

**THE CROFT, ELSDON, PROPOSED DEVELOPMENT
BAT AND PROTECTED SPECIES RISK ASSESSMENT– JULY 2019**

SECTION 1 BACKGROUND AND SUPPORTING INFORMATION

A. Executive Summary

- The Croft is situated in Elsdon, in Northumberland. The building inspected is a single storey, detached stone built house with a fibre cement tiled roof.
- The proposals are to extend the east end of the house.
- The immediate area has good potential for feeding bats within the gardens of Elsdon and boundaries along the Folly Sike to the east and the Whiskershiel Burn to the south.
- The inspection carried out revealed no traces of bats within the loft space or externally around the building. No bat droppings were located and no good potential for roosting bats was noted.
- There is minimal bat roost potential and low risk that a bat maternity roost is present in the building affected by the proposals. No further surveys are recommended.
- The occasional bat though may be present in any suitable crevice if present on the wall tops at any time of the year in small numbers. Timing of the demolition 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 still advised.**
- There were no traces of barn owls in or around the building or traces of any nesting bird. Any nesting birds located during works will be allowed access to the nest until the young have fledged.

B. Introduction.

B1 Background.

The Croft is situated in Elsdon, in Northumberland. The building inspected is a stone built house with a fibre cement tiled roof.

B2 Proposed Works.

The proposals are to extend the east end of the house, increasing the size of the kitchen and providing a cinema room above.

C. Survey and site assessment

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

There are no known pre-existing records of bats at the site.

C2 Status of species in the local/regional area.

Known bat activity in the area within 2km of the site consists of roosts of occasional Brown Long-eared bats and Natterer's 2km to the southwest (2007). A roost of occasional Pipistrelle

45kHz bats is known in the village church (2015) 200m to the northeast. Foraging Natterer's, Pipistrelle 45kHz and Whiskered/Brandt's bats are also known 2km to southwest and south (2007 - 2015). (ERIC North East). A full data set can be made available upon request. Occasional Brandt's and Pipistrelle 45kHz bat roosts are also known 1km to the east (2016),(Magic Web Site).

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 Northumberland with an average colony size being about 35 adult bats. The Nathusius' Pipistrelle is a rare bat, has migratory habits and has been proved to fly across the North Sea from Bristol to Holland and has occasionally been recorded in Northumberland throughout the season.

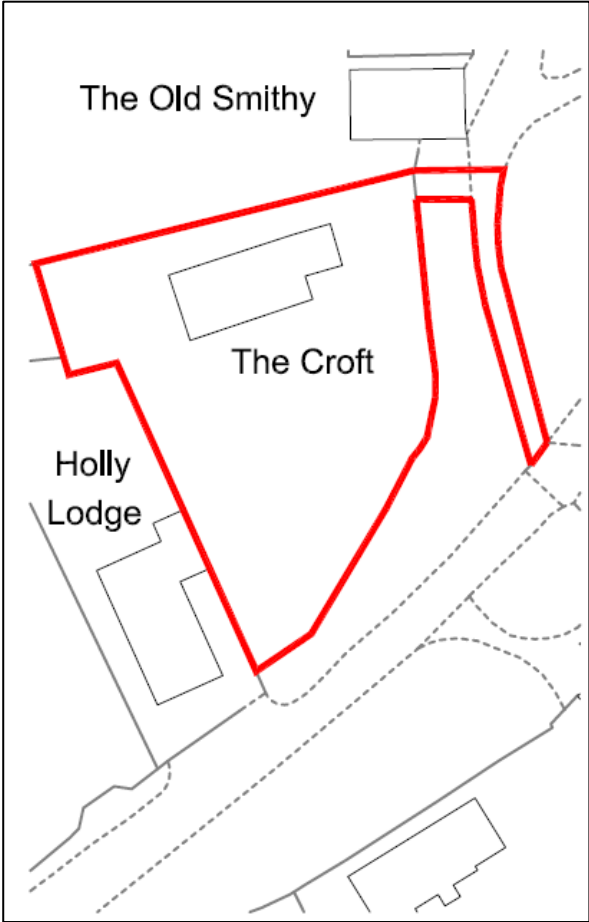
There is one statutory designated site within 2km of the site; this is Mill and Whiskershiel Burns SSSI, 1.7km to the east, designated as being an area of wet flushes and fen grassland habitats with some drier areas. The development site falls within the impact zone for the SSSI however as it is a relatively small residential scheme it is unlikely to greatly impact the designated area.

C3 Objectives of survey

The survey was to determine as far as possible, the presence of birds and bats including their roost sites in the building at The Croft, Elsdon 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 NY935930 and is outlined opposite.



Photographs of the Site



East gable of the house.

The house viewed form the northwest.



House viewed from the southeast.

House viewed from the northeast.



From the south

C5 Habitat description

The Croft is situated in Elsdon, Northumberland. Surrounding the house are gardens and residential properties, 180m to the east is the Folly Sike running north to south (wooded in places) and 200m to the south the Whiskershiel Burn runs east to west. Further afield agricultural land consisting of mainly permanent pasture with the occasional arable field with boundaries of stone walls and fences is present.

The area has reasonable sheltered feeding and protection immediately present, in the surrounding gardens of Elsdon together with some good foraging further afield to the north,

along Folly Sike. Bat roost potential will be present in the residences of Elsdon and any suitable tree.

C6 Field Survey

C6.1 Methods

A close inspection of all the building was made in good light, and by torch where required. The loft and exterior of the building was 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.

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

C6.2/3 Timing and Weather Conditions

Survey	Date	Timings	Weather
Inspection	25 July 2019	10.30am – 11.15am	Fine and dry

C6.4 Personnel

Ben Hadden – Class Survey Licence WML CL18 (Bat Survey Level 2). Registration number 2015-14223-CLS-CLS.

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.

Qualifications BSc Joint Honours Zoology & Plant Biology, Newcastle upon Tyne. MCIEEM

C7 Results

The Croft is located in a large plot that consists of amenity grass surrounded by stone walls and several trees. The building inspected is a single storey, stone built detached house with a kitchen extension on the east aspect. The house has a pitched fibre cement tiled roof with a trussed roof and bitumen felt sarking. Externally no crevices were identified at the overhanging eaves which were well sealed except at the corners where there was an occasional well cobwebbed gap. The ridge and gable wall verges are sound.

The loft has clean fibreglass insulation. There was no odour of bats and no bat traces present within the loft. No traces of bats were found externally and no good bat roost potential was noted.

No potential bat hibernation sites were identified in the building, however bats may be present in any unseen crevice.

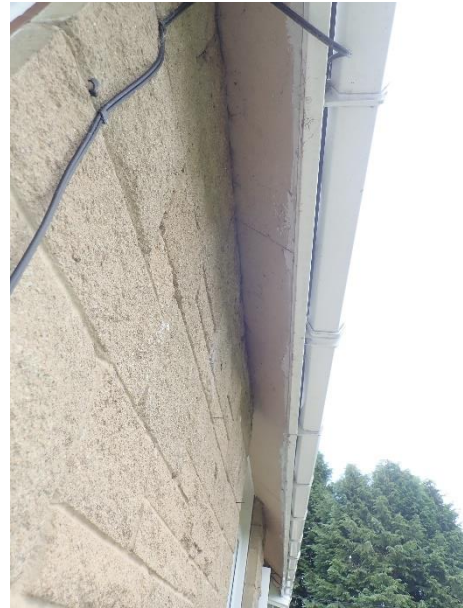
There was no evidence of barn owl or any other species of bird activity on site and no suitable roosting sites.



Loft space.



Trussed roof with cluttered void and no ridge



Well sealed eaves

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

The building due to be extended in the development has minimal conservation significance for bats as a roost site. This assessment takes into account the location of the building and the reasonable feeding habitat within 500m, the results of the inspection and the lack of potential of the building as a maternity bat roost site.

C8.4 Constraints

No constraints.

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 buildings.

Mid-activity impacts would be negligible 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

Not applicable.

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 bat foraging areas would be a high impact.

D6 Predicted scale of impact

The impact on bats will be minimal on site, negligible in the county and at regional level. The proposed mitigation will give a net gain in regards to biodiversity.

E Land ownership – Mitigation sites

E1 Mitigation site ownership

Mitigation will be carried out on this site, which is all in the 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 2nd Ed.
Collins J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd
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/2f-schwegler-bat-box-general-purpose

Build-in WoodStone Bat Box <https://www.nhbs.com/build-in-woodstone-bat-box>

Barn Owl Box : <http://www.barnowltrust.org.uk/infopage.html?Id=41>

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 extended 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, see paragraphs 9, 109 and 118. 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.

A1 Mitigation strategy

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

- Sensitive timing of any demolition/roof works in spring to autumn to avoid hibernating bats.
- Provide Method Statement to contractors; a copy of which must be supplied to and held by the site foreman.
- Advice given for the safe removal of any bats found from harm during the development under different weather conditions.
- Built in crevice bat box to be provided.
- Any nesting birds will be allowed access to the nest until the young have fledged.

Timing

Any development work involving the removal of the existing roof materials will be carried out avoiding the hibernation period (November to March inclusive) if possible. Periods of cold weather (below 5°C including night temperatures) will be avoided 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 Development works

STRUCTURE	METHOD	INSPECT
Roofs	Remove any ridge tiles, tiles/slates or roof coverings including loose felt by hand, lifting vertically to prevent any bats from being crushed. Removal of any timbers/beams.	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 any walls required, by hand.	Examine for bat droppings and any wall cavities for bats.
Walls - Pointing	Only point crevices where the full depth can be seen.	Check deep crevices for the presence of bats using a torch.
Windows/doors	Remove windows, doors and frames by hand, where gaps exist around the frames.	Examine any wall cavities exposed. Avoid blocking any external pre-existing gaps.

B Works to be undertaken by the ecologist or suitably experienced person.**B1 Capture and exclusion**

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.

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

C1.3 New roost creation

One integrated Build-in WoodStone Bat Box to be built into a south-facing gable wall 500mm below the gable verge. **Please see below for plan at C1.4 for mitigation locations, References for details and Appendix 1 for diagram.**

A traditional bitumen felt or wood sarking that would give bats some grip will be used in the region of the 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 any roost provisions.

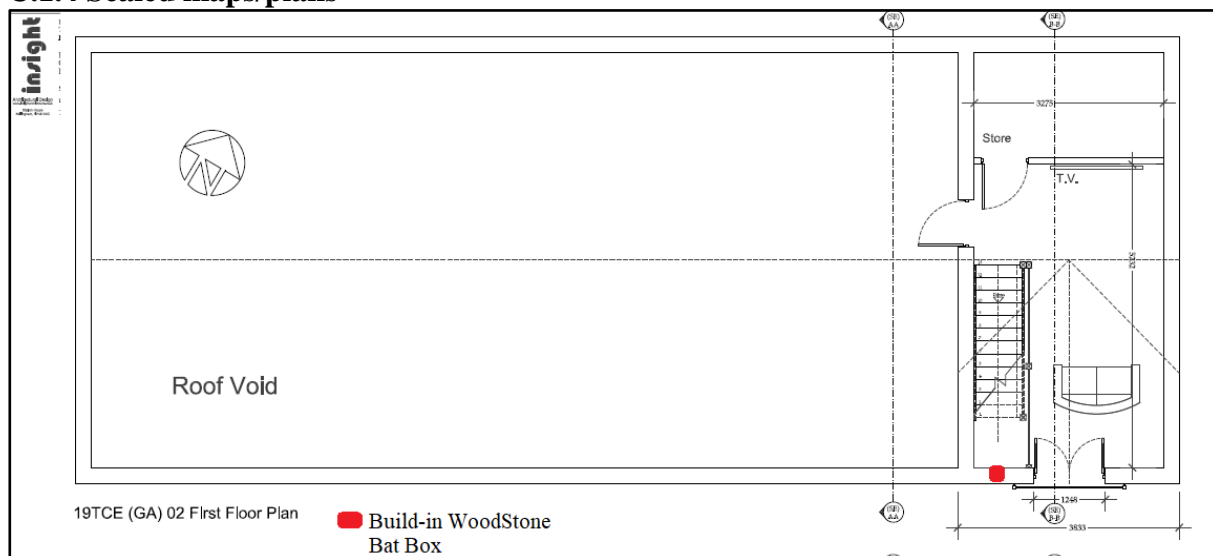
Bats will roost in wall cavities, on the wall tops; hang from the ridge board or between the roofing felt and slates, depending on the species. Brown long-eared and Natterer's bats like to use the roof space, hanging from the ridge beam and only require an access hole. Pipistrelle species and Whiskered/Brandt's 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.

Any external lights will be set on a motion detector and short timer and be positioned in such a way that they point downwards and 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.

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 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 Planning Consent when granted.

E Timetable of works

Not known at present.

Build-in WoodStone Bat Box

