

Bat Survey of 4 Heathfield Road, Chandlers Ford, Hampshire

Client Mr H Ragheb

Reference R1152.001

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Non-technical Summary

Background

In March 2023, Crossman Associates was commissioned by Mr H Ragheb to undertake a bat and bird survey of 4 Heathfield Road, Chandlers Ford, Hampshire, SO53 5RN.

Proposals are to enlarge the dwelling via a two-storey extension added to the dwellings rear, north elevation.

Methodology

The scoping survey was undertaken by Fairbrass Knowles, a fully licensed bat worker, experienced ecologist and full member of CIEEM. The dwelling was 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 a C. 1960's / 70's brick-built 3 storey, 3 bedroom dwelling that is designed to have the bedrooms accommodated within the main roof void. The dwelling has a narrow roof void that occupies the topmost part of the roof. Overall, the dwelling remains in excellent condition and is occupied.

During the survey no evidence of bat occupation was identified, and overall, the dwelling provides bats with **Negligible Roosting Suitability**.

Recommendations

- A precautionary approach to development regarding bats
- Fit 1 number integral bat box into the exterior wall of the new extension.
- Fit 4 number tree mounted bird boxes.
- Soft landscaping schemes to be wildlife friendly.
- Exterior lighting (if employed) to avoid the illumination of the garden.

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1. Background

- 1.1. In March 2023, Crossman Associates was commissioned by Mr H Ragheb to undertake a bat and bird survey of 4 Heathfield Road, Chandlers Ford, Hampshire, SO53 5RN (site Ordnance Survey grid reference is SU 4354 2257).
- 1.2. Figure 1 within Appendix I provides a site location map.
- 1.3. The objectives of the survey were to:
 - Assess the likely presence or absence of bats and birds
 - Identify any legislative or planning policy constraints relevant to the site
 - Determine the need for further surveys, compensation, or mitigation

Site Description

- 1.4. 4 Heathfield Road is a C. 1960's / 70's three-bedroom, three storeys detached brick built dwelling that is designed to accommodate the bedrooms within the roof void and has 1 number dormer on the northern and southern roof elevation respectively. The dwelling has a small front garden / driveway and a larger rear garden. The garden includes two mature oak trees *Quercus robur* and two mature sweet chestnut *Castanea sativa*; these are grouped close together in the north-east corner of the rear garden.
 - 1.5. The property occupies the northern side of Chandlers Ford, a largely residential area in the Borough of Eastleigh. The immediate and wider landscape is almost exclusively of a residential nature and is moderately dense, including a complex residential road network. Dwellings tend to have gardens which leads to a green and leafy setting. To the north, the residential areas thin out and the landscape is dominated by the grounds of Cranbury Park that include parkland, mixed mature woodland as well as a number of ponds and lakes.
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Proposals

- 1.6. Proposals are to enlarge the dwelling via a two-storey extension added to the dwellings rear, north elevation.

Legislation

- 1.7. 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 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. 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.
- 1.8. 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. Survey work was undertaken by Fairbrass Knowles an experienced ecologist, full member of CIEEM and licensed bat worker; licence number 12392-CLS-CLS. The survey took place on 30 March 2023. The dwelling was fully accessible.
- 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* and barn swallow *Hirundo rustica*. 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 informs of no statutory sites designated for bats within a 4 km radius to the site.

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 building is described in the table below and photographic reference can be found within 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.

Table 1: building description and bat suitability.

Description	Factors that increase likelihood of bats	Factors that decrease likelihood of bats	Evidence of bats	Potential for bats
4 Heathfield Road is a C. 1960's / 70's 3-bedroom, 3 storeys detached brick-built dwelling that is designed to accommodate the bedrooms within the roof void and has a dormer on the northern and southern roof elevation respectively. The dwelling has a small square shaped ground floor extension present on the rear northern elevation. The dwelling remains in excellent condition and is occupied.	<i>Habitat</i> 4 Heathfield Road is located within a residential area that whilst not providing optimal habitat is likely to support more widespread bat species that are more tolerant of disturbed and artificially lit environments; typically, common pipistrelle <i>Pipistrellus pipistrellus</i> and brown long-eared bat <i>Plecotus auritus</i>	<i>Habitat</i> The local and wider habitats provide bats with sub-optimal habitat. <i>Building</i> 4 Heathfield Road is a simply constructed modern dwelling employing modern and uniform materials. Walls are of well-pointed brick and all windows and doors remain well-fitted. The pitched roof is clad with modern concrete interlocking pan tiles which are very tight fitting, the eaves course is completely sealed and provides no significant crevices. Ridge tiles are a simple design, and all remain well fitted and provide no significant crevices. The verges all	No bats, bat droppings or any bat related evidence was discovered during the survey.	Negligible

Description	Factors that increase likelihood of bats	Factors that decrease likelihood of bats	Evidence of bats	Potential for bats
		remain well-sealed with cement mortar. Soffits and fascias are all modern Upvc replacements and all fit sufficiently tightly as to provide no significant crevices. The 2 number dormers present on the front; south and north elevations both remain well-sealed to the roof. Elements of the dormers are clad with flat concrete peg hanging tile. All tiles are present and fit snugly together and provide no significant crevices. The flat roof of the small extension present on the north elevation is a simple design and is covered with mineralised felt, which remains well-fitted and provides bats with no roosting opportunities. Overall, both the main pitched roof and the small flat felt roof provide comprehensively sealed roofs, that		

Description	Factors that increase likelihood of bats	Factors that decrease likelihood of bats	Evidence of bats	Potential for bats
		provide bats with no significant roosting opportunities. <u>Roof void</u> The main roof void is designed to accommodate the bedrooms. A small narrow loft occupies the top most apex part of the roof and runs along the full length of the roof with a width of approximately 1.5 m and height of 1.2 m. The void is constructed to a traditional timber cut and pitch design. Traditional type 1 felt forms the sarking layer and remains well fitted throughout. The floor is lined with traditional glass fibre loft insulation. During the survey no evidence of bat occupation was found to be present and overall, the roof void provides a well-sealed area.		

Birds

- 3.5. No bird nests, birds, bird droppings or any other bird related evidence was found in association with any aspect of the dwelling.

Evaluation

Bats

Dwelling

- 3.6. During the scoping survey, no droppings, staining, feeding remains or actual bats were observed.
- 3.7. The dwelling is constructed from uniform materials which include well-sealed walls and well-sealed roofs. The single roof void provides a well-sealed area that showed no evidence of bat occupation.
- 3.8. 4 Heathfield Road is assessed to provide bats with **Negligible Roosting Suitability**.

Habitat

- 3.9. The local environs, while not providing bats with optimal habitat does offer a number of bat species, which are known to make use of gardens for foraging and commuting with useful potential habitat; typically, common *pipistrelle* *Pipistrellus* and brown long-eared bat *Plecotus auritus*.

Birds

- 3.10. No birds or bird nesting activity was recorded in association with the dwelling.

4. Recommendations

- 4.1. The recommendations in the paragraphs below should be followed 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. Under the Government's National Planning Policy Framework (NPPF, 2021) opportunities to incorporate biodiversity in and around developments should be encouraged.

Species recommendations

Bats

- 4.4. Due to the lack of evidence of roosting bats within any aspect of the dwelling, it is not considered necessary or beneficial to undertake any further survey work.
- 4.5. Due to the transitory nature of bats, there is a small possibility that bats could be encountered during demolition / renovation works; therefore, all works must proceed under a cautionary 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 Crossman Associates or Natural England (telephone number 0300 0603900).

Exterior lighting

- 4.6. If exterior lighting is planned, it must consider the likely presence of bats and other nocturnal wildlife. Exterior lighting should consist of a modern LED-type and should be directional and or cowed. Lighting must not illuminate the garden or neighbouring gardens.
- 4.7. The choice of lighting is important to minimising light spill and it is recommended that the following factors are considered to reduce the impact as much as possible;
 - Narrow spectrum lights with no UV content
 - Low pressure sodium and/or warm white LED
 - Directional downlighting, illuminating downwards and below the horizontal plane to avoid light trespass
- 4.8. A recommended exterior light unit is the Knightsbridge WALL 1LBK which is a wall mounted down lighter installed with a 3000K LED bulb which provides a beam angle of 50 degrees.
- 4.9. If timers are fitted then these should be set to the minimum delay time required, ideally 1 minute.
- 4.10. An information sheet on lighting is provided under Appendix III; information sheets.

Other species

Hedgehog

- 4.11. 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.
- 4.12. The site provides limited habitat for hedgehogs *Erinaceous europaeus* which may present within the general vicinity.
- 4.13. 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.
- 4.14. 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.
- 4.15. An information pack on Hedgehogs is provided under Appendix III; Information sheets.

Ecological enhancements

- 4.16. The following paragraphs provide recommendations that follow current NPPF guidance, see paragraph 3.2.

Bats

- 4.17. It is recommended that 1 number integrally fitted Habibat bat box (type 001) is fitted. 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. This model of bat box is constructed into the wall of the extension as it is constructed making the operation very simple. The boxes can be specified with a variety of facings to suit any existing brick, wood, stonework or rendered finish, making the box unobtrusive and aesthetically pleasing. This box is approximately shoebox in

size and provides a sealed box that does not allow bats to gain direct access to the dwelling. The boxes have the added benefit of being self-cleaning.

- 4.18. The bat box ideally should be placed beneath the eaves or on gable ends and away from windows and doors and ideally should be fitted in a location that gives bats immediate access to foraging habitat.
- 4.19. The actual placement of the bat boxes should be done in consultation with a suitably qualified ecologist.
- 4.20. An information sheet detailing this type of bat roosting box can be found in Appendix III; information sheets.
- 4.21. Bat boxes are available from www.habibat.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. This report represents a preliminary assessment only. Recommendations and conclusions are subject to change should further findings significantly differ from those collected from the survey efforts to date.
- 5.3. 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 (2012) *National Planning Policy Framework*. TSO

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

Appendix I – Site Figures



Site location



Client Mr H Ragheb

Title Location plan

Site 4 Heathfield Road, Chandlers Ford

Figure 1

Date 30 March 2023

Scale Not to scale



Appendix II – Site Photographs

Photographs 1- 3



Photograph 1:

Front; southern elevation.



Photograph 2:

The side of the dormer is clad with well-sealed hanging tiles.



Photograph 3:

The rear dormer is also fitted with hanging tiles. The tiles are very snugly fitted and provide no significant crevices.

Photographs 4 - 6



Photograph 4:

Eastern gable.



Photograph 5:

Western gable



Photograph 6:

Rear; northern elevation

Photographs 7 - 9



Photograph 7:

Verges remain well-sealed throughout.



Photograph 8:

Soffits all fit very well and provide no significant crevices.



Photograph 9:

Facias all fit vewry well and provide no significant crevices.

Photographs 10 - 12



Photograph 10:

The main roof is clad with modern concrete interlocking roof tiles which fit very tightly and provide no significant crevices.



Photograph 11:

The eaves of the roof tiles are sealed; typical throughout.



Photograph 12:

The narrow roof void is designed to a cut and pitch design and occupies the full length of the top most apex.

The sarking layer is traditional type 1 felt and remains well fitted. Traditional glass fibre loft insulation lines the floor.

During the survey no evidence of bat occupation was noted and overall, the void provides a well-sealed area.



Appendix III– Information Sheets

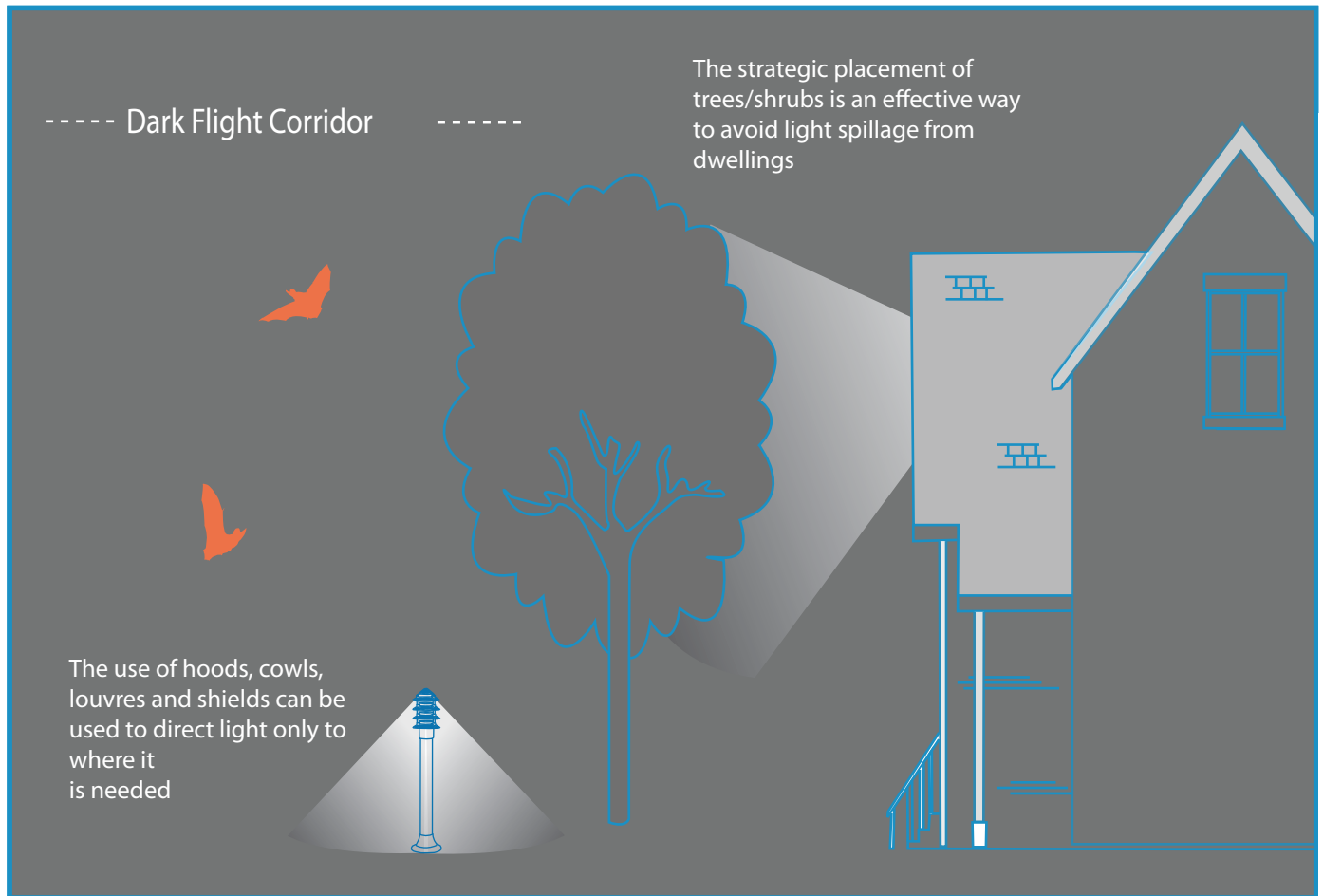
Bat Habitat Suitably Criteria

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.


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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