

**15/16 THE SQUARE, BLANCHLAND, PROPOSED DEVELOPMENT  
BAT AND BARN OWL REPORT– SEPTEMBER 2019**

**SECTION 1 BACKGROUND AND SUPPORTING INFORMATION**

**A. Executive Summary**

- 15/16 The Square is situated in Blanchland, Northumberland. The buildings surveyed are two storey terrace cottages.
- The proposals are to re-organise and renovate the interiors to provide hotel accommodation.
- The immediate area has good potential for feeding bats, as a wooded bank of the River Derwent runs 90m to the south and additional woodlands surround the village of Blanchland to the north and west.
- Inspection results revealed crevices at the eaves. No traces of bats were found internally within the lofts or externally.
- There is low risk of bat roost potential in this building that will be affected by the proposals and one emergence survey was carried out to determine bat usage.
- Survey results identified a Whiskered/Brandt's bat that emerged from the east eaves of the cottage, Pipistrelle 45kHz bats were identified commuting or foraging near the site.
- The proposals will allow the bat crevice to be retained as at present in the building as the roof is not affected. Mitigation will be put in place, to retain the crevices 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.**

**B. Introduction.**

**B1 Background.**

15/16 The Square is situated in Blanchland, Northumberland. The buildings surveyed are two storey terrace cottages.

**B2 Proposed Works.**

The proposals are to re-organise and renovate the interiors to provide five bedrooms, some with en suites. The roofs will not be re-laid and no extensive repointing is planned.

**C Survey and site assessment**

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

No pre-existing records for this site are known.

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

Within 100m to the south a maternity roost of Pipistrelle 45kHz bats is known (2007) and 1000m to the northeast (2014). Roosts of occasional Brown long-eared, Natterer's (2015) and Whiskered/Brandt's bats are known within 100m to the west (2017). Within 2km there are pre-existing records of foraging Pipistrelle 45kHz, Brown long-eared and whiskered/Brandt's 1km to the north (2009) and Pipistrelle 45kHz and whiskered/Brandt's 1km to the southeast (2013/2016). Noctule (2013) and Daubenton's bats (2007) have also been recorded foraging (ERIC North East - A full data set can be made 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 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.

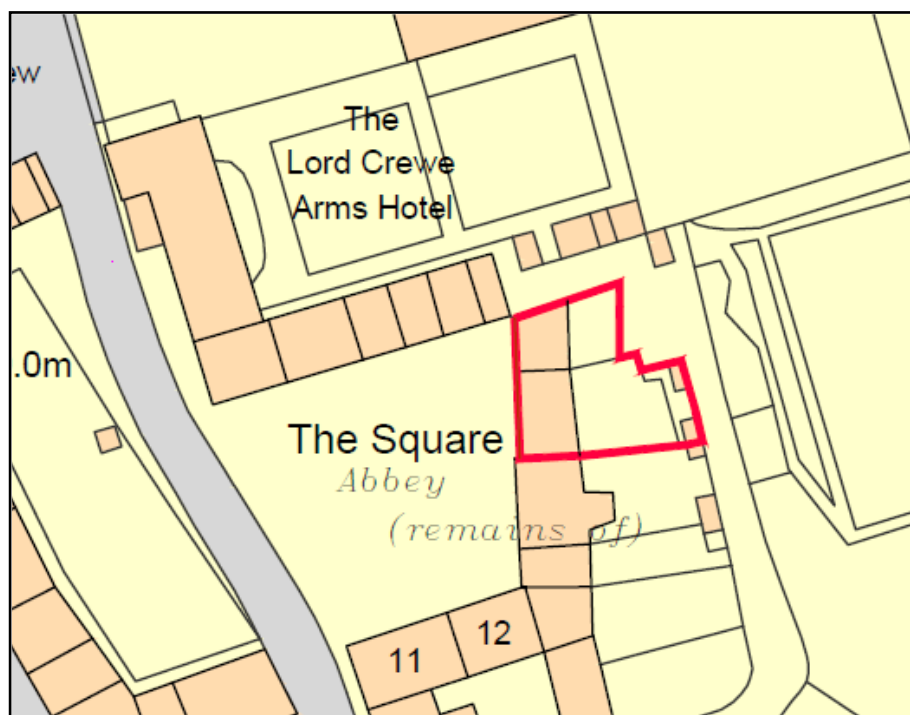
There are three statutory designated sites within 2km of the site. Muggleswick, Stanhope and Edmundbyers Commons and Blanchland Moor SSSI, North Pennine Moors Special Area of Conservation and Special Protection Area. Deciduous woodland (a priority habitat) is present 150m to the northwest and to the south. The development site falls within impact zones for SSSI's etc that are in the area, however as it is a relatively small residential scheme it is unlikely to greatly impact these designated areas.

## 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 buildings at 15/16 The Square Farm, Blanchland 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 cottage surveyed is located at NY966503 and is indicated in red opposite.



## Photographs of the Site



Site viewed from the northeast.

The site viewed from the west.



## C5 Habitat description

15/16 The Square is situated in the centre of the village of Blanchland, east of the village square. The immediate area has excellent potential for feeding bats as the wooded banks of the River Derwent runs 100m to the south of the site. Woodland also surrounds the village of Blanchland to the north and west. Surrounding agricultural land consists of improved and semi-improved grassland with walls, fences and tree boundaries.

The area has good potential for foraging bats as the rivers and woodland create a network of sheltered feeding areas and commuting corridors for bats. Potential roosts are limited to the residential buildings in Blanchland and scattered buildings in the surrounding area. Tree roosts may be present in the more mature trees present in the area.

## C6 Field Survey

### C6.1 Visual Inspection

A close inspection of all the buildings were made in good light, and by torch where required. The lofts and exterior of the building 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 2 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

Survey	Date	Timings	Weather
Inspection	12 September 2019	Internally and externally (40 mins)	Fine and dry 15°C
Emergence	12 September 2019	7.20 pm –9.00pm (Sunset 7.34pm)	Fine, overcast and slight breeze. 15-13°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 2015-14223-CLS-CLS.

Ben Whittle.

### C7 Results

The buildings are two storey cottages constructed of stone with a pitched stone slate roofs. The stone work is well sealed however crevices were present at the eaves. The loft space has clean fibreglass insulation and a metallic backed bitumen sarking. Rat droppings (small quantity) were noted on the insulation. In the north loft cobwebs were present across the void.

Survey results identified a single Whiskered/Brandt’s bat that emerged from the east eaves of the cottage, Pipistrelle 45kHz bats were identified commuting or foraging near the site.

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



**Rat droppings in the loft.**

**Interior of the loft.**







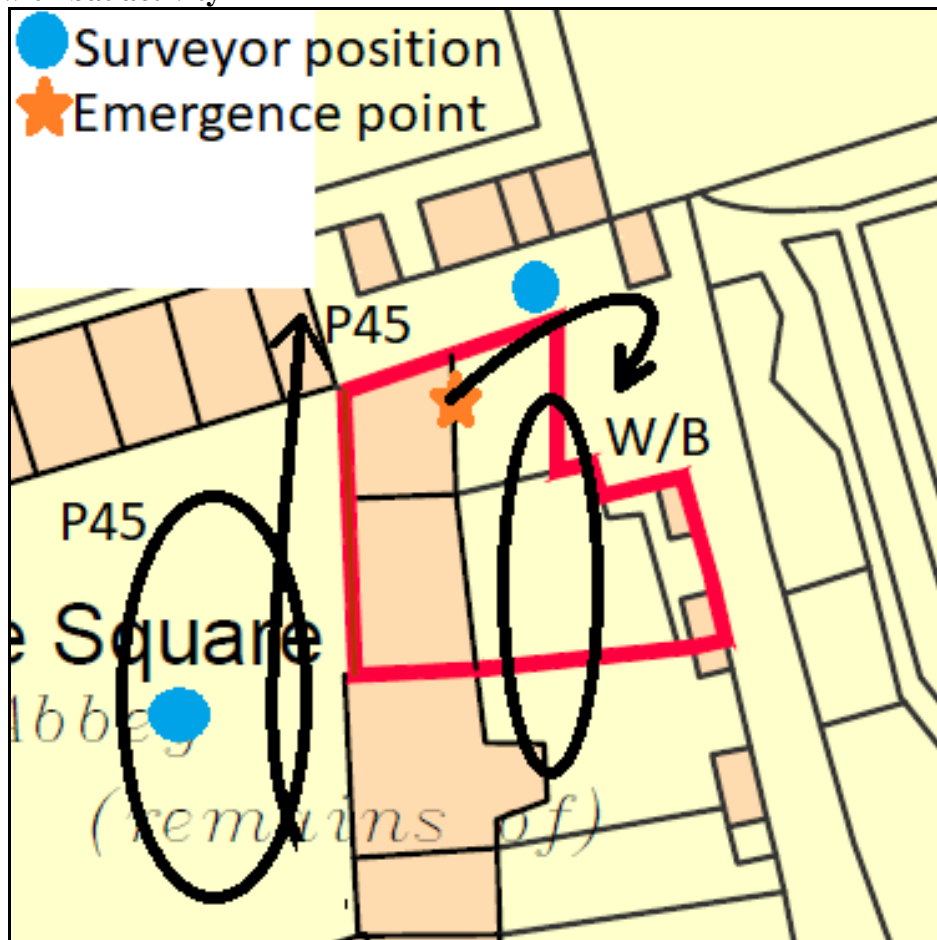
Well-sealed sound roof, ridge and flashing.

**Table 1 Emergence survey results.**

Date	Bat Activity
12 September 2019	
7.34pm	Sunset.
7.53pm	Pipistrelle 45kHz bat commuted from south to north, west of the site.
7.56-8.04pm	Whiskered/Brandts bat emerged from the east eaves and foraged east of the house.
8.09-8.15pm	Pipistrelle 45kHz bat foraging to the west of the site.
9.00pm	Survey concluded.

No evidence of birds was noted.

**Site plan with bat activity**



## **C8 Interpretation and evaluation**

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

### **C8.1 Presence**

The occasional bat is present.

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

< 2 Whiskered/Brandt's bats

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

The building due to be renovated has low/moderate conservation significance for bats as a roost site. One day roost was identified for a crevice loving bat and additional roost may be present in crevices of the stone slate roof. This assessment takes into account the location of the building and the good feeding habitat within 300m, the results of the inspection and the crevices giving some good roost potential in the buildings.

### **C8.4 Constraints**

Surveys commissioned late, main maternity period not covered, however no evidence or potential of a maternity roost was noted.

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

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

Pre-activity impacts are negligible with no major 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. The roost identified will be maintained as at present and is not affected by the proposals.

### **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 impact on bats will be negligible on site, in the county and at regional level. The proposed mitigation will maintain impacts to negligible on site and 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>

## 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 conversion, 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 loft works in spring to autumn to avoid hibernating bats.
- Provide Method Statement to contractors.
- Advice given for the safe removal of any bats found from harm during the development under different weather conditions.
- Provision of bat crevices for crevice loving bats will be maintained as at present.
- 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.
- Any nesting birds will be allowed access to the nest until the young have fledged.

## **Architect**

The bat provision specified below will be incorporated into the plans. This will show the location of the bat crevices to be maintained 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 Development works**

<b>STRUCTURE</b>	<b>METHOD</b>	<b>INSPECT</b>
Roofs (not planned)	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	<b>Only point crevices where the full depth can be seen otherwise leave.</b>	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**

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)**

The bat crevices at the east eaves beneath the stone slates/on the wall top will be retained as at present. Please see plan at C1.4 for location.

#### **C1.2 Modification of existing roost(s)**

Not applicable.

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

Not applicable.

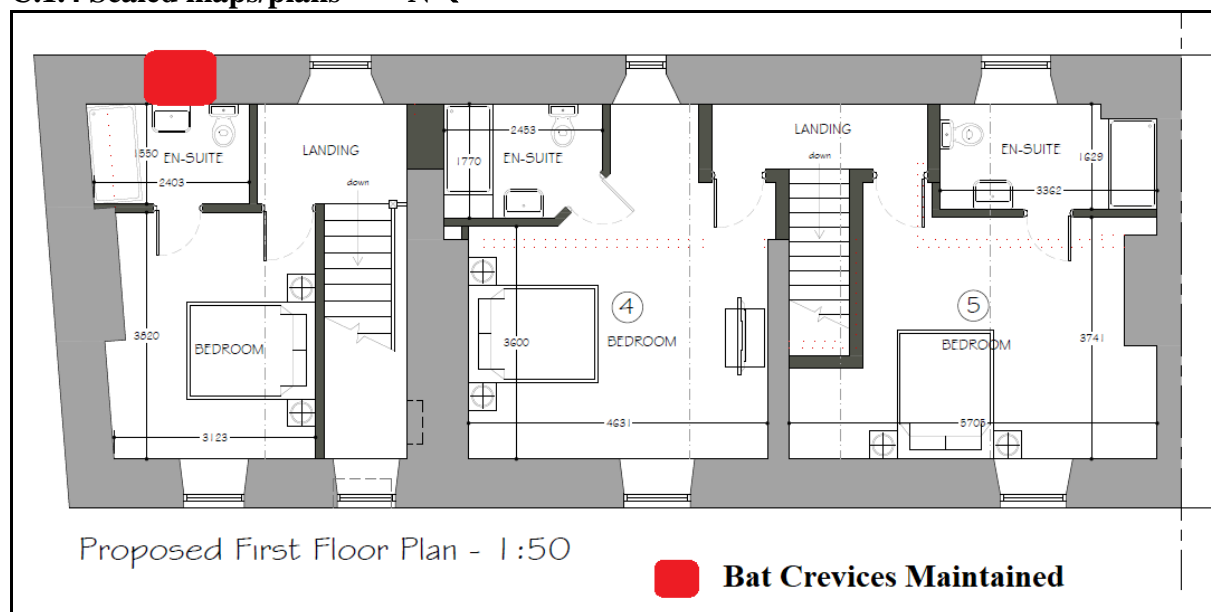
Bats will roost in wall cavities, on the wall tops; hang from the ridge board or between the roofing felt and slates, depending on the species. Brown long-eared and Natterer's bats like to use the roof space, hanging from the ridge beam and only require an access hole. Pipistrelle species and Whiskered/Brandt's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

#### C.1.4 Scaled maps/plans - N ←



#### 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

Not applicable.

#### E Timetable of works

Not known at present.