

Homeliegh
Sandhills
Knowl Hill
Reading
Berkshire
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Preliminary Roost Assessment

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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy was instructed by Jake Sanderson to undertake a Preliminary Roost Assessment (PRA) at Homeleigh, Sandhills in Knowl Hill. The PRA was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for the erection of a rear, two-storey extension, and major alterations to the existing roof.
- 1.1.2** A detailed inspection of the exterior and interior of the chalet bungalow was undertaken on the 2nd July 2025 by Vicky Potts – senior ecologist registered under Natural England Class Licence CL18, and Callum Waldie – seasonal ecologist.
- 1.1.3** There was no evidence within the void spaces indicating that the primarily void-dwelling species, such as long-eared bats (*Plecotus* spp.), are unlikely to be present. However, two small bat droppings of size and shape typical of the crevice dwelling pipistrelle species (*Pipistrellus* sp.) were found on the fibreglass in the void indicating former or current bat activity.
- 1.1.4** Externally, the roof of the property possessed few features suitable for roost sites, provide conditions suitable for use by small crevice-dwelling bat species, such as the locally recorded common pipistrelle and soprano pipistrelle. These potential roost sites were mainly confined to gaps between the timbers at the eaves and gaps at the base of the timbers at the eaves exposing the roofing membrane on the north eastern facing gable end.
- 1.1.5** Due to the nature and scale of the potential roost sites, the chalet bungalow is considered to have the potential to support occasional use by individual small crevice-dwelling bats and as such, has been classified as low suitability.
- 1.1.6** The development proposals will impact the potential roost sites and do not have the scope to be altered to avoid potential adverse effects on bats. Therefore, further survey is recommended to determine the presence or likely absence of a bat roost in the property. The recommended survey approach and indicative mitigation proposals are detailed in **Section 8** below.
- 1.1.7** This report contains information regarding a mobile species so it will likely be valid for 12 months only (CIEEM 2019).

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy was instructed by Jake Sanderson to undertake a Preliminary Roost Assessment (PRA) at Homeleigh, Sandhills in Knowl Hill.

2.1.2 The PRA was commissioned to accompany a householder planning application to be submitted to Wokingham Borough Council seeking consent for the erection of a rear two-storey extension, and major alterations to the existing roof.

2.2 Site Location and Context

2.2.1 The property is a detached chalet bungalow on the southern side of Sandhills, in Knowl Hill, Berkshire (central OS grid reference: SU 81988 79155).

2.2.2 The property is in a suburban setting with small cluster of residential properties situated along Sandhills to the east and west, and along Bath Road to the south. A patch of woodland is 25m to the west, which connects to a patch of deciduous woodland 75m to the north west. A few ponds are present within the woodland approximately 50m to the northwest, 75m to the northwest and 90m west. Several patches of deciduous woodland are present in the wider area, including 40m to the east, 55m to the east. 75m to the northeast, 100m to the north, and 220m to the southwest. The greens of a golf course are situated just under 110m to the southeast, with scattered trees and ponds.

2.2.3 Overall, the nearby habitats provide suitable commuting and high quality foraging opportunities for bats adapted to roosting in suburban environments.

2.3 Report Objectives

2.3.1 The aim of the PRA is to ascertain if there is evidence of the presence of bats and/or potential for roosting bats to be present, and therefore whether further survey and/or mitigation would be required for the proposed development activities.

3 LEGISLATIVE AND POLICY BACKGROUND

3.1 Relevant Legislation

3.1.1 In England and Wales, all bat species found in the wild are fully protected under the Wildlife & Countryside Act 1981 (as amended) (WCA) and Conservation of Habitats and Species Regulations 2017 (as amended); the regulations are commonly referred to as the Habitat Regulations and hereafter referred to as such. The Habitat Regulations refer to European Protected Species (EPS) and all species of bats in the United Kingdom (UK) are EPS. Although the UK left the European Union on the 31st January 2020 and is therefore no longer tied to European legislation, the Habitat Regulations have been retained in their current format.

3.1.2 The legal framework underpinned by the WCA and Habitat Regulations makes these specific actions an offence as follows:

- Deliberately kill, injure, capture or take a wild bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or to significantly affect local distribution or abundance;
- Damage or destroy a place used by a bat for breeding or resting; and
- Intentionally or recklessly obstruct access to any place used by a bat for shelter or protection.

3.2 Planning Policy

3.2.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England. Government planning policy, such as the ODPM Circular 06/2005, requires LPAs to account for the conservation of protected species when considering and determining planning applications.

3.2.2 The ODPM Circular 06/2005 states that 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.' This policy means that in instances where there is a reasonable likelihood of bats being present and affected by a development, surveys must be undertaken to inform a mitigation strategy to be agreed prior to granting planning permission.

3.3 Mitigation Licensing

3.3.1 The government's statutory nature conservation body, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests derived from Regulation 55 have been satisfied:

- (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.*'
- (9)(a) – there is '*no satisfactory alternative*' to the derogation; and
- (9)(b) – '*the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*'

3.3.2 LPAs have a statutory duty under Regulation 7(3)(e) of the Habitat Regulations to consider and determine whether these three tests are likely to be satisfied by planning proposals affecting EPS before granting planning permission. If an EPS mitigation licence is necessary, a licence can be sought once all the necessary planning consents have been granted. Natural England aims to issue a decision on licence applications within 30 working days of submission.

3.3.3 The Bat Mitigation Class Licence (BMCL) scheme allows ecologists to apply to become Registered Consultants to use this licence for low conservation status roosts, i.e. roosts comprising small numbers of seven commonly occurring species. A site registration form must be completed as a condition of the licence and submitted to Natural England at least three weeks before the licensable activities are due to start; Natural England aims to register sites within two weeks of submission.

3.3.4 Baseline survey information supporting EPS mitigation licence applications or BMCL site registrations must be up-to-date and have been completed within the current or most recent optimal season. A suitably experienced ecologist will be required to undertake a site walkover/check within three months prior to application/registration submission to confirm that conditions have not changed since the most recent survey.

4 SURVEY METHODOLOGY

4.1 Desk Study

4.1.1 A desk-based study for bats was undertaken by Vicky Potts (MCIEEM) to collate and review existing information about the site and the surrounding land. The study utilised the following open access resources:

- Google Earth – satellite imagery was used to identify potential flight paths and foraging habitats for bats;
- MAGIC – examined to locate granted European Protected Species licences; and
- Pre-existing bat survey reports – any available reports were obtained from the client or relevant planning portal to provide background information for the site.

4.2 Building Inspection

Survey Details

4.2.1 A detailed inspection of the exterior and interior of the property was undertaken on the 2nd July 2025 by Vicky Potts - a senior ecologist registered under Natural England bat survey Class Licence CL18 (Registration no. CL18 2016-27162-CLS-CLS) - and Callum Waldie – a seasonal ecologist. The equipment used during the inspection comprised binoculars, a high-power (1 million candlepower) LED torch, a headtorch, and a ladder. The inspection involved a systematic search of the exterior and interior of the structure during daylight hours to compile information on potential and actual bat access points; potential and actual bat roost sites; and any evidence of bat presence.

External Survey

4.2.2 Frequently used bat access points and/or roost sites include (but are not limited to) spaces:

- behind hanging tiles, weatherboarding, soffit boxes and barge boards.
- under lead flashing (particularly around chimneys) and roof tiles/slates; and
- in existing bat boxes.

4.2.3 It is important to note that the two most abundant and widespread bat species, common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*), typically only require gaps measuring 15mm by 20mm to gain access to a roost inside a building.

4.2.4 The external survey involved a systematic search for evidence of bats including:

- live or dead specimens;
- droppings;
- urine marks;
- fur-oil staining; and
- squeaking noises.

4.2.5 It should be noted that bats can be present in a building while leaving no visible signs externally and wet weather has the potential to wash any evidence away. The search for evidence was focused on (but was not limited to) the ground, windowsills, windowpanes and walls (including cladding and hanging tiles); particularly in places near to potential bat access points and/or roost sites.

Internal Survey

4.2.6 The internal survey comprised a systematic search for evidence of bats on the upper floors of the building (i.e. checking the exterior from windows) and inside the roof and eave spaces. Evidence of bats found during an internal inspection can include:

- live or dead specimens;
- droppings;
- urine marks;
- fur-oil staining;
- feeding remains (i.e. moth wings);
- squeaking noises;
- bat-fly (Nycteribiid) pupal cases; and
- odour.

4.2.7 It should be noted that only specimens or droppings can be relied upon in isolation to confirm the presence of a bat roost.

4.2.8 Frequently used roosting locations within the roof include (but are not limited to):

- the apex of the gable end or dividing walls;
- the top of chimney breasts;
- ridge and hip beams;

- mortise and tenon joints;
- behind purlins; and
- between tiles and roof lining.

Survey Limitations and Validity

- 4.2.9** There were no significant survey limitations because PRAs can be carried out at any time of year under any weather conditions and the building was fully accessible.
- 4.2.10** It should be noted that it is not always possible to inspect all potential roost sites during a survey, particularly for bat species which typically roost in hidden crevices. Therefore, an absence of bat evidence found during a survey does not necessarily equate to evidence of bat absence in a building.
- 4.2.11** This report contains information regarding a mobile species so it will likely be valid for 12 months only (CIEEM 2019).

5 SURVEY RESULTS

5.1 Desk Study

5.1.1 The surrounding countryside is interspersed with residential properties and characterised by woodland, ponds and grassland; it resembles continuous habitat providing high-quality flight paths and foraging opportunities for bats.

5.1.2 The following table lists the bat mitigation licences issued within the last 10 years within a 2km radius of the property.

Case Reference of Granted Licence	Species on the Licence	Licensable Period	Licensable Works	Distance (m)
2020-45673-EPS-MIT-1	Soprano pipistrelle	12/08/2020 - 10/08/2030	Destruction of a breeding roost.	1225 SW
2018-35667-EPS-MIT-1	Common pipistrelle	01/01/2019 - 31/12/2019	Destruction of a resting place.	1665 SW
2014-2875-EPS-MIT	Brown long-eared	12/09/2014 - 30/09/2019	Destruction of a resting place.	1790 NW
2019-41331-EPS-MIT-1	Common pipistrelle Soprano pipistrelle	10/12/2019 - 30/09/2020	Destruction of a resting place.	1890 NW

5.1.3 There were no pre-existing bat survey reports for the property available on the Wokingham Borough Council planning portal.

5.2 Building Inspection

5.2.1 The findings from the external and internal inspections carried out for the property are described with photographs and are annotated in a plan, as follows:

External Survey

5.2.2 The property is a detached residential dwelling with a pitched roof with additional pitched roof dormer windows to the front and rear (**Photograph 1**). There was a single storey roof extension to the rear of the building with a flat roof (**Photograph 2**) and a single storey garage with a flat roof attached to the western side (**Photograph 3**).



Photograph 1. Front of property viewed from the north.



Photograph 2. Rear of property viewed from the south.



Photograph 3. Garage attached to the western side of the house.

- 5.2.3** The interlocking roof tiles were intact across the roof (**Photograph 4**) and the ridge tiles were fitted with a dry fix ridge system (**Photograph 5**).



Photograph 4. Tightly fitted roof tiles at the front (northern) side of the property.



Photograph 5. Tightly fitted dry ridge fix system

- 5.2.4** The verge mortar was intact at the eaves at the gable ends (**Photograph 6**) and the timbers were tight along the eaves to the front of the property (**Photograph 7**.)



Photograph 6. Verges mortar intact at the verges to the front of the property



Photograph 7. Timbers tight along the eaves to the front of the property

- 5.2.5** Gaps were visible at the bases of the eaves at the gable ends where breathable roofing membrane could be seen (**Photograph 8; Target note 1**). Gaps were also visible between the timbers at the eaves of the eastern facing gable end, exposing the breathable roofing membrane (**Photograph 9; Target note 2**).



Photograph 8. Gaps at the base of the eaves at the eastern side of the property.



Photograph 9. Gaps between the timbers at the eastern side of the property.

- 5.2.6** The lead lashing was mostly tight around the roof junctions apart from at the front gable end, however, the gap did not lead to any suitable crevices (**Photograph 10**).



Photograph 10. Gap in lead flashing to the front of the house.

- 5.2.7** The single storey roof of the garage and rear extension were tightly line with bitumen felt and uPVC barge boards at the eaves, which were mostly tight (**Photograph 11**). There was a gap of limited extent along the eastern side of the rear extension (**Photograph 12**).



Photograph 11. Garage roof tightly fitted.



Photograph 12. Gap of limited extent along the eastern side of the rear extension.

Internal Survey

- 5.2.8** The property had one roof space extending along the ridge line, and a few eaves spaces. The eaves spaces were all plastered out and used as storage (**Photographs 13 & 14**).



Photograph 13. Eave space plastered out and carpeted.



Photograph 14. Eave space plastered out and carpeted.

- 5.2.9** The roof void was accessed via a loft hatch and had a ridge to floor height of approximately 1m.
- 5.2.10** The roof was of 'cut and pitch' construction with a ridge beam and was tightly lined with breathable roofing membrane (**Photograph 15**). The floor was lined with thick fibreglass insulation which filled the eaves (**Photograph 16**).



Photograph 15. Roof space of gable end construction and lined with breathable roofing membrane.



Photograph 16. Thick fiberglass insulation which filled the eaves.

- 5.2.11** The front and rear gable ends were visible but were inaccessible due to their small size (**Photograph 17**). Daylight was visible at the main gables end around the edges of the brickwork (**Photograph 18**). The loft space was lightly cobwebbed (**Photograph 19**). There was a large old wasps' nest by the front gable end.



Photograph 17. Rear gable end visible but not accessible.



Photograph 18. Gaps around the brickwork at the eastern gable end.



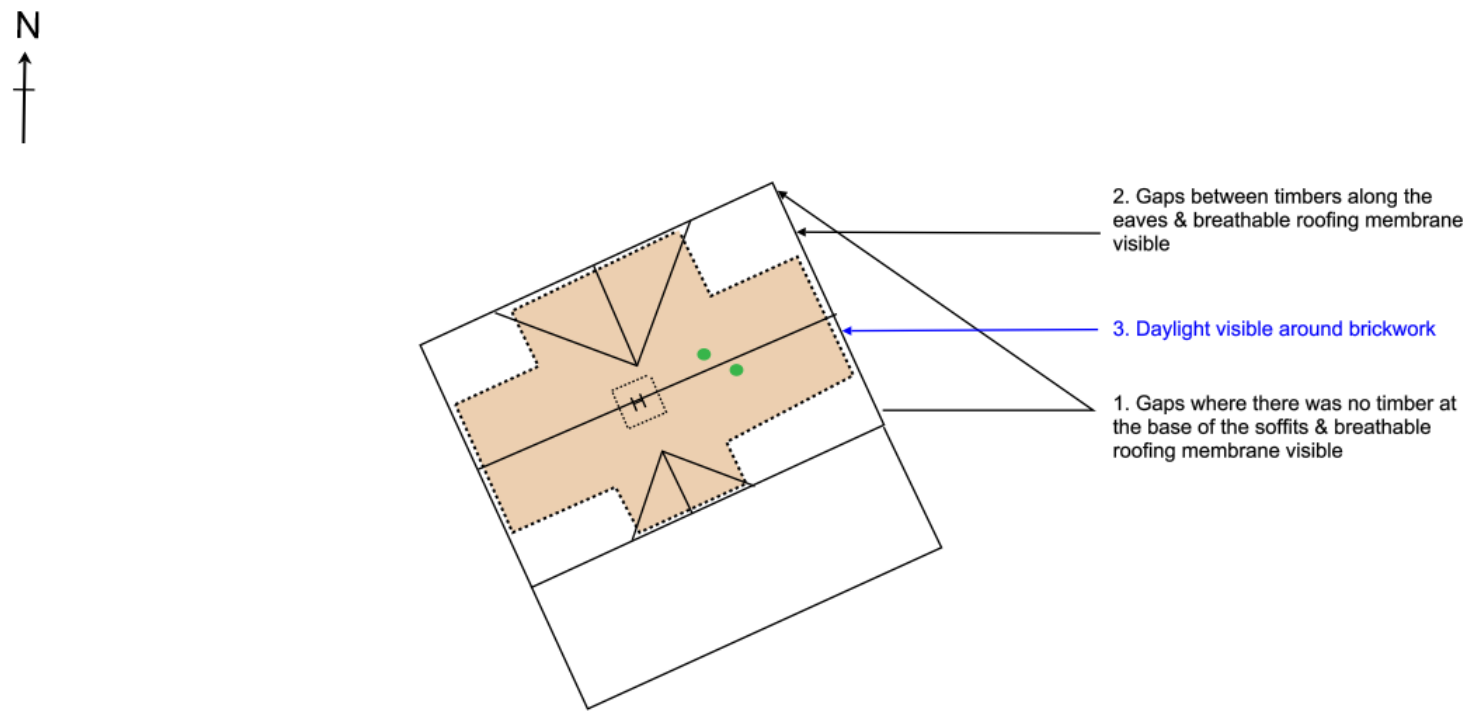
Photograph 19. The roof space was lightly cobwebbed.

- 5.2.12** Two small sized bat droppings typical of crevice dwelling bats such as the locally recorded pipistrelle species (*Pipistrellus* spp.) were found towards the centre of the void

(Photograph 20).



Photograph 20. Small bat droppings found on top of the fibreglass in the void. r



Roof void Loft hatch Small sized bat dropping External target note Internal target note

Drawn by:	Date	Scale:	Homeliegh, Sandhills Knowl Hill	
VP	July 2025	Not to scale	Figure 1 - Preliminary Bat Roost Assessment Findings	

6 DISCUSSION

6.1 Assessment of Roost Suitability / Presence

- 6.1.1** The area surrounding the property included a few residential properties with their gardens with scattered trees which provide continuous habitat that could be used as a feeding area and a flight-path for any bat(s) roosting in the property connecting to high-quality foraging habitats, such as the nearby areas of woodlands to the northwest and north. Furthermore, the search of granted bat mitigation licences identified three species known to be roosting within a 2km radius of the property: common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and brown long-eared bat.
- 6.1.2** The roof void and eaves spaces had limited space for internal flight for the void-dwelling bats, such as brown long eared bat (*P. auritus*) recorded locally and therefore their presence is considered unlikely.
- 6.1.3** Two small bat droppings typical of crevice dwelling bats were observed on the fibreglass, confirming the presence of a crevice dwelling bat species. Evidence of crevice roosting species is typically hidden from view in areas such as gaps between tiles and internal linings/insulation, or in cavity walls.
- 6.1.4** The property, which on the whole had a roof that lacked opportunities for bats, had a few potential bat access points to the exterior, including gaps at the gable end where there was no timber and gaps between the timbers, leading into the cavity wall. The features identified have the potential to provide sufficient space, shelter, protection and conditions for use by individual crevice-dwelling bats, such as the locally recorded common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) bats. Furthermore, two small droppings, of a size and shape most typical of pipistrelle bat species, were found on the fibre glass within the loft indicating at least one bat has entered the property.
- 6.1.5** Common pipistrelle (*P. pipistrellus*) and soprano pipistrelle (*P. pygmaeus*) are the most abundant and widespread bats in Great Britain. These species occur in almost any habitat type and are well adapted to the built environments; they are the species most regularly reported roosting in houses and churches (Mathews et al. 2018). Brandt's / whiskered bat (*Myotis brandtii* / *mystacinus*) are small *Myotis* species that are widespread and will roost in the same buildings as the much more abundant pipistrelle species (Mathews et al. 2018). Roosts supporting these species hold site to county

level conservation importance subject to the roost type, i.e. non-breeding roosts supporting individual bat or small groups through to maternity roosts supporting large numbers of female bats (Reason & Wray 2023).

- 6.1.6** Therefore, the property has been assigned low suitability for bats overall (see **Appendix 1** for potential suitability categories).

7 IMPACT ASSESSMENT

7.1 Potential Impacts of Development Proposals

Overview

- 7.1.1** The development proposals include a two-storey rear extension and alterations to the existing roof, including the removal of the rear gable end and changes to the side gable end. The impacts of the proposals have been assessed in accordance with the mitigation hierarchy during construction and post development as follows:

Construction Phase

- 7.1.2** The development proposals will involve the direct opening of the roof space. Furthermore, the proposals will directly impact the suitable roosting features associated with the eaves at the gable end of the chalet bungalow. The construction activities could therefore lead to direct/indirect disturbance, injury and/or death of bats if bats were found to be using these features.

Post Development

- 7.1.3** In the absence of mitigation and/or compensation, the development proposals could result in the permanent loss of a bat roost(s). The loss of a roost(s) has potential to significantly affect the local distribution or abundance of a bat species, subject to its conservation status.

7.2 Conclusions

- 7.2.1** The development proposals will lead to adverse effects on features of low suitability for bats where there is evidence of the presence of bats - which could indicate the presence of a roost - and could therefore affect a roost, and bats themselves if present in the property at the time of the work. Therefore, further surveys are recommended to determine if roosting bats are present, and if present, the status of the roost(s) (see **Appendix 3** for further survey rationale). The recommended survey approach and indicative mitigation proposals are detailed in **Section 8** below.

8 RECOMMENDATIONS

8.1 Further Surveys

- 8.1.1** A minimum of one dusk emergence survey visits should be undertaken in the period of May to August (Collins 2023). The survey will determine if roosting bats are present or are likely to be absent. If bats are present, the survey will enable the roost characterisation necessary to inform an impact assessment and mitigation strategy.
- 8.1.2** If roosting bats are present, once roost characterisation is complete, an impact assessment with reference to the mitigation hierarchy will be made. In cases where the adverse effects caused by the development proposals are unavoidable, an application for a European Protected Species (EPS) mitigation licence or the registration of the site under the Bat Mitigation Class Licence (BMCL) would be required to permit the work to proceed lawfully. An EPS mitigation licence or BMCL can be issued by Natural England if the three licensing tests (detailed in **Paragraph 3.3.1**) have been satisfied by the proposals.
- 8.1.3** To satisfy one of the licensing tests, it would be necessary to demonstrate that the 'favourable conservation status' of the bat species using the property is maintained during the construction phase and post development. A mitigation strategy setting out avoidance, mitigation, compensation and enhancement measures would be required to achieve this. Indicative and provisional measures are summarised in **Section 8.2** below.

8.2 Indicative Mitigation Strategy

- 8.2.1** If further survey and the impact assessment have demonstrated that an EPS mitigation licence or BMCL (if applicable) is required to permit lawful development, the commencement of construction activities impacting the bat roosts would be timed to avoid the periods when bats are most susceptible to disturbance, i.e. winter hibernation period if there is a reasonable likelihood of hibernating bats (mid-November to mid-March) and peak breeding season (May to August) if a maternity colony is present.
- 8.2.2** Alternative roost sites would be made available to bats prior to and throughout the construction phase by installing at least one woodcrete bat box (suitable for the type of roost/species present) on a suitable mature tree or a pole mount. The bat box should be positioned at least 4 metres from the ground, away from artificial lighting and sheltered from strong wind while being exposed to sunshine (usually south, south east or south west facing).

- 8.2.3** Before the commencement of construction activities impacting the bat roost (i.e. the licensable works), a licensed ecologist or 'Registered Consultant' under the BMCL would provide a toolbox talk to all contractors working on site detailing how bats use buildings, legal protection, working methods (i.e. soft demolition/roof strip by hand), actual and potential roost sites, actions to be taken if a bat is found and personal safety procedures.
- 8.2.4** A soft demolition/roof strip approach to the works affecting the bat roosts would be adopted, i.e. careful removal of roof coverings by gloved hands and handheld tools under the direct supervision of a licensed ecologist or 'Registered Consultant'. In the event that a bat is found during the course of the works, the licensed ecologist or 'Registered Consultant' would capture the bat and transfer it directly to a woodcrete bat box installed in advance.
- 8.2.5** Replacement bat access points and roost sites may need to be created and/or reinstated at the property as part of an EPS mitigation licence or BMCL site registration. This compensation should aim for like-for-like roost sites with access points corresponding as closely as possible to the previous locations.
- 8.2.6** Where access is provided for bats, a bituminous roofing felt that does not contain polypropylene/polyethylene filaments (e.g. bitumen felt type 1F) or a non-bitumen coated 'breathable' membrane that has passed the snagging propensity test (e.g. TLX 'Bat Safe') should be used; other non-bitumen coated membranes are harmful to bats and must be avoided.

9 REFERENCES

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APPENDIX 1 – POTENTIAL SUITABILITY CATEGORIES FOR ROOSTING BATS

The categories detailed in **Table 1** below are derived from the '*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*' (Collins 2023) and provide guidance for assessing the potential suitability of buildings (and other structures) for roosting bats. These categories are applied using professional judgement and irrespective of whether the presence of a bat roost has been confirmed during a survey, as additional bat roosts could be present which have not yet been discovered.

Table 1. Categories for potential suitability of buildings (and other structures) for roosting bats.

Potential Suitability	Category Justification
None	A building (or structure) that has no features likely to be used by any roosting bats at any time of the year (i.e. a complete absence of cracks, crevices or voids that could provide suitable shelter).
Negligible	A building (or structure) that has no obvious features likely to be used by roosting bats, but in this case a small element of uncertainty remains as bats will occasionally use small and apparently unsuitable features. This category may also be used where a bat could potentially roost due to one attribute, but it is considered unlikely due to another attribute (e.g. a feature that is subject to constant illumination from artificial lighting).
Low	A building (or structure) that has one or more potential roost sites suitable for opportunistic use by individual bats at any time of the year. However, these potential roost sites for bats do not provide sufficient space, shelter, protection, conditions and/or surrounding suitable habitat to be used regularly or by large numbers (i.e. unlikely to be suitable for a maternity colony and not a classic hibernation site).
Moderate	A building (or structure) that has one or more potential roost sites suitable for regular use by individual bats, or small non-breeding groups, due to sufficient space, shelter, protection, conditions and surrounding habitat. However, these potential roost sites for bats are unlikely to support a roost of high conservation status with regards to the type of roost only (i.e. maternity colonies and classic hibernation sites).
High	A building (or structure) that has one or more potential roost sites suitable for use by large numbers of bats more regularly and for longer periods of time due to sufficient space, shelter, protection, conditions and surrounding habitat. These potential roost sites for bats are capable of supporting high conservation status roosts (i.e. maternity colonies and classic hibernation sites).

APPENDIX 2 – DEFINITION OF BAT ROOST TYPES

The potential suitability of a building in conjunction with any evidence of bat presence is used to provide an initial assessment of likely roost type and importance. The types of roost considered are based on the following Natural England definitions:

- Day roost – a summer resting place used by individual bats, or small non-breeding groups, during the day;
- Night roost – a resting place used by individual bats on occasion, or by a whole colony regularly, during the night;
- Feeding perch – a resting place used by individual bats, or a few individuals, primarily for short periods of feeding during the night;
- Transitional roost – a place used by a few individual bats, or occasionally small groups, for a short period of time upon waking from hibernation or in the period prior to hibernation;
- Maternity roost – a place used by small to large groups of female bats to give birth and raise their young to independence;
- Hibernation roost – a place used by individual bats, or in groups, during winter where there is a constant cool temperature and high humidity; and
- Satellite roost – a place used by a few individuals to small groups of breeding female bats found in close proximity to the main nursery colony throughout the breeding season.

The importance of a bat roost is underpinned by the conservation status of the suspected species (i.e. the distribution/rarity of a species in a specific geographic location) and the type of roost (i.e. not all roosts have the same level of importance in supporting the local bat population). Further roost characterisation surveys may be required to fully determine the importance of a confirmed roost to allow for a robust impact assessment.

APPENDIX 3 – FURTHER SURVEY RATIONALE

In cases where no evidence of use by bats is found during a building inspection but the possibility of their presence cannot be ruled out, further presence/likely absence survey is likely to be required if the development proposals will impact potential roost sites.

Emergence surveys are carried out to establish the presence or likely absence of roosting bats in buildings (and other structures) and these are designed in accordance with the '*Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*' (Collins 2023) detailed in **Table 2** below.

Table 2. Recommended further survey for establishing presence/likely absence of roosting bats in buildings (and other structures).

Potential Suitability	Further Survey
None	No further surveys are required.
Negligible	No further surveys are required.
Low	A minimum of one dusk emergence survey visit should be undertaken in the period of May to August. However, if all areas (including cracks, crevices and voids) can be thoroughly inspected and no evidence of use by bats is found, then emergence surveys may not be required. In cases where a complete inspection cannot be carried out, professional judgement and proportionality should be applied when assessing the impacts of the development proposals.
Moderate	A minimum of two dusk emergence survey visits should be undertaken in the period of May to September, with at least one of the surveys between May and August; the survey visits should be spaced at least three weeks apart.
High	A minimum of three separate dusk emergence survey visits should be undertaken in the period of May to September (inclusive), with at least two of the surveys between May and August; the survey visits should be spaced at least three weeks apart.

In cases where the PRA and/or further survey establishes the presence of roosting bats in a building (or structure), this will likely trigger the need for roost characterisation to collect sufficient information to inform the impact assessment and mitigation strategy. The roost characterisation comprises information collected during the PRA, emergence surveys and by other methods, such as DNA analysis of bat droppings, and ultimately aims to determine the bat species roosting; the number of bats the roosts support; the roost access points; the locations of the roosts and the types of roost present. This information is crucial when applying for planning permission and/or a European Protected Species mitigation licence.