



**BAT EMERGENCE SURVEY REPORT WITH  
BAT MITIGATION STRATEGY**

CUCKFIELD COTTAGE HOMES TRUST

CUCKFIELD COTTAGE HOMES,  
CHURCH PLATT, CUCKFIELD,  
WEST SUSSEX, RH17 5LA

03<sup>RD</sup> OCTOBER 2025

REF: 25029

## CONTENTS

## PAGE NO

Executive Summary	1
1. Introduction and background	2
2. Methodology	3
3. Results	6
4. Discussion and Conclusions	11
5. Recommendations	15
6. References	20
Appendix A – Bat Survey Plans	
Appendix B – Legislation and Further Information	

Revision	Date	Author	Reviewer
0	30/09/2025	Sally-Ann Hurry BSc (Hons) FdSc MCIEEM	Carly Teague BSc (Hons) MSc MCIEEM
1	03/10/2025	Sally-Ann Hurry BSc (Hons) FdSc MCIEEM	Carly Teague BSc (Hons) MSc MCIEEM

This report has been prepared for the exclusive use of the commissioning party and may not be reproduced without prior written permission from CT Ecology Limited.

All work has been carried out within the terms of the brief using all reasonable skill, care and diligence.

No liability is accepted by CT Ecology Limited for the accuracy of data or opinions provided by others in the preparation of this report, or for any use of this report other than for the purpose for which it was produced.

## EXECUTIVE SUMMARY

Three bat emergence surveys have been undertaken at Cuckfield Cottage Homes in Cuckfield, West Sussex, between June and September 2025. All survey work has been carried out in accordance with the latest bat survey guidelines (Collins, 2023) and recommendations are provided in line with current best practice and guidance (from Natural England and Reason and Wray, 2025). Proposals are to extend the existing residential building to the south and west along with internal reconfigurations to enable two additional flats to be provided within the building. Access will remain as existing. No trees or boundary features will require removal to facilitate the works.

A summary of the findings and recommendations is provided below:

- \* The site is confirmed as supporting the following bat roosts:
  - 2 x Common pipistrelle Day roosts, supporting up to 4 bats, associated with areas of hanging tiles on the south and east elevations of the building.
- \* In the absence of mitigation, the proposed project would cause unavoidable impacts to bats and their roost sites, causing a breach of the current legislation afforded to them. To legally proceed with the proposed project, an appropriate bat mitigation licence must be obtained from Natural England before any impactful works commence.
- \* Following approval from Natural England, an appropriate bat mitigation strategy must be implemented to meet the licensing tests. Details of the licensing process together with **an appropriate mitigation** strategy for the scheme are provided in Section 5 of this report.
- \* No further survey work is currently required to support the project's associated planning application.
- \* This report is valid for a maximum of two years post-survey. If a licence application is not submitted to Natural England within 18 months of the completed surveys, an appropriate level of update survey would be required to support a licence application.

## **1. INTRODUCTION AND BACKGROUND**

1.1 CT Ecology Limited, in association with Mountfield Ecology, were commissioned by Cuckfield Cottage Homes to carry out three bat emergence surveys at Cuckfield Cottage Homes at Church Platt, Cuckfield, West Sussex (hereafter referred to as “the site”). The surveys and this report aim to:

- \* Confirm the presence/absence of bat roosts and characterise any roosts present;
- \* Identify constraints to the proposal regarding bats and provide outline details of any necessary avoidance / mitigation / compensation requirements.

1.2 The site includes a single building which supports residential accommodation via a number of flats.

### **Development Proposals**

1.3 Proposals are to extend the existing residential building to the south and west along with internal reconfigurations to enable two additional flats to be provided within the building. Access will remain as existing. No trees or boundary features will require removal to facilitate the works.

### **Site Description**

1.4 The site is situated in a semi-rural location, to the southwest periphery of Cuckfield in West Sussex. Holy Trinity Church is situated to the east, with further residential properties to the north and west. The British National Grid Reference for the centre of the site is TQ30310 24451.

### **Previous Ecological Surveys - Overview**

1.5 A preliminary bat roost assessment (PRA) was carried out at the site in May 2025 (refer to CT Ecology, 2025) which identified the building as having Moderate potential to support roosting bats. Two bat emergence surveys were recommended at the time, however, following the findings of the first survey, a third emergence survey was conducted to ensure the completion of a full site assessment.

## 2. METHODOLOGY

### Bat Emergence Surveys

- 2.1 Three bat emergence surveys were carried out between June and September 2025. A total of 4 survey positions were covered by 3 experienced bat surveyors and an unattended survey position. Each survey position included an infra-red night-vision aid (Canon XA video camera with additional illuminators) and an appropriate bat detector (Batlogger M, Wildlife Acoustics EM2 and Anabat Scout) to record all bat activity for the duration of the survey. The unattended position was in view of a surveyor at all times and was regularly checked by the surveyor to ensure the equipment was functioning correctly.
- 2.2 The survey followed standard survey guidance (Collins, 2023), commencing 15 minutes prior to sunset and ending 1.5 hours after sunset.
- 2.3 Post-survey analysis of all sound recordings was carried out by the experienced surveyors using BatExplorer (Elekon CH) and Anabat Insight (Titley Scientific) software. Recordings were identified to species level using surveyor experience, a reference library of calls and recognised literature. Video footage was reviewed post-survey using appropriate software and at an appropriate speed to ensure all emerging bats were identified.
- 2.4 Survey maps showing the results can be found in Appendix A.

### Roost Characterisation

- 2.5 Where a confirmed roost was identified, the surveyor assessed how these could be used by bats throughout the year, in accordance with Collins (2023):
  - \* day roost - where individual bats, or small groups, rest or shelter in the day during the summer;
  - \* night roost - where bats rest or shelter at night, but rarely during the day;
  - \* feeding roost - where bats rest at night between feeding sessions, but are not present during the day;
  - \* hibernation roost - where bats are found during winter;
  - \* transitional or occasional roost - where bats gather for generally short periods of time before and after hibernation;
  - \* mating site - where mating takes place from late summer and can continue through winter;
  - \* maternity roost - where females give birth and raise their young. In some species, males may also be present;
  - \* satellite roost – an alternative roost in close proximity to the main maternity roost, numbers can fluctuate; and

- \* swarming site - where bats gather in large numbers from late summer to autumn.

- 2.6 An assessment of the conservation significance and status of any roost present was made in line with the current bat mitigation guidelines (Reason and Wray, 2025).

## **Surveyors**

### Lead Surveyor

- 2.7 Carly Teague (CT) has over 18 years commercial bat survey experience and led all bat emergence surveys onsite, undertaking sound and video analysis of recorded data. Carly has designed various bat avoidance and mitigation strategies for a variety of project types and assisted with the implementation of mitigation licensing requirements.

### Assistant Surveyors

- 2.8 Sally-Ann Hurry (SAH) has over 15 years commercial bat survey experience and holds a personal class bat survey licence (levels 3 and 4), meeting the Bat Conservation Trust's level 5 (specialist) competency level. Sally-Ann has held, designed and overseen the implementation of numerous bat mitigation measures in accordance with Protected Species Mitigation Licences (PSML) and also holds a Bat Mitigation Class Licence (BMCL), Bats in Churches Class Licence (BiCCL) and Bat Earned Recognition Class Licence (to level 3). Sally-Ann undertakes monitoring of winter hibernation and summer maternity bat roosts as part of the National Bat Monitoring Scheme in England and has assisted in European and International bat research. Sally-Ann undertook the original PRA and informed CT of the emergence survey design, assisting with two of the emergence surveys. Sally-Ann fully reviewed her survey data and compiled this report.
- 2.9 Joanne Balch (JB) has over 15 years commercial bat survey experience and assisted with the bat emergence surveys.
- 2.10 Clare Forbes (CF) has over five years commercial bat survey experience and assisted with the bat emergence surveys.

## **Constraints**

- 2.11 Bats are highly mobile animals and surveys can only provide a snapshot of bat presence/absence at the time of the survey. Therefore, surveys may not identify the presence of roosts which are utilised earlier or later than the time of year when the survey was carried out.

- 2.12 The identified constraints have been carefully considered and where the survey may have been impeded by the identified constraints, appropriate recommendations are provided to ensure the completed survey is sufficiently rigorous to assess the value of the site.



### 3. RESULTS

#### Bat Emergence Surveys

26<sup>th</sup> June 2025

- 3.1 The survey began at 21:15 and ended at 22:55, sunset was at 21:25. The weather conditions were suitable, with the temperature falling from 19.1-17.9°C, the average wind speed was 1kt, and there was a light rain shower in the middle of the survey.
- 3.2 Commuting and foraging activity of 3 bat species was recorded, including Common pipistrelle *Pipistrellus pipistrellus*, Long-eared *Plecotus sp.*, and an unidentified Myotis bat species *Myotis sp.* One Common pipistrelle emerged from the building.
- 3.3 At 21:40 (15 minutes after sunset) one Common pipistrelle emerged from a hanging tile upon the east elevation of the building. This was from the central area of the building, associated with a south facing support wall area.

Bat activity was low and dominated by brief Common pipistrelle foraging passes associated with the churchyard to the south and east, and further beyond to the north. A single Long-eared pass was recorded to the south and a single Myotis pass was recorded to the east.



*Common pipistrelle emergence location (red circle)*



*View of the NVA' at the end of the survey viewing from the south (left) and north (right), along the west, north and south elevations*



*View of the NVA' at the end of the survey viewing the east elevation and north elevation (right)*

*14<sup>th</sup> August 2025*

- 3.4 The emergence survey began at 20:10 and ended at 21:53, sunset was at 20:23. The weather conditions were optimal with no precipitation, the average wind speed was 0kt, with the temperature falling from 21.2-19.8°C.
- 3.5 Commuting and foraging activity of 5 bat species was recorded, including Common pipistrelle, Soprano pipistrelle *P.pygmaeus*, Long-eared, Serotine *Eptesicus serotinus*, and an unidentified Myotis bat species. A total of 3 Common pipistrelles emerged from the building.
- 3.6 The first recorded bat activity was at 20:31 when two Common pipistrelles emerged from separate hanging tiles upon the south elevation of the building. A third Common pipistrelle emerged at 20:42 from one of the same hanging tiles.
- 3.7 Bat activity was low and dominated by brief Common pipistrelle foraging activity mainly associated with offsite areas, however short periods of sustained foraging were recorded to the south. A single Soprano pipistrelle pass was recorded to the east at 21:54. A single Long-eared pass was recorded to the south at 21:07, and a Myotis pass at 21:14. Several Serotine passes were recorded to the east at 21:21, 21:24, 21:32, 21:34, 21:43-44.



*Emergence location of 3 Common pipistrelles (red circles)*



*View of the NVA' at the end of the survey viewing from the south (left) and north (right), along the west, north and south elevations*



*View of the NVA' at the end of the survey viewing the east elevation and north elevation (right)*

*4<sup>th</sup> September 2025*

- 3.8 The survey began at 19:25 and ended at 21:15, sunset was at 19:39. The weather conditions were optimal with no precipitation, the average wind speed was 0.5kt, falling to 0kt at the end of the survey, and the temperature fell from 15.5-12°C.

- 3.9 Commuting and foraging activity of 3 bat species was recorded, including Common pipistrelle, Long-eared, and an unidentified Myotis bat species. A total of 2 Common pipistrelles emerged from the building.
- 3.10 At 19:55 (30 minutes after sunset) a Common pipistrelle emerged from a hanging tile upon the south elevation, a second Common pipistrelle emerged from a different hanging tile at 19:58.



*Emergence location of 2 Common pipistrelles (red circles)*

- 3.11 Bat activity was generally low and dominated by Common pipistrelle, with the most regular activity recorded to the south, associated with foraging activity along the hedgerow. An unidentified Myotis pass was recorded to the south at 20:44. A single Long-eared pass was recorded to the east at 20:47, with a further single pass recorded to the south at 20:58.



*View of the NVA' at the end of the survey viewing from the south (left) and north (right), along the west, north and south elevations*



*View of the NVA' at the end of the survey viewing the east elevation and north elevation (right)*



#### **4. DISCUSSION AND CONCLUSIONS**

- 4.1 Three bat emergence surveys have been completed between June and September 2025 at Cuckfield Cottage Homes in Cuckfield, West Sussex. All survey work has been carried out in accordance with the latest bat survey guidelines (Collins, 2023).
- 4.2 An overview of the survey findings is provided below, along with the site assessment and impact assessment.

##### **Overview of Bat Emergence Surveys**

- 4.3 The completed bat emergence surveys were carried out across the bat active period and were not significantly constrained to impact upon the overall survey conclusions.
- 4.4 Common pipistrelle bats were observed emerging from the building on all three surveys, with one emerging in June from the east elevation, three emerged from the south elevation in August, and two emerged from the same area on the south elevation in September. In turn, the building is confirmed as supporting roosting bats. Upon emergence, the Common pipistrelle bats took direct flight paths to begin commuting to their foraging habitat, there was no immediate foraging activity onsite (and so the immediate site area is not of importance in falling within the roosting bats core sustenance zone).
- 4.5 Bat activity across the wider site was low across all three surveys, with the highest level of activity recorded in June (as would be expected for that time of year and bat ecology at that time). Up to 5 bat species were recorded commuting and foraging across the wider site area, however this activity was not closely associated with the building.

##### **Bat Presence/Absence and Roost Status**

- 4.6 Cuckfield Cottage Homes is confirmed as supporting the following bat roosts<sup>1</sup>:
- \* 1 x Common pipistrelle Day roost - supporting an individual bat, associated with crevices under hanging tiles upon the east elevation of the building (south facing feature). The roost has one confirmed access point, however this roost may be highly mobile across the elevation;

---

<sup>1</sup> The assessment of the number of roosts has taken account of current Natural England guidance.

- \* 1 x Common pipistrelle Day roost – supporting up to 3 bats, associated with crevices under hanging tiles upon the south elevation of the building. The roost has 2 confirmed access points, however the roost may be highly mobile across the elevation.

- 4.7 In accordance with current bat mitigation guidelines (Reason and Wray, 2025), Common pipistrelle are considered widespread across Southern England, with Day roosts being of conservation value at the site level.
- 4.8 During the former PRA, no bats or secondary evidence of bat presence was identified within the internal roof voids of the property, and no bats have been observed emerging from this area of the building. Furthermore, the building is heated throughout the winter and so the internal roof voids are unlikely to be suitable to support hibernating bats. In turn, the internal roof voids are considered highly unlikely to support roosting bats at any time of year.
- 4.9 The building supports a variety of crevice features externally, including those under roof tiles and hanging tiles (where roosting bats have been confirmed as being present). In turn, the site is considered to be a non-standard potential hibernation site, with the identified external crevice building features being potentially suitable to support individual or small numbers of hibernating bats, predominantly Pipistrelle species. Overall, external elevations of the building are considered to have Moderate potential to support hibernating bats. It is not possible to fully inspect or further survey the external building features over the winter months in order to confirm bat presence/absence at that time of year, and so safeguarding measures (in accordance with Reason and Wray, 2025) must form part of the site's bat mitigation strategy.

### **Impact Assessment and Project Constraints**

- 4.10 Current proposals include changes to the west elevation of the building, creating new roof projections and flat roofs, as well as an extension to the south elevation (proposed plans dated the 20/06/2025 have been reviewed). In turn, the proposals will directly impact the west and south elevations of the building, with impacts to the associated roof pitches and underlying roof voids.
- 4.11 The current proposals will directly impact the south elevation, where a bat roost has been confirmed. All UK bat species and their roost sites receive legal protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to disturb, capture, injure or kill a bat, and/or obstruct, damage or destroy a bat resting place (roost). Further legislative details are provided in Appendix B.

- 4.12 Where bat roosts are present, the mitigation hierarchy must be considered, with the avoidance of impacts to bat roosts implemented wherever feasible to avoid a breach of legislation. Where it is not feasible to fully avoid all impacts to bats and their roost sites, an appropriate bat mitigation licence is required from Natural England to legally permit the identified impacts. A licence requires the implementation of an appropriate mitigation strategy to minimise overall impacts upon the species, with roost compensation provided as a last resort. Any mitigation and compensation requirements must ensure the favourable conservation status of the species concerned.
- 4.13 With consideration of the extent of the current proposals, it is not considered feasible to avoid all impacts to the identified bat roosts and in turn, there are unavoidable impacts in the absence of mitigation. Potential impacts of the proposal in the absence of mitigation include:
- \* Long-term destruction of a Common pipistrelle Day roost, supporting up to 3 bats at any one time. This will be caused by the proposed extension to the south elevation of the building and the loss of current roost features. These activities also pose a risk of direct impacts including injury to up to 3 Common pipistrelle bats;
  - \* Short-term disturbance to a Common pipistrelle Day roost, supporting up to 1 bat at any one time. The scale of the alterations and extension of the building will cause increased noise and vibration disturbance impacts;
  - \* Potential disturbance to individual / low numbers of hibernating bats (if present).
- 4.14 The long-term destruction of a Common pipistrelle Day roost is unavoidable and subject to the site contractor's permitted site access and material storage; it may also be unfeasible to avoid disturbance impacts to the roost associated with the east elevation of the building. In turn, mitigation is required in order to ensure that the proposals do not cause a breach of legislation.
- 4.15 In order to legally proceed with the proposal, an appropriate bat mitigation licence must be granted by Natural England before commencing any impactful works (this would include ground works).
- 4.16 All licence applications must meet Natural England's three licensing tests, which include:
- \* There is no satisfactory alternative;
  - \* The action will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS);
  - \* A licence can only be granted for the purpose of preserving public health and safety or other imperative reasons of overriding public interest (IROPI) including those of social or economic nature and beneficial consequences of primary importance for the environment.



- 4.17 If the need for the project's associated works can be justified and it is not feasible to meet the need in any other way, it will be possible to meet the no satisfactory alternative test. The implementation of an appropriate bat mitigation strategy would ensure the FCS of the species concerned, and an application could be made under IROPI in providing additional residential accommodation (subject to whether the local planning authority are in agreement that the proposal meets local planning needs and requirements).
- 4.18 The site's bat mitigation strategy will pose some constraints upon the project, with certain aspects of the works being overseen by the licensed bat ecologist and restrictions upon the use of certain building materials. Further details concerning the bat mitigation strategy are provided in Section 5.

## **5. RECOMMENDATIONS**

- 5.1 The recommendations provided below are specific to the current project proposal and the information available to CT Ecology at the time of report compilation. If the proposals alter from that detailed within this report, CT Ecology must be consulted for further advice.
- 5.2 Cuckfield Cottage Homes has been confirmed as supporting two Common pipistrelle Day roosts. In the absence of mitigation, the current proposal will cause unavoidable impacts to bats. To legally proceed with the proposed works, an appropriate bat mitigation licence must be granted by Natural England before any impactful works commence (including groundworks). An outline mitigation strategy has been devised for the site which will be used to inform the licence application. Once the licence is approved, works will then be able to lawfully proceed. Outline details of the current licensing process and requirements of an appropriate bat mitigation strategy are detailed below.
- 5.3 No further survey work is currently required to support the project's associated planning application.

### **Bat Mitigation Licence Application Process**

- 5.4 An appropriate bat mitigation licence application / site registration must be compiled, submitted, and the licence granted by Natural England before proceeding with any impactful works at the site (this includes prior to any impactful ground works). Once the licence is granted, works may only proceed in accordance with the issued licence and associated conditions.
- 5.5 An appropriate level of survey work (which is considered current) must accompany and inform the licence mitigation and compensation strategy. The extent of the current bat emergence surveys detailed within this report will be considered adequate to proceed with a licence application within the next 18 months, after this time, update bat emergence surveys would be necessary to support a licence application.
- 5.6 An application for a licence may only be applied for once all necessary consents, such as full planning consent (and/or listed building or demolition consent) have been granted, and all relevant wildlife conditions discharged (which can be discharged before the commencement of works). The licence application will be directly linked with the proposals and so an application can only be submitted alongside the applicable consents.
- 5.7 There are currently three licensing options available from Natural England, these are as follows:

- \* Bat Earned Recognition Class Licence (CL47) – Only a qualified registered consultant (RC) holding the licence may register the site to proceed under this licence. The RC must be registered for the appropriate Level and Annexe for the site specifics (currently AL1). Minimum roost compensation requirements must be met. This licence benefits from a 10-15 working day assessment period following submission of a site registration request, a site must be registered at least three weeks in advance of the intended start of licensable works, but not more than 12 weeks in advance. Natural England have a charging policy for the assessment of applications (with exemptions);
  - \* Individual Bat Mitigation Licence (A13) – The associated ecologist must be suitably experienced with the species/roost types concerned. All bat species and roost types can be applied for under this licence type. There is a Natural England assessment fee (with exemptions) and applicable assessment timeframes (stated as 30 working days<sup>2</sup> following submission) associated with this licence type. A licence will not be granted in excess of 12 weeks prior to the intended start of licensable works;
  - \* Bat Mitigation Class Licence (CL21) – Only a registered consultant (under Annex B) may apply for this licence type, by registering the site with Natural England. There are specific restrictions associated with this licence type, for example, only certain species, roost types and numbers of bats and roosts can be affected. There is a Natural England site registration fee (with exemptions) and applicable response time associated with this licence type. A site must be registered at least three weeks in advance of the intended start date, but not more than 12 weeks in advance. All roost impact works, and compensation must be completed within a 6-month period.
- 5.8 Once the project is in a position to proceed with a licence application, the project ecologist can advise of the most appropriate licence type available at that time. Based upon current options, a site registration under CL21 or CL47 would be most appropriate.
- 5.9 If the licence application is not submitted within 3 months of the last bat survey, an update site walkover must be carried out by the ecologist (or RC) to ensure conditions at the site have not altered since the completion of the surveys. Survey work must be up to date and considered current (survey work can be no older than two bat active seasons old) to support the licence application.
- 5.10 The licence will be time specific, with works needing to be commenced and completed within certain time frames. The licence will run for the period of the works, from the first licensable action through to any necessary post-development monitoring or management.

---

<sup>2</sup> Please note Natural England assessment periods may vary and may take longer than their standard stated timeframes to provide a decision during periods when high numbers of applications are submitted.

- 5.11 To meet the licensing tests, a suitable bat mitigation strategy must accompany a licence application, outline details are provided below.

### **Outline Bat Mitigation Strategy**

- 5.12 The following strategy has been compiled in accordance with current Natural England minimum expectations and best practice (Reason and Wray, 2025). Requirements may be subject to change over time.

- 5.13 The detailed strategy below must only be implemented following approval by Natural England and in accordance with the conditions of the site's bat mitigation licence issued by Natural England:

- \* Groundworks associated with the south elevation extension must not proceed during May-September, unless the bat mitigation licence has been approved and this includes the associated impacts to bat roosts;
- \* Site contractors, including roofing contractors, must attend a bat awareness toolbox talk provided by the ecologist. This would cover the legislation afforded to bats and their roost sites, details of the licence in place, safe working methods, compensation requirements, and what to do if a bat is found whilst the ecologist is not onsite. The ecologist will hold a record of attendees;
- \* Scaffolding to facilitate the proposed works may need to be altered to avoid obstruction and/or trapping bats within any enclosed areas of scaffolding. Therefore, the project ecologist must be consulted during the scaffold design;
- \* The removal of all roost features must be overseen by the ecologist, so that any bats present, can be safely captured and relocated out of the work impact area. In turn, the removal of all hanging tiles upon the south elevation of the building to facilitate the extension, must be overseen by the ecologist. Other areas and features which require stripping before the south elevation should be undertaken, leaving the south elevation unaffected until last;
- \* The stripping of all necessary roof tiles, hanging tiles and associated eaves/soffit features, must only be carried out when<sup>3</sup>:
  - It is dry and calm, with no extreme weather conditions; and

---

<sup>3</sup> Note that the peak bird nesting period runs from March-August inclusive and all active bird's nests receive legal protection. Therefore, nesting bird considerations will be necessary if works commence or proceed during this period.

- Temperatures are no lower than 8°C for at least an hour or two from dusk on 3-4 consecutive nights (which would be sufficient for bats to be active and to feed). Therefore, it is generally feasible to carry out stripping works between April and October inclusive.
- \* Owing to the proposed elevation finishes, there will be numerous opportunities for bats to gain access to underlying crevice features under roof tiles and hanging tiles. In turn, 1F bitumen felt should be installed under new roof pitches and wall elevations. If the use of a non-bitumen coated roofing membrane (NBCRM) is essential and can be justified, only products which have successfully passed a snagging propensity test and have received a valid certification may be permitted by Natural England. Where a NBCRM is installed, the ecologist must attend site at various points to ensure the membrane is not damaged before it is tile covered etc. All membranes must be installed in accordance with the manufacturer's instructions, and if the membrane becomes damaged, it must be repaired/replaced in accordance with the manufacturer's instructions;
- \* Although current guidance, does not require compensation to be provided for the loss of a single Common pipistrelle Day roost, the proposed elevation finishes (including clay roof and hanging tiles) will provide a variety of new roosting opportunities for the onsite and local bat population (and so the FCS of the species concerned will remain unaffected);
- \* Additional external artificial lighting should be avoided wherever possible and spillage from new glazed areas and the extensions must be avoided or mitigated, to prevent detrimental impacts to the onsite and offsite bat population. Requirements are detailed below:
  - There must be no direct illumination or light spillage upon the east elevation wall or roof pitches, or the site's boundary features, including the hedge lines;
  - Where external security and safety lighting is required, this must be set on passive infra-red motion sensors and short timers so that lights are only illuminated for a short time period as required (avoiding triggering by any nearby vegetation);
  - All external lighting associated with the proposal must be positioned at low level to prevent upward and outward light spillage and must be downlighting;
  - Warm white LED luminaires should be used to minimise ultra-violet output which affects local insect breeding cycles (and in turn bat foraging habitat and opportunities);
  - Further guidance can be found within the ILP and BCT, (2023) lighting document.
- \* There would be no post-development monitoring necessary.

## **General**

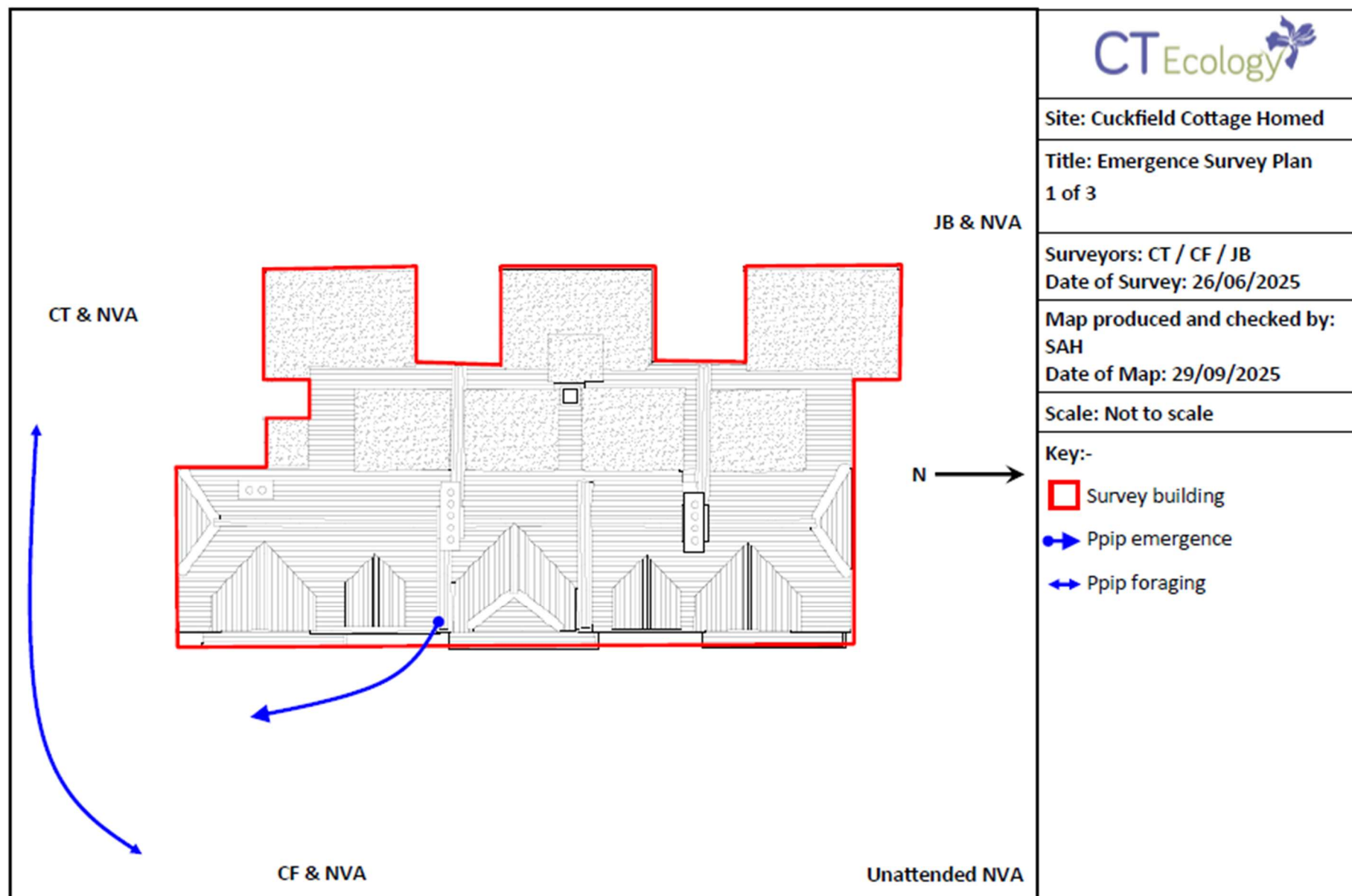
- 5.14 This report remains valid for a maximum of 24 months (2 years) post-survey to support the site's associated planning application. However, if the required bat mitigation licence is not submitted to Natural England within 18 months of the completed bat surveys, an appropriate level of update survey would be necessary to ensure survey data is current to support the licence application and associated bat mitigation strategy.

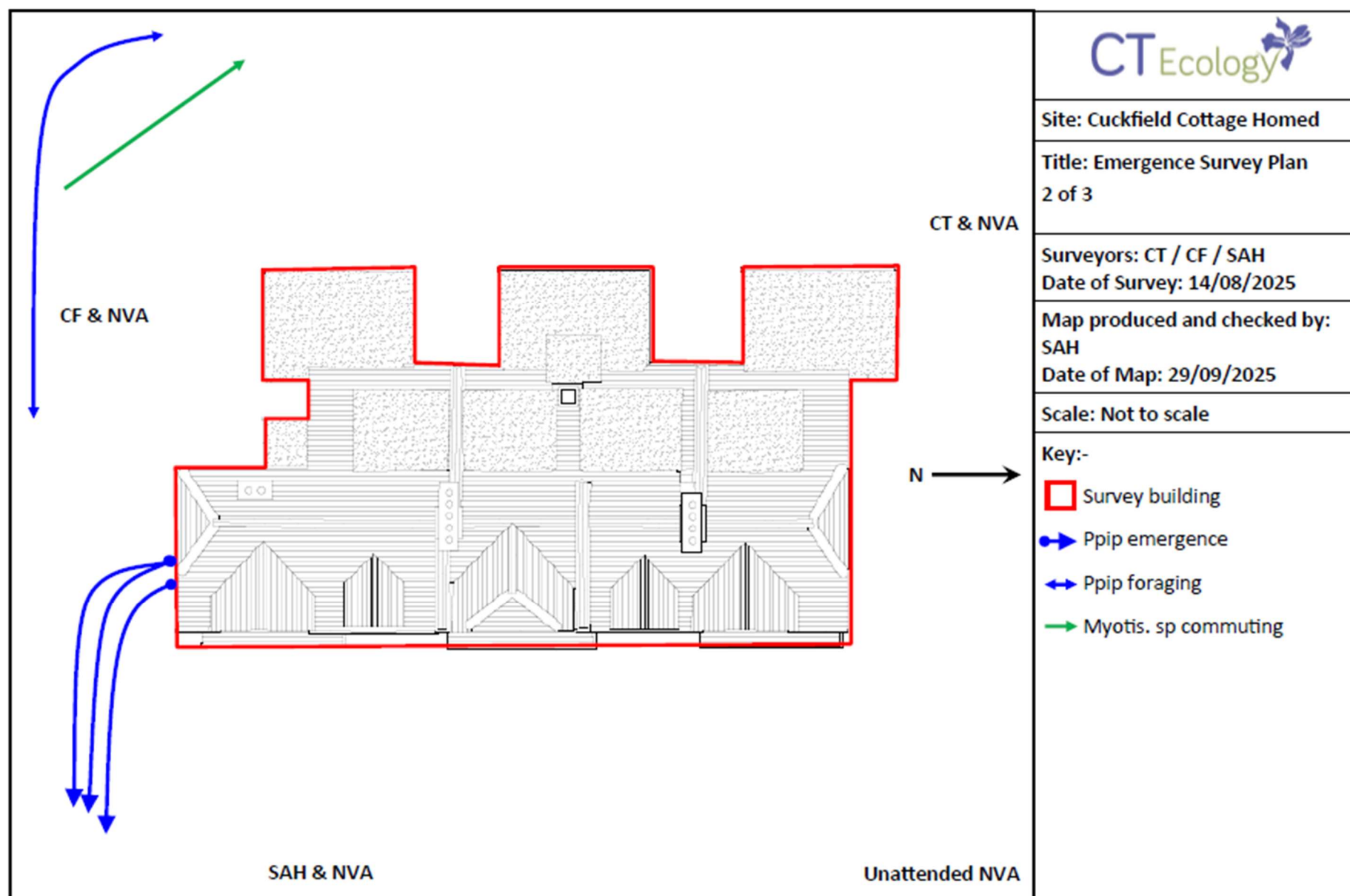
## 6. REFERENCES

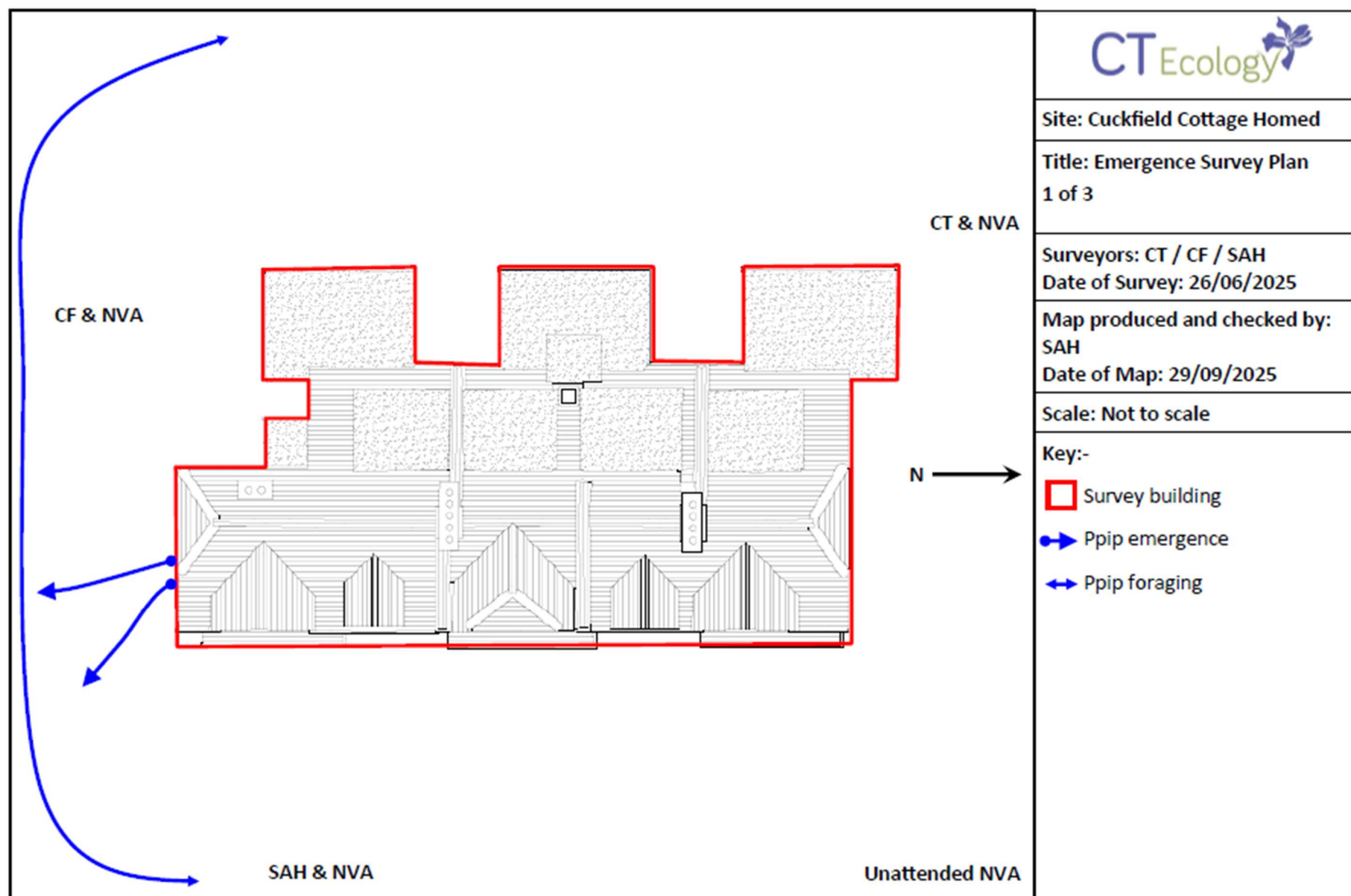
- \* Boldough, S., Denes, D. and Samu, P. (2007). *The effects of the illumination of buildings on house-dwelling bats and its conservation consequences*. Acta Chiropterologica **9**(2):527-534
- \* Collins, J. (ed.). (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4th edn. The Bat Conservation Trust, London
- \* CT Ecology (2025). *Preliminary Roost Assessment Report*. Unpublished Report for Cuckfield Cottage Homes. CT Ecology, West Sussex
- \* DEFRA. (2010). *The Royal Commission on Environmental Pollution (RCEP) Report on Artificial Light in the Environment*. DEFRA
- \* Fure, A. (2012). *Bats and Lighting – Six years on*. The London Naturalist **91**: 69-88
- \* Institution of Lighting Professionals and Bat Conservation Trust. (2023). *Guidance note 08/23: Bats and artificial lighting at night*. Institution of Lighting, Warwickshire
- \* Kuijper, D.P.J., Shut, J., Van Dulleman, D., Toorman, H., Goosens, N., Ouwehand, J. and Limpens, H.J.G.A. (2008). *Experimental evidence of light disturbance along commuting routes of pond bats Myotis dasycneme*. Lutra **51**(1): 37-49
- \* Limpens, H.J.G.A., Velamen, M.A., Dekker, J.J.A., Jansen, E.A. and Huitema, H.J. (2012). *Bat friendly colour spectrum for artificial light*. Dutch Mammal Society, LEDexpert. In preparation
- \* Reason, P.F. and Wray, S. (2025). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Chartered Institute of Ecology and Environmental Management, Ampfield
- \* Mitchell-Jones, A.J., McLeish, A.P. (2004). *Bat Workers Manual*. 3<sup>rd</sup> edn. JNCC
- \* Stone, E.L., Jones, G. and Harris, S. (2009). *Street lighting disturbs commuting bats*. Curr. Biol. **19**: 1123-1127
- \* The British Standards Institution. (2013). *Biodiversity – Code of practice for planning and development BS42020:2013*. BSI Standards Limited
- \* Waring, S.D., Essah, E.A., Gunnell, K. and Bonser, R.H.C. (2013). *Double Jeopardy: The Potential for Problems when Bats Interact with Breathable Roofing Membranes in the United Kingdom*. Architecture & Environment **1**(1): 1-13

## **Appendix A Bat Survey Plans**









## **Appendix B**

### **Legislation and Further Information**

## **Bats**

### **Bats and the Law**

All species of bats and their roosts are legally protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and also Schedule 2 of The Conservation of Habitats and Species Regulations 2017. This lists all UK bat species as European protected species. The word 'roost' is not used in the legislation but is used here for simplicity. Anywhere used by bats for shelter and protection such as breeding sites and resting places are known as 'roosts'. Bat roosts are protected even when bats are not present.

All bats and their roosts are fully protected under The Conservation of Habitats and Species Regulations 2017 making it an offence to:

- Deliberately kill, injure or capture (take) bats;
- Deliberately disturb a bat;
- Damage or destroy bat roosts or resting places;
- Intentionally or recklessly obstruct access to a roost;
- Possess, transport, control, sell/exchange or offer for sale a bat or any part of a bat live or dead.

A Natural England European Protected Species Mitigation Licence (EPSML) would be required if an individual wishes to undertake work or activities that would cause one of the above offences to be committed.

Under Regulation 55 of The Conservation of Habitats and Species Regulations 2017, Natural England, under powers conferred by the Secretary of State, has authority to issue licences under certain circumstances, provided that the appropriate mitigation for the particular situation has been met. No offence is committed if work is done under and in accordance with such a licence, but Natural England must be satisfied that there is no satisfactory alternative to the proposed action (avoidance measures) and that it will not be detrimental to the maintenance of the bats at a favourable conservation status in their natural range.

### **Bats and Breathable Roofing Membrane (BRM) / Modern Roofing Membrane (MRM)**

Research carried out at Reading University (Waring et al, 2013) has proven that most breathable roofing membranes (or non-bitumen coated roofing membranes, NBCRM) pose a risk of entanglement to bats. Generally, only traditional 1F bitumen felt with a hessian matrix (BS8747:2007) should be used in areas where bats could potentially (or are known to) be present. If use of a NBCRM is essential, a certificate that proves the roofing membrane has passed a 'snagging propensity test' must be supplied alongside a bat mitigation licence application to Natural England, no certificate is required for bitumen 1F felt that has a non-woven, short fibre construction.

It is the project ecologist's personal choice and decision as to whether they are willing to work on and be the Registered Consultant for projects where NBCRM are proposed and so please discuss this with the ecologist as early as possible within the project proposals.

## **Bats and Artificial Lighting**

Bat vision has evolved to be most effective in dim light; many species of bat are particularly sensitive to artificial lighting (Limpens et al. (2012)). All bat species will avoid artificial lights and lit areas when commuting to their foraging grounds, however some species are particularly sensitive (such as the long-eared bat (*Plecotus* sp.) and natterer's (*Myotis nattereri*)). Artificial lighting is also known to delay the emergence of bats and this in turn reduces the available time period available to forage (Boldough et al. (2007)). This can be highly detrimental to the survival of individual bats and their young. Some species of bats are more tolerant of light levels, however bats seen foraging around lights which emit high levels of ultraviolet (UV) light and so attract insects, are merely taking advantage of a concentration of prey which is no longer available in the unlit surroundings. Lighting interrupts the breeding cycle of insects and so can reduce the populations of insects available within a local area for other wildlife to prey upon. Bats will choose to commute through dark areas where there is an alternative available. Research has shown that bat activity can reduce significantly once artificial lights are switched on (in a previously dark area), (Stone et al. (2009) and Kuijper et al. (2008)) and bats often take alternative routes to avoid them; this can result in bats foraging in less favourable feeding areas and force them away from more sheltered routes, therefore putting them at greater risk of predation.

Any development or conversion that will require external artificial lighting to be installed in areas that can be expected to be used by bats, or areas which bats are being encouraged to use, should ensure that such lighting is low level and low wattage, directed down to where it is needed and be on for as short a time as possible (i.e. controlled by PIR and timers). LED lighting is advantageous as it does not release UV rays, however bright white coloured lights should be avoided, preferably amber or warm white lighting should be used. Amber coloured lighting has been shown to have no impact upon bat activity (Limpens et al. (2012)).

Light spillage upon hedge and tree lines and areas of open water should be avoided in order to retain these important habitat features and provide dark commuting and foraging areas. In turn, light spillage from large, glazed areas should be considered and glass should be tinted or have window film installed in order to minimise the release of light onto such features.

Further information and guidance regarding bats and artificial lighting is available from the Institute of Lighting Professionals [here](http://www.iolp.co.uk).

## **Disclaimer**

Whilst every effort has been made to discover roosting bats, it is possible that owing to their small size and their secretive nature when roosting / hibernating that some individuals may have been overlooked.

1. Our staff and our sub-consultants will endeavour to identify the presence of protected species wherever possible on site, where this falls within the agreed scope of works.
2. Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on site. We cannot take responsibility where Government, national bodies or industry subsequently modify standards.
3. The results of the survey and assessment undertaken by us are representative at the time of surveying.
4. We cannot accept responsibility for data collected from third parties and no liability is accepted for any delay or damage howsoever caused, including negligence or otherwise as a result of this report or any advice given.
5. Recommendations are provided following guidance from Natural England, other statutory bodies and from personal experience whilst considering the individual site and situation. No responsibility will be accepted by Mountfield Ecology if our recommendations are not requested to be carried out and a wildlife crime offence is committed.
6. This document has been prepared for the specific project proposal detailed within the report and so must not be relied upon for any other project without further consultation with the author to confirm its suitability in relation to any updated proposal. Mountfield Ecology do not accept any liability should this document be used for any other purpose than that which it was commissioned and intended for.

**All contractors must be made aware of the advice contained in this report.**

**It is the responsibility of those commissioning or managing the work to ensure this advice is complied with.**