

BAT EMERGENCE SURVEY

**SULBY CROFT,
WOKINGHAM, BERKSHIRE RG40 3AR**



Commissioned by: **Maverick Property Investments Ltd**

Report Number: ASW/MPIL/103/28/2024
September 2024



ASW Ecology Ltd

Office/Mobile: 07710 150590

London Euston Woburn Place, 16 Upper Woburn Place, London WC1H 0BS

E-mail: andrew@aswecology.co.uk Website: www.aswecology.co.uk

CONTENTS

	Page
Executive Summary	3
1. Introduction	4
2. Methodology	5
2.1 Bat emergence survey	5
2.2 Constraints	5
3. Bat survey results	6
3.1 Bat emergence survey	6
4. Conclusions	10
4.1 Significance of the bat emergence survey results	10
4.2 Impact assessment	11
4.3 Summary of the legal protection of bats in the UK	12
5. Recommendations	14
5.1 Bat EPS Mitigation Licence requirement	14
5.2 Bat Impact Mitigation and Compensation Scheme	15
5.3 Timing of the future development works	16
5.4 Post development bat monitoring	16
5.5 Best practice guidance – bats and development	16
6. References	17
Appendix 1: Photographs A-D	18
Appendix 2: Map A – Location of bat roost and exit point at the house	22
Appendix 3 Selected bat sonograms for the bat emergence survey	23

EXECUTIVE SUMMARY

1. During the Summer 2024 bat emergence survey, six bat species were recorded at or over the application site at Sulby Croft. These were common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), noctule (*Nyctalus noctula*), Leisler's bat (*Nyctalus leisleri*), serotine (*Eptesicus serotinus*) and brown long-eared bat (*Plecotus auritus*).
2. A maximum of 48 adult and juvenile bats emerged from the side of the house during this 2024 bat dusk survey.
3. This shows that an active bat maternity roost is present in the roof void, which is a roost of high conservation significance, with a higher number of bats present here.
4. The bats emerged from a single access point at the southern gable end of the house, where mortar is missing from the edge of the roof tiles.
5. No other bat species emerged from the house during this study but were observed foraging and commuting over the large rear garden.
6. The key aim will now be to ensure that no bats are injured or killed at any time during the potential building works at the house, now this study is complete. It is critical that this bat maternity roost is retained at the house after any building works have been completed so timing will be vital for such works, when the bats are not breeding at the building.
7. A European Protected Species Mitigation Licence (EPS) (under the 2017 and 2019 Regulations) for Bats in respect of development will be required, from Natural England to permit the predicted disturbance of a bat maternity roost during the possible building related works, as bats are fully protected by UK and European law.
8. Details on the bat mitigation and compensation strategy can also be found within this report, which will form part of the future bat mitigation licence.

1. INTRODUCTION

- A Bat Emergence Survey was undertaken at Sulby Croft, Heathlands Road, Wokingham, Berkshire RG40 3AR, during Summer 2024, for: Maverick Property Investments Ltd.
- The national grid reference for this application site is: SU825656.
- This survey was required due to the proposed development related works at the property.
- The main method used for this bat emergence survey, as well as the full results and the final recommendations can be found within this report.
- Both this survey and the report were undertaken and compiled by Mr Andrew S. Waller, Consultant Ecologist, ASW Ecology Ltd, with the help from assistant ecologists.
- Mr Andrew S. Waller MSc BSc (Hons) MCIEEM, Director of ASW Ecology Ltd - has been a Consultant Ecologist since 1997, and has very extensive experience/knowledge of protected wildlife species/issues including bats, for which he is fully licensed to survey throughout England by Natural England for consultancy purposes (Bat Class 2 Licence Registration Number: 2015-15703-CLS-CLS). He also has Natural England survey licences for great crested newts and barn owls. He has been studying bats for 31 years and wildlife in general for 42 years. He is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and meets the requirements of being a Suitably Qualified Ecologist.

© Report copyright – This report is the copyright of ASW Ecology Ltd. Any unauthorised usage or reproduction by any party or person, other than the intended recipients eg the client, their agents and the LPA, is strictly prohibited

2. METHODOLOGY

2.1 Bat emergence survey

- During July to August 2024, a Bat Emergence Survey was undertaken at Sulby Croft, with three visits in total during this period.
- Two bat surveyors using both Bat Box Duet bat detectors and also Echo Meter Touch bat detectors were present on the bat survey visits.
- Night vision aids (NVA), mounted on tripods, mainly 2x Nightfox Whisker IR night vision cameras, 1x Nightfox RED IR night vision camera, 1x Nightfox Vulpes IR night vision camera and 2x HIKMICRO Lynx thermal imaging cameras, were used on key features at the building, so to ensure that they were covered robustly for this survey and following current best practice guidance.
- The main aim was to determine the range of bat species present; the presence of any roosts during the survey period at the building; and the presence of any key foraging areas and bat commuting routes.
- The dusk based visit was undertaken in suitable weather conditions only, so there was the best chance of finding any possible emerging bats. The dusk visit started before sunset and lasted for up to 2 hours after sunset.
- All results from this bat dusk survey can be found in the next chapter of this report and bat sightings shown in Map A in Appendix 2.

2.2 Constraints

- Due to the timing of this bat survey, only the Summer period could be covered. This is a standard constraint for any bat survey which can only investigate part of any year.
- The May to August period is very important to bats, since this is when maternity roosts are forming then young bats will be born. Large roosts are sometimes present within structures, and can be very visible during bat emergence surveys. This survey was commissioned when bats will be very active and bat maternity roosts have formed in buildings already, so was timed at the key period of the year for bats.
- As always though, without taking into account any further active surveying or monitoring, this study can only provide a “snapshot” of the presence of bats at the site during the period of this study. Please also note that any bat survey report is valid for one year only, as stated in the BCT bat survey guidelines (BCT, 2023).

3. BAT SURVEY RESULTS

3.1 Bat emergence survey (raw data from the 3x bat survey visits)

Bat emergence survey visit 1 – 2/7/2024

Survey Location: Sulby Croft, Wokingham, RG40 3AR	Survey Date: 02/07/24	Sunset: 21:22
	Temp. start: 15°C	Temp. finish: 13°C
Vegetation: Medium volume	Start time: 21:10	End time: 23:15
Insects: High volume	Humidity: 71%	Surveyors: x2
Cloud:	Wind: 4MPH E	Rain: 0mm
Clear x Patchy Full	Calm x Light Breezy	Dry x Drizzle Showers

Time	Species/Frequency	Passes	Comments
			Surveyor 1
21:57-58	Brown Long-eared Bat (BLE)	Numerous	Heard Not Seen (HNS)
22:21	Serotine (S)	1	HNS
22:55	Leisler's Bat (L)	1	HNS
23:03	BLE	1	HNS
			Surveyor 2 - including emergence times
21:33	Common Pipistrelle (CP)	1	HNS
21:37	Soprano Pipistrelle (SP)	1	HNS
21:45	BLE	Numerous	Emergence times are as follows: 21:45 x2, 21:51x2, 21:53x1, 21:54x2, 21:57x1, 21:58x1, 21:59x1, 22:00x2, 22:02x5, 22:03x5, 22:05x2, 22:06x1, 22:11x1, 22:13x1, 22:14x1, 22:15x1, 22:45x1. All emergences flying towards northern treeline
22:10	Noctule (N)	1	HNS
22:55	L	1	HNS
23:15	BLE	1	Re-entry into roost via emergence feature shown.

Bat emergence survey visit 2 – 29/7/2024

Survey Location: Sulby Croft, RG40 3AR	Survey Date: 29/07/24	Sunset: 20:54
	Temp. start: 23°C	Temp. finish: 20°C
Vegetation: Medium volume, property is bordered by trees with woodland nearby	Start time: 20:45	End time: 23:00
Insects: High volume	Humidity: 57%	Surveyors: x2
Cloud: 10%	Wind: 3MPH N	Rain: 0mm
Clear x Patchy Full	Calm x Light Breezy	Dry x Drizzle Showers

Time	Species/Frequency	Passes	Comments
21:23 – 22:30	Brown Long-eared Bat (BLE)		Surveyor 1: Observing and tallying BLE emergence point. First emergence recorded at 21:23, and final emergence recorded at 22:30, 35 th BLE did not emerge by 23:00 but was recorded by camera inside the crevice. Overall, 35 individuals sighted emerging, with approximately 5-10 juveniles and the rest adults.
			Surveyor 2
21:10	BLE	1	Flew along treeline S-N
21:20	SP	1	HNS
21:24	BLE	1	Circled above surveyor position
21:25	CP	1	Circles above surveyor position
21:26	CP	1	HNS
21:30	BLE	1	HNS
21:31-34	BLEx3	Numerous	Likely just emerged, circled above surveyor before flying SE-NW
21:42	SP	1	HNS
21:49	CP	1	HNS
21:50	S	1	HNS
21:55	SP	1	HNS
22:00	CP	1	HNS
22:10-13	L	Numerous	HNS
22:16-18	CP	1	HNS
22:28	L	1	HNS
22:42	L	1	HNS
22:46-49	L	Numerous	HNS
22:50	CP	1	HNS

22:52-53	L	Numerous	HNS
22:55	CP	1	HNS
22:56-58	L	Numerous	HNS

Bat emergence survey visit 3 – 21/8/2024

Survey Location: Sulby Croft, RG40 3AR	Survey Date: 21/08/24	Sunset: 20:12
	Temp. start: 17°C	Temp. finish: 15°C
Vegetation: Medium volume, property is bordered by trees with woodland nearby	Start time: 19:45	End time: 21:51
Insects: High volume	Humidity: 69%	Surveyors: x2
Cloud: 10%	Wind: 7MPH	Rain: 0mm
Clear Patchy Full x	Calm Light x Breezy	Dry x Drizzle Showers

Time	Species/Frequency	Passes	Comments
20.34pm to 21.09pm	Brown Long-eared Bat (BLE)		Surveyor 1: A total of 48 bats emerged from the single exit point at the side of the house again. Included clearly both adult and juvenile bats
20.43	CP	1	Over rear garden
20.47	SP	1	As above
21.12	SP	1	As above
21.24	L	1	As above
			Surveyor 2
20:19	CP	1	HNS
20:46	S	1	HNS
20:49	N	1	HNS
20:49	SP	1	HNS
20:52	S	1	HNS
20:59	L	1	HNS
20:59	SP	1	HNS
21:12	SP	1	HNS
21:18	CP	1	HNS
21:25	N	1	HNS
21:43	L	1	HNS
21:44	CP	1	HNS
21:44	SP	1	HNS

4. CONCLUSIONS

4.1 Significance of the bat emergence survey

- In summary, during the Summer 2024 bat emergence survey, four bat species were recorded at or over the application site at Sulby Croft. These were common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, serotine and brown long-eared bat.
- A maximum of 48 adult and juvenile bats emerged from the side of the house during this 2024 bat dusk survey, from the final visit by us. Numbers of the first two visits were 30 and 35 individual bats respectively.
- This shows that an active bat maternity roost is present in the roof void, which is a roost of high conservation significance, with a higher number of bats present here.
- It is likely that further brown long-eared bats from another maternity roost nearby, joined the Sulby Croft roost before the final bat survey visit, showing how important this roost is to the bat population in this part of Berkshire. This roost will be of both local and county importance.
- The bats emerged from a single access point at the southern gable end of the house, where mortar is missing from the edge of the roof tiles.
- There were no other bat species emerging from the house during this survey but were observed foraging and commuting over the large rear garden.
- The key aim will now be to ensure that no bats are injured or killed at any time during the potential building works at the house, now this study is complete.
- It is critical that this bat maternity roost is retained at the house after any building works have been completed so timing will be vital for such works, when the bats are not breeding at the building.
- A European Protected Species Mitigation Licence (EPS) (under the 2017 and 2019 Regulations) for Bats in respect of development will be required, from Natural England to permit the predicted disturbance of a bat maternity roost during the possible building related works, as bats are fully protected by UK and European law.
- The key aim will now be to ensure that no bats are injured or killed at any time during the future demolition works at the property, now this study is complete.
- Please see the next chapter of this report, for the recommendations in regards to the bat licence that must be applied for before any building works can commence, as well as details on the proposed bat mitigation and compensation strategy.

4.2 Impact assessment

In the absence of any mitigation measures or precautions, the following direct or indirect impacts from the proposed development works at Sulby Croft, would be predicted as:

DIRECT: There is a confirmed bat roost present at the house, so there will be a negative impact to the bat population of this species in the area due to any proposed building related works. There is a risk of any bats being disturbed, injured or killed by the works, or a bat roosts to be lost. **Impact magnitude predicted: High**

INDIRECT: Since no high quality bat foraging habitat or commuting routes will be impacted or lost, without mitigation, there will be no impact from the development here. **Impact magnitude predicted: Nil**

4.3 Summary of the legal protection of bats in the UK (Simplified summary only of the legislation – please see other texts for full details)

4.3.1 THE LEGAL PROTECTION OF BATS IN ENGLAND AND WALES

Introduction

All species of bats in England and Wales are protected by law. Their legal protection derives from two sources:

- the strict species protection provisions of the EU Habitats Directive as implemented in England and Wales by Part 3 of the Conservation of Habitats and Species Regulations 2017 (the **“2017 Regulations, amended by the 2019 Regulations due to Britain leaving the EU”**); and
- Part 1 of the Wildlife and Countryside Act 1981 (as amended).

Conservation of Habitats and Species Regulations 2017 (“2017 Regulations”, as amended by the 2019 Regulations)

The 2017 Regulations came into force on 30th November 2017, amended by the 2019 Regulations. They replace the previously applicable regulations (Conservation (Natural Habitats, &c) Regulations 1994 and the 2010 Regulations) in relation to England and Wales. The 2017 Regulations are the principal means by which the EU Habitats Directive is transposed in England and Wales.

The Regulations contain a number of Parts which set out the protection to be afforded to “European Protected Species” (“EPS”), which includes all species of British bats. The list also includes other species which are rare on a European scale, such as great crested newts, otters and dormice.

Under the 2017 Regulations both bats themselves and their “breeding sites and resting places” (most commonly their roosts) are protected.

It is a criminal offence to do the following (note that this is not an exhaustive list of all offences but rather a list of offences which will be of most relevance to developers):

- a. to damage or destroy a breeding site or resting place of a bat (even if bats are not present at the time);
- b. to deliberately capture, injure or kill a wild bat;
- c. to intentionally or recklessly disturb a bat in its roost or to deliberately disturb a group of bats, in particular:
 - i. any disturbance of bats which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or
 - ii. any disturbance of bats which is likely to impair their ability to hibernate or migrate; or

- iii. any disturbance of bats which is likely to affect significantly the local distribution or abundance of the species to which they belong;
- d. to have in one's possession or to control or to transport or to sell or exchange or offer to sell or exchange any live or dead bat or part of a bat which has been taken from the wild; or any part of, or anything derived from, a bat or any part of a bat; and
- e. to intentionally or recklessly obstruct access to a bat roost.

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to £5,000, and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate. Where a body corporate has committed the offence, the directors or officers of the company may also be prosecuted if the offence has been committed with their consent or connivance, or is attributable to their neglect.

Wildlife and Countryside Act 1981 (“WCA 1981”)

The WCA 1981 protects a wide range of animals, plants and habitats in the UK. All British bat species are afforded protection under Part 1 of the WCA 1981, in addition to the protection they have under the 2019 Regulations.

As regards England and Wales the following offences apply to protect bats under the W&CA 1981:

- a. to intentionally or recklessly disturb any bat while it is occupying a structure or place which it uses for shelter or protection (s9(4)(b) WCA 1981);
- b. to intentionally or recklessly obstruct access to any structure or place which any bat uses for shelter or protection (s9(4)© WCA 1981);
- c. attempting either of the above (s18(1) WCA 1981).

The maximum penalty that can be imposed for the above offences is (as at May 2010) a fine of up to £5,000, and/or up to six months imprisonment. The offences can be committed by individuals or by bodies corporate. Where a body corporate has committed the offence, the directors or officers of that company may also be prosecuted if the offence has been committed with their consent or connivance or is attributable to their neglect (s69(1) WCA 1981).

5. RECOMMENDATIONS

5.1 Bat EPS Mitigation Licence requirement

- A European Protected Species Mitigation Licence (EPS) (under the 2017 and 2019 Regulations) for Bats in respect of development will be required, from Natural England to permit the predicted disturbance of a brown long-eared bat maternity roost at the house, during any proposed building related works, as bats are fully protected by UK and European law. It will be proposed that the licence is required for “overriding public interest”, that there is indeed no satisfactory alternative to what is being proposed and that the stated works will not be detrimental to maintaining the bat species present at a Favourable Conservation Status.
- The Wildlife Licensing Unit of Natural England is the appropriate authority for determining licence applications for works associated with development such as building/demolition related works, barn conversions, reroofing works, culvert removal/repair and tree felling where bat roosts are present. Natural England will have to be satisfied that the local bat populations will not be detrimentally affected by the demolition work. Consequently, they will require suitable mitigation measures to be put in place in order to prevent the complete loss of the bat roost at the overall property as a result of the planned works.
- The EPS licence forms include five separate parts: an Application Form, Method Statement, Reasoned Statement, Work Schedule and Supporting Documents. The applicant e.g. the client will be the licence holder, supported by the licensed bat consultant being used.
- For the prompt processing of the licence application, it is always advised that the client ensure that the planning position in respect to their proposal has been resolved in advance of submitting the licence application and all mitigation options agreed on. In exceptional circumstances, it may be possible to submit an application whilst planning permission is being sought. **For most applications, planning consent is therefore required before the Bats EPS Mitigation Licence is applied for from Natural England.**
- Bat EPS Mitigation Licence applications are stated to be processed within thirty days by Natural England, although it could be longer than this, should further information be required by the Wildlife Advisor or due to any backlog of cases.
- The client will need to consult an experienced licensed bat consultant for advice on how to proceed with the required Natural England Bats EPS Mitigation Licence application, as it is clear that the future outlined works would trigger offences under the law, and such offences cannot be avoided by the timing of such works when bats are not present.

5.2 Bat Impact Mitigation and Compensation Scheme

- The main mitigation and compensation scheme is detailed below in regards to the bat roost present, so the future building works are to proceed under the proposed Bat Licence. The scheme below will compensate bats during and after the stated works and that they will not be without available roosting sites during these works. **The aim will be to provide a net gain in the number of high quality roosting sites available for the bats**, but vitally to provide like-for-like mitigation which is the key aspect, and this will all be stated in the Bats EPS Licence Method Statement.

5.2.1 Provision of high quality bat boxes

- **Installation of 3x 2F Schwegler Bat Boxes and 1x Large Multi Chamber Woodstone Bat Box within the property** - Bat boxes will be used by various bat species, and these high quality bat boxes will be installed in suitable high locations facing appropriate aspects, close to clutter, so to have a chance of success. Brown long-eared bats, common pipistrelle, soprano pipistrelle as well as other bat species will use these bat boxes for roosting purposes and are appropriate mitigation for the roost types present. Four such boxes will be installed before the works begin, which will be secure and undamaged during all of the proposed work. All of the bat boxes will be installed at least 6 metres or higher above ground level on mature trees, with ideally one box per tree. The bat boxes will provide a wide range of bat roosting sites which will be available during and after the period of the works. The 2F bat boxes will be mainly South-east or South-west facing but with 2x bat boxes being North and West facing so there are a variety of microclimates available especially in hot weather. The 1x larger multi chamber bat box should be SE or SW facing and can be used by brown long-eared bats. Branches will be cleared around the bat boxes so access is easy for the bats and there must be no artificial lighting of any type illuminating the bat boxes at night. The NHBS is a suitable ecological supplier for these two bat box types.

5.3 Timing of the future development works

- Usually, late summer/early autumn e.g. September/October or early spring e.g. April/early May, are ideally the best times for works affecting bats, as this avoids the main bat breeding season as well as the bat hibernation period.
- This will then reduce any risk of bats being disturbed, injured or killed by accident during any proposed building related works, which will be the critical objective of the mitigation works.

5.4 Post development bat monitoring

- This post development monitoring is compulsory for a brown long-eared bat breeding, which is of high nature conservation significance.
- After the building works have been completed, up to three bat night based monitoring visits will be needed of the house, to check that the bat maternity roost is still present and the number of bats there.
- This monitoring would be highly useful in determining if the stated compensation and mitigation measures used have been successful or not.

5.5 Best practice guidance – bats and development

- Within the future Bats EPS Mitigation Licence method statement to be written, it will be stated that it will be necessary to undertake a final re-check of the roost building, before the development works commence, after the licence is gained from Natural England.
- If for any reason, an injured bat or grounded bat is found during any of the works then this will need to be rescued by the Licensed Bat Consultant and very carefully, using suitable gloves and cloth bags, moved to the new bat boxes nearby.
- A formal toolbox talk from the bat ecologist about the bat roost and what actions are not permitted must be undertaken at the start of the licensed works.
- **The main objective of the above, is to do all possible to ensure that no bats are injured or killed at all during any proposed building works. And to ensure that the local bat population at the site remain at a Favourable Conservation Status.**

6. REFERENCES

- (1) Altringham, J.D. (2003) *British Bats*. HarperCollins*Publishers*, London.
- (2) Bat Conservation Trust (2018) *Bats and artificial lighting in the UK – Bats and the Built Environment Series*. Guidance Note 8. BCT, London.
- (3) Collins, J. (Ed) (2023) *Bat Surveys for Professional Ecologists – Good Practice Guidelines (4th Edition)*. Bat Conservation Trust, London.
- (4) Entwistle, A.C. et al (2001) *Habitat Management for Bats*. JNCC, UK.
- (5) Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature.
- (6) Mitchell-Jones, A.J. and McLeish, A.P. (2004) *The Bat Workers' Manual*. 3rd Ed. JNCC.
- (7) Treweek, J. (1999) *Ecological Impact Assessment*. Blackwell Science Ltd, UK.

APPENDIX 1:

Photographs A-D

(Photos are all dated 21/8/2024)



Photograph A

Example photograph using a night vision aid (NVA) at the house – taken with a Nightfox Whisker IR camera, mounted on a tripod



Photograph B

Example photograph using a night vision aid (NVA) at the house side (showing bat roost main exit point above the camera) – taken with a HICMICRO Lynx thermal imaging camera, mounted on a tripod



Photograph C

Example photograph using a night vision aid (NVA) at the house – taken with a HIKMICRO Lynx thermal imaging camera, mounted on a tripod

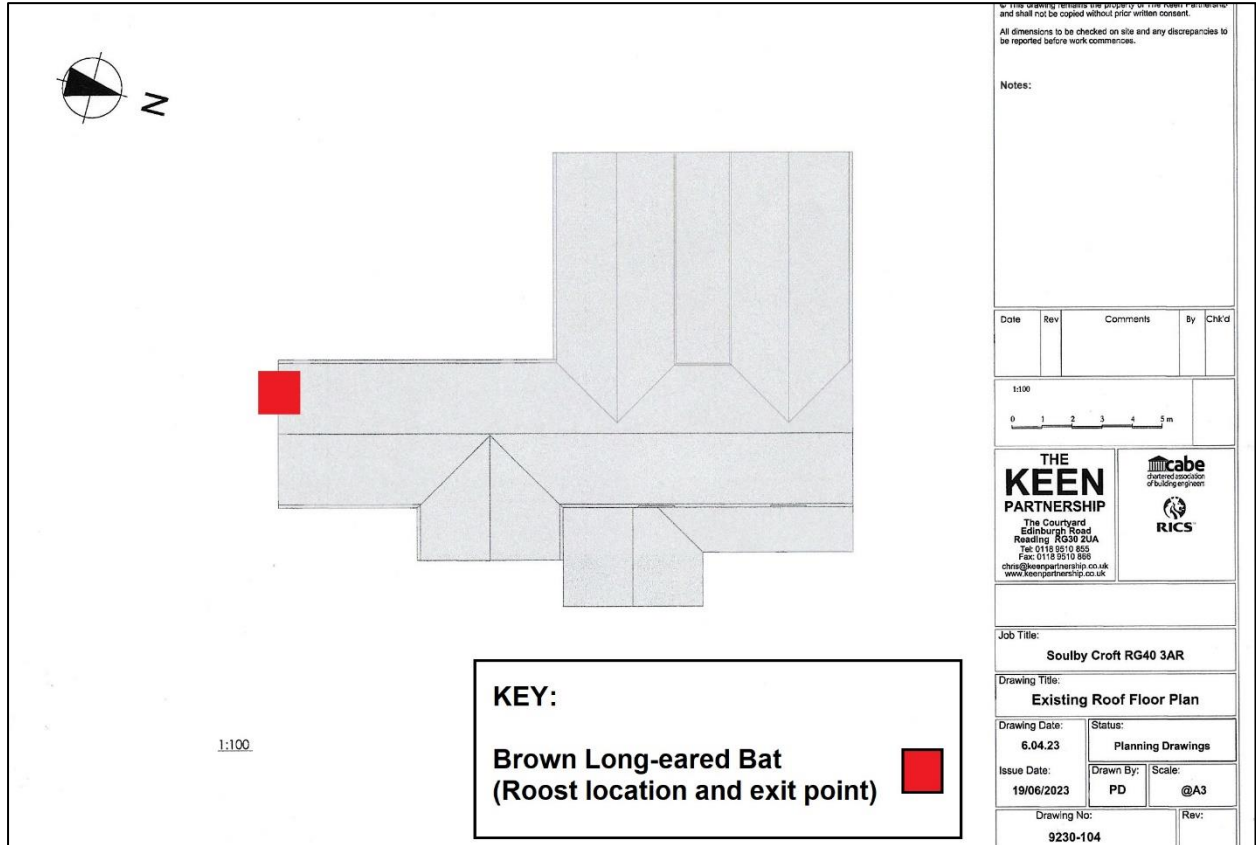


Photograph D

Bat roost main exit point is the crevice in the side of the roof tiles, above the camera

APPENDIX 2:

Map A – Location of bat roost and exit point at the house



APPENDIX 3:

Selected bat sonograms for the bat emergence survey

Figure 1 – Bat sonogram of a Common Pipistrelle – flying over the property

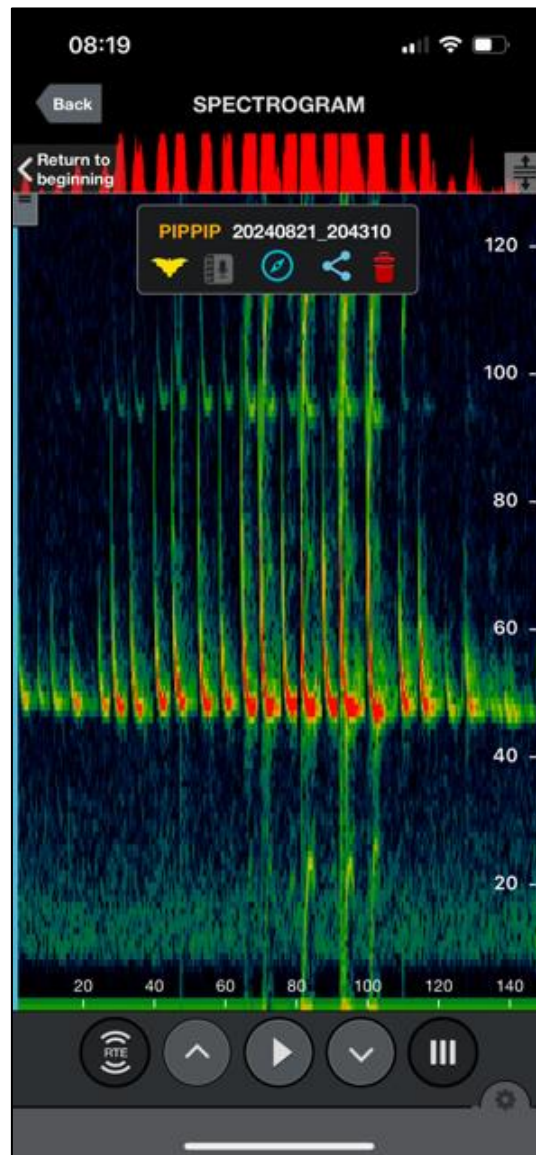


Figure 2 – Bat sonogram of a Brown Long-eared Bat – very brief contact near the house as most bats did not echolocate during emergence

