



Urban Tree Experts

BS5837 – Tree Surveys – Ecological Consulting

PRELIMINARY ECOLOGICAL APPRAISAL (DBW) AT 48 KNIGHTS WAY EMMER GREEN



**Prepared for:
Mrs L Wang
48 Knights Way
Emmer Green
Reading
RG4 8RH**

22 May 2024

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This report is valid for 12 months from the site inspection. The lifespan of this report may be subject to change if the site conditions change due to unspecified works that affect the site.



Executive Summary

Urban Tree Experts was commissioned by Mrs L Wang to conduct a preliminary ecological appraisal (daytime bat walkover [DBW]), of 48 Knights Way, Emmer Green, Reading, RG4 8RH. This is to support a current planning application to Reading Borough Council (reference: 240487).

The site visit was carried out on Tuesday 7 May 2024 at 1.30pm, during daylight hours. An internal and external inspection of the property and attached garage took place to look for signs of bats.

The preliminary ecological appraisal consists of a desk top study prior to the survey to review existing information about the site and its surroundings and to inform the design of subsequent bat surveys, if required. The desk top study was conducted based upon a minimum 2km search radius and it revealed one statutory designated site is located within, and two current European Protected Species Licences (EPSLs) for bats have been granted within 2km of the proposed development site. The immediate surrounding habitat is unsuitable for roosting, commuting or foraging bats, due to the dense urban development.

The DBW comprised a detailed search of the interior and exterior of the building for bats, signs of bats and features suitable for use by roosting bats. This includes droppings, scratch marks, rubbing and staining at exit holes, live or dead bats and other features such as missing tiles, this list is not exhaustive.

The buildings suitability to support roosting bats was assessed and no bats or evidence of bats were detected, and no potential roost features were identified during the preliminary inspection. When the evidence is combined along with the data from the desk top study this results in the property and garage being characterised as having negligible potential¹ to support roosting bats.

In line with best practice guidelines², no further survey effort is required.

¹ Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats. Bat Surveys for Professional Ecologists Good Practice Guidelines 4th Edition.

² Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists Good Practice Guidelines (4th Edition).



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1. Introduction

1.1 Instruction

Urban Tree Experts was instructed by Mrs L Wang to conduct a DBW of 48 Knights Way, Emmer Green, Reading, RG4 8RH to support a current planning application to Reading Borough Council.

1.2 Aims and Objectives

The DBW is designed to:

- Identify the presence/likely absence of bats within the building.
- Provide information on previous bat ecological surveys/reports.
- Provide information on the status of bats using the building currently or previously).
- To add confidence where no bats are found, or to categorise the nature of a roost where evidence of bats are found.
- To establish whether further surveys, mitigation or an EPSL is required.

The preliminary ecological appraisal (bats) and report writing were carried out in accordance with Bat Surveys for Professional Ecologists Good Practice Guidelines 4th edition.

1.3 Proposed Works

The survey was commissioned in connection with a current planning application to Reading Borough Council (reference: 240487) that is seeking to construct a first floor above the garage and single storey rear extension.

1.4 Surveyor Background and Experience

The preliminary ecological appraisal for bats was completed by Nick Powell and the report was written by Simon Holmes MSc. CEnv.

Nick commenced surveying bats in 2022 and holds a Class 2 Bat License (CLS-11742) and has received training in bat ecology and surveying, bat detector use, acoustic monitoring/sonogram analysis, architectural terms for bat workers, bats and development, H & S awareness for bat workers, legislation for bat workers, British bats their ecology and conservation, surveying trees for bats, Bat ID and handling, bat biology.

Simon holds Class 3 (CL19) and 4 Bat (CL20) Licenses (Nos. 17637 and 17638) and a Science and Education license (SCI64844). He has 34 years' experience of carrying out bat surveys and bat conservation work.

2. Legislation and Planning Policy

2.1 Legislative Background

All species of British bat are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981, as amended. Under this legislation it is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "*any structure or place used for shelter or protection*" whether or not bats are present at the time. A summary of the main legislation and planning considerations are included at Appendix 1.



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Seven species of bat are also Species of Principal Importance for nature conservation in England under Section 41 of the Natural Environment and Rural Communities Act 2006. This places a duty on all government departments to have regard for the conservation of these species and on the Secretary of State to further, or promote others to further, the conservation of these species.

3. Site Location and Description

3.1 Site Location

The building is located at Grid Reference SU 71912 76438, see Figure 1 below. An overview of the immediate area is shown on Figure 2, courtesy of Bing Maps.

Figure 1. 48 Knights Way, Emmer Green, highlighted.



Figure 2. 48 Knights Way, Emmer Green, overview of the immediate area.





3.2 Site Description

The application site comprises a semi-detached, brick-built property with an attached garage. The remainder of the site comprises a paved driveway and parking area, a small front garden and a rear garden which is mainly laid to lawn, with some shrubs around the boundaries, see Figure 3 below. The site itself offers some foraging and commuting habitat for bats but there is poor ecological connectivity to bat foraging and commuting habitat in the wider landscape.

Figure 3. Rear garden. 48 Knights Way, Emmer Green. 07.05.24



4. Survey Methodology

4.1 Pre-Survey Data Search

The client has advised that, to their knowledge, no previous bat surveys have been undertaken on this property. Google Earth and MAGIC maps (magic.defra.gov.uk) websites were used prior to the survey to determine the suitability of the surrounding habitat to support roosting bats and to identify any statutory designated sites or EPSLs within 2km of the site. Due to the scale of the proposed development, and the very local impact that may occur, no data was sought from the local records centre at this time.

The application site is situated in the village of Emmer Green and is surrounded on all sides by properties and gardens of similar sizes and styles. To the north lies a recreational ground and to the east a large area of grassland, pockets of woodland and a pond, all of which are likely to provide good habitat to support roosting, foraging and commuting bats and are within travelling distance for bats. Other areas of woodland and farmland lie in close proximity to the site, which provide good habitat for bats, although main roads and housing development limit the ecological connectivity from the site to these areas.



Further afield lie areas of woodland, farmland and parkland, the River Thames and large waterbodies, all of which are likely to provide good habitat for roosting, commuting and foraging bats, although there are no ecological corridors connecting the site to these areas.

Clayfield Copse Local Nature Reserve (LNR) lies within 2km of the proposed development site although there is limited ecological connectivity from the site to this area. A search of the Magic interactive website revealed two current EPSLs for bats have been granted within 2km of the site, the details of which are provided in Table 1 below.

Table 1. Current EPSLs for bats within 2km of the site

EPSL reference	Licence end date	Species on licence
2020-44895-EPS-MIT	02/2025	Common pipistrelle, soprano pipistrelle, brown long eared and daubentons
2020-44895-EPS-MIT-1	02/2025	Common pipistrelle, soprano pipistrelle, brown long eared and daubentons

4.2 Daylight Survey

The DBW of 48 Knights Way, Emmer Green, Reading, RG4 8RH was carried out by Nick Powell on Tuesday 7 May 2024 at 1.30pm. The weather conditions for the survey were sunny with a temperature of 22 degrees. Equipment used included a high-powered torch, a digital camera on a telescopic pole, endoscope and a ladder.

During the DBW, an external inspection of the property and attached garage was carried out to identify any signs of occupation by bats and features that could offer potential roosting sites following standard survey guidelines. Features investigated included:

- Construction of the building– soffits, loft space, tiles/slates, lead flashings etc.
- Building condition – structure of roof and walls.
- Internal conditions – microclimate stability, draughts etc.
- Access points – potential entry and exit points for bats.
- Roosting points – cracks and crevices, between underlay and roofing tiles/slates.

Field signs that would indicate the presence of bats were searched for. These included:

- Bat droppings on the floor and walls of the building.
- Feeding remains (particularly butterfly and moth wings).
- Evidence of urine and/or oily staining around possible roost entrances.
- Presence of areas cleared of cobwebs.
- Where a breathable roofing membrane has been fitted staining on the membrane may suggest use by bats.
- Odour can sometimes suggest the present of bats.
- Squeaking and chattering can reveal bats roosting between the tiles and roofing underlay.

Buildings or structures that were not to be affected by the current proposals or with no bat roosting potential were not inspected.



4.3 Constraints

Full access to the site during the visit was made possible by the client and there were no constraints to the survey.

5. Survey Findings

5.1 External Inspection

The external features of the property and attached garage were examined for signs described in section 4.2. Windowsills, exposed features around the windows, fascias and walls were inspected for any evidence of bat droppings or staining.

The property is a two storey semi-detached, brick-built property that is in a good condition externally. The roof of the property is pitched and covered in closely fitted tiles, none of which are missing or broken, see Figure 4 below. The ridge tiles are all tightly fitted and have no gaps in which roosting bats could exploit (see Figure 5 on page 9) and the bonnet tiles are all tightly fitted with no gaps which roosting bats could exploit, see Figure 6 on page 9. The soffits and fascias are tightly fitted to the walls and have no visible gaps in which bats could use for roosting, see Figure 7 on page 10.

The attached garage is single storey, brick built and also in a good condition externally, see Figure 8 on page 10. The roof of the garage is flat and covered in bitumen felt, which is all tightly fitted and had no rips or tears in which roosting bats could exploit, see Figure 9 on page 11.

No bats or evidence of bats was recorded during the external inspection of the property or attached garage and externally there were no visible roosting opportunities for bats or access into the building for roosting bats.

Figure 4. Tightly fitted roof tiles. 48 Knights Way, Emmer Green. 07.05.24





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Figure 5. Example of ridge tiles. 48 Knights Way, Emmer Green. 07.05.24



Figure 6. Example of bonnet tiles. 48 Knights Way, Emmer Green. 07.05.24





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Figure 7. Soffits and fascias. 48 Knights Way, Emmer Green. 07.05.24



Figure 8. The attached garage. 48 Knights Way, Emmer Green. 07.05.24





Figure 9. Roof of attached garage. 48 Knights Way, Emmer Green. 07.05.24



5.2 Internal Inspection

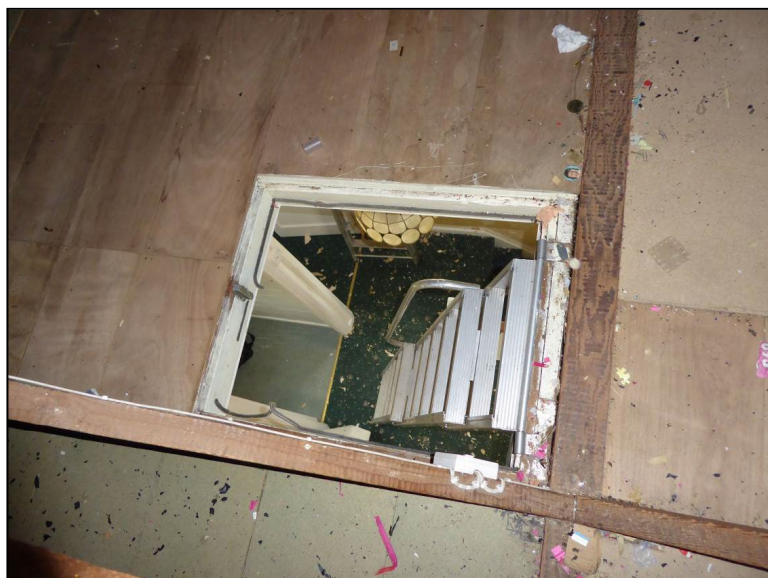
An internal inspection of the property and attached garage was undertaken and was examined for any signs of bats (as described in section 4.2).

The loft space was accessed through a hatch and is in a fair condition internally, see Figure 10 below. The loft is uncluttered, lit, boarded and insulated, see Figure 11 on page 12. The roof tiles are lined with tar paper that is ripped and torn in places, exposing the roof tiles, see Figure 12 on page 12.

The garage was also inspected internally. The garage is uncluttered and in a fair condition, see Figure 13 on page 13. The roof of the garage is boarded, all of which is tightly fitted and had no cracks or splits in which roosting bats could exploit, see Figure 14 on page 13.

No bats or evidence of bats was recorded during the internal inspection of the property or garage and internally there appeared to be no roosting opportunities for bats within the buildings.

Figure 10. Example of hatch to loft space. 48 Knights Way, Emmer Green. 07.05.24





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Figure 11. Example of loft space. 48 Knights Way, Emmer Green. 07.05.24



Figure 12. Example of ripped bitumen lining. 48 Knights Way, Emmer Green. 07.05.24





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Figure 13. Internal space of garage. 48 Knights Way, Emmer Green. 07.05.24



Figure 14. Boarded ceiling of garage roof. 48 Knights Way, Emmer Green. 07.05.24





6. Evaluation

The bat roost potential of the features within the site have been assessed with reference to the following criteria and include seasonal variation where increased or decreased probability may arise. Where features are present, they are **highlighted in bold**.

The likelihood of bat roosts being present will be higher where structures:

- are of a pre-20th Century construction;
- are in a lowland rural setting;
- **have woodland, mature trees, species-rich grassland and/or water nearby;**
- have large dimension roof timbers with cracks, joints and holes;
- have numerous crevices in stonework and structures;
- have an uneven roof covering with gaps, though not too draughty;
- have hanging tiles or roof cladding, especially on south-facing walls;
- **have a roof warmed by the sun;**
- are disused or little used; largely undisturbed;
- provide appropriate hibernation conditions, such as abandoned mines, tunnels, kilns, or fortifications; or
- **Recent and historical records of bat roosts in the general area.**

The likelihood of bat roosts being present will be lower where structures:

- **are in an urban setting with little green space;**
- are subject to heavy disturbance (constant movement due to draughts and noise, also unstable microclimate);
- **have a small, cluttered roof void (particularly for brown long-eared);**
- **are of a modern construction with few gaps or crevices that bats can fly or crawl through (though pipistrelle bats may still be present);**
- are comprised of prefabricated steel or sheet materials; (some sections);
- are active industrial premises.

Please note that the above list provides generic screening criteria only and there are exceptions to consider.

7. Conclusions

7.1 Interpretation

The combined evidence from the desktop study and the internal and external inspection of the property and garage provides a high level of confidence in support of the opinions set out in this report. There are no visible features externally on the buildings which could be utilised by roosting bats or in which bats could access the buildings to roost and internally there are no potential roosting opportunities for bats.

Informed by the results of the survey and the factors highlighted in Section 6, it is concluded that there is negligible potential for roosting bats within the property or garage. Based on recommendations in the Bat Workers Manual and the Bat Surveys Good Practice Guidelines, no further survey effort is required.



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7.2 Contingency Plan

In the unlikely event that bats are found during the proposed works, all work must stop, and advice sought from Urban Tree Experts or another licensed bat ecologist.

If, for whatever reason, there is a time delay of greater than 12 months between this survey and the commencement of work, then the survey should be repeated as the condition of the building may change and bats may start roosting at the site.

8. References

Collins, J (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

HM Government (2017) Conservation of Habitats and Species Regulations as (amended).

HM Government (1981) The Wildlife and Countryside Act (as amended).

HM Government (2006) Natural Environment and Rural Communities Act.

Mitchell-Jones, A.J. & McLeish, A.P. (2004). Bat Workers' Manual (3rd Edition). Joint Nature Conservation Committee.

9. Queries

Any queries regarding this report should be addressed, in the first instance, to Urban Tree Experts:

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APPENDIX 1

In summary, the legislation combined makes it an offence to:

- Intentionally or recklessly damage, destroy or obstruct access to a structure or place used for shelter by a bat.
- Intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate.
- Intentionally or deliberately kill, injure or take any bat.

Planning Considerations:

Government guidance to Local Planning Authorities stipulates the need to consider biodiversity and protected species during the consideration of planning applications. The NPPF makes clear that the planning system should help minimise the impacts that development can have on biodiversity and provide net gains in biodiversity where possible. In addition, the ODPM Circular 04/2005 states *"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision"*.

Policy CS36 of the Reading Borough Core Strategy states *"Development should retain, protect and incorporate features of biodiversity or geological interest (including protected species and their habitats) found within the application site into their schemes. On sites with recognised biodiversity or geological value, development will not be permitted where there would be a direct or indirect adverse impact on the site, unless it can be clearly demonstrated that: -*

- i. The need for development clearly outweighs the need to protect the value of the site; and*
- ii. Appropriate compensation, impact minimisation, mitigation and compensation are provided"*.

Developments that compromise the protection afforded to bats or roosts under the provisions of the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 will require a European Protected Species (EPS) licence from Natural England (NE).

NE, the government's statutory conservation advisory organisation, is responsible for issuing EPS licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations.

Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Reg 44(2)(e) – the derogation is "in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment".
- Reg 44(3)(a) – there is "no satisfactory alternative" to the derogation.
- Reg 44(3)(b) – the derogation is "not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range".

Tests (a) and (e) can be met with the issue of planning permission for the proposed works. Test (b) is determined by NE's ecology department that requires the development of a suitable mitigation strategy that would ensure that any bats present on site, are retained at the same population level or better.