

Panshill Holding, Murcott

Preliminary Bat Survey

On Behalf of:
Oliver Maxfield

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4 Acre Ecology Limited

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1. Executive Summary

- 1.1 Panshill Holdings is a detached one and a half storey maisonette building next to the county boarder of Buckinghamshire, on the edge of Otmoor (Central Grid Reference SP 60381483).
- 1.2 There are plans to demolish the building and replace this with a building designed to modern standards. 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 23rd December 2021 by an experienced Ecologist with a Natural England bat survey licence (Class Licence Registration Number 2016-13769-CLS-CLS). The building was assessed for roost potential and evidence of bats.
- 1.5 The building is well-sealed with the roof containing living accommodation. A wooden bat box has been fitted to the rear of the property, but there is no evidence of use.
- 1.6 No signs of bats were found internally or externally. Due to the size and construction of the property and the lack of evidence of bats, it was assessed as having negligible potential for roosting bats and bats are not considered a constraint to the proposed development.
- 1.7 The development is close to a number of ponds with GCN populations known to be in the area. The site is registered under a GCN District Licence, so GCN are not a constraint to the proposals.
- 1.8 No other protected or notable species were thought to be present and impacted by the proposals.
- 1.9 Recommendations for enhancements have been made to help fulfil some of the aims of the NPPF.

2. Introduction

Background

- 2.1 Panshill Holdings is an isolated detached property located in open countryside in the Aylesbury Vale area of the County of Buckinghamshire, on the boarder with Oxfordshire (Central Grid Reference SP 60381483).
- 2.2 The site consists of the main house set in its own grounds with woodland beyond the site boundaries on three sides. There is an on-site pond with a number of other ponds in the immediate area.
- 2.3 There are plans to demolish the current building and rebuild it on a slightly altered layout, providing a modern home with a better environmental design. Therefore, the local Planning Authority has requested a Preliminary Bat Survey of the building to inform their planning decision.
- 2.4 Oliver Maxfield commissioned 4 Acre Ecology Limited on 16th December 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 recommend 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 The report of the earlier visit by an Ecologist from Aylesbury Vale District Council was examined. With this in mind the usual data search from the Buckinghamshire environmental records centres was not commissioned, just one from TVERC (Oxfordshire) and freely available web-based information was used to gauge the bat species in the area.
- 3.2 The NBN Gateway was consulted to ascertain the number of bat records within 5km and 2km of the site
- 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 building 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 two sites of national importance within 2km of the site; Murcott Meadows SSSI and Whitecross Green and Oriel Woods SSSI on the southern boundary of the site. This is an ancient semi-natural woodland containing a pond with Great Crested Newts present within it.
- 5.2 There are 235 records of bats within 2km of the site, 111 records from the adjacent Whitecross Green SSSI due to a bat box monitoring scheme there. This covers at least 7 species; Brown Long-eared (9), Common Pipistrelle (95), Natterers'(2), Noctule (2), Pipistrelle (2), Myotis (1), Soprano Pipistrelle (8), Western Barbastelle (1) and 'bat' (95).
- 5.3 There have been ten European Protected Species Licences (EPSL) for bats issued within 5km of the site, but none of these were within 2km of the site.
- 5.4 The report from the council ecologist stated "An Ecology Screening Inspection was carried out on 17 April 2019 by an AVDC Ecologist. Following inspection, the building is not considered suitable for roosting bats. It is considered that there is not a reasonable likelihood of protected species or priority habitats being impacted by the proposals (excluding great crested newts)".

Field Survey

- 5.5 The survey was undertaken on 23rd December 2021. A dry day with 100% cloud cover, no wind and an air temperature of 5^o centigrade.

Local Context

- 5.6 Panshill Holdings is situated in open countryside, on the edge of Otmoor, which is drained by the River Ray. To the immediate north and east, and beyond improved grassland to the west and south there is woodland. Beyond this there are agricultural fields, mainly small fields with connecting hedgerows consisting of a combination of pasture and arable. To the north-west are open fields.
- 5.7 To the south-east there are a number of ponds beyond the woodland, associated with fishing and holiday lets, while the M40 is beyond a set of fields to the north-east of the woodland at a distance of 380m.

Main Building

- 5.8 This was formerly a single storey cricket pavilion that has been moved to the site to form a dwelling, with the roof space converted to accommodation. It has wooden

tongue and groove boarding forming the walls, which are painted black. The roof, which overhangs the eaves by 200mm at the eaves and 300mm at the gables, is a twin-pitched felt roof in very good condition.

- 5.9 The eaves are sealed with wooden soffits, small gaps between this and the tongue and groove boarding being covered by cob webs (See Figure 2).
- 5.10 There is a rear (northern) dormer in the roof with windows in each side and a door in the northern gable of it. There are also two sky-lights on the southern aspect and a metal chimney flue at the western end.
- 5.11 To the west there is a single storey open sided, large double garage with a low, twin-pitched felt roof attached to the main house. This is also formed of wooden tongue and groove boarding in relatively good condition.
- 5.12 Internally the roof space has been converted into a landing and three bedrooms. The ceilings are covered in pine tongue and groove boarding and there is no separate roof space.
- 5.13 The interior of the garage is one space, with the roof open to the concrete floor 4m below the apex of the roof. The king-post roof structure supports the flat roof boards that the felt is attached to, so there are no cavities.
- 5.14 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 two nationally designated sites within 2km of the site, one of which forms the boundary of the larger landholding (beyond the red-line area).
- 6.2 The local records centre holds 235 records of bats within 2km of the site covering at least seven species. Although this is a fair number of records, there are likely to be a few additional species than these records indicate, as most were from bat box checks in the adjacent SSSI.
- 6.3 There have been ten protected species licences issued for bats within 5km of the site, but none within 2km. This is sufficiently far enough away to be un-associated with the site.
- 6.4 The location of the site in open countryside surrounded by woodland, some of which is ancient, semi-natural woodland, with ponds and hedges provides good foraging and commuting habitat for a wide variety of bats, whilst the traditionally built buildings within the nearby villages and the mature trees within the woodland provide good potential roosting opportunities for bats.
- 6.5 There were no signs of bats within the garage and there was no roof space within the main dwelling, so light testing bats, such as Brown Long-eared, that fly within a roof space before emerging, are not present, as any droppings would be scattered throughout the garage if they were.
- 6.6 This leaves crevice dwelling bats. However, the felt roof and tongue and groove walls were in very good condition and there were no crevices for bats to access. Within the garage there were also no features for bats, with the felt roof boarding open to the floor below.
- 6.7 Therefore, both the dwelling and garage are assessed as having negligible potential for roosting bats and no further surveys area required.
- 6.8 There are a number of records of GCN in the area. However, the site has been registered under a District Licence for GCN. Therefore, with this in-place, GCN are not a constraint to the proposals.
- 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 survey area 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 An integrated bat box could be built into the new build on a gable end towards the apex to enhance the site for roosting bats.

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

8. Figures

Figure 1: Building Plan

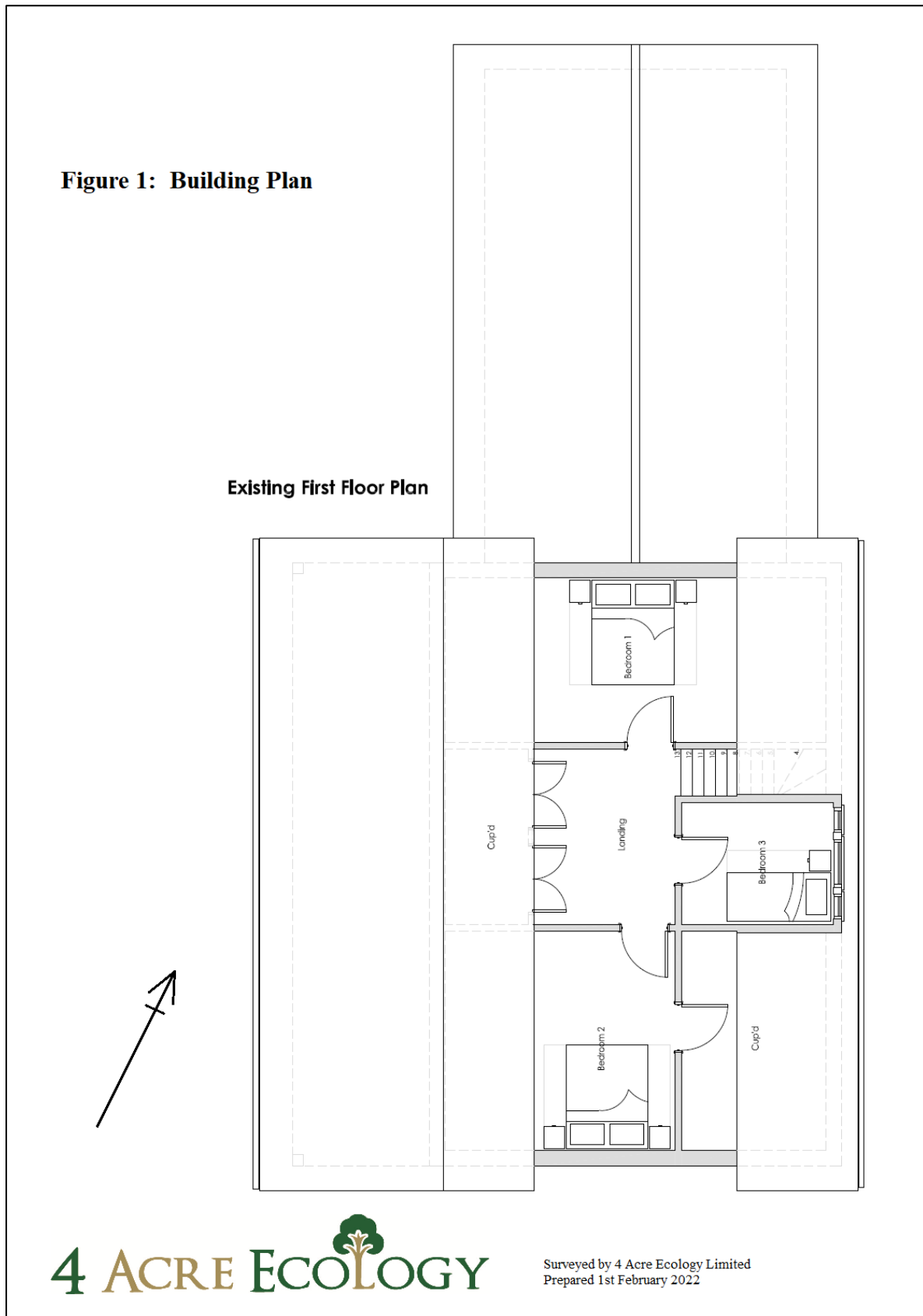


Figure 2: Images



1. Garage and house from the south-west



2. House from the south-east



3. House and garage from the north-west



4. Join of soffits and wall covered in cob webs



5. Well-sealed boarding at eastern gable



6. Interior of garage

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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)