

Bat Scoping Survey: The Red House, Great Buckland

Client Mr A Wilson
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Non-technical Summary

Background

In July 2024, Crossman Associates was commissioned to undertake a bat survey of The Red House, Wrangling Lane, Gravesend DA13 0XF. Development proposals include remodeling.

Methods

The scoping survey was undertaken by Carla Souza, an experienced ecologist and bat worker. The building was inspected both externally and internally for any evidence of bat / bird presence, such as droppings, food remains, staining or actual bats / birds. Two additional bat emergence surveys were also undertaken.

Results

The dwelling is located within a semi-rural area. Overall, the dwelling is in good condition. However, the roof provides features suitable for roosting bats and include broken/lifted roof and hanging wall tiles and gaps in the chimney concrete work.

The property has moderate suitability for roosting bats.

The bat emergence survey confirmed likely absence of roosting bats.

Recommendations

It is recommended that the following be undertaken as part of the development:

- Precautionary approach to be taken in relation to bats, birds and hedgehogs.
- Install a bat box in a garden tree of the property.
- Install a bird nest box on the exterior of the new development.
- Reduced external lighting to benefit nocturnal wildlife.

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1. Background

- 1.1. In July 2024, Crossman Associates was commissioned to undertake a bat survey of The Red House, Wrangling Lane, Gravesend DA13 0XF. The Ordnance Survey grid reference for the site is TQ 66946 63924. Development proposals include remodeling.
- 1.2. Figure 1 under Appendix II provides a site location map.
- 1.3. The objectives of the survey were to:
 - Make an assessment of the likely presence or absence of bats
 - Identify any legislative or planning policy constraints relevant to the site
 - Determine the need for further surveys, compensation or mitigation

Site Description

- 1.4. The building comprises a two storey detached bungalow, with a converted loft space and a mature garden.
- 1.5. The property is in a semi-rural environment in Great Buckland, Kent. Surrounding areas tend to include similar dwellings with mature gardens. Wider landscape includes farmland and ancient woodlands.

Legislation

- 1.6. In the UK all species of bats are protected under the Wildlife and Countryside Act (1981) as amended and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2017. Under this legislation it is a strict liability offence to injure or destroy a bat or to disturb damage or destroy the resting place of a bat.
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Under this legislation the UK is obliged to fully take into account bats within the planning process and the level of bat activity on-site must be fully assessed prior to the assessment the planning application.

- 1.7. In Britain all wild birds are granted legal protection under the Wildlife & Countryside Act (1981) (as amended). This legislation protects the birds, their eggs and nests whilst being built or in use.

2. Methodology

Desktop Study

Data search

- 2.1. The MAGIC website was accessed to gain information on any statutory site designations within 4 km of the site that are designated for bats.

National Planning Policy

- 2.2. National Planning Policy has been reviewed for policies that relate to nature conservation relevant to the site.

Field Survey

Bat scoping survey

- 2.3. A bat scoping survey was carried out on the 16th July 2024 by Carla Souza, an experienced ecologist and bat worker.
- 2.4. The building was methodically inspected internally and externally for any evidence of roosting bats, including actual bats, droppings, urine staining and evidence of feeding activity such as discarded insect wings and cases.
- 2.5. The building was also assessed for its suitability to support roosting bats by considering several factors including whether bats can access internal and external voids within the building and whether these voids provide adequate protection and shelter for roosting bats. If the building is not confirmed as a roost, it is assessed from High to Negligible Suitability as follows;

- **High Suitability** – many roosting opportunities. Buildings tend to be old, large and rural
- **Moderate Suitability** – some roosting opportunities. Buildings tend to be old, rural with some recent maintenance
- **Low Suitability** – few roosting opportunities. Buildings tend to be modern, urban and well maintained
- **Negligible Suitability** – insignificant roosting opportunities. Buildings tend to be small, modern, urban and very well maintained.

Birds

- 2.6. The building was also inspected for the presence of birds including house sparrow *Passer domesticus*. The building was checked for field signs including nesting material, accumulations of droppings and/or pellets.

Evening emergence/ activity surveys

- 2.7. Two evening emergence/ activity surveys were carried out by two bat surveyors led by experience and licenced bat worker Miguel Canovas. The surveyors were positioned so that all aspects of the building suitable for roosting bats could be observed. The Surveys were undertaken during suitable weather conditions. The emergence surveys commenced at 15 minutes before sunset and continued for two hours. All general bat activity on site was also noted.
- 2.8. Echo meter touch, Peersonic bat detectors and IR cameras were used together with visual observations on flight patterns and feeding behaviour to aid identification to species level. Recordings of bat calls were made and later analysed using dedicated computer software Audacity and wildlife acoustics.

3. Results

Desktop Study

Data Search

- 3.1. The MAGIC website informed that there are no statutory sites within 4 km of the site designated for bats.

Planning Policy

- 3.2. National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied to planning applications;

Conserving and enhancing the natural environment

Planning decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Habitats and Biodiversity

When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific

interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Field Survey

Bat scoping survey

- 3.3. The external and internal conditions of the buildings are described in the table below and photographs can be found in Appendix II.
- 3.4. A table within Appendix III; information sheets set out the criteria for the way a building is assessed for its potential to support roosting bats.

Building	Feature	Feature Description	Bat suitability
The Red House, Great Buckland	Overview	Detached single storey house bungalow, with converted loft space. The property is in good condition and is currently unoccupied.	Moderate suitability ☒
	Exterior	Brick rendered walls no gaps or cracks were observed. The windows and doors are all well sealed. There are gaps on the hanging wall tiles around the dormer windows. A maintained lawn garden is present at the front and rear of the dwelling with young and mature peripheral trees.	
	Interior	Areas of living accommodation are composed of rooms with well-sealed rooms with plaster and painted walls and ceilings. The roof void is insulated, composed by exposed timbers and type one bituminous felt lining. Few gaps were observed.	
	Roof	The roof is clad with concrete roof tiles. There are several lifted tiles and gaps on the roof near the dormers.	

Building	Feature	Feature Description	Bat suitability
		The chimney brick work is in good condition, however, there are gaps on the concrete work which seals the chimney to the roof.	
	Barn	A barn/shed is a simple contracted building in average condition with large amount of light spill, rain and wind exposure.	Negligible suitability ☒

Bat emergence surveys

- 3.5. The building was assessed as having moderate suitability for roosting bats. Therefore, two emergence surveys were undertaken on the 25th July and 27th August 2024. The surveys were led by Miguel Canovas CEnv, an experienced ecologist and licenced bat worker.
- 3.6. The table below details the results of the surveys.

Table 2; Bat emergence table

Survey Date	25/07/2024	27/08/2024
Survey Conditions	Cloud: 23% Weather: Dry Wind level 0 / 2 Start temp 13 ⁰ C End temp 12 ⁰ C Sunset time 20.56	Cloud:5% Weather: Dry Wind level 0 / 1 Start temp 17 ⁰ C End temp 15 ⁰ C Sunset time 19.55
Emergence survey	No bat emergence	No bat emergence
General bat activity. Non emergence	21.07 – 22.03 Multiple passes by common pipistrelle <i>Pipistrellus pipistrellus</i> bats seen/ heard foraging around the building and garden trees.	20.02 – 20.57 Multiple passes by common pipistrelle <i>Pipistrellus pipistrellus</i> bat seen/ heard flying around the front and rear garden and across the building.

Birds

- 3.7. No birds or bird nesting activity was recorded in any aspect of the dwelling.

Evaluation

Dwelling

Bats

- 3.8. The site is in a semi-rural area; and lies near to farmland and ancient woodlands, which is likely to function as commuting and foraging resource for different species of bats.
- 3.9. The lifted tiles and other gaps within the roof and roof void, have the potential to offer roosting opportunities for roof void and crevice-dwelling bats, particularly *Pipistrelle sp.*

Emergence / activity surveys

- 3.10. During the bat emergence survey, no bats were recorded either exiting or entering the dwelling, so bats are not considered to be roosting within the building.
- 3.11. The garden of the property is above average in size and contains a range of mature trees and shrubs. During the survey common and soprano pipistrelle and a long-eared bat was observed foraging along the eastern and northern boundary. The garden combined with neighbouring and similar gardens are considered to provide a useful foraging resource for local bats.

Conclusion

- 3.12. The development will not impact on any protected species or habitats.

Barn

- 3.13. The barn is a simple structure with no insulation or wall cavity and no roof void with large amount of light spill, rain and wind exposure. The barn has negligible suitability to roost bats.

4. Recommendations

- 4.1. The recommendations in the paragraphs below are provided to help ensure that wildlife and important ecological features are protected during the course of works. Recommendations also set out mitigation measures to minimise harm where this cannot be avoided and provide compensation measures to allow the proposals to meet current legislative and planning policy objectives.
- 4.2. The Natural Environment and Rural Communities (NERC) Act (2006) states that a public authority must 'in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'.
- 4.3. The NPPF (2021) states that planning decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Species recommendations

Bats

- 4.4. All bats within the UK are fully protected under the Wildlife and Countryside Act (1981) as Amended and the Conservation of Habitats and Species Regulations 2017. Under this registration there are strict liability offence to injure or destroy a bat or to disturb, damage or destroy the resting place (roost) of a bat. Under the Bonn Convention, the UK is obliged through the planning system to protect important bat habitats.

- 4.5. Due to the transitory nature of bats, there remains a small possibility that bats could be encountered during demolition works; therefore, all works will proceed under a precautionary approach. Tiles and roof panels will be removed in a vertical rather than horizontal sliding motion. Roof timbers, leadwork, roofing felt, soffits and masonry will be dismantled using a 'soft' approach taking care with cavity walls where present. All site workers will be vigilant at all times and in the very unlikely event that a bat is found, then works must stop immediately and advice should be sought from Crossman Associates or Natural England.

Lighting

- 4.6. The site lies near to leafy areas and ancient woodlands these habitats are likely to support a number of species of bat; typical species that would be likely to be present include common pipistrelle and soprano pipistrelle, therefore any exterior lighting that is to be employed should be of the modern LED-type and should take into account the presence of bats and avoid over illumination of the garden, trees and adjacent properties. This can be achieved by using directional lights and or cowl.

Other species

Birds

- 4.7. All nesting birds are protected under the Wildlife and Countryside Act (1981) (as amended), which makes it an offence to damage or destroy a nest when being built or in use. This legislation has implications for the timing of vegetation clearance and renovation works.

Any clearance works should take place outside of the nesting bird season, which runs from March to September; any works to be carried out within this period will be overseen by an ecologist or an ecological clerk of works (ECoW). Prior to the commencement of works, a thorough check will be made for nesting birds or

dependent young. If birds are found to be nesting and or rearing young, then works in the vicinity will be deferred until young have fledged and left the nest.

Hedgehog

- 4.8. In the UK hedgehogs are listed on schedule 6 of the Wildlife and Countryside Act (1981) as Amended which makes it illegal to kill or capture wild hedgehogs. Hedgehogs are also listed as a species of 'principal importance' under the Natural Environmental and Rural Communities Act 2006, which is meant to confer a 'duty of responsibility' to public bodies.
- 4.9. Excavated holes and trenches on building sites have the potential to trap wildlife including hedgehogs leading to the potential suffering and death of the animal (s) particularly if they become filled with water.
- 4.10. If during the development excavated holes / trenches are likely to be left open, then timber builders' planks should be fitted as ramps to enable any wildlife including hedgehogs a means of escape.
- 4.11. In the case of solid fences being installed, small holes measuring approximately 150 mm x 150 mm should be created at the bases to allow the passage of hedgehogs and other wildlife.

Ecology enhancements

Bats

- 4.12. Is recommended that one bat box is to be installed in a garden tree of the property. The bat box to be approximately 3-4m high in a clear trunk of mature/ young mature tree, facing southwest or southeast, and not near to any artificial light.

Birds

- 4.13. During the construction phase of the development, there is an opportunity to incorporate inexpensive ecological enhancements that aim to increase the biodiversity of the site.
- 4.14. New nesting opportunities will be provided for the local bird population with a particular emphasis on house sparrows (which have suffered significant decline) and it is recommended that a sparrow nest box is installed within the development.
- 4.15. Sparrow nest boxes are ideally fitted below eaves. Suitable models include the Vivara Woodstone Sparrow Nest Box, which is suitable for integral and surface mounting. This model is strong, durable, long lasting and available in brown or stone colour. Models can be found on vivira.co.uk.

5. Limitations

- 5.1. This report records wildlife found during the survey and anecdotal evidence of sightings. It does not record any plants or animals that may appear at other times of the year and were therefore not evident at the time of visit.
- 5.2. The advice contained in this report relate primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.

6. References

Bat Conservation Trust (BCT) *Bats and Lighting in the UK* BCT

HMSO (1981) *Wildlife and Countryside Act 1981 (and subsequent amendments)*. HMSO

HMSO (1995) *Biodiversity*. The UK Steering Group Report

Joint Nature Conservation Committee (JNCC) *Common Standards Monitoring Guidance for Reptiles and Amphibians* (2004) JNCC

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

Mitchell-Jones, A.J , & McLeish A.P. (2012) *The Bat Worker's Manual* (4th Edition)

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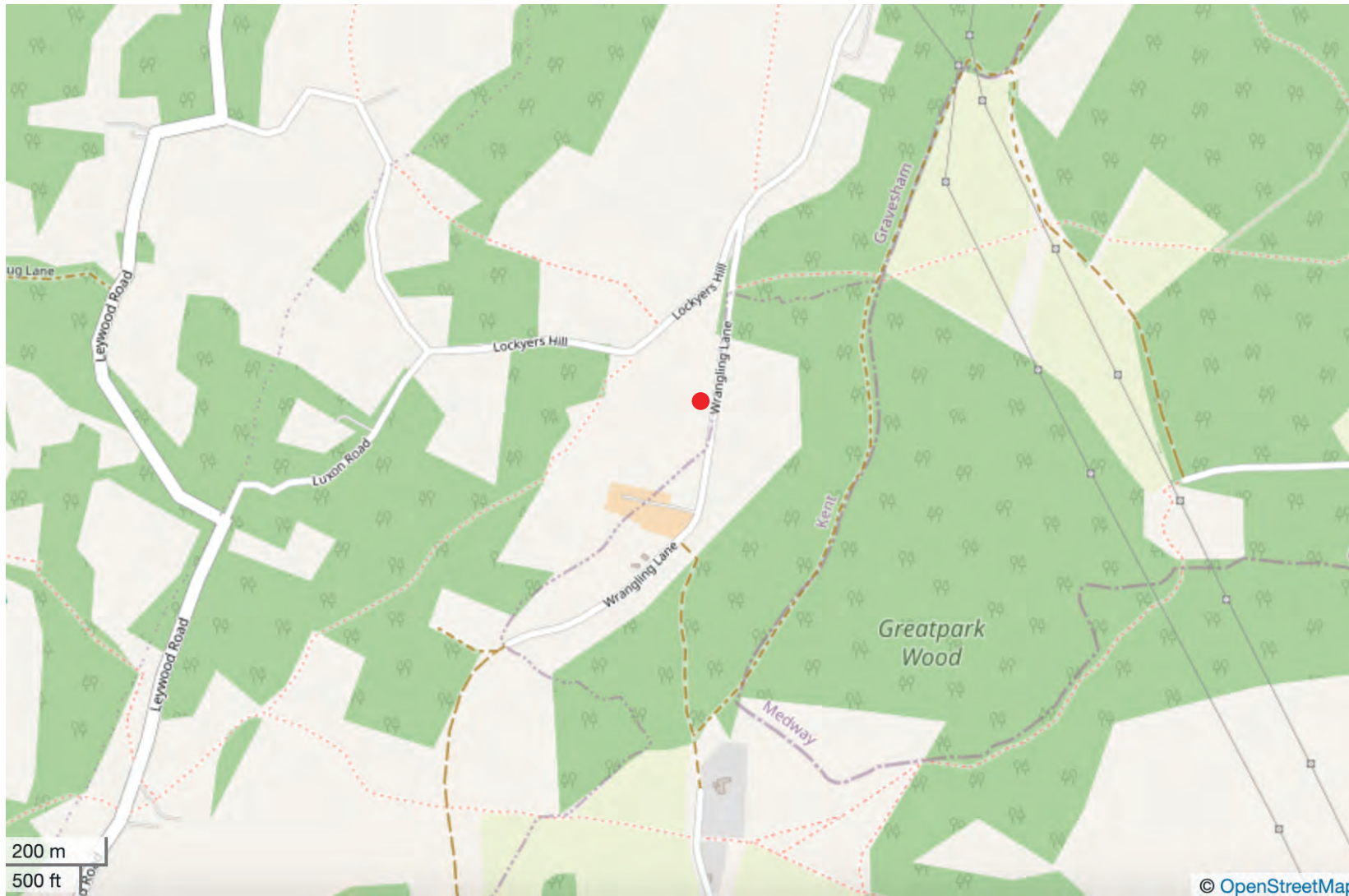
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TSO (2006) *Natural Environment and Rural Communities Act* TSO

Appendix I – Site Figures



Site location



Client Mr A Wilson
Title Location plan
Site The Red House,
Figure 1
Date 25 July 2024
Scale xxx



Appendix II – Site Photographs



Site Boundary



Surveyor locations



Bat activity



Imagery ©2024 Airbus, Map data ©2024 United Kingdom

Client Mr A Wilson
Title Bat survey plan
Site Red House, Great Buckland
Figure 2
Date 02 September 2024
Scale xxx

Photographs 1- 3



Photograph 1:

Front - eastern elevation



Photograph 2:

Back - western elevation



Photograph 3:

Southwestern elevation

Gap details



Photographs 4 - 6



Photograph 4:

Southern elevation

Flash work gap detail



Photograph 5:

Roof void

Gap detail

Bat droppings



Photograph 6:

Barn



Appendix III– Information Sheets

Bat Habitat Suitably Criteria

Bat Roosting Suitability	Criteria	Survey requirement to prove likely absence
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further survey work required
Low	A building, structure or tree with one or more potential roosting sites that could be used by individual bats opportunistically; however, these possible roost sites do not provide enough space, shelter, protection and/or suitable surrounding habitat to be used by large numbers of bats and are unlikely to be suitable for maternity or hibernation roosts.	One activity survey
Medium	A building, structure or tree with one or more potential roost sites that could be used by bats due to the size, shelter, protection, conditions and surrounding habit, but is unlikely to support a roost of high conservation status.	Two activity surveys
High	A building, structure or tree 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.	Three activity surveys

Survey requirements are taken from Bat Surveys for Professional Ecologists: Good Practice Guidelines (2016), which is the recognised industry standard guidance used by local planning authorities and other statutory consultees.

Information sheet Artificial bird nesting boxes for Buildings: Swifts, house martins and house sparrows



Habibat house
sparrow nest box



Vivara woodstone sparrow
nest box; suitable for both
integral fitment or surface
mounting

Ibstock Swift boxes are also suitable for house sparrows. Can be customised to suit any exterior finish. Site boxes under eaves, away from windows and direct sunlight.

Sparrow boxes should be grouped together and be at least 2 m of the ground. The boxes can be also be sited on gable walls. At least 3 per averaged size house.

Swifts boxes should be at least 5 m above the ground with an clear un-obstructed flight path.

Schwegler house martin box model 9 b double is a suitable box for house martins and can be used to encourage the uptake of a building by this species. The boxes can be attached to the exterior walls in a sheltered position; ideally beneath the eaves. At least two sets should be placed on an averaged size house.

Ibstock Box



Schwegler model 9b