Robin Hill, Bashall Eaves, Clitheroe

Bats: Building and Activity Surveys

Simply Ecology Limited

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April 2015 Updated June 2015

For

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1.0 INTRODUCTION

1.1 Background Information

1.1.1 Simply Ecology Limited was commissioned in April 2015 to undertake protected species assessment of Robin Hill, Bashall Eaves, Clitheroe BB7 3NA (O/S Grid SD 699 437; here after referred to as the site). See Plan 1: The Site Location, Plan 2: Aerial site view indicating building to be renovated.

1.2 Aims

1.2.1 The aims of this survey were to gather up-to-date information on the presence of bats at the site. This involved:

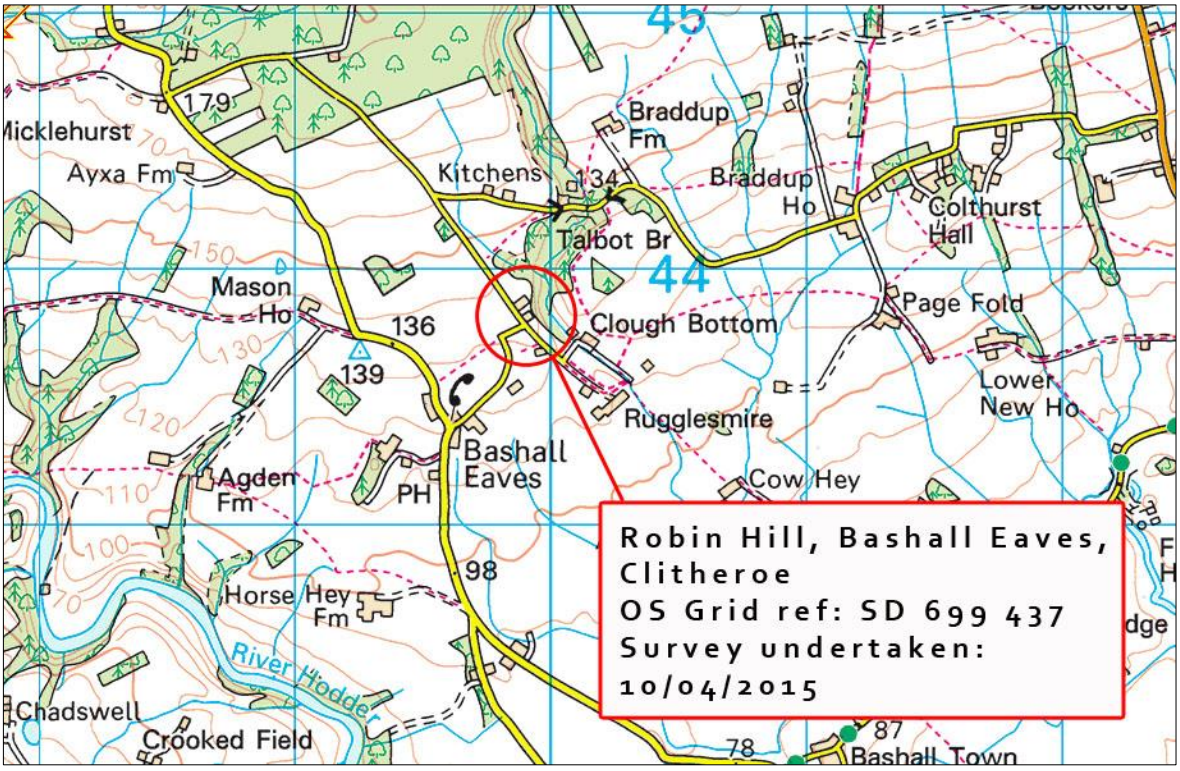
- Identifying potential structures of the building that could be used by bats.
- Identifying if there was any evidence of bats around the building.
- Providing an assessment of the likely importance of the site for bats and their conservation.
- Advising the client in relation to the proposed development and any impacts upon bats in order to ensure legislative compliance.

1.2.2 To achieve this, a building inspection for bats at the site was undertaken on 10th of April 2015. This submission presents the results of the ecological surveys at the site.

1.3 Site description and Proposed Works

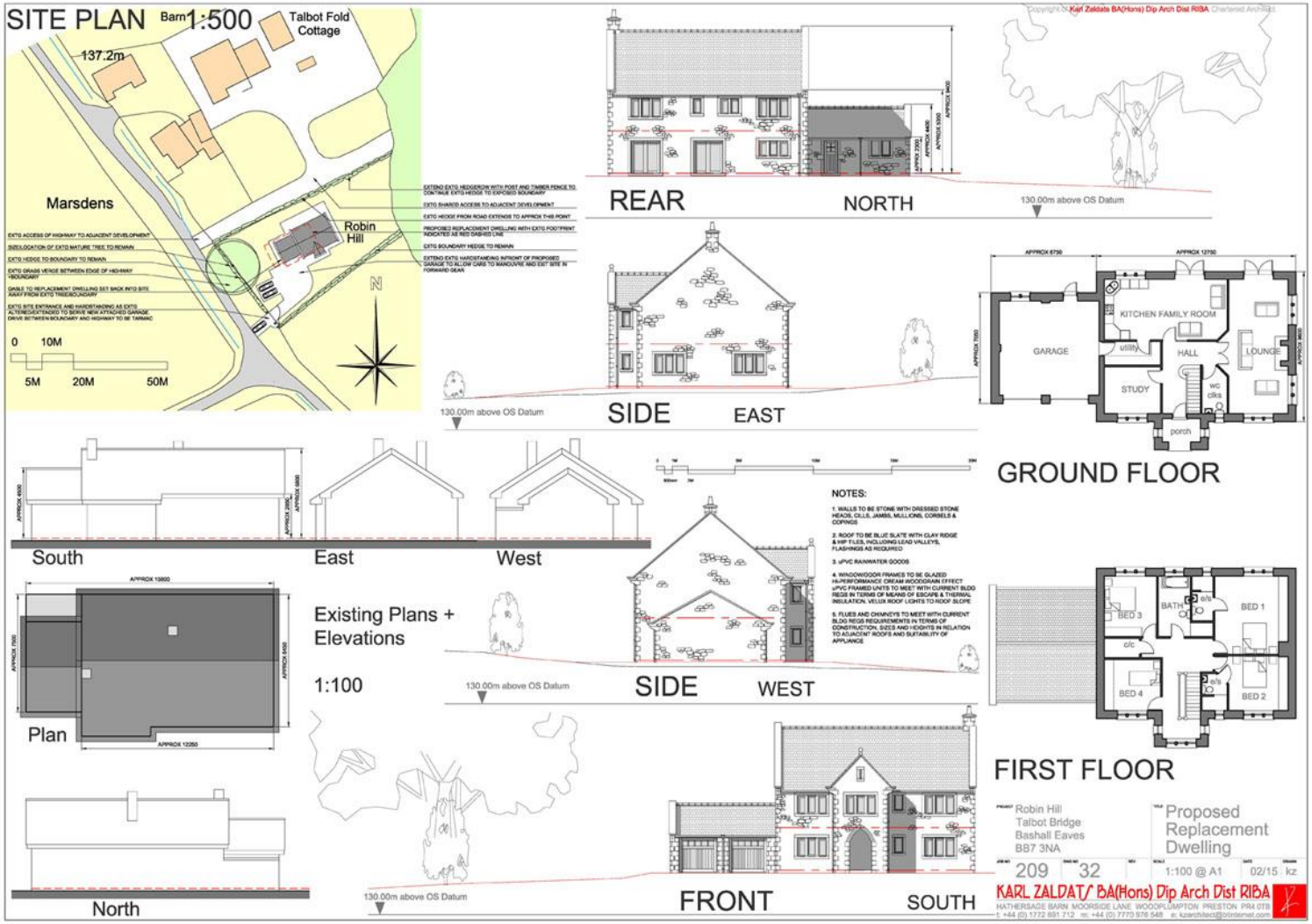
1.3.1 The site is situated along a single track road east of the small village Bashall Eaves which is located northwest of the town of Clitheroe in Lancashire (See Plan 1 & 2). The area affected by the development is approximately 0.015ha in size consisting of a single detached single storey bungalow building including a garage (See Plan 3). The site is surrounded by rural pasture fields with a farm located north of the site.

1.3.2 The survey described in this report was commissioned to inform a future planning application by John Didsbury for the demolition of the existing building and construction of a new residential property. The planning process requires up-to-date survey data the ecological value of the site and the presence of any notable habitats or protected wildlife, which this report addresses directly.



Plan 1: Site Location

Plan 2: Aerial overview of site



Plan 3: Site Development plan

2.0 SURVEY METHODOLOGY

2.1 Bat Survey

2.2.1 An inspection of the proposed area for development on the site was specifically carried out to search for bats. The building surveys were undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2012). The survey was carried out by Toby Palmer ACIEEM, an experienced bat surveyor. In accordance with best practice, the survey comprised the following elements:

- An inspection of the exterior of the building to look for obvious signs of bat activity (such as droppings) and assessing the potential for entry/exit into the property. Lighting was provided by a million candle power Cluson Clulite CB2. Any cracks or inaccessible areas were inspected using a ProVision PV-636 endoscope.
- An inspection of the interiors of all building examining walls, the underside of roofs and within any loft spaces in the property to determine whether bats were present, to look for signs of bat activity (such as discarded prey items and droppings) and to assess suitability for bats. Lighting was provided by a million candle power Cluson Clulite CB2. Any cracks or inaccessible areas were inspected using a ProVision PV-636 endoscope.

2.2 Personnel

2.2.1 All of the above surveys were carried out by Toby Palmer MSc ACIEEM, an ecologist with over 5 years of experience. Toby has worked for the Environment Agency as well as ecological consultants undertaking protected species surveys since 2010. Toby studied his master's degree at Lancaster University investigating the effects of predatory regime influence on the invasion success of the freshwater killer shrimp *Dikerogammarus villosus*.

2.3 Timing and Constraints

2.3.1 The building surveys were undertaken on 10nd April 2015. This is during the spring/ summer when bats are becoming active and beginning to forage. The timing posed no problems for the protected species assessment, and no constraints were encountered.

3.0 BUILDING INSPECTION RESULTS

3.1 Exterior Inspection

3.1.1 The inspection began by checking the exterior of the building for signs of bats including dropping as well as potential access opportunities (See Plate 1). The building was single storey bungalow construction with a pitched slated roof and 150m² in size. A garage was adjoining the west side of the building where the inspection began.

3.1.2 A systematic check began by looking for signs of bats beginning with the ground and walls around the building, however no signs were discovered. All windows and doors were timber construction with no cracks or crevices for bats to enter (See Plate 2). A number of gaps and cracks were observed along the underside of the soffit board of the gable where bats could enter (See Plate 3). The roof of the garage appeared in good order with no missing or slipped tiles, however there were a few gaps present within the mortar of the ridge tiles (See Plate 4).

3.1.3 The inspection continued around the rear of the property where a small storey flat roof extension was located (See Plate 5). The fascia board on the flat roof was checked and shown to have bat access potential due to the side of the gap (See Plate 6). The windows around the rear of the building where well sealed with no bat access potential. The rear side of the building revealed no bat access opportunities, the undersides of the soffits were well sealed against the building (See Plate 7). The rear side of the roof appeared in good order with no slipped of missing slates or ridge tiles (See Plate 8). The east end gable and front face of the building were finally checked but all shown to be well sealed with no bat access potential (See Plate 9 & 10). **Overall the external inspection revealed potential bat access on the west side of the garage. The rest of the main building showed no access potential.**

Plate 1: Front overview of the building

Plate 2: All the windows and doors were well sealed with no bat access potential

Plate 3: Gaps where bats could gain access were observed on the garage end gable under the soffit boards

Plate 4: Potential access opportunities were observed along the ridge line of the garage section of the building

Plate 5: Rear side of the property showing a flat roof extension attached to the garage

Plate 6: Gaps between the fascia board and wall could allow bat access

Plate 7: Underside of the soffits running along the rear side of the property were well sealed so stopping any bat access potential

Plate 8: Rear side of the roof revealed no bat access potential

Plate 9: East end gable with well sealed windows and no access potential around the soffit

Plate 10: Front face of the property showed no bat access potential

3.2 Internal Inspection

3.2.1 An internal inspection was undertaken inside the loft/attic space within the main part of the building (See Plate 11 & 12). This revealed a large open space with prefabricated truss framing and bitumen roofing felt. The space was thoroughly searched and no signs of bats were discovered including droppings or feeding remnants.

3.2.2 An internal inspection of the garage area revealed an open floor to roof space with plasterboard on the underside of the roof (See Plate 13). A number of dropping were discovered caught within cobwebs on one of the walls (See Plate 14). These where checked using the standardised crumble technique and shown to be bat droppings. **Overall the internal inspection discovered bat droppings inside the garage section of the building.**

Plate 11: Internal loft space of the main building showed no bat signs or access potential

Plate 12: The underside of the roof revealed bitumen felt in good order

Plate 13: Internal loft space of the garage showing plasterboard

Plate 14: Bat dropping discovered on interior wall caught within cobwebs indicating bat presence

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Bats

4.1.1 An external visual inspection survey of the building revealed potential access into the garage section of the building which was confirmed by the presence of bat droppings during the internal inspection of this section. The exterior and interior of the main section of the building revealed no bat access potential or signs.

4.1.2 Therefore it is recommended that:-

- A full summertime emergence survey will need to be undertaken on the building to determine location of roosting bats, species and numbers. These surveys should be carried out during the period May-August when bats are active. Upon completion of the bat surveys, the scale of impacts upon bats will be known and appropriate mitigation could be designed accordingly. **Reason:** In order to comply with the Wildlife and Countryside Act 1981 (as amended) (Section 9, Schedule 5 and The Conservation of Habitats & Species Regulations 2010 (Regulation 41).

5.0 REFERENCES

BAT CONSERVATION TRUST (2012). *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (2012) *National Planning Policy Framework*. HMSO. London.

JOINT NATURE CONSERVATION COMMITTEE Mitchell-Jones, A.J. & McLeish, A.P. [Eds.] (2004) *The Bat Workers Manual (3rd edition)*. Joint Nature Conservancy Council, Peterborough.

Web addresses for access to full UK legislation and policy text:

Conservation of Habitats and Species Regulations 2010:

http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1

Wildlife and Countryside Act 1981:

www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

Countryside and Rights of Way Act 2000:

www.legislation.hmso.gov.uk/acts/acts2000/20000037.htm

Natural Environment and Rural Communities Act 2006:

http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

ANNEX A: STATUTORY AND PLANNING CONTEXT

A.0 Bats

A.0.1 Bats and all places they use for shelter are afforded full protection by *The Wildlife and Countryside Act 1981* (as amended) (Section 9, Schedule 5). In addition to the above protection, bats are also protected under European legislation, which is implemented in England via The Conservation of Habitats and Species Regulations 2010.

A.0.2 If both national and international legislation are taken together, the legislative protection afforded to the species makes it an offence to:

- Intentionally/deliberately kill, disturb, injure or capture a bat.
- Intentionally or recklessly damage, destroy or obstruct access to any breeding site or resting place of a bat.
- Possess or control any live or dead specimen or anything derived from a bat.

A.0.3 If an activity is likely to result in any of the above offences, derogation from the legal protection can be issued in the form of a European Protected Species licence issued by Natural England. Licences for development purposes are issued under the Conservation of Habitats and Species Regulations 2010 and only allow what is permitted within the terms and conditions of the licence.

A.0.4 In addition to licensing, for activities requiring planning permission, the presence of bats is a material consideration, which must be fully considered when granting planning permission.

A.0.5 Where a development is proposed that may affect a protected species, alternative sites should be considered before granting planning permission. The planning authority may require mitigation or compensatory proposals in order for an activity to be granted planning permission.

A.2 Planning

A.2.1 When considering each planning application, the presence of protected species, such as those listed above, is a material consideration which must be fully considered by the Local Authority when granting planning permission. If a licence from Natural England is required, then prior to issuing any planning consent, the local planning authority will need to be satisfied that there is no reason why such a licence would not be issued. Therefore, in reaching the planning decision the local planning authority will need to have regard to the requirements of the Conservation of habitats and Species Regulations 2010. The three licensing tests given in the Regulations must be considered. In summary, these are that:

1. The development is required for the purpose of:
    - preserving public health or public safety,
    - other imperative reasons of over-riding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.
    - preventing serious damage to property.
2. There is no satisfactory alternative.
3. The proposal will not be detrimental to the maintenance of the population of the species at a favourable conservation status.

A.2.2 All necessary information would need to be provided to the planning authority as part of the planning application in order to address the above tests.

A.2.3 The Natural Environment and Communities Act (NERC Act) 2006 extended the biodiversity duty set out in the Countryside and Rights of Way (CROW) Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. The Duty is set out in Section 40 of the Act, and states 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"

A.2.4 The Duty applies to all local authorities, community, parish and town councils, police, fire and health authorities and utility companies. Section 41 (S41) of this Act (the 'England Biodiversity List') also requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. This list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40(1) of the Act.

A.2.5 Also, Local Authorities must follow the National Planning Policy Framework (NPPF) which provides guidance on the interpretation of the law in relation to wildlife issues and development. For each development proposal considered by the Local Planning Authority the NPPF states that the authority must aim to conserve and enhance biodiversity. If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

UK Biodiversity Action Plan (UK BAP)

A.2.6 The UK BAP, which was first published in 1994, was the UK government response to the 1992 Convention on Biological Diversity. It sets priorities for nationally important 'priority species' and 'priority habitats'. Each species and habitat action plan has costed actions and targets, and is used to inform the compilation of national lists such as the Section 41 List described above.

ANNEX B: BAT SURVEYS JUNE 2015

CONTENTS

1.0 INTRODUCTION

1.0.1 An initial building inspection for bats undertaken by Simply Ecology Limited at Robin Hill, Bashall Eaves, Clitheroe in April 2015 and found signs of bats in the form of droppings within the garage section of the property. The client was advised that dusk bat emergence surveys and dawn surveys should be undertaken to ascertain the presence of any roosting bats and identify bat species if present.

2.0 AIMS

2.0.1 As a follow-up to the building inspection, bat emergence surveys and a dawn survey were undertaken, the aims of which were to:

- Identify whether bats were emerging from the target building, and if so, to identify the number and species present.
- Identify which areas of the site were being used by bats
- Provide an assessment of the likely importance of the site for bats and bat conservation.
- Enable informed decisions to be made about site management in relation to bats and to ensure legislative compliance.

3.0 METHODS

3.1 Field Survey

3.1.1 Surveys were undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (Bat Conservation Trust 2012). All surveys were undertaken by Richard Lowe and Shaun Hough. In accordance with best practice, the survey comprised the following elements:

- Emergence Survey: Two night-time visits were undertaken to determine if bats were emerging from the building and to assess levels of bat activity. Activity during the hours immediately prior to sunset through to one hour after sunset was detected using a Bat box Duet frequency division detector with simultaneous .MP3 file recording onto a Sony digital recorder.

- During emergence surveys the observer stood at allocated location, which was judged to provide the best coverage of the building. From this location, the observer would be expected to hear and also see any bats emerging from the buildings where roosts were anticipated or likely.

- An additional dawn survey was carried out in order that bats returning to roosts could be observed. This type of survey enables confirmation of the locations of roosts, and a clear idea of the numbers of bats using each roost.

- Recordings were analysed using BatScan computer software to detect any species (such as *Plecotus* and *Myotis*) which may not have been apparent from heterodyning alone. Analysis of recordings involved measurement of various parameters to determine the species of bat (call frequency, shape of call, call duration, maximum energy and inter pulse interval). These parameters were compared against reference calls and tabulated reference data to enable species identification.

3.2 Timing and Constraints

Emergence Surveys

3.2.1 The emergence survey visits were carried out on 22nd April and 18th May 2015. This was during the spring/summer when bats are active and are expected to be found foraging every evening given favourable weather conditions. This was an ideal time to survey for all bats and the weather was good on each of the survey evenings. Conditions encountered were as follows:

Survey Date	Temperature	Wind	Weather	Sunset
22nd April 2015	14.5 ºC start, 11.5 ºC finish	Calm	80% cloud	20:26
18st May 2015	8.5 ºC start, 7.5 ºC finish	Light/Moderate	70% cloud	21.10

3.2.2 The emergence surveys were conducted from 20:00 until 22:00 on the 22nd April and 20:45 until 22:11 on the 18th May 2015. The building had openings suitable for bats along the gable of the garage on the west section of the property, providing the surveyor with excellent opportunities for silhouette observation and detection of any bat activity. It was not considered that there were any constraints that would have affected the detection of bat activity at the building.

Dawn Survey

3.2.3 The dawn survey was carried out on 27th May 2015. This was the final survey to be carried out. The conditions were excellent for this type of survey and were as follows:

Survey Date	Temperature	Wind	Weather	Sunrise
27th May 2015	8 ºC	Calm	Dry, 60% cloud	5:00

3.2.4 The survey was carried out between 03.22 until 05.03. Sunrise was at 05:00. In the pre-dawn light any bats present could readily be detected and as the light increased they could also be seen silhouetted against the sky. This would facilitate observation of any bats returning to roosts. There were no constraints to carrying out a comprehensive survey.

4.0 SURVEY RESULTS

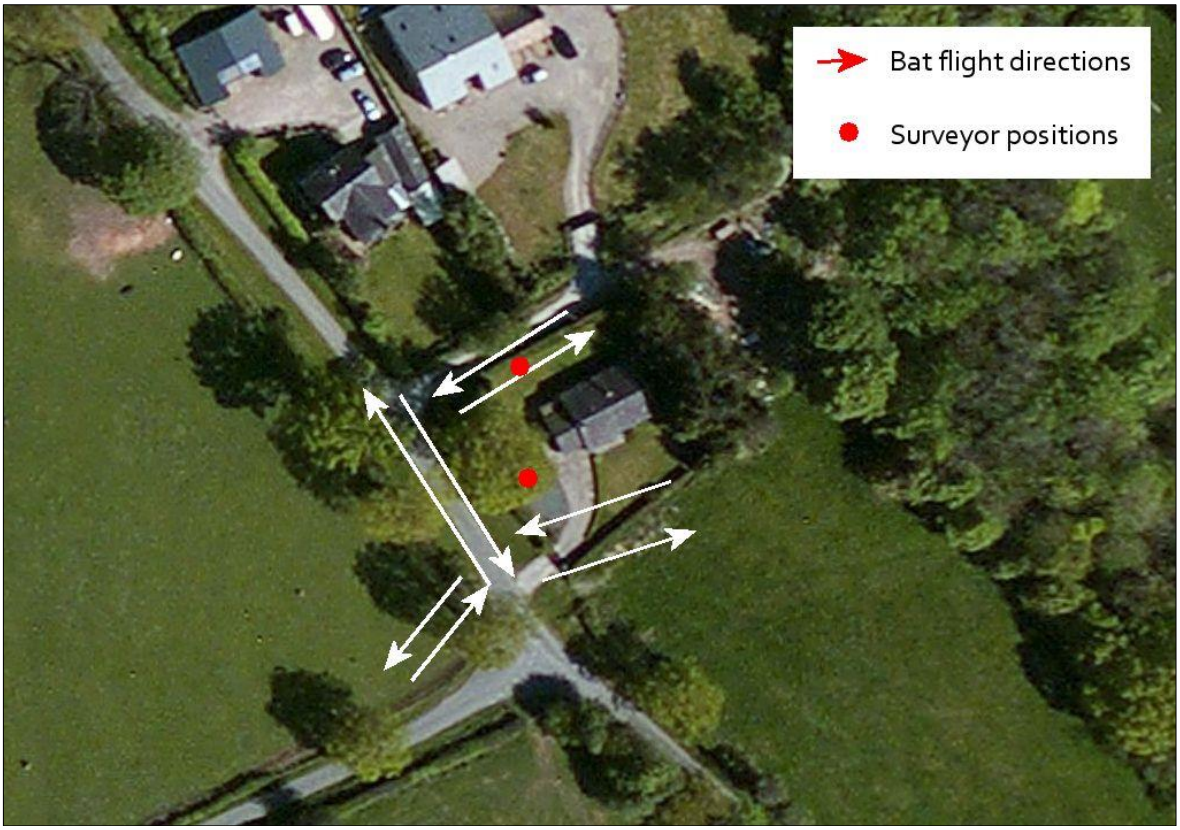
4.1 Bat Emergence

4.1.1 **The emergence surveys did not confirm any use of the building as a bat roost**.

4.1.2 No bats were seen to emerge from the property during the two emergence surveys.

4.1.3 Medium levels of bat activity were found around the local area after dusk. The activity was concentrated along the lane adjacent to the property and behind the property (See Plan 1 below). The only species identified during the surveys were common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*). Activity was shown to be foraging and commuting behaviour and lasted for around 15 to 20 minutes on both occasions. None of this activity was roosting behaviour and is therefore incidental to the development proposals.

4.1.3 To ensure no bats had been missed (species such as brown long-eared bats echolocate very quietly so they could be overlooked in the field survey), the bat activity recordings were also analysed. Subsequent analysis of the recordings found evidence of common pipistrelle and myotis activity.



Plan 1: Site aerial view indicating position of surveyor and patterns of bat activity

4.2 Bat Dawn Survey

4.2.1 **The dawn survey did not find any bats returning to the roost**.

4.2.2 Activity was greater when compared to the dusk surveys. Foraging activity was more concentrated around the lane and to the rear of the property into the neighbouring garden. Due to surveyors concentrating upon the building, the direction that bats left the site was not recorded as it was necessary to ensure no roosting at the property rather than location of any nearby roost. The surveys demonstrated medium levels of common bat activity, as might reasonably be expected from this rural area.

4.3 Habitat Use and Assessment

4.3.1 During the surveys, bats were present around the general site for part of the survey period from shortly after dusk until dawn. Although no roost emergence was observed, activity at the site remained at a constant level and this is assumed to illustrate that bats were finding adequate foraging in and around the hedgerow and trees adjacent to the property.

4.3.2 It is concluded that the building was not currently used for bats as a roost. Signs in the form of dropping indicated that the building had once been used for bats as a roost. After completing thorough surveys the lack of any signs of current bat activity indicates that there is no bat roost present. No roost locations were identified within the building or any other bats observed returning to a roost.

4.3.3 Therefore it is concluded, in line with Natural England and Bat Conservation Trust guidelines, that no loss of bat roosts will occur as a result of the development proposal.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.0.1 The evidence confirms that no bat roost is present at Robin Hill, Bashall Eaves, Clitheroe. Given the lack of any signs it is concluded that there is no reasonably foreseeable likelihood that any bats roost within the areas of the property that will be affected by the development proposals.

5.0.2 It is understood that the planned works will involve the demolition of the existing property and construction of a new residential property. **It is concluded that all works can continue with no need for any supervision by the Appointed Ecologist. No Natural England licence is necessary in this instance as no impact upon any bat roost is predicted. This is due to the lack of any signs of current use of the building by bats. Reason:** This advice is compliant with The Wildlife & Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2010 (as amended).

5.0.3 Notwithstanding the negative results of the survey, given the historic evidence of bats within the garage section, the following precautionary information is advised at this site:

- Contractors should be observant during construction work for bats which may use the building if it is left open overnight. Bats are opportunistic and may make use of gaps opened up during the work.
- In the event that any bats are found during the works, the client (and any sub-contractor) is reminded of their protected legal status. All works must cease immediately until advice on how to proceed has been sought from either Natural England or the Appointed Ecologist.
- If it is absolutely necessary to remove a bat to avoid it being harmed, gloves should be worn. It should be carefully caught in a cardboard box and kept in the dark in a quiet place until it can be released at dusk near to where it was found, or moved to an undisturbed part of the building, with outside access, and placed in a location safe from predators. THIS MUST ONLY BE DONE FOR WELFARE CIRCUMSTANCES. The legal protection afforded to bats does not make this an admissible way to destroy a bat roost. The Appointed Ecologist will advise on steps necessary to ensure legal compliance and working under license if a bat roost is found.