

# **UPDATED BAT SURVEY REPORT**

**Old School House, The Street, Ash, Sandwich, Kent**

**4<sup>th</sup> August 2023**

## **Survey and reporting:**

**KATE BALDOCK BSc MSc MCIEEM**

72 High Street

Aylesford

Kent

ME20 7BA

Tel: 07919 521 775

Email: [katebaldockecology@outlook.com](mailto:katebaldockecology@outlook.com)

**Responsibilities:**

This document has been prepared for the titled project and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority by the author.

**Biological Data:**

As part of membership of our professional body we are required to provide our species data results to relevant biological records centres. As such, it is our intention to supply biological data unless directly instructed in writing not to do so by the commissioning client.

**Length of Time Report is Valid:**

Provided no significant changes are made to the proposal or on the proposed site (*e.g.* significant changes to management practices or habitats present) after the report's issue, this report can be considered valid for 12 months from the date of issue (4<sup>th</sup> August 2023).

**Purpose**

Updated survey to inform licensing.

# CONTENTS

<b>SUMMARY .....</b>	<b>2</b>
<b>1 AIMS OF THE STUDY .....</b>	<b>3</b>
<b>2 METHODOLOGY .....</b>	<b>4</b>
2.1 EMERGENCE SURVEYS.....	4
2.2 SURVEY DATES, TIMES AND WEATHER CONDITIONS.....	4
<b>3 RESULTS .....</b>	<b>5</b>
3.1 BACKGROUND.....	5
3.2 UPDATED EMERGENCE SURVEYS .....	6
<b>4 IMPACT ASSESSMENT .....</b>	<b>8</b>
4.1 LIMITATIONS.....	8
4.2 POTENTIAL IMPACTS.....	8
<b>5 RECOMMENDATIONS AND MITIGATION .....</b>	<b>9</b>
5.1 FURTHER SURVEY .....	9
5.2 BAT MITIGATION CLASS LICENCE.....	9
5.3 MITIGATION.....	9
5.4 LIGHTING.....	10
<b>6 RELEVANT PUBLICATIONS.....</b>	<b>11</b>

## SUMMARY

Updated bat emergence surveys were undertaken in June, July and August 2023 of two detached buildings at The Old School House, Ash, Kent, in support of a Natural England bat licence application for residential conversion of the site.

Three common pipistrelle day roosts were recorded. Foraging bats recorded were dominated by common pipistrelle, with occasional soprano pipistrelle, brown long eared bat, serotine, myotis Sp. and noctule passes. The roosts are likely to be day roosts of males or non-breeding females and are of low conservation significance.

A licence from Natural England is required for the conversion of the two buildings as it will result in the destruction of 2 day roosts of common pipistrelle, with potential to kill/injure the bats occupying them, which are offences under UK and European legislation. One roost feature will be retained. The updated survey data is considered to fit the criteria for a Bat Low Impact Class Licence.

Mitigation has been proposed which will include, where possible, avoidance of impacts to the roosts/ protection and retention of the roosts, sensitive working methods, and the provision of roosting features such as bat boxes and bat access tiles.

# 1 AIMS OF THE STUDY

A Preliminary Ecological Appraisal (Calumma Ecological Services, 2020) assessed two buildings (Building 1 and Building 2) to hold moderate suitability for roosting bats and further survey work was undertaken in 2020 in order to meet the following objectives: -

- Identify the presence or potential presence of roosting bats within the buildings;
- Identify the need for a European Protected Species Mitigation Licence; and
- Make recommendations for any mitigation and/or enhancement measures that may be required.

The surveys are now out of date and updated surveys have been undertaken to inform a Natural England bat licence application.

## 2 METHODOLOGY

### 2.1 Emergence Surveys

Three dusk emergence surveys were undertaken for both Building 1 and Building 2, due to the confirmed bat roosts in both buildings in 2020. Surveys were undertaken in accordance with the Bat Conservation Trust Good Practice Guidelines (2016). All features of bat roosting potential could be adequately observed by 3 surveyors per building.

The surveys started approximately 15 minutes before sunset and ended approximately 90 minutes after sunset.

Each surveyor was equipped with either Wildlife Acoustics EM Touch or Elekon Batlogger detectors, plus Nightfox Whisker or Nightfox Red InfraRed cameras.

Pre-dawn surveys were not undertaken, as it was considered that with the aid of IR cameras, an adequate assessment of all features of bat roosting potential could be undertaken during dusk emergence surveys.

The surveys were conducted by ecologist Kate Baldock MCIEEM (Level 2 bat survey licence 2015-12362-CLS-CLS), assisted by experienced bat surveyors Kathryn Clements and Dr Lee Brady MCIEEM.

### 2.2 Survey Dates, Times and Weather Conditions

Date	Sunset	Start	End	Weather	Temperature	Building(s) surveyed
22/06/2023	21:15	21:00	22:45	30% cloud, dry, still	21°C to 20°C	B2
28/06/2023	21:15	21:00	22:45	50% cloud, dry, still	21°C to 20°C	B1
06/07/2023	21:12	20:57	22:42	10% cloud, dry, still	17°C to 15°C	B2
13/07/2023	21:07	20:52	22:37	Clear, dry, light breeze	17°C to 16°C	B1
20/07/2023	21:02	20:50	22:32	Overcast, dry, still	18°C to 17°C	B2
01/08/2023	20:42	20:30	22:12	10% cloud, Dry, light breeze	17°C to 16°C	B1

**Table 1 - Survey dates, times and weather conditions**

## 3 RESULTS

### 3.1 Background

As part of the Preliminary Ecological Appraisal (Calumma, 2020), a bat risk assessment (including an internal and external inspection) was undertaken of four buildings (shown in Figure 1).

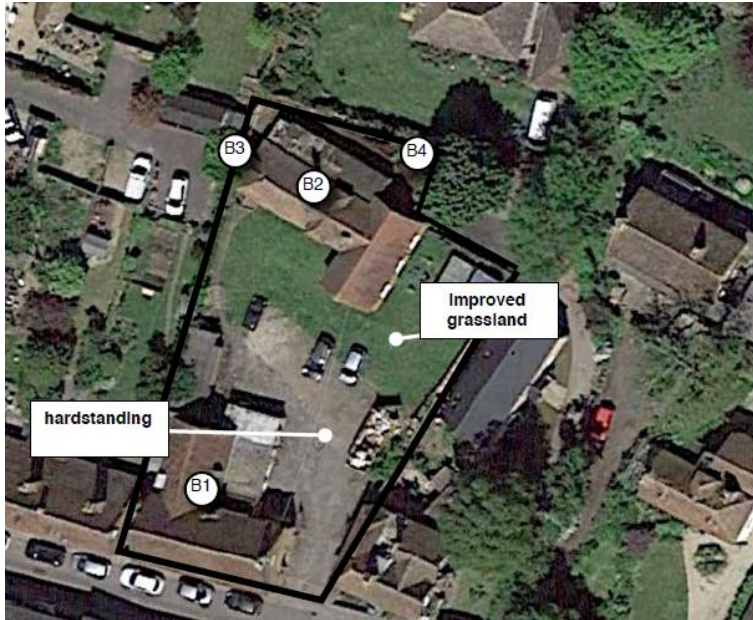


Figure 1 – Site plan, showing the buildings referred to in the text (Taken from Calumma, 2020).

#### Building Descriptions

Building 1 at the south/roadside of the site is of brick construction with a clay tile roof. There are no roof voids present, and the roof is lined with timber sarking. The building has potential for crevice dwelling bat species such as pipistrelles. There is limited potential for hibernating bats.

Building 2 at the north of the site is of brick construction with a clay tile roof. A small inaccessible roof void is present on the eastern section, and the western section is open to the roof with no void. The building has potential for crevice dwelling bat species such as pipistrelles. There is limited potential for hibernating bats.

Buildings 3 and 4, small brick outbuildings, were assessed to be of negligible suitability for roosting bats.

No trees are present within the site.

#### Previous Surveys

Buildings 1 and 2 were assessed as having moderate suitability for roosting bats (Calumma, 2020) and a series of emergence surveys was undertaken in 2020. Eight irregularly used day roosts of individual common pipistrelle, soprano pipistrelle and brown long eared bat were recorded, spread over the 2 buildings.

A peak of 3 emerging bats was recorded on any one survey visit in 2020. With the exception on the feature on the western gable end of B1 which was used on 2 occasions in the 2020 surveys, none of the features were observed to be used more than once.

## 3.2 Updated Emergence Surveys

### Building 1 (Roadside/south)

28<sup>th</sup> June 2023

At 21:35 a single common pipistrelle was recorded emerging from a gap in the masonry in the south western gable end of Building 1. A moderate level of activity was recorded throughout the survey. Activity was dominated by a single foraging common pipistrelle within the site, with occasional serotine, noctule and a single myotis sp. passes.



13<sup>th</sup> July 2023

At 21:26 a single common pipistrelle was recorded emerging from the same gap as on the previous survey. A moderate level of activity was recorded throughout the survey. Activity was dominated by a single foraging common pipistrelle within the site, with occasional serotine and soprano pipistrelle passes.

1<sup>st</sup> August 2023

At 21:05, a single common pipistrelle was recorded emerging from the apex of the north facing gable end of Building 1. A moderate level of activity was recorded throughout the survey. Activity was dominated by a single foraging common pipistrelle within the site, with a single brown long eared bat pass.





## **Building 2 (Rear/north)**

22<sup>nd</sup> June 2023

No bats were seen to emerge. A moderate level of activity was recorded throughout the survey. Activity was dominated by a single foraging common pipistrelle within the site, with occasional noctule passes.

6<sup>th</sup> July 2023

At 21:11 a single common pipistrelle emerged from the south western porch area of B2.

A moderate level of activity was recorded throughout the survey. Activity was dominated by a single foraging common pipistrelle within the site, with occasional noctule and soprano pipistrelle passes.



20<sup>th</sup> July 2023

No bats were seen to emerge. A moderate level of activity was recorded throughout the survey. Activity was dominated by a single foraging common pipistrelle within the site, with occasional noctule, brown long eared bat and myotis sp. passes.

## 4 IMPACT ASSESSMENT

### 4.1 Limitations

The surveys were undertaken within the optimum time period for carrying out bat activity surveys, and all features of bat potential could be seen. There were therefore no constraints to the survey.

### 4.2 Potential Impacts

Unmitigated conversion of the buildings has the potential to result in the damage/destruction/obstruction of three occasionally used common pipistrelle day roosts and potentially kill/injure/disturb roosting bats, all of which are offences under UK and European legislation.

In Building 1, two small day roosts (of individual bats) were recorded in 2023.

- 1 x common pipistrelle day roost in a gap in the mortar at the south western gable end. **This feature will be retained. There will be limited disturbance to a single bat.**
- 1 x common pipistrelle day roost under the fascia at the apex of the northern gable end. **This is likely to be destroyed during re-roofing work.**

In Building 2, one small day roost (of an individual bat) was recorded in 2023.

- 1 x common pipistrelle day roost in the south western porch area. **This feature will be destroyed during re-roofing work.**

Bats were not recorded using these roosts on a regular basis. It is considered that these are occasionally used day roosts of individual bats, likely males or non-breeding females. The roosts are of low conservation significance which are a common feature in the landscape. The predicted impacts are therefore expected to be at the site level only and will be offset by compensatory roost features.

There has been a reduction in the number of roost features used since 2020. The roosts in 2020 were only occasionally used by bats (with the exception on the feature on the western gable end of B1 which was used on 2 occasions in the 2020 surveys, is still in use and will be retained) no features were seen to be used more than once. The 2023 surveys are considered to show a robust assessment and current indication of the bat roosts within the site.

The measures detailed in Section 5 will ensure that there will be a net increase in roosting opportunities. It is not anticipated that there will be any detrimental impacts on the favourable conservation status of bats as a result of the proposals.

## 5 RECOMMENDATIONS AND MITIGATION

### 5.1 Further Survey

If the proposed development does not proceed within 12 months of the date of this report, an updated survey is recommended to confirm if the results of the current survey are still valid, and that the mitigation is still appropriate. For licencing purposes, Natural England require survey data to be '*up to date and have been conducted within the current or most recent optimal season*'.



### 5.2 Bat Mitigation Class Licence

The updated survey data has confirmed the presence of 3 common pipistrelle day roosts, 2 of which will be destroyed and one which will be retained. The proposed conversion is considered to fit the criteria for a Bat Mitigation Class Licence from Natural England, which can be used for small numbers of roosts of low conservation significance.

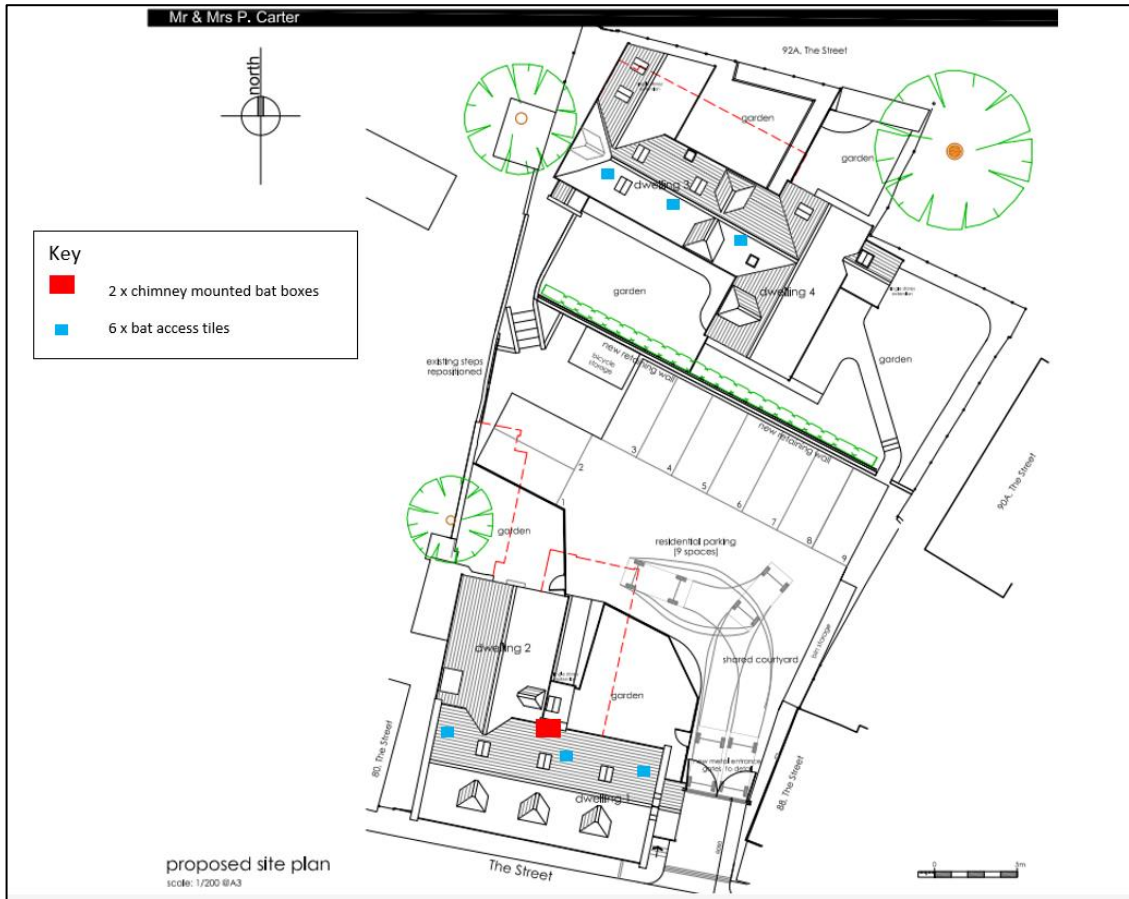
### 5.3 Mitigation

To minimise impacts to bats and their roosts, the following mitigation measures must be followed once the licence has been granted:

- Hand removal of the features used by roosting bats (and any features deemed by the ecologist to have suitability for roosting bats), supervised by a bat licenced ecologist. Although the buildings are of low suitability for hibernating bats, it is recommended that the winter months (November to March) are avoided to minimise the risk of encountering hibernating bats which are extremely vulnerable to disturbance.
- **Breathable roofing membranes must not be used, as bats can become entangled in them. Instead, 1F bitumen felt should be used.**
- Provision of 8 roost features within the site as shown in Table 2 and Figure 2. These show indicative locations, which can be discussed on site with the roofing team to identify the most appropriate locations.

Type and description	Source	Photograph	Number and location
<p><u>Heritage Clay Bat Access Tile</u> The top tile features a raised tunnel and the two lower tiles have cutaway sections; in combination, these provide a roost space for bats to crawl into between the tiles and felt.</p>	<p><a href="#">Heritage Clay Bat Access Tiles   NHBS Practical Conservation Equipment</a></p>		<p>6  3 on B1 and 3 on B2 on the south facing pitch.</p>
<p><u>Crevice Bat Box</u> Crevice style bat box to be used to re-house any bats found during roof removal</p>	<p><a href="#">Crevice Bat Box   The Nestbox Company</a></p>		<p>2  To be installed on the chimney of B1 to be used to relocate bats found during roof removal.</p>

**Table 2 – Suggested mitigation**



**Figure 2 – Indicative location of bat boxes/access tiles**

## 5.4 Lighting

As bats were recorded within the site, it is recommended that any lighting is designed to minimise impact on foraging/commuting bats.

If lighting is required, this should be low or zero UV, which is preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas.

Lighting should be directed away or shielded from any green areas/woodland/hedgerows, and bat boxes to allow bats safe foraging routes where they will not be visible to predators.

## 6 RELEVANT PUBLICATIONS

**BCT (2016).** *Bat Surveys – Good Practice Guidelines*. 3<sup>rd</sup> Edition. Bat Conservation Trust, London, UK.

**Calumma Ecological Services (2020).** Preliminary Ecological Appraisal – The Old School House, Ash, Kent. Calumma Ecological Services.

**English Nature (2002).** *Bats in roofs: a guide for surveyors*. English Nature, Peterborough, UK.

**Gunnel, K., Murphy, B. & Williams, C. (2013).** *Designing for Biodiversity: A technical guide for new and existing buildings*. RIBA, UK

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