

**Brook Farm  
Barkham Street  
Barkham  
Wokingham  
RG40 4PH**

## **Bat Emergence Survey**

Report ref.: R2968\_BES\_a

| <b>Report Quality Control Information</b> |                                                    |
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## 1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was instructed by Jackie Chard to undertake a Bat Emergence Survey (BES) at Brook Farm, Barkham Street in Barkham, Wokingham. The BES was commissioned to accompany a planning application to be submitted to Wokingham Borough Council seeking consent for construction of a new dwelling following the demolition of the existing dwelling and outbuilding.
- 1.1.2** The BES follows a Preliminary Roost Assessment for bats (PRA) conducted by John Wenman Ecological Consultancy in June 2025 (Report ref.: R2968\_PRA\_a). During the PRA, approximately 30 small-sized bat droppings typical of crevice dwelling bats species were found scattered on top of the fibreglass insulation covering the floor below the ridge. Furthermore, potential roost features were identified externally including frequent raised overlapping plain tiles; broken and missing plain tiles across the roof; missing ridge mortar; a damaged section of soffit; and missing verge mortar. Based on the findings in the PRA, the property was considered to be a confirmed roost used by *Pipistrellus* species and was classified as high potential suitability for roosting bats. In line with good practice guidelines (Collins 2023), three dusk emergence survey visits were undertaken and completed on the 19<sup>th</sup> May, 9<sup>th</sup> June and 30<sup>th</sup> June 2026.
- 1.1.3** During two of the three surveys, a maximum count of one common pipistrelle (*Pipistrellus pipistrellus*) bat was recorded emerging from two different access points: gaps underneath ridge tiles near the chimney on the northern and southern elevations of the house. These findings, along with the observation of approximately 30 small-sized bat droppings within the roof void is consistent with the building acting as a summer day roost for an individual or small number of non-breeding common pipistrelle (*P. pipistrellus*) bats.
- 1.1.4** The development proposals will directly lead to the permanent damage and disturbance of the day roosts within the property. Therefore, a European Protected Species Mitigation Licence (EPSML) or confirmation of the registration of the site under the Bat Mitigation Class Licence (BMCL) (Low Impact) WML-CL21/Earned Recognition Licence WML-CL47 will be obtained.
- 1.1.5** This report contains information regarding a mobile species so it will likely be valid for up to 12 months only (CIEEM 2019b).

## **2 INTRODUCTION**

### **2.1 Project Background**

**2.1.1** John Wenman Ecological Consultancy LLP was instructed by Jackie Chard to undertake a Bat Emergence Survey (BES) at Brook Farm, Barkham Street in Barkham, Wokingham.

**2.1.2** The BES was commissioned to accompany a planning application to be submitted to Wokingham Borough Council seeking consent for the construction of a new dwelling following the demolition of the existing dwelling and outbuilding (See proposed plans in **Appendix 3**).

**2.1.3** The BES follows a Preliminary Roost Assessment for bats (PRA) conducted by John Wenman Ecological Consultancy in June 2025 (Report ref.: R2968\_PRA\_a). The PRA report states the following:

*'The roof void is a sub-optimal size for the internal flight exhibited by void-dwelling bats, such as the common brown long-eared (P. auritus), and there was no evidence of presence (i.e. medium-sized bat droppings) during the internal inspection. Therefore, it is considered highly unlikely that void-dwelling bats are present in the house.*

*The observation of approximately 30 small-sized bat droppings, resembling those typically deposited by pipistrelle species (Pipistrellus spp.), present on the fibreglass below the ridge inside the roof void is consistent with the house supporting a summer day roost by individual or small numbers of bats. The distribution of the bat droppings internally corresponds to the potential access points associated with the gaps under roof tiles and below the ridge, and confirms the presence of a roost. Evidence of crevice roosting species is typically hidden from view in areas such as gaps between tiles and internal linings/insulation.*

*The property had several potential bat access points to the exterior, such as frequent raised overlapping plain tiles; broken and missing plain tiles across the roof; missing ridge mortar; a damaged section of soffit; missing verge mortar. The features identified have the potential to provide sufficient space, shelter, protection and conditions for use by individual crevice-dwelling bats, such as the locally recorded common pipistrelle (Pipistrellus pipistrellus) and soprano pipistrelle (Pipistrellus pygmaeus) bats.*

*Due to the nature and scale of the potential roost sites, the house is considered to have the potential to support use by individual or small numbers of non-breeding small crevice-dwelling bats and as such, has been classified as high suitability.*

**2.1.4** The PRA report recommends the following:

*‘A minimum of three dusk emergence survey visits should be undertaken in the period of May to September, with at least two of the surveys between May and August; the survey visits should be spaced at least three weeks apart. If roosting bats are present, these survey visits enable the roost characterisation necessary to inform an impact assessment and mitigation strategy.’*

**2.2 Site Location and Context**

**2.2.1** The site includes a detached house located on the eastern side of Barkham Street in Barkham, Wokingham (OS grid reference: SU 7813 6669).

**2.2.2** The site is situated adjoining a farm set amongst stables and storage buildings, with other detached neighbouring residential properties along Barkham Street to the south and west. The semi-rural setting is characterised by pastoral farmland with established hedgerows/tree-lines, the Barkham Brook (approx. 120m south), ponds and pockets of deciduous woodland.

**2.3 Report Objectives**

**2.3.1** The aim of the BES is to characterise the confirmed bat roosts and determine if there are any additional roosts present in the property. The emergence survey findings inform an impact assessment and mitigation strategy for the development proposals and ascertain whether a European Protected Species (EPS) mitigation licence would be required to allow the works to proceed lawfully.

### **3 LEGISLATIVE AND POLICY BACKGROUND**

#### **3.1 Relevant Legislation**

**3.1.1** In England and Wales, all bat species found in the wild are fully protected under the Wildlife & Countryside Act 1981 (as amended) (WCA) and Conservation of Habitats and Species Regulations 2017 (as amended); the regulations are commonly referred to as the Habitat Regulations and hereafter referred to as such. The Habitat Regulations refer to European Protected Species (EPS) and all species of bats in the United Kingdom (UK) are EPS. Although the UK left the European Union on the 31<sup>st</sup> January 2020 and is therefore no longer tied to European legislation, the Habitat Regulations have been retained in their current format.

**3.1.2** The legal framework underpinned by the WCA and Habitat Regulations makes these specific actions an offence as follows:

- Deliberately kill, injure, capture or take a wild bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or to significantly affect local distribution or abundance;
- Damage or destroy a place used by a bat for breeding or resting; and
- Intentionally or recklessly obstruct access to any place used by a bat for shelter or protection.

#### **3.2 Planning Policy**

**3.2.1** The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England. Government planning policy, such as the ODPM Circular 06/2005, requires LPAs to account for the conservation of protected species when considering and determining planning applications.

**3.2.2** The ODPM Circular 06/2005 states that ‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.’ This policy means that in instances where there is a reasonable likelihood of bats being present and affected by a development, surveys must be undertaken to inform a mitigation strategy to be agreed prior to granting planning permission.

### 3.3 Mitigation Licensing

**3.3.1** The government's statutory nature conservation body, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (2)(e) – the derogation is for the purposes of '*preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.*'
- (9)(a) – there is '*no satisfactory alternative*' to the derogation; and
- (9)(b) – '*the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*'

**3.3.2** LPAs have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations to consider and determine whether these three tests are likely to be satisfied by planning proposals affecting EPS before granting planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

**3.3.3** The Bat Mitigation Class Licence (BMCL) and Earned Recognition Licence (WML-CL47 – Level 1) scheme allows ecologists to apply to become Registered Consultants to use this licences for low conservation status roosts, i.e. roosts comprising small numbers of seven commonly occurring species. Site registration forms must be completed as a condition of the licence and submitted to Natural England at least three weeks before the licensable activities are due to start; Natural England aims to register sites within two weeks of submission.

**3.3.4** Baseline survey information supporting EPS mitigation licence applications or BMCL/Earned Recognition Licence site registrations must be up-to-date and have been completed within the current or most recent optimal season. A suitably experienced ecologist will be required to undertake a site walkover/check within three months prior to application/registration submission to confirm that conditions have not changed since the most recent survey.

## **4 SURVEY METHODOLOGY**

### **4.1 Background Data Search**

- 4.1.1** The MAGIC website was used to search for previous European Protected Species (EPS) licenses granted within a 2km radius.

### **4.2 Emergence Survey**

- 4.2.1** In line with good practice guidelines (Collins 2023), three dusk emergence survey visits were undertaken for the property and these were on the 19<sup>th</sup> May, 9<sup>th</sup> June and 30<sup>th</sup> June 2026. The survey visits were undertaken by bat surveyors: John Wenman (2025-85948-CL18-BAT), Meghan Porter-Smith (2025-86253-CL17-BAT), Hannah McEwen, Lauren Hayward and Caroline Everett. Three surveyors covered all aspects of the property during each survey – refer to emergence survey plan in **Section 5** below.
- 4.2.2** The equipment used during the survey included full-spectrum sampling bat detectors (Batlogger M and Batlogger M2) and infrared/thermal imaging night vision aids (Pixfra ARC A613 and Sony Handycam with infrared floodlights/torches). A still shot of the darkest point/viewpoint of the surveys has been included for all night vision aids in **Appendix 1**.
- 4.2.3** The emergence surveys started 15 minutes before sunset and continued for 1 hour and 30 minutes after sunset. Within a five-day period after the survey, the bat call recordings were processed and analysed using the BatExplorer computer software packages and the night vision video footage was reviewed in the VLC Media Player.
- ### **4.3 Survey Limitations and Report Validity**
- 4.3.1** There were no significant constraints to the bat emergence surveys, which were undertaken during the optimal survey season, i.e. May to August, (particularly for detecting and characterising breeding roosts) and in conditions suitable for bat activity, i.e. dry and calm with air temperatures 10°C or above at sunset (Collins 2023).
- 4.3.2** This report contains information regarding a mobile species so it will likely be valid for up to 12 months only (CIEEM 2019b).

## 5 SURVEY RESULTS

### 5.1 Overview

- 5.1.1** The results from the data search are detailed below. The bat emergence survey findings are described, summarised in **Tables 1 – 6** and **Photographs 1 & 2**, and illustrated in **Figure 1** below; the raw detector data is supplied in **Appendix 2**.

### 5.2 Background Data Search

- 5.2.1** The MAGIC website was used to search for previous European Protected Species (EPS) licenses granted within a 2km radius.
- 5.2.2** The MAGIC search showed ten bat mitigation licences have been granted within a 2-kilometre radius of the property in the last 10 years, for five different species including common pipistrelle (*P. pipistrellus*), soprano pipistrelle (*P. pygmaeus*), brown long-eared bat (*P. auritus*), Natterer's bat (*Myotis nattereri*) and serotine (*Eptesicus serotinus*). The nearest licence - for a site approximately 990 metres south of the property - covered the destruction of a *P. pipistrellus* and *P. pygmaeus* breeding site and resting place (Case ref.: 2016-24999-EPS-MIT-1).

### 5.3 Emergence Survey

19<sup>th</sup> May 2026

- 5.3.1** No bats were observed emerging from the house during the survey.

Table 1. Weather conditions and survey timings

| Weather | Wind (BF0-12) | Cloud cover (%) | Rain  | Temperature (°C) |        |
|---------|---------------|-----------------|-------|------------------|--------|
|         | 3-4           | 100             | None  | Start            | Finish |
| Start   | 20:39         | Sunset          | 20:54 | Finish           | 22:24  |

Table 2a. Surveyor recordings at location 1 (HM)

| Species             | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|---------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle  | 8           | 0           | 21:00 (6)                                 |
| Soprano pipistrelle | 2           | 0           | 21:22 (28)                                |
| Noctule             | 2           | 0           | 22:22 (88)                                |

Table 2b. Surveyor recordings at location 2 (JW)

| Species             | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|---------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle  | 2           | 0           | 21:00 (6)                                 |
| Soprano pipistrelle | 2           | 0           | 21:22 (28)                                |
| Noctule             | 2           | 0           | 21:40 (46)                                |

Table 2c. Surveyor recordings at location 3 (LH)

| Species             | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|---------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle  | 42          | 0           | 20:50 (- 4)                               |
| Soprano pipistrelle | 1           | 0           | 21:25 (31)                                |
| Noctule             | 1           | 0           | 21:40 (46)                                |

\*recordings are the number of times that the detector was triggered when bat calls were detected.

†confirmed by direct observation and/or night vision aid.

**5.3.2** The first recorded bat was a common pipistrelle (*P. pipistrellus*) heard by the surveyor at Location 3 at 20:50 (4 minutes before sunset) (early in the typical emergence period for this species; Collins 2023) and seen foraging along the treeline to the west of the house. Soprano pipistrelle (*P. pygmaeus*) bats were first recorded at 22:22 (28 minutes after sunset) by the surveyors at Location 1 & 2, which falls within the typical emergence period for this species. However, noctule (*Nyctalus noctula*) was first heard at 21:40 (46 minutes after sunset) by the surveyor at Location 2 & 3, which falls outside the typical emergence period for this species (Collins 2023).

**5.3.3** Activity was generally low with mostly common pipistrelle (*P. pipistrellus*) foraging activity around the boundary hedgerows to the north and west and over the roof of the house, flying east to west.

9<sup>th</sup> June 2026

**5.3.4** One common pipistrelle (*P. pipistrellus*) bat was observed emerging from below a lifted ridge tile on the northern elevation of the house, by the surveyor at Location 1 at 21:41 (24 minutes after sunset) (**Photograph 1**).



Photograph 1. Common pipistrelle emergence at 21:41 (Surveyor Location 1).

Table 3. Weather conditions and survey timings

| Weather | Wind (BF0-12) | Cloud cover (%) | Rain  | Temperature (°C) |        |
|---------|---------------|-----------------|-------|------------------|--------|
|         | 1             | 0               | None  | Start            | Finish |
| Start   | 21:02         | Sunset          | 21:17 | Finish           | 22:47  |

Table 4a. Surveyor recordings at location 1 (HM)

| Species             | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|---------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle  | 17          | 1           | 21:41 (24)                                |
| Soprano pipistrelle | 5           | 0           | 21:59 (42)                                |

Table 4b. Surveyor recordings at location 2 (MPS)

| Species             | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|---------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle  | 15          | 0           | 21:56 (39)                                |
| Soprano pipistrelle | 1           | 0           | 21:59 (42)                                |

Table 4c. Surveyor recordings at location 3 (LH)

| Species             | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|---------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle  | 18          | 0           | 21:41 (24)                                |
| Soprano pipistrelle | 2           | 0           | 21:44 (27)                                |

\*recordings are the number of times that the detector was triggered when bat calls were detected.

†confirmed by direct observation and/or night vision aid.

**5.3.5** The first bat recorded was the emerging common pipistrelle (*P. pipistrellus*) at 21:41 (24 minutes after sunset) seen and heard by the surveyor at Location 1 and heard by the surveyor at Location 3. Soprano pipistrelle (*P. pygmaeus*) bats were first recorded by the surveyor at Surveyor Location 3 at 21:44 (27 minutes after sunset), which falls within the typical emergence period of this species, indicating that this species is likely to be roosting nearby (Collins 2023).

**5.3.6** The amount of activity was generally low throughout the survey, consisting mostly of *P. pipistrellus* foraging activity across the all elevations of the building, and along the northern and southern and western treeline boundaries.

30<sup>th</sup> June 2026

**5.3.7** One common pipistrelle (*P. pipistrellus*) bat was observed emerging from below a lifted roof tile below the ridge on the southern elevation of the house by the surveyors at Location 2 and 3 at 21:47, 24 minutes after sunset (**Photograph 2**).



Photograph 2. Common pipistrelle emergence from below roof tile at 21:47 (Surveyor Location 3).

Table 5. Weather conditions and survey timings

| Weather | Wind (BF0-12) | Cloud cover (%) | Rain  | Temperature (°C) |        |
|---------|---------------|-----------------|-------|------------------|--------|
|         | 1             | 90              | None  | Start            | Finish |
| Start   | 21:08         | Sunset          | 21:23 | Finish           | 22:53  |

Table 6a. Surveyor recordings at location 1 (CE)

| Species                | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|------------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle     | 127         | 0           | 22:07 (44)                                |
| Soprano pipistrelle    | 1           | 0           | 22:43 (80)                                |
| Noctule                | 1           | 0           | 22:29 (66)                                |
| Nathusius' Pipistrelle | 1           | 0           | 22:47 (84)                                |

Table 6b. Surveyor recordings at location 2 (MPS)

| Species                | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|------------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle     | 211         | 1 (@21:47)  | 21:42 (19)                                |
| Noctule                | 3           | 0           | 21:50 (27)                                |
| Social calls           | 3           | 0           | 22:06 (43)                                |
| Nathusius' Pipistrelle | 1           | 0           | 22:48 (85)                                |

Table 6c. Surveyor recordings at location 3 (LH)

| Species                | Recordings* | Emergences† | Time of first call (minutes after sunset) |
|------------------------|-------------|-------------|-------------------------------------------|
| Common pipistrelle     | 149         | 1 (@21:47)  | 21:24 (1)                                 |
| Soprano pipistrelle    | 2           | 0           | 21:49 (26)                                |
| Noctule                | 2           | 0           | 21:49 (26)                                |
| Nathusius' Pipistrelle | 1           | 0           | 22:46 (83)                                |

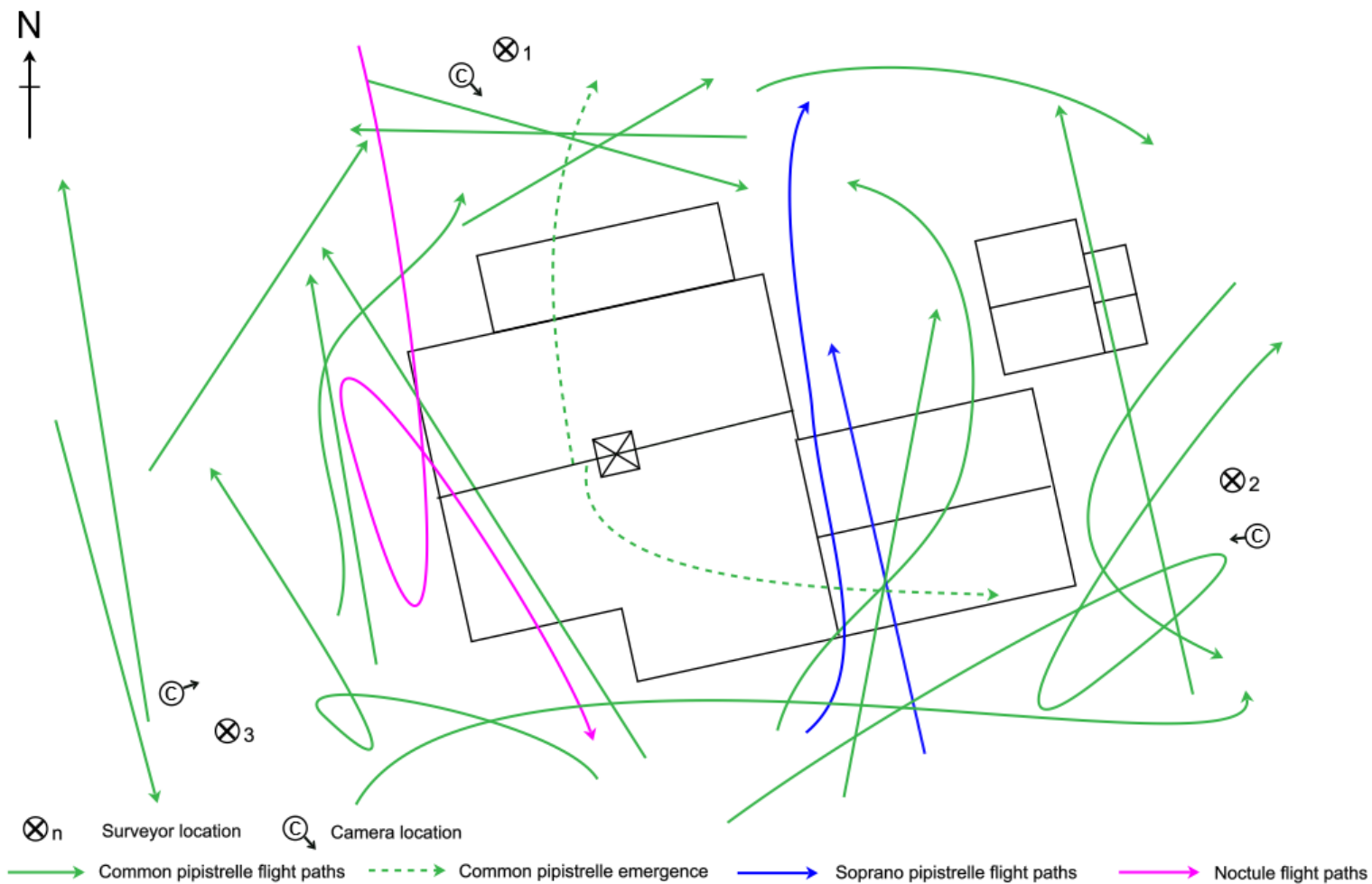
\*recordings are the number of times that the detector was triggered when bat calls were detected.

†confirmed by direct observation and/or night vision aid.

- 5.3.8** The first recorded bat was a common pipistrelle (*P. pipistrellus*) at 21:24 (1 minute after sunset) by the surveyor at Location 3 and was seen foraging along the treeline to the west of the house. Soprano pipistrelle (*P. pygmaeus*) bats were first recorded by the surveyor at Surveyor Location 3 at 21:49 (26 minutes after sunset). Noctule (*Nyctalus noctula*) bats were first recorded by the surveyor at Location 3 at 21:49 (26 minutes

after sunset). These first recorded passes fall within the typical emergence period for this species (Collins 2023), indicating that this species is likely roosting nearby.

- 5.3.9** Nathusius' pipistrelle (*Pipistrellus nathusii*) were first recorded by the surveyor at Location 3 at 22:46 (83 minutes after sunset), which does not fall within the typical emergence period for this species (Collins 2023), thus this species is unlikely to be roosting nearby.
- 5.3.10** The amount of activity was high throughout the survey, consisting mostly of *P. pipistrellus* foraging activity and occasional foraging passes from *N. noctule* and *P. pygmaeus* across the all elevations of the building, and along the northern and southern and western treeline boundaries.



|           |           |              |                               |  |
|-----------|-----------|--------------|-------------------------------|--|
| Drawn by: | Date:     | Scale:       | Brook Farm, Barkham           |  |
| LH        | July 2026 | Not to scale | Bat Emergence Survey Findings |  |

Figure 1 – Bat Emergence Survey Findings – Emergence Locations and Flight Paths

## 6 DISCUSSION AND RECOMMENDATIONS

### 6.1 Assessment of Bat Roost Status

**6.1.1** During two of the emergence surveys, one common pipistrelle bat (*Pipistrellus pipistrellus*) was recorded emerging from two different access points below a ridge tiles on the northern and southern elevations of the property (**Photographs 1 and 2**). These findings, along with the observation of approximately 30 small-sized bat droppings typical of crevice dwelling bats species, found on top of the fibreglass insulation lining the floor along the ridge during PRA, is consistent with the building acting as a day roost, using two access points (i.e. summer resting place used by individual or small groups of male or non-breeding bats) for common pipistrelle bats (*P. pipistrellus*).

**6.1.2** Common pipistrelle (*P. pipistrellus*) is a crevice-dwelling species that is one of the most abundant and widespread bats in Great Britain. This species occurs in almost any habitat type and is well adapted to the built environments; they are one of the species most regularly reported roosting in houses and churches (Mathews *et al.* 2018). Day roosts of this species hold site level conservation importance only and the loss of such roosts is not usually significant beyond the scale of the site (Reason & Wray 2025).

### 6.2 Impact Assessment

**6.2.1** The survey data demonstrates that the planning application seeking consent for the construction of a new single dwelling following the demolition of the existing dwelling and outbuilding, will result in the destruction of a confirmed common pipistrelle bat (*P. pipistrellus*) day roost. In the absence of mitigation measures, the works could cause disturbance, injury and or death of bats.

**6.2.2** A European Protected Species Mitigation Licence (EPSML) will be required to allow the work to proceed lawfully, and the survey findings establish that the site would qualify for registration under the 'low impact' Bat Mitigation Class Licence (BMCL) WML-CL21 or the Earned Recognition Licence WML-CL47 (Level 1). Under the terms of a full EPSML, BMCL or Earned Recognition Licence, mitigation for the impacts of the work will be required in order to avoid harming bats and the mitigation proposals detailing the strategy to be adopted are set out in **Section 7** below.

## **7 MITIGATION PROPOSALS**

- 7.1.1** Before the licensable work commences i.e. removal of ridge tiles associated with the roost, a European Protected Species Mitigation Licence (EPSML) or confirmation of the registration of the site under the Bat Mitigation Class Licence (BMCL) (Low Impact) WML-CL21 or Earned Recognition Licence WML-CL47 will be obtained. The presence of one day roosts falls under the criteria for the BMCL/Earned Recognition Licence (Level 1).
- 7.1.2** Before the soft strip begins, the licensed ecologist or 'Registered Consultant' if working under the BMCL/Earned Recognition Licence, will give a toolbox talk to the contractors on site detailing bats are present, the legislation protecting bats, the location of the roost sites in the property, good working practices, the measures that are required to protect bats during the work and what to do if bats are found. A copy of the licence will be available for inspection on site during all licensable works.
- 7.1.3** The soft strip will be undertaken outside of the winter hibernation season (mid-November to February) to minimise the risk of disturbing torpid bats. A woodcrete bat box will be fixed to a suitable mature tree or purpose-built pole on site prior to the works starting and will be in place for a minimum of five years (boxes can only be removed after the five years if no evidence of use has been found at this stage).
- 7.1.4** The ridge tiles and rows of roof tiles directly below the ridge will be carefully removed by gloved hands under the supervision of a licensed ecologist, or Registered Consultant if working under the BMCL/Earned Recognition Licence. If bat(s) are discovered during the work, the licensed ecologist or Registered Consultant would capture the bat(s) and transfer it/them directly to a bat box erected in advance of the works.
- 7.1.5** In the long-term, further roosting opportunities will be created within the new property to include bat access roof tiles as close to the existing roosting location as possible, to replace the lost roost and an integrated bat box in the eastern gable to provide enhanced roosting opportunities for crevice-dwelling bats (See Proposed Bat Roost Mitigation in **Appendix 4**).
- 7.1.6** Any insulation/lining to be used under the new roof will either be a bituminous 1F felt or a bat safe roofing membrane with a certificate that proves that it has passed Natural England's 'snagging propensity test' e.g. TLX Batsafe.

## 8 REFERENCES

CIEEM (2019b). *Advice Note on the Lifespan of Ecological Reports and Surveys*. CIEEM, Winchester.

Collins, J (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> edition)*. The Bat Conservation Trust, London.

Mathews F., Kubasiewicz L.M., Gurnell J., Harrower C.A., McDonald R.A., Shore R.F. (2018). *A Review of the Population and Conservation Status of British Mammals*. A report by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage. Natural England, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual (3<sup>rd</sup> edition)*. JNCC, Peterborough.

Reason, P.F. and Wray, S. (2025). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. CIEEM, Ampfield.

## APPENDIX 1 – DARKEST POINT OF SURVEY AND/OR VIEWPOINT FOR NIGHT VISION AIDS

19<sup>th</sup> May 2026



*Nightfox Whisker at Surveyor Location 1.*



*Pixfra ARC A613 at Surveyor Location 2.*



*Pixfra ARC A613 at Surveyor Location 3.*

9<sup>th</sup> June 2026



*Nightfox Whisker at Surveyor Location 1.*



*Pixfra ARC A613 at Surveyor Location 2.*



*Pixfra ARC A613 at Surveyor Location 3.*

30<sup>th</sup> June 2026



*Sony Handycam at Surveyor Location 1.*



*Pixfra Arc A613 at Surveyor Location 2.*



*Pixfra ARC A613 at Surveyor Location 3.*

## APPENDIX 2 – BAT EMERGENCE SURVEY RAW DATA TABLES

19<sup>th</sup> May 2026

Surveyor Location 1 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:00 | <i>Pipistrellus pipistrellus</i> | 22                  |
| 21:22 | <i>Pipistrellus pygmaeus</i>     | 11                  |
| 21:32 | <i>Pipistrellus pipistrellus</i> | 4                   |
| 21:34 | <i>Pipistrellus pygmaeus</i>     | 10                  |
| 21:36 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 21:36 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 21:40 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 21:50 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 21:56 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:22 | <i>Nyctalus noctula</i>          | 2                   |
| 22:22 | <i>Nyctalus noctula</i>          | 3                   |

Surveyor Location 2 – Batlogger M1

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:00 | <i>Pipistrellus pipistrellus</i> | 19                  |
| 21:22 | <i>Pipistrellus pygmaeus</i>     | 4                   |
| 21:34 | <i>Pipistrellus pygmaeus</i>     | 7                   |
| 21:40 | <i>Nyctalus noctula</i>          | 4                   |
| 21:56 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:22 | <i>Nyctalus noctula</i>          | 4                   |

Surveyor Location 3 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 20:50 | <i>Pipistrellus pipistrellus</i> | 20                  |
| 20:54 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 20:58 | <i>Pipistrellus pipistrellus</i> | 33                  |
| 20:58 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 20:59 | <i>Pipistrellus pipistrellus</i> | 4                   |
| 20:59 | <i>Pipistrellus pipistrellus</i> | 19                  |
| 20:59 | <i>Pipistrellus pipistrellus</i> | 39                  |
| 21:00 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 21:00 | <i>Pipistrellus pipistrellus</i> | 20                  |
| 21:01 | <i>Pipistrellus pipistrellus</i> | 21                  |
| 21:02 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 21:02 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 21:02 | <i>Pipistrellus pipistrellus</i> | 13                  |
| 21:02 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 21:05 | <i>Pipistrellus pipistrellus</i> | 16                  |
| 21:05 | <i>Pipistrellus pipistrellus</i> | 36                  |
| 21:05 | <i>Pipistrellus pipistrellus</i> | 20                  |
| 21:06 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 21:06 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 21:07 | <i>Pipistrellus pipistrellus</i> | 22                  |
| 21:11 | <i>Pipistrellus pipistrellus</i> | 11                  |

|       |                                  |    |
|-------|----------------------------------|----|
| 21:19 | <i>Pipistrellus pipistrellus</i> | 14 |
| 21:25 | <i>Pipistrellus pygmaeus</i>     | 16 |
| 21:31 | <i>Pipistrellus pipistrellus</i> | 5  |
| 21:31 | <i>Pipistrellus pipistrellus</i> | 17 |
| 21:31 | <i>Pipistrellus pipistrellus</i> | 3  |
| 21:31 | <i>Pipistrellus pipistrellus</i> | 9  |
| 21:34 | <i>Pipistrellus pipistrellus</i> | 5  |
| 21:34 | <i>Pipistrellus pipistrellus</i> | 13 |
| 21:34 | <i>Pipistrellus pipistrellus</i> | 6  |
| 21:34 | <i>Pipistrellus pipistrellus</i> | 8  |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 17 |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 5  |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 14 |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 8  |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 1  |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 19 |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 23 |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 18 |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 21 |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 14 |
| 21:40 | <i>Nyctalus noctula</i>          | 5  |
| 21:44 | <i>Pipistrellus pipistrellus</i> | 8  |
| 21:55 | <i>Pipistrellus pipistrellus</i> | 1  |

9<sup>th</sup> June 2026

Surveyor Location 1 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:41 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 21:51 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 21:56 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 21:59 | <i>Pipistrellus pygmaeus</i>     | 7                   |
| 22:02 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 13                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 4                   |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 13                  |
| 22:16 | <i>Pipistrellus pygmaeus</i>     | 19                  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:20 | <i>Pipistrellus pygmaeus</i>     | 7                   |
| 22:20 | <i>Pipistrellus pygmaeus</i>     | 3                   |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 3                   |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:26 | <i>Pipistrellus pygmaeus</i>     | 14                  |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 4                   |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 7                   |

Surveyor Location 2 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:56 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 21:59 | <i>Pipistrellus pygmaeus</i>     | 6                   |
| 22:02 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 18                  |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:43 | <i>Pipistrellus pipistrellus</i> | 4                   |

Surveyor Location 3 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:41 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 21:44 | <i>Pipistrellus pygmaeus</i>     | 12                  |
| 21:44 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 21:51 | <i>Pipistrellus pygmaeus</i>     | 2                   |
| 21:51 | <i>Pipistrellus pipistrellus</i> | 2                   |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 17                  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 6                   |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 0*                  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 0*                  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 3                   |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 13                  |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 22:40 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:40 | <i>Pipistrellus pipistrellus</i> | 4                   |

30th June 2026

Surveyor Location 1 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 22:07 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 2                   |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 17                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 17                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 6                   |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 3                   |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 1                   |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 9                   |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:14 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 26 |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 25 |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:20 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 3  |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:22 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 29 |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:29 | <i>Nyctalus noctula</i>          | 5  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:32 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:32 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 7  |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:36 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:40 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:42 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:43 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:43 | <i>Pipistrellus pygmaeus</i>     | 0* |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:46 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:47 | <i>Pipistrellus nathusii</i>     | 6  |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 36 |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:53 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:53 | <i>Pipistrellus pipistrellus</i> | 11 |

Surveyor Location 2 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:42 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 21:47 | <i>Pipistrellus pipistrellus</i> | 16                  |
| 21:50 | <i>Nyctalus noctula</i>          | 14                  |
| 21:50 | <i>Nyctalus noctula</i>          | 5                   |
| 22:02 | <i>Pipistrellus pipistrellus</i> | 38                  |
| 22:02 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:02 | <i>Pipistrellus pipistrellus</i> | 18                  |
| 22:03 | <i>Pipistrellus pipistrellus</i> | 35                  |
| 22:04 | <i>Pipistrellus pipistrellus</i> | 6                   |
| 22:04 | <i>Pipistrellus pipistrellus</i> | 22                  |
| 22:04 | <i>Pipistrellus pipistrellus</i> | 30                  |
| 22:04 | <i>Pipistrellus pipistrellus</i> | 19                  |
| 22:04 | <i>Pipistrellus pipistrellus</i> | 22                  |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 22                  |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 17                  |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 13                  |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:05 | <i>Pipistrellus pipistrellus</i> | 20                  |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 16                  |
| 22:06 | Social calls                     | 4                   |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 28                  |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 16                  |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 30                  |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 8                   |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 22:08 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 2                   |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 10                  |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 3                   |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 31                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 19                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 22                  |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 20                  |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 12                  |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:12 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 34 |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 25 |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 20 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 32 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:20 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:20 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:20 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 25 |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 44 |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 10 |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:24 | <i>Pipistrellus pipistrellus</i> | 30 |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 31 |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:29 | <i>Nyctalus noctula</i>          | 3  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 22 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:32 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 24 |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 17 |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:36 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 70 |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:39 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:40 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:40 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:41 | <i>Pipistrellus pipistrellus</i> | 4  |
| 22:41 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:41 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:42 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:42 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:42 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:43 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 43 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 42 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 26 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 31 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 29 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:46 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:46 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 56 |
| 22:47 | <i>Social calls</i>              | 14 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 6  |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:48 | <i>Pipistrellus nathusii</i>     | 11 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 46 |
| 22:49 | <i>Pipistrellus pipistrellus</i> | 34 |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 23 |
| 22:50 | Social calls                     | 1  |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 37 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 1  |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:51 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 29 |
| 22:51 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 22 |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:52 | <i>Pipistrellus pipistrellus</i> | 53 |
| 22:53 | <i>Pipistrellus pipistrellus</i> | 24 |
| 22:53 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:53 | <i>Pipistrellus pipistrellus</i> | 24 |
| 22:54 | <i>Pipistrellus pipistrellus</i> | 58 |
| 22:54 | <i>Pipistrellus pipistrellus</i> | 37 |
| 22:54 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:54 | <i>Pipistrellus pipistrellus</i> | 30 |

Surveyor Location 3 – Batlogger M2

| Time  | Species                          | Number of calls [#] |
|-------|----------------------------------|---------------------|
| 21:24 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 21:25 | <i>Pipistrellus pipistrellus</i> | 17                  |
| 21:26 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 21:29 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 21:29 | <i>Pipistrellus pipistrellus</i> | 5                   |
| 21:29 | <i>Pipistrellus pipistrellus</i> | 17                  |
| 21:31 | <i>Pipistrellus pipistrellus</i> | 16                  |
| 21:32 | <i>Pipistrellus pipistrellus</i> | 19                  |
| 21:32 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 21:34 | <i>Pipistrellus pipistrellus</i> | 16                  |
| 21:34 | <i>Pipistrellus pipistrellus</i> | 13                  |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 18                  |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 3                   |
| 21:35 | <i>Pipistrellus pipistrellus</i> | 41                  |
| 21:36 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 21:36 | <i>Pipistrellus pipistrellus</i> | 18                  |
| 21:36 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 21:37 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 21:39 | <i>Pipistrellus pipistrellus</i> | 15                  |
| 21:39 | <i>Pipistrellus pipistrellus</i> | 27                  |
| 21:40 | <i>Pipistrellus pipistrellus</i> | 11                  |
| 21:42 | <i>Pipistrellus pipistrellus</i> | 12                  |
| 21:43 | <i>Pipistrellus pipistrellus</i> | 9                   |
| 21:43 | <i>Pipistrellus pipistrellus</i> | 7                   |
| 21:49 | <i>Pipistrellus pygmaeus</i>     | 3                   |
| 21:49 | <i>Nyctalus noctula</i>          | 13                  |
| 21:50 | <i>Pipistrellus pipistrellus</i> | 14                  |
| 21:50 | <i>Pipistrellus pipistrellus</i> | 18                  |

|       |                                  |    |
|-------|----------------------------------|----|
| 21:55 | <i>Pipistrellus pipistrellus</i> | 9  |
| 21:57 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:00 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:01 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:01 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:01 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:03 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:06 | <i>Pipistrellus pipistrellus</i> | 41 |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:07 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:09 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:10 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 33 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 21 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 25 |
| 22:11 | <i>Pipistrellus pipistrellus</i> | 36 |
| 22:12 | <i>Pipistrellus pipistrellus</i> | 12 |

|       |                                  |    |
|-------|----------------------------------|----|
| 22:12 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:13 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 34 |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 38 |
| 22:14 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:15 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:16 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 30 |
| 22:17 | <i>Pipistrellus pipistrellus</i> | 28 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:18 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:19 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:20 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:20 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:21 | <i>Pipistrellus pipistrellus</i> | 39 |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 59 |
| 22:22 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:23 | <i>Pipistrellus pipistrellus</i> | 22 |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:24 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:25 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:26 | <i>Pipistrellus pipistrellus</i> | 69 |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:27 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:28 | <i>Nyctalus noctula</i>          | 4  |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 10 |
| 22:28 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 25 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 34 |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:29 | <i>Pipistrellus pipistrellus</i> | 25 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 12 |

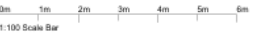
|       |                                  |    |
|-------|----------------------------------|----|
| 22:30 | <i>Pipistrellus pipistrellus</i> | 26 |
| 22:30 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:31 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:32 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:32 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:33 | <i>Pipistrellus pipistrellus</i> | 11 |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 14 |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 32 |
| 22:34 | <i>Pipistrellus pipistrellus</i> | 20 |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 19 |
| 22:35 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:36 | <i>Pipistrellus pipistrellus</i> | 12 |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 3  |
| 22:37 | <i>Pipistrellus pipistrellus</i> | 6  |
| 22:38 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:40 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:41 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:42 | <i>Pipistrellus pipistrellus</i> | 13 |
| 22:43 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:43 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:43 | <i>Pipistrellus pipistrellus</i> | 2  |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 16 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:44 | <i>Pipistrellus pipistrellus</i> | 27 |
| 22:45 | <i>Pipistrellus pipistrellus</i> | 17 |
| 22:46 | <i>Pipistrellus pipistrellus</i> | 18 |
| 22:46 | <i>Pipistrellus nathusii</i>     | 5  |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 1  |
| 22:47 | <i>Pipistrellus pygmaeus</i>     | 17 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 36 |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 5  |
| 22:47 | <i>Pipistrellus pipistrellus</i> | 9  |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 8  |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 15 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 33 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 30 |
| 22:48 | <i>Pipistrellus pipistrellus</i> | 45 |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 7  |
| 22:50 | <i>Pipistrellus pipistrellus</i> | 15 |

^NB. The number of calls per recording that are calculated by the BatExplorer Software during analysis of the data.

\* 0 calls is when the software has not been able to recognise individual calls (it being distant) and therefore cannot calculate the number of calls within the recording.

APPENDIX 3 – PROPOSED PLANS

All dimensions are to be checked on site before work commences.  
Figured dimensions to be taken in preference to scaled dimensions.  
If in doubt please ask.  
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Proposed West Elevation - Facing Barkham Street



Proposed North Elevation - Facing the Access Road



Proposed East Elevation - Facing the Stables



Proposed South Elevation

| P4                                                                                                                                                                           | Updated to comments. | 29/07/26    | LN      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------|---------|
| P3                                                                                                                                                                           | Issued for Comment   | 23/07/26    | LN      |
| Rev                                                                                                                                                                          | Notes                | Date        | Initial |
| Status                                                                                                                                                                       |                      |             |         |
| Planning                                                                                                                                                                     |                      |             |         |
| <b>HOLTHAM+NEWMAN</b><br>ARCHITECTS<br>The Old Dairy, 262A Hyde End Road,<br>Spanners Wood, Reading,<br>Berkshire RG7 1DN<br>T: 07971 316497<br>E: hello@hnmarchitects.co.uk |                      |             |         |
| Project:<br>Brook Farm<br>Barkham<br>RG40 4PJ                                                                                                                                |                      |             |         |
| Client:<br>Mr and Mrs Chard                                                                                                                                                  |                      |             |         |
| Drawing Title:<br>Proposed Elevations 1                                                                                                                                      |                      |             |         |
| Scale:                                                                                                                                                                       | 1:100 @A3            | Dwg. No.:   | Rev:    |
| Drawn by:                                                                                                                                                                    | LN                   | 2526 - D200 | P4      |
| Date:                                                                                                                                                                        | Jul 2026             |             |         |

APPENDIX 4 – PROPOSED BAT ROOST MITIGATION



Southern elevation



Eastern elevation

- Bat access roof or ridge tile installed as replacement roosts for common pipistrelle (*P. pipistrellus*) bats, located close to the recorded emergence locations
- Integrated Istock Enclosed Bat Box (or suitable alternative) installed into the eastern gable to provide enhancement roosting opportunities for crevice-dwelling bats

|             |           |              |                                                             |                                                                                       |
|-------------|-----------|--------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Amended by: | Date      | Scale:       | Brook Farm, Barkham                                         |  |
| MPS         | July 2026 | Not to scale | Proposed Bat Roost Mitigation and Enhancement Opportunities |                                                                                       |