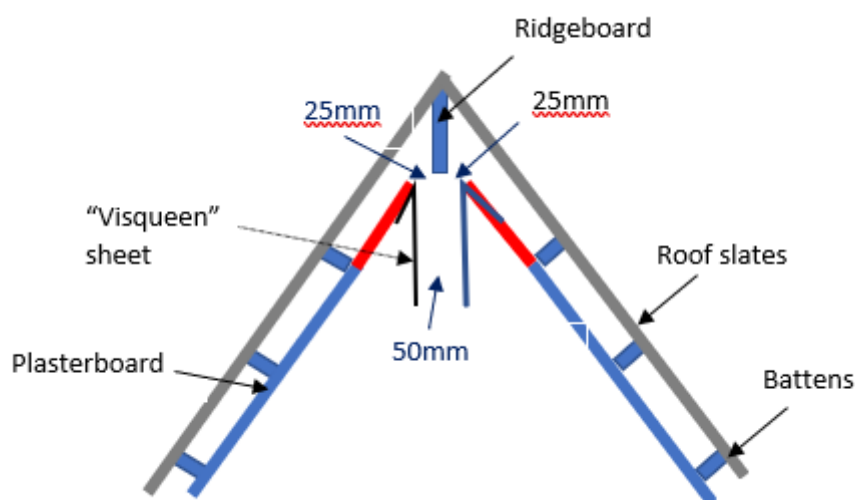


Figure 1 - exclusion technique for the use at the Coach House, Market Bosworth

After at least 3 full days, the plyboard cheating can be removed and the plasterboard finished to the underside of the ridge board.

At the same time as the above exclusion works, the bat ecologist will search the internal area and identify any potential bat roost features within the wall or window/door frames which require exclusion. In this instance this will be done by soft demolition methods, carefully removing brickwork or timber to allow any voids to be opened and examined. Once found empty any voids will then be left exposed until the relevant stage of the renovation project.

Unexpected finds

Once the bat exclusion has been completed, the contractors will be left with a precautionary procedure, see appendix 1. This describes actions which must be taken in the event that a bat is discovered when the bat ecologist is not present, following this period of exclusion and soft demolition. This precautionary procedure will be briefed to the construction contractors via a toolbox talk.

Permanent roost provision

Permanent roost provision must be installed sufficient to provide for the habitat which will be lost. In this instance, the mitigation required will be that which is specified under the Bat Low-Impact Class Licence; a requirement for like-for-like replacement of habitat by a permanent roost feature. The chosen mitigation for this development is the installation of a single bat tube in either gable end of the property.

Enclosed bat tubes will be installed on the gable ends of the dwelling such that the access slot to the box fits flush with the wall, allowing a bat to land below and crawl up into the box. An example of an installed Habitat box is provided in figure 5 below.

There will be 4 of these tubes installed.



Figure 3: Examples of bat tubes fitted within the brickwork of an exterior wall.

Breathable Roofing Membranes

Scientific investigations (Waring et al., 2013) into bats roosting against breathable roofing membranes have found that bats become entangled in the loose fibres of the membrane resulting in death. The species most affected are the pipistrelle bats which often gain access to the space underneath roof tiles and above the non-bitumen membranes. ALL non bitumen roofing membranes represent a threat to roosting bats in this way.

To this end no building which contains a bat roost can have the roof underlined with modern breathable roofing membranes. The licence currently only permits the use of traditional type I bitumen and hessian-based linings.

Natural England advise that if a manufacturer of membranes can provide a certificate of safety via snagging propensity tests, which complies with their own test requirements, then it will be possible to use that material but only with the express approval on each individual licensed case.

Light Pollution Control

Exterior lighting has been shown to negatively impact upon emergence times and foraging opportunities for bats thereby reducing their fitness and ability to survive (Stone, Jones & Harris, 2009). It is therefore important that the entrance to the bat tubes remain unlit in the hours of darkness to enable bats to safely access and use these features.

The following recommendations for mitigation of artificial lighting have been extracted from the Guidance note 08/23: Bats and Artificial Lighting in the UK produced by the Bat Conservation Trust and Institution of Lighting Professionals (2023).

- Lighting units should use LED which emit a warm white light (less than 2700K) to reduce the blue light component known to attract insects.
- Lighting units should feature peak wavelengths 550nm to avoid the component of light that is most disturbing to bats.
- Lighting units should be mounted horizontally as such there is no upward tilt.

External security lighting should be motion sensitive on a short timer (1 min).

REFERENCES

B J Collins (2022) **Ecology Surveys 2022 – The Coach House, The Old Rectory, Market Bosworth**, BJ Collins PSS Ltd, Nottingham.

B J Collins (2024) **Updated Emergence Surveys 2024 – The Coach House, The Old Rectory, Market Bosworth**, BJ Collins PSS Ltd, Nottingham.

Collins, J. (ed) (2023) **Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th Edition**, Bat Conservation Trust, London.

Reason, P.F. and Wray, S. (2023) **UK Bat Mitigation Guidelines**, a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1. Chartered Institute of Ecology and Environmental Management, Ampfield.

Stone, E. L., Jones, G., & Harris, S. (2009). **Street lighting disturbs commuting bats**. *Current biology*, 19(13), 1123-1127.

Waring S.D., Essah E.A, Gunnell K., and Bonser R.H.C., (2013) **Double Jeopardy: The Potential for Problems when Bats Interact with Breathable Roofing Membranes in the United Kingdom**. *Architecture & Environment*, 1 (1): 1-13.

APPENDIX 1 – PROCEDURE FOR IF A BAT IS FOUND DURING WORKS

- If at any point in the works bats are discovered, then contractors must stop work immediately and telephone B J Collins Protected Species Surveyors Ltd on 07957 122217 or 07794 617905.
- B J Collins PSS Ltd will either provide advice over the telephone or will send an appropriately licensed bat worker to the site. Actions should then be taken following the advice given.
- Bats are a protected species and there should be no attempt to handle a bat if discovered. The bat should be covered with a light material (cloth) and the bat worker called out to carry out the rescue.
- Only when the bat ecologist is satisfied that the risk to bats is ceased will works recommence.
- Should it transpire that the operation being carried out is of more risk to bats than was originally thought, then works will be stopped until they can be supervised by an appropriately licensed bat worker, or alternatively a European protected species derogation licence is acquired.
- If a bat is found under a tile or within any other niche to the building fabric, works will stop immediately (as above). If the bat does not voluntarily fly out, then the aperture will be carefully covered over to protect the bat(s) from the elements, leaving a small gap for the bat to escape voluntarily. Any covering should be free from grease or other contaminants and should not be a fibreglass-based material.