

Bat Survey Report

Dale House Barn, Cawthorne.



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1. Report summary

- 1.1 The bat survey was commissioned by Mark Booth of Booth Designs on behalf of the owner of the property, Mr R Johnson.
- 1.2 The preliminary roost assessment survey was conducted on the 6th September followed by a dusk emergence survey on the same day. An additional dusk survey was undertaken on the 14th September.
- 1.3 There were no visible signs of bat presence in the loft spaces and little potential for access from the outside of the buildings. The building therefore was considered to be of low potential for accommodating bats.
- 1.4 The emergence survey confirmed that no bats were roosting in the building subject to the planning application.
- 1.5 It was concluded that a European Protected Species licence is not required and no further survey effort is necessary.

2. Introduction

- 2.1 Dale House barn is subject to a planning application and subsequent conversion. Middleton Ecological Consultancy were therefore contracted initially to conduct a baseline assessment followed by a dusk survey for bats to confirm presence. The dusk survey was to identify roost locations, access points, species present, level of use and the importance of nearby landscape features. This report confirms the findings of the survey carried out by two surveyors.

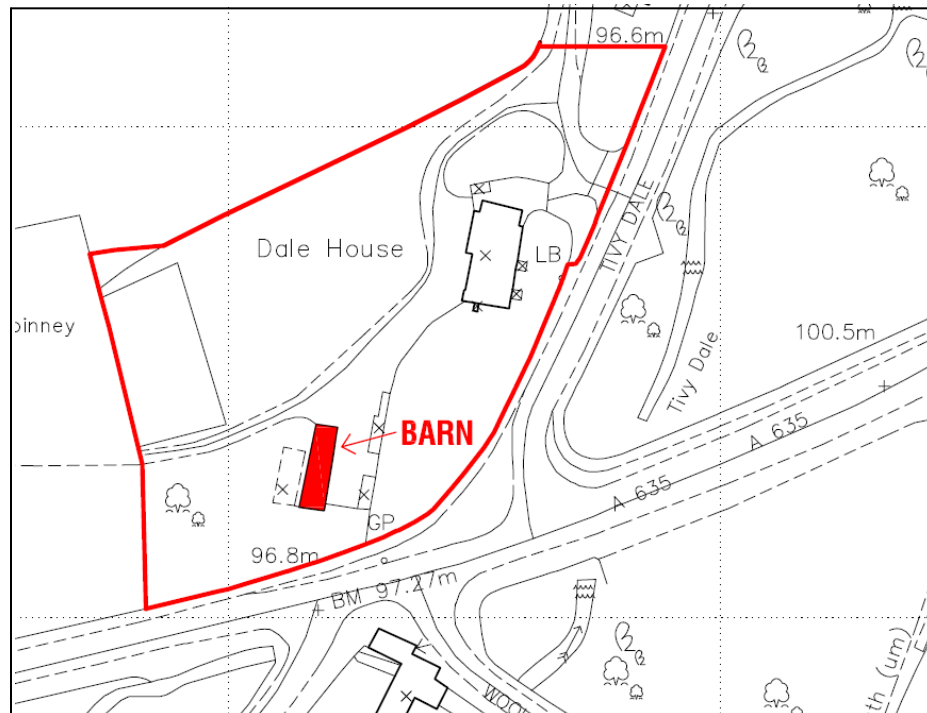
3 Site description

- 3.1 The site is in the village of Cawthorne and is adjacent to the A635; it consists of an old brick built coach house and stable within a garden landscape (see fig1). The building is two storey and rectangular in shape with a single ridge and gable ends and the roof is covered in York Stone slate. There are no windows or doors on the west elevation and on the north elevation there is an opening garage door.

3.2 Habitat assessment

- 3.2.1 The site is in the village of Cawthorne which has many old buildings; the surrounded countryside contains park-land, woodlands, ponds, streams, hedgerows and arable land. All of the locally occurring species of bats can be found in this area. Table 1 outlines the habitats present adjacent to and further afield to Dale House Barn.

Figure 1



Photograph 1



Table 1

Name and address: Dale House Barn, Cawthorne			
OS Grid Ref. SE2792 0744		Altitude. 109m	
Local Planning Authority: Barnsley			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✓	✓	
River bordered by trees			600m to north
Standing water			500m to north
Bridges tunnels and culverts		✓	70m to south
Trees	✓	✓	
Woodland		✓	Small woodlands adjacent
Grassland			500m to north

3.3 Aims of survey

3.3.1 The surveys were conducted to find out the following:

- The presence of bats.
- Where in the building are bats likely to roost.
- Where bats are likely to enter and exit.
- Whether additional survey work is required.

4. Methodology

4.1 Field survey

4.1.1 The following personnel conducted the survey:

Surveyor: Peter Middleton (Licence no 20113997)
Rosario Rio-Brown

4.1.2 The following activities were carried out during the surveys.

- 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.
- A thorough search of all sections of the inside of the building for the presence or evidence of roosting bats including droppings, scratch marks and staining.
- Activity surveys in the form of a single emergence survey using two surveyors. Beginning 15 minutes before sunset and finishing 120 minutes after sunset.

4.1.3 The following equipment was used during the survey:

- Cluelite
- Binoculars
- Torch
- Bat detectors (Pettersson D240x and Batbox duet)
- Digital recorders

5. Results

5.1 Desk survey - Data supplied by Barnsley Biological Recording Centre

Latin Name	Common Name	Obs Comment	Location Name	Location	Date	Grid Ref
Plecotus auritus	Brown LE	house roost 85 emerged	Cawthorne	BMBC	25/07/1981	SE2807
Plecotus auritus	Brown LE	house roost 95 emerged	Cawthorne	BMBC	24/08/1981	SE2807
Plecotus auritus	Brown LE		Cawthorne		23/08/2006	SE2807
Plecotus auritus	Brown LE	roost	Tivy Dale		17/07/2008	SE2807
Pipistrellus pipistrellus	Pipistrelle	foraging	pond	Cannon Hall	27/05/2011	SE27600794
Myotis daubentoni	Daubenton's	foraging (6 minimum)	pond	Cannon Hall	27/05/2011	SE27600794
Plecotus auritus	Brown LE	present	Dakin Brook Farm	Cannon Hall	14/02/2007	SE259074
Plecotus auritus	Brown LE	exit count	Flash House Farm	Cannon Hall	11/05/1993	SE268073
Plecotus auritus	Brown LE	seen inside roof	Deer Shelter	Cannon Hall	20/05/2005	SE271080

Plecotus auritus	Brown LE		Deer Shelter	Cannon Hall	29/05/1988	SE272082
Plecotus auritus	Brown LE	visual in roof	Deer Shelter	Cannon Hall	29/06/1988	SE272082
Plecotus auritus	Brown LE	visual in roof	Deer Shelter	Cannon Hall	25/05/1991	SE272082
Plecotus auritus	Brown LE	visual in roof	Deer Shelter	Cannon Hall	02/07/1993	SE272082
Plecotus auritus	Brown LE	visual in roof	Deer Shelter	Cannon Hall	16/06/1995	SE272082
Plecotus auritus	Brown LE		Cannon Hall	Cannon Hall	19/07/2004	SE272082
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	25/07/1981	SE279076
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	24/08/1981	SE279076
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	24/08/1987	SE279076
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	23/05/1989	SE279076
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	20/07/1990	SE279076
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	01/06/1991	SE279076
Plecotus auritus	Brown LE	exit count	Tivvy Dale, 18	Cannon Hall	29/07/1991	SE279076
Plecotus auritus	Brown LE		Cat Hill Foot Farm	Cannon Hall	29/08/1997	SE248059
Myotis daubentoni	Daubenton's			Cannon Hall	04/09/1987	SE273080
Myotis daubentoni	Daubenton's			Cannon Hall	29/05/1988	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	12/06/1988	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	29/06/1988	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	12/05/1989	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	12/05/1989	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	13/05/1989	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	23/05/1992	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	25/05/1992	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	02/07/1993	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	17/06/1994	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	05/12/1994	SE275083
Myotis daubentoni	Daubenton's			Cannon Hall	23/04/1995	SE275083
Myotis daubentoni	Daubenton's	feeding		Cannon Hall	16/06/1995	SE275083
Myotis daubentoni	Daubenton's	feeding		Cannon Hall	27/04/2001	SE275083
Chiroptera	Bats		Deer Shelter	Cannon Hall	12/05/1989	SE272082
Chiroptera	Bats		Deer Shelter	Cannon Hall	23/04/1994	SE272082
Chiroptera	Bats		The Park, 20	Cannon Hall	23/09/1999	SE281078
Chiroptera	Bats		9 Tivvy Dale	Cannon Hall	30/07/1990	SE282078
Chiroptera	Bats		9 Tivvy Dale	Cannon Hall	01/07/1991	SE282078
Chiroptera	Bats		Church	Hoylandswaine	21/04/1990	SE259052

Myotis	Unidentified			Cannon Hall	10/08/1984	SE275083
Nyctalus	Nyctalus	exit count	Tivvy Dale, 18	Cannon Hall	03/05/1989	SE279076
Chiroptera	Bats		Oakleigh	Cannon Hall	23/03/2002	SE284077
Myotis nattereri	Natterer's Bat	visual in roof	Deer Shelter	Cannon Hall	25/05/1988	SE272082
Myotis nattereri	Natterer's Bat	visual in roof	Deer Shelter	Cannon Hall	05/09/1994	SE272082
Myotis nattereri	Natterer's Bat			Cannon Hall	29/05/1988	SE275083
Myotis nattereri	Natterer's Bat			Cannon Hall	12/05/1989	SE275083
Myotis nattereri	Natterer's Bat			Cannon Hall	13/05/1989	SE275083
Myotis nattereri	Natterer's Bat			Cannon Hall	23/05/1992	SE275083
Myotis nattereri	Natterer's Bat			Cannon Hall	02/07/1993	SE275083
Nyctalus noctula	Noctule		Flash House Farm	Cannon Hall	11/05/1993	SE268073
Myotis mystacinus	Whiskered bat	Roost (1)	Barn	Rawling house farm	07/06/2012	SE266070
Nyctalus noctula	Noctule			Cannon Hall	25/05/1988	SE275083
Nyctalus noctula	Noctule			Cannon Hall	29/05/1988	SE275083
Nyctalus noctula	Noctule			Cannon Hall	12/06/1988	SE275083
Nyctalus noctula	Noctule			Cannon Hall	12/05/1989	SE275083
Nyctalus noctula	Noctule			Cannon Hall	13/05/1989	SE275083
Nyctalus noctula	Noctule			Cannon Hall	25/05/1991	SE275083
Nyctalus noctula	Noctule			Cannon Hall	23/05/1992	SE275083
Nyctalus noctula	Noctule			Cannon Hall	18/03/1993	SE275083
Nyctalus noctula	Noctule			Cannon Hall	02/07/1993	SE275083
Nyctalus noctula	Noctule			Cannon Hall	17/06/1994	SE275083
Nyctalus noctula	Noctule			Cannon Hall	23/04/1995	SE275083
Pipistrellus pipistrellus	Pipistrelle	1	South Lane	Cawthorne	25/06/1993	SE2706
Pipistrellus pipistrellus	Pipistrelle	1	wood	Cawthorne	12/10/1989	SE259086
Pipistrellus pipistrellus	Pipistrelle	1		Cannon Hall	13/05/1989	SE275083
Pipistrellus pipistrellus	Pipistrelle	1 feeding		Cannon Hall	23/08/2000	SE275083
Pipistrellus pipistrellus	Pipistrelle	1	farm	Cannon Hall	25/07/1994	SE2708
Pipistrellus pipistrellus	Pipistrelle	4		Cannon Hall	02/07/1993	SE275083
Pipistrellus pipistrellus	Pipistrelle			Cannon Hall	17/06/1994	SE275083
Pipistrellus pipistrellus	Pipistrelle			Cannon Hall	05/09/1994	SE275083
Pipistrellus pipistrellus	Pipistrelle	2 feeding		Cannon Hall	16/06/1995	SE275083
Pipistrellus pipistrellus	Pipistrelle	1		Cannon Hall	04/09/1987	SE273080

Pipistrellus pipistrellus	Pipistrelle	1	deer shelter	Cannon Hall	29/06/1988	SE272082
Pipistrellus pipistrellus	Pipistrelle	1	deer shelter	Cannon Hall	29/06/1988	SE272082
Pipistrellus pipistrellus	Pipistrelle	1		Cannon Hall	25/05/1988	SE275083
Pipistrellus pipistrellus	Pipistrelle	1		Cannon Hall	23/05/1992	SE275083
Pipistrellus pipistrellus	Pipistrelle	1		Cannon Hall	12/06/1988	SE275083
Pipistrellus pipistrellus	Pipistrelle	1	deer shelter	Cannon Hall	23/05/1992	SE272082
Pipistrellus pipistrellus	Pipistrelle			Cannon Hall	23/04/1995	SE275083
Pipistrellus pipistrellus	Pipistrelle	1 feeding		Cannon Hall	27/04/2001	SE275083
Pipistrellus pipistrellus	Pipistrelle	1		Cannon Hall	25/05/1991	SE275083
Pipistrellus pipistrellus	Pipistrelle	1	17 Tivvy Dale	Cawthorne	17/08/2000	SE282077
Pipistrellus pipistrellus	Pipistrelle	1 exit count	2 Kirkfield Close	Cawthorne	01/06/1995	SE286079
Pipistrellus pipistrellus	Pipistrelle	3 exit count	2 Kirkfield Close	Cawthorne	30/05/1995	SE286079
Pipistrellus pipistrellus	Pipistrelle	101 exit count	2 Kirkfield Close	Cawthorne	23/06/1992	SE286079
Pipistrellus pipistrellus	Pipistrelle	2	Dale	Cawthorne	25/07/1991	SE282078

5.2 Preliminary daytime assessment

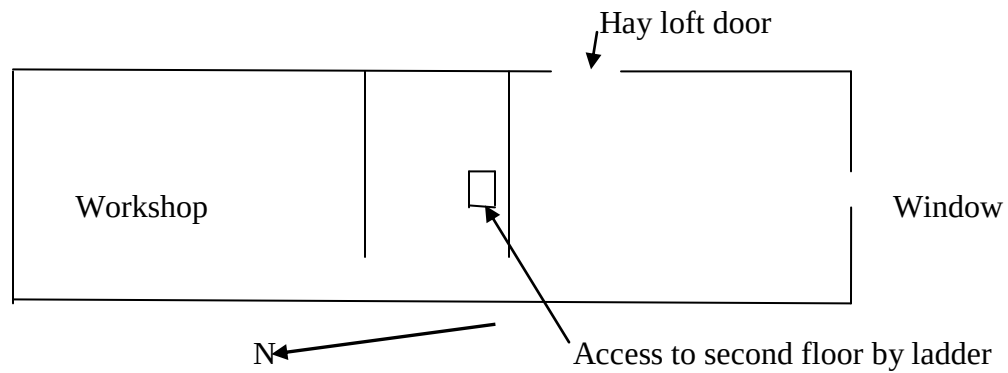
5.2.1 All the buildings were internally and externally inspected for bats using a high powered lamp. The potential of the barn to accommodate bats was assessed along with a search for signs (e.g. droppings, moth wings, scratch marks, staining etc) or bats that were present. Particular attention was paid 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 and signs indicative of a bat roost.

5.3 Inside inspection of building

5.3.1 The first floor contains three rooms which are accessed by a ladder in the centre of the building (see figure 2). One of the rooms (north section) has boards beneath the slates and this room has been used as a work shop. The other two rooms have no boards beneath the slates. The workshop room is fairly clean with no opportunities for roosting bats and as a consequence no evidence of bat occupation was found.

5.3.2 The ridge board in the other rooms were very cobwebby and the rooms generally much dirtier. No droppings were found but some butterfly and moth wings were found amongst the cobwebs on the window sill of the south facing window, these remains were believed to be from predation by spiders and not bats.

Figure 2 first floor



5.3.3 There is a hay loft door on the first floor with gaps at the top and bottom of the door (see photograph 2)

Photograph 2 Hay Loft door (bottom)



The cobwebs can be seen in the photograph at the bottom of the door.

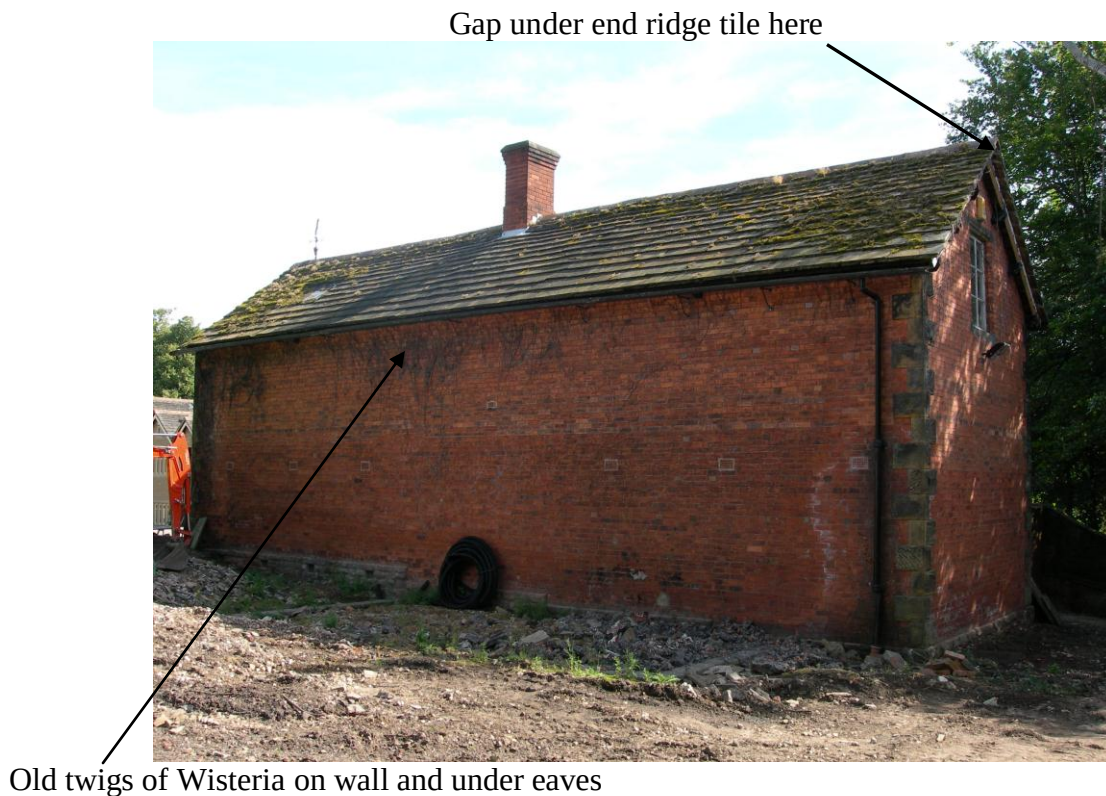


Photograph 3 Workshop

5.4 Outside inspection of Building

- 5.4.1 There are little opportunities for bats to roost; the most obvious is under the end ridge tile on the south facing gable end (see photograph 4). Under the eaves there are holes behind the roof timbers but these are unlikely to be used by bats as they are wide and not deep and are also cluttered with the twigs of the *Wisteria* that formally covered the building. The brickwork is also sound and well maintained. There are perhaps a few opportunities under the York Stone slates but these are mostly covered in moss and stonecrop *Sedum* (30%) (see photograph 5).

Photograph 4 West and South facing elevations



The photograph shows a roof that is in very good condition with little or no opportunities for roosting bats other than under the end ridge tile.

Photograph 5



Section of west facing roof with moss and stonecrop, the east facing roof has even more moss and stonecrop.

5.5 Emergence/ surveys

- 5.5.1 **Dusk survey (6th Sept)** – Two surveyors undertook the survey and both were in position 15 minutes before sunset (Sunset 19.43). The surveyors were positioned so that all the building could be monitored for bat activity.
- 5.5.2 The temperature at the beginning of monitoring was 17.4c with a force 2/3 W wind with 5% cloud. The wind soon dropped to a force 1 with the temperature dropping to 15.4 at the end of monitoring.
- 5.5.3 The first bat to be observed was foraging Common pipistrelles *Pipistrellus pipistrellus* at 20.09 followed by a foraging *Myotis* sp and a Soprano pipistrelle *Pipistrellus pygmaeus* at 20.11 and 20.20 respectively. All three species were recorded several times again during the survey. No bats emerged from the building being monitored.

- 5.5.4 **Dusk survey (14th Sept)** – two surveyors undertook the survey (another dusk was favoured because the temperature was too cold at dawn) and both were in position 20 minutes before sunset (19.24)
- 5.5.5 At the beginning of monitoring there was a force 4 westerly breeze but this soon subsided to a force 2 after approximately 15 minutes. The temperature remained at 13.3c throughout with 50% cloud.
- 5.5.6 The first bat to be recorded was a commuting Common pipistrelle at 19.50, followed by a *Myotis* sp at 19.56 that foraged along the hedgerow at the side of the main road at the south side of the barn for nine minutes. Thereafter, Common Pipistrelles and *Myotis* sp were intermittently recorded foraging. No bats emerged from the building.
- 5.5.7 An Anabat automated bat detector was deployed near the south west corner of the building for the duration of the survey. Analysis of the recording confirmed that Common and Soprano pipistrelles and also Daubenton's bat *Myotis daubentonii* were foraging along the hedgerow beside the road. Also social calls of Noctule bat *Nyctalus noctula* were also recorded several times during the survey.

6. Assessments

6.1 Summary and evaluation of findings

- 6.1.1 No bats were found roosting in the building during the preliminary daytime assessment and there were no signs of bat occupation. Opportunities for bats were few and where there was some potential it was clear that bats had not been using the holes because of the presence of cobwebs. There are also three high powered security lights on three sides of the building. The building therefore has been assessed as having low roost potential for roosting bats.
- 6.1.2 The dawn re-entry survey did not reveal the presence of roosting bats but single *Myotis* sp (Daubenton's), Common and Soprano pipistrelles were recorded foraging in the garden and around the hedgerow mainly on the west side of the building.

6.2 Survey limitations

- 6.2.1 A daytime bat survey is used only to determine whether bats are present and if a more detailed survey is required in preparation for a protected species license application. A dusk/dawn bat activity survey in the summer months when bats are most active can give a much greater indication of the level of use of the

building, in addition to the species present, roosting locations and access and exit points.

- 6.2.2 The surveys for this building fell outside the optimum time (May to August) for monitoring bats. Although it is acceptable to undertake surveys during September when bats are still active, maternity roosts will have dispersed.
- 6.2.3 Large or complex buildings require a number of surveyors equipped with appropriate bat detectors and monitoring devices to ensure that the range of frequencies used by British Bats are covered, thus ensuring that no bat species are overlooked during the dusk survey. The 'Frequency Division' detector is a broadband detector i.e. all frequencies used by British bats can be heard at the same time. The heterodyne detector can only monitor one frequency at a time but by continually rotating the frequency dial between 35 and 50 kHz, this covers many of the species likely to be found roosting inside a building. Rotating the dial through all frequencies at regular intervals allows the surveyor to identify the specific frequency of the call.

6.3 Legislation and policy guidance

- 6.3.1 Bats receive protection under the Conservation of habitats and Species Regulations 2010 (and 2011 Amendment Regulations) and the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats &c.) Regulations 1994.
- 6.3.2 It is an offence to:
- Deliberately capture (or take), injure or kill a bat.
 - Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly effect the ability of any significant group of animals to survive, breed, rear or nurture their young or likely to significantly effect the local distribution or abundance of the species, whether in a roost or not.
 - 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.
- 6.3.3 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.

- 6.3.4 Individual Species Action Plans (SAPs) have been developed to address the causes of decline for those species that have been identified as priorities for UK conservation action. Country-level lists contain species considered of national importance in biodiversity strategies. The current list includes Bechstein's Bat, Greater Horseshoe Bat, Lesser Horseshoe Bat, Barbastelle, Noctule, Soprano Pipistrelle and Brown long-eared bat. 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.
- 6.3.5 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".
- 6.3.6 Where it is proposed to carry out works which will have an adverse impact on bats or on a bat roost, a European Protected Species (EPS) license must first be obtained from Natural England, even if no bats are expected to be present when the work is carried out.
- 6.3.7 An EPS license application requires details of the proposed works, the bats which may be affected and the mitigation proposed to maintain the favourable status of bats in the region. The application is usually drawn up on behalf of the client by a specialist ecological consultant. The consultant is likely to be required to check that work is proceeding in accordance with the method statement and to also carry out monitoring of the impact on bats for sometime after completion of the works.
- 6.3.8 When considering an application, the Natural England licensing section may consult with the local planning authority and specialist conservation staff. This process may take a considerable length of time. Natural England presently states that it aims to make a decision on an application within 30 working days of receipt. There is no guarantee that a license will be granted and no fast track process to obtaining a license. Applications can only be made once planning permission has been granted (where appropriate).
- 6.3.9 EPS licenses can only be issued if Natural England is satisfied that there is no satisfactory alternative to the development and that the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.
- 6.3.10 PPS9: Biodiversity and Geological Conservation is the relevant national planning statement in relation to protected species. It provides guidance on how the Government's policies on nature conservation should be implemented through the land use planning system. PPS9 states that "the aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests. Where

granting planning permission would result in significant harm to those interests, local planning authorities will need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of any such alternatives, local planning authorities should ensure that adequate mitigation measures are put in place. If that significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.

7. Conclusion

- 7.1 No evidence was found to suggest that bats have roosted in the building and the dusk emergence surveys were also negative. The building is considered to be of low potential for roosting bats.
- 7.2 No further survey effort is necessary for the barn subject to the planning application and therefore a European Protected Species License is not required.
- 7.3 Demolition and conversion 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.
- 7.4 The precautionary measures are recommended.
- 7.5 The building is situated in an area where all of the locally occurring species are present, considering this it is recommended that a roost is created between the slates and boards on the west elevation where there is no security light. This can be achieved by installing a purpose made access slate at little cost.