



BAT ROOST ASSESSMENT

THE WALLED GARDEN, NETLEY HILL ESTATE, SOUTHAMPTON, HAMPSHIRE,
SO19 6AN

DRAFT REPORT

October 2021

Report conditions

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Executive Summary

- This roost assessment report has been prepared in order to support a planning application for the proposed demolition of the existing northern extensions and the construction of a replacement extension to the existing house at The Walled Garden, Southampton.
- A preliminary roost assessment survey was undertaken on the 26th March 2021. The survey encompassed the whole building for completeness, however, only the northern pitched and flat roof extensions and the northern elevation of the original section of house will be impacted by the proposed demolition and construction works.
- The preliminary roost assessment confirmed the presence of low suitability roosting features on the existing extensions. Across the whole property further potential roost features were identified in the form of gaps at the eaves and under roof tiles, however these are outside of the zone of impact. No evidence of activity was recorded during the survey.
- In order to confirm the presence/absence of roosting bats, characterise any bat roosts, assess the extent that they may be affected by the proposed demolition and construction works and develop a proportionate and appropriate mitigation strategy, further survey work in accordance with Natural England standing advice and the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) was undertaken. The recommended survey effort for structures with low roost suitability is one presence/absence survey.
- One presence/absence survey comprising a dusk emergence survey was undertaken during August 2021.
- No bats were recorded emerging from the existing extensions during the survey.
- As such, there is considered to be no reasonable likelihood that bats will be present and affected by the proposed works.
- No further survey work is required.
- Provided the recommendations set out in section 5 are followed, the planning authority can be confident that the development would accord with relevant planning policy, legislation and caselaw.

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1. Introduction

1.1 Report purpose

This report presents the findings of the bat roost assessment undertaken of the house at The Walled Garden, Southampton.

1.2 Description of proposal

The current proposal is for the demolition of the existing northern extensions and the construction of a replacement extension on the northern elevation of the house.

1.3 Report context

A planning application has been prepared for the demolition and construction works. The planning authority, Eastleigh Borough Council, have requested that the planning application is accompanied by an ecological survey and assessment. Phillips Ecology have been instructed by the Applicant to undertake this assessment.

1.4 Survey area

The survey area comprised the existing building at The Walled Garden, Southampton and its immediate surrounds. The survey extended to all areas of the building for completeness. This included the existing northern pitched and flat roof extensions.

1.5 Limitations

The roof void within the pitched extension has no access hatch. No other limitations were encountered during the course of the survey.

1.6 Relevant documents

The relevant proposal plan used to inform this assessment is presented in Appendix 1.

2. Survey Methodology

2.1 Preliminary Bat Roost Assessment Methodology

2.1.1 Surveyor/s

The survey was carried out by Katy Goddard of Phillips Ecology.

2.1.2 Survey area

The survey area comprised the house at The Walled Garden, Southampton and its immediate surrounds which will be affected by the proposed demolition and construction works. The survey area extended to all areas of the house that will be modified by the proposed works in such a way that bats or their roosts could be impacted (directly or indirectly). Therefore, the survey included the entirety of the northern pitched and flat roof extensions and the northern elevation of the main section of the house. In addition, the remaining elevations and the roof void of the main section of the house were inspected to support the roost assessment.

2.1.3 Survey date

The survey was carried out during the daytime on the 26th March 2021.

2.1.4 Survey description

The survey did not depart from the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) which states that "A preliminary roost inspection survey is a detailed inspection of the exterior and interior of a structure to look for features that bats could use for entry/exit and roosting and to search for signs of bats".

The external features of the structure which will be modified by the proposed works in such a way that bats or their roosts could be impacted (directly or indirectly) if present, were systematically inspected in detail to compile information on potential and actual bat access points and roosting places such as lifted or broken roof materials, loose brickwork and open eaves. This included a thorough search for evidence of bat activity such as bat droppings, urine splashes and fur staining.

The interior of the building was inspected in order to identify potential or actual access points and roosting places and to record any evidence of bat activity or bats themselves.

2.1.5 Survey equipment

Survey equipment comprised:

- High-powered torch
- Camera
- Ladders
- Endoscope

2.1.6 Weather conditions

Weather during the survey can be described as: wet, 100% cloud cover, breezy and 9°C. The weather conditions did not hinder the ecologist's ability to carry out the survey effectively.

2.1.7 Assessment methodology

The suitability of the building for supporting bat roosts will be assessed against the guidelines within Table 1 which have been adapted from the BCT Good Practice Guidelines.

Table 1 Suitability assessment guidelines

Suitability	Description of Roosting Habitats
<i>Negligible</i>	Structure has no reasonable likelihood of supporting roosting bats i.e. no suitable roosting features present.
<i>Low</i>	A structure which could be used opportunistically by individual bats i.e. one or more potential roost sites which do not provide sufficient space, shelter, protection, appropriate conditions (e.g. temperature, light, humidity) and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
<i>Moderate</i>	A structure which could be used by bats but is not likely to support a roost of high conservation status (e.g. maternity roost). This structure would support features which exhibit suitable size, shelter, protection, conditions and surrounding habitat for roosting bats.
<i>High</i>	A structure which is obviously suitable for supporting larger numbers of bats, on a regular basis and for longer periods of time.

2.2 Re-entry Survey Methodology

2.2.1 Surveyor/s

The survey was carried out by Ellie Gollop and Gina Burlinson.

2.2.2 Survey area

The survey area comprised the eastern and western elevations of the main house. This enabled survey coverage of all suitable access/egress and roosting features which were recorded during the preliminary bat roost assessment.

2.2.3 Survey date

The date and timings of the emergence survey are presented in Table 2. The emergence survey commenced 15 minutes before sunset and continued for at least 1.5 hours after sunset.

Table 2 survey date and timings

Survey type	Date	Start	Finish	Sunset/sunrise
Emergence	30/08/2021	19:38	21:30	19:53

2.2.4 Survey description

The emergence survey was undertaken in accordance Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Two surveyors were positioned in order to provide sufficient coverage of all potential access/egress points when stationary. All emergences, re-entries and general activity were recorded during the course of each survey. Recordings were later analysed using Sonobat bat call analysis software to confirm species identification.

2.2.5 Survey limitations

No limitations were encountered during the course of the survey.

2.2.6 Survey equipment

Survey equipment comprised:

- Pettersson D240X bat detector
- Elekon Batlogger M detector

2.2.7 Weather conditions

Weather conditions during the surveys are provided in Table 3:

Table 3 re-entry weather conditions

Survey	Date	Precipitation		Temperature		Wind		Cloud Cover	
		<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>
Emergence	30/08/2021	Nil	Nil	17.0°C	15.0°C	Bf 1	Bf 0	100%	100%

3. Survey results

3.1 Preliminary Bat Roost Assessment

3.1.1 *Building description relevant to bats and their roosts*

The application site comprises pitched and flat roof extensions that extend from the northern elevation of a brick-built single-storey dwelling which rises to a pitched and gable end design roof. The house is oriented west-east. A single-storey brick-built extension extends west from the western end of the northern elevation of the main section of the house. As with the main section, the extension rises to a pitched and gable end design roof clad with clay interlocking roof and ridge tiles (Figure 1). The roof extends beyond the wall plate and the eaves remain open with the internal beams visible. The gaps between the beams have been infilled with wooden boards (Figure 2). A timber framed and brick-built flat roof porch clad with lead flashing extends from the south western corner of the pitched sections of house (Figure 3). A number of extensions have been added to the original property as follows. A flat roof extension extends from the corner of the northern elevation of the main section of house and the eastern elevation of the pitched extension. This meets a flat roof extension which extends from the northern elevation of the pitched extension and meets the north western boundary wall of the property (Figures 4, 5 and 6). The flat roofs are clad with roofing felt which overhangs the elevations. Wooden fascia boards sit below the overhang closely adjoined to plastic guttering. The western elevations remain as exposed brickwork and support ventilation bricks while the eastern elevations are painted. The windows are set in either plastic or wooden frames and have been installed with no gap between them and the surrounding brickwork. A shallow flat roof bay window extends from the south eastern elevation of the flat roof extension. Lead flashing covers the joins between the three sections of the house.



Figure 1 – south western corner of the house with the pitched extension extending from the northern elevation of the main section of house



Figure 2 – eaves with internal beams visible on the southern elevation of the pitched extension



Figure 3 – porch extending from the south western corner of the house



Figure 4 – flat roof extension extending from the northern end of the house



Figure 5 – flat roof meeting the northern roof face of the pitched extension and the northern gable end of the main section of the house



Figure 6 – western elevations of the extensions meeting the north western boundary wall

An account of suitable access/egress features and recorded evidence of bat activity is given in table 2.

Table 2 - Recorded features and activity

	Suitability	Evidence
Exterior	The following suitable access/egress and roosting features were recorded externally during the survey: - Hole in the brickwork adjacent to a beam at the eaves on the southern elevation of the pitched extension (Figure 7). - Damaged ventilation brick on the western elevation of the flat roof extension (Figure 8).	No evidence of roosting activity was recorded externally during the survey. While the gaps behind the fascia boards were partially covered with light cobwebbing and some were large and therefore drafty, access points over the top of the wall plate were visible behind the fascia boards. As such, access is available to potentially more

	Suitability	Evidence
	- Gaps underneath fascia boards on the eastern elevations of the flat roof extension. - The remaining elevations had potential roost features in the form of gaps under roof tiles and open eaves.	suitable roosting opportunities above the wall plate.
Interior	No suitable roosting features were recorded internally during the survey.	No evidence of roosting activity was recorded internally during the survey.



Figure 7 – hole in the brickwork underneath a beam on the southern elevation of the pitched extension



Figure 8 – damaged ventilation brick on the western elevation of the flat roof extension

3.1.2 *Site grounds description relevant to bats*

The immediate surrounds of the property comprise hardstanding, managed lawn, mature trees and ornamental shrubs. Netley Hill Estate is a heavily treed area. Beyond this Thornhill and Hedge End comprise residential properties and their associated gardens, commercial development and services. Further afield the landscape is characterised by blocks of broad-leaved and plantation woodland, permanent pasture, arable farmland, mature hedgerows and scattered trees. In this context, the habitats within the footprint of the proposal are considered unexceptional and of low suitability for foraging and commuting bats, however, given their location within a landscape which is suitable for commuting and foraging bats, it is possible that bats will commute and forage through the site.

3.2 **Emergence Survey**

3.3.1 *Visit 1 – 30th August 2021 – Emergence Survey*

During the course of the emergence survey carried out on the 30th August 2021, no bats were recorded emerging from the property. The first recorded bat comprised a single common pipistrelle *Pipistrellus pipistrellus* bat which commuted east to west past the northern elevation of the property at 19:58. A second common pipistrelle commuted in the same direction at 20:04. Following this, individual common pipistrelle bats were recorded foraging around the mature trees to the south of the property. Their activity was frequent with bats recorded every two to five minutes until 21:19. At 21:23, a single serotine *Eptesicus serotinus* bat was recorded commuting close to the site but was out of sight of both surveyors.

3.3 **Other protected species**

During the course of the survey, no evidence of bird nesting activity was recorded.

4. Discussion and Assessment of Impacts

4.1 Bat roost assessment and potential impacts

The proposed extensions to be demolished were considered to support low roost suitability i.e. a structure which could be used opportunistically by individual bats but is not likely to support a roost of high conservation status (e.g. maternity roost) during the preliminary assessment.

On the basis that the zone of impact was considered to support low but not negligible suitability for roosting bats, there was considered to be a reasonable likelihood that bats would be present and affected by the proposed demolition works which will impact the features detailed in Table 2.

However, no bats were recorded emerging from the extensions during the emergence survey carried out during August 2021.

As such, there is considered to be no reasonable likelihood that bats will be present and affected by the proposed works.

The application site supports a small number of foraging common pipistrelle and serotine bats which utilise the site as a compartment of a wider resource. Activity was focused to the south of the site and as such, increasing illumination in this direction could impact this behaviour.

4.2 Relevant legislation and policy

Circular 06/2005 identifies that applicants should not be required to provide information on protected species unless there is a reasonable likelihood that they will be present and affected by the proposed development. The site is considered to support habitats with suitability and potential for protected species and these may be affected by the proposed development. Therefore, the proposal triggers 'reasonable likelihood' under the Circular.

The Wildlife and Countryside Act 1981 (as amended) and the Habitats Directive (commonly referred to as the Habitats Regulations) may apply should protected species be confirmed on site.

In the case that a European protected species is found to be present and impacted by the proposal, the local planning authority will be required to engage with the Habitat Regulations. Permission will be granted unless:

- a) the development is likely to result in a breach of the Habitats Regulations, and
- b) is unlikely to be granted an EPS licence from Natural England to allow the development to proceed under a derogation from the law (under licence).

When considering whether Natural England would not be unlikely to grant a licence for the identified impact, the local planning authority must consider the three tests which are set out in the Habitat Regulations:

1. the consented operation must be for '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'; (Regulation 53(2)(e))
2. there must be 'no satisfactory alternative' (Regulation 53(9)(a)); and
3. 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' (Regulation 53(9)(b)).

Case-law (Morge vs. Hampshire County Council) has clarified that planning authorities are able to grant permission for developments that would cause a breach of the Regulations is likely (i.e. in the case of this proposal, destruction of a bat roost), provided that sufficient information is provided to give the planning authority assurance that the relevant EPSM licence is not unlikely to be granted - i.e. planning authorities also have a duty to assess planning applications against these tests.

5. Recommendations

5.1 Requirement for further surveys

Where there is a reasonable likelihood that a protected species will be present and impacted by the proposed development, planning authorities require further surveys to properly assess development proposals against relevant planning policy. An assessment into the requirement for further surveys is presented below, however in summary, no further survey work is considered necessary.

5.1.1 *Bats*

In order to provide robust confirmation on the presence and status of bat roosts and the extent that they may be affected by the proposed development as required by Circular 06/2005, further survey work in accordance with Natural England's standing advice and the BCT Good Practice Guidelines was required.

In accordance with these guidelines, further survey effort took the form of one dusk emergence presence/absence survey undertaken during the bat active season. No further surveys in respect of roosting bats are considered necessary.

The affected areas of habitat surrounding the property are not of significant value as a foraging or commuting resource. Therefore, further survey is considered unnecessary for understanding impacts on foraging and commuting bats, beyond the presence/absence surveys.

5.2 Mitigation strategy

5.2.1 *Bats*

In order to limit any effects on foraging and commuting bats, external lighting to the extended building should be kept to a minimum; in quantity, aspect and lux level. External lighting should be selected that emits minimal ultra violet light and avoids white and blue wavelengths of the light spectrum. All lights should be kept at a low level and directed away from the mature trees to the south of the site. Lighting on sensors should not be so sensitive that foraging bats trigger them.

5.2.2 **Enhancements**

The delivery of biodiversity enhancement on development sites is promoted by the National Planning Policy Framework (NPPF) and Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.

Where opportunities exist it is best practice to provide enhancement features which encourage greater biodiversity within development sites in accordance with the NPPF and Local Planning Authority's responsibilities under the NERC Act.

Opportunities for enhancement which are proportionate to the scale of the development include the provision of bird nesting opportunities. These could be external boxes located on the walls of the house or on trees within the garden. A total of three bird boxes comprising hole and open fronted boxes would be appropriate.

6. Conclusion

The preliminary roost assessment identified that the existing extensions that are to be demolished support low suitability for roosting bats. Therefore, further survey effort was recommended to confirm the presence/absence of roosts, characterise any bat roost/s, assess the extent bats may be affected by the proposed demolition works and devise an appropriate mitigation strategy to support the proposed demolition and construction works and address any breaches in the legislation. In accordance with Natural England standing advice and BCT Good Practice Guidelines, one presence/absence survey for the proposed extensions to be demolished was undertaken during August 2021. This has confirmed that the existing extensions do not support roosting bats. As such, no mitigation is considered necessary. Opportunities for ecological enhancement in the form of bird boxes have been suggested for the site.

7. References

- **Altringham J D, 2003**, British Bats, Collins New Naturalist
- **Bat Conservation Trust, 2016**, BCT Bat Survey Guidelines Third edition
- **Chartered Institute of Ecology and Environmental Management, 2017**, *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester
- **ILP and BCT, 2018** *Bats and Artificial Lighting in the UK: Guidance Note 08/18*. ILP, Warwickshire.
- **MHCLG, 2018**. *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government; London.
- **Mitchell Jones AJ, 2004**, *Bat Mitigation guidelines*, English Nature
- **Mitchell Jones AJ and McLeish A P, The Bat Workers Manual**, JNCC
- **Natural Environment and Rural Communities Act 2006**, Ch 3, s. 40
- **Natural England, 2011** Frequently asked wildlife questions: Bats. Natural England

Appendix 1 – Proposal plan TBC



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