

THE BAT SURVEYOR



Ben Murphy

Preliminary Roost Assessment

Highacre, Sutton Lane

Sutton-Cum-Granby, Nottinghamshire, NG13 9QA.

Project number 105

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Non-technical summary

Non-Technical Summary	
Background	In February 2022, Jo Pedder was instructed by Ben Murphy to undertake a Preliminary Roost Assessment of Highacre, Sutton Lane, Sutton-Cum-Granby, Nottinghamshire, NG13 9QA. (Ordnance Survey (OS) grid Reference SK 76158 37532).
Aims	<ul style="list-style-type: none">• Identify Potential Roosting Features on structures at the Site.• Assess the potential value of those features for bats following best practice.• Identify signs of nesting birds.• Recommend further surveys if necessary.• Recommend mitigation, compensation, and enhancement measures.
Site Description	The Site is a two storey, brick built residential house with a gable ended roof. The roof is clad in concrete Roman tiles. There is a single storey extension which includes a porch, garage and kitchen which has a flat, felted, roof.
Development Proposals	The proposal is to demolish the existing building and construct a single replacement dwelling on the Site.
Information used for the assessment	<ul style="list-style-type: none">• Preliminary Roost Assessment• Online desk study
Outline Assessment and Recommendations	<p>The Site has features which bats could use to roost in: the cavity between roof tiles and the roof membrane, and the cavity between the flat roof and ceiling. Two bat droppings were recorded on the window below one potential access into the flat roof.</p> <p>Nocturnal surveys have been recommended which will aim to confirm if there is a roost. If a roost is present, it will not prevent the proposed demolition, but mitigation, compensation and a licence will be necessary.</p> <p>In order to provide enhancement for wildlife, it is recommended that bat, bird, and bee boxes are installed in the new dwelling (in addition to any measures that may be required to compensate for loss of bat roosts).</p>

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1. Introduction

1.1. Terms of Reference

In February 2022, Jo Pedder was instructed by Ben Murphy (the Client) to undertake a Preliminary Roost Assessment of Highacre, Sutton Lane, Sutton-Cum-Granby, Nottinghamshire, NG13 9QA. (Ordnance Survey (OS) grid Reference SK 76158 37532) (The Site).

Information for the assessment was obtained from:

- Preliminary Roost Assessment
- Online desk study

The Site is a two storey, brick built residential house with a gable ended roof. The roof is clad in concrete Roman tiles. There is a single storey extension which includes a porch, garage and kitchen which has a flat, felted, roof.

The proposal is to demolish the existing building and construct a single replacement dwelling on the Site.

1.2. Aims and Objectives

The aims of the study were to:

- Identify Potential Roosting Features on structures at the Site.
- Assess the potential value of those features for bats following best practice.
- Identify signs of nesting birds.
- Recommend further surveys if necessary.
- Recommend mitigation, compensation, and enhancement measures.

2. Methodology

2.1. Personnel

The survey was led and reported by Jo Pedder. Jo Pedder BSc. hons MCIEEM is an ecologist with over 17 years' experience in the environmental consulting sector. Jo holds survey licences for bats (level 2) and great crested newts (level 1) and development licences for bats and newts. Jo has experience in a range of projects from barn conversions to sites over 300 ha and has worked in the minerals, housing, and energy sectors.

2.2. Preliminary Roost Assessment

A Preliminary Roost Assessment (PRA) was undertaken on the 01/02/2022. The PRA followed the Bat Conservation Trust (BCT) guidelines criteria¹ (see Appendix 1). This entails inspecting a structure (e.g. a building or tree) for field evidence of roosting bats such as feeding remains, droppings, urine staining and Potential Roosting Features (PRFs) such as voids, cracks and crevices. The survey is undertaken from the ground level (or floor level within buildings).

Any direct evidence, type and number of PRFs and the Site's environment is then used to grade the structure's suitability for bats. The assessment is based on the potential value of a roost in the structure, not the likelihood of a bat roost at the structure. A low suitability structure would, at most, have features that individual bats could roost in opportunistically. Structures with a moderate suitability may support bats regularly, but are not likely to include hibernation or maternity roosts. A high suitability structure would have one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis.

The PRA included all building within the Site.

2.3. Desk Study

Given the limited scale of the proposals and limited potential for impacts to arise outside the Site, a full data search was not commissioned for this stage of the project. Ordnance Survey maps and online aerial photos were used to provide site context and the online Multi-Agency Geographical Information Centre² (MAGIC) was used to identify any internationally and nationally statutory protected areas within 1 km of the Site.

2.4. Survey Constraints

Any ecology assessment must be considered as a 'snapshot' of conditions at the time of the survey. Ecological constraints will change over time and therefore the findings of this report are valid for a period of one year, after which the report should be reviewed to assess whether the survey should be updated.

The survey was undertaken in the winter months when bats may be hibernating. They may therefore not be occupying their summer roosts. Evidence of bats that may have accumulated on the outside of buildings or trees in summer may have been washed away by rain.

No constraints were such that they affect the overall conclusions and recommendations made herein.

¹ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London

² www.magic.go.uk (Accessed 01 February 2022)

3. Results

3.1. Surrounding Area

Regional Context

The Site is in the Trent and Belvoir Vales National Character Area (NCA). The NCA is characterised by undulating, strongly rural and predominantly arable farmland, centred on the River Trent. A low-lying rural landscape with relatively little woodland cover, the NCA offers long, open views.

The southern and eastern edges of the Vales are defined by the adjoining escarpments of the Lincolnshire Edge and the Leicestershire and Nottinghamshire Wolds NCA. To the west, the escarpment of a broad ridge of rolling landscape defines the boundary with the neighbouring Sherwood and Humberhead Levels NCAs. The area's generally fertile soils and good quality agricultural land have supported a diversity of farming over a long period but, because of this, little semi-natural habitat remains.

The powerful River Trent and its flood plain provide a strong feature running through the landscape. It is the greatest biodiversity resource, being a major corridor for wildlife moving through the area and supporting a variety of wetland habitats. It also provides flood storage as well as large amounts of cooling water for local power stations.

There are no designated wildlife areas within 1 km of the Site.

Table 1 – Designated Wildlife Sites

Designation / Location	Ecological Feature
Local Nature Reserves	
None	n/a
Sites of Special Scientific Interest	
None	n/a
Special Areas of Conservation	
None	n/a
Special Protection Areas	
None	n/a
Ramsar Sites	
None	n/a

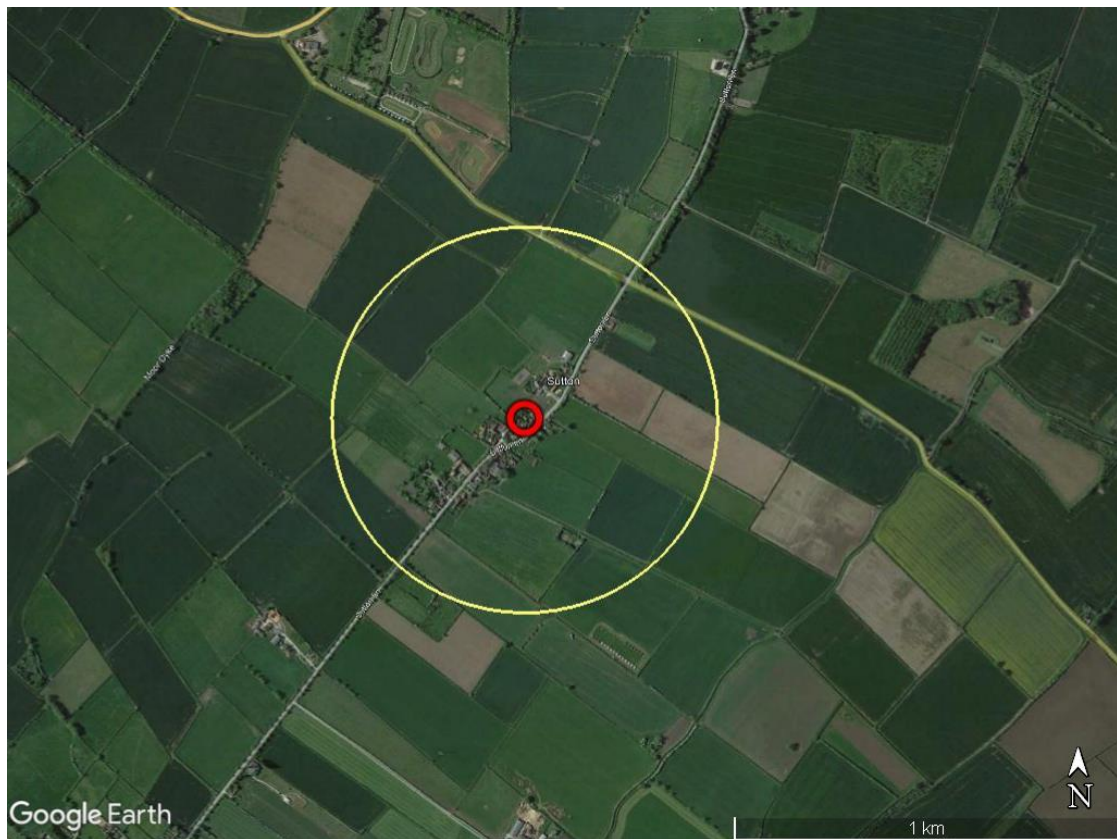
Local Context

Habitats within 500 m of the Site include (in approximate order of area)

- Arable fields
- Pasture
- Residential houses and gardens

Figure 1, an aerial photograph of the Site, shows the Site in context with the surrounding landscape. The yellow circle has a 500 m radius.

Figure 1 – Site Location



3.2. The Site

The Site is a two storey, brick built residential house with a gable ended roof. The roof is clad in concrete Roman tiles. There is a single storey extension which includes a porch, garage and kitchen which has a flat, felted, roof.

Photos taken during the survey and detailed survey results are in Appendix 2.

The roof is generally in a good state of repair. However there are some failures in mortar and slipped tiles which may provide access for bats into the cavity between the roof tiles and roof membrane or into the loft void. There may be access which bats could use all along the roof edges; it was difficult to observe this as the gutter obscured views, but the roof was originally constructed with mortar plugs filling these ends, but the plugs have begun to fail. There is certainly access that bats could use to access the loft void as stoats are able to enter the void: stoat scat was found within the loft. No bat droppings were observed in the loft void.

There are several holes in the flat roof which bats could use to access the roof cavity or wall cavity. Two bat droppings (likely pipistrelle bats) were recorded on a window below one of these holes. These droppings are not definite confirmation of a roost, but are a strong indicator.

The building has been assessed as 'moderate potential value' as it meets the following criteria:

"A 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.."

No sign of nesting birds was observed.

4. Discussion

Bats and their roosts (even when not occupied) are legally protected from disturbance and harm. Active bird nests are protected from damage and some species are protected from disturbance³.

4.1. Project Proposals

The proposal is to demolish the existing building and construct a single replacement dwelling on the Site.

4.2. Ecological Constraints

4.2.1. Bats

Further Surveys

As there are Potential Roosting Features which bats could roost in and which could not be inspected during the PRA, nocturnal surveys are recommended in line with best practice to complete an assessment of the likely ecological impacts of the project:

Two dusk or pre-dawn bat roosts surveys (including at least one pre-dawn survey and one visit between May and August. The second visit can be between May and September).

These surveys will confirm whether there is an extant bat roost at the property and will aim to identify its size, type and the species involved. In some circumstances, once a roost has been identified the survey approach may need to be modified to characterise the roost.

A suggested survey set up is shown in Appendix 2, with locations for surveyors to cover all aspects of the building.

Potential Ecological Constraints - Bats

If the recommended surveys demonstrate that bats are not roosting in the building, there are no further constraints relating to bats.

If bats are roosting in the building, then the mitigation hierarchy should be followed. This is the process of identifying viable ways to mitigate or compensate for impacts:

- 1) **Avoidance:** This first stage is to avoid harm to biodiversity, for example by locating to an alternative site. It is the most important stage and can ease the consent process, whereas missing this stage can lead to criticism, objections, and refusal of planning permission. However, for small projects with limited land available, avoidance of effects may not be possible whilst delivering the projects' goals.
- 2) **Minimisation:** If avoiding all adverse effects is not possible, action is taken to minimise these effects. This can be achieved, for example, by modifying the proposed layout, construction method, or altering the project timing to avoid sensitive periods.
- 3) **Compensation:** Addressing residual adverse effects is the final stage, considered after all possibilities of avoiding and minimising the effects have been implemented. Compensation does not prevent the effects but provides measures to offset harm that cannot be prevented. This might include providing alternative roosting locations in a different location.

Note that best practice guidance is due to be updated in spring 2022.

³ This is a very broad generalisation – see Appendix 1 for more information. This report is not legal advice and should not be relied upon as such – for detailed interpretation of the law a specialist lawyer should be consulted.

If the effects of the project after applying mitigation measures may cause an offence (e.g. disturbance of bats, or damage to their roosts) then a Natural England development licence is likely to be required to allow the project to be completed lawfully. This might be either a project licence, or for certain small impacts, a class licence held by a registered ecologist.

4.2.2. Birds

No sign of nesting birds was observed during the survey. Birds are not likely to be a constraint to this project.

4.3. Ecological Opportunities

Under the National Planning Policy Framework and the 25-year environmental plan the government has set out policies and aims to deliver a net gain in biodiversity through improved green infrastructure and increased opportunities for wildlife. In accordance with these policies enhancement measures are recommended for inclusion in the proposed development.

Enhancement measures should go beyond those required for mitigation and will create new opportunities for biodiversity at the Site.

For enhancement of the proposed development, it is recommended that roosting and nesting habitat for bats, birds and bees is provided by incorporating wildlife boxes into the scheme.

At least one bat box should be integrated into the façade and one into the soffit boxes of the proposed building. These would be installed at a minimum height of 4 m and should be south or east facing.

At least two 'universal' bird boxes should be integrated into the façade of the proposed building. These should be installed out of direct sunlight or else shaded day long beneath broad eaves. They should be 5 m or more above ground (or as high as possible if 5 m cannot be achieved). They should not be obstructed by nearby trees, cables, creepers, or aerials.

At least one bee brick should be integrated into the façade of the proposed building. The brick should be positioned in a warm sunny spot, south facing, with no vegetation in front of the fascia. Ideally placed at least 1 m from the ground with no upward limit.

Examples of wildlife boxes are presented in Appendix 3.

4.4. Conclusion

The Site has features which bats could use to roost in: the cavity between roof tiles and the roof membrane, and the cavity between the flat roof and ceiling. Two bat droppings were recorded on the window below one potential access into the flat roof.

Nocturnal surveys have been recommended which will aim to confirm if there is a roost. If a roost is present, it will not prevent the proposed demolition, but mitigation, compensation and a licence will be necessary.

In order to provide enhancement for wildlife, it is recommended that bat, bird, and bee boxes are installed in the new dwelling (in addition to any measures that may be required to compensate for loss of bat roosts).

Appendix 1 Legislation, Policy and Best Practice

Legislation

There are many active pieces of legislation which are aimed at protecting wildlife and habitats within the UK. These are summarised in Table 2.

Table 2 - Summary of Primary Legislation in the UK

Legislation	Description
The Wildlife and Countryside Act (WCA) 1981	<p>The WCA is the primary piece of legislation relating to nature conservation in Great Britain. The Act is supplemented by provisions in the CRoW Act 2000 and the NERC Act 2006. It provides for the notification and confirmation of Sites of Special Scientific Interest by Natural England. It also sets out, in schedules, important and invasive species which are legally protected or require active management.</p> <p>The WCA consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).</p>
The Conservation of Habitats and Species Regulations 2017	<p>The Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017 and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters).</p>
The Countryside and Rights of Way (CRoW) Act 2000	<p>The CRoW applies to England and Wales only, received Royal Assent on 30 November 2000, with the provisions it contains being brought into force in incremental steps over subsequent years. Containing five Parts and 16 Schedules, the Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty (AONB). The Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.</p>
Natural Environment & Rural Communities (NERC) Act 2006	<p>The NERC places a duty on authorities to have due regard for biodiversity and nature conservation during their operations.</p> <p>The NERC Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list replaces the UK Biodiversity Action Plans (UKBAP) and has been drawn up in consultation with Natural England, as required by the Act.</p> <p>The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.</p> <p>Fifty-six habitats of principal importance (HPI) are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. Of most relevance to the Site, they include ponds, open mosaic habitats on previously developed land and lowland heathland.</p> <p>There are 943 species of principal importance (SPI) included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.</p>

Protected Species

Bats

All species of bat in Britain are 'European Protected Species' (EPS) and are protected under the Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to EPS and their habitats, making it an offence to:

- Deliberately capture, injure, or kill a bat.
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.

The Natural Environment & Rural Communities (NERC) Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during their operations.

Nesting Birds

All wild bird nests are protected under The Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Intentionally kill, injure, or take any wild bird or their eggs or nests (with certain exceptions).
- Disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting.
- Nests of golden eagle, white-tailed eagle and osprey are protected year-round.

Bird Directive

Bird Directive Annex I lists species that shall be the subject of special conservation measures concerning their habitat to ensure their survival and reproduction in their area of distribution.

European Protected Species Licencing

The animal and plant species listed on Schedule 2 and 4 of The Conservation of Habitats and Species Regulations 2010 (as amended) are referred to as European Protected Species (EPS).

If a project is likely to impact a EPS and breach the Conservation of Habitats and Species Regulations 2010, and where best practice guidance avoidance measures either cannot be followed or are not applicable, licences can be obtained to allow persons to carry out activities that would otherwise be prohibited, without committing an offence. Natural England has powers to grant such licences in England if it meets three "derogation tests".

The three tests are that:

1. The activity to be licensed must be for imperative reasons of overriding public interest⁴ or for public health and safety ('public' can in some circumstances be interpreted as an individual or family).
2. There must be no satisfactory alternative.
3. Favourable conservation status of the species must be maintained.

There are two licencing routes available (depending on the location of the project). A Project Licence, where the developer would apply for a licence for their project and be the licensee, or a Class Licence, where a consultant is registered to use the licence and can use it for low impact activities and notify Natural England, rather than make an individual application for the project.

⁴ This is usually arguable where the project meets an identified planning need, i.e. social housing. 'Public' can be interpreted as an individual or family.

Low Impact Class Licence

The bat 'low impact' licence is a mitigation class licence. A consultant who is registered to use this licence can register a site and carry out certain activities that would otherwise be unlawful:

- to disturb and capture up to 3 'common or widespread' bat species (which are those listed in each annex)
- to damage or destroy up to 3 'low conservation status roosts' (these are: feeding, day, night and transitional roosts)
- if the action has a low or temporary impact on bats or their roosts
- if sites are registered before you start work

Registration of a site under the licence is relatively straightforward and Natural England accept registration from 3 days. Projects entered into a class licence have the same survey requirements as a project licence.

The Annexes define what are common or widespread species based on geographical area and experience of the consultant. In the counties that I work, Class Licences are available to damage and destroy no more than 3 low conservation status roosts. Of these roosts, you can disturb and capture, in appropriate small numbers, no more than 3 common species of:

- common pipistrelle
- soprano pipistrelle
- brown long-eared
- whiskered
- Brandt's
- Daubenton's
- Natterer's

Project Licence

The licence application consists of three documents, Section one - Application details (a basic application form), Section two - Method Statement (MS) (specifying the proposals, mitigation, compensation, and schedule and demonstrating how the project meets Test 3) and Section three - Reasoned Statement (RS) (demonstrating how the project meets Tests 1 and 2). The Application form and Method Statement are usually completed by your ecologist (who is included in the application as a Named Ecologist) and the Reasoned Statement by the client or their planning consultant or environmental lawyer.

The developer is usually the applicant and licensee and is legally responsible to carrying out the method statement. To protect other people working on the project (and also to legally tie them to the MS) contractors and consultants that may affect the EPS, such as demolition or construction contractors and the ecologist should be appointed as 'accredited agents' to the licence by the licensee.

Natural England aim to determine an application within 30 working days, at which point they make a Further Information Request (FIR) if there are uncertainties or they do not agree with the MS or RS. At the end of the licensable activities the licensee is required to submit a licence return (although this is usually completed on their behalf by the Named Ecologist), where they declare the success (or failure) of the mitigation and are obliged to report on breaches to the MS.

BCT Roost Assessment Criteria

Suitability	Description of Roosting Habitats	Commuting and Foraging Habitats
Negligible	Negligible habitat features on site likely to be used roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically.</p> <p>However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain PRFs but none seen from the ground or features seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by another habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat, but unlikely to support a roost of high conservation status ⁵ .	<p>Continuous habitat connected with the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.</p>
High	<p>A 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.</p> <p>A 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.</p>	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>

⁵ With respect to roost type only - the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed.

Policy

National Planning Policy Framework (NPPF) (2018)

Chapter 15 of the National Planning Policy Framework (NPPF) aims at conserving and enhancing the natural environment and states that planning policies and decision should contribute to and enhance the natural and local environment. In terms of biodiversity this should be achieved by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils
- recognising the intrinsic character and beauty of the countryside, and wider benefits from natural capital and ecosystem services
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures

The NPPF states that to protect and enhanced biodiversity, [local] plans should:

- identify and safeguard components of wildlife-rich habitats and wider ecological networks
- promote the conservation and enhancement of priority habitats and ecological networks and the protection and recovery of priority species

The NPPF states that when determining planning applications, local planning authorities should refuse applications which:

- cause significant harm to biodiversity which cannot be avoided, adequately mitigated or as a last resort, compensated for
- plan to develop on land within or outside of a Site of Special Scientific Interest (SSSI) and which is likely to have an adverse effect on it (either individually or in combination with other developments)
- result in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and where a suitable compensation strategy exists

The local planning authority should support developments whose primary objective is to conserve or enhance biodiversity, especially where this can secure measurable net gains in biodiversity.

HM Government – 25 Year Environment Plan

The 25-year plan to improve the environment sets out what the government intends to do to increase biodiversity, reduce climate change and secure ecosystem services. It aims to deliver cleaner air and water, protect threatened species, and provide richer wildlife habitats.

Appendix 2 Results

Preliminary Roost Assessment Survey Plan

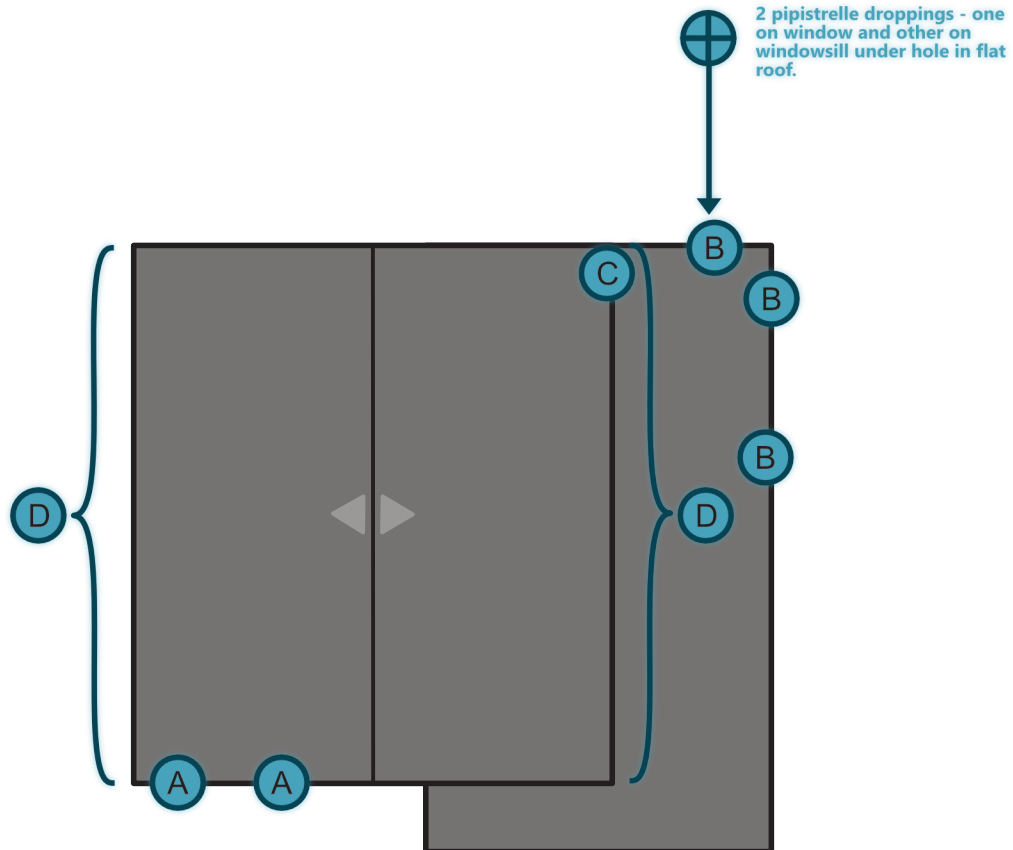
Highacre, Sutton Lane

Sutton-Cum-Granby, Nottinghamshire, NG13
9QA.

Client Ben Murphy

Surveyor Jo Pedder

Date 01/02/2022



A Gap in rake (mortared end of roof)
These gaps are quite narrow, but indicate where tiles have lifted, potentially providing access for bats.

C Gap under tiles.
The marker notes the location of a slipped tile.

B Multiple holes in the flat roof.
These holes provide potential access into the cavity between the roof and ceiling, and into the wall cavity.

D Tile ends.
Many of the lowest tiles may have gaps providing potential access for bats between the roof tiles and roof membrane. These were difficult to observe as they are obscured by the gutter, but dislodged mortar fill was noted in several locations on both sides.

Preliminary Roost Assessment Survey Notes

Highacre, Sutton Lane

Sutton-Cum-Granby, Nottinghamshire, NG13
9QA.

Client Ben Murphy

Surveyor Jo Pedder

Date 01/02/2022



The Site is a two storey, brick built residential house with a gable ended roof. The roof is clad in concrete Roman tiles. There is a single storey extension which includes a porch, garage and kitchen which has a flat, felted, roof.

The roof is generally in a good state of repair. However there are some failures in mortar and slipped tiles which may provide access for bats into the cavity between the roof tiles and roof membrane or into the loft void. There may be access that bats could use all along the roof edges; it was difficult to observe this as the gutter obscured views, but the roof was originally constructed with mortar plugs filling these ends, however the plugs have begun to fail. There is certainly access that bats could use to access the loft void as stoats are able to enter the void: stoat scat was found within the loft. No bat droppings were observed in the loft void.

There are several holes in the flat roof which bats could use to access the roof cavity or wall cavity. Two bat droppings (likely pipistrelle bats) were recorded on a window below one of these holes.

**Preliminary Roost Assessment
Suggested Survey Set Up**

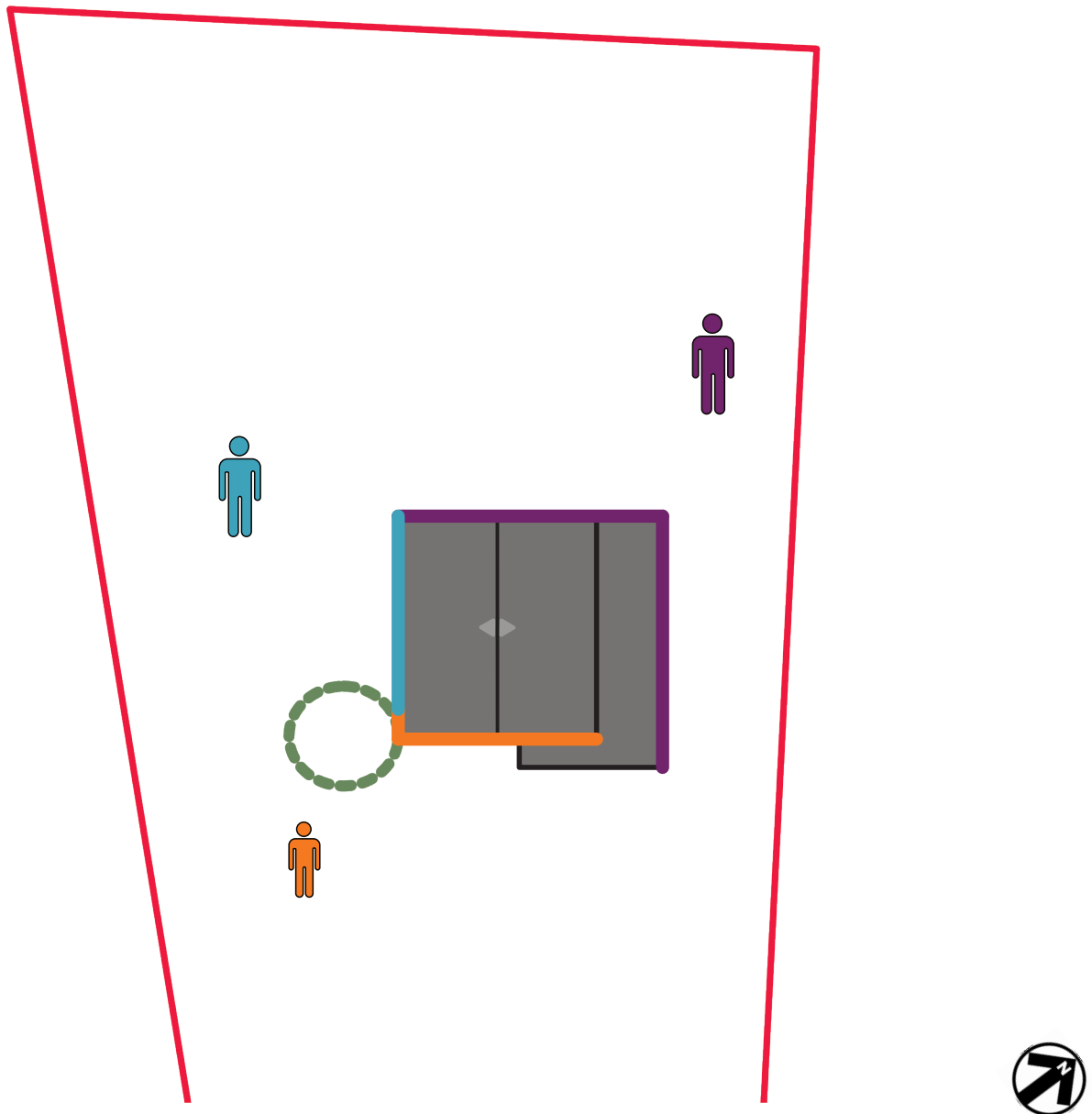
Highacre, Sutton Lane

Sutton-Cum-Granby, Nottinghamshire, NG13 9QA.

Client Ben Murphy

Surveyor Jo Pedder

Date 01/02/2022



To undertake dusk or pre-dawn surveys at this Site, three surveyors are suggested to cover all potential roosting features at the property. If the tree indicated in the south west corner is removed prior to the survey (vegetation removal was ongoing at the time of my visit), the blue survey location would not be necessary.



Surveyor location



Surveyor's visual target / field of view



Vegetation obscuring line of sight

**Preliminary Roost Assessment
Photos**

Highacre, Sutton Lane

Sutton-Cum-Granby, Nottinghamshire, NG13
9QA.

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Front (south east)



Side (south west)



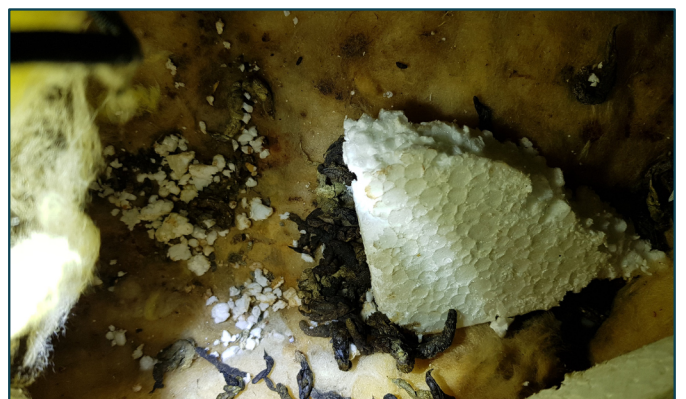
Rear (north west)



Side (north east)



Internal view of loft



Stoat scat



Missing mortar at rake



Slipped tile

**Preliminary Roost Assessment
Photos**

Highacre, Sutton Lane

Sutton-Cum-Granby, Nottinghamshire, NG13
9QA.

Client Ben Murphy

Surveyor Jo Pedder

Date 01/02/2022



Hole in flat roof (rear)



Hole in flat roof (side)



Bat dropping on window

Appendix 3 Enhancement Examples

Schwegler Bat Tube

The 1FR Bat Tube is designed to be installed on the external walls of buildings, either flush or beneath a rendered surface. It can also be painted to match your building with air-permeable paint if desired.

Comprised of Woodcrete with an integrated wooden panel.

Dimensions: 200mm wide x 470mm high x 120 mm deep

Entrance Dimensions: 150 x 90 x 20 mm

Weight: Approximately 9.8 kg



Photo courtesy of Schwegler

Habibat Integrated Bat Box

These boxes can be built into the walls of new buildings to create purpose-built crevices for bats.

Facing products include:

- Brick
- Stone
- Granite
- Masonry
- Slate
- Terracotta
- Tile
- Timber

Dimensions: 215 mm wide x 440 mm high x 102 mm deep

Weight: Approximately 7 kg

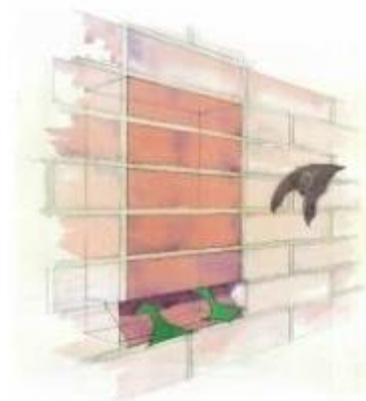


Photo courtesy of Habibat

Wildcare Soffit Bat Box

These type of bat box utilises space behind standard soffit boxes. It can be cut to length and is slotted into the soffit box creating an enclosed space for roosting bats.

Comprised of FSC hardwood exterior plywood

Dimensions:

- Entrance slot 20 mm
- Standard length 330 mm



Photo courtesy of Wildcare

CJ Wildlife Swift Nest Box B

Installed on or within a wall.

- Dimensions: 16 x 18.5 x 33.5cm
- Weight: 7kg
- Woodstone

Swift boxes are considered to be a 'universal' bird box as they are known to support all four of the red listed urban bird species (swift, house sparrow, starling & house martin) will readily take to swift bricks,



Photo courtesy of CJ Wildlife

Breen and Blue Bee Brick

Bee Brick™ is solid at the back and has moulded cavities where the bees will lay their eggs, sealing the entrance with mud or chewed up vegetation. Offspring emerge in the Spring and begin the process of nesting again, repeating the cycle.

- Dimensions: 215 mm x 105 mm x 65 mm
- Weight: 2.9 kg



Photo courtesy of Green and Black

Appendix 4 Data for the Local Records Centre

It is a requirement under the CIEEM code of practice to provide recorded data to biological record centres. For certain records (i.e. data obtained under a government survey licence) we also have a legal obligation to forward such data.

If you have special cause to restrict the distribution of this data (which will be in the public domain), please contact us to discuss this further within one month of the issue of this report.

Species recorded	Notes	Date Recorded	Grid Ref	Postal Address	Local record centre to be issued to	Survey type(s) undertaken	Reason
Pipistrelle (probable)	Two droppings found on windowsill. Possible roost.	1 February 2022	SK 76158 37532	Highacre, Sutton Lane Sutton-Cum-Granby, Nottinghamshire, NG13 9QA.	Nottinghamshire Biological and Geological Record Centre	Preliminary Roost Assessment	Commercial survey

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jo@ecology-surveyor.co.uk

0749 389 4779

The Ecology Surveyor and The Bat Surveyor are trading names of Jo Pedder, a freelance ecologist based in Belper, Derbyshire.