

**UPDATE BAT AND BARN OWL SURVEY OF  
CLARENDON BARN, LISKEY HILL, PERRANPORTH, CORNWALL.**

**October 2021**



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## UPDATE BAT AND BARN OWL SURVEY OF CLARENDON BARN, LISKEY HILL, PERRANPORTH, CORNWALL.

**O.S. Grid Ref:** SW 7564 5317

**Survey date:** 8<sup>th</sup> October 2021

**Surveyor:** Katherine Hampton BSc (Hons) QCIEEM

**Time spent on site:** 1 hour

**Taxonomic groups:** Bats  
Barn Owls

**Report authors:** Katherine Hampton BSc (Hons) QCIEEM

**Report compiled by:** Katherine Hampton BSc (Hons) QCIEEM

**Report completed:** 2<sup>nd</sup> November 2021

**Filename & issue number** BBO\_Clarendon\_Barn\_FIX

**Report for:** Emma Bowker-Phillips

**Report No:** 20-164\_BBO\_Clarendon\_Barn

**Document approved by:** Adrian Spalding PhD Director

**Signature:** 

**Date:** 2<sup>nd</sup> November 2021



## 1. INTRODUCTION

Spalding Associates (Environmental) Ltd were instructed to carry out a Bat and Barn Owl survey by Emma Bowker-Phillips of Martin Perry Associates on behalf of the client, on an agricultural barn to update a previous survey completed in 2020. The previous report was completed by Spalding Associates Ltd and is titled “19-71T/CG/Clarendon Barn, Liskey Hill\_BBO”. This report concluded that no evidence of the use or occupation of any parts of the barn by roosting bats was found and the building was thoroughly inspected. The barn has changed very little since the release of the 2020 report, however a large section of the roof on the western gable end has now fallen through.

Clarendon Barn is situated off Liskey Hill to the south of Perranporth. It is located on top of the valley within an open landscape. The barn comprises of a single elongated building with two small extensions and one defunct lean-to. The building is orientated east west and is located within a field towards the southern boundary hedgebank.

The current proposal for the site is to refurbish the building to create a dwelling.

## 2. DESCRIPTION OF BUILDING

The barn is approximately 20 metres long and is comprised of breeze blocks with rendering on the northern aspect. An extension has been added to the western end of the building, along with another extension on the northern aspect. A small lean-to which is defunct and fallen through is located on the eastern end of the building. The building is located along a hedgebank with Bramble *Rubus fruticosus* agg. encroaching onto the eastern end. Ivy *Hedera helix* and Bramble have been managed along the entire southern aspect to prevent further growth.

The roof is pitched on the main building and flat roofed on the northern extension. They comprise asbestos sheeting with asbestos ridge tiles on the main roof, which is broken through and missing from part of the western end of the barn. There are also several large gaps across the roof face. The window frames are wooden, and all windows are relatively airtight. The fascias are wooden and are set back from the walls and from the wall tops of the barn. The guttering is PVC plastic piping.





**Photo 1, 2:** The barn from the northern aspect (top left), and the southern aspect along the hedgebank (bottom right).

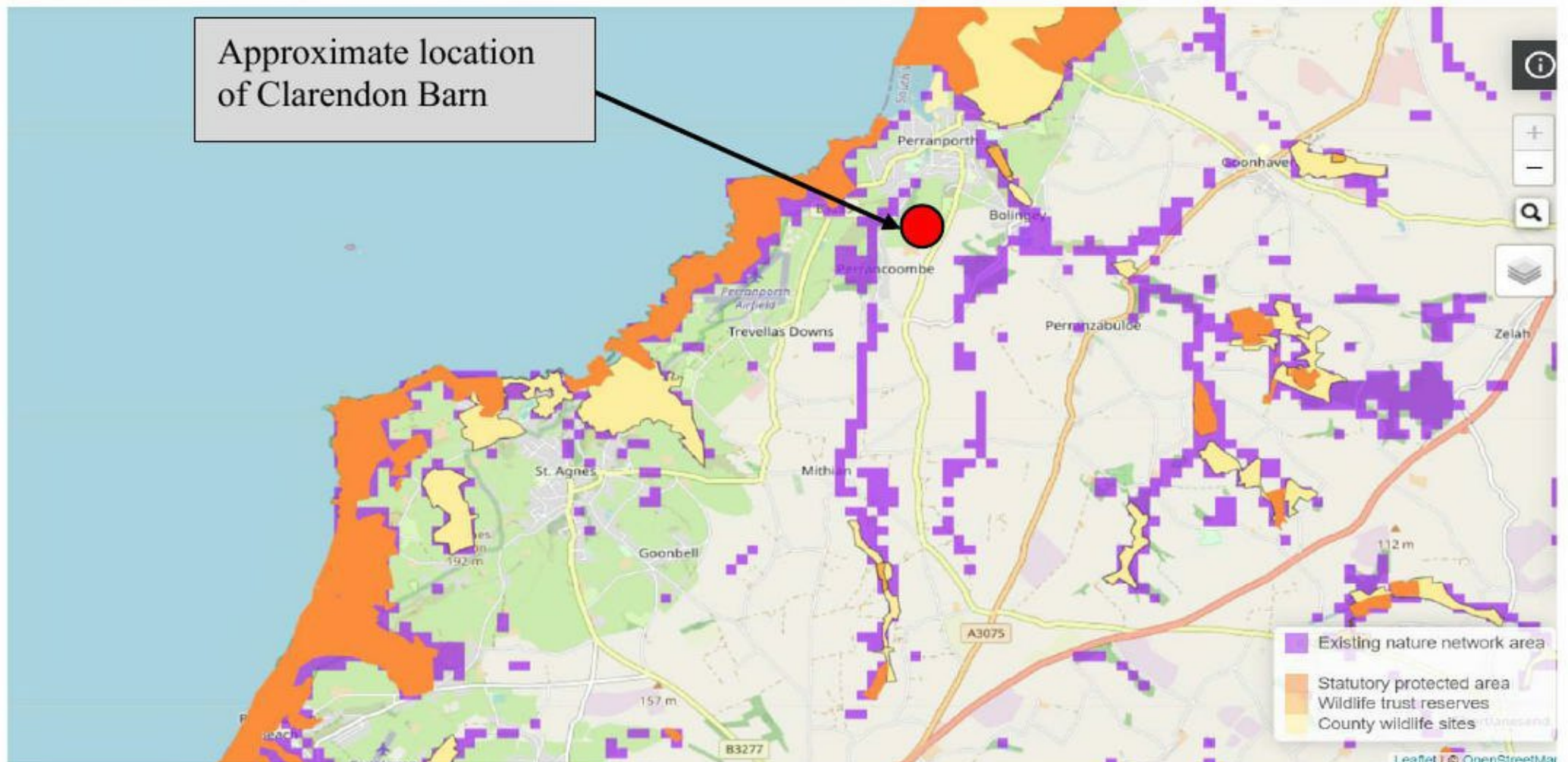
Internally, the barn is open and contains stored objects throughout. There are old domestic animal stalls along the southern wall. The western end is darker, and the roofing here contains less holes. The roofing is composed of wooden trusses with support beams. The roof does not meet the wall tops and as such the elements are able to enter the barn. The walls are cement rendered and the flooring is concrete based throughout.



**Photo 3, 4:** Internal aspects of the barn from the eastern (left) and western (right) ends.



## 2.1. Surrounding Landscape



**Figure 1:** Existing nature networks surrounding Clarendon Barn, Perranporth. (Source Lagas Nature Network Maps: [www.lagas.co.uk/app/product/nature-network](http://www.lagas.co.uk/app/product/nature-network)).

The barn is situated within open landscape above sea level approximately 1 mile south of Perranporth. A tributary leading to Perranporth bay runs to the west of the barn providing some connectivity north and south. Pockets of wooded areas are located in close proximity to the tributary providing foraging opportunities. Further afield, the landscape surrounding the barn is predominantly open agricultural fields which do provide some wildlife corridors in the form of Cornish hedgebanks but are quite limited in terms of foraging opportunities.

## 3. ASSESSMENT OF POTENTIAL FOR BATS AND BARN OWLS

The survey includes an assessment of the building or structure to determine the suitability for bats or birds. This includes a structured evaluation for bats based on the characteristics of the roost which allows a broad categorisation of its potential. In terms of birds and in particular Barn Owls features such as direct access and external materials also enable indicative values to be placed on the likelihood of presence.



Category (Bat Potential)	Description
Negligible value	Building, structure or tree where surveyor has not identified any suitable potential roosting features, or where those that are present are of such poor quality or condition, such that bats are highly unlikely to use them.
Low value	Building, structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate value	Building, structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High value	Building, structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed Roost	Bats or signs of bats, such as droppings and / or feeding remains, found, or information provided via desk study which indicates a roost.

**Table 1:** Classification of buildings and trees, according to their potential to support roosting bats (based on Collins, 2016).

The barn was assessed for bats and birds based on the features of the building and potential roosting opportunities. These were limited in the context of the external roofing features. A few external roost locations behind fascia boards were noted, but no evidence for the presence of bats was confirmed during the survey. Internally there was limited potential for roosting bats. The eastern end of the barn is sheltered and darker, however the barn is considered as of low value for bats. In the context of Barn Owls, the barn was deemed unsuitable for this species, and of having low value for other birds.

In summary the buildings were assessed as of low value for bats and birds.

## 4. METHODS

### 4.1. Bats

With the aid of a high-powered torch the barn was carefully searched internally and externally, where access allowed, for bats or any signs of bat presence, past or present. This included searching for droppings, feeding remains and individuals as well as searching for potential entry points, polishing or scratching of woodwork (indicating use by bats) and for cavities capable of providing roosting space.

All surfaces were examined where accessible, internally and externally, as well as ledges, hanging tiles and other protruding features for bat droppings and feeding evidence. Any cavities present and open areas were searched with a torch for roosting bats, as were any cavities present along the wall tops, between the roof timbers and walls and around any openings.

As bats can leave little evidence of their occupation, this survey included an assessment of the potential of the building and associated features to support roosting bats.



## 4.2. Barn Owls

With the aid of a torch any access points which could admit Barn Owls *Tyto alba* into the building were searched. Any ledges or features present within the building (where safe) which were thought to have the potential to be used by nesting or roosting Barn Owls were also examined for owl pellets, feathers and nest debris, as were the floors beneath crossing timbers.

## 4.3. Swallows and other birds

Suitable ledges and spaces which could provide nesting space for Swallows *Hirundo rustica* and other birds were inspected for evidence of previous or current nest building attempts.

The survey was carried out at 09:45 on Friday 8<sup>th</sup> October 2021 and the weather was overcast, mild with a slight breeze and soft drizzle. The temperature was 15°C.

## 5. RESULTS

### 5.1. Bats

No evidence for the presence of bats was observed at the barn internally or externally during the survey. As such the building was assessed as having low to negligible potential for roosting bats.

Externally, several spaces were noted behind the fascia boarding on the northern aspect along the northern extension. These are set back from the walls by approximately 2cm and allow access into the barn. They could allow bats roosting space on warmer evenings; however, these were searched thoroughly, and no bats were seen during the survey. The gaps were mainly filled with cobwebs and snails.



Photo 5, 6: Gaps behind the fascia boarding along the northern extension (left) and part of the northern aspect of the main barn (right).

The wall tops do not reach the roof along the entire barn and as such large gaps are present in most places leading outside. The roof also contained many gaps throughout leading directly to outside. This



could allow access to bats for night roosting; however no evidence of this was discovered within the barn and the building is within an exposed location within the landscape.



Photo 7: The roof internally. There are large gaps between the wall tops and roof, missing asbestos sheeting and a partly missing roof at the western end.

### 5.2. Barn Owls

There were no suitable roosting or nesting opportunities for this species and no evidence was found for presence.

### 5.3. Swallows and other bird species

Evidence in the form of three Barn Swallow nests were discovered inside the barn within gaps where the trusses are attached.



Photo 8, 9: Two of the three Barn Swallow nests located within the rafters of the barn.



## 6. RECOMMENDATIONS

### 6.1. Bats

No further surveys are recommended at this time. The survey did not find any evidence for the presence of bats at the barn and the building was assessed as having low potential for roosting bats.

### 6.2. Barn Owls

There were no suitable roosting or nesting opportunities for this species and no evidence was found for presence, therefore, no recommendations are necessary.

### 6.3. Swallows and other bird Species

No recommendations are necessary.

As a precaution a careful inspection of the barn for nesting birds should be carried out prior to works commencing. This would establish that no nesting birds are present before work proceeds. If nesting birds are found works should wait until the chicks have left the nest. This relates to legislation which affords protection to birds whilst nesting.

## 7. MITIGATION AND ENHANCEMENTS

### 7.1. Bats

If the owners were interested in creating opportunities in the future for bats to use the proposed dwelling, this could be achieved relatively simply by providing access points into the main roof or by the provision of prefabricated bat boxes or wall units. If access to the roof void is provided, type 1 bitumen felt should be used on new roofing as bats can get entangled in modern woven fibre membranes. Another enhancement could include spacing off fascia boards slightly from the wall to allow opportunities for bats to gain access, particularly on warmer southern elevations.

### 7.2. Swallows and other bird species

No mitigation is required.

If the owners wish to do so, new nesting opportunities for birds could be incorporated into the site by including prefabricated nest boxes placed onto the building or nearby trees to benefit species such as House Sparrows, Tits, Robins and Blackbirds, or by incorporating deep over hanging eaves and prefabricated nesting ledges for Swallows and House Martins.

## 8. LEGISLATION

### 8.1. Bats

Bats in England have been protected under a number of regulations and amendments but the most up-to-date and relevant are:

- The Conservation of Habitats and Species Regulations 2017



- Wildlife and Countryside Act 1981 (Section 9)

The result of Regulations and Acts is that all species of bat and their breeding sites or resting places (roosts) are protected under law. It is an offence to:

- Deliberately capture, injure or kill a bat
- Deliberately disturb a bat in a way that would affect its ability to survive, breed or rear young or significantly affect the local distribution or abundance of the species
- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost whether bats are present or not
- Damage or destroy a roost whether bats are present or not
- Possess, control, transport, sell exchange or offer for sale/exchange any live or dead bat or any part of a bat

Through the Conservation (Natural Habitats &c.) Regulations 1994 (this has been updated and consolidated with subsequent amendments by the Conservation of Habitats and Species Regulations 2017 mentioned above) bats were designated a European protected species as part of a Europe wide effort to conserve certain plant and animal species.

Any development which is likely to result in the disturbance of a European protected species, or damage to its habitat, usually requires a European protected species licence from Natural England. ‘Development’ is interpreted broadly to include projects involving demolition of buildings, rebuilding, structural alterations and additions to buildings.

## 8.2. Birds

All birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to intentionally:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.

The Conservation of Habitats and Species (Amendment) Regulations 2012 require public bodies to help “*preserve, maintain and re-establish habitat for wild birds.*”

Barn Owls and other birds listed in Schedule 1 of the Wildlife and Countryside Act 1981 are given a further level of protection against disturbance whilst breeding.



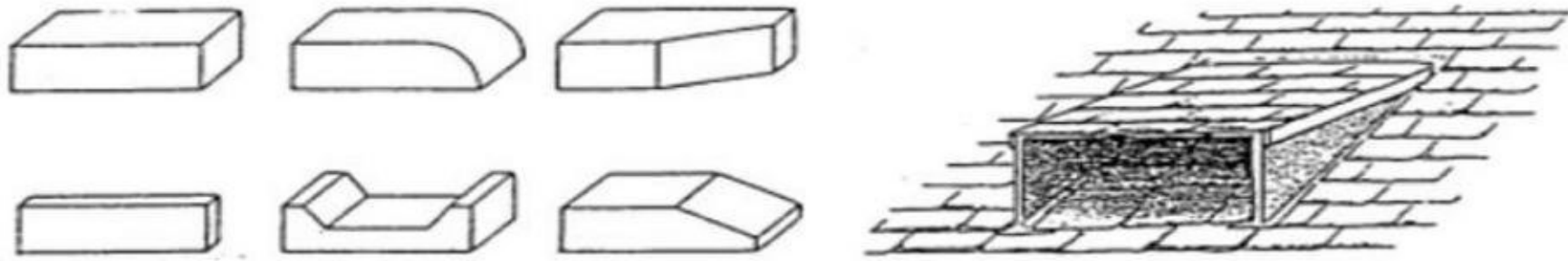
### PROVIDING ACCESS FOR BATS

For most species of bat only small holes or slots are needed and this helps to prevent birds from getting in. A Gap of 20mm wide by 50mm long is often adequate. The ideal position is between the soffit and the wall.

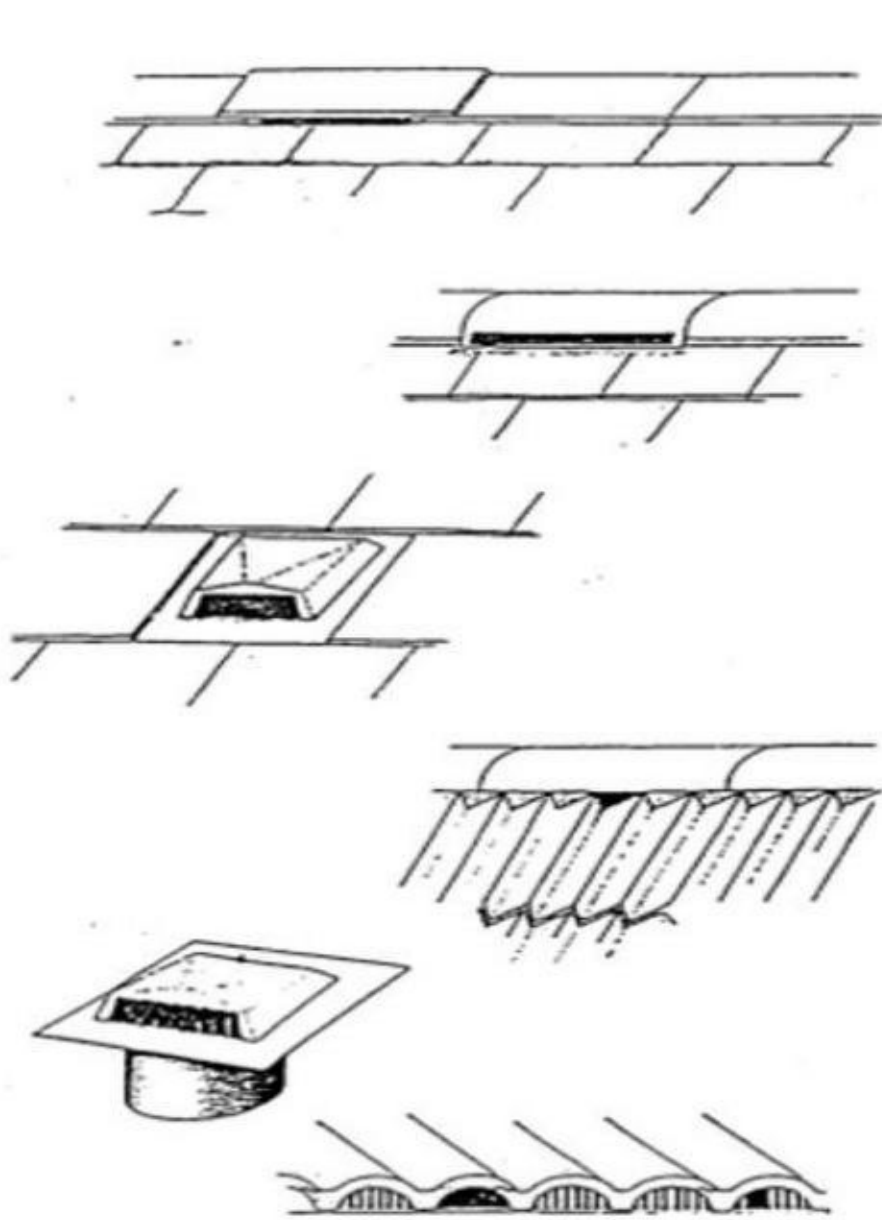
Unlike birds, bats can land on vertical wall and crawl up through the gap to their roost behind the soffit or in the roof. A rough surface is essential for the bats to grip on.

Building regulations specify that roofs must have adequate ventilation. This is usually provided at the eaves and so access for bats can be easily incorporated at the same time. Other suitable places for access points are at gable ends, under lead flashing or gaps between tiles or slates.

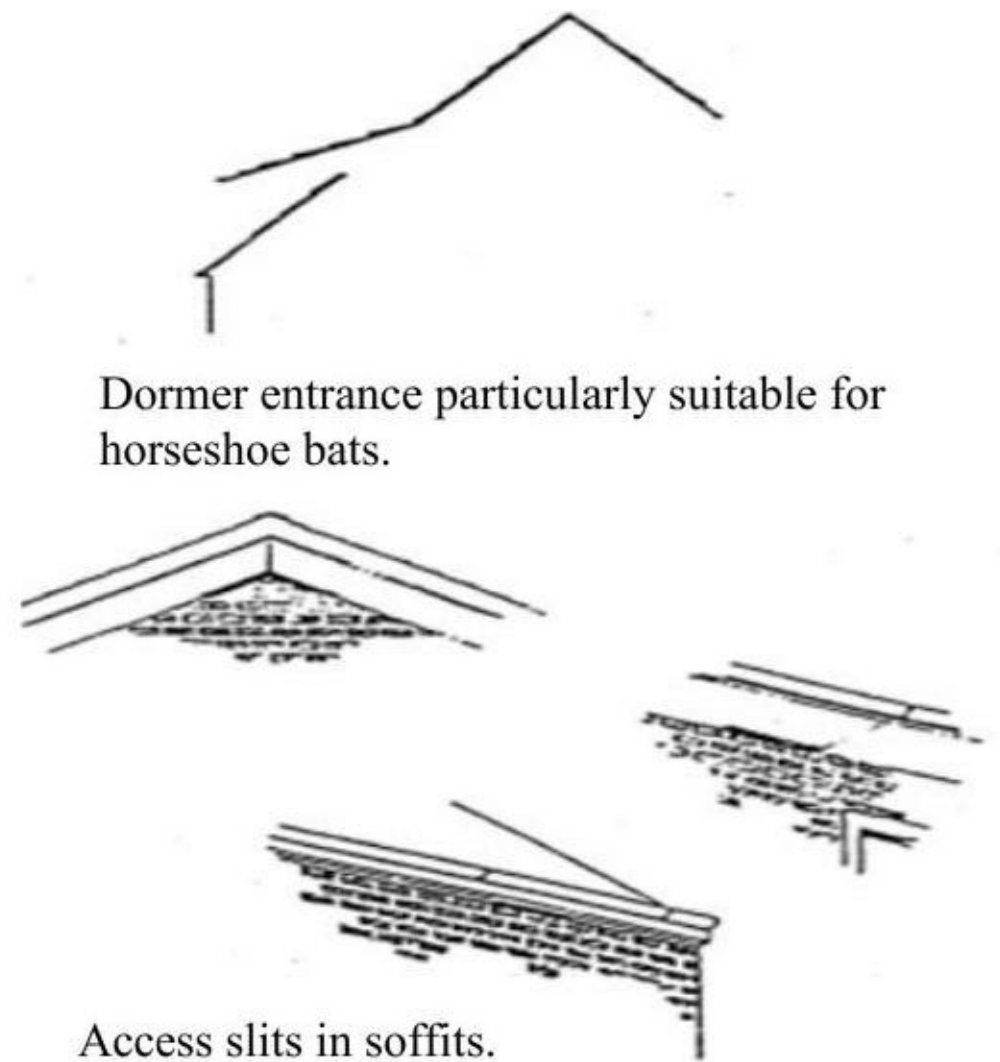
Horseshoe bats have more specialised requirements, preferring to fly directly into their roosts. Access openings need to be large enough to allow the bats to fly into the roof.



Walling bricks for creating bat access points. A standard brick is shown top left

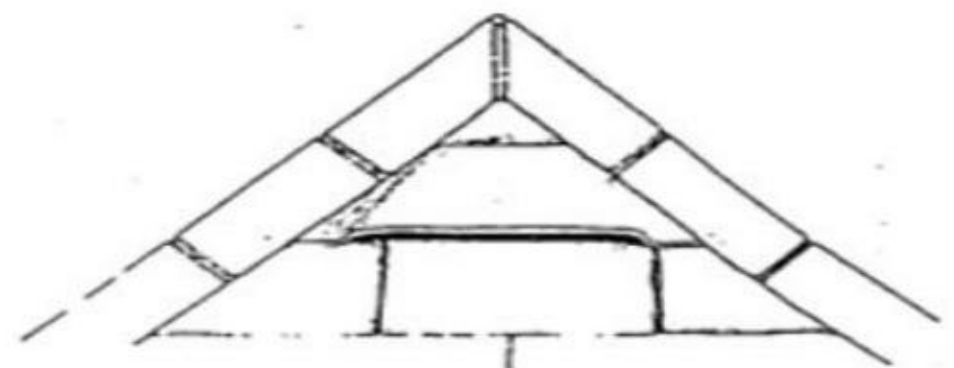


Ridge ventilators can be adapted as bats access points. It may be necessary to remove internal plastic moulding.



Dormer entrance particularly suitable for horseshoe bats.

Access slits in soffits.



Lead saddle in place of a slate to allow bats access to ridge or roof void.