



## **5 Woods Road, Caversham**

Bat Survey Report

May 2022

E2134r1



COMMISSIONED BY  
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5 Woods Road  
Caversham

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Bat Survey Report**

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Bioscan Report No.  
E2134r1

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# 1 INTRODUCTION

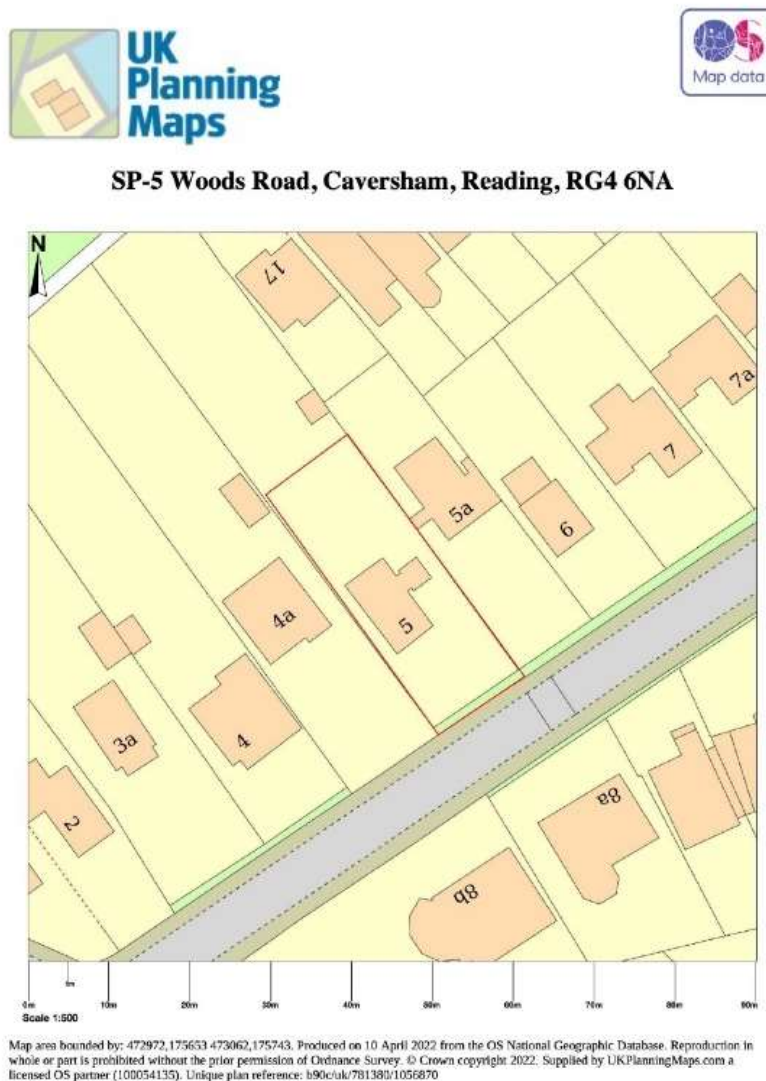
## 1.1 Background

- 1.1.1 Bioscan (UK) Ltd was appointed by Mr Sam Walker on 21st April 2022 to carry out a bat survey of 5 Woods Road, Caversham (grid reference SU7302075692, RG4 6NA), as shown at Figure 1 below.

## 1.2 Site context

- 1.2.1 The site is a residential property, set within the urban area of Caversham, with areas of mature trees and shrubs in neighbouring gardens. The grounds of Reading Cemetery and Crematorium are approximately 50m to the north, with open grassland beyond that. There are further open grassland fields 140m to the southwest, associated with Caversham Lakes, which lie 500m to the south of the site.

**Figure 1: Site Location**



### **1.3 Planning status**

- 1.3.1 The site is subject to a live planning application, as submitted to Reading Borough Council in April 2022 (planning reference 22/0554). The proposals are to:

*"Demolish conservatory and side extension to form first floor extension and wrap around 2 storey extension."*

- 1.3.2 A consultation response was issued by Reading Borough Council's ecology advisors (RBC Ecology Consultations) on 09 May 2022, which states:

*"The application site comprises a chalet style bungalow where it is proposed to add another floor after demolition of the existing conservatory and side extension."*

*The site is surrounded by habitat of excellent potential for use by foraging and commuting bats – large, connected gardens with trees, a cemetery to the rear of the site with lines of trees and hedges, and open grassland fields 140m to the southwest."*

*Considering the location of the site and the extent of the works, there is a risk that the proposals may affect roosting bats and a bat survey report will need to be provided before this application is determined. Further details are given below...."*

*The building may host roosting bats and to confirm whether this is the case, and if so, how bats will be affected by the proposals, a bat survey will need to be carried out. The survey will need to be carried out prior to determination of the application or the application would need to be refused on the grounds that insufficient evidence had been provided to determine the likely impacts of the proposals on bats (which are a protected species and a material consideration in the planning process)."*

### **1.4 Report purpose**

- 1.4.1 The purpose of this document is to report on the results of a bat survey carried out at this site, in order to inform the above planning application for partial demolition and redevelopment.

## **2 METHODOLOGY**

### **2.1 Desk study**

- 2.1.1 A brief desk study was carried out as part of the assessment process, which included a search of the Government's on-line MAGIC<sup>1</sup> database in order to source information relating to records of European Protected Species (EPS) licensing.
- 2.1.2 The Reading Borough Council planning portal was reviewed for information relating to protected species as submitted in support of applications for adjacent properties.
- 2.1.3 Consideration was given to the need to seek details of records from sources such as the local bat group; however, given that it was possible for the site to be comprehensively and satisfactorily surveyed, and opportunities for bats were limited, it was considered that background records data would be unlikely to yield any additional information of direct relevance to the site.

### **2.2 Building inspection survey**

- 2.2.1 A building inspection survey of the property was carried out on 20th May 2022.
- 2.2.2 The methodology for this survey was based on the Bat Conservation Trust (BCT) Good Practice Guidelines<sup>2</sup> and involved a detailed internal and external survey of the property to check for evidence of use by bats, such as the presence of bat droppings, marks caused either by the oils in the bats' fur or from urine, and prey residues (e.g. moth and butterfly wings), as well as the bats themselves. Externally this involved identifying and where possible checking features on the exterior of the building that bats might exploit for roosting. Such features can include fascia/barge boards and soffits, loose or hanging tiles, cracks in brickwork or panelling, weatherboarding and loose covering materials ranging from lead flashing to loose roofing felt. Internally this involved a detailed search of the enclosed roof voids for any evidence of bats.
- 2.2.3 The external survey employed bright (1 million candlepower) Clu-lite torches, binoculars, a FLIR thermal imaging camera, as necessary externally. A 4.8m telescopic ladder was used to access the loft space during the internal inspection.
- 2.2.4 Except where noted in the text below, it was possible to access all relevant parts of the building during the survey.
- 2.2.5 The survey was carried out by a licenced surveyor<sup>3</sup> who is also a full member of CIEEM, and her assistant, both of Bioscan (UK) Ltd.

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<sup>1</sup> Multi-Agency Geographic Information for the Countryside. MAGIC database. Accessed from: <http://magic.defra.gov.uk/home.htm>

<sup>2</sup> Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edition)*. The Bat Conservation Trust, London.

<sup>3</sup> Natural England WML-CL18 Level 2 class licence registration number 2015-11724-CLS-CLS

## 2.3 Bat emergence surveys

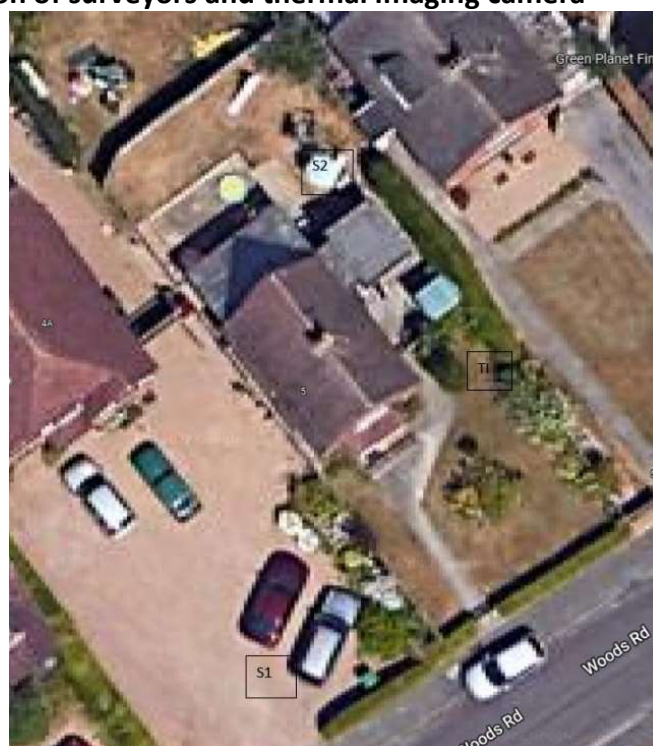
- 2.3.1 A dusk emergence survey was carried out on 20th May 2022, starting approximately 15 minutes before sunset and continuing until approximately one and a half hours after sunset, as detailed in Table 1 below.

**Table 1.** Bat Activity (Dusk Exit) Survey Details

| Date       | Sunset | Start Time | End Time | Temperature Range (°C) | Weather                   |
|------------|--------|------------|----------|------------------------|---------------------------|
| 20/05/2022 | 20:56  | 20:40      | 22:21    | 17 – 16                | 10% cloud, dry, light air |

- 2.3.2 The survey was carried out by two surveyors. One surveyor was equipped with an Anabat SD1/SD2 frequency division bat detectors (with internal recording system), and a Batbox Duet time expansion and heterodyne bat detector. The licensed surveyor was equipped with a Petterson time expansion and heterodyne bat detector. Additionally, one Anabat SD1/SD2 detector was placed with the thermal imaging camera to the east of the property. During the survey, one surveyor was positioned on Woods Road on the north east side of the property, while the other surveyor was positioned in the back garden to the south west, viewing the northern and eastern sides, and south and western sides of the property, as indicated at Figure 2. Bat calls were recorded on 16GB SD cards during the survey and analysed subsequently.

**Figure 2:** Location of surveyors and thermal imaging camera



Legend: TI – Thermal Imaging Camera; S1 – Surveyor 1; S2 – Surveyor 2

2.3.3 A preliminary survey of the building identified some potential bat roost entry and exit points behind the soffit box on the east side of the building. The FLIR thermal imaging camera was positioned on the east side of the building directed toward these features to record any potential bat emergence from these locations.

2.3.4 Optimal weather conditions for bat activity were encountered during the survey, as described at Table 1 above. The survey was carried out at an optimal time of year for bat exit surveys (within the peak activity window from May to August)<sup>4</sup>, as required by the best practice guidelines.

## **2.4 Thermal imaging analysis**

2.4.1 Approximately 105 minutes of footage were recorded of the roof tiles and soffit box on the east side of the building. The recorded footage was reviewed on a PC using VLC Player.

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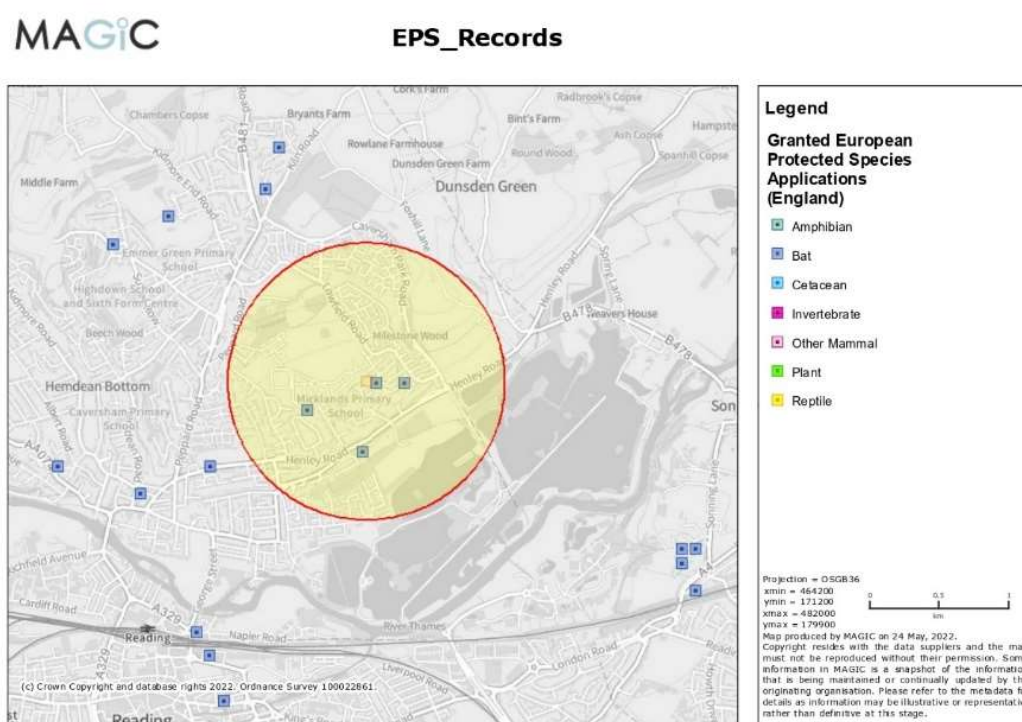
<sup>4</sup> Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> edition)*. The Bat Conservation Trust, London.

### 3 RESULTS

#### 3.1 Desk study

- 3.1.1 The Government's on-line MAGIC database was utilised in order to source information relating to records of European Protected Species (EPS) licensing. Figure 3 shows are EPS license applications within 1km of the site. As advised by the Reading Borough Council's ecologist, the site has areas of suitable habitat for foraging and commuting bats nearby – large, connected gardens with trees, a cemetery to the rear of the site with lines of trees and hedges, and open grassland fields 140m to the south-east. Four EPS licences have been granted previously within 1km of the site, as shown at Figure 3 below.

**Figure 3: European Protected License applications within 1km of the site**



- 3.1.2 There was no relevant ecology data available on the portal in respect of planning submissions for 5a and 6 Woods Road (planning references 08/1373 & 18/0441 respectively). Information submitted with a planning application relating to 4a and 5 Woods Road (planning reference 18/1573) included a report which detailed inspection surveys undertaken at 5 Woods Road during 02 December 2019 and which found no evidence of bats.

#### 3.2 Building inspection survey

- 3.2.1 Below follows a description of the property, an assessment of its bat roosting potential as identified from the internal and external inspections, and a summary of

any evidence of bats found. Interior and exterior photographs of the property are provided within Appendix 1.

- 3.2.2 The building is a two-storey detached house, which was occupied at the time of survey. The property has a pitched roof with gable ends to the front and rear.
- 3.2.3 The majority of the building is constructed of brick, which was noted to be in good condition, with no obvious gaps. The parallel brick construction was indicative of a cavity-wall type construction. There are hanging tiles on the front and rear gable-end elevations. The roof tiles and hanging tiles on the front and rear elevations of the house, were noted to be tightly fitting, with only a few gaps sufficiently large to permit bat access beneath the tiles. No obvious points of access into the roof space were noted. Most windows were made from uPVC but one sealed wooden window was noted in the porch. Soffit boxes run along the length of the east and west sides of the building.
- 3.2.4 The loft void approximately 7.6m in length and was split in two by a chimney stack. It measured 1-1.5m at the apex and was approximately 2m wide. There was fibreglass insulation on the floor of the loft. One half of the loft was partially boarded, the other was un-boarded. There was no lining beneath the roof tiles, and as such there were no crevices behind the tiles themselves.
- 3.2.5 Much of the building is assessed as likely to have low to negligible bat roosting potential: the majority of the structure is in good condition and well-sealed, the roof is constructed of composite tiles with few obvious gaps, and there is an absence of lining material behind the roof tiles that would offer opportunities for crevice-dwelling bats. And whilst the loft void was not unsuitable for roosting, it is assessed to be too low in height, too cluttered and too small in area to offer optimal conditions for void-dwelling bats.
- 3.2.6 On balance therefore, the building was assessed overall to have low suitability for bat roosting, and no evidence of bat roosting was noted anywhere within the building, including the loft void.

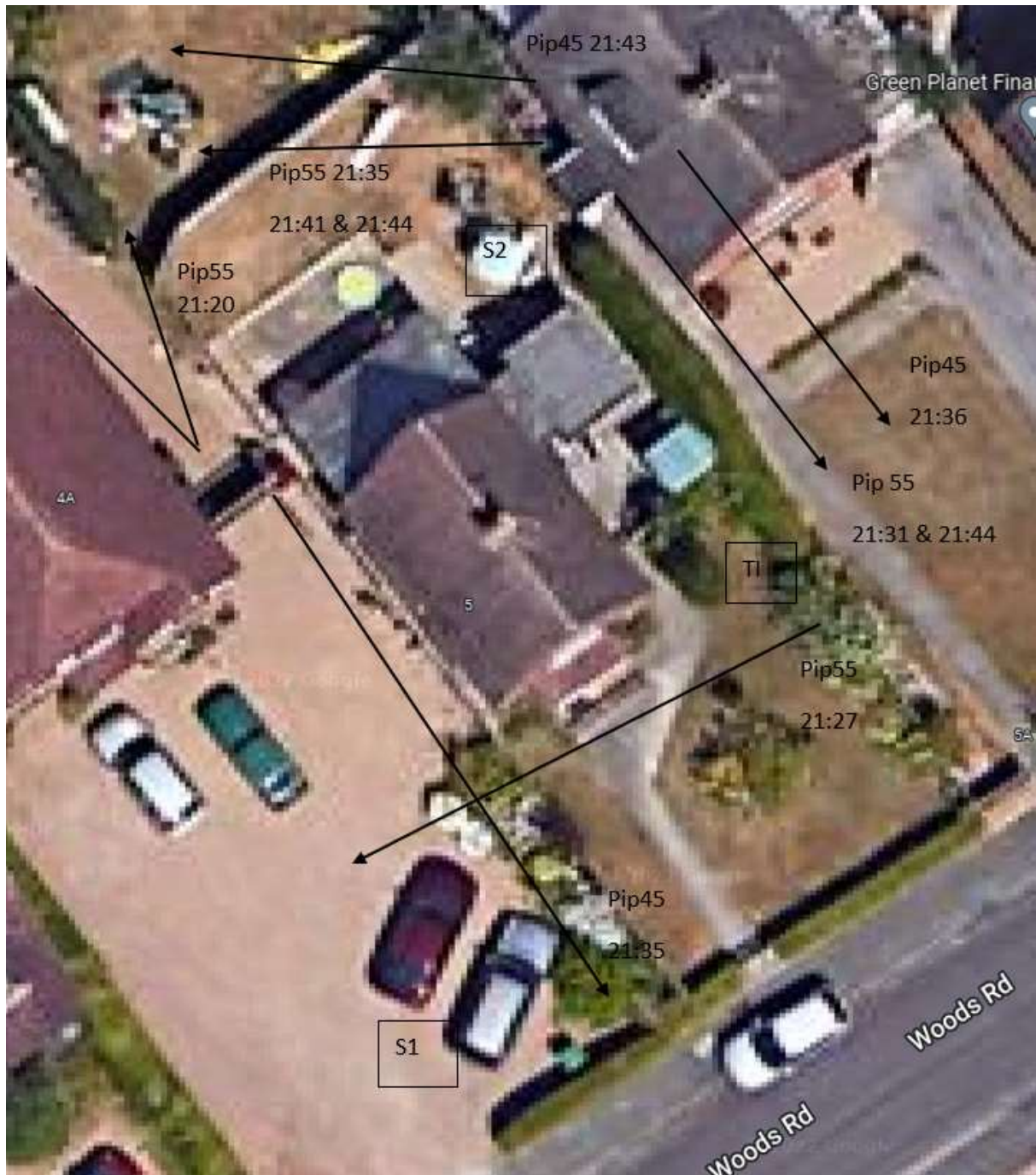
### 3.3 Bat emergence survey

- 3.3.1 The results of the dusk emergence survey are shown on **Figure 4** and summarised in **Table 2** below.

| Surveyor location (see Figure 2) | Survey findings                                                                                                                                                                                                                                                                                        |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| South-west of dwelling (S1)      | The surveyor noted occasional passes from common pipistrelle, <i>Pipistrellus pipistrellus</i> , and soprano pipistrelle, <i>Pipistrellus pygmaeus</i> bats (the earliest of which was at 21:20, i.e. 24 minutes after sunset). A noctule, <i>Nyctalus noctula</i> , was heard overhead on a couple of |

| Surveyor location (see Figure 2) | Survey findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | occasions. However, no bats were observed emerging from (or entering) the building.                                                                                                                                                                                                                                                                                                                                                                                                         |
| North-east of dwelling (S2)      | The surveyor noted occasional passes from common pipistrelle, <i>Pipistrellus pipistrellus</i> , and soprano pipistrelle, <i>Pipistrellus pygmaeus</i> bats (the earliest of which was at 21:19, i.e. 23 minutes after sunset). A noctule, <i>Nyctalus noctula</i> , was heard overhead on a couple of occasions. In addition to the species listed above there were several acoustic records of <i>Myotis</i> sp. However, no bats were observed emerging from (or entering) the building. |
| East of dwelling (TI)            | No evidence of bat emergence from the east side of the building was seen on the recorded thermal imaging footage. The detector stationed in this location recorded common pipistrelle, soprano pipistrelle, noctule and <i>Myotis</i> sp. bats, at times consistent with the surveyors described above.                                                                                                                                                                                     |

**Figure 4: Dusk emergence survey notes**



Legend:

Pip45 - Common Pipistrelle, *Pipistrellus pipistrellus*

Pip55 – Soprano Pipistrelle, *Pipistrellus pygmaeus*

## **4 CONCLUSIONS AND RECOMMENDATIONS**

- 4.1** The property was noted to have low overall bat roosting potential, with the areas of highest potential being the loft void, and occasional small-scale bat roosting opportunities on the exterior of the building. One bat activity survey was carried out during the evening following the building inspection to provide additional information and to investigate those areas which could not be accessed during the building survey, notably the soffit boxes.
- 4.2** Despite the habitat of good potential for use by foraging and commuting bats noted by the Borough Council's ecology advisors (RBC Ecology Consultations) in their consultation response on 09 May 2022, this survey yielded no evidence of bat roosting within the building. On this basis, no requirement to obtain a European Protected Species licence from Natural England prior to commencement of works has been identified.
- 4.3** Bats and their roosts receive full protection under Part 1, Section 9 of the Wildlife & Countryside Act 1981 (as amended) and Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended). Any works which would affect bat roosts must be carried out under a European Protected Species licence from Natural England. As such, while no roosts have been confirmed, should any evidence of bat roosting be found then all works must be stopped immediately and the advice of the local Natural England team must be sought.
- 4.4** The suitability of the new building for roosting bricks could be enhanced by incorporating some [bat bricks](#) into the structure. Alternatively, [external bat roost boxes](#) could be attached to the external walls.

## Appendix 1 – Site Photographs



Photo 1: 5 Woods Road viewed from south east



Photo 2: Front elevation of 5 Woods Road showing hanging tiles

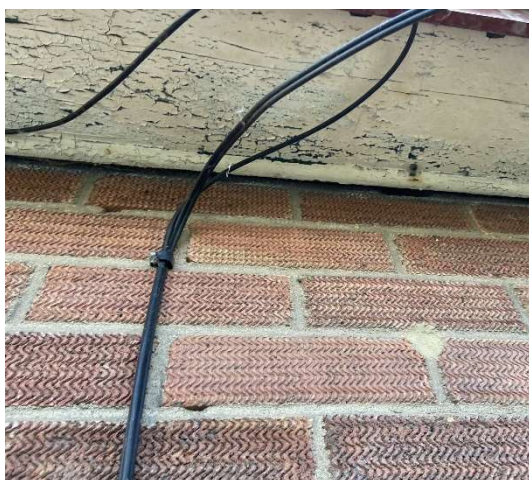


Photo 3: Gap behind soffit box on east of the building



Photo 4: Tiled roof on the east side of the building shown some loose tiles on the lower left-hand side



Photo 5: Close-up of loose roof tiles on the east side of the building



Photo 6: Rear elevation of 5 Woods Road showing hanging tiles



Photo 7: Close up of the hanging tiles on the rear elevation of the building showing a potential roost access point



Photo 8: The southern part of the loft void in the building



Photo 9: The northern part of the loft void, showing absence of lining beneath the tiles



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