

Bat Scoping Survey: Crabbles Cottage, Peartree Ln, Shorne

Client Mr M Tutty-Johnson
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Written by Miguel Canovas

Crossman Associates

Ecological Consultants
Fire Engine House
Oakhill, Bath BA3 5BJ
01761 233414
info@crossmanassociates.co.uk

www.crossmanassociates.co.uk



Non-technical Summary

Background

In April 2024, Crossman Associates was commissioned to undertake a bat survey of Crabbles Cottage, Pear Tree Lane, Shorne, Gravesend, DA12 3JS. Development proposals include demolition of the external garage and extension of the dwelling.

Methods

The scoping survey was undertaken by Miguel Canovas, an experienced ecologist and licenced bat worker. The buildings were inspected both externally and internally for any evidence of bat / bird presence, such as droppings, food remains, staining or actual bats / birds.

Results

The dwelling is located within a semi-rural/ residential area. Overall, the dwelling remains in good condition and provide no features suitable for roosting bats or nesting birds. The garage has no gaps. The garden is maintained.

The dwelling and the garage have **negligible** suitability for roosting bats.

Recommendations

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

- A precautionary approach to development regarding bats.
- Install a house sparrow nest terrace and a bat box.
- Exterior lighting planned sensitive to nocturnal wildlife.

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1. Background

- 1.1. In April 2024, Crossman Associates was commissioned to undertake a bat survey of Crabbles Cottage, Pear Tree Lane, Shorne, Gravesend, DA12 3JS (Ordnance Survey grid reference: TQ 70383 70765).
- 1.2. Development proposals include demolition of the external garage and extension of the dwelling.
- 1.3. Figure 1 under Appendix II provides a site location map.
- 1.4. The objectives of the survey were to:
 - Assess 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

- 1.5. The site comprises a detached two-storey dwelling with a detached garage which is in a semi-rural/residential area in Shorne, Kent. The property has a large, maintained garden.
- 1.6. The property is adjoined along Pear Tree Lane by similar detached/ semi-detached properties with maintained gardens. However, there is an adjacent ancient woodland – Great Crabbles Wood (SSSI) to the southwest of the site.
- 1.7. The environs are predominately residential with a mix of medium/large properties. The wider landscape includes farmland and woodland.

Legislation

- 1.8. 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) Regulations. 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. Under this legislation the UK is obliged to fully consider bats within the planning process and the level of bat activity on-site must be fully assessed prior to the assessment the planning application.
- 1.9. 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 8th April 2024 by Miguel Canovas, an experienced ecologist and licenced 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.

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.
- 3.2. * The Great Crabbles Wood (SSSI) is adjacent to the south west of the site.

Planning Policy

- 3.3. 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

- 3.4. 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

- 3.5. 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

- 3.6. The external and internal conditions of the buildings are described in the table below and photographs can be found in Appendix II.
- 3.7. 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
Crabbles Cottage, Shorne	Overview	Detached two-storey dwelling with a detached garage. The buildings are in good condition and is currently occupied. No bats or evidence of bats were found inside or outside of the buildings.	Negligible Suitability ☒
	Exterior	The brick walls are in good condition; no gaps or cracks were observed. The windows and doors are all well-sealed. The property has a small maintained fenced garden of lawns. The detached garage brick wall has no cracks or gaps the roof is compost of concrete fiber sheets (seems to be asbestos). The garage building is old; however, no gaps were observed.	
	Interior	Areas of living accommodation are composed of well-sealed rooms with plaster and painted walls and ceilings. The roof void is insulated with modern membrane fitted on the timbers, however, there is no lining under the roof tiles. No gaps were observed.	
	Roof	Flat ceramic roof tiles with no significant gaps observed.	

Building	Feature	Feature Description	Bat suitability
		All roof verges remain well-sealed, areas of soffit and where concrete/ lead flashing is used to seal roof abutments remain tightly fitted in place. The chimneys brick work remains in good condition and the concrete/ flashing work which seals the chimneys to the roof remains well fit in place.	

Birds

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

Evaluation

- 3.9. The property is located within a semi-rural/residential area, however, lies near to farmland and woodland with habitats likely to function as commuting and foraging resource for bats.
- 3.10. During the scoping survey, no droppings, staining, feeding remains or actual bats were observed. The dwelling is in good condition and well-maintained. All verges and soffits are in good condition and fit tightly. All tiles and ridges are sealed. The property is constructed from modern and uniform material and lacks any abiotic roosting opportunities.
- 3.11. The detached garage building is old; however, well maintained and no gaps were observed.
- 3.12. The buildings have **negligible suitability** for roosting 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. Due to the lack of evidence of roosting bats within any aspect of the buildings on site, it is not considered necessary or beneficial to undertake any further survey work.
- 4.5. Due to the transitory nature of bats, there remains a very small possibility that bats could be encountered during the works; therefore, all works must proceed under a precautionary approach. Tiles and roof panels will be removed in a vertical rather than horizontal sliding motion. 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 a suitably qualified ecologist.

Lighting

- 4.6. The site lies near to farmland and woodland, 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 cowls.

Biodiversity enhancements

Birds

- 4.7. During the phase of the works, there is an opportunity to incorporate inexpensive ecological enhancements that aim to increase the biodiversity of the site.
- 4.8. 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.
- 4.9. 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 at vivira.co.uk.

Bats

- 4.10. There is an opportunity during the development works to enhance the ecological value of the site for bats. It is recommended that a single Habibat bat box (type

- 001) is built into masonry of the eastern gable. This model is designed for a variety of bat species and has good thermal properties making it suitable as both a maternity roost and hibernation roost. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, making the box unobtrusive and aesthetically pleasing.
- 4.11. An information sheet detailing this type of bat roosting box can be found in Appendix III.

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)

Multi-Agency Geographical Information for the Countryside (MAGIC)
Website at www.magic.gov.uk

Stace, C. (1997) *New Flora of the British Isles 2nd Edition*. Cambridge University Press

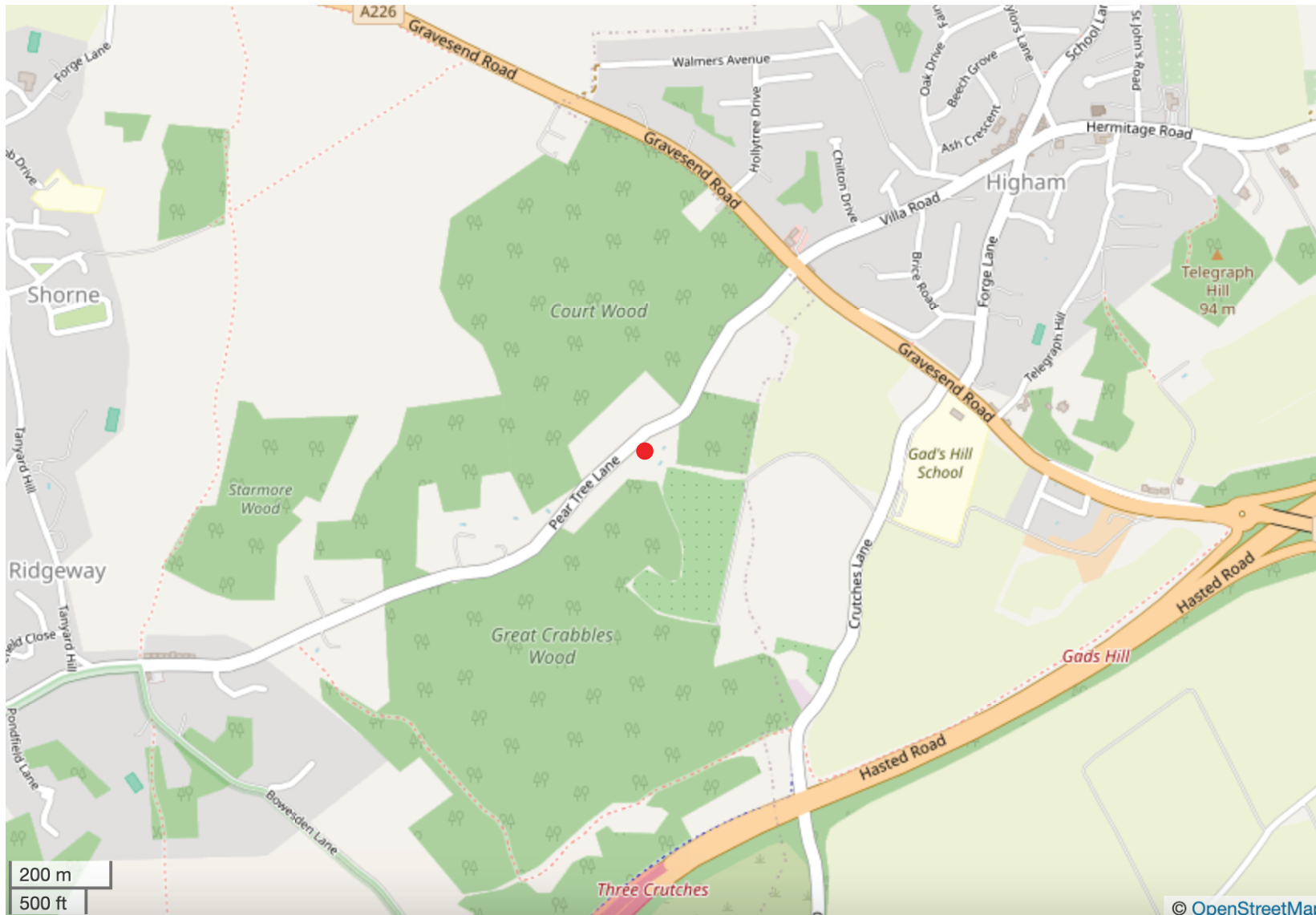
TSO (2021) *National Planning Policy Framework*. TSO

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

Appendix I – Site Figures



Site location



Client Mr M Tutty-Johnson

Title Location plan

Site Crabbles Cottage, Shorne

Figure 1

Date 15 April 2023

Scale xxx



Appendix II – Site Photographs

Photographs 1- 3



Photograph 1:

Front - northwestern elevation



Photograph 2:

Front - northeastern elevation



Photograph 3:

Back - southern elevation

Photographs 4 - 6



Photograph 4:

Roof void



Photograph 5:

Garage interior



Photograph 6:

Garden



Appendix III– Information Sheets

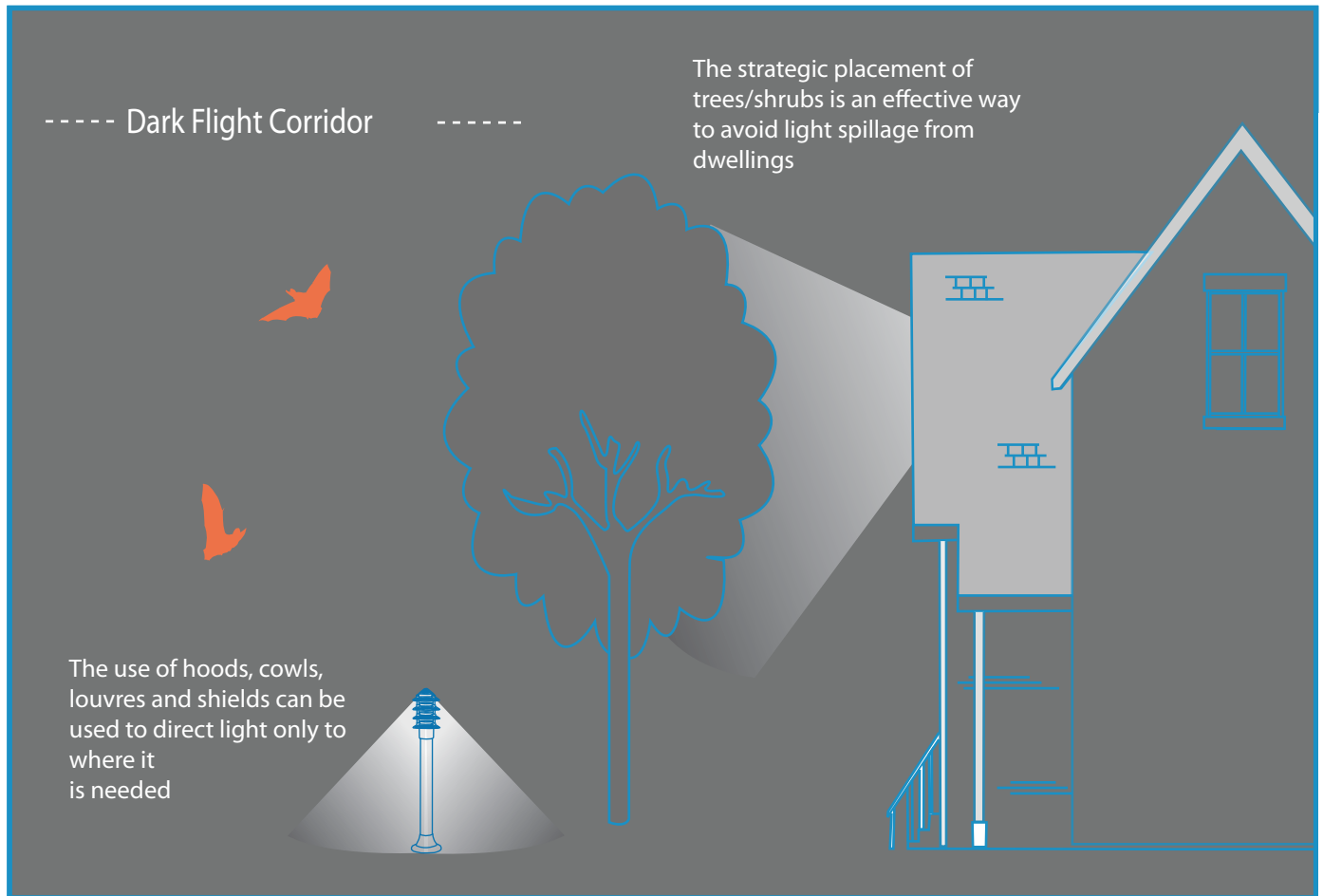
Bat Habitat Suitably Criteria

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.

Sensitive Lighting for Bats

MITIGATION GUIDELINE N° 001



Lamp Type

The impact of light on bats can be minimised by the use of low/high pressure sodium lamps.

Lighting Column

The height of lighting columns should be kept as low as possible to reduce the impact of light spill. For example, when designing lighting for pedestrian walkways, use short bollard lights that produce a low level light (as low as 3 lux) directed downwards.

Light Mapping

Mapping the light spill of a lighting scheme using computer software can prove essential in designing schemes that are fit for purpose, that minimise energy costs and create dark flight corridors and foraging areas for bats.

Light Levels

Proposed light levels within landscape plans should be as low as possible. If lighting is not needed, don't light.

Timing of Lighting

The times at when lighting is left on should be limited where possible. The use of movement sensors and timers for lights is useful for saving energy and reducing the amount of time a light is left on.

Impacts of Light on Bats

As nocturnal mammals, light causes disturbance to bats and many species will actively avoid lit areas. The illumination of bat roosts can delay bats emerging and thus shorten their foraging time and may eventually lead to bats abandoning their roost. The illumination of foraging or commuting areas may also lead to an increase in the rate of predation of bats by predators.


crossman
ASSOCIATES

Written by James Tristram

01761 233414

hello@crossmanassociates.co.uk

Fire Engine House, Oakhill, Bath, BA3 5BJ

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