



Preliminary Roost Assessment

29 Cedar Drive
Chichester, West Sussex
PO19 3EH

The Ecology Partnership, Thorncroft Manor, Thorncroft Drive, Leatherhead, Surrey KT22 8JB

T +44 (0) 1372 364133 E info@ecologypartnership.com W ecologypartnership.com

Contents

1.0 INTRODUCTION..... 3
 SITE CONTEXT 3
 DESCRIPTION OF PROPOSED DEVELOPMENT..... 4

2.0 METHODOLOGY 5
 DESKTOP STUDY..... 5
 BAT INTERNAL AND EXTERNAL SURVEY..... 6
 LIMITATIONS..... 8

3.0 RESULTS..... 8
 DESKTOP STUDY 8
 INTERNAL AND EXTERNAL BUILDING ASSESSMENT 11

4.0 DISCUSSION 12

5.0 CONCLUSIONS..... 15

6.0 REFERENCES..... 16

APPENDIX 1: PHOTOS..... 17

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing. Whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date. This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated, only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

- 1.1 The Ecology Partnership was commissioned by Martin Moyse to undertake an internal and external bat inspection of 29 Cedar Drive, Chichester, West Sussex, PO19 3EH, hereafter referred to as 'the site'.
- 1.2 This report presents the findings of the surveys on site, which aim specifically to assess the sites potential to support roosting bats. Potential mitigation measures and recommendations for the site will be included within this report.
- 1.3 This report comprises:
- The legislative and planning context (Section 1);
 - Assessment methodologies (Section 2);
 - Results (Section 3);
 - Implications for development (Section 4);
 - Conclusions (Section 5).

Site Context

- 1.4 The site comprises a brick-built residential property situated on Cedar Drive (SU 85537 05368). The site is located in the north of the city of Chichester and is surrounded by roads, and residential dwellings and their private gardens to all aspects. The wider landscape comprises primarily of further residential dwellings with Brewery Field to the south and Platinum Jubilee Country Park to the west.
- 1.5 The aerial photograph below (Figure 1) shows the site including the inspected building and its immediate surroundings.



Figure 1: Satellite image indicating the inspected building and its immediate surroundings.

Taken from Google Earth Pro 05/03/2024

Description of Proposed Development

- 1.5 Current proposals for the site are for conversion of the existing loft void into a living space.

Planning Policies

- 1.6 The proposals will be assessed against policy guidance provided by the National Planning Policy Framework (NPPF, 2023) as well as relevant planning policies from Chichester District Council Local Plan 2014-2029. These policies included the following which are considered relevant to Ecology, Biodiversity and Nature Conservation:

- **Policy 48:** Natural Environment;
- **Policy 49:** Biodiversity;
- **Policy 50:** Development and Disturbance of Birds in Chichester and Langstone Harbours Special Protection Area;
- **Policy 51:** Development and Disturbance of Birds in Pagham Harbour Special Protection Area;
- **Policy 52:** Green Infrastructure.

Legislation

- 1.6 Under the NERC Act (2006) it is now the duty of every Government department in carrying out its functions “to have regard, so far as it is consistent with the proper exercise of those functions, to the purpose of conserving biological diversity in accordance with the Convention”.
- 1.7 Bats are covered by the following relevant legislation: the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010).
- 1.8 Under the WCA 1981 it is an offence to:
- intentionally, recklessly or deliberately disturb a roosting or hibernating bat (i.e. disturbing it whilst it is occupying a structure or place used for shelter or protection)
 - intentionally or recklessly obstruct access to a roost (i.e. a structure or place used for shelter or protection).
- 1.9 Under the CHSR 2010 it is an offence to:
- deliberately capture (or take), injure or kill a bat
 - intentionally, recklessly or deliberately disturb a bat, in particular (i) any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; (ii) any disturbance which is likely to impair their ability in the case of hibernating or migratory species, to hibernate or migrate; or (iii) any disturbance which is likely to significantly affect the local distribution or abundance of the species to which they belong
 - damage or destroy a breeding site or resting place (roost) of a bat.

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around

the survey area, including identifying habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

Bat Internal and External Survey

- 2.2 The building on site was internally and externally assessed for its suitability for roosting bats. The survey was undertaken on 26th February 2024 by The Ecology Partnership's ecologists Edward Simpson BSc (Hons) and Benjamin Prego BSc (Hons) under the authority of Natural England bat licence holder Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS.
- 2.3 The surveyors assessed the building visually and searched for evidence such as:
- Staining beneath or around a hole caused by natural oils in bat fur.
 - Bat droppings beneath a hole, roost or resting area.
 - Bat droppings and/or insect remains beneath a feeding area.
 - Audible squeaking from within a hole.
 - Insects (especially flies) around a hole.
 - Dead bats.
- 2.4 Buildings which are considered to have a higher potential to support roosting bats would include the following:
- Agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed beams;
 - Buildings with weatherboarding and/or hanging tiles that are within 200m of woodland and/or water;
 - Pre-1960s detached buildings and structures within 200m of woodland and/or water;
 - Pre-1914 buildings within 400m of woodland and/or water;
 - Pre-1914 buildings with gable ends or slate roofs regardless of location;
 - Buildings which are located within or immediately adjacent to woodland and/or immediately adjacent to water;
 - Dutch barns or livestock buildings with a single skin roof and board and gap or Yorkshire boarding if, following a preliminary roost assessment the site appears to be particularly suited to bats.

Table 1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. Table 4.1 within the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed), 2023'.

Potential Suitability	Description of Roosting Habitats in structures	Potential flight paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices / suitable shelter at all ground / underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade / protection for flight-lines, or generate / shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. 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 (i.e. unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of bats as flight paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only such as maternity and hibernation – the categorization described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation	Continuous, high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, stream, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is

	status roosts, e.g. maternity or classic cool / stable hibernation site	likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
--	---	--

*Potential roost features

Limitations

2.5 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.

3.0 Results

Desktop study

3.1 The nearest internationally designated sites are Chichester & Langstone Harbours Special Protection Area (SPA) & Ramsar, and Solent Maritime Special Area of Conservation (SAC) which lie approximately 1.9km to the south-west of site. These sites are designated for their significance for over-wintering wildfowl and waders, and consist of a wide range of coastal and transitional habitats supporting important plant and animal communities.

3.2 The site also lies within the 12km wider conservation area of Singleton and Cocking Tunnels SAC with the site located approximately 8.9km from the designated site. This site is designated as an important hibernating site for a number of important bat species including barbastelles and greater horseshoe bats.

3.3 There are multiple statutory designated sites in the wider area including Brandy Hole Copse Local Nature Reserve (LNR) which lies approximately 1.1km to the north of the site, and Chichester Harbour Site of Special Scientific Interest (SSSI) situated approximately 1.9km to the south-west.

3.4 A number of parcels of priority habitat were identified within the surrounding area (Figure 2). The closest of these is a parcel of deciduous woodland located c. 600m south-east of the site boundary. Additional priority habitats within the surrounding area include

traditional orchards located c. 680m east and ancient & semi-natural woodland located c. 960m west of the site.

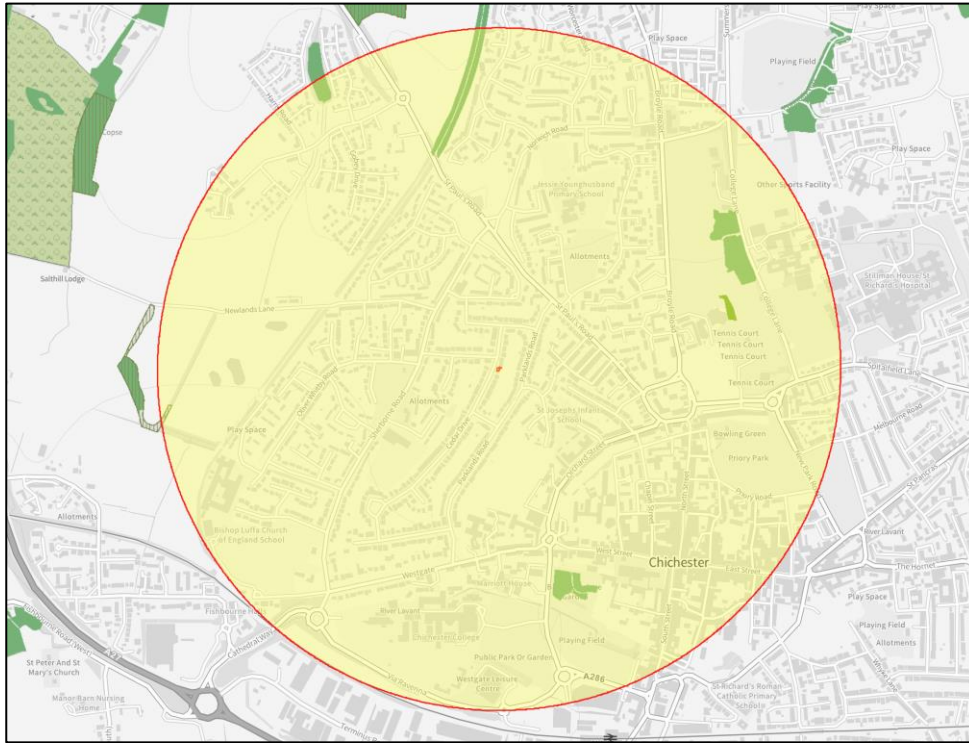


Figure 2: Priority habitats including deciduous woodland (dark green), traditional orchard (lime green), and ancient and semi-natural woodland (green vertical hatching), within a 1km buffer (red circle) of the inspected building on site.

- 3.5 A review of the EPSM licenses for bats issued within 2km of the site are shown below in Figure 3.

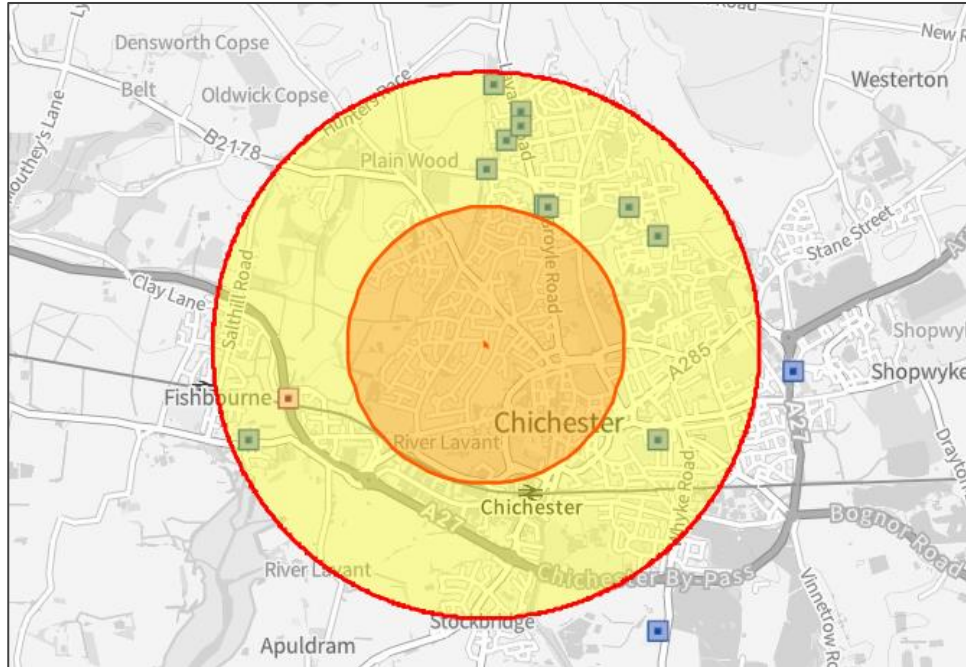


Figure 3: Location of EPSM licenses within 1km and 2km of the site boundary.

3.6 As shown in Figure 3, there are no EPSM licenses for bats within 1km of the site. However, there are a number of bat licenses issued within 2km of the site boundary. The licenses within 2km of the site are listed below:

- EPSM2013-6650: destruction of a resting place for common & soprano pipistrelle bats, located 1.2km to the north-east of the site;
- EPSM2012-5085: destruction of a resting place for brown long-eared bats, common & soprano pipistrelle bats, located 1.2km to the north-east of the site;
- EPSM2013-6117: destruction of a resting place for brown long-eared bats, serotine bats, common & soprano pipistrelle bats, located 1.3km to the north of the site;
- EPSM2011-3542: destruction of a resting place for common pipistrelle bats, located 1.4km to the south-east of the site;
- 2020-49354-EPS-MIT-1: destruction of a resting place for brown long-eared bat, natterer's bat, common and soprano pipistrelles located 1.4km north-east of the site;
- 2014-4721-EPS-MIT: destruction of a resting place for common pipistrelle bats located 1.5km north-east of the site;
- 2018-37276-EPS-MIT: destruction of a resting place for common & soprano pipistrelle bats, located 1.5km to the north of the site;

-
- 2014-1891-EPS-MIT: unknown impacts to soprano pipistrelle bats, located 1.6km to the north of the site;
 - EPSM2013-6143: destruction of a resting place for soprano pipistrelle bats, located 1.7km to the north of the site;
 - 2020-45816-EPS-MIT: destruction of a resting place for soprano pipistrelle bats, located 1.9km to the north of the site;
 - 2019-42746-EPS-MIT: destruction of a resting place for common pipistrelle bats, located 1.9km south-west of the site;
 - 2019-42746-EPS-MIT-1: destruction of a resting place for common pipistrelle bats, located 1.9km south-west.

Internal and external building assessment

- 3.7 A single residential building was internally and externally assessed on the day of the survey. This was a two-storey, brick-built structure with a pitched clay-tiled roof.
- 3.8 Externally, the roof was found to be well sealed with no obvious gaps or slipped/missing tiles. The tiles appeared to be tightly interlocked. There were no external features which could be used by roosts, such as hanging tiles or weatherboarding and the external building did not support any features which could be used by bats.
- 3.9 Internally, the roof void was found to be split into two sections, north and south, both of which were constructed of timber beams and sealed with felt lining. The northern section of the void was found to be well-sealed, however the felt lining in the southern section of the void was found to be torn in several locations. Both sections of the roof void were fully accessible at the time of the survey and no evidence of bats including droppings or staining was found at any point during the void inspection.
- 3.10 Overall, due to a lack of potential entry points on the exterior of the roof, and the lack of evidence of bats internally, the building was considered to have '**negligible**' potential for roosting bats.

4.0 Discussion

- 4.1 The current proposals for the site are for conversion of the existing loft void into a living space.

Protected sites and priority habitats

- 4.2 The nearest internationally designated sites are Chichester & Langstone Harbours SPA & Ramsar, and Solent Maritime SAC which lie approximately 1.9km to the south-west of site. At this distance, it is considered that the proposals on site would not be likely to have a significant effect on the integrity of these designations. As such, no impacts are predicted on these designated sites as a result of the proposed development.
- 4.3 The site also lies within the 12km wider conservation area for Singleton and Cocking Tunnels SAC. The site is located within a residential area to the north west of Chichester and does not support the habitat often associated with foraging habitat for this species and the proposals will not impact upon the ecological functionality of the wider landscape. Due to the limited nature of the proposals, and the overall lack of suitable bat roosting opportunities on site, it is considered there will be no significant impact on this SAC as a result of the development.
- 4.4 The site does fall within the Impact Risk Zone of Chichester Harbour SSSI, however, at this distance the proposed development does not fall into any of the categories that would require consultation with Natural England.
- 4.5 The surrounding habitats consist predominantly of roads, residential dwellings and private gardens. Additionally, the site is not connected via any linear features to areas of suitable habitat for foraging and commuting bats in the local area. There are a number of parcels of priority habitat present within the surrounding area, the closest being a parcel of priority deciduous woodland located *c.* 600m south-east of the site. Due to the nature of the proposals and the distances involved, it is considered that the proposed development will not result in the loss or alteration of any off-site habitats including priority habitats within the wider landscape.

Bats

- 4.6 No features were identified internally or externally on the inspected building that could support a potential bat roost. Additionally, no evidence of bats including droppings or staining was identified inside the loft void at the time of the survey. As such, this building was considered to have '**negligible**' potential to support roosting bats and no additional bat surveys are recommended.
- 4.7 Where possible, it is recommended that any new external lighting as part of the proposals consider bats in the surrounding area as well as the site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels, which can affect both their roosting and foraging behaviour. Recommendations include:
- Installing lighting only if there is a significant need;
 - Using LED luminaries due to their lower intensity, sharp cut-off and good colour rendition – any lights with UV elements or metal halide lights should not be used;
 - Lights with peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone 2012);
 - Lights with an upward light ratio of 0% and good optical control;
 - Careful consideration of column height to avoid light spill;
 - Any external security lights should use motion-sensors and short (1-minute) timers.

Ecological Enhancements

- 4.8 To enhance the local bat population and providing roosting opportunities within the new development, it is recommended that bat boxes be hung on mature trees around the site. It is recommended that two bat boxes are established on the mature trees around the site. Recommended boxes are shown below.



Figure 4: CJ Wildlife Multi Chamber left, Vivara Pro Low Profile right

4.9 Sweet nectar and protein-rich pollen, especially night-scented flowers, are bait to encourage insects, a food source for bats. These species should be incorporated into the garden where possible:

- Evenings primrose (*Oenothera biennis*)
- Field poppies (*Papaver rhoeas*)
- Knapweed (*Centaurea sp.*)
- Night-scented stock (*Matthiola longipetala*)
- Red campion (*Silene dioica*)
- Honeysuckle (*Lonicera periclymenum*)
- Sweet williams (*Dianthus barbatus*)
- Angelica species
- Wisteria (*Wisteria floribunda*)
- Lavenders (*Lavandula sp.*)

4.10 Finally it is recommended that the roof tiles are removed sensitively and checked for bats. If during the redevelopment works, evidence of bats, or bats are found, then works must stop and the advice of an ecologist sought.

5.0 Conclusions

- 5.1 An internal and external assessment of the building at 29 Cedar Drive, Chichester, was undertaken on the 26th of February 2024.
- 5.2 The current proposals for the site are for conversion of the existing loft void into a living space.
- 5.3 Overall, the building was considered to have '**negligible**' potential for roosting bats due to a lack of evidence of bats and a lack of suitable internal and external features. As such, no further bat surveys are required. However, in the unlikely event of a bat or evidence of bats are found, then all works must cease and an ecologist sought.

6.0 References

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

Institution of Lighting Professionals., (ILP - 2018), *Guidance Note 08/18 – Bats and artificial lighting in the UK*. ILP, Rugby.

Lintott, P., & Mathews, F. (2018). *Reviewing the evidence on mitigation strategies for bats in buildings informing best-practice for policy makers and practitioners*.

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

Internet resources:

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Photos

Photograph 1: Northern section of the roof void.



Photograph 2: Southern section of the roof void.



Photograph 3: Tear in the lining in the southern section of the roof void.



Photograph 4: Eastern facing aspect of the roof.



Photograph 5: Western facing aspect of the roof.



The Ecology Partnership Ltd

Thorncroft Manor

Thorncroft Drive

Leatherhead

KT22 8JB

Tel: 01372 364 133

www.ecologypartnership.com

Approved by: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS

Date: 08/03/2024