JAMES BLAKE ASSOCIATES

Bat Emergence Survey Report

Of

The Old Rectory, Norton Road,

Tostock,

Suffolk

On behalf of

Mr & Mrs Bowyer

September 2023

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Revision	Purpose	Originated	Checked	Authorised	Date
		AW	SW	JBA	September 2023
Job Number: JBA 23/183		**Title**: Bat Emergence Survey Report of The Old Rectory, Norton Road, Tostock, Suffolk. JAMES BLAKE ASSOCIATES			

Disclaimer

James Blake Associates Ltd. have made every effort to meet the client's brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

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0 NON TECHNICAL SUMMARY

Site:	The Old Rectory, Norton Road, Tostock, Suffolk
Grid Reference of Building(s)	TL95196387
Report Commissioned by:	Rees Pryer Architects on behalf of Mr & Mrs Bowyer
Date of Survey:	20th July 2023, 3rd August 2023 and 21st August 2023

Considerations	**Description**	**Timings and potential impacts**
Roosts Identified	A common pipistrelle (*Pipistrellus pipistrellus*) and pipistrelle species (*Pipistrellus sp.)* summer day roosts. A further potential common pipistrelle roost was identified but not confirmed due to light unit positioning obstructing view.	A European Protected Species licence from Natural England will be required due to; the loss of two roosts within the building and potential disturbance, killing and injury to individual bats if undertaken at inappropriate time of year. Work to be undertaken between October and April inclusive. Replacement roost can consist of bat box(es).
Foraging and commuting bats	Foraging and commuting activity by common pipistrelle, soprano pipistrelle *(Pipistrellus pygmaeus),* noctule *(Nyctalus noctule), leisler (Nyctalus leisleri), barbastelle(Barbastella barbastellus), natterer`s (Myotis nattereri) and brown long ears (Plecotus 4uratus)* Majority of activity across site is considered to be dominated by common pipistrelle.	Indirect impacts from external lighting; consideration regarding additional lighting should be taken.

1 INTRODUCTION

Background to the study

1.1 James Blake Associates Ltd. (JBA) was commissioned by Rees Pryer Architects on behalf of Mr & Mrs Bowyer to undertake bat emergence (dusk) surveys of the bat roost potential building present at the Old Rectory, Norton Road, Tostock in Suffolk. Ordnance Survey National Grid reference: TL95196387 (taken from the centre of site).

1.2 The assessment was required to accompany a planning application for the removal of the current roof.

1.3 All UK bat species are protected under European and UK law (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations, 2019; Wildlife and Countryside Act (WCA) 1981), and some are species of principle importance (SPI) in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Protected and principally important species are a consideration under the National Planning Policy Framework (NPPF) 2021. The NPPF places responsibility on Local Planning Authorities to aim to conserve and enhance biodiversity and to encourage biodiversity in and around developments.

1.4 A preliminary ground level assessment of potential bat roost features was undertaken in June 2023 by JBA which found the building to hold as having 'high' bat roost potential (BRP) due to gaps around the fascia's, multiple windows and metal cladding. It was noted that the brickwork of the building and associated pillars had some degradation with gaps between the brickwork and the buildings soffits, providing suitable roosting features. Some of the building's soffits had holes and in some places the soffit was missing. During the inspection bat droppings were identified in the loft space of the building.

1.5 Structures with 'high' BRP are described by the Bat Conservation Trust (BTC) as having *'A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat'.*

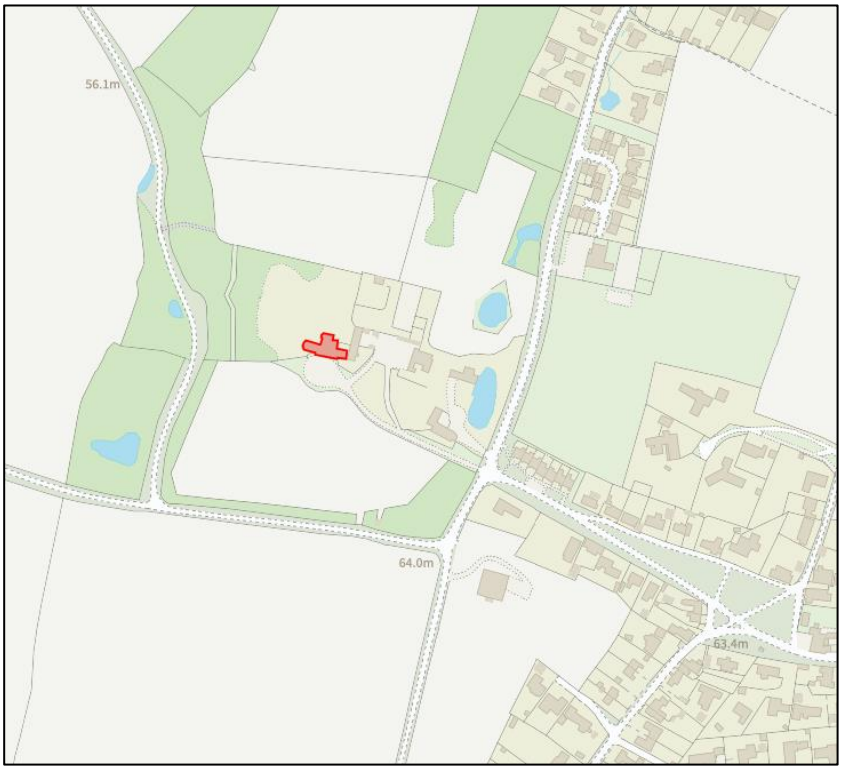
Site Location and Description

1.6 The building surveyed is an active residential dwelling located in the village of Tostock. Adjacent habitats included hardstanding, amenity grassland, mixed woodland and wooden structures including barns and stable. The wider landscape includes agricultural fields and associated farms, several woods, Norton Road connects the property to the village of Tostock southeast of the site (see Figure 1).

1.7 The building itself is a two storey, brick-based grade two listed building, with a slate roof across most of the building except for the western elevation comprising of decaying roof felt. The exterior of the building found gaps around the fascia's, multiple windows and metal cladding. It was noted that the brickwork of the building and associated pillars had

some degradation with gaps between the brickwork and the buildings soffits, providing suitable roosting features. Some of the building's soffits had holes and in some places the soffit was missing.

Figure 1: Site location



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Aims and objectives

1.8 The aims of the surveys were to:

- Determine the presence or likely absence of roosting bats on the site, including the species, numbers, and their use of the site;
- assess the risk of impact on bats, bat roosts and local bat conservation status from the proposed development and, if necessary, design appropriate precautionary measures, compensation, or mitigation measures.

2 SITE SURVEY AND ASSESSMENT

Survey Methods

2.1 The surveys were carried out by ecologists; Sam Rigg BSc (Hons) ACIEEM (Natural England Bat Survey Class Licence, level 1, WML-CL17), Bethan Feeney-Howells BSc (Hons), Sean Minns BA (Hons), Harry Hirst BSc (Hons), Olivia Padua BSc (Hons) and Alex Ward QCIEEM. Pulsar Axion XM30S Thermal Imaging Monocular with recording

capacities was also used during the survey visits 20th July, 3rd August and 21st August 2023. See Appendix C for surveyor locations.

2.2 Equipment included Echo Meter 3+, Echo Meter Touch Pro, Pulsar Axion XM30S and Pulsar Helion XP50 Thermal Imaging Monocular with recording capacities and tripod.

2.3 Three dusk emergence surveys were undertaken as the building was assessed as holding high bat roost potential with bat droppings found within the loft space at the time of the Preliminary ground level assessment (JBA, 2023).

2.4 Due to the identification of bat droppings in the loft, the building was confirming a roost and further surveys were deemed necessary. The building was also deemed to hold 'high' BRP; 'high' BRP the BCT (2016) guidelines suggest that three separate survey visits are undertaken. The BCT (2016) guidelines suggest two emergence and a single dawn re-entry/return to roost survey are undertaken; however, an 'Interim Guidance Note' was published in May 2022 by the BCT, which stated dawn surveys are not as effective as emergence surveys, therefore it was decided only emergence surveys would be undertaken for this site, with visual aid.

2.5 The survey methodology followed standard techniques and designs recommended by Natural England and the Bat Conservation Trust. The dates of the surveys carried out is shown in Table 1 below:

Table 1: Survey dates and weather conditions

Date	Weather Conditions
20.07.2023	Temperature: 16 Cloud Cover: 90% Beaufort Scale: 1-2
03.08.2023	Temperature: 17 Cloud Cover: 40% Beaufort Scale: 0-1
21.08.2023	Temperature: 20 Cloud Cover: 80% Beaufort Scale:0-1

2.6 All surveys were conducted in optimal weather conditions (mild, dry, little wind). Emergence surveys started at least 15 minutes before sunset and continued for approximately two hours after sunset. All surveys were undertaken within the optimal survey window for detecting maternity roosts (i.e. May to August inclusive).

Limitations

2.7 It was noted during the initial survey on 20th July 2023 that there is a dip in the roof on the southern section of the building which was not visible during the survey period; however, flight paths were still visible. Furthermore, during the following survey period (3rd August 2023) a thermal imaging camera was used to assess whether bats were using this section.

2.8 During the initial survey light rain was noted at 22:20 (74 minutes after sunset); however, this is not considered as a constraint to the survey and the rain was light and the peak emergence time has already passed.

3 RESULTS AND EVALUATION

20th July 2023

3.1 No bat emergence was recorded during the initial survey visit and no bat evidence (such as droppings, feeding remains, etc.) or individual bats were identified prior to the emergence survey commencing.

3.2 During the survey, the first bat species observed was a single common pipistrelle (*Pipistrellus pipistrellus*) commuting from east to west at 21:15 (9 minutes after sunset). Common pipistrelles were recorded regularly until 22:07. A soprano pipistrelle (*Pipistellus pygmaeus)* was first recorded at 21:43 (37 minutes after sunset); however, this was heard but not seen and was likely to be commuting above the site. A brown long-eared bat was first recorded commuting east to west at 21:48 (42 minutes after sunset).

3rd August 2023

3.3 During the survey, an emergence which was considered to be a pipistrelle species was recorded between the wooden soffit and drainpipe on the southern fascia of the building at 20:39 (5 minutes before sunset). Emergence points are noted below in Figure 2. Pulsar imaging of common pipistrelle emerging is shown below in Figure 3.

3.4 A single common pipistrelle was observed emerging from a hole in the wooden fascia on the front of the building at 21:04 (20 minutes after sunset) as shown in Figure 4.

3.5 A potential common pipistrelle was identified entering the building behind the light on the northern fascia of the building at 21:23 (39 minutes after sunset) however this is difficult to determine during the survey and through the recordings of the Pulsar thermal imaging camera due to the positioning of the light unit.

3.6 No further emergences were noted during the survey visit on 3rd August 2023.

3.7 Common pipistrelles were recorded by all surveyors throughout the survey commuting and foraging above the site. The first acoustic recording was at 21:14 (30 minutes after sunset) and the last recording was at 22:10. A soprano pipistrelle was first recorded at 21:54 (70 minutes after sunset); however, this was heard but not seen.

3.8 Noctule (*Nyctalus noctule)* were recorded by one surveyor at 21:03 (19 minutes after sunset); however, this was heard but not seen and was likely commuting above the site.

3.9 Brown long-eared were recorded by all surveyors, the first recording was at 21:31 (50 minutes after sunset) however, this was heard but not seen.

3.10 Serotine (*Eptesicus serotinus)* was first recorded at 22:04 (80 minutes after sunset) commuting above the site.

21st August 2023

3.11 No emergences were recorded during the emergence period.

3.12 A soprano pipistrelle was first recorded at 20:25 (16 minutes after sunset); commuting above the site. Common pipistrelle and brown long-eared bat were first recorded at 20:32 (23 minutes after sunset); the common pipistrelle was commuting above the site however, the brown long-eared bat was heard but not seen.

3.13 Leisler`s (*Nyctalus leisleri)* was first recorded at 21:06 (57 minutes after sunset) and last recorded at 21:11 (62 minutes after sunset) however it was not seen by the surveyors and was likely commuting above the site.

3.14 Natterer`s (*Myotis nattereri)* was first recorded 21:03 (54 minutes after sunset) until approximately 21:12 (63 minutes after sunset) however it was heard but not seen by the surveyors.

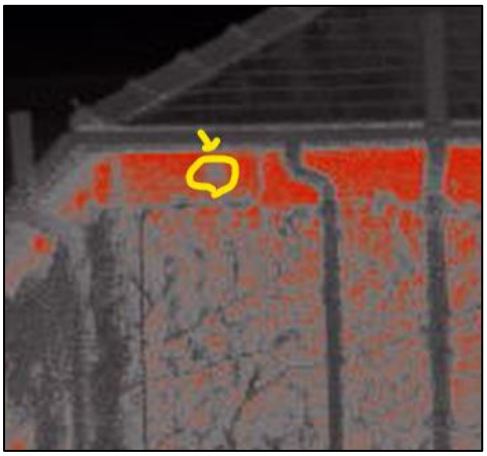
3.15 A single recording of barbastelle (*Barbastella barbastellus)* was recorded by one surveyor at 21:37 (88 minutes after sunset) however this was heard not seen.

3.16 A number of the recordings were heard but not seen by surveyors and it was concluded that recordings were made of bats using adjacent habitats for foraging and commuting behaviour. The site is surrounded by woodland and grassland pastures which provide optimal foraging grounds.

Figure 2: Emergence locations

Figure 3: Bat emergence from wooden soffit (3rd August 2023)

Figure 4: Bat emergence from wooden fascia (3rd August 2023)



Overview

3.17 Due to emerging bats observed during the survey visit on the 3rd August 2023,it is concluded that a 'day roost' for common pipistrelles is located within the building. A 'day roost' is defined as a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer.

3.18 The building is considered unlikely to be used for hibernation due to unstable winter temperatures associated with this type of building and external disturbances from the business park. In addition, bats rarely use the same building/structure for hibernation as they require different conditions to day roosts.

3.19 Common and soprano pipistrelles, brown long-ears, and noctule bats are all common and widespread species within Suffolk and the UK. Barbastelle, leislers and serotine are less common but are still widespread in Suffolk.

3.20 Based on the proposed demolition of the building and the results of the bat surveys the following assessment has been made of the likely impacts of the proposed plans on bats in the **absence** of mitigation;

- loss of a two existing roost within the building; and
- Killing, injury and disturbance of individual bats.

4 RECOMMENDATIONS

4.1 The following recommendations are made to comply with current legislation, planning policy and best practice as recognised by the various statutory authorities.

4.2 Two-day roosts were identified within the building; one common pipistrelle and one pipistrelle species emerging from the building during one survey visit (3rd August 2023).

4.3 A potential further day roost was identified within the building behind the lighting unit on the northern fascia however views during the survey and through thermal imaging assessment were obstructed by the lighting unit.

4.4 **A European Protected Species (EPS) Mitigation licence or a 'low impact licence' issued by Natural England will be required for works liable to affect the bat roosts. No works to the building which may impact the roosts in any way can be undertaken without having obtained such a licence. The licence application must be made by an ecologist and an application can only be made once planning permission has been granted for development or re-development.**

4.5 Due to the roost type, it is considered the work should only be undertaken when the bats are not active. Work should be timed to avoid the sensitive periods for bats, namely the breeding season. For day roosts, work should be undertaken between 1st October and 1st April inclusive, however these dates are weather (temperature) dependant.

4.6 The provision of appropriate and proportionate replacement roosting features will be required as a condition of the EPS licence. It is recommended that bat boxes are

installed on any existing retained features in close proximity to the building to be impacted, such as the adjacent buildings which are to be retained as part of the development and/or trees. Once re-development is complete, at least two bat boxes should be installed on or integrated on the south-western and eastern aspect of replacement buildings to stay in line with the entry points of the current existing roosts. Boxes should be suitable for pipistrelle and brown long-ear bats, for example, 'Schwegler bat box 1FF' (or similar).

4.7 If possible, bat droppings from the current roosts (if found) should be placed in the new bat boxes to encourage bats to use them.

4.8 External lighting would have a negative impact upon foraging and roosting bats. The use of lights near a known bat roost, or an area known to be used by bats that results in disturbance to bats and their normal patterns of behaviour is likely to be unlawful. There is currently a high level of lighting due to floodlights on the main building and also adjacent buildings; however, it is recommended that no or limited additional external lighting is added to the site in the future. In addition, lighting should not be directed towards hedgerows, mature trees, any bat boxes, or facing in an upward direction. Please refer to the publication, *Bats and Lighting in the UK* for more information.

4.9 Once the re-development is complete, additional enhancements could also be incorporated in the new builds to provide more roosting opportunities post-development; such as the Habibat access tile which consists of lead, clay or slate tiles, with a capped vent allowing access to roof felt or roof space providing roosting access for all species.Other box brands and types could be used but confirmation from an ecologist should be sought. Boxes should be placed facing between south-east and south-west.

Figure 4: Possible Enhancements – Habibat access tile

5 CONCLUSIONS

5.1 Dusk bat emergence surveys were undertaken between the 20th July and 21st August 2023 by James Blake Associates.

5.2 Bat activity was moderate with common and soprano pipistrelles foraging on the foraging on the amenity grassland as well as noctules, leisler`s, brown long ears, barbastelle and natterer`s commuting above the site. The buildings roof is to be renovated and therefore it is not possible to retain the roosts.

5.3 Due to building being deemed to contain active roosts (even if used occasionally), a Natural England European Protected Species Licence for bats will be required prior to any works to the buildings.

5.4 If works do not commence within 12 months of the date of these surveys, updated active season surveys will be required to confirm the status of the roost and identify any changes which may have occurred in the interim.

6 REFERENCES

Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edition (2016). Bat Conservation Trust, London.

Bat Mitigation Guidelines, English Nature, 2004

James Blake Associates (April 2022) *Preliminary ground level assessment of potential bat roost buildings at The Old Rectory, Norton Road, Tostock, Suffolk.*

National Planning Policy Framework (2021).

7 APPENDICES

Appendix A: Surveyor locations