

**5 Woods Road
Caversham
Reading
Berkshire
RG4 6NA**

Preliminary Bat Roost Assessment

Ref: R2426/a

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1	INTRODUCTION	3
1.1	Background.....	3
1.2	Legislative Background.....	3
1.3	Site Location and Context.....	4
2	SURVEY METHOD	6
2.1	Bat Survey	6
2.2	Survey Constraints.....	6
3	SURVEY FINDINGS.....	7
3.1	Building Inspection.....	7
3.2	External Survey.....	7
3.3	Internal Survey.....	8
4	DISCUSSION AND RECOMMENDATIONS.....	9
4.1	Assessment of Bat Roost Potential.....	9
4.2	Further Survey	9
4.3	Impact of Proposals and Recommendations	10
4.4	Mitigation and Compensation Proposals.....	10
5	REFERENCES	12
	APPENDIX 1 - SITE PHOTOGRAPHS	13
	APPENDIX 2 – PRELIMINARY BAT ROOST ASSESSMENT FINDINGS.....	17

1 INTRODUCTION

1.1 Background

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Mr John Brown to undertake a survey for the presence of bats within the chalet bungalow at 5 Woods Road in Caversham, Berkshire.
- 1.1.2** The survey was commissioned in connection with planning proposals to be lodged with Reading Borough Council seeking consent for the demolition of the existing residential dwelling followed by the construction of two semi-detached replacement dwellings.

1.2 Legislative Background

- 1.2.1** All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
 - Deliberately, 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; or to affect significantly the local distribution or abundance of the species;
 - Deliberately kill, injure or take any bat.
- 1.2.2** The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:
- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;
 - **Regulation 55(9)(b)** - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range" and;

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- **Regulation 55(2)(e)** - the derogation is for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

1.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that European Protected Species licensing is necessary before granting planning permission.

1.2.4 European Protected Species mitigation licence applications can be submitted once all necessary planning consents have been granted and Natural England aim to issue a licence decision within 30 working days.

1.2.5 Licensable projects affecting small numbers of seven commonly occurring bat species may fall under the remit of the Bat Mitigation Class Licence (WML-CL21). The Class Licence permits ‘Registered Consultants’ to carry out licensable operations on site on behalf of clients following the registration of sites with Natural England at least 15 working days before the work is due to start.

1.2.6 Survey data supporting EPS licence applications or the registration of the site under the Bat Mitigation Class Licence (WML-CL21) must be up to date i.e. have been conducted within the current or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

1.3 Site Location and Context

1.3.1 The chalet bungalow is situated on the northern side of Woods Road in Caversham, Berkshire (OS grid reference: SU 73018 75695).

1.3.2 The dwelling is surrounded by other residential properties and their gardens comprising scattered trees, shrubs and mown lawns. The grounds of Reading Cemetery and Crematorium are less than 50 metres to the northwest and merge with Caversham Park. There is a complex of lakes,

grassland and woodland associated with the River Thames, approximately 650 metres to the southeast of the site.

- 1.3.3** Overall, the nearby parkland and riparian areas offer high quality commuting and foraging habitat for bats in the local vicinity.

2 SURVEY METHOD

2.1 Bat Survey

2.1.1 A survey of the interior and exterior of the chalet bungalow was undertaken on the 2nd December 2019 by an ecologist registered under Natural England Bat Survey Class Licence CL18 and an assistant ecologist.

2.1.2 The survey was undertaken with the aid of binoculars, and a high power (1 million candle power) torch and looked for any signs of occupation by bats, and for features that could offer potential roosting sites following standard survey guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell-Jones & McLeish 2004).

2.1.3 The following may indicate the presence of a bat roost within a building:

- Droppings (these can be found externally, especially in sheltered areas such as window sills, underneath roost entrances or internally within a roof space);
- Piles of insect remains e.g. moth wings (these may be indicative of regular feeding sites used by species such as brown long eared bat);
- Staining at roost entrances or within the roost (urine and oil from fur can leave stains on timbers when bats are gathered for long periods);
- Bats (live or dead).

2.1.4 Residential properties may offer potential roosting sites in a number of locations, favoured locations include:

- Under roof and ridge tiles, especially when loose or missing tiles are present or sections of mortar are missing;
- At the eaves – gaining access via gaps between the soffits and wall;
- At the gable ends – access is typically gained at the roof apex via gaps in the soffits or under roof tiles;
- Within an enclosed roof space – long-eared bats (*Plecotus* sp.) for example, will often cluster at the ridge beam.

2.2 Survey Constraints

2.2.1 Full access was available to the interior and exterior of the property and therefore there were no significant constraints to the survey.

3 SURVEY FINDINGS

3.1 Building Inspection

3.1.1 Photographs of the site are presented in **Appendix 1** and a plan of the external and internal survey findings with associated target notes is shown in **Appendix 2**. The survey findings from the exterior and interior of the property are described as follows:

3.2 External Survey

3.2.1 The chalet bungalow was of brick construction and had a pitched roof covered in aggregate roof tiles with a single-storey side extension, rear conservatory and front porch (**Photographs 1 & 2**).

3.2.2 The roof tiles on the pitched roof were mostly flat, tight and covered in moss (**Photograph 3; Target note 1**). There were however, several gaps under lifted roof tiles around the chimney and under uneven verge tiles at the gable ends offering potential access and roosting opportunities for bats (**Photographs 4 & 5; Target notes 2, 3 & 4**). The chimney possessed suitable bat access points beneath overlapping sections of lead flashing, and where a roof tile and mortar were missing at the ridge (**Photographs 6 & 7; Target notes 5 & 6**). The verge mortar at the gable ends was reasonably intact (with one repointed section) except for a few gaps at the front gable end where the mortar had cracked (**Photograph 8; Target note 7**).

3.2.3 The gable ends were clad in aggregate hanging tiles that were mostly flat and tightly fitted but with occasional gaps that had potential to be exploited by bats that typically occupy crevice-roosts. In particular, there were gaps behind the tiles around the rear window ledge (and frame), and between the tiles and verge undercloaking (**Photographs 9 & 10; Target notes 8 & 9**). A gap was also present at the eaves where the timber soffit did not sit flush against the brickwork (**Photograph 11; Target note 10**).

3.2.4 The single-storey side extension had a tightly fitted bitumen flat roof and a timber soffit box that sat reasonably firmly on the wall plate (**Photograph 12; Target notes 11 & 12**). The rear conservatory had a sloping uPVC roof that was unsuitable for use by roosting bats (**Photograph 13; Target note 13**). The front porch had flat roof tiles and securely mortared hips; though a gap was present behind the lead flashing lining the junction with hanging tiles

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(Photograph 14; Target note 14).

- 3.2.5** No evidence of roosting bats was found on the exterior of the chalet bungalow during the survey.

3.3 Internal Survey

- 3.3.1** The roof void covered the two-storey footprint of the chalet bungalow and was split into two spaces either side of the chimney, both accessible via a loft hatch (**Photographs 15 & 16**). The void had an approximate floor-to-ridge height of one metre and was of 'cut and pitch' roof construction. The roof was unlined and the ridge was lightly cobwebbed which can suggest a lack of bat activity at the ridge (**Photograph 17; Target note 15 & 16**). The floor was insulated with fibreglass and squares of fibreglass insulation were present inside the eaves (**Photograph 18; Target note 17**). Daylight was visible beneath roof tiles in proximity to the gable ends but both ends were thickly cobwebbed and had numerous old wasp nests (**Photograph 19; Target notes 18 & 19**). The gable ends were lined with plastic sheeting and insulated behind with Celotex foam insulation (**Photograph 20; Target note 20**). The chimney was heavily cobwebbed and lead flashing was visible in the roof (**Photograph 21; Target note 21**). Holes in the chimney brickwork had been covered with metal mesh and timbers (**Photograph 22; Target note 22**).

- 3.3.2** No evidence of roosting bats was found inside the roof void during the internal inspection.

4 DISCUSSION AND RECOMMENDATIONS

4.1 Assessment of Bat Roost Potential

4.1.1 No evidence of roosting bats was found during the roost assessment; however the property did possess a number of external features suitable for crevice-dwelling bat species. The features identified included: gaps under lifted roof tiles around the chimney; gaps under uneven verge tiles; gaps under overlapping sections of lead flashing around the chimney; a missing roof tile and ridge mortar next to the chimney; cracked verge mortar on the front gable end; gaps behind hanging tiles around the window on the rear gable end and gaps between hanging tiles and the verge undercloaking on the front gable end; a gap behind the timber soffit; and a gap behind lead flashing above the front porch. Therefore, despite a lack of bat roosting evidence (droppings etc.), the presence of bats utilising exterior features cannot be ruled out at this stage.

4.1.2 Of the crevice-dwelling species that could be present the most common species are: the common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) that are widespread and abundant throughout the UK (Richardson 2000). Small *Myotis* species such as Whiskered bat (*Myotis mystacinus*) and Brandt's bat (*Myotis brandtii*) are widespread and common but less abundant than the pipistrelle species. Roosts supporting pipistrelle and/or small *Myotis* bat species are of low to moderate conservation importance (subject to the type of roost present i.e. non-breeding roosts supporting individual or small numbers of bats through to maternity roosts supporting large numbers of female bats).

4.1.3 Taking into account the absence of bat evidence, the quality of foraging habitat within close proximity and the number of external features identified, the chalet bungalow has been assessed as having moderate bat roost potential.

4.2 Further Survey

4.2.1 Further survey of the chalet bungalow should be carried out to determine if bats are present or likely to be absent, and the surveys should comprise of at least two emergence and/or re-entry surveys. The surveys should be completed within the period between May and September inclusive with at least one of the surveys carried out in the peak season for recording

maternity roosts i.e. mid-May to August, and at least two weeks should separate the surveys (Collins 2016).

4.3 Impact of Proposals and Recommendations

4.3.1 The proposed demolition of the property will result in the loss of external features identified during the survey for their potential use by crevice-roosting bats. Further survey work will determine the presence or likely absence of any roosts and therefore confirm whether the demolition will result in the loss of those roosts and its potential to disturb or harm any bats present at the time of the works.

4.3.2 Subject to the findings of further survey, a European Protected Species licence (EPSL) or registration of the site under the Bat Mitigation Class licence (BMCL) (if applicable) may be required to allow the planned work to go ahead lawfully. An EPSL or confirmation of the registration of the site under the BMCL can be issued by Natural England if the three licensing tests (detailed in 1.2.2) have been met by the proposed work and can be sought once all necessary planning consents for the proposals have been granted and any wildlife related conditions discharged.

4.3.3 To secure a licence or site registration, it would be necessary to demonstrate that the 'favourable conservation status' of the local bat population would be maintained by mitigating the impact of the building work on bats, and by maintaining bat roosts during the course of the work, and following its completion. There would be scope to mitigate the impacts during the work, and retain roosts in the longer term, and as such it is considered that the proposals could retain the 'favourable conservation status' of the bat population as long as the mitigation and compensation proposals detailed in section 4.4 below are followed.

4.4 Mitigation and Compensation Proposals

4.4.1 The proposed demolition will be preceded by emergence and re-entry surveys as detailed in section 4.2 above. If further survey shows an EPSL is required, under the terms of the licence or BMCL (if applicable), the start of the work affecting the bat roost(s) should be timed to avoid the periods when bats are most susceptible to disturbance i.e. winter hibernation season for all roosts (mid-November to February) to avoid disturbing torpid bats, and outside of the peak summer breeding season (May to mid-September)

where evidence of a maternity roost is recorded.

- 4.4.2** Replacement roosting opportunities should be provided so that they are available to bats in the short-term i.e. prior to and during the work by erecting woodcrete bat boxes suitable for the species present on nearby mature trees or poles before the work starts.
- 4.4.3** A 'soft strip' approach to the demolition work should be adopted i.e. the careful removal of the roosting features such as roof tiles and hanging tiles by gloved hands and with hand-held tools under the supervision of a licensed ecologist, or the Registered Consultant if working under the BMCL. In the event that bats are discovered during the course of the work, the licensed ecologist or Registered Consultant would capture the bat(s) and transfer it/them directly to one of the bat boxes erected in advance of the works.
- 4.4.4** In the longer term, as part of the licence, replacement roosting opportunities will need to be incorporated into the replacement dwellings. For example, roosting opportunities for bats could be provided by installing bat access tiles, and/or integral bat boxes/tubes into the new brickwork of the dwellings. If any roost features are to be incorporated into the roof, it should **not** be lined with a breathable roofing membrane because they have been found to be harmful to bats and a bitumen-based Type 1 roofing felt or wooden sarking should be used.

5 REFERENCES

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines* 3rd Edition. Bat Conservation Trust, London.

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). *Bat Workers' Manual* (3rd Edition). JNCC, Peterborough.

Richardson, P. (2000). *Distribution Atlas of Bats in Britain and Ireland 1980 – 1999*. Bat Conservation Trust, London.

APPENDIX 1 - SITE PHOTOGRAPHS



1. Front of the chalet bungalow viewed from the southeast.



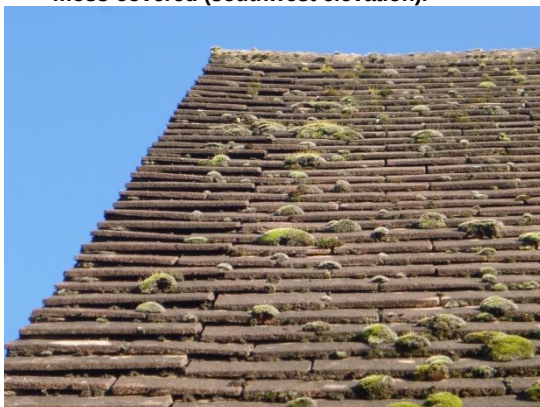
2. Rear of the chalet bungalow viewed from the north.



3. Overlapping roof tiles mostly flat, tight and moss-covered (southwest elevation).



4. Gaps under roof tiles next to chimney (northeast elevation).



5. Gaps under verge tiles at northwest-facing gable end (southwest elevation).



6. Gaps under overlapping lead flashing around chimney (northeast elevation).



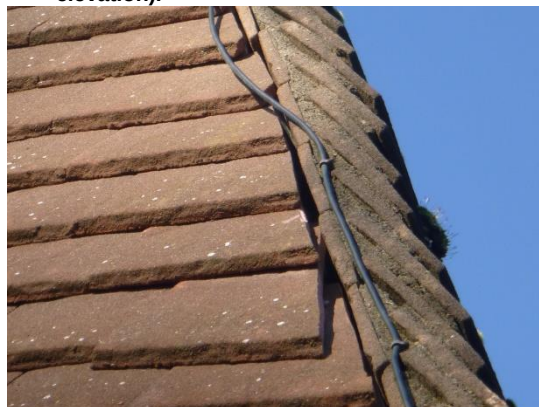
7. Missing roof tile and mortar at ridge next to chimney (southwest elevation).



8. Cracks in verge mortar at front gable end (front elevation).



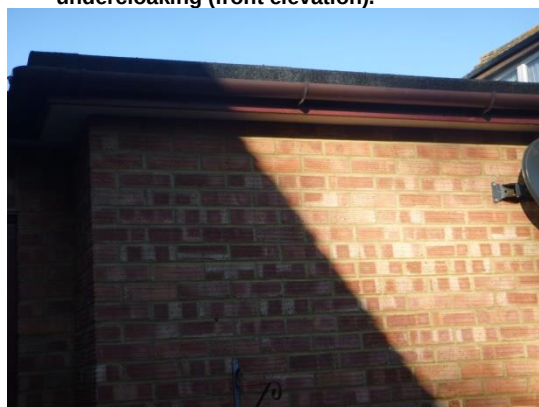
9. Gap behind hanging tiles around window ledge (rear elevation).



10. Gaps between hanging tiles and verge undercloaking (front elevation).



11. Gap between soffit and brickwork (northeast elevation).



12. Tight bitumen flat roof on single-storey side extension (front elevation).



13. Sloping roof on rear conservatory (rear elevation).



14. Gap under lead flashing lining top of porch roof (front elevation).



15. Roof void viewed from northwest (rear) gable end.



16. Southeast (front) gable end viewed from centre of roof void.



17. Unlined roof with lightly cobwebbed ridge.



18. Square of fibreglass insulated inside eaves.



19. Thickly cobwebbed southeast (front) gable end.



20. Plastic sheeting at gable ends with Celotex insulation behind.

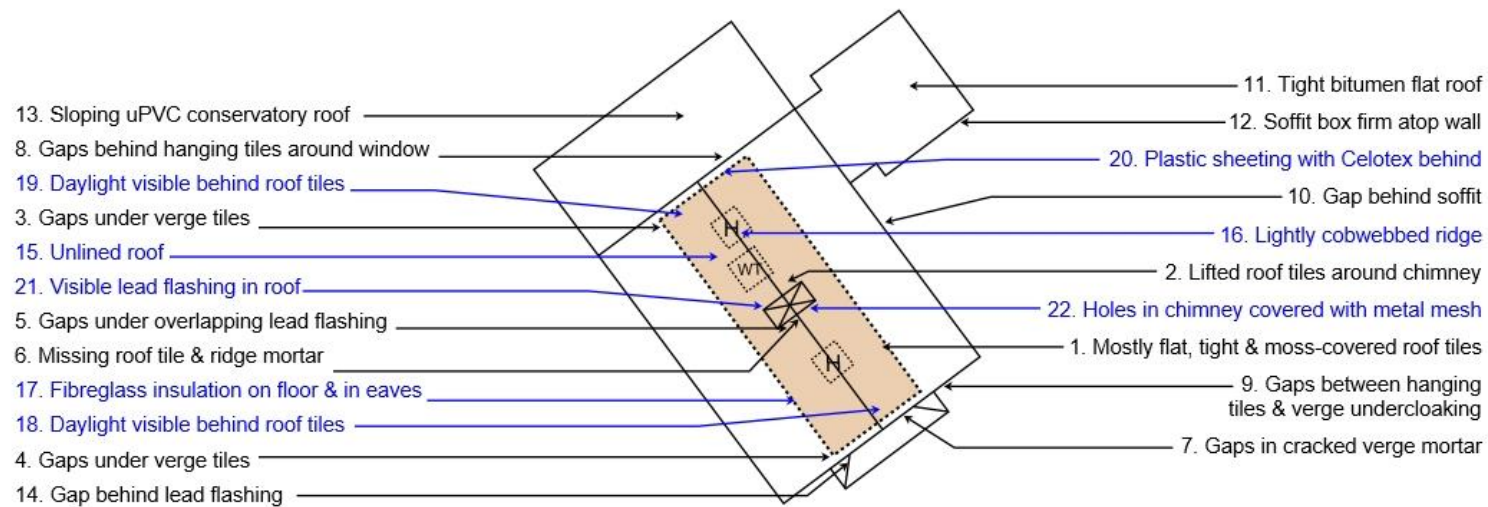


21. Lead flashing visible in roof around chimney.



22. Metal mesh and timber over holes in chimney brickwork.

APPENDIX 2 – PRELIMINARY BAT ROOST ASSESSMENT FINDINGS



Drawn by:	Date	Scale:	5 Woods Road Caversham	
CW	December 2019	Not to scale	Preliminary Bat Roost Assessment Findings	