

**3 Bell Lane,  
Cassington**

**Preliminary Bat Survey**

On Behalf of:  
Camilla Waters

Issue No.	1
Issue Date	16/12/21
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**4 Acre Ecology Limited**

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# 1. Executive Summary

- 1.1 Three Bell Lane is a two-storey cottage located in the civil parish of Cassington in the West Oxfordshire district of the county of Oxfordshire (Central Grid Reference SP 45567 10914).
- 1.2 There are plans to carry out works on the house. Therefore, the local planning authority has requested a Preliminary Bat Survey to inform the planning decision.
- 1.3 The Preliminary Bat Survey aims to provide an assessment of the building and its roof space in order to identify the presence or absence of bats or whether further surveys are required to do so.
- 1.4 The field survey was undertaken on the 5<sup>th</sup> November 2021 by an experienced Ecologist with a Natural England roost visitors bat licence (Class Licence Registration Number 2016-13769-CLS-CLS). The building was assessed for roost potential and evidence of bats.
- 1.5 Three Bell Lane is a mid-terrace two-storey solid stone walled property with a twin-pitch slate roof. At the rear is a single storey extension with a flat felt roof.
- 1.6 The roof had been recently re-roofed however, there was a raised ridge tiles and gaps around the rear flu. Internally the roof space was small and was sub-optimal roosting habitat for light testing bats such as Brown Long-eared.
- 1.7 No signs of bats were found internally or externally. Therefore, due to this and the construction of the building, 3 Bell Lane was assessed as having negligible potential for roosting bats and bats are not considered a constraint to the proposed development.
- 1.8 Recommendations for enhancements have been made to help fulfil some of the aims of the NPPF.

## 2. Introduction

### *Background*

- 2.1 Three Bell Lane is a mid-terrace cottage located in the civil parish of Cassington in the West Oxfordshire District of the County of Oxfordshire (Central Grid Reference SP 4556810913).
- 2.2 The site consists of the main house, with a rear single storey extension and rear garden.
- 2.3 There are plans to remove the extension and build a replacement two storey extension to the rear of cottage. Therefore, the local Planning Authority has requested a Preliminary Bat Survey of the building to inform their planning decision.
- 2.4 Bourne Architectural design Services commissioned 4 Acre Ecology Limited on behalf of the client on 3<sup>rd</sup> November 2021 to undertake a Preliminary Bat Survey of the property to allow this report to be written.

### *Aims and Objectives*

- 2.5 The aim of the survey was to determine whether bats used or were likely to use the building to roost in, or recommending further surveys to do so. The objective was to support a successful application for planning permission whilst maintaining the conservation status of bats within the local area.

### *About the Author*

- 2.6 Mark Satinet has been working in the field of Wildlife Conservation and Ecology since 1992. 13 years at the Wildlife Trusts working on wider countryside habitat and species projects provided a good background in habitat surveys, species identification, habitat management advice to landowners and dealing with the public and media. He was the County Mammal Recorder for Wiltshire from 2000 to 2015 and set up the Wiltshire Mammal Group in 2005. He is also a voluntary Bat Warden for Natural England and has been an active member of the Wiltshire Bat Group since 2001.
- 2.7 Since 2005 he has been a consultant ecologist, first as a senior ecologist at a multi-disciplinary company for a year and then the principal ecologist running the ecology team in a specialised ecological firm for a further four years. He is a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist.
- 2.8 He now owns and runs his own company, 4 Acre Ecology Limited. He holds disturbance licences for bats, Great Crested Newts, Dormice, Barn Owls and Shrews and has held development licences for Great Crested Newts, bats, Badgers and Dormice and holds both a Bat Mitigation Class Licence and Great Crested Newt Low Impact Class Licence.

### 3. Methodology

#### *Desk Study*

- 3.1 A data search was commissioned from the Thames Valley Environmental Records Centre (TVERC) for bats within 2km of the site. Biological Records Centres hold information regarding statutory designated sites, local nature reserves, sites of conservation interest, records of protected species and other species of conservation concern. However, this data cannot be considered fully comprehensive and therefore the absence of data, in response to a data search, does not imply that a species, important habitat or designation does not exist within that search area.
- 3.2 The NBN Gateway was consulted to ascertain the number of bat records within 5km of 3 Bell Lane
- 3.3 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was consulted to determine if there were any sites designated for bats within 5 km of the site.

#### *Field Survey*

- 3.4 An external and internal inspection of the house was made by a Natural England Licensed bat surveyor (Class Licence Registration number 2016-13769-CLS-CLS). The exterior of the building was searched for evidence of bats, looking for grease stains in external crevices and searching for droppings on windows sills, windows, walls and ledges and on the ground below potential entrance/exit areas to the roof or walls.
- 3.5 The interior of the building was searched using high powered torches for evidence of bats. This evidence includes sightings, dead bats, feeding remains, smell, droppings and grease marks at entry/exit points. The potential of the building as a bat roost was judged and any signs of bats or features offering roost potential were noted.

## 4. Legislation and Planning Policy

4.1 There are a number of tiers of legislation protecting wildlife in England and Wales. The highest tier is for those species protected by European Legislation, such as the Dormouse, Great Crested Newt, Otter and all species of bat. These are known as European Protected Species (EPS), which gain their protection from the Conservation of Habitats and Species Regulations (Habitat Regulations) 2017 (As Amended), whereby under section 43 it is an offence to

- deliberately capture, injure or kill an EPS
- deliberately disturb or take/destroy the eggs of an EPS
- damage or destroy a breeding site or resting place of an EPS

4.2 Nationally protected species are either fully protected (e.g. Water Vole, Bat) or partially protected (e.g. Adder or Smooth Newt) under the Wildlife and Countryside Act (WCA) 1981 and amendments, including the Countryside and Rights of Way Act (CRoW) 2000. Under the WCA it is an offence to:

- intentionally kill, injure or take any wild bird, take or destroy any wild bird egg or take, damage or destroy any nest while it is in use or being built
- intentionally or recklessly disturb any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird
- intentionally or recklessly at any other time take, damage, destroy or otherwise interfere with any nest habitually used by any wild bird included in Schedule A1
- intentionally or recklessly kill, injure or take from the wild or possess all or any part of a Schedule 5 species
- intentionally or recklessly damage or destroy any structure or place which a schedule 5 species uses for shelter or protection, or disturb a schedule 5 species while it is occupying such a place
- obstruct access to any structure or place which a schedule 5 species uses for shelter or protection
- intentionally pick, uproot or destroy any wild plant included in Schedule 8

4.3 The CRoW Act 2000 added the term recklessly after intentionally in the Wildlife and Countryside Act 1981 and introduced a maximum custodial sentence of 6 months for offences.

- 4.4 The Natural Environment and Rural Communities Act 2006 (NERC) made provision about bodies concerned with the natural environment and rural communities and in connection with wildlife, sites of special scientific interest, National Parks and the Broads. Section 41 established a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. This is known as the UK Biodiversity Action Plan (BAP) list.
- 4.5 The National Planning Policy Framework (NPPF) updated in 2021 states that Planning policies and 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.
- 4.6 To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
  - b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

## 5. Results

### *Desk Study*

- 5.1 No protected sites designated for bats were identified within 5 km of the site. There are 4 sites of national importance within 2km of the site; Cassington Meads SSSI 950m south south-east, Pixey and Yarnton Meads SSSI 1.1km south east, Wytham Ditches and Flushes SSSI 1.5km south south-east and Wytham Woods SSSI 1.5km south.
- 5.2 There are 90 records of bats within 5km of 3 Bell Lane, covering at least 8 species; Brown Long-eared (14), Common Pipistrelle (5), Daubenton's (6), Natterers' (14), Noctule (3), Pipistrelle (22), Serotine (1), Soprano Pipistrelle (22) and Western Barbastelle (3) (NBN 2021).
- 5.3 Thames Valley Environmental Records Centre (TVERC) holds 59 records of bats within 2km of the site covering at least five species; Common Pipistrelle (1), Daubenton's (18), Lesser Noctule (1), Natterer's (14), Pipistrelle Bat (3), Soprano Pipistrelle (22).
- 5.4 There have been nine European Protected Species Licences (EPSL) for bats issued within 5km of the site. Four of the licences issued involved a maternity roost; 3km north, 3 km north north-east, 3.3km south and 4.3km north.

### *Field Survey*

- 5.5 The survey was undertaken on 5<sup>th</sup> November 2021. A dry day with 20% cloud cover, no wind, with an air temperature of 4° centigrade.

### Local Context

- 5.6 Three Bell Lane is located at the north-eastern end of the village of Cassington. To the north is a wooded area with several ponds with agricultural fields beyond. To the east are fields to a large complex of flooded gravel pits. To the south is the main village with the A40 road with fields, River Thames and Wytham woods beyond. To the west is housing with agricultural fields beyond the town of Eynsham lies to the the south-west.

### 3 Bell Lane

- 5.7 Three bell Lane is a two-storey solid stone-walled mid-terrace cottage with a recently re-roofed twin pitch slate roof and open eaves. At the eastern end is a brick chimney stack which is shared with No.2. At the rear is a single storey extension with rendered concrete block walls and a flat felt roof. There was a raised ridge tile.



- 5.8 Internally the ceiling rises 1m into the roof space, which is 1m high, 3m wide and 3.5m long. The roof structure is high collar with no roof lining. The floor is boarded. The gable ends have been enclosed by brick walls with a breathable membrane lining.
- 5.9 No signs of bats were found in or around the building.

## 6. Discussion

- 6.1 There are no sites designated for bats within 5km of the site. There are four nationally designated sites within 2km of the site.
- 6.2 The local records centre holds 59 records of bats within 2km of the site covering at least five species. This low number of records is likely to be from a lack of recording in this area and there are likely to be a better species number and population of bats in the area than these records indicate.
- 6.3 There have been nine protected species licences issued for bats within 5km of the site. Four of these involved maternity roosts, the closest of which was 3km from the site. This is sufficiently far enough away to be un-associated with the site.
- 6.4 The site is situated at the north-eastern end of the village. Ninety metres to the north of the site is a complex of ponds surrounded by woodland. There is also a complex of large flooded former gravel pits 400m east of the site with the River Thames 1.1km south of the site. To the west there are streams and ponds. All of these features provide good potential foraging and commuting habitat for bats, whilst the traditionally built buildings within the village provide good roosting opportunities for bats.
- 6.5 There were no signs of bats within the roof space, so light testing bats such as Brown Long-eared that fly within the roof space before emerging are not present, as if they were their droppings would be scattered throughout the roof space. In addition Brown Long-eared bats prefer a roof space of a minimum of 2.5m high, so as the roof space is only 1m tall the roof space is sub-optimal roosting habitat for Brown Long-eared and therefore, are considered unlikely to use the site to roost (Entwistle and Swift 2008).
- 6.6 There was a single raised ridge tile on the relatively new roof. This could allow access to crevice dwelling bats, such as Common Pipistrelle, without their droppings being found by the surveying ecologist, as they would be trapped by any roof lining. (Jones and Racy 2008).
- 6.7 However, the roof had recently been re-roofed making it unlikely that bats would be present. In addition, there are many other properties in the village that have greater opportunities for roosting bats, as 3 bell lane is very small and relatively low compared to nearby buildings.
- 6.8 Therefore 3 Bell Lane is assessed as having negligible potential for roosting bats and no further surveys area required.
- 6.9 No other protected species are affected by the proposed works on the site.

## 7. Further Surveys, Recommendations and Enhancements

### *Further Surveys*

7.1 No further surveys are required.

### *Recommendations*

7.2 Any outdoor lighting should consist of downlighters 3w maximum. Any security lighting should be 50w maximum with the light angled down as sharply as possible to light the immediate area only with a timed motion sensor also fitted.

### *Enhancements*

7.3 Any future planting should include night flowering plants to encourage insects for bats to feed on, such as White Jasmine, Evening Primrose and Honeysuckle.

# 8. Figures

Figure 1: Building Plan

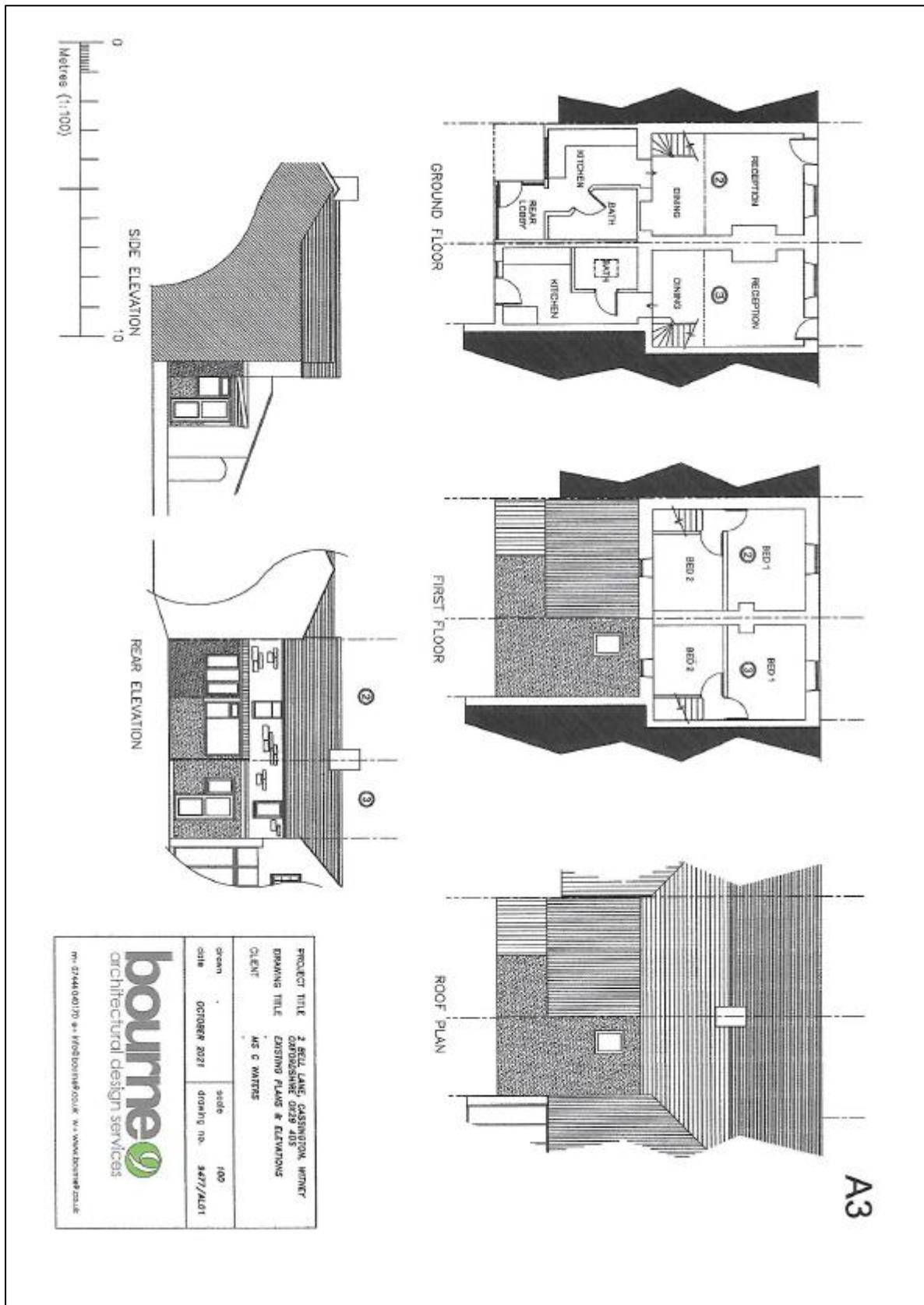


Figure 2: Images



1. 3 Bell lane (left with stone porch) from NW



2. 3 Bell Lane from the rear (right-hand property)



3. New roof with well pointed roof, but one raised ridge tile.

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## Appendix 1: Information on British Bats

There are 18 species of bat in the UK (17 of which are known to be breeding here). They range from the tiny **Pipistrelle**, weighing in at around 5g (less than a £1 coin), to our biggest bat, the **Noctule**, which is still smaller than the palm of your hand.

All British bats eat insects exclusively, a **Pipistrelle** bat eating as many as 3,000 midges in one night, while **Long-eared** bats eat moths and **Noctule** or **Greater Horseshoes** also eat larger beetles.

The **Alcothoe** bat is the latest addition to the UK bat family, only being confirmed as a resident species in 2010 due to its similarity to the **Whiskered** and **Brandt's** bat species.

The **Daubenton's** bat is known as the 'water bat', as they fish insects from the water's surface with their large feet or tail. In England and Wales the majority of known summer colonies are in humid, more or less underground sites near water. These may be tunnels or bridges over canals and rivers, or in caves, mines and cellars. They are only occasionally found in buildings, usually old stone structures such as moated castles and waterworks.

Bats do not build nests, but use small spaces to shelter and rest in during the day, or hibernate in during winter. These places are known as roosts. There are a variety of different types of roost, from winter hibernation roosts, spring and autumn transitory roosts to summer maternity roosts. However, not all bats will roost within buildings, with the following being those most likely to:

**Pipistrelle** bats (both Common and Soprano species) are the most common bats in this country. They prefer to roost in very confined spaces around the outside of buildings, typically behind hanging tiles, soffits and barge boards, under roofing felt or in cavity walls. They do not usually enter roof spaces, although well-established large colonies in older buildings may do so.

**Brown Long-eared bats** are the third most commonly occurring species, after the two **Pipistrelle** species. They roost singly or in small groups among the roof timbers at the apex, particularly around ridge ends and chimneys, and in crevices in ridge tiles. These medium sized bats spend more time inside the roof space than many other bats, and are generally very quiet inside the roost, not leaving until after dark.

The **Serotine** bat, one of the largest bat species in the UK, is almost exclusively found roosting in houses across southern England and Wales. Rarer than **Pipistrelles** and **Brown Long-eared** bats, **Serotines** usually roost in crevices around chimneys and in cavity walls. Their favoured prey is large beetles, which they find over farmland and grassland.

**Horseshoe** bats, probably the most unusual looking of the UK's bats, are sometimes found roosting in houses in south-western England and Wales. **Greater** and **Lesser Horseshoe** bats hang free in the roost from their feet.

(Find further details from the Bat Conservation Trust Website at: [www.bats.org.uk](http://www.bats.org.uk))