

# Bat and Bird Survey of 35 Kentish Lane, Brookmans Park, Hertfordshire

Client Mr and Mrs Cooper

Reference C1130.001

Issue One

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**Crossman Associates**

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

[www.crossmanassociates.com](http://www.crossmanassociates.com)

# Non-technical Summary

## Background

In March 2016, Crossman Associates was commissioned by Mr and Mrs Cooper to undertake a bat and bird scoping survey of 35 Kentish lane, Brookmans Park, Hertfordshire.

Development proposals involve the conversion of the loft space into further areas of living accommodation.

## Methodology

The scoping survey was undertaken by Fairbrass Knowles, a fully licensed bat worker and experienced ecologist. 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 evening activity surveys were also undertaken.

## Results

The property consists of a large five bedroom detached property situated within in its own grounds which include a mature garden. The property has a large continuous loft. An inspection of the loft revealed a small number of old bat droppings attributable to long-eared sp.

The property is considered to have **Moderate Suitability** for roosting bats.

Two subsequent bat activity surveys did not identify a current roost within the building.

No birds were noted in association with any aspect of the building.

## Recommendations

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

- Precautionary approach to be taken in regard to bats during the development. If bats are found during works then Crossman Associates should be immediately contacted for advice.
- Installation of new roosting features within mature trees.

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# 1. Background

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- 1.1. In March 2016, Crossman Associates was commissioned by Mr and Mrs Cooper to undertake a bat and bird survey at 35 Kentish Land, Brookmans Park. The survey included a daytime scoping survey for bats and birds followed by evening emergence surveys.
- 1.2. Proposals include the conversion of the entire loft space into further residential accommodation.
- 1.3. The objectives of the survey were to:
  - Make an assessment of 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. The property consists of a large residential dwelling dating from the 1930's located within its own plot with a mature garden. The site is located on the northern carriageway of Kentish Lane on the eastern edge of Brookmans Park, Hertfordshire; Ordnance Survey grid reference TL 261 046 (refer to Figure 1 for a location map).
- 1.5. The property is set within a rural location and immediate surroundings include low intensity housing, characterized by large properties with large mature gardens. To the north, south and east the landscape merges into low intensity farmland that includes small to medium sized fields of both arable and pastureland; field units are divided by a mix of managed and unmanaged hedgerow networks. To the west the land becomes more urbanised with areas of higher density housing and allied urban infrastructure, however the landscape

- surrounding these areas consists largely of open farmland interspersed with areas of mixed deciduous woodland; a golf course lies to the north.
- 1.6. Areas of mixed woodland occur throughout the surrounding landscape and include a wooded area abutting the sites north-west boundary. Georges Wood lies approximately 400 m to the west while a substantial mixed woodland complex centred around The Northaw Great Wood Country Park is located approximately 1.1 km to the east.
  - 1.7. The site has no water courses present; however numerous small ponds and streams are present within the agricultural landscape that lies to the south and east of the site. The closest consists of an oblong shaped pond present approximately 100 m south of the site.

## 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 Regulations, 2010. 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
- 1.9. 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

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### 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. 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.
- 2.4. 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. Building 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

- 2.5. The buildings were 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 survey*

- 2.6. Two surveyors attended the survey and were positioned so that all aspects of the building suitable for roosting bats could be observed, so that any bats emerging from the building at dusk could be observed and recorded. The survey was undertaken during suitable weather conditions. The emergence survey commenced at sunset and continued for two hours. All general bat activity on site was noted.
- 2.7. SSF 2 and Griffin bat detectors 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 BatScan.

## 3. Results

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### 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. The National Planning Policy Framework (NPPF) contains sections of relevance to nature conservation that include:

- Paragraph 165: planning policy and decision should be based on up-to-date information about the natural environment.
- Paragraph 118: when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles;
  - If significant harm resulting from development cannot be avoided (through relocating on alternative sites with less harmful impact), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused
  - Proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest feature is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the



features of the site that make it of special scientific interest and any broader impacts on the national network of SSSI's

- Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted
- Opportunities to incorporate biodiversity in and around developments should be encouraged
- Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.

## Field Survey

### *Bat scoping survey*

- 3.3. Survey work was undertaken by Fairbrass Knowles an experienced ecologist and fully licensed bat worker, and took place on 1 April 2016. The building was fully accessible.
- 3.4. The external and internal conditions of the buildings are described in the table below and photographic reference can be found within Appendix II.
- 3.5. 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
<b>35 Kentish Lane</b>	Overview	<p>A large 1930s detached property with a main pitched roof running in an east – west direction. A newer section has been constructed on to the eastern elevation and has resulted in an additional north and south gable with a pitched roof configured in a roughly north – south orientation. The building is currently inhabited and is considered to be in an excellent overall state of repair.</p>	Confirmed roost <input type="checkbox"/> High Suitability <input type="checkbox"/> Moderate Suitability <input checked="" type="checkbox"/> Low Suitability <input type="checkbox"/> Negligible Suitability <input type="checkbox"/>
	Exterior	<p>Supporting walls are composed of masonry (exact type unknown) which has received a smooth render finish, which is in excellent condition with no significant cracks or holes in any exterior wall sections.</p> <p>Windows and doors are modern and are all in good order and seal well within their respective reveals.</p> <p>An integral double garage occupies the eastern elevation and is served by a modern steel up and over door which is well-sealed within the reveal.</p>	

	Interior	<p>The property has a very large and continuous loft measuring approximately 240m<sup>2</sup> with a height of approximately 2.5 m.</p> <p>The western end consists of the original loft, and has a cut and pitch roof with exposed timber rafters, purlins and ridge timbers; timbers lack any overly complex carpentry. A chimney stack is positioned centrally. Timber boards and type 1f bitumastic felt is present as the sarking layer beneath the roof tiles. The majority of the boards are tight fitting however numerous cracks and crevices are present throughout the roof and are formed where timbers pass through sections of sarking and around the chimney stack and lead into hidden cavities. The majority of the sarking felt is intact, however some small sections have become ripped allowing the underside of the tiles to become exposed.</p> <p>A very small scattering of bat droppings &lt;10 was observed on the floor at the extreme western end of the loft. The dropping were not considered to be fresh and likely date from several years ago.</p> <p>The eastern end is formed from the newer extension. The floor of this section has not been boarded out. A layer of glass fibre loft insulation is present. The roof is composed of an exposed cut and pitch roof with timber rafters, purlins and ridge timbers assisted by</p>	
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		<p>a number of wooden trusses. No complex carpentry joints are present. Type 1 f sarking felt is present as the sarking layer and is generally in good order with no obvious defects on show. As with the western end roof numerous cracks and crevices are present where timbers connect beneath the roof apex's.</p>	
	<p>Roof</p>	<p>The main roof is double pitched with hipped sections on the northern and eastern elevations while the western elevation (which forms the newer extension) has gable ends, configured in a north – south alignment. The entire roof is clad with flat clay biscuit tiles with simple clay ridges forming ridges and hips. With the exception of a couple of slipped and broken tiles located on the north-east hipped roof sections on the original roof (see photo 5) all tiles and ridges appear well seated in place. Lead flashing where present; e.g. around the chimney are well sealed down with no significant gaps present.</p> <p>The style of the roof creates an over-hanging eaves and the presence of timber soffits all of which are in good order, fitting tight against the supporting walls; with no evidence of any gaps that lead into the soffit cavities.</p>	

Birds

3.6. No birds or bird nesting activity was recorded in any aspect of the building.

*Bat emergence survey*

3.7. The property has been assessed to offer **Moderate Suitability** for roosting bats. Therefore, in line with survey guidance (2016), two evening emergence surveys were undertaken and the table below details the results of these surveys.

Table 2; Bat emergence table

	Survey 1 4 May 2016
<b>Survey Conditions</b>	Cloud 0% Dry Wind level (1-12): 1 Start temp 17 <sup>0</sup> C End temp 15.5 <sup>0</sup> C Sunset time 20.30
Emergence survey	During the emergence / activity survey no bats were seen to either emerge or enter any aspect of the building
General bat activity. Non emergence	Common pipistrelle <i>Pipistrellus pipistrellus</i> activity was recorded throughout the survey and consisted of foraging common pipistrelle bat within both the northern and southern sides of the garden. A maximum of three bats were recorded at any one time.

	A single noctule <i>Nyctylus noctula</i> pass was also recorded flying high over the building
	Survey 2 17 May 2016
Survey Conditions	Cloud 80 % Dry Wind level (1-12): 1 Start temp: 17 <sup>0</sup> C End temp: 15.5 <sup>0</sup> C Sunset time: 20.50
Emergence survey	During the emergency / activity survey no bats were seen to either emerge or enter any aspect of the building
General bat activity. Non emergence	As in the previous survey common pipistrelle activity was recorded throughout the survey; with up to 3 bats foraging within both the front and back garden.  Three Noctule passes were also recorded; bats were seen flying high over the property.

## Evaluation

### *Bats*

#### Daytime scoping survey

- 3.8. During the scoping survey no bats were observed in any aspect of the building, however a small quantity of bat droppings (<10) was observed the size and shape along with the context indicate that the bat species concerned is a long-eared bat. Two species of long-eared bats are present in England; the brown



- long-eared bat *Plectotus auritus* is the most widespread of the two and is frequently encountered within the lofts of domestic dwellings. The grey long-eared bat *Plecotus austriacus* is a much less frequently encountered bat and its distribution is restricted to the extreme south and west of England and to date has not been recorded within the county of Hertfordshire.
- 3.9. The droppings were considered to belong to a brown long-eared bat and date from several years ago. The low quantity would suggest that an individual bat or small number of bats have accessed the loft in the past, possibly to prospect the roof as a possible roof site.
- 3.10. The loft of the property is considered to possess a range of abiotic features that include hidden voids amongst internal sections of roof timbers. The western end loft additionally is constructed from a predominantly cut roof; providing uncluttered flight lines (favoured by brown long-eared bats) the western end has the presence of wooden trusses and this end provides a less favourable roosting environment for this species. The bat roosting potential of the loft space is diminished as the loft is considered very well sealed offering little in the way of access / entry points to bats. It is thought that the bats may have gained entry via a broken tile located on the north-eastern hipped roof section on the original roof (see photo 5).
- 3.11. The presence of a small quantity of bat droppings along with identified bat roosting potential providing suitable bat roosting opportunities and the complexity and inaccessibility of these features make it impossible to fully rule out the presence of bats within the building on a daytime scoping survey alone. The property is additionally set within a rural setting with adjoining habitats that are considered favourable to a variety of bat species. The property is considered to possess **Moderate Suitability** for roosting bats, therefore, in line with survey guidance published by the Bat Conservation Trust (2016) two bat activity surveys were undertaken.

Emergence / activity surveys

- 3.12. During the emergence / activity survey no bats were seen to exit or enter the building. **Bats are not currently roosting in any aspect of the building.**

Common pipistrelle

- 3.13. Common pipistrelle bats were recorded on both surveys. Bats were noted foraging within the garden throughout the survey; with a maximum of up to three bats seen at any one time. The garden contains mature trees and shrubs and is considered to provide a good foraging resource for this species of bat.



## 4. Recommendations

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- 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. Under the Government's National Planning Policy Framework (NPPF) opportunities to incorporate biodiversity in and around developments should be encouraged.

### Species recommendations

#### *Bats*

- 4.3. **Due to the lack of evidence of bats it is not considered necessary or beneficial to undertake any further survey work.**
- 4.4. Due to the rural setting of the building and the transitory nature of bats there is a small possibility that bats could be encountered during demolition 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. Soffitts 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).
- 4.5. There is an opportunity during the development works to enhance the ecological value of the site for bats.

- 4.6. The garden of the property is mature and contains a number of mature oak trees. During the surveys common pipistrelle bats were recorded foraging around the garden; the garden provides a useful foraging resource for this species of bat. The owner has expressed an interest in providing bats with further opportunities within the garden.

Tree mounted bat boxes

- 4.7. Bat boxes are positive and inexpensive way in which bats can be provided with additional roosting opportunities and are important in areas that lack a diverse range of mature trees. It is recommended that Schwegler woodcrete bat boxes should be used as they are very robust and long lasting as well as having a proven record of use by a variety of bat species. Bat boxes should be sited as high as possible (at least 3 m). The entrance to the bat box should not be obscured by branches.
- 4.8. One Schwegler 1FD bat box can be fitted to the semi-mature oak that is located within the front garden.
- 4.9. Two Schwegler 1FF bat boxes can be fitted to the large mature oak situated in the back garden.
- 4.10. Bat boxes are available from [www.nhbs.co.uk](http://www.nhbs.co.uk) Telephone number 01803 865913.

## 5. Limitations

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- 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

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**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* (4<sup>th</sup> Edition)

**Multi-Agency Geographical Information for the Countryside (MAGIC)**  
Website at [www.magic.gov.uk](http://www.magic.gov.uk)

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

**TSO (2012)** *National Planning Policy Framework*. TSO

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

Appendix I – Site Figures



**crossman**  
ASSOCIATES



01761 233414  
info@crossmanassociates.co.uk  
www.crossmanassociates.co.uk



Site location

Client Mrs J Cooper  
Title Location map  
Site 35 Kentish Lane  
Figure 1  
Date 04 April 2016  
Scale Indicitive



# Appendix II – Site Photographs





## Photographs 1- 3



Photograph 1:

South-east elevation



Photograph 2:

North-west elevation



Photograph 3:

Easterly elevation



## Photographs 4 - 6



Photograph 4:

Tight fitting soffits



Photograph 5:

Broken tiles; Hipped roof section (north-east elevation).



Photograph 6:

Loft; western end (original)

## Photographs 7 - 8



Photograph 7:

Possible bat roosting features within the western loft



Photograph 8:

Eastern end of loft; occupying the extension



Appendix III – Information Sheets

Bat roosting potential	Criteria	Survey requirements to prove likely absence <sup>1</sup>
Negligible	No features or locations presenting roosting opportunities apparent. Building, structure or tree considered unlikely to be used by roosting bats, although occasional or transient use can rarely be entirely ruled out	No further survey work required
Low	Few features or locations within building, structure or tree with the potential to support roosting bats, although quality of these features limited by size, aspect or internal micro-climate. Although not directly assessed by these criteria, the chances of significant roost types (maternity or hibernation) is not considered likely	One activity survey
Medium	Some features/locations within building, structure or tree with the potential to be used by roosting bats. Although not directly assessed by these criteria, the chances of significant roost types (maternity or hibernation) is considered possible	Two activity surveys
High	Several features/locations within building, structure or tree with the potential to support roosting bats. Combination of size, aspect and internal micro-climate within these locations make them very suitable for roosting bats. Although not directly assessed by these criteria, the chance of significant roost types (maternity or hibernation) is considered possible	Three activity surveys

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<sup>1</sup> Survey requirements are taken from the Bat Conservation Trust Good Practice Guide (2012), which is the recognised industry standard guidance used by local planning authorities and other statutory consultees.