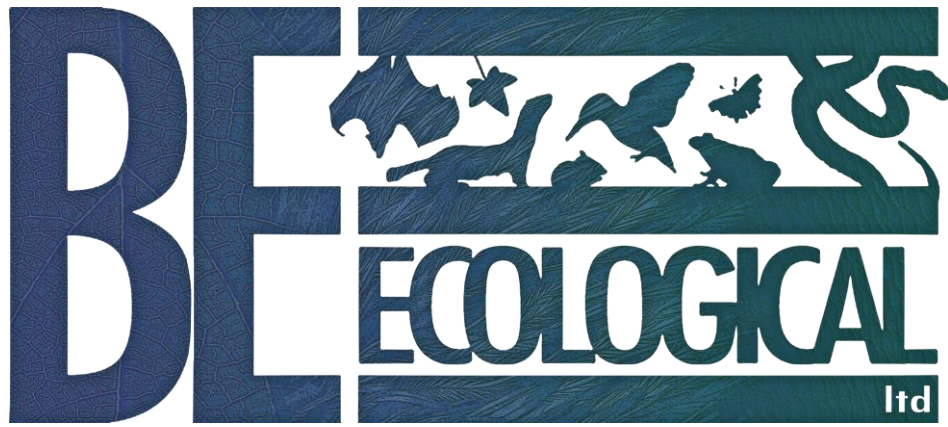




**92 SHIRLEY DRIVE, HEOLGERRIG, MERTHYR TYDFIL**

**BAT SURVEY  
ISSUE 1, VERSION A**

**JUNE 2023**

**Bat Survey Report**

## Document control

| Issue | Author | Checked | Approved | Date     |
|-------|--------|---------|----------|----------|
| 1     | BE     | BE      |          | 20/06/23 |
|       |        |         |          |          |
|       |        |         |          |          |

## Contents Amendment Record

This report has been issued and amended as follows:

| Issue | Revision | Description      | Approved by | Date     |
|-------|----------|------------------|-------------|----------|
| 1     | A        | Minor amendments | BE          | 27/06/23 |

**DISCLAIMER**

The report, content and all information contained herein may not be reproduced without the prior written permissions of BE ECOLOGICAL LTD. No part of this report or the information contained herein may be copied or reproduced without prior written consent from BE ECOLOGICAL LTD. This report has been prepared for the sole use of the commissioning party (s) contained herein and under no circumstance is any other party to make use of this report and information unless agreed in writing by BE ECOLOGICAL LTD. The report and information may not be used for any reason, including use for planning purposes, until such times as all outstanding fees relating to it have been paid to BE ECOLOGICAL LTD. No liability is accepted by BE ECOLOGICAL LTD for any use of the report or its contents, other than for those purposes stated.

Page left blank intentionally

## CONTENTS

|     |                                                                        |    |
|-----|------------------------------------------------------------------------|----|
| 1   | INTRODUCTION .....                                                     | 4  |
| 1.1 | Background.....                                                        | 4  |
| 1.2 | Site description .....                                                 | 4  |
| 1.3 | Proposed development .....                                             | 6  |
| 2   | LEGISLATION & POLICIES.....                                            | 7  |
| 2.1 | Conservation of Habitats & Species Regulations 2017 (as amended) ..... | 7  |
| 2.2 | Wildlife & Countryside Act 1981.....                                   | 7  |
| 2.3 | The Environment (Wales) Act 2016 .....                                 | 7  |
| 3   | METHODOLOGY.....                                                       | 8  |
| 3.1 | Data Search.....                                                       | 8  |
| 3.2 | Survey Objectives.....                                                 | 8  |
| 3.3 | Survey Summary .....                                                   | 8  |
| 3.4 | Surveyor Information .....                                             | 8  |
| 3.5 | Internal & External Inspection .....                                   | 9  |
| 3.6 | Activity Surveys (emergence/re-entry surveys).....                     | 9  |
| 3.7 | Survey limitations.....                                                | 10 |
| 4   | RESULTS.....                                                           | 11 |
| 4.1 | Data Search.....                                                       | 11 |
| 4.2 | Inspection survey .....                                                | 11 |
| 4.3 | Activity surveys .....                                                 | 12 |
| 4.4 | Survey Schedule and Weather Conditions .....                           | 12 |
| 4.5 | Activity Survey Results .....                                          | 12 |
| 4.6 | Identified roosts.....                                                 | 14 |
|     | Conclusion.....                                                        | 14 |
|     | Breeding Birds .....                                                   | 15 |
| 5   | INTERPRETATION & IMPACT ASSESSMENT .....                               | 16 |
| 5.1 | Active Season Usage .....                                              | 16 |
| 5.2 | Hibernation Season Usage.....                                          | 16 |
| 5.3 | Breeding Birds.....                                                    | 16 |
| 5.4 | Ecological Impacts of development .....                                | 16 |
| 6   | MITIGATION/COMPENATION /ENHANCEMENT.....                               | 17 |
| 6.1 | Bats.....                                                              | 17 |
| 6.2 | Birds.....                                                             | 17 |

|   |                                       |    |
|---|---------------------------------------|----|
| 7 | RECOMMENDATIONS .....                 | 18 |
| 8 | METHOD STATEMENT (NON-LICENSED) ..... | 19 |
| 9 | REFERENCES .....                      | 20 |

## **EXECUTIVE SUMMARY**

It is proposed to extend 92 Shirley Drive from a bungalow to a two storey dwelling. As part of this a garage will be demolished and re-located.

An initial bat inspection survey was undertaken in March 2023 in order to inform a planning application to extend the building. The results along with the areas of the building to be affected, indicated that the building is of low potential for roosting bats and as such further surveys were recommended.

Subsequent emergence surveys revealed that neither the property nor the bat roost is a garage.

A European Protected Species Licence will not be required.

As bat surveys are only a series of snapshots in time, to safeguard the unlikely event that bats are present within the building at the time of works, all work will be carried out in line with a method statement and ecological supervision.

No evidence of breeding birds was found on the exterior or interior of the building at the time of survey.

## 1 INTRODUCTION

### 1.1 Background

BE ECOLOGICAL LTD was commissioned by the client to undertake an initial bat inspection survey and subsequent activity survey of 92 Shirley Drive in support of a planning application to turn the property from a bungalow to a two storey dwelling.

This report includes the findings of the aforementioned bat activity surveys undertaken in the appropriate season.

The surveys were undertaken in line with the current guidance on standards for bat surveys (Bat Conservation Trust, 2016<sup>1</sup>).

### 1.2 Site description

The property subject of this survey is located at 92 Shirley Drive, Heolgerrig, Merthyr Tydfil.

The property is a brick built bungalow with a clay tile roof. The ridge of the property generally runs from north to south. Barge boards fascias and soffits are in good condition and are of uPVC.

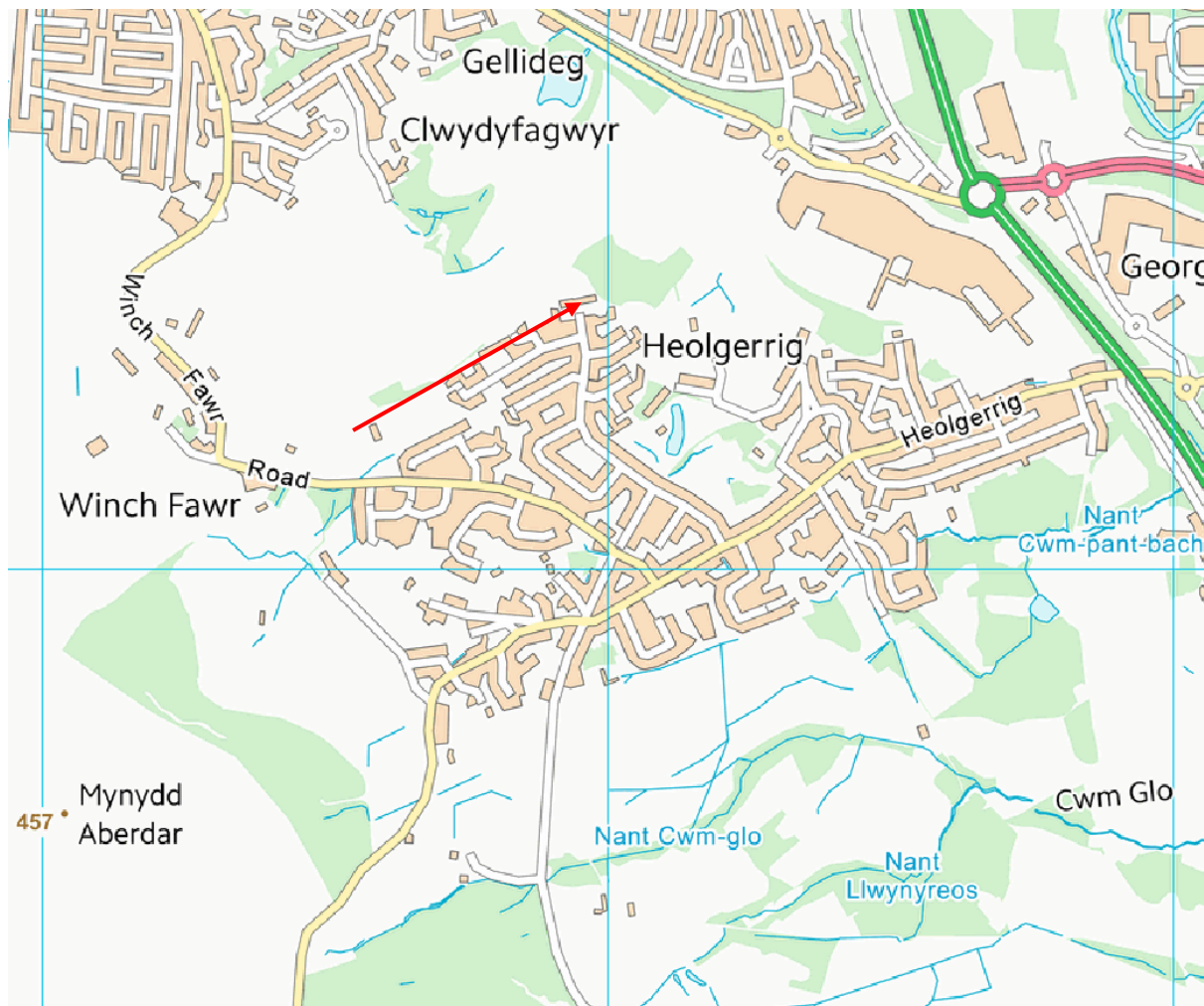
The property has a detached small garage to the rear with a ridge that runs from east to west. The roof of the property is clay tile. Again barge boards and fascias are of upvc and in good condition.

The property is surrounded by fields to the east and north which are delineated by mature hedgerows.

The property is set on the edge of an urban environment with housing and associated infrastructure to the south and west.

---

<sup>1</sup> *Bat Surveys for Professional Ecologists - Good Practice Guidelines* (Collins, J (Ed). BCT, 2016)



Contains Ordnance Survey data © Crown copyright and database right 2021

**Figure 1: Approximate location of site**

### **1.3 Proposed development**

It is proposed turn a bungalow into a two-storey property. As part of the proposals, a garage will be removed.

## **2 LEGISLATION & POLICIES**

### **2.1 Conservation of Habitats & Species Regulations 2017 (as amended)**

The Conservation of Habitats and Species Regulations 2017 (as amended) provides safeguards for European Protected Species (those listed under Annex IV Habitats Directive). With regards to bats, this makes it an offence to:

- Deliberately (or recklessly in Scotland) capture, injure or kill a bat
- Deliberately (or recklessly in Scotland) disturb a bat in a way that would (significantly in Scotland) affect its ability to survive, breed or rear young (or hibernate or migrate in England, Wales and Northern Ireland) or (significantly in England, Wales and Scotland) affect the local distribution or abundance of the species.
- Damage or destroy a roost (this is an 'absolute' offence)
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat

### **2.2 Wildlife & Countryside Act 1981**

The Wildlife & Countryside Act 1981 (as amended) is the legislation for England and Wales for nature conservation, making it an offence to:

- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost

### **2.3 The Environment (Wales) Act 2016**

The Environment (Wales) Act 2016 requires that all public authorities, when carrying out their functions in Wales, seek to "maintain and enhance biodiversity" where it is within the proper exercise of their functions. In doing so, public authorities must also seek to "promote the resilience of ecosystems". This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act. In Wales, this legislation replaces and enhances the Natural Environment and Rural Communities Act (2006) which sought to raise the profile of biodiversity and to make sure that it is considered in all local authority decisions by ensuring that "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.". Other elements of NERC 2006 may still apply.

### **3 METHODOLOGY**

#### **3.1 Data Search**

The South East Wales Biodiversity Records Centre (SEWBRc) were formerly requested to supply a Bat and Roof-nesting Birds (BARB) survey for the site (0234-165). The survey to provide; bat records within a 2km buffer, roof nesting birds within 150m buffer plus a list of all Special Areas of Conservation (SAC) and sites of Special of Special Scientific Interest (SSSI) designated for bat species within a 10km site buffer.

#### **3.2 Survey Objectives**

- To carry out an initial bat inspection survey along with the recommended activity surveys
- To present the above details and if necessary recommendations for mitigation, future research and compensation within this report.
- To carry out a scoping survey for breeding birds

#### **3.3 Survey Summary**

The bat survey comprised of three parts:

- Part 1- Initial bat inspection survey
- Part 2- A data search
- Part 3- A single activity survey

#### **3.4 Surveyor Information**

The survey was run by Beth Evans. Beth is the owner of BE ECOLOGICAL LTD and has a postgraduate degree in Environmental Biology: Conservation & Resource Management, specialising in British bats. Beth has six years' experience of ecological surveys, both in a small scale and large multi-disciplinary context. Beth also holds Natural Resources Wales and Natural England bat licences to disturb and handle bats.

Beth Evans was assisted during the activity surveys by Gavin Vella and an IR camera.

### 3.5 Internal & External Inspection

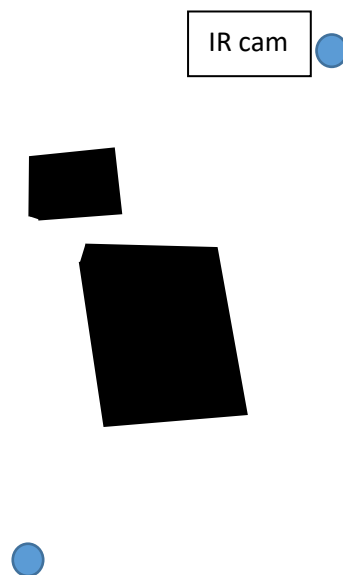
An initial inspection survey was carried out in March 2023 to search all buildings, both externally and internally to identify potential bat roosting areas and signs of bat use including; live bats, dead bats, droppings, urine staining, grease marks and discarded prey items. The buildings and all areas/items of interest were recorded and photographed. Extension ladders/steps were used to safely access roof areas and fascia boards etc; where no safe access was available the survey was conducted using, close focus binoculars and/or a high powered lamp.

### 3.6 Activity Surveys (emergence/re-entry surveys)

Building 'emergence' and 're-entry' surveys were carried out on the following dates, times and weather conditions. Climatic conditions including rain, wind, temperature and cloud cover were recorded for each survey using a hand held Kestrel 4500 weather station.

#### 3.6.1 Survey 1- 7<sup>th</sup> June 2023

A dusk survey was carried out on 7<sup>th</sup> June 2023. Surveyors and cameras were equipped with Batlogger M and M2 detectors.



**Figure 3: Viewing locations demarked blue**

### **3.7 Survey limitations**

Any survey for bat species can only be a series of snapshots in time. Bats are highly mobile, long lived creatures (capable of living up to 30 years, sometimes longer) with complex social structures and utilising multiple roost sites within a year. The implications of this are that surveys and surveyors have to make informed assumptions based on observations, recorded data, local information and a detailed knowledge of the species.

The western end of the property is not viewable due to it forming part of the property boundary.

## **4 RESULTS**

### **4.1 Data Search**

The site is not within 10km of either a SSSI or SAC that has been designated for bat species within Wales.

A total of 311 records were returned within the data search. The majority of records within 1km refer to bats in flight. The closest record is approximately 450m from the site and refers to brown long-eared, pipistrelle and myotis sp. bats in flight.

16 bird records were returned within the data search. The closest species refer to swallow 177m from the site with pied wagtail, house sparrow and blue tit approximately.

### **4.2 Inspection survey**

#### **4.2.1 External survey results**

The survey carried out by BE Ecological Ltd revealed no droppings or evidence of bats on the exterior of the building. A small number of potential access points were noted on the exterior of the building

- Gaps beneath uPVC barge boards and fascias

Please see appended plates for photographs of the property exterior. Other than these areas, the building appears to be relatively sealed. No gaps were noted around the lead flashing of the chimney nor beneath tiles on the main building.

Please note, the gap beneath fascias and barge boards are very small and it is considered unlikely that bats can actually enter at these locations.

As such, the property was categorised as being of low potential for roosting bats and further emergence/re-entry surveys were recommended.

#### **Garage**

The onsite garage appears to have very few points of ingress for roosting bats. The roof appears to be well cemented with tile overhangs blocked with moss. The windows and doors are kept closed. The fascias are bevelled so that they fit flush with the wall. The ridge tiles are tightly cemented.

It was considered that further surveys were not considered necessary, however, a large part of the garage could be seen during the survey of the main building and as such, was observed during the survey of the house.

No birds were noted during the survey.

#### **4.2.2 Internal survey results**

There is a small roof void above the property with an approximate height of 1.5m from joist to ridge. The void is a typical rafter and perlin construction with a bitumen felt roof. A section of bitumen appears to have been replaced by a plastic membrane. The loft is insulated at joist level with fiberglass insulation. The loft has a light present, appears to be relatively clean and tightly sealed with no obvious light ingress. No bats or evidence of bats was observed.

There is a very small void present above the garage. The void is lined with bitumen felt and is not safe to walk on but can be viewed from the entrance hatch. No bats or evidence of bats was found in this location and no obvious light ingress' or points of ingress were noted.

#### 4.3 Activity surveys

The surveys were undertaken as per the table below:

#### 4.4 Survey Schedule and Weather Conditions

**Table 1: Schedule and weather conditions**

| Visit                | Date<br>(sunrise)<br>(sunset) | Start<br>End | Time  | Temp<br>C | Wind | Cloud<br>Cover | Notes                          |
|----------------------|-------------------------------|--------------|-------|-----------|------|----------------|--------------------------------|
| Survey 1<br>07/06/23 | 21:28                         | Start        | 21:10 | 18        | Low  | 30%            | Dry evening,<br>insects flying |
|                      |                               | End          | 23:00 | 16        | Low  | 15%            |                                |

#### 4.5 Activity Survey Results

##### 4.5.1 Survey 1- 7<sup>th</sup> June 2023

The first bat heard was a common pipistrelle approximately 15 minutes post sunrise. The bat was seen flying high from south to north. Throughout the survey, the same flight behaviour was identified for a number of common and soprano pipistrelle bats relatively early

A number of pipistrelle bats were observed foraging throughout the grounds of the property throughout the course of the survey, feeding above and over the buildings and back and forth the street at the north of the property.

No bats emerged from nor interacted with neither the house nor garage on this date.

#### 4.5.1 Identified flight paths (arrowed red)

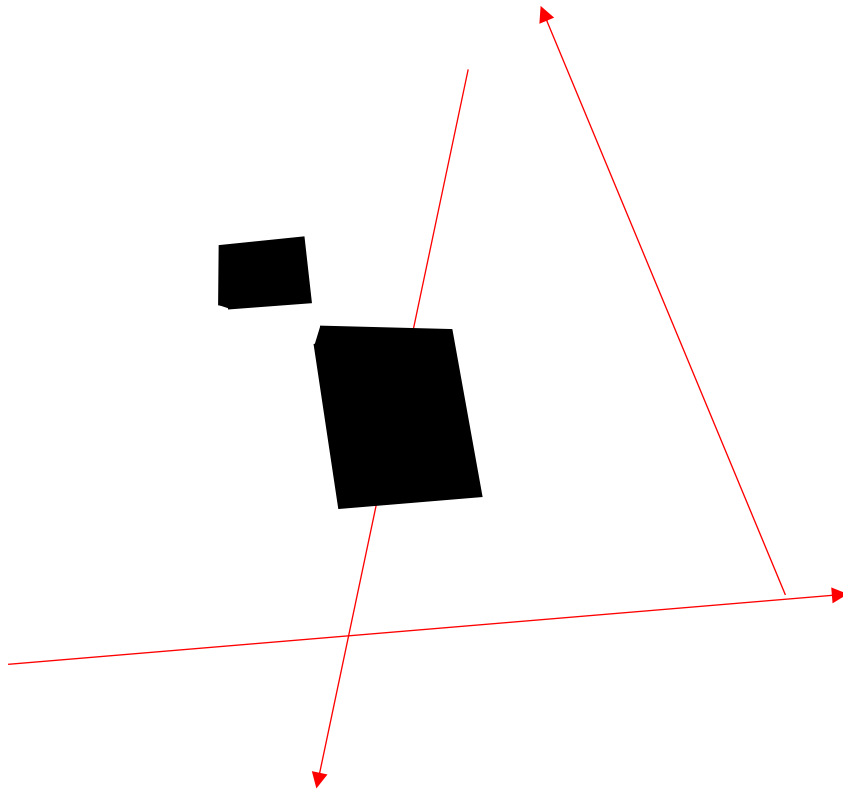


Figure 5: Main identified flight paths (please note, paths are high over the building, not in close proximity to it)

## **4.6 Identified roosts**

### **4.6.1 Survey 1**

The property was not confirmed as a roost on this date.

### **Conclusion**

Generally bat activity at the site is moderate with pipistrelles flying and foraging along the vegetation of the site and high above the building.

It is considered that 92 Shirley Drive is not a bat roost at the time of writing.

Bats are highly mobile, long lived creatures (capable of living up to 30 years, sometimes longer) with complex social structures and utilising multiple roost sites within a year. The implications of this are that surveys and surveyors have to make informed assumptions based on observations, recorded data, local information and a detailed knowledge of the species. As bats surveys are only a series of snapshots in time, the works will need to proceed in line with a method statement and ecological supervision which can be found appended to this report.

A licence from Natural Resources Wales will not be required prior to any works being undertaken on the building. If at any point bats or evidence of bats are noted, all works will cease and NRW will be consulted.

### **Breeding Birds**

No evidence of breeding birds was found throughout the property. However, a blue tit and sparrow were noted during the scoping survey along the tree line to the east.

## **5 INTERPRETATION & IMPACT ASSESSMENT**

### **5.1 Active Season Usage**

It is considered that the property is not a bat roost.

### **5.2 Hibernation Season Usage**

The building has not been identified as a bat roost and therefore it is unlikely that bats will hibernate in the property over winter. To safeguard the presence of hibernating bats, any demolition will not be undertaken between 15<sup>th</sup> November and 15<sup>th</sup> February.

### **5.3 Breeding Birds**

No birds nests were found throughout the property. Should a nest be identified in this at any point, it will be left until the birds have fledged the nest of their own accord.

### **5.4 Ecological Impacts of development**

The impacts of the development have been assessed using the current information of the proposed works. Should any changes be made to the proposed works, the assessment will need to be reviewed and amended as necessary.

It is considered likely that the property is not a bat roost at the time of writing. A licence from Natural Resources Wales will not be required, however, works will need to be undertaken in line with a method statement and ecological supervision. The method statement is appended to this report.

## **6 MITIGATION/COMPENATION /ENHANCEMENT**

### **6.1 Bats**

Two of the following bat tubes will be erected on the eastern elevation of the property. Boxes will be mounted at least 3m above ground level

[https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox?bkfno=252213&ca\\_id=1495&adlocale=uk&gclid=CjwKCAjwkeqkBhAnEiwA5U-uM5kVSnEnyXhmzq1DXFxAkqyodByxWPXNPPHPqI-KD0ITzQvZC6RfvBoC9kAQAvD\\_BwE](https://www.nhbs.com/ib-vl-05-vivara-pro-build-in-woodstone-batbox?bkfno=252213&ca_id=1495&adlocale=uk&gclid=CjwKCAjwkeqkBhAnEiwA5U-uM5kVSnEnyXhmzq1DXFxAkqyodByxWPXNPPHPqI-KD0ITzQvZC6RfvBoC9kAQAvD_BwE)

### **6.2 Birds**

A vivarapro woodstone house sparrow nest box will be mounted on the western elevation of the property. Boxes will be mounted at least 3m above ground level

<https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box>

## **7 RECOMMENDATIONS**

### **7.1.1 Timing**

It is considered that the building is not a bat roost and therefore the works can be carried out at any time of year

### **7.1.2 Timber/roofing materials**

The property has not been identified as a bat roost, therefore there are no restrictions on roofing materials.

### **7.1.3 Lighting**

Bat boxes will not be directly illuminated. Any new external lighting will face downwards and be set on timers to ensure that bats can use the area should they wish. – In addition to this, any onsite lighting will conform to the following guidelines:

<https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

Flight paths to the bat boxes and the newly installed bat box will be kept dark at all times.

### **7.1.4 Bat Licensing**

A European Protected Species Licence obtained from Natural Resources Wales will not be required before any works commence.

### **7.1.5 Supervision**

Supervision for the removal of the tiles for both the main house and the garage.

## **8 METHOD STATEMENT (NON-LICENSED)**

1. A suitably licenced and experienced ecologist will be on site/call for the duration of the works.
2. Before any work begins on site, a briefing for contractors and other site-staff 'toolbox talk' will be given by an ecologist. The briefing will cover the issues in respect of protected species they may encounter on site, where they might find them, methods of working, and what they need to know to avoid committing an offence. Every briefing attendee will be provided with a copy of a Method Statement and the contact details of an ecologist and Natural Resources Wales.
3. All suitable bat roosting features will need to be removed by hand (tiles, fascias, barge boards etc) and inspected by the onsite bat ecologist.
4. The tiles will also need to be removed manually, one at a time, with the bed and underside inspected for bats/sign of bats by the onsite ecologist before moving onto the next.
5. The removal will be undertaken in such a way that no debris will enter the cavities
6. Prior to the demolition of any walls any cavities will be left open for a period of 48 hours prior to full demolition to ensure that in the unlikely event bats are present, they have a means of escape
7. Only when the onsite bat ecologist is happy that there is no further potential for bats, may he/she leave and the works continue with no supervision. A licensed bat ecologist will be on call for the remainder of the works. In the unlikely event that bats are found during a period that the licensed bat ecologist is not present on site, all works must cease and the licenced bat ecologist engaged.
8. If bats or their signs are found, a EPS licence may be required before works can legally resume.

## 9 REFERENCES

Bat Conservation Trust. (2016) *Bat Surveys - Good Practice Guidelines*. Bat Conservation Trust, London.

Mitchell-Jones, A.J. & McLeish, A.P. (2004) *The bat workers' manual (3<sup>rd</sup> Edition)*. Joint Nature Conservation Committee.

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. Natural England

The Conservation of Habitats and Species Regulations 2017 (as amended) (HMSO).

The Natural Environment and Rural Communities Act (2006) (as amended) (HMSO).

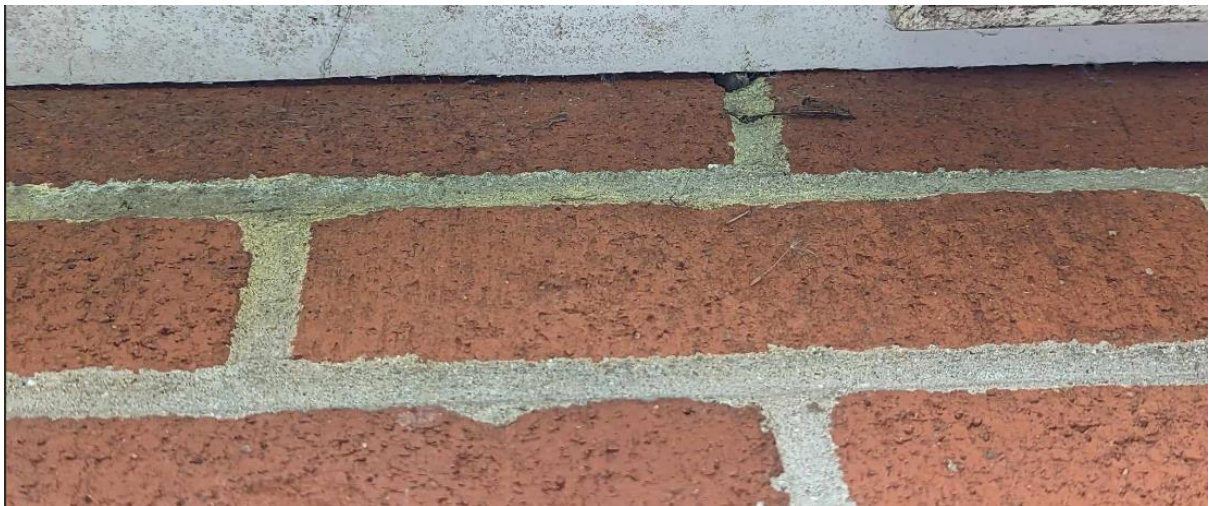
The Wildlife and Countryside Act 1981 (as amended) (HMSO).

## APPENDIX A- SITE PHOTOGRAPHS

Plate 1- photograph of tightly sealed roof



Plate 2- example of this gaps at eaves level



**Plate 3- example of thin gaps beneath barge board**

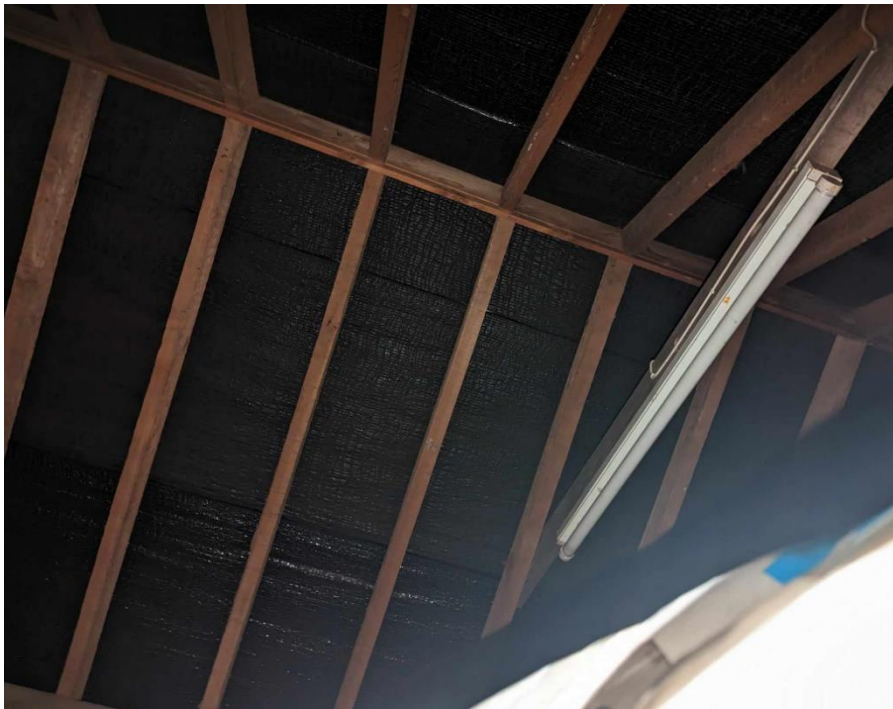


**Plate 4- photograph of roof void**



**Plat e5**

**Plate 5-view of roof**



**Plate 6-plastic membrane**



**Plate 7- photograph of tightly fitting tiles**



**Plate 8- photograph of tight fitting tiles on garage**



**Plate 9-photograph of garage**



**Plate 10- photograph of roof void above garage**



**Plate 11- photograph of rood void above garage**



**Plate 12- photograph of eastern gable of garage**



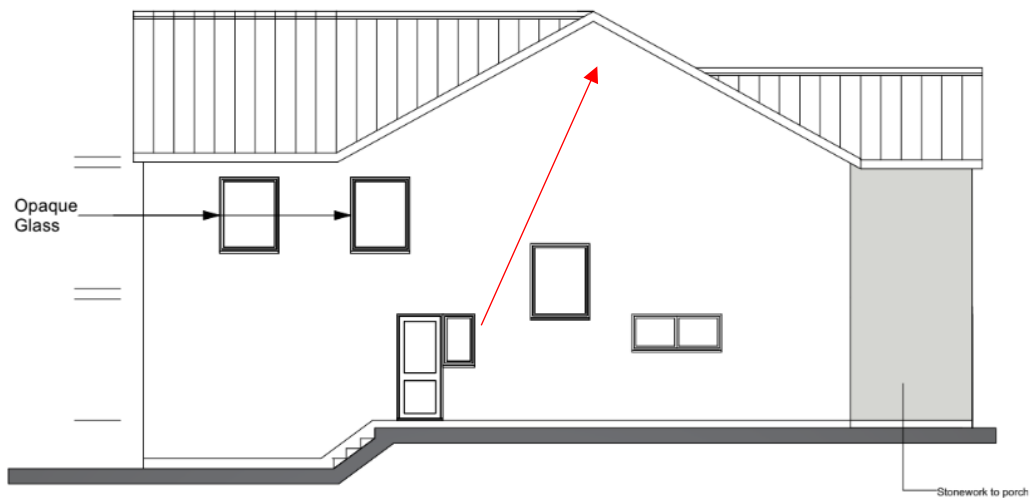
**Plate 13- photograph of small gaps beneath garage fascias**



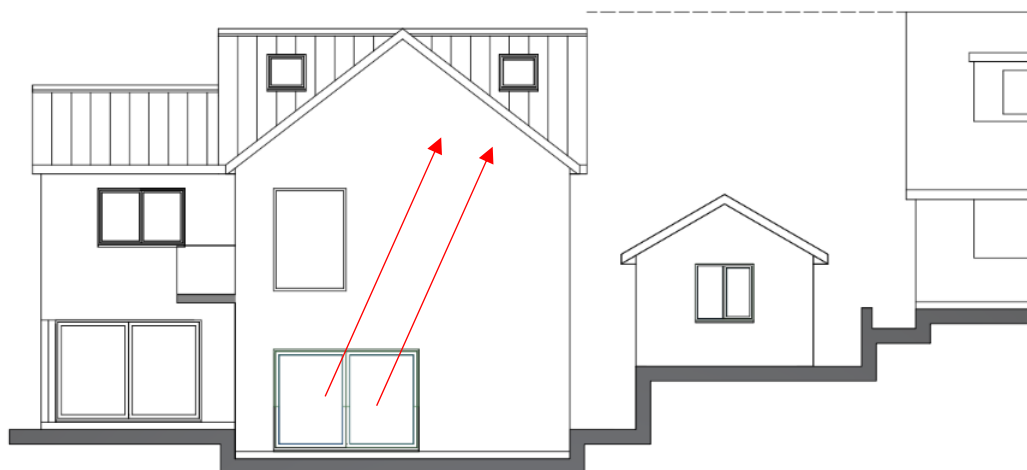
**Plate 14- Close up of gap between wall and uPVC of garage (showing very little access space)**



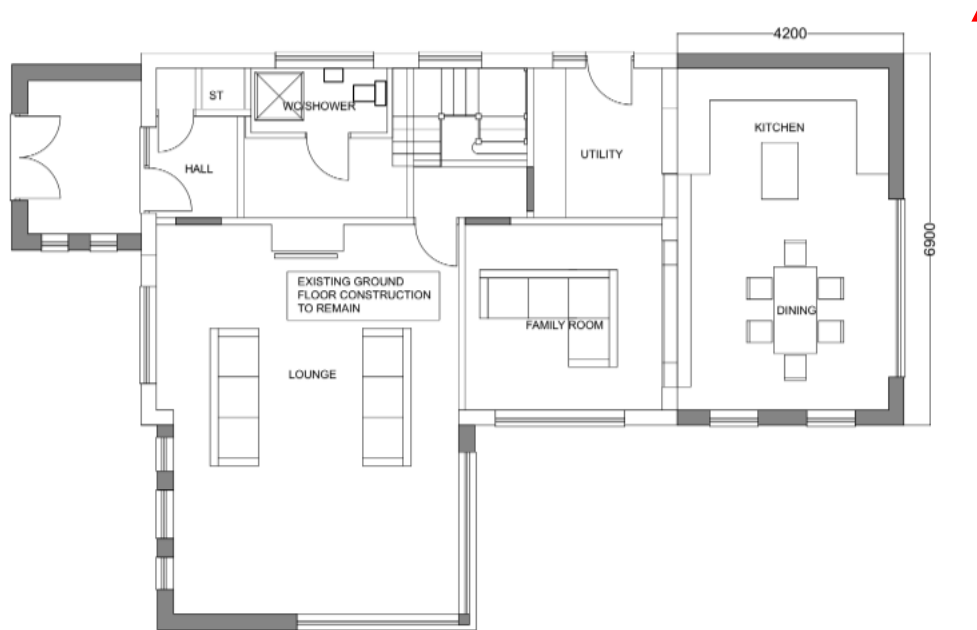
## APPENDIX B- Plans detailing enhancements (courtesy of Stephen George of George & Co Ltd)



## Location of bird box arrowed red (courtesy of Stephen George of George & Co Ltd)



**APPENDIX C- Areas to be kept dark to ensure flight path to bat boxes (arrowed red) (courtesy of Stephen George of George & Co Ltd) (no external lighting along eastern elevation)**



PROPOSED GROUND FLOOR