

Barn at Elmhirst Farm, Cawthorne
Bat and Nesting Bird Survey Report
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1. Summary

- 1.1.1 A preliminary roost assessment of a barn at Elmhirst Farm was commissioned by the architect Mark Booth on behalf of the client Rob Bennett on 5th January 2021.
- 1.1.2 The survey was undertaken to support a planning application to re-develop this building as a residential dwelling.
- 1.1.3 This report details the results of a desk study, together with an internal and external inspection of the building, undertaken by Robert Bell of Middleton Bell Ecology on 6th January 2021.
- 1.1.4 No evidence of bat roosting was recorded from the surveyed barn. The barn was considered to display a negligible level of potential for use by roosting bats. Evidence of a former house sparrow nesting was however recorded from the barn.
- 1.1.5 The thorough daytime visual inspection of the building is in this case considered sufficiently robust to be confident that bats are not roosting in the building and no further survey effort is necessary, providing works commence within 24 months of the survey date. If works are to commence after this date, then Middleton Bell Ecology should be contacted to determine the requirement for update survey.
- 1.1.6 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should be stopped, and further advice sought without delay.
- 1.1.7 It is an offence to damage or destroy active bird nests, therefore demolition should take place outside of the nesting season (March to August inclusive). Any works undertaken during the main nesting bird season should be preceded by a nesting bird check, to be undertaken by an ecologist.
- 1.1.8 It is recommended that mitigation for nesting sparrow is incorporated in the new development with a bat roost enhancement also recommended for the wider site.

2. Introduction

- 2.1.1 A preliminary roost assessment of a barn at Elmhirst Farm was commissioned by the architect Mark Booth on behalf of the client Rob Bennett on 5th January 2021.
- 2.1.2 The survey was undertaken to support a planning application to re-develop this building as a residential dwelling.
- 2.1.3 This report details the results of a desk study, together with an internal and external inspection of the building, undertaken by Robert Bell of Middleton Bell Ecology on 6th January 2021.
- 2.1.4 The barn is situated in a rural location off South Lane, approximately 1.2km north of the village of Hoylandswaine and 3km southwest of Cawthorne in the Metropolitan Borough of Barnsley.

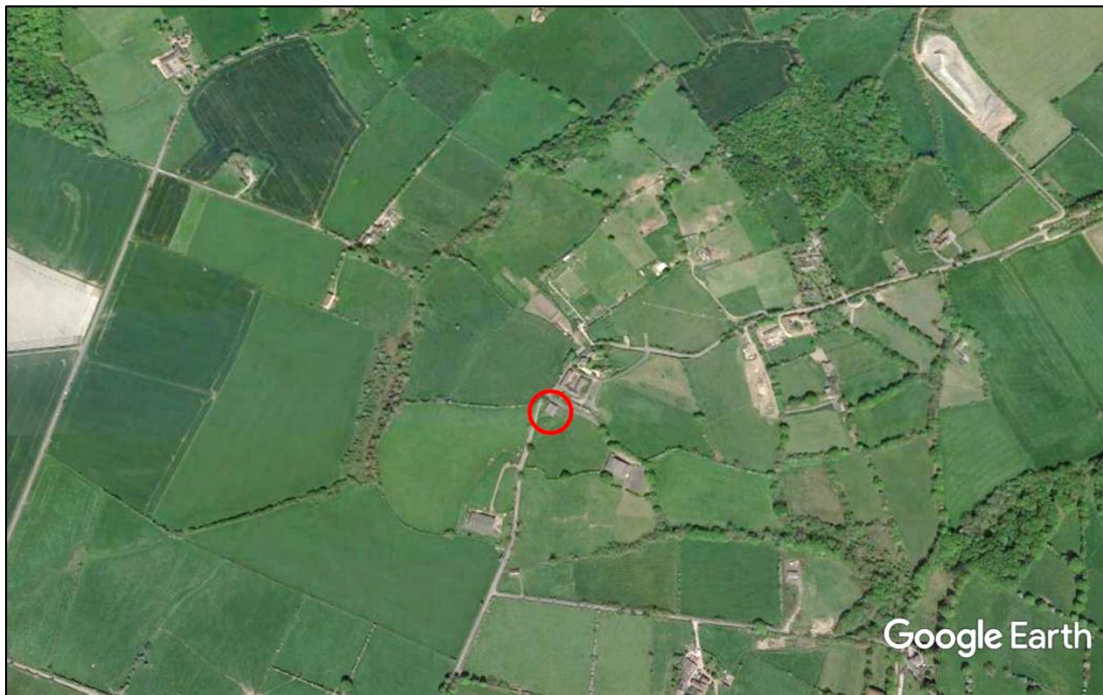
3. Habitat Assessment

- 3.1.1 The surveyed barn is located south of a minor road on the edge of the former Elmhirst Farm farmstead, adjacent to pasture, with several scattered trees immediately adjacent to the barn.
- 3.1.2 The barn is in a rural location with little artificial lighting. Pasture is the dominant local habitat. The area is however quite well wooded with a number of streams nearby; both habitat types comprising prime bat foraging habitat.
- 3.1.3 This area is expected to support a moderate abundance of bats comprising a quite diverse range of bat species.

Table 1. Location and habitat table

Name and address: Barn at Elmhirst Farm, South Lane, Cawthorne, S75 4EF			
OS Grid Ref. SE 26337 05981		Altitude. 179m	
Local Planning Authority: Barnsley Metropolitan Borough Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✓	✓	Located adjacent to former farmhouse
River			Minor beck 220m southeast of site and Tanyard Brook 250m west of site
Standing water			Nearest pond 230m southeast of site
Bridges tunnels and culverts			
Trees		✓	Scattered trees adjacent to barn
Woodland			Stream 220m south of site is bordered by treeline which connects to Ellhirst wood
Grassland		✓	Barn located adjacent to pasture

Figure 1. Site location, as indicated by red circle



3.2 Aims

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats.
- Bat roosting areas and access/egress points into the structure.
- The level of bat roost potential associated with the structure.
- The number and species of bat roosting within the structure.
- Record signs of any use of the structure by building nesting birds.
- Identify further survey work or mitigation requirements.

4. Methodology

4.1 Data Consultation

- 4.1.1 The decision was made not to request bat records from South Yorkshire Bat Group due to the lack of bat roost potential associated with the building.
- 4.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was also undertaken to identify historic European Protected Species (EPS) licences obtained for locations within 2km of the site.

4.2 Field Survey

Preliminary Roost Assessment

4.2.1 The following personnel conducted the preliminary roost assessment on 6th January 2021:

- Robert Bell (MCIEEM; Bat Survey Class license WML-A34-Level 4, 2016-25236-CLS-CLS; Barn Owl Survey Class Licence CL29/00070)

4.2.2 The following activities were carried out during the surveys in compliance with relevant Bat Survey Guidelines (Collins 2016):

- A brief inspection and assessment of the site and habitats present to within 300m.
- An extensive examination of all parts of the building both inside and out to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- An assessment of the building's bat roost potential (negligible, low, moderate, high or confirmed roost).
- Recording of any signs of nesting bird usage of the building.

4.2.3 The following equipment was used or at hand during the survey:

- Clulight
- Binoculars
- Endoscope
- Ladders
- Camera

4.3 Survey Limitations

4.3.1 No constraints to an effective preliminary roost assessment were encountered.

5. Results

5.1 Data Consultation

5.1.1 No EPS mitigation licence has been issued for locations within 2km of the site.

5.1.2 A barn owl *Tyto alba* record was received from the site owners who confirmed barn owl nesting from a box fitted in a second barn (also in their ownership), located 220m southeast of the surveyed structure (Figure 2). A picture of juvenile birds perched on a beam within this barn was shared with the surveyor. This second barn will not be impacted by the proposed scheme.

- 5.1.3 The site owners have also observed barn owl flying through the barn, which is the subject of this survey, however, they have not observed owls roosting in this barn.

Figure 2. Proximity of known barn owl nest site from surveyed building



5.2 Field Survey

Preliminary Roost Assessment

- 5.2.1 No evidence of bat roosting was recorded from the surveyed barn. The barn was considered to display a negligible level of potential for use by roosting bats. Evidence of former house sparrow *Passer domesticus* nesting was however recorded from this barn.
- 5.2.2 The surveyed building is described in detail within this section of the report.

Description

- 5.2.3 The surveyed barn comprises a steel-framed single-storey structure with a pitched corrugated asbestos-cement sheet covered roof. The northwest pitch of the roof is longer than the opposite pitch, and the gables have asbestos-cement verge cappings. The barn walls comprise hollow concrete blocks to a height between 1.2-2m with a mixture of single-skin corrugated metal, corrugated asbestos-cement and hit-and-miss timber wall cladding above. The barn is partially open-sided at the northern end of the southeast elevation, with an additional large double-door sized opening in the northeast elevation.

Plate 1. Eastern corner of barn



Plate 2. Northern corner of barn



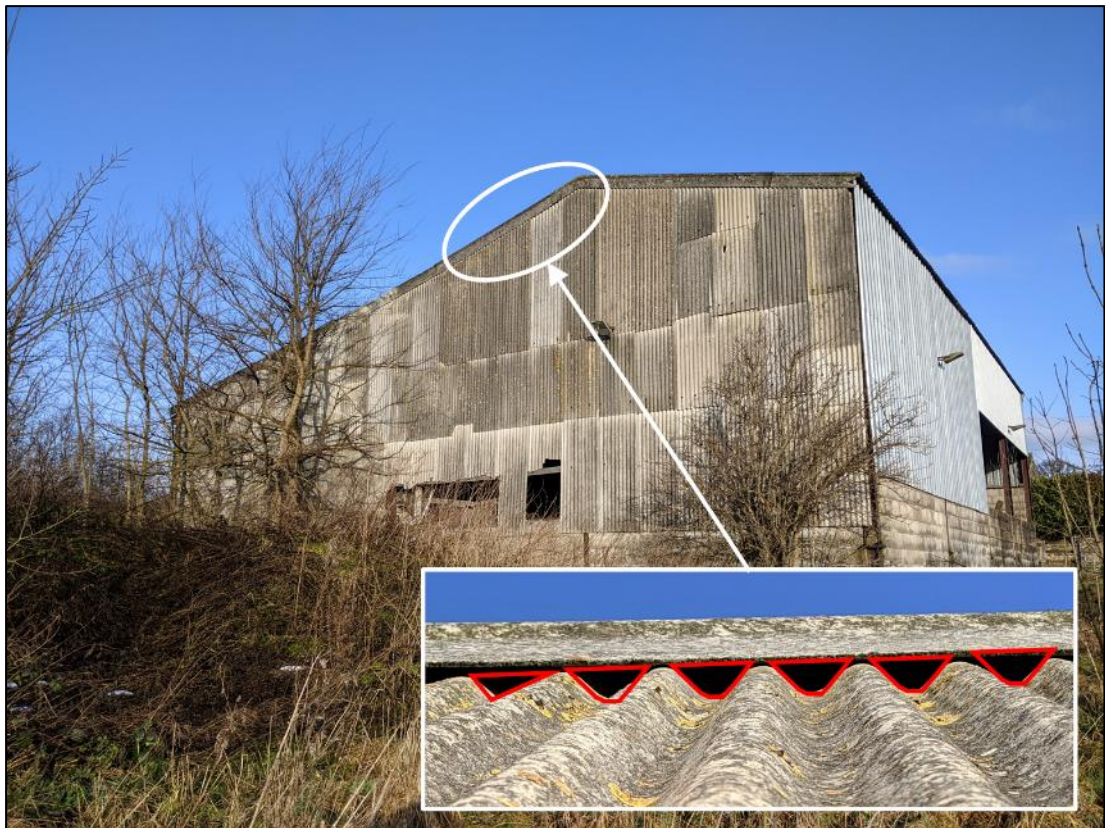
Plate 3. Southern corner of barn



Potential roost features on building exterior

- 5.2.4 The only feature on the exterior of the barn with any potential for use by roosting bats comprised the verge capping on the gables with voids, semi-circular in profile, created at the overlap between flat verge capping and the corrugated sheeting of the walls. The corrugated sheeting does however stop short of the underside of the verge capping, with the result that these voids are open at both the top and bottom. All such voids were directly inspected from a three-piece ladder (Plate 4) and were found to largely lack bat roosting potential with no evidence of past or current bat use being recorded.

Plate 4. Voids formed between verge capping and corrugated sheet cladding



Internal inspection

- 5.2.5 The interior of the barn is open to the inside of the single skin walls and the underside of the roof sheeting, with the roof suspended on the steel frame and wooden purlins. The interior of the barn is used for storage (Plate 5).
- 5.2.6 The interior of the building lacks any potential bat roosting features or signs of bat presence. No signs of barn owl presence were recorded from the surveyed barn, however, a former house sparrow nest was noted from a location between two parallel wood purlins, spaced c.100mm apart (Plate 6).

Plate 5. Interior of barn viewed from west corner



Plate 6. Old house sparrow nest between parallel purlins



6. Assessment

6.1 Summary and Evaluation of Findings

- 6.1.1 No evidence of bat roosting was recorded from the surveyed barn and it was considered to display negligible potential for use by roosting bats.
- 6.1.2 No evidence of use by barn owl was recorded, however, a house sparrow nest was noted in this structure.

6.2 Legislation and Policy Guidance

Bats

- 6.2.1 Bats receive protection under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).
- 6.2.2 It is an offence to:
 - Deliberately capture (or take), injure or kill a bat.
 - Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
 - Damage or destroy the breeding or resting place (roost) of a bat.
 - Possess a bat (live or dead), or any part of a bat.
 - Intentionally or recklessly obstruct access to a bat roost.
 - Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.
- 6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992, requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.
- 6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, “to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat”. Barbastelle *Barbastella barbastellus*, Bechstein’s *Myotis bechsteinii*, brown long-eared, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus* bats are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.
- 6.2.5 Where it is proposed to carry out works which will have an adverse impact on roosting bats, the site must either be registered on the Bat Mitigation Class Licence (BMCL) or a European Protected Species (EPS) license must first be obtained from Natural England. This requirement applies even if no bats are expected to be present when the work is carried out.
- 6.2.6 The National Planning Policy Framework for England was revised in 2019. This document states that plans should ‘promote the conservation, restoration and re-

creation 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’.

Birds

6.2.7 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

6.2.8 Special penalties relate to offences concerning birds, including barn owl, which are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to intentionally or recklessly disturb any Schedule 1 bird or their dependent young while nesting.

6.3 Further Survey, Recommendations and Enhancements

Bats

6.3.1 No further bat survey is considered necessary providing works commence within 24 months of the survey date. If works commence after this time, then Middleton Bell Ecology should be contacted to determine the requirement for update survey works to be undertaken.

6.3.2 No bats were recorded roosting on site during the survey works and consequently there is no compulsory requirement for mitigation. However, in order to enhance the ecological value of the site and in accordance with the aims of the National Planning Policy Framework (2019), it is suggested that a bat roosting enhancement is included in the scheme.

6.3.3 There is scope to enhance the site’s potential to support roosting bats, either through integration of bat roosting provision within the re-developed barn and/or the fitting of externally mounted bat box/es to the retained barn, located 220m to the southeast (Figure 2). It is noted that the retained barn is closer to the tree-lined stream and therefore bat roost provision in this area may stand a higher chance of uptake. It is recommended that a minimum of one bat box is fitted in either of these locations.

One suitable bat box design would include an integrated box/es, such as the Build-In Woodstone Bat Box (Plates 7 & 8) to be fitted close to the apex of the southwest gable of the re-developed barn/new dwelling. Alternatively, an externally mounted flat crevice box/es, such as the Beaumaris Woodstone Bat Box, could be installed at a height above 4m on the external southwest gable of the retained barn (see Figure 3).

Plates 7 & 8. Build-In Woodstone Bat Box



Figure 3. Potential location for crevice box on retained barn



Plate 9. Vivara Pro WoodStone House Sparrow Nest Box



Birds

- 6.3.4 It is recommended that building re-development works take place outside the bird nesting period (March-August). If any works to this structure is to commence outside this time, then a nesting bird check should first be undertaken by an ecologist.

- 6.3.5 It is recommended that in order to mitigate for the loss of a house sparrow nest site in the re-developed barn, a new sparrow box be provided within this structure. A suitable box would be the Vivara Pro WoodStone House Sparrow Nest Box (Plate 9). This unit should be sited on a northeast or northwest facing wall, out of direct sunlight but at wall top height. This unit can be either wall integrated or externally fastened. All box designs described in this report can be purchased from NHBS (<https://www.nhbs.com/>).

6.4 Conclusions

- 6.4.1 There were no visible signs of bat occupation on either the inside or outside of the surveyed barn.
- 6.4.2 The thorough daytime visual inspection of the building is in this case considered sufficiently robust to be confident that bats are not roosting in the building and therefore no further survey effort is necessary, providing works commence within 24 months of the survey date. If works are to commence after this date, then Middleton Bell Ecology should be contacted to determine the requirement for update survey.
- 6.4.3 Works should proceed with caution and vigilance for unexpected bat presence, as single bats can roost almost anywhere. If bats are subsequently discovered, work should be stopped, and further advice sought without delay.
- 6.4.4 It is an offence to damage or destroy active bird nests therefore works should commence outside of the bird nesting season, which in this case is considered to be March to August. Any works undertaken during the main nesting bird season should be preceded by a nesting bird check, to be undertaken by an ecologist.
- 6.4.5 It is recommended that mitigation for nesting house sparrow is incorporated into the new development with a bat roost enhancement also recommended.

7. References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines. The Bat Conservation Trust.