

**SEWINGSHIELDS FARM, HAYDON BRIDGE, PROPOSED RESTORATION  
BAT AND BIRD REPORT – SUMMER 2019**

## **SECTION 1 BACKGROUND AND SUPPORTING INFORMATION**

### **A. Executive Summary**

- Sewingshields Farm is situated 7km northwest of the village of Haydon Bridge, in rural Northumberland. The traditional farm building surveyed is built of stone with a slate roof and is due to be renovated and repaired in the proposed scheme.
- There are some bat feeding corridors in and around the mixed plantation and trees present around the steading and in the shelter of Sewingshields Craggs that run to the west.
- The inspection carried out revealed no traces of bats. Crevices are however present throughout the building's stonework giving a low bat roost potential for a bat maternity roost and two emergence surveys were carried out.
- During the emergence surveys no bat emergence was identified from the building surveyed. Pipistrelle 45kHz bats were identified as emerging from the adjacent farmhouse. Pipistrelle 55kHz and Natterer's bats were also identified commuting or foraging on the site.
- The proposals will affect no bat roosts in the building however mitigation will be put in place, to compensate for loss of bat roost potential in the renovated building.
- The occasional bat may also be present in any suitable crevice on the wall tops at any time of the year in small numbers. Timing of the works to avoid the hibernation period will ensure that the development has as little negative affect on bat conservation status as possible.
- **All contractors involved in the development will read the method statement, prior to commencing the work, as precautionary work is advised.**
- There were no traces of barn owls in or around the building. Any nesting bird species will be allowed access to the nest until the young have fledged. Swallows were present on the upper floor.

### **B. Introduction.**

#### **B1 Background.**

Sewingshields Farm is situated 7km northwest of the village of Haydon Bridge, in rural Northumberland. The traditional farm building surveyed is built of stone with a slate roof and is due to be renovated and repaired in the proposed scheme.

#### **B2 Proposed Works.**

The building will be re-roofed in slate and the timbers replaced as necessary, especially over the kennel and eastern section. New rainwater goods will be installed. The walls will be repointed and the gable wall heads rebuilt. The upper floor will be replaced as will the doors and windows that are presently missing or require renewing.

## C. Survey and site assessment

### C1 Pre-existing information on the species at the site.

There are no known pre-existing records of bats within the building inspected. A survey of nearby buildings identified roosting Whiskered/Brandt's bats (2010) and foraging Pipistrelle 55kHz, Pipistrelle 45kHz, and Natterer's bats (R Hadden 2009/10).

### C2 Status of species in the local/regional area.

Within 3km roosting Pipistrelle 45kHz and Brown long-eared bats are known 2.5km to the southwest with numerous records of foraging Pipistrelle 45kHz (2014-2017) and the occasional Pipistrelle 55kHz (2016/2017) recorded within 2km. Small maternity Pipistrelle 45kHz roosts and occasional Natterer's and Pipistrelle 55kHz bats are known 1.3km to the southeast (2019) (ERIC North East. A full data set available upon request).

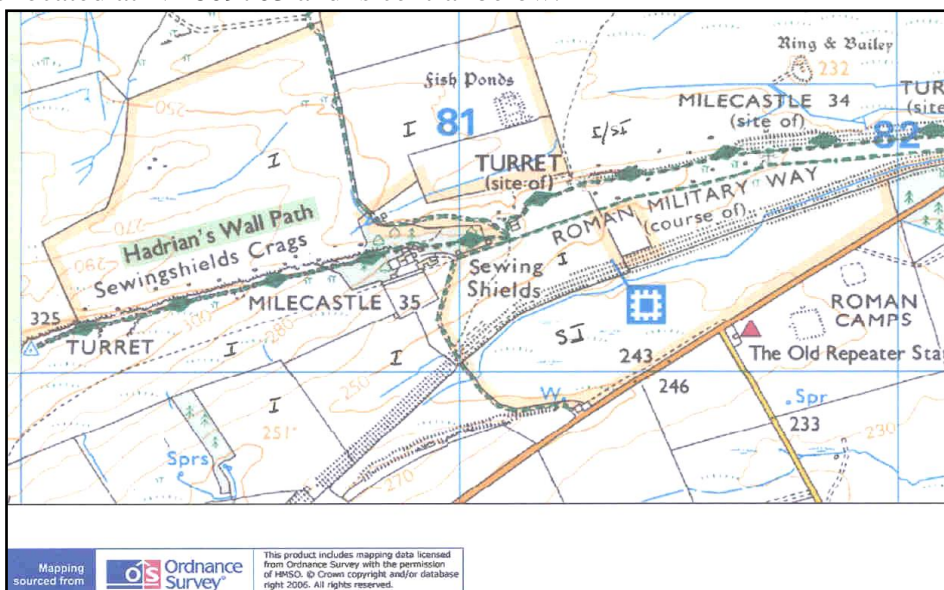
Locally and regionally, the Common Pipistrelle is the most common bat. Both Pipistrelle 45kHz and 55kHz bats are frequent in northern England, although Pipistrelle bats are the most abundant species they are thought to have declined by 70% between 1978 and 1993 (National Bat Colony Survey). Since 1997 monitoring by the National Bat Monitoring Programme (NBMP) has shown that bat numbers seem to be steady with small fluctuations up or down depending on the species and survey type carried out. The Brown long-eared bat is occasional with colonies much smaller in numbers than the Pipistrelle. Daubenton's, Natterer's and Whiskered/Brandt's bats are also occasional but widespread in the north east with an average colony size being about 35 adult bats.

### C3 Objectives of survey

The survey was to determine as far as possible, the presence of barn owls and bats including their roost sites in the building at Sewingshields Farm, Haydon Bridge affected by the proposals. The aim is to prevent any animal being physically harmed, to protect all roost sites where possible and to provide mitigation for the proposed renovation to maintain conservation status.

### C4 Survey area Plan of Site – c. Scale 1:1250

The site is located at NY809703 and is central below.



## Photographs of the Site



**North gable wall**

**Barn from the southwest**



**South gable**



**From the southeast**



## C5 Habitat description

Sewingshields Farm is situated 7km northwest of the village of Haydon Bridge, in rural Northumberland and is immediately located in farmland that consists mainly of permanent improved and semi-improved grassland with boundaries of walls and fences. A moderately sized plantation of mixed trees is immediately present to the north of the steading however there are few commuting lines, that lead from the site other than the shelter of the crags and other land forms that depend on weather conditions. Further isolated plantations and loughs and lakes are present within one kilometre.

The area has some potential for feeding bats. Bat roost potential will be limited to the scattered buildings in the area and any suitable tree.

## C6 Field Survey

### C6.1 Visual Inspection

A close inspection of all the buildings was made in good light, and by torch where required. The exterior and interior of the buildings were examined as far as was feasible for signs of bats: droppings, urine streaks, clean cobweb-free areas on the ridge boards or crevices and potential

roost exit holes. All external and internal crevices were checked using a torch and possible roosting sites were noted. Crevice loving bats can be difficult to find especially when bats are present between the roofing felt and slate/tiles. Emergence surveys were therefore used to check for the presence of bats missed during the visual inspections.

Beneath ledges the ground was examined for feathers, pellets and birdlime that could indicate occupation by barn owls.

### **C6.2 Emergence Survey**

As dusk fell 3 surveyors, each using visual observations and bat detectors (Echo Meter EM3 / Touch) and two-way radios, carried out the evening emergence surveys, covering all aspects of the buildings. Bat detectors convert bat echo-location signals into audible sounds, enabling the identification of some species, and aid the monitoring of the number of bats present. Two way radios help to determine the emergence and flight paths of a bat seen by surveyors around the site and allow the bat activity of the whole site to be understood, whilst at the site.

Surveyors are on site for at least quarter of an hour before sunset and up to 1½ hours after sunset or until darkness falls as reduced visibility does not allow bats to be seen emerging from the building being surveyed. After this time any bats picked up by detector, cannot be guaranteed to have emerged from the building in question, but confirms if additional species are present in the area or not. If bats or a maternity colony is present the bats are counted until no bats have left the roost for 10 minutes for as long as it takes.

### **C6.3 Timing and Weather Conditions**

<b>Survey</b>	<b>Date</b>	<b>Timings</b>	<b>Weather</b>
Inspection	20 June 2019	Externally and internally (30mins 2 surveyors)	Fine and dry
Emergence	20 June 2019	9.35pm-11.15pm (Sunset 9.50pm)	Fine, clear and still 10-9°C
Emergence	31 July 2019	9.00pm-10.40pm (Sunset 9.15pm)	Fine, cloudy and slight breeze 16-14°C

### **C6.4 Personnel**

Ruth Hadden – Bat Consultant since 1996, Class Survey Licence CL20 2015-13665-CLS-CLS (Bat Survey Level 4). Licensed to handle bats and enter known roosts since 1986. Class Survey Licence CL15 2015-10388-CLS-CLS, (Volunteer Bat Roost Visitor Level 1).

Qualifications BSc Joint Honours Zoology & Plant Biology, Newcastle upon Tyne. MCIEEM Ben Hadden – Class Survey Licence WML CL18 (Bat Survey Level 2). Registration number 201514223-CLS-CLS.

Ben Whittle, Sean Gilmore and Lesley Rymer, Beth Patience.

### **C7 Results**

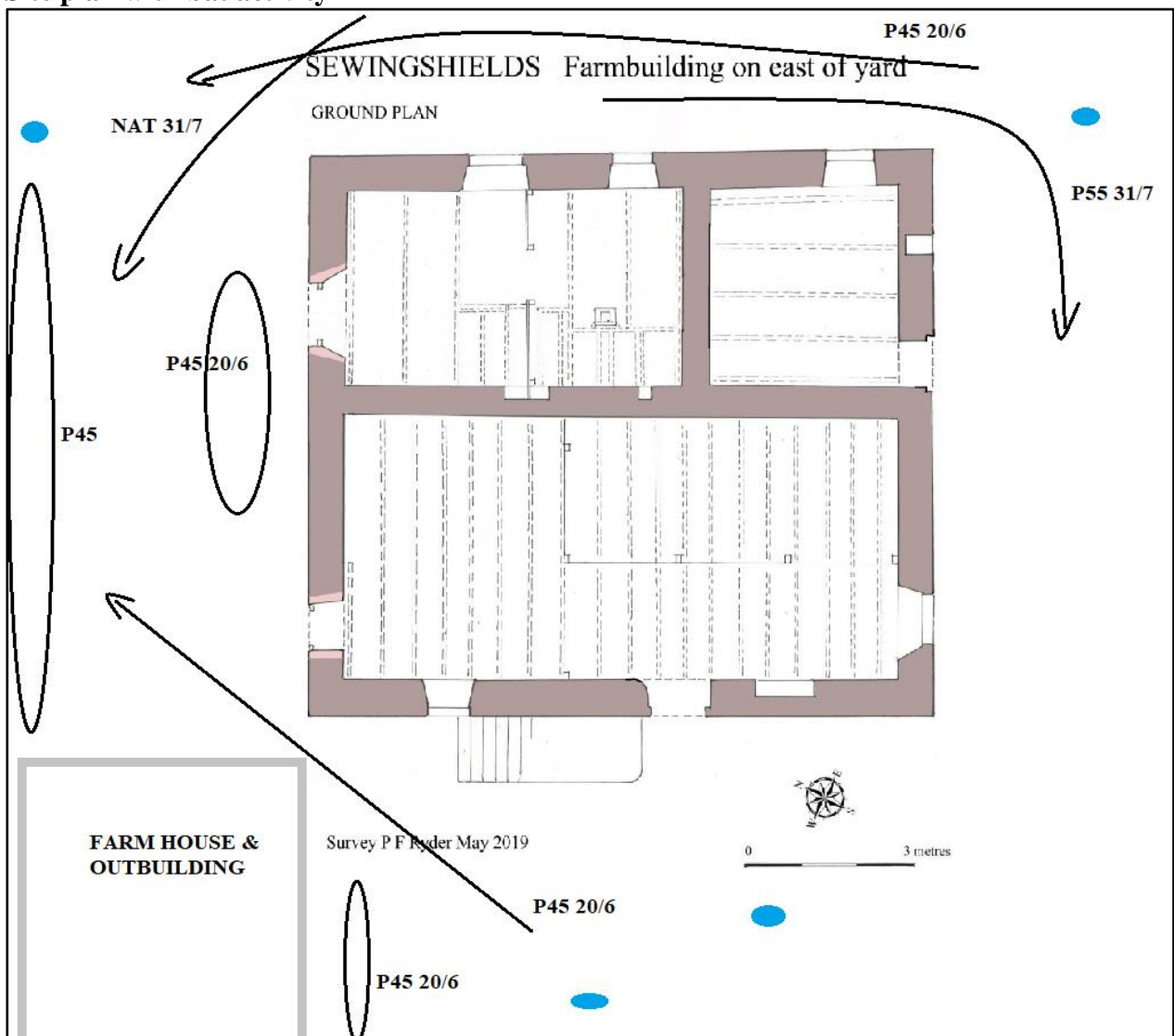
The building inspected is a stone built farm building adjacent to a courtyard. The walls are open topped and the upper floor is rotten, though used for storage. The slate roof is very gappy and no sarking is present. The ground floor is used to kennel the farm dogs reducing the potential for bats.

No bat traces or good bat roost potential were noted externally apart from the plentiful selection of crevices within the masonry. Internally the upper floor is open access through the windows and the occasional bat dropping was present, (bats were reported as flying in and out of the window by the owners).

**Table 2 Emergence survey results.**

Date	Bat Activity
20 June 2019 9.50pm 9.53pm 9.58pm 10.10pm 10.11-10.13pm 10.15-11.05pm 10.42pm 10.48pm 10.50pm 11.15pm	Sunset. Pipistrelle 45kHz bat heard not seen to the west. Pipistrelle 45kHz bat flew from the southwest to the trees to the north. Pipistrelle 45kHz bat emerged from the south aspect of the farmhouse. c. 6 Pipistrelle 45kHz bats flew from the west to forage between the trees and the north side of the buildings. Several Pipistrelle 45kHz bats foraging to the north. Pipistrelle 45kHz bat flew to the north along the east side of the building. Natterers heard but not seen briefly. Pipistrelle 55kHz bat heard not seen. Survey concluded.
31 July 2019 9.15pm 9.21-10.25pm 9.58pm 10.10pm 10.40pm	Sunset. 3 Pipistrelle 45kHz bats foraging to the north around the trees. Pipistrelle 55kHz bat commuted from the north to the south. Natterer's bat flew east to west, north of the site. Survey concluded.

**Site plan with bat activity**





**Roof with gappy slates**

**Deep crevices at the corner eaves, north gable**



**Missing apex, south gable**



**South gable crevices**



**Catslide roof.**



**Interior of upper floor**



No potential bat hibernation sites were identified in the building; however bats may be present in any of the crevices, deep in the walls.

During the emergence surveys Pipistrelle 45kHz bats were identified emerging from the south aspect of the adjacent farmhouse. Pipistrelle 55kHz and Natterer's bats were also identified commuting or foraging on the site.

There was no evidence of barn owl activity within the building. Swallows use the upper floor.

## **C8 Interpretation and evaluation**

Bat presence and populations at certain times of year are only best estimates.

### **C8.1 Presence**

Not applicable.

### **C8.2 Population size**

Not applicable.

### **C8.3 Site status**

Not applicable. The building due to be renovated has minimal conservation significance for bats as a roost site at present. This assessment takes into account the location of the building and the feeding habitat within 300m, the results of the inspection and the lack of bat emergence revealing that no good roost potential is present in the building.

### **C8.4 Constraints**

No constraints. Both emergence surveys were carried out in the maternity period.

## **D Impact assessment in absence of mitigation**

### **D1 Short-term impacts**

Pre-activity impacts are negligible with no changes being made to the use of the building.

Mid-activity impacts would be moderate and can cause disturbance, injury and death to bats, if no mitigation is carried out in the eventuality of a bat being located during works, however mid-activity impacts on bats could be reduced further if mitigation such as caution for any dismantling work carried out.

### **D2 Long-term impacts: roost modifications**

Not applicable.

### **D3 Long-term impacts: roost loss**

If no bat mitigation is provided there will be low impact due to a loss of bat roost habitat.

#### **D4 Long-term impacts: fragmentation and isolation**

There are no proposals that will affect bat flight lines.

#### **D5 Post-activity interference impacts**

Any additional floodlights that would increase light levels and shine on the bat foraging areas would be a high impact.

#### **D6 Predicted scale of impact**

The negative impact on bats will be low on site, negligible in the county and at regional level.

#### **E Land ownership – Mitigation sites**

##### **E1 Mitigation site ownership**

Mitigation will be carried out on this site, which is all in the same ownership.

#### **F References**

- Barn Owl Trust (2002), Barn Owls on Site. English Nature  
Chartered Institute and Ecology and Environmental Management (CIEEM) (2017).  
Guidelines for Ecological Report Writing 2<sup>nd</sup> Ed.  
Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup>  
edn). Bat Conservation Trust, London.  
Corbet and Harris (1991). The Handbook of British Mammals. Blackwell.  
English Nature (2004) Bat Mitigation Guidelines. EN  
Environment Agency's (2007) Pollution Prevention Guidelines: Works and maintenance in or  
near water: PPG5 <https://www.sepa.org.uk/media/100531/ppg-5-works-and-maintenance-in-or-near-water.pdf>  
Institution of Lighting Professionals/Bat Conservation Trust (2018) Bats and artificial lighting  
in the UK, Guidance Note 08/18.  
Joint Nature Conservancy Council (2004) The Bat Workers Manual. JNCC.  
**Bat boxes:** [www.nhbs.com/title/158629/2f-schwegler-bat-box-general-purpose](http://www.nhbs.com/title/158629/2f-schwegler-bat-box-general-purpose)  
**Barn Owl Box :** <http://www.barnowltrust.org.uk/infopage.html?Id=41>  
**Sparrow Terrace:** [www.nhbs.com/1sp-schwegler-sparrow-terrace](http://www.nhbs.com/1sp-schwegler-sparrow-terrace)



## SECTION 2

### DELIVERY INFORMATION/METHOD STATEMENT FOR CONTRACTORS

**This statement should be copied to the site owner, architect, clerk of works and to those contractors whose work may affect bat roosts including those involved in demolition, stone treatment, roofing and building works.**

Bats are fully protected by law. To avoid breaking the law by damaging or disturbing bat roosts, resulting in possible imprisonment, fines or confiscation of equipment, certain procedures have to be followed.

#### **Legislation**

All bats are protected under the Wildlife and Countryside Act (Schedule 5). They are also included in Schedule 2 of the Conservation Regulations 2017. The Act and Regulations make it illegal to:

Intentionally or deliberately kill, injure or capture (take) bats

Deliberately disturb bats (whether in a roost or not)

Damage, destroy or obstruct access to bat roosts

The Countryside and Rights of Way Act 2000 demolished the protection given to bats to cover *reckless* damage or disturbance.

A bat roost is interpreted as 'any structure or place which is used for shelter or protection', whether or not bats are present at the time.

Similarly the Barn Owl is protected under Part 1 of the Countryside Act 1981 and is listed on Schedule 1, which gives them special protection. It is an offence, with certain exceptions to:

- Intentionally or deliberately kill, injure or capture (take) any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'.
- Intentionally take or destroy a wild barn owl egg.
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young.
- Intentionally or recklessly disturb any dependant young or wild barn owls.

The National Planning Policy Framework (NPPF) 2012 requires Local Planning Authorities (LPA's) to seek to deliver biodiversity enhancement through the planning system. In particular Paragraph 109 includes a statement:

- The planning system should contribute to and enhance the natural and local environment by: 'minimising impacts on biodiversity and providing net gains in biodiversity.'

#### **Identifying roosts**

Pipistrelle the most common bat, favours small crevices and spaces between brickwork, stone and roofing felt. Bats are small mammals and when at rest the bodies are only 4-6 cm long, their fur colour can range from brown to pale and dark grey. When disturbed the bat is likely to be torpid and unable to fly effectively for some minutes, because of this they are vulnerable to injury as they are not fast moving and may fall to the ground breaking bones or be accidentally

crushed. Basically, when material from the roof and tops of the walls is removed any crevices underneath should be checked to ensure that no bat has been disturbed.

Other traces that can indicate a past presence of bats are their droppings. These resemble mouse droppings but unlike mouse droppings can be crumbled to dust between finger and thumb.



Droppings may be found on wall tops and beneath slates and tiles on top of any sarking.

**Photo showing disintegrated bat droppings beneath coping stones. If examined carefully, in the black dust exoskeletons of insects can be seen shining.**

## **A Mitigation and compensation**

### **A.1 Summary of mitigation strategy**

To maintain and protect bat populations in the area the following will be carried out:-

- Sensitive timing of roof works in spring to autumn to avoid hibernating bats.
- Dismantling of any wall tops and destructive roof works to be carried out in September or October if possible to avoid nesting birds and the bat hibernation period.
- Provide Method Statement to contractors.
- Advice given for the safe removal of any bats found from harm during the development.
- Bat crevices will be provided in the renovated building.
- External lighting will be on a relatively short timer, directed away from bat roost access points and flight paths and motion-sensitive only to large objects.
- Crevices used by nesting and roosting birds to be retained. Any nesting birds will be allowed access to the nest until the young have fledged.
- Access to the upper floors to be retained for swallows in the renovated building.

### **Architect**

The bat provision specified below will be incorporated into the proposed plans to aid delivery. This will show the location of the bat crevices to be created as in this report.

### **Timing**

Any development work involving the removal of the existing roof materials will be carried out avoiding the hibernation period (November to March inclusive) and periods of cold weather (below 5°C including night temperatures) if possible as any bats present will be in hibernation torpor and be extremely vulnerable. If torpid bats are encountered and disturbance is unavoidable the bat will be taken into care and fed until suitable conditions for release at the site is possible.

### **Contractors**

All contractors will be aware that bats may be present in the area and could be present when removing the roof etc and may be found torpid in crevices if any. Table 1 below highlights where bats may be found and the recommendations. Any bats found during operations will have the cavity re-covered for its safety and any work in the vicinity will cease. Ruth Hadden to be

informed for advice immediately (01661 886562). As only licensed bat handlers can move bats and the contractors are not permitted to handle bats, the bat will be allowed to disperse of its own accord overnight.

If a barn owl is found unexpectedly during operations the cavity will be re-covered or protected and work will cease in that area. Ruth Hadden to be informed (01661 886562) immediately for assistance.

**Table 1 General Methodology for Repair Works**

<b>STRUCTURE</b>	<b>METHOD</b>	<b>INSPECT</b>
Roofs	Remove any ridge tiles or slates/tiles by hand, lifting vertically to prevent any bats from being crushed.  Removal of any timbers/beams.  Avoid blocking any external pre-existing gaps by leaving 15 x 20+mm access point.	Check any crevices underneath the roofing materials including the underside, as it is removed.  Check any crevices around the beams as work proceeds.
Walls/Eaves	Expose the wall tops. Remove any gutters. Dismantle walls, by hand.	Examine for bat droppings and any wall cavities for bats.
Walls - Pointing	<b>Only point crevices where the full depth can be seen.</b> Leave two crevices per wall beneath the eaves that are 10cm deep and long and 2 to 1cm wide	Check deep crevices for the presence of bats using a torch.

## **B Works to be undertaken by the ecologist or suitably experienced person.**

### **B1 Capture and exclusion**

Only an ecologist licensed to handle bats will handle any bats found on site.

If any bat is found unexpectedly during operations the cavity will be recovered or protected and work will cease in that area. Ruth Hadden to be informed (01661 886562) immediately for assistance.

## **C works to be undertaken by the Developer/Landowner**

### **C.1 Bat roosts**

#### **C1.1 In-situ retention of roost(s)**

Not applicable, however crevices as above to be retained in the walls ( Leave two crevices per wall beneath the eaves that are 10cm deep and long and 2 to 1cm wide)

#### **C1.2 Modification of existing roost(s) - Not applicable.**

#### **C1.3 New roost creation**

An external crevice will be created on the south gable wall top (facing west) of the building to provide roosting sites for crevice-loving bats. This will be in the form of an access gap measuring 20mm by at least 20mm created between the wall top and the water tables into a larger crevice on the wall top below the water table, resembling a ‘flattened bottle’ measuring c.100 x c.200 x 20mm. This provides a small space that acts as a suitable bat roost for the occasional bat. Please see plan at C.1.4 for location.

Bats will roost in wall cavities, on the wall tops; hang from the ridge board or between the roofing felt and slates, depending on the species. Brown long-eared and Natterer’s bats like to use the roof space, hanging from the ridge beam and only require an access hole. Pipistrelle species and Whiskered/Brandt’s bats prefer to roost in small cavities often staying on top of the wall and do not enter the open roof spaces.

Wooden beams and stones will be treated only with ‘bat friendly’ products, permethrin or cypermethrin as insecticides for example. Further information is available if the contractor requires it.

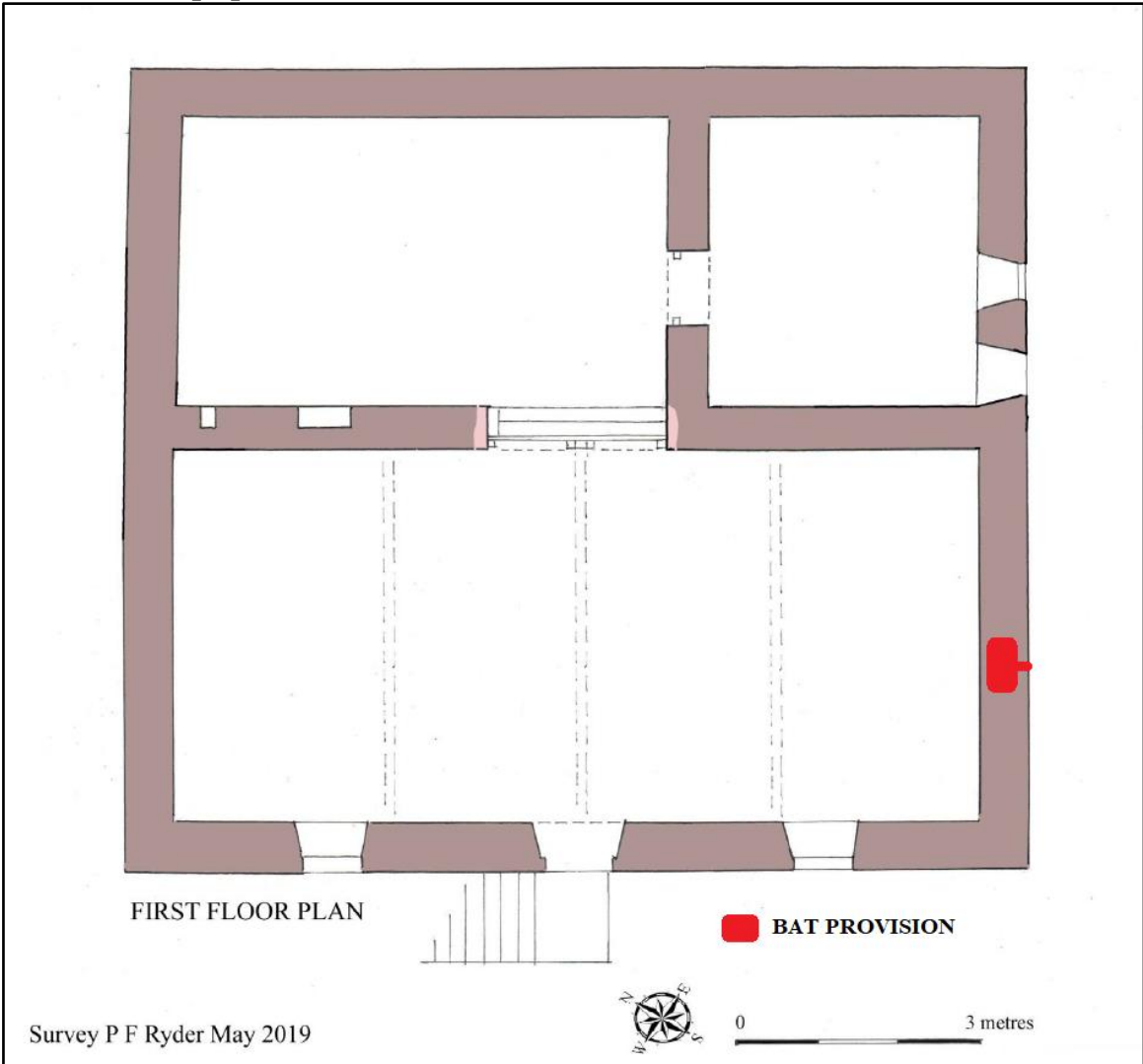
A traditional bitumen felt or wood sarking that would give bats some grip will be used in the region of any bat roost potential and not a more modern smooth or breathable roofing membrane (BRM) that may fray and entrap bats. **No BRM (Breathable Roofing Membrane) to be used in any areas where bats could gain access to roof as a result of new roost provisions.**

Any external lights will be set on a motion detector and short timer and be positioned in such a way that they do not shine on any of the bat access positions or the buildings, as this can deter bats. Please see references Bat Conservation Trust/Institute of Lighting Engineers’ Guidance 2018.

**Bird Provision**

Access will be maintained to the interior of the upper floor for swallows.

**C.1.4 Scaled maps/plans -**



## **D Post-development site safeguard**

### **D.1 Habitat/site management and maintenance**

Any water tanks present in the buildings will be covered to prevent debris and bats from falling in.

### **D.2 Population Monitoring**

Due to the low bat activity on the development site no monitoring will be carried out to assess the success of mitigation. (Bat Mitigation Guidelines 2004, Section 7.2) Ruth Hadden available to liaise with the owners as required regarding the mitigation.

### **D.3 Mechanism for ensuring delivery**

Bat mitigation as shown on the plans will be subject to the conditions of the Historic Farm Buildings Pilot Grant Scheme.

## **E Timetable of works**

Not known at present.

Gable wall crevice

