



Report
of
Preliminary Ecological Bat Survey
22nd August 2014

The Barn
Park Lane
Aldingbourne



Survey undertaken by:-
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3 Executive Summary

- A planning application is to be made to demolish an existing thatched and tiled pitched roof extension and two flat roofed extensions and to build a new extension linked to the remaining house with a glass link. It is also proposed to demolish a pitched roof timber summer house and timber stables will be demolished and a three bay garage and store will be built
- A preliminary ecological bat survey was undertaken during the daytime on 22nd August 2014 by Sue Harris, consultant ecologist, to support the planning application
- The house, summer house and stables lie in a rural setting with suitable habitat and connecting features for bats in the vicinity
- It is proposed to demolish an existing pitched roofed extension on the house which has roosting potential for bats under an area of clay tiles fitted on the lower roof below thatch which links to a further area of tiles on another elevation. The extension includes two dormer windows with hanging tiles. There were a small number of small, relatively fresh bat droppings on and under one face of hanging tiles. The droppings were suggestive of the small crevice dwelling Pipistrelle (*Pipistrellus*) bat
- The summer house was well sealed to bats internally and in the timber walls but there was a small amount of potential for bats to access the space between roof tiles and roofing felt on the roof which was covered with a tile which was largely tightly fitted
- There was no potential for bats to roost in a simply constructed block of two stables with an unlined corrugated roof. No further investigations are required. There was no evidence to suggest that the demolition of this building would destroy a bat roost or have any impact to the local bat population.
- Further investigations will be required on the house and summer house. Roost surveys (dusk emergence and /or pre- dawn re-entry surveys) must be undertaken to further consider the house
- Where building work would destroy a bat roost a Natural England mitigation bat licence is required before work which would disturb or destroy a bat roost commences on the building. Licence applications need to give details of the mitigation and include information regarding the timing of building work, care required during building work, maintenance of roosting on the site

This report has been completed for the buildings as it seen during the surveys and discussed in this report. The survey is only valid for the buildings as seen during this survey

If work is not commenced within the following two years a further bat survey should be undertaken



4 Background

A planning application is to be made to demolish an existing thatched and tiled pitched roof extension and two flat roofed extensions and to build a new extension linked to the remaining house with a glass link. It is also proposed to demolish a pitched roof timber summer house and timber stables will be demolished and a three bay garage and store will be built.

A preliminary ecological bat survey was undertaken during the daytime on 22nd August 2014 by Sue Harris, consultant ecologist, to support the planning application.

The Bat Conservation 'Bat Surveys – Good Practice Guidelines 2nd edition' have been taken into account to determine the extent of the investigative work required on this site.

5 Experience of Ecologist

Sue Harris holds a Natural England Bat Survey Class Licence CL18 (Bat Survey Level 2) registration number CLSQ2801 and has considerable experience surveying buildings and land for bats and monitoring bat activity on a consultancy basis and has been the named ecologist in many Natural England European Protected Species Licences.

Sue is also is a Natural England roost visitor and holds a Natural England Class Survey Licence WML CL15 (Volunteer Bat Roost Visitor Level 1) rescues and rehabilitates bats in West Sussex and takes part in the Bat Conservation Trusts National Bat Monitoring Program during the summer and winter hibernation counts.

6 Location

Map reference

SU9254 9520

Address

The Barn
Park Lane
Aldingbourne
West Sussex
PO20 3TJ

7 General Description of Buildings

The buildings consisted of a detached house, summer house and stables lying in a large garden featuring a number of large native trees.

The house is an L shaped building with a pitched roof which was largely thatched but featured clay tiles on the lower areas of two elevations. Hanging/vertical tiles were featured on two dormers. Shingle tiles were featured on a third dormer. Most of the roof space had been converted to accommodation leaving a small loft on the western end only.

The summer house was a single storey timber constructed rectangular building with a pitched roof covered with clay tiles.

The stables comprised a rectangular timber building providing two stables with an unlined corrugated roof.

8 Surrounding Habitat

The buildings lay amongst a small number of other houses surrounded by farmland in the flat coastal plains of West Sussex.

A small lake surrounded by trees lay approximately 100m to the south.

A small area of woodland lay approximately 600m to the south west. There appeared to be good foraging in the large gardens in the area, hedges and small areas of trees in the locality. There appeared to be good connectivity to bats but the area is subject to the prevailing south westerly winds.

There are no Sites of Special Scientific Interest (SSSI) in the vicinity.

9 Building work planned

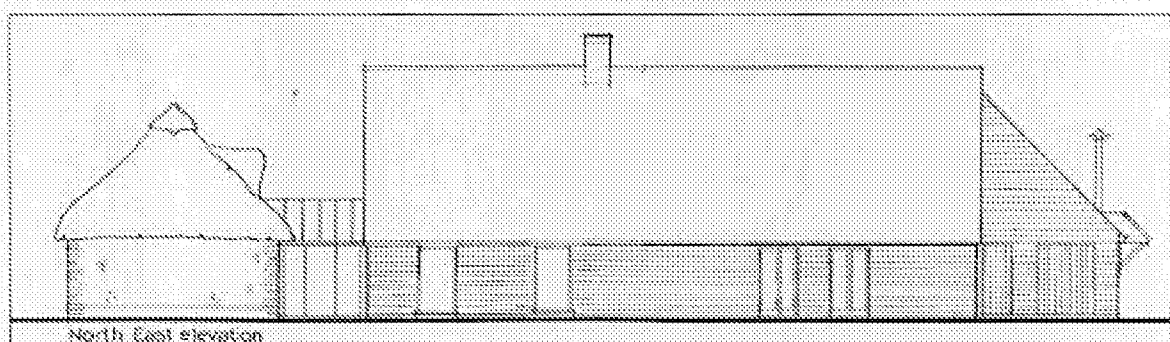
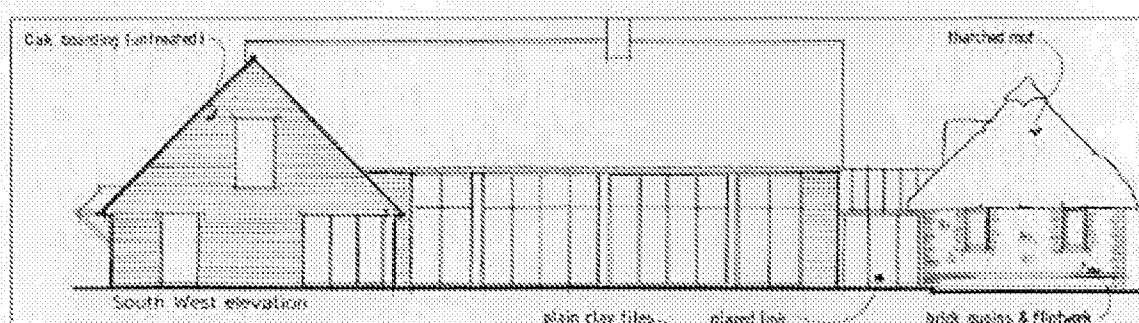
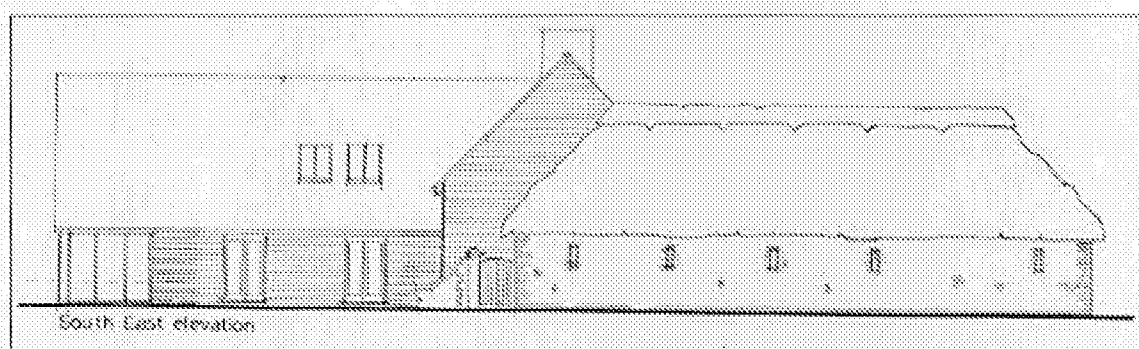
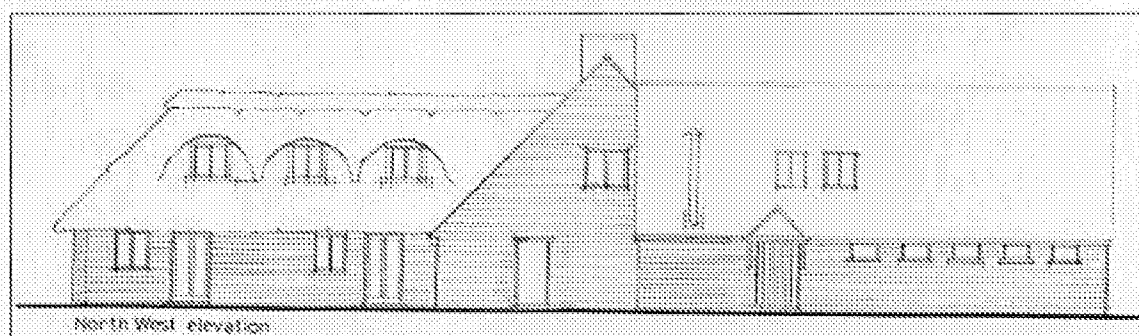
It is proposed to remove an existing extension on the north western end of the property and provide a glass link to a new extension. It is also proposed to remove two flat roofed extensions. Clay tiles on the lower roofing on the north western elevation of the existing house would be replaced with thatch.

It is also proposed to demolish the existing summer house and stables and to build a three bay garage with store.

Drawings of the proposed extension follow.



Approximate areas to be removed



10 Legislation related to bats

All species of bats and their roosts are legally protected in England. All bats in England are listed as a European Protected Species. The following provides a guide to the legislation.

The Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 ("the 1994 Regulations").

The Conservation of Habitats and Species Regulations 2010 fully protect bats and their roosts, making it an offence to:-

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

Disturbance of animals includes in particular any disturbance which is likely:-

- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) to affect significantly the local distribution or abundance of the species to which they belong

In addition, the Wildlife & Countryside Act 1981 (as amended) makes it an offence to: Intentionally or recklessly

- disturb any bat whilst it is occupying a structure or place which it uses for shelter or protection;
- obstruct access to any structure or place which any bat uses for shelter or protection.

Natural England, European Protected Species Licence would be required if an individual wishes to undertake works/activities that would affect bats and would involve one or more of the following: capture, kill, disturbance, transport and/or damage/destroy the roosts or resting places of bats.

Under Regulation 53(2)(e-g) & 53(9)(a-b) of The Conservation of Habitats and Species Regulations 2010 Natural England, under powers conferred by the Secretary of State, has authority to issue licences. In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 53 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b).

(1) Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

(2) Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".

(3) Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

Evidence of the proposed provisions to accommodate the bats in the future would be required for a licence to be granted where needed—for example, an alternative roost may need to be provided. Details of the conduct of the proposed activities would be required in detail.

11 Objectives of the preliminary Survey

- To establish if there is any evidence of bats roosting in the buildings
- To establish if there are potential opportunities for bats to roost within the buildings
- To investigate the species of bat using the buildings for roosting if relevant
- To consider the type of bat roost if relevant
- To consider access points used by bats if relevant
- To consider the implications of the proposed demolition to any bat roosts identified or to potential roosting opportunities
- To provide recommendations, information and mitigation if evidence of bats roosting or evidence of potential bat roosting is identified in any of the buildings

12 Methodology of preliminary survey

- A detailed inspection of the buildings was undertaken for evidence of bat activity and for bats
- The buildings were surveyed carefully and thoroughly from the ground and with binoculars and a torch were appropriate
- The buildings were entered and searched for evidence of bat activity where appropriate
- Consideration was given to any possible access points open to bats
- The surveyor checked for any evidence of bats including oil stains formed during entry and exit of possible roost sites, urine stains, droppings and for bats
- Equipment used included torches (Exposure single joystick and spotlight), Canon G12 digital camera, Opticon Oregon LE WP binoculars
- The surrounding habitat was considered during the survey to consider its suitability for bats to forage and commute to foraging
- A desk top study of the surrounding habitat was undertaken accessing appropriate websites, maps etc. for suitable habitat for bats in the area

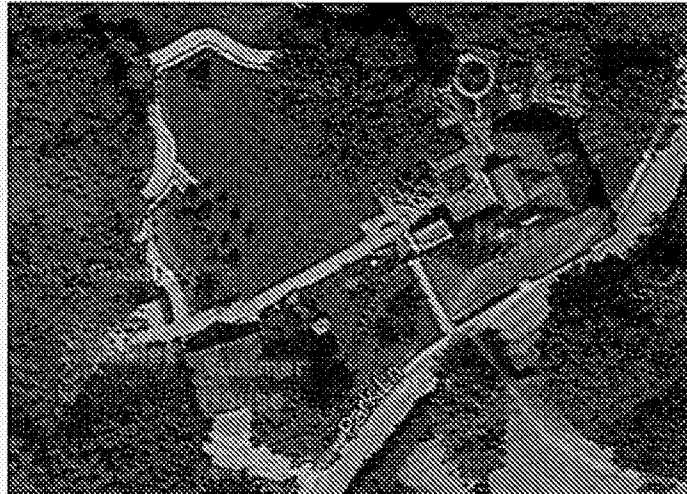
13 Constraints during the survey

Heavy rain showers which occurred during previous days could have removed bat droppings externally.

14 Weather during preliminary survey

16C, Light breeze - Beaufort Scale 2, dry, 8/8 cloud cover

15 Outcome of preliminary survey

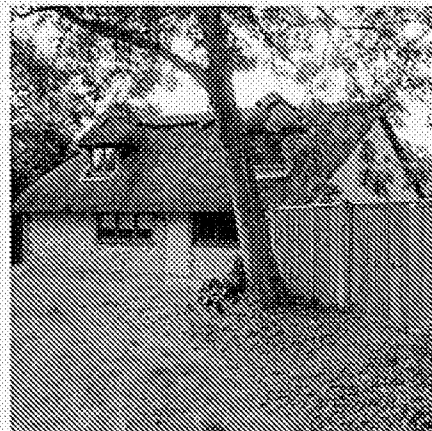


Aerial view of buildings on site

15.1 House



North western and south western elevations



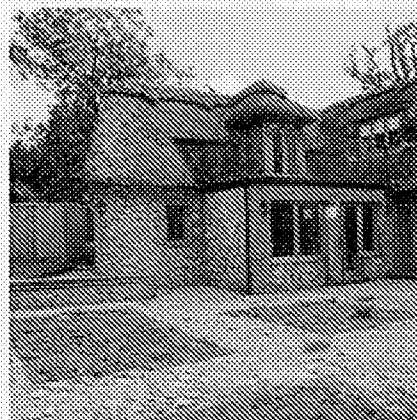
North eastern elevation

15.1.1 Roofing

The roof was largely of thatch but there was an area of tiles above the eaves on the north western and south western elevations shown in the following photos.

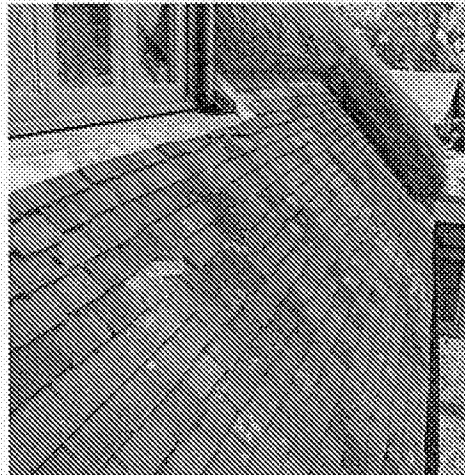


North western elevation



South western elevation

There was good access to bats in places under the tiling.



Example of tiling

15.1.2 External walls

The external walls were a mixture of flint, brick and timber cladding. There was no evidence of roosting opportunities in the walls.

15.1.3 Hanging/Vertical tiles

Clay hanging tiles were featured on a dormer window on the south west and north east elevations.

The tiles around the dormer on the south west elevation could be examined closely from a balcony. Most of the tiles were well tightly fitted but there was access under the edge of the tiles and under a small number of tiles. There were small numbers of small bat droppings under and on the hanging tiles on the north side as marked in the following photo. The droppings were relatively fresh.

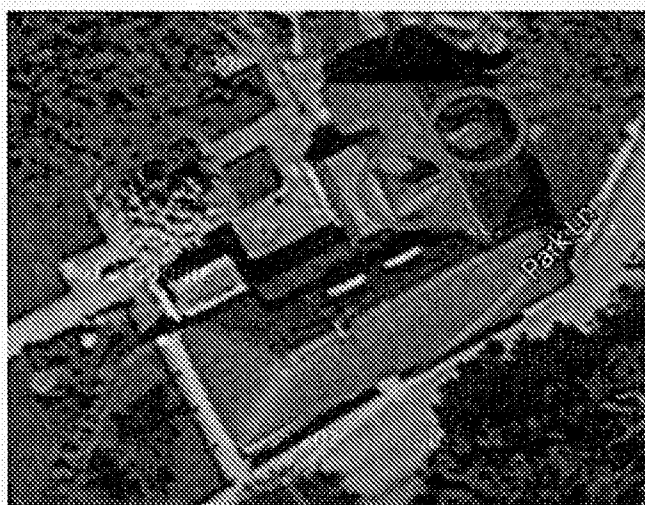


South west elevation – bat droppings on north side marked



Example of small dropping found on a roof tile beside hanging tiles

There was good access under the tiles on the dormer on the north eastern elevation. The following photo shows the position of the dormers with hanging tiles and the area where bat droppings were found.



Blue circles mark the two dormers with clay tiles
Red circle marks the area where small bat droppings were seen

Shingle tiles lay on the sides of a further dormer on the north eastern elevation. These appeared to be tightly fitted.

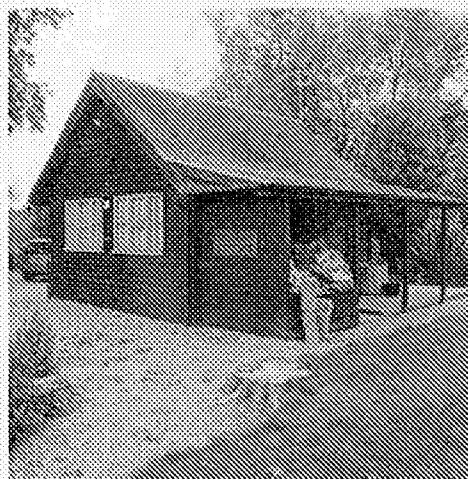
15.1.4 Flat roofed extensions

There were two flat roofed extensions on the north western and south western elevations one of which provided a balcony. Both were well sealed. There was no evidence to suggest that the extensions provided any roosting to bats.

15.1.5 Loft

The loft on the western end of the house was entered. The thatch was unlined. There were mouse and rat droppings and two old medium sized bat droppings.

15.2 Summer House



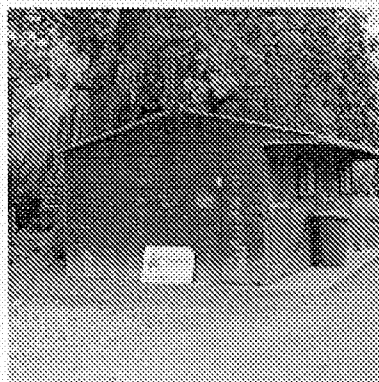
The gable ended timber summer house was plastered internally, well-sealed and light and did not provide roosting to bats within the building.

There was no evidence found to suggest that there was access to roosting in the timber cladding.

The roof was tiled with a relatively flat tile which had a dense covering of moss over large areas. Traditional roofing felt lined the tiles where the roof extended over a wood store and it is thought likely that the main roof was lined with the same roofing felt.

There were a small number of areas where bats could pass into the space between roof tiles and roofing felt.

15.3 Stables



There was no potential for bats to roost in a simply constructed block of two stables with an unlined corrugated roof.

16 Summary of survey

The survey considered the house, summerhouse and stables lying in a large garden with suitable habitat for bats in the locality.

16.1 House

The detached L shaped house was largely thatched but features an area of clay tiles which provided access to bats and to potential roosting. Most of the area under the roof provided accommodation and was plastered.

There were hanging tiles on the sides of two dormers. The tiles provided access to bats. There were a small number of small bat droppings on and under the tiles of one dormer window.

There was no potential for bats to roost in two single storey flat roofed extensions.

There were two old medium sized bat droppings amongst mouse and rat droppings in a small loft under the thatched roof.

16.2 Summer house

There was no roosting potential to bats within the detached summer house or in the walls. There was a small amount of access under the relatively flat tiles that were largely well sealed.

16.3 Stables

There was no potential for bats to roost in the timber stables with an unlined corrugated roof.

17 Conclusions and mitigation

17.1 House

It is proposed to demolish an existing pitched roofed extension which has roosting potential for bats under an area of clay tiles fitted on the lower roof below thatch which links to a further area of tiles on another elevation. The extension includes two dormer windows with hanging tiles. There were a small number of small, relatively fresh bat droppings on and under one face of hanging tiles. The droppings were suggestive of the small crevice dwelling Pipistrelle bat. Further investigations will be required in the form of roost surveys (dusk emergence and /or pre- dawn re-entry surveys) to further consider the building – see 17.4 for further information.

There were two old medium sized bat droppings in the thatched unlined loft over the house. The loft offered sub optimal roosting and given the age of the droppings it is likely that a single bat explored the loft some time ago. There was no evidence to suggest that the loft was used as a roost.

Where building work would destroy a bat roost a Natural England mitigation bat licence is required before work which would disturb or destroy a bat roost commences on a building, see further information in section 17.5. Licence applications need to give details of the mitigation and include information regarding the:-

- Timing of building work - 17.6
- Care required during building work - 17.7
- Maintenance of roosting on the site - 17.8

to ensure that :-

- No bats are endangered or harmed during the proposed building work
- The continued ecological functionality of the building is maintained for any species of bat identified as roosting in the building

- The conservation status of bats locally, regionally and nationally will be unaffected by the proposed work
- Roosting opportunities will remain on the site long term
- The building work proposed will not be detrimental to the conservation status and maintenance of the population of any species of bat in the locality
- No bat is disturbed at an inappropriate time in the bats annual life cycle or disturbed in such a way that would :-
 - (a) impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, hibernating
 - or
 - (b) to affect significantly the local distribution or abundance of the species to which they belong

Further details regarding any mitigation required will be required following further investigations.

17.2 Summer house

There was a small amount of potential for bats to access the space between roof tiles and roofing felt on the roof which was covered with a tile which was largely tightly fitted.

There was no specific evidence to suggest that bats were accessing the roofing but this must be further considered to confirm absence or presence of a bat roost.

17.3 Stables

There was no potential for bats to roost in a simply constructed block of two stables with an unlined corrugated roof. No further investigations are required. There was no evidence to suggest that the demolition of this building would destroy a bat roost or have any impact to the local bat population.

17.4 Roost surveys – dusk emergence and pre-dawn re-entry surveys

Roost surveys involve monitoring the bat activity to and from their roosts by eye and with bat detectors which converts the ultrasonic calls made by bats to a sound that humans can hear. The bat activity is recorded and then analysed using appropriate software packages to assist with the identification of the species of bat seen. A dusk emergence survey would be undertaken from 15-30 minutes before sunset for approximately two hours and a pre-dawn return from approximately two hours before dawn up to sunrise during the summer months when bats are at their most active between May and early September with the optimum period being between May to August during bats maternity season.

Two to three dusk emergence survey and/or pre-dawn re-entry surveys should be undertaken to :-

- Confirm if the tiling on the house and summer house is used as a bat roost and identify access
- Confirm the status of any bat roosts identified in the building
- Confirm the species of any bats roosting in the building (a DNA test could alternatively confirm this)
- Provide information to enable appropriate mitigation to be provided

17.5 Natural England mitigation licence

Where a bat roost will be destroyed during building work a Natural England mitigation licence is required before any work commences that would destroy or disturb a roost. A licence must be applied for by the owner/developer with input from an appropriately experienced bat ecologist/consultant.

The licence application requires details which include how bat roost provision will be maintained on the site which must be appropriate for the species of bat identified, the timing of the work and how

the work will be conducted to ensure that no bat is endangered or disturbed at important times of their annual life cycle.

In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 53 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b).

(1) Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

(2) Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".

(3) Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

The licence application takes up to 30 working days to be considered by Natural England from the date the application is acknowledged.

Planning permission is required before a licence can be granted. A survey must be undertaken within three months of the licence application. This can consist of a walkover survey updating the previous reports completed.

17.6 Timing of building work

Where a bat roost will be destroyed the commencement of building work should be planned to ensure that roosting areas are not destroyed during the active summer maternity season May 1st to September 1st or the winter hibernation season, November 1st to March 1st. Building work affecting the identified roosting should be commenced during March/April or September/October and if at all possible new roosting completed during this time.

17.7 Care during building work

No work should be undertaken to remove the tiles or destroy roosting over a building until a Natural England mitigation licence has been obtained.

To ensure that no bat is endangered or harmed if roosting under roof or hanging tiles during building work the roof or hanging tiles must be removed by hand and each checked underneath to ensure that there are no bats on the underside of the tile. Ridge tiles should be lifted carefully and checked for bats. A licenced bat ecologist with appropriate experience will be required to supervise the removal of the tiles after providing details to workman of the care to be taken and the signs to look for before work begins. This would need to be detailed in the licence application.

17.8 Reprovision of roosting

17.8.1 Temporary re-provision

Temporary provision in the form of bat boxes is usually required during building work where a bat roost is temporarily or permanently destroyed.

17.8.2 Permanent re-provision

The re-provision required would be planned dependent on the species of bat and the status of the roost. Further details will be provided following dusk emergence surveys.

18 Bibliography

- *Bat Surveys – Good Practice Guidelines* – Bat Conservation Trust
- *Bat Workers Manual* – Joint Nature Conservation Committee
- *Bat Mitigation Guidelines* – English Nature (now Natural England)
- *A Field Guide to British Bats* – Frank Greenaway & A. M. Hutson
- *British Bats* – John Altringham
- *Long-Eared Bats* – Susan M Swift
- *Bats of Britain, Europe and Northwest Africa* – Christian Dietz, Otto von Helverson, Dietmar Nill
- *The Bat detective – A field guide for bat detection* – Brian Briggs and David King
- *The Bats of Britain and Ireland – Echolocation calls, sound analysis and species identification* – Jon Russ.