
Visual Bat Survey Report



49 Northcourt Avenue Reading RG2 7HE

March 2018

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Executive Summary

A visual bat survey was carried out to identify the possible presence or likely absence of bats and bat roosts at 49 Northcourt Avenue, to support a planning application with Reading Borough Council for a two-storey rear extension.

49 Northcourt Avenue is 1920s detached brick-built house in Reading, Berkshire with a roof of plain clay tiles. The surrounding habitat is found to present generally moderate-quality bat foraging habitat ranging from higher-quality semi-natural habitats associated with the nearby University of Reading Whiteknights campus, to habitat of lower, more locally-useful foraging habitat in the gardens and tree-lined streets of the surrounding residential area.

Detailed examination of the house identifies no evidence of bat use, and no potential access points for bats to exploit the loft.

Potential roost features are identified to the front of the house associated with the hanging tiles to the front bay window and a small number of hip bonnets. However, the development is limited to a new extension to the rear of the property and the front of the house will not be affected. No other works are proposed to the roof.

Therefore, although the site is concluded to present low – but not negligible – roost suitability and it cannot be concluded that bats are absent from the site, it can be concluded that they are unlikely to be affected by the development either directly or indirectly.

The development is therefore unlikely to result in a breach of the legislation that protected bats and accords with relevant planning policy.

No further survey work is recommended.

1 Introduction

1.1 Objectives of the study

The purpose of this study was to provide information on the possible presence or likely absence of bats at 49 Northcourt Avenue, Reading, to support a planning application with Reading Borough Council.

1.2 Site description

49 Northcourt Avenue is a detached house built in the 1920s. It has a good-sized rear garden that is largely laid to lawn, with established border planting, trees and a small patio. To the front of the house is a driveway and a small area of lawn.

The house is of traditional brick construction with painted textured render to the first-floor level. The house faces south-west onto Northcourt Avenue, with a fully-hipped ridge running north-west to south-east. There is a further ridge running north-east from the northern end of the main ridge line, hipped to the rear and with a gable end to the front with a full-height bay window. There is also a two-storey flat roofed extension to the rear, believed to have been built in the 1970s.

The roof is timber framed, with plain machine-pressed clay tiles, clay hip bonnets and half-round ridge tiles. The roof tiles are lined with bitumen underfelt. There is mineral wool insulation between the joists in the loft as well as large sections where newspaper and polystyrene eggboxes have also been used as insulation.

The soffits and fascias are of white-painted timber, with rainwater goods of black plastic. The windows are white painted timber and metal. There are two brick-built main chimneys to either side of the house and a smaller one to the rear.

The house was vacant at the time of the survey.

1.3 Proposed works

It is proposed to remove the existing flat-roofed extension and construct a part two-storey and part single-storey extension to the rear of the property. Figure 1 below shows existing and proposed elevations (from plans produced by Groom Design Ltd).



Figure 1a – Existing elevations



Figure 1b – Proposed elevations

1.4 Limitations

All external features were fully visible during the survey work. Internally, all areas of the loft were accessible. There was minimal storage of items in the loft as the house had been vacated, although it had not been swept or cleaned. There were no significant limitations to the visual survey.

2 Methodology

2.1 Desk study

A desk-based assessment was carried out on 19th March 2018. This used a variety of information, as follows:

- Online ecological data (MAGIC¹) was used to gain information on designated sites and priority habitats within 1km of the Site as well as granted bat licences.
- Aerial photos and Ordnance Survey mapping (again via MAGIC and Google.co.uk) was used to gain an understanding of the landscape context of the site.

2.2 Field survey

A visual bat survey was carried out on 20th March 2018 by Adam Egglesfield of AE Ecology, who holds a current licence to survey bat roosts (Bat Survey Licence Number 2015-12330-CLS-CLS). A brief description of the survey methods used is provided below.

Survey methodology used during the work is guided by and consistent with that set out in the Bat Conservation Trust's '*Bat Surveys for Professional Ecologists: Good Practice Guidelines*' 3rd edition, (Collins, J. (ed) 2016).

2.2.1 Building roosts

Built structures at the site were subject to a detailed internal and external search. The aims of this were to identify evidence of bat activity and / or identify the presence of any features that could potentially support roosting bats, or features through which bats could gain access to possible roost locations. All external areas of relevant buildings were inspected to identify potential bat access points and roosting features. Such features typically include missing, slipped, broken or bowed roof tiles, gaps around fascias and soffits, gaps in brickwork (such as missing mortar or expansion

¹ Multi-Agency Geographic Information for the Countryside - <http://magic.defra.gov.uk/>

gaps), lifted chimney / roof / window flashing, and gaps around window and door casements.

The external inspection also aimed to identify any actual direct evidence of bat use such as droppings adhering to walls, floors or window sills below gaps, or staining around possible access gaps. Features were inspected using Opticron Discovery 10x42 close-focussing binoculars and where necessary and safely possible, a ladder. High-powered torches (Clulite Clubman CB2 and Lenser P7.2) were used to illuminate potential roost and roost access features.

Where present and safely accessible, any internal voids and similar spaces were inspected for evidence of bat presence such as live bats, corpses, droppings, feeding remains and staining. The building was subsequently assessed for its suitability to support roosting bats, from 'negligible' to 'high', in line with the survey guidelines.

2.2.2 Foraging and commuting habitat

An assessment was made of the suitability of the site and the surrounding landscape to support foraging and / or commuting bats. The assessment was based on the presence of key habitat features such as woodland, scrub, hedgerows, grassland, and open water and watercourses, which are highly attractive to bats as both a foraging resource and as commuting routes. The presence of such habitats, particularly in a mosaic with other suitable habitat, typically increases the potential for structures to be exploited by bats where suitable roost and access opportunities are present. The presence of unlit semi-natural vegetation and habitat linkages between the site and the surrounding landscape were also considered.

3 Survey Results

3.1 Desk study

Figure 2 below shows the location of the site and its surrounding relevant ecological interest features produced from MAGIC:

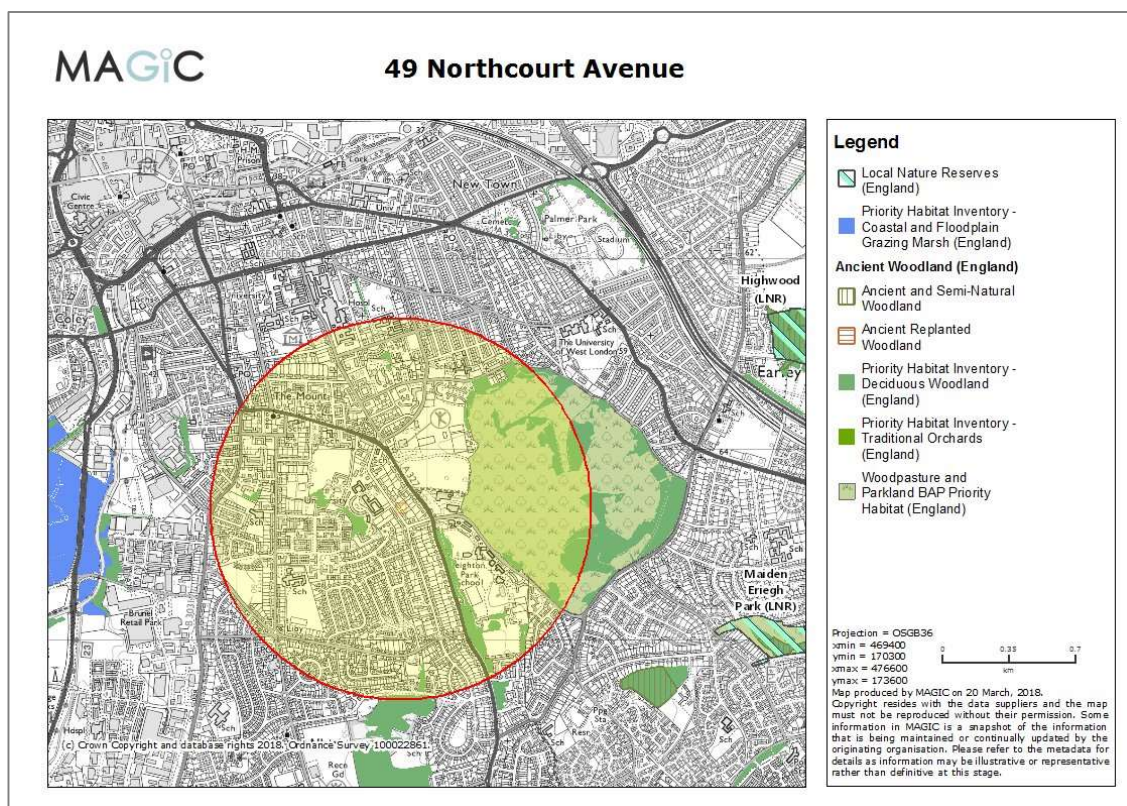


Figure 2 – 1km search area around site showing key habitats

3.1.1 Designated sites and notable habitats

The site lies close to the large expanse of diverse habitat at the Reading University Whiteknights campus, which includes a large lake, areas of woodland and areas of more open grassland, wood pasture and parkland habitats.

Further afield, although outside the main 1km search area, lie Highwood Local Nature Reserve (LNR) and Maiden Erlegh Park LNR. Highwood supports rich woodland habitats and areas of heathland as well as a range of exotic trees in an arboretum

setting², while Maiden Erlegh Park supports a large lake and a range of important woodland habitats, including an element of ancient woodland (i.e. land that has been continuously wooded for several centuries)³.

There are small isolated fragments and linear urban woodland features within the search area. In general, the residential area in the immediate surroundings is characterised by older properties with mature large gardens and numerous mature street trees and thus presents a well-structured habitat likely to be of local value to bats as a foraging resource.

There are no other legally protected nature conservation sites such as Special Protection Areas (SPAs) or Sites of Special Scientific Interest (SSSIs) within 1km of the site.

3.1.2 *Protected species*

MAGIC holds records of recent licences granted for works involving bats. Only a small number of licences are shown to have been granted in the search area, all associated with small non-breeding roosts for common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared *Plecotus auritus* bats for various developments at and near the Reading University Whiteknights campus.

3.2 **Field survey**

3.2.1 *Externals*

The tiled roof was generally found to be in a good condition with no tiles on the main roof faces noted to be missing or slipped (see Photos 1-4). The clay tiles are machine-pressed so do not have the natural curve typical of traditional clay tiles.

A small number of hip bonnets superficially appeared to have gaps to them where the bedding mortar had started to weather. However, inspection of these from ground level using binoculars found that the bedding mortar remained largely in place under the tile, and only the exposed face of these had weathered away (see for example, Photo

² <http://www.wokingham.gov.uk/countryside-parks-and-conservation/country-parks/highwood-nature-reserve/>

³ <http://www.maidenerleghlnr.org.uk/>

1). The exception to this is to the front of the house where there appear to be a small number of larger gaps to some of the hip bonnets (see Photo 4).



Photo 1 – Roof tiles to rear roof pitch in good condition



Photo 2 – Tiles to side roof pitch in good condition



Photo 3 – Rear of house showing flat roof extension and tiles to main roof



Photo 4 – Gaps to hip bonnets to front of house

The soffits and fascias were in good condition and tight to the external walls with no gaps noted (Photos 5-6). There is a section of hanging tile to the front full-height main bay window to the left side of the front elevation gable. These are plain machine-pressed clay tiles with limited natural curve although there are some gaps between them that are suitable to support roosting bats (Photo 7). The smaller ground-floor bay window to the right of the front elevation has a small roof pitch, also of plain tiles and hip bonnets. The tiles are generally well fitting, although there is similar weathering to the bedding mortar of the hip bonnets as seen on some of the main roof bonnets (Photo 8).



Photo 5 – Soffit to rear elevation



Photo 6 – Soffits to front elevation



Photo 7 – Hanging tiles to front bay window



Photo 8 – Tiles to front bay window

Figure 3 below summarises the external features with bat access potential.

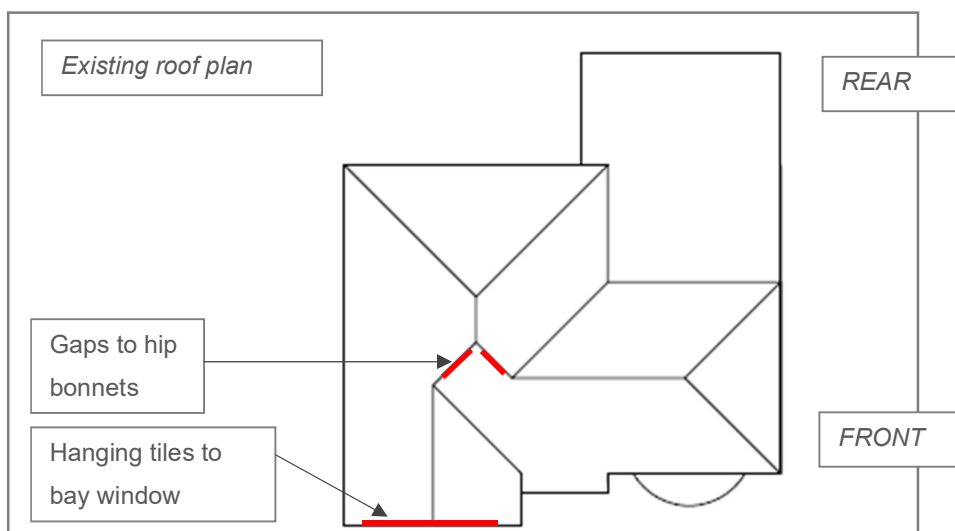


Figure 3 – Main areas of potential bat access

3.2.2 Internals

Internally, the loft was readily accessible and was well-boarded. A detailed examination of all surfaces, including internal timbers, floors and walls was carried out and particular attention was paid to features such as the ridge beam, the inside of the front gable end apex, and joints in the timber work. No evidence of bat activity such as droppings and / or urine splashes was found, and no live or dead bats were seen (Photos 9 and 10).

There were extensive cobwebs throughout much of the loft area. Spot checks beneath the various layers of insulation, newspaper, carpet and eggboxes revealed no historic bat droppings. The bitumen underfelt was found to be in good condition throughout.

Notably, there were extensive amounts of newspaper (dating from the 1970s) tightly packed into all areas of potential access into the loft from the outside. There was packed newspaper found all around the eaves and also noted to be present packed into the space behind the roofing felt (Photos 11 and 12). It is not known how extensive the newspaper is within the void between the tiles and felt, but the visible areas appeared to be tightly packed.

No points or areas of external light were visible in the loft.



Photo 9 – Loft internals



Photo 10 – Timberwork with cobwebs

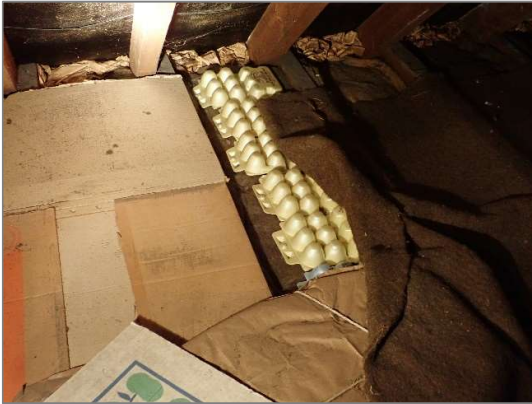


Photo 11 – Loft floor and newspaper packed around eaves



Photo 12 – Newspaper packed behind roofing felt

In summary, no evidence of bat use, either recent or historic, was noted at any point in the loft area.

4 Discussion

4.1 Interpretation of the value of the area for bats

The habitat in the immediate area offers a range of habitats of differing value to bats. Much of the surrounding landscape is residential / urban in nature, of lower value as bat foraging habitat. However, much of the residential area in the immediate surroundings is characterised by older properties with mature large gardens and numerous mature street trees and thus presents a well-structured habitat likely to be of local value to bats as a foraging resource.

Further afield, the woodland, grassland and open water habitats in the adjacent University campus does offer a substantial area of higher quality bat foraging habitat. Therefore, this may mean that houses in the surrounding area would have a higher likelihood of supporting bats if there were suitable roost opportunities presented. Any local bat population is likely to be dominated by species that are more adapted to living in urban residential environments, such as the two pipistrelle species (common and soprano pipistrelle).

4.2 Interpretation of roost suitability

In view of the above, it is reasonable to conclude that any potential gaps / roost features would have some likelihood of being exploited by bats.

Internally there is no evidence of recent or historic bat use. Although the house is vacant, and the loft cleared of stored belongings, the loft has not been cleaned or swept, so bat evidence on walls or around the floors would still be apparent if present. Notably, it is clear that much effort was made to seal the loft as much as possible with large quantities of newspaper tightly packed into all potential access points and in to a large extent also between the roofing felt and tiles.

There are two main elements of the house that appear to provide bat roost suitability. The hanging tiles to the front elevation main bay window, and the small number of gaps to the hip bonnets towards the front of the house.

Therefore, in view of these external features, it is concluded that the house presents low – but not negligible – bat roost suitability. Survey guidelines define a structure with low bat roost suitability as one with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and / or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats or as a maternity / hibernation site.

4.3 Impact assessment

It cannot be concluded that the house does not support bats; however, the potential roost sites are all on the front elevation or front-facing roof hip ridges. The nature of the loft is such that bats are considered unlikely to be entering the loft or voids / crevices between the roof tiles and underfelt.

The proposals at 49 Northcourt Avenue are for a two-storey extension to the rear elevation only. It is understood that the development will not include complete re-roofing of the property, largely on cost grounds and also being mindful to retain the aesthetics of the road frontage to ensure the site remains in keeping with the surrounding buildings.

Therefore, the potential roost areas will be not affected directly by the building works.

There may be some potential for minor disturbance when the new extension is tied in to the rear of the house. There is no clear definition of what constitutes ‘disturbance’ to bats; however, the ruling in the 2010 Supreme Court on *Morge v Hampshire County Council* gave useful guidance (DLA Piper, 2011).

- A case-by-case approach is needed, and the conclusion as to if disturbance is likely may depend on the specifics of the affected species.
- Seasonal and / or life-cycle factors would have a bearing on determining if disturbance was to occur.
- Consideration should be given to the rarity and conservation status of the species and the impact on the local population. Individuals of rare species are more important to a local population than individuals of a more abundant

species, and disturbance to species that are declining in numbers is likely to be more harmful than disturbance to species that are increasing in numbers.

- Impacts during the more sensitive periods such as when breeding or hibernating are more likely to constitute disturbance.

At this site, there is no evidence of bat presence, and the potential roost locations are unlikely to be used by any bats other than an occasional opportunistic common or soprano pipistrelle bat. The site is unlikely to be used as a breeding or hibernation site. The works on the roof nearer the potential roosts would be limited to hand removal of tiles necessary to tie in the new roof timbers.

Therefore, in view of these factors it can be concluded that if bats were present, a disturbance impact would be unlikely to occur.

4.4 Further survey work

It is considered that the site offers low bat roost suitability. Ordinarily, works affecting a structure with low – but not negligible – suitability would require one further dusk or dawn survey, and if no bats were seen then it could be concluded that bat roosts are likely absent. However, in this case, the potential bat roost features are not going to be affected by the extension works – either directly or indirectly – and therefore no further survey work is recommended.

4.5 Legislation

Bats are legally protected under both domestic and international law (the Wildlife and Countryside Act 1981 (as amended)⁴ and the Conservation of Habitats and Species Regulations 2010 (as amended)⁵ respectively). All native bat species are European Protected Species (EPS). This legislation makes it an offence to kill, injure or disturb bats, or to destroy or damage their roosts, even when the bats are not present. In view of the findings of the survey work at 49 Northcourt Avenue, it is concluded that the development is unlikely to result in a breach of the Habitats Regulations.

⁴ <http://www.legislation.gov.uk/ukpga/1981/69>

⁵ <http://www.legislation.gov.uk/uksi/2010/490/contents/made>

4.6 Planning Policy

Policy CS36 'Biodiversity and Geology' of the Reading Borough Council Adopted Core Strategy (revised 2015) states that:

“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.”

The supporting text to the policy states that

“Protected species identified by the Species Action Plan of the Reading Biodiversity Action Plan (BAP) and their habitats must also be protected from any direct or indirect harm resulting from development.”

The assessment in this report demonstrates that this development will retain and protect features of biodiversity interest, and these features will be protected from both direct and indirect harm. It is therefore concluded that the development accords with planning policy.

5 Conclusions

5.1 Conclusions

The surrounding habitat offers generally moderate quality bat foraging habitat including higher-quality semi-natural areas around the nearby Reading University Whiteknights campus.

Detailed examination of the house identified no evidence of bat use, and no potential access points for bats to exploit the loft.

Potential roost features were identified to the front of the house associated with the hanging tiles to the front bay window and a small number of hip bonnets. However, the development is limited to a new extension to the rear of the property and the front of the house will not be affected. No other works are proposed to the roof.

Therefore, although the site is concluded to present low – but not negligible – roost suitability and it cannot be concluded that bats are absent from the site, it can be concluded that they are unlikely to be affected by the development either directly or indirectly.

The development is therefore unlikely to result in a breach of the legislation that protected bats and accords with relevant planning policy.

No further survey work is recommended.

6 References

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