



Preliminary Bat Roost Assessment

31 Howard Avenue, West Wittering, Chichester, PO20 8EX

On behalf of Mr and Mrs Mellett

7th March 2024

Quality Assurance

This report has been prepared by Emily Sabin. The methods and recommendations are based on the following:

- Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing 2017 (CIEEM, 2017)
- CIEEM Good Practice Guidance for Habitats and Species (CIEEM, 2021)
- Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th Edition (BCT, 2023)

Copyright © Imprint Ecology 2024

No part of this report may be copied or reproduced by any means without permission from Imprint Ecology Limited. This report has been prepared for the use of the commissioning party, their clients and their agents. Any third party referring to this report or relying on the information contained herein, does so entirely at their own risk. No liability is accepted by Imprint Ecology Limited for any use of this report, other than for the purposes for which it was originally prepared and provided.

Any legal information provided by Imprint Ecology Limited is an outline only, intended for general information and does not constitute legal advice. The information provided in this document has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

Contents

1. EXECUTIVE SUMMARY	3
2. INTRODUCTION.....	4
2.1 BACKGROUND AND PROPOSED DEVELOPMENT	4
2.2 EXPERIENCE OF ECOLOGISTS.....	4
2.3 PURPOSE OF THE REPORT	4
2.4 SITE DESCRIPTION	4
3. PLANNING POLICY AND LEGISLATION.....	6
3.1 NATIONAL PLANNING POLICY	6
3.2 LOCAL PLANNING POLICY	6
3.3 BATS.....	7
4. METHODS	8
4.1 DESK STUDY.....	8
4.2 SITE ASSESSMENT	8
4.3 SITE INSPECTION CONSTRAINTS	9
5. RESULTS.....	10
5.1 DESK STUDY.....	10
5.2 SITE ASSESSMENT	11
5.3 OTHER SPECIES	14
6. MITIGATION.....	15
7. ENHANCEMENTS FOR BIODIVERSITY	17
8. CONCLUSION	20
9. REFERENCES.....	21

1. Executive Summary

Site Details

- 31 Howard Avenue, West Wittering, Chichester, PO20 8EX (OS Grid Reference: SZ78859731)

Scope of Works

- Imprint Ecology was commissioned to undertake an assessment for bats at a site which is required to inform a planning proposal for the demolition of a single garage and construction of a single-storey rear and side extension.

Key Ecological Constraints

- In Britain, all bat species and their roosts are legally protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).

Results

- A site visit was carried out on the 28th February 2024. A thorough inspection at the site found that in accordance with the Bat Conservation Trust guidelines (Collins, J. 2023) the buildings had negligible suitability to support roosting bats.
- No further surveys are recommended.

Mitigation

- No external lighting/Artificial Lighting At Night (ALAN) will be installed on site. Construction lighting will kept to a minimum. If ALAN must be installed e.g. security lighting, this will be done under an ecologically sensitive scheme.
- Any areas affected by the installation of scaffolding or machinery on the ground are checked each morning before works begin, to rescue any small mammals, amphibians or reptiles that may be present.
- No vegetation is located within the impact zone to be removed to accommodate the proposals. No nesting bird or other protected species habitat will be affected.

Biodiversity Enhancement Recommendations

- Enhancements for bats, birds and other wildlife on site in line with local and national planning policies.

2. Introduction

2.1 Background and Proposed Development

Imprint Ecology was commissioned by Mr and Mrs Mellett to undertake a Preliminary Bat Roost Assessment (PBRA) for bats, including a walkover survey of the whole site, at 31 Howard Avenue, West Wittering, Chichester, PO20 8EX (OS Grid Reference: SZ78859731), hereafter referred to as 'the site'. The proposed development is for the demolition of a single-storey garage and single-storey rear and side extensions.

2.2 Experience of Ecologists

Emily Sabin BSc (Hons) (*Wildlife Conservation*) AMRSB, Accredited Agent under Natural England WML-CL18 Level 2 Bat Licence 2018-34434. She is a committee member of Sussex Bat Group and a bat rescuer, and has five years' experience as an ecological consultant. She is experienced in operating a range of protected species surveys and is also the Water Vole Officer at the People's Trust for Endangered Species.

2.3 Purpose of the Report

This report contains the findings of an ecological assessment of the building and surrounding habitat. It seeks to identify potential ecological constraints that the proposals may have upon bats or other protected species and provides recommendations for further survey, impact avoidance, mitigation and enhancements where required.

This report is valid for a maximum of 24 months from the date of issue. Should the proposals or site alter in any way, an ecologist should be consulted to re-inspect the site and confirm that this report is still accurate.

2.4 Site Description

The site is located within a suburban setting in West Wittering, a coastal town 6 miles southwest of Chichester. The principal dwelling, 31 Howard Avenue, is set within a medium-sized plot, comprising sealed surfaces, buildings, modified grassland (frequently mown), small scattered introduced shrubs and small fruit trees. The wider environ comprises similar-sized houses and gardens, coastal habitats and foreshore, modified grassland for amenity purposes and sealed surfaces. See Figure 1 for the site location and Figure 2 for an aerial view of the site.

Figure 1 - Site Location. Map data ©OpenStreetMap contributors 2024.

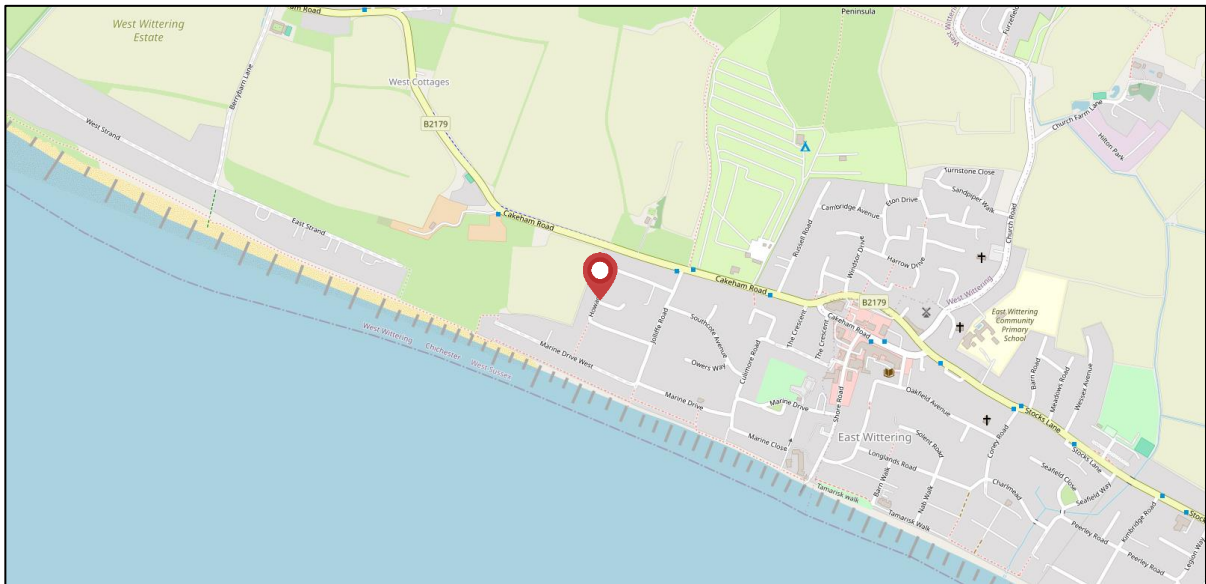


Figure 2 - Site boundary aerial view outlined in red. ©Google Earth (2024)



3. Planning Policy and Legislation

3.1 National Planning Policy

The National Planning Policy Framework (2021) outlines the government’s responsibility to minimise adverse impacts on biodiversity and bestow biodiversity net gains where possible. Paragraph 179 of the NPPF states that “*To protect and enhance biodiversity and geodiversity, plans should: /... promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*”

The NPPF is also complemented by the Circular 06/2005: Biodiversity and Geographical Conservation – Statutory Obligations and Their Impacts Within The Planning System (Office of the Deputy Prime Minister, 2005). Paragraph 99 states that “*It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.*”

3.2 Local Planning Policy

The site is within the Chichester District; the proposals should be assessed against the Chichester District Local Plan – Key Policies 2014-2029. Policy 49 covers Biodiversity; the following criteria must be met for planning applications to be supported:

1. *The biodiversity value of the site is safeguarded;*
2. *Demonstrable harm to habitats or species which are protected or which are of importance to biodiversity is avoided or mitigated;*
3. *The proposal has incorporated features that enhance biodiversity as part of good design and sustainable development;*
4. *The proposal protects, manages and enhances the District’s network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and stepping stones that connect them;*
5. *Any individual or cumulative adverse impacts on sites are avoided;*
6. *The benefits of development outweigh any adverse impact on the biodiversity on the site. Exceptions will only be made where no reasonable alternatives are available; and*

planning conditions and/or planning obligations may be imposed to mitigate or compensate for the harmful effects of the development.

3.3 Bats

British bats are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Additionally, all bat species are protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 which defines European Protected Species (EPS). Bats and their habitats receive additional protection via the Countryside and Rights of Way (CRoW) Act, 2000, under the Bonn Convention (Agreement of Bats in Europe), and in Appendix II and III of the Bern Convention. Seven British bat species are listed under Section 41 of the NERC Act 2006.

This combined legislation means that it is a criminal offence to:

- Deliberately kill, injure or capture a bat
- Deliberately disturb bats, including in particular any disturbance which is likely to impair their ability to survive, to reproduce or to rear or nurture their young, or their ability to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance
- Damage or destroy a breeding site or resting place of a bat
- Damage or destroy, or obstruct access to, any structure or place which any bat uses for shelter or protection
- Disturb bats while occupying a structure or place used for that purpose

A bat roost is a place or structure which a bat uses for shelter or protection. Bats are loyal to roosts, returning annually to the same place. Therefore, the legislation protects bat roosts regardless of whether or not bats are present at the time of survey or construction work.

If proposed development work is likely to destroy or disturb bats or a bat roost, Natural England would be consulted to obtain a European Protected Species Licence (EPSL). which would be subject to appropriate measures to safeguard bats. With suitable approved mitigation, exemptions can be granted from the protection afforded to bats under Regulation 39 by means of a EPSL.

The Natural Environment and Rural Communities Act (NERC Act) 2006, requires due consideration be given to biodiversity and its potential enhancement when considering proposed developments. The NERC Act defines a number of bat species as species of principal importance for consideration during planning.

4. Methods

4.1 Desk Study

A desk study was undertaken to obtain ecological information about the site in context with the surrounding area. The [Multi-Agency Geographic Information for the Countryside \(MAGIC\)](#) website was accessed on 28th February 2024 to identify local statutory designated sites, priority habitats and European Protected Species Licences (EPSLs) within a suitable radius of the site. The Site Check tool was used to set a buffer size for each respective data search.

Satellite imagery from Google Earth, MAGIC and Ordnance Survey maps were used to understand the site's connections to surrounding countryside. Given the overall scale and nature of the site and the proposals, a full data search from Sussex Biodiversity Record Centre (SxBRC) was not considered proportionate. This is in accordance with CIEEM (2020) guidance.

4.2 Site Assessment

A visual inspection of the site was undertaken during daylight hours on 28th February 2024, commencing at 14:00hrs.

A camera, binoculars, telescopic ladders, and high-powered torches were used to search for evidence of bats and determine the potential for the building to support bats and other protected species. A handheld 8mm endoscope with 2mp camera, 2.3in screen and LED illumination was used to inspect potential cavities. The endoscope was inserted slowly into every gap with extreme care, looking for signs to suggest a feature could support a bat roost. The surveyor observed whether the cavity extended beyond what was visible externally, if it extended upwards, or into smaller compartments and signs of bat usage e.g. scratch marks, urine stains, or droppings, were searched for.

The presence of potential roosting features (PRFs) and access/exit routes which bats could use to enter these features were surveyed. Evidence of use by bats was also looked for, such as scratch marks, urine stains, lack of cobwebbing, feeding remains e.g. moth wings, droppings, and actual bats. An assessment of potential commuting routes and surrounding habitat was also undertaken to determine their potential to support bats.

Bat PRFs are usually found in specific areas, such as joints, cracks, gaps and cavities within structures like mature trees and buildings. These were prioritised as areas to check for bat

evidence. Roosting bat evidence is not easy to find and not always visible, so any potential roosting locations were also noted.

Following inspection, the building(s) were categorised as having the following suitability for bats: ‘high’, ‘moderate’, ‘low’, ‘negligible’ or ‘none’. These categories are based on observations made during the survey and in the context of the descriptions laid out in Table 1.

Table 1 - Categorisation of bat roosting potential of structures (adapted from Collins, J. 2023.)

Suitability	Description
Confirmed bat roost or resting place	Presence of bats or evidence of bats.
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 status roosts, e.g. maternity or classic cool/stable hibernation site.
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 categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
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 and not a classic cool/stable hibernation site, but could be used by individual hibernating 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.
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).

4.3 Site Inspection Constraints

One single site assessment represents a ‘snapshot’ in time, and it is possible that bats may not have been present at the time of survey but are present at other times of the year. For this reason, the building, surrounding habitats and connecting features were assessed for their potential to support bats, even where no direct evidence of bats was found.

5. Results

5.1 Desk Study

5.1.1 Designated Sites

31 Howard Avenue is not located within nor directly adjacent to any sites designated for nature conservation importance. There is one designated site within 1km of the site, as follows:

- The site falls within the impact risk zones for Bracklesham Bay SSSI, which lies 220m to the south. This SSSI consists of a long stretch of coast with some rough unimproved grazing pastures which are important for the bird populations they support. This importance is elevated as agricultural improvement continues to threaten and erode a habitat-type already scarce within the county. The coastal habitats include a small area of salt marsh, shingle bank, the rifes (wide flowing ditches) and associated reed beds, together with a long stretch of intertidal exposures of high geological interest.
- Solent Maritime, Special Area of Conservation (SAC) lies 900m southwest of the site. This is a complex SAC encompassing a major estuarine system on the south coast of England. Sediment habitats within the site include extensive areas of intertidal mudflats and sandflats, often supporting eelgrass (*Zostera spp.*), subtidal sandbanks, saltmarsh and natural shoreline transitions such as drift line vegetation.
- The site also falls 4km east of Chichester within the 5.6 km zone of influence for Chichester and Langstone Harbours SPA. It is therefore subject to the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended), along with relevant provisions within Policy 50 of Chichester District Council Adopted Chichester Local Plan: Key Policies 2014-2029.

5.1.2 Priority Habitats

The following protected/priority habitats lie within 1km of the site:

- Maritime Cliffs and Slopes

These habitats of Principal Importance are listed in Section 41 of the NERC Act, 2006. Section 40 places a duty on Local Planning Authorities to have due regard to biodiversity.

5.1.3 Protected Species

One European Protected Species Licence (EPSL) for bats has been granted within 2km of the site, as follows:

- Destruction of a common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared *Plecotus auritus* resting place, 80m east, granted in 2020

5.1.4 Other Species

The MAGIC online resource also confirmed that no other EPS licences have been granted within 2km of the site.

5.2 Site Assessment

The principal dwelling, 31 Howard Avenue, is an inhabited, semi-detached, brick-built and rendered two-storey house located in a suburban setting within West Wittering. The house is set to the west of a garden laid to lawn with a low number of small fruit trees. There is a flat roof single-storey garage present in the garden proposed with demolition to accommodate the new extension and a new garage/boat store area.

Garage

The prefabricated single storey garage appeared to be in a good state of repair. The walls were in good condition and clad with pebble-dash. The roof was clad with corrugated sheeting. The fascia around the garage was inspected and no gaps were present behind this which crevice-dwelling bats may otherwise use. The garage had a west facing up-and-over door. There was a small gap above the door which was big enough for a small bat to enter. However, this led directly into the garage space behind with no cavities or crevices. There was no evidence of bats around this gap and it was not deemed to lead to any suitable roosting spaces.

Internally, the garage was well-served with natural daylight from the translucent roof and windows. There was no void and no evidence of bats found within the garage.

In accordance with Table 1 and the guidance in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) (Collins J (ed.) (2023), the garage was assessed as having negligible suitability for bats. See photos 1-7.

Main dwelling

The proposals for a single-storey extension from the east and south elevations do not impact the main roof or loft void of the main house, therefore these areas were scoped out of the assessment. The east elevation of the house had a single storey hipped roof extending into the garden which was clad with overlapping pan tiles. The roof and tiles appeared in excellent condition, with no gaps, cracks, missing or lifted tiles leaving opportunities for bats to exploit.

The soffits and fascia were constructed of uPVC materials and were in excellent condition, behind the fascia were air vents and no gaps large enough for a bat to use. The hip tiles were well mortared in. A small gap on the southern elevation was inspected and did not lead to a cavity, and was heavily cobwebbed.

Internally, there was a very low void present above the existing single storey roof. This was well insulated with loose fibre insulation, the timber rafters were exposed and the void was fully boarded. The client informed the surveyor that due to water damage, large areas of roof lining had been repaired relatively recently.

In accordance with Table 1 and the guidance in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) (Collins J (ed.) (2023), the single-storey section of the main dwelling was assessed as having negligible suitability for bats. See photos 8-12.

Photo 1: West facing elevation of garage



Photo 2: Single garage door gap



Photo 3: North facing elevation of garage



Photo 4: East facing elevation of garage



Photo 5: Fascia on garage



Photo 6: Interior of garage

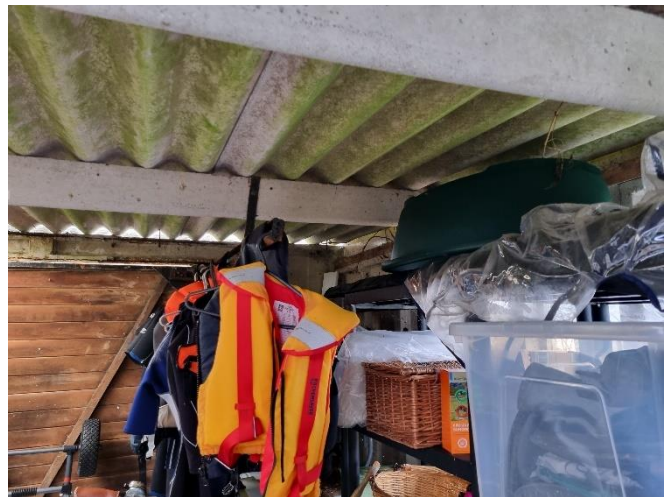


Photo 7: Interior of garage



Photo 8: Loft void above single-storey extension



Photo 9: Garage and main house



Photo 10: East facing elevation of main house



Photo 11: West facing elevation of main house



Photo 12: Air vents behind fascia



5.3 Other Species

The property offers little in the way of suitable nesting opportunities for breeding birds and no evidence of nests was recorded during the survey. The garden provides small fruit trees and a low number of shrubs that could be used by a limited number of passerine bird species for nesting. The garden edges and grassland may be suitable for widespread reptile species such as slow worms and hedgehogs.

Great crested newt are likely absent from the site due to a lack of suitable terrestrial or aquatic habitat. The site is unlikely to support any rare or notable invertebrate species or important assemblages, due to the common and widespread nature of the habitats and plant species present.

6. Mitigation

In accordance with the findings of the inspection and the criteria given in Table 1 adapted from guidance in *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* (Collins J (ed.) (2023), the buildings were assessed as having negligible suitability for bats.

No further surveys for bats are required at this time. Should works be delayed by more than 24 months beyond the date of this report, a re-inspection of the building by a suitably qualified bat ecologist should be conducted before proceeding.

Given the small scale of the proposals it is considered highly unlikely that the development will have an impact upon any bat roosts or other wildlife. Given the intervening distances and small residential nature of the proposals, there are no adverse effects anticipated for designated site as a result of the proposed scheme.

- Lighting – No external lighting is being proposed on site. If lighting is proposed in future, this must be done under an ecologically sensitive lighting scheme. Artificial Light At Night (ALAN) adversely affects bats, invertebrates and other nocturnal animals (Bat Conservation Trust and the Institute of Lighting Professionals, 2023). ALAN creates a barrier for bats and disturbs their natural foraging and commuting patterns, and it must be avoided across the site.

If exterior lighting is to be installed on site, this will be kept to a minimum and the following measures will be taken:

- No exterior lighting, including during construction, will be directed at bat boxes, vegetation, including gardens, trees and hedgerows
- Luminaires will face downwards and mounted horizontally, with no light output above 90° and no upward tilt.
- Security lighting will be set on motion sensors and set to a short timer. For residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- All luminaires will lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires will be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.

- A warm white light source (2700Kelvin or lower) will be adopted to reduce blue light component.
- Shrub removal – The shrub immediately adjacent to the garage on the north elevation should ideally be removed between 1st September and 28th February, that is, outside of the bird nesting season. If the shrub clearance is undertaken between 1st March and 31st August, great care will be taken first to watch for bird nesting activity by adult birds, then by checking the shrub thoroughly and carefully for birds nests by hand. If a nest is found with adult birds building it, sitting on it/on eggs, nest with eggs present, and/or chicks present, shrub clearance will not proceed. The recommended nesting bird buffer zone of 5m extends beyond the construction impact zone, therefore all works would be required to stop until the young chicks have grown and fledged.
- Vegetation lost to accommodate the new garage extension should be replaced with new native, pollinator-friendly shrubs that tolerate shade such as:
 - *Mahonia oiwakensis subsp. lomariifolia*
 - *Berberis thunbergii f. atropurpurea 'Admiration'*
 - *Crataegus monogyna (Hawthorn)*
 - *Currants (Ribes), raspberries (Rubus idaeus) or gooseberries (Ribes uva-crispa)*
- Construction – To be undertaken in accordance with best practice advice with regards to minimising dust, noise, light and emissions during and post-construction. The level of impact on designated sites and protected/priority habitats is expected to be negligible.
- Any holes/excavations must be covered overnight, or provided with a safe escape route for small animals such as a gently sloping ramp e.g. a plank of wood with grooves/chicken wire wrapped over it for grip. Open pipework must be checked they are empty and then closed off at the end of each working day to avoid small animals entering them.
- Any areas affected by the installation of scaffolding, piles of construction materials or machinery on the ground are checked each morning before works begin, to rescue any small mammals or reptiles that may be present. Any materials like wood and rubble piles should be stored on hard surfaces or on pallets to elevate them off the ground and discourage small animals sheltering within them.

7. Enhancements for Biodiversity

The proposed development has an opportunity to enhance habitats on site. Such enhancement measures are in line with the National Planning Policy Framework (NPPF) (2021) and within policies 40 and 49 of Chichester District Council Adopted Chichester Local Plan: Key Policies 2014-2029.

- Pollinator-friendly flowers grown around the garden in beds, pots, or in hanging baskets will improve its ecological value greatly. Always try to choose organic, pesticide-free plants and seeds. Plants should be chosen from the [RHS 'Plants for Pollinators' lists](#). Alternatively, the following list of low-maintenance flowering plants has been recommended by the ecologist for this site which receives a mix of sun and shade:
 - Borage *Borago officinalis*
 - Bugle *Ajuga reptans*
 - Catmint *Nepeta spp.*
 - Chives *Allium schoenoprasum*
 - Cranesbill geranium *Geranium spp.*
 - English lavender *Lavandula angustifolia*
 - Nasturtium *Tropaeolum majus*
 - Rosemary *Rosmarinus officinalis*
 - Sunflower *Helianthus annuus*
 - Thyme *Thymus spp.*
 - Winter-flowering heather *Erica carnea*

- If any new trees or hedgerows are planted on site, they should comprise species native to England, and be selected carefully based on their high value for wildlife. For example:
 - Bird cherry *Prunus padus*
 - Common beech *Fagus sylvatica*
 - Crab apple *Malus sylvestris*
 - Elder *Sambucus nigra*
 - Field maple *Acer campestre*
 - Hawthorn *Crataegus monogyna*
 - Hazel *Corylus avellana*
 - Rowan *Sorbus aucuparia*
 - Silver birch *Betula pendula*
 - Wild cherry *Prunus avium*

- Any new garden lawn can be sown with Emorsgates Flowering Lawn Mixture EL1. Existing lawn can also be prepared and sown with wildflower meadow seeds and undergo minimal management. Such meadow sowing can provide interest and can be aesthetically pleasing with mown meandering paths. Alternatively, areas of grass could be left to grow long such as around the base of each small garden tree.
- An integrated bat box, external* bat box or tile with a suitable gap (or readymade ‘bat tile’) could be incorporated into the designs. Erected at least 3m above ground, facing between southwest and southeast is ideal. In this case, erecting a bat box on the south facing elevation of the main dwelling would be ideal. No artificial lighting will shine on any new bat roosting opportunities. See Figures 7.1 to 7.4 for examples.

**WoodStone/Woodcrete boxes are recommended rather than timber boxes. They safeguard against attacks from predators and the material insulates the box which creates a more consistent internal temperature.*

Figure 7.1 – ‘Chillon’ Woodstone Bat Box



Figure 7.2 - [Beaumaris Woodstone Bat Box](#)



Figure 7.3 – Vivara Pro Bat Brick



Figure 7.4a (left) and 7.4b (right) – [BirdBrickHouses Integrated Bat Boxes](#)
(7.4b suitable to install behind timber cladding)



- One bird nest box is recommended to enhance the site for birds. An external WoodStone/Woodcrete bird nest box could be incorporated into the designs. Erected 3-5m above ground facing between northwest and northeast. A swift box (Figure 7.7) could

be erected on the main dwelling at eaves height, facing east. Alternatively, an open-fronted external bird nesting box could be installed sheltered within a shrub. See Figures 7.5 to 7.8 for suitable examples of bird nesting opportunities.

Figure 7.5 – [Vivara Pro](#) Woodstone Standard External Bird Box



Figure 7.6 – [Vivara Pro](#) Woodstone Open-Fronted External Bird Box



Figure 7.7 – [Vivara Pro](#) Swift Box



Figure 7.8 – [Vivara Pro](#) Woodstone House Sparrow Terrace External Bird Box



- A 13x13cm hole in a garden fence could be added to one fence on site. This size gap is sufficient for hedgehogs to pass through and is too small for most dogs/cats. A small solid wooden hedgehog house (Figure 7.9) could also be installed in a quiet corner of the garden if more shrubs are replacing those that are lost to accommodate the garage extension. Information for providing a hedgehog friendly garden can be found [online here](#).

Figure 7.9 – Solid Wooden Hedgehog Box



8. Conclusion

Imprint Ecology Limited was commissioned by Mr and Mrs Mellett to undertake a Preliminary Bat Roost Assessment at 31 Howard Avenue, West Wittering, PO20 8EX.

A daytime Preliminary Bat Roost Assessment was carried out on 28th February 2024. The buildings appeared to be in a very good state of repair, with no potential roost features identified on the main roof of the single-storey extension or single garage. Both buildings were assessed as having negligible suitability for bats. No further surveys have been recommended.

Given the nature of the proposals, impacts upon nearby designated sites or habitats is considered to be negligible. Mitigation has been proposed to minimise the risk of any harm to other protected species and ubiquitous wildlife and to avoid any contravention of legislation. Given the small scale of the proposals, these measures are considered proportionate and sufficient.

The suggested ecological enhancements will result in a positive net gain over time in line with local and national planning policies.

9. References

- Bat Conservation Trust and Institute of Lighting Professionals (2018). Guidance Note 08/18 - *Bats and artificial lighting in the UK*. Available at: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>.
- British Standards Institute (BSI) (2011). BS 5250:2011 Code of practice for control of condensation in buildings (+A1:2016). BSI, London.
- British Standards Institute (BSI) (2013). BS EN 13707:2013 Flexible sheets for waterproofing. Reinforced bitumen sheets for roof waterproofing. Definitions and characteristics. BSI, London.
- British Standards Institute (BSI) (2013). BS42020 - Biodiversity Code of Practice for Planning and Change of use. BSI, London. BSI Standards Publication, Trees in relation to design, demolition and construction – Recommendations (2021)
- Chichester District Council Adopted Chichester Local Plan: Key Policies 2014-2029, Policies 40, 49 – 52. Available online at: <http://www.chichester.gov.uk/CHttpHandler.ashx?id=24759&p=0>
- CIEEM (2020) Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester, UK.
- Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London
- HM Government (1981). Wildlife and Countryside Act 1981 (as amended). Available at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>
- HM Government (2000). Countryside and Rights of Way Act, 2000. Available at: <https://www.legislation.gov.uk/ukpga/2000/37/contents>
- HM Government (2019). National Planning Policy Framework. Department for Communities and Local Government. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
- Mitchell-Jones, A.J, & McLeish, A.P. (eds). 2004., 3rd Edition Bat Workers' Manual, JNCC, Peterborough. Available at: <https://data.jncc.gov.uk/data/e5888ae1-3306-4f17-9441-51a5f4dc416a/Batwork-manual-3rdedn.pdf>
- Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature, Peterborough
- Office of the Deputy Prime Minister. (2005, August 16). Biodiversity and geological conservation: circular 06/2005
- Waring, S. D., Essah, E., Gunnell, K. and Bonser, R. (2013) Double jeopardy: the potential for problems when bats interact with breathable roofing membranes in the United Kingdom. *Architecture & Environment*, 1 (1). Pp. 1-13. ISSN 2329-2296. Available at: http://centaur.reading.ac.uk/33044/1/ae_1361785788.pdf