

Ecological Impact Assessment and Bat Survey

EDEN HOUSE, RIDLEY MILL

September 2021

Ruth Hadden, BSc. MCIEEM
Ryal Soil and Ecology
Ryal
Northumberland

Tel: 01661 886562

Document Title: Eden House, Ridley Mill, Ecological Impact Assessment and Bat Risk Assessment		
Principal Author	Ruth Hadden	
Client/Agent	Jenny Conroy	
Date and version	September 2021	
Author Contact Details	01661 886562	
	Author	Date
Originated	R Hadden	20 September 2021
Reviewed		
Approved for issue	R Hadden	30 September 2021

Disclaimer:

Ecology surveys are carried out in good faith, to the relevant professional guidelines. Where variation from these guidelines is necessary, this is outlined in the report. Any comments regarding condition of buildings or trees are in relation to the use of the building/tree by bats and birds and should not be considered as a building survey or arboricultural opinion on the condition of those features.

The client should be aware that the mitigation recommendations in ecology reports are often translated directly into planning conditions, and as such these should be studied closely and agreed with any contractors in advance of site works commencing.

Mitigation recommendations should be clearly marked on the Architect's Plans submitted with any planning or other consent.

Contents

Summary	4
1. Introduction.	5
2. Relevant Policies and Legislation	6
2.1 Designated Sites	6
3. Methodology.	6
3.1 Scope of the Assessment.....	6
3.2 Desktop Survey.....	7
3.3 Site Survey	7
3.4 Assessment.	8
4. Baseline Ecological Conditions	8
4.1 General	8
4.2 Designated Sites	9
4.3 Habitats	9
4.4 Species and Species Groups.....	9
4.4.1 Desktop Search	9
4.4.2 Site survey	10
4.4.3 Bats	10
4.4.4 Bird Assessment.....	12
4.4.5 Invasive Species	12
5. Photographs of the Site	13
6. Description of Proposed Development.	15
7. Assessment of Impacts	15
7.2 Site Based Impacts.	16
7.3 Impacts on the SSSI.	16
8. Mitigation and Enhancement.	16
8.1 Pollution Prevention.....	16
8.3 Mitigation Summary	17
8.4 Enhancement	18
8.5 Monitoring	18
8.6 Conclusions	18
9. References	19
APPENDIX 1. LEGISLATION RELATING TO PROTECTED SPECIES	20
APPENDIX 2. SURVEY DATA	21
APPENDIX 3. BAT METHOD STATEMENT FOR CONTRACTORS	22
Identifying roosts	22

Ecological Impact Assessment for Eden House, Ridley Mill

Summary

- An ecological survey was requested primarily for bats and birds for a site at Eden House, Ridley Mill by the architect on behalf of the owners, Mr and Mrs Birch
- The buildings surveyed are a two-storey house and small garage with brick walls and slate roofs and small outbuildings constructed of brick with concrete or corrugated metal roofs.
- The proposals are to demolish the garage and to build a single storey extension to the house. A garage will be built to the southeast. The development will entail several trees being felled.
- The immediate area has some good potential for feeding bats, as there is some shelter around the site in nearby woodland (ancient and semi-natural) and surrounding trees linking with the River Tyne 950m to the northwest.
- Inspection results revealed that the house has sound walls and pointing, the garage was internally well sealed with the occasional crevice, the outbuildings had no bat roost potential. No bat droppings or feeding evidence were located internally or externally. The trees had no obvious bat roost potential however due to their age they were also covered in the surveys. There is low-moderate suitability of bat roost potential in the garage and trees and due to the crevices and location two surveys were carried out.
- Data search results reveal that there are numerous known maternity roosts of Pipistrelle 55kHz, Pipistrelle 45kHz, Pipistrellus sp. and Brown long-eared with Natterer's and Daubenton's roosts also known within 2km. Foraging Whiskered/Brandt's, Noctules and possible Leisler's bats are also recorded within 2km. Occasional roosting Pipistrelle 45kHz bats are known 60m to the southwest and a maternity of Pipistrelle sp. 141m to the southwest.
- The emergence survey identified no bat emergence from the buildings or trees, however the occasional Pipistrelle 45kHz, Pipistrelle 55kHz, Daubenton's, Whiskered/Brandt's, Natterer's and Noctule bats were noted foraging or commuting. The dawn survey only identified the occasional foraging Pipistrelle 45kHz, Pipistrelle 55kHz and Noctule.
- No bats will be disturbed due to the works proposed though the occasional bat may be present in any suitable crevice on the wall tops at any time of the year in small numbers. Timing of the destructive works to avoid the hibernation period will ensure that the works has as little negative affect on bat conservation status as possible.
- Bat roost mitigation will be put in place in the new build section with the provision of an in-build bat box.
- There were no traces of any nesting birds around the building. Any nesting bird species will be allowed access to the nest until the young have fledged.

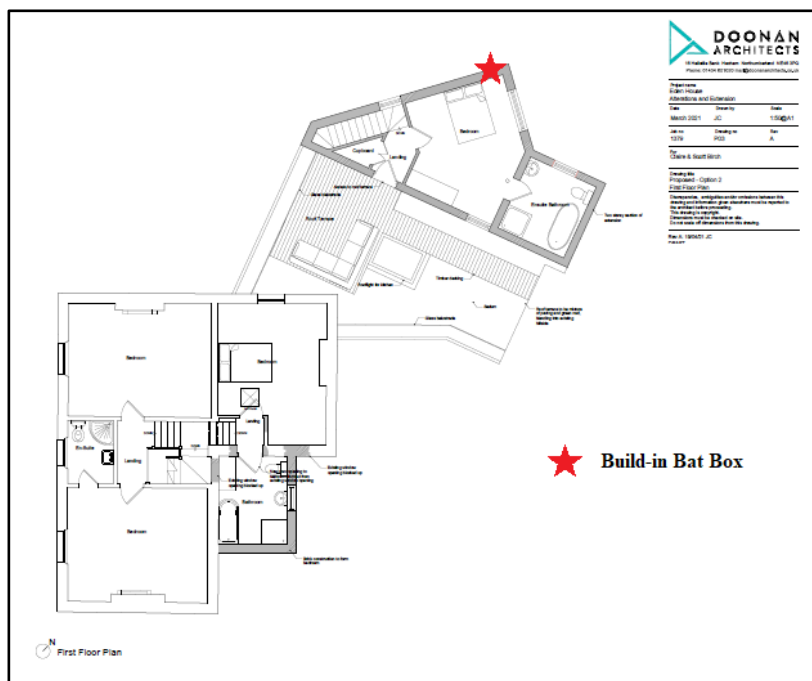


Figure 1. Ecological Mitigation Plan

1. Introduction.

The inspection was carried out and reported by Ruth Hadden BSc an experienced Licensed Bat Surveyor.

Figure 2. Survey area.

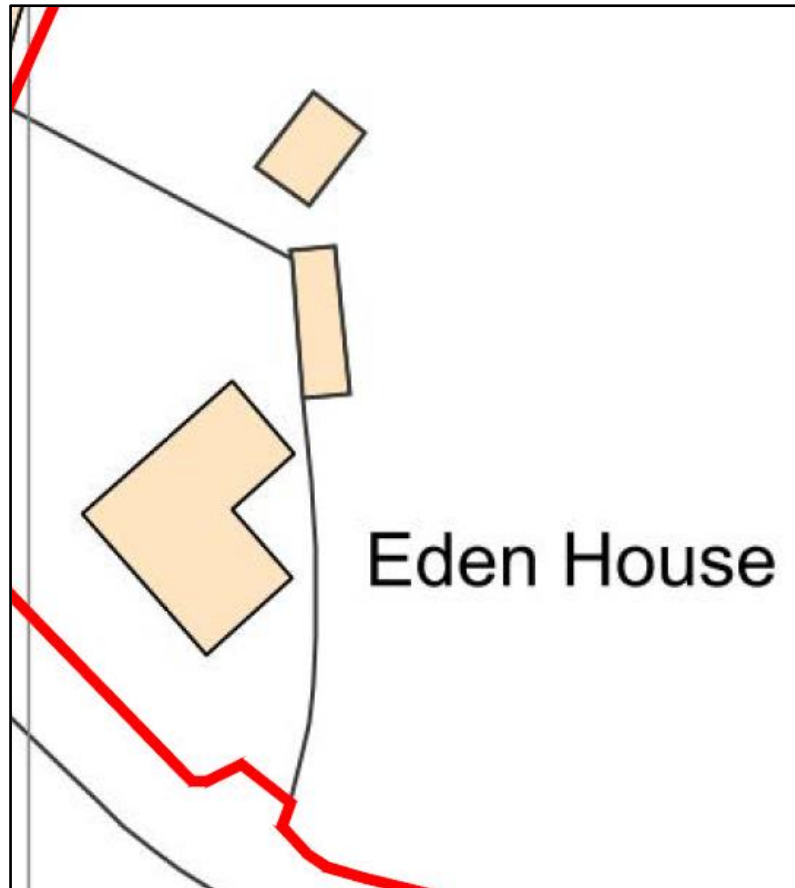
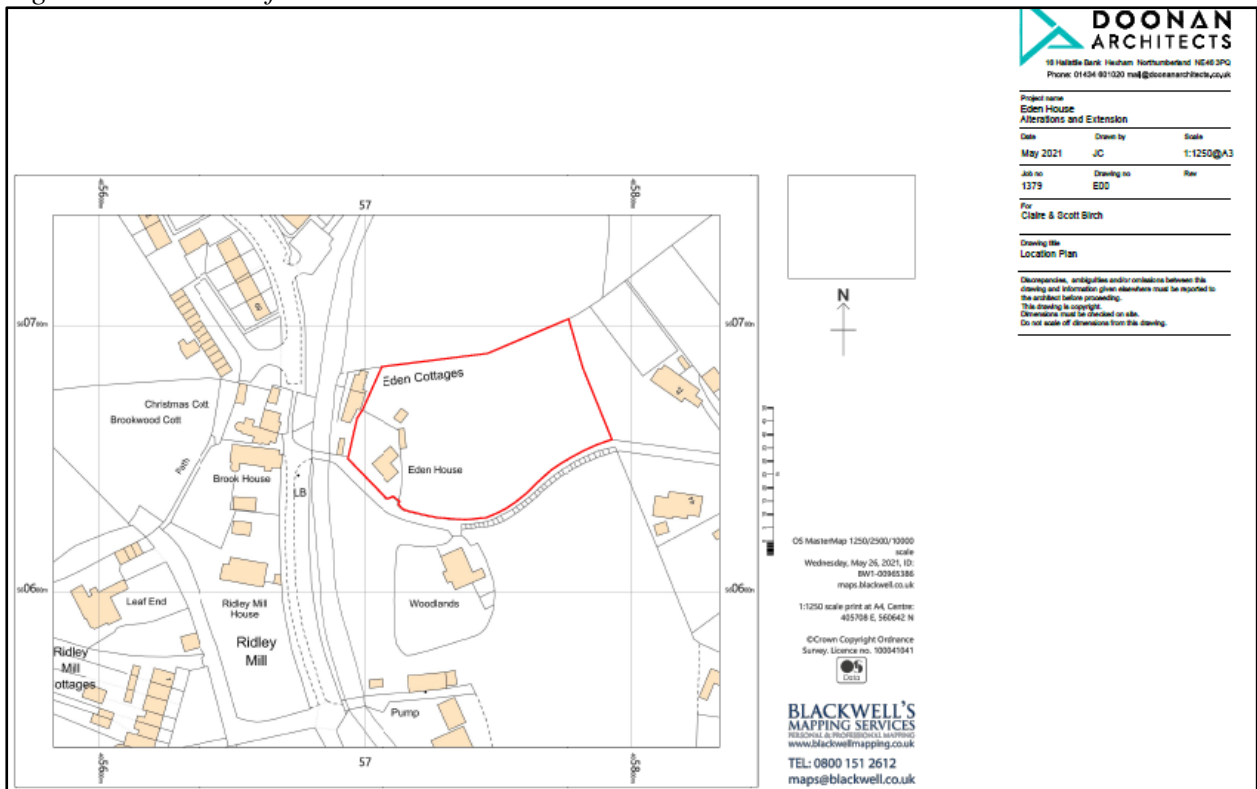


Figure 3. Location of site.



2. Relevant Policies and Legislation.

Under Section 25 (1) of the Wildlife & Countryside Act (1981) local authorities have a duty to take such steps as they consider expedient to bring to the attention of the public the provisions of Part I of the Wildlife & Countryside Act, which includes measures to conserve protected species.

The Natural Environment and Rural Communities Act (2006) places a Statutory Biodiversity Duty on public authorities to take such measures as they consider expedient for the purposes of conserving biodiversity, including restoring or enhancing a population or habitat.

The National Planning Policy Framework (NPPF) states “*When determining planning applications, local planning authorities should apply the following principles:*

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;” (paragraph 175).

ODPM Circular 06/2005/Defra Circular 01/2005 states that the presence of a protected species is a material consideration when considering a development proposal that could harm the species or its habitat.

Appendix 1 details legislation relating to applicable species.

Section 41 of The Natural Environment and Rural Communities (NERC) Act (2006) requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. This includes planning decisions.

2.1 Designated Sites

Site of Special Scientific Interest (SSSI) citations are for special features of importance to nature conservation. Sites of Special Scientific Interest (SSSIs) are nationally important sites protected under laws including The Wildlife and Countryside Act 1981, Countryside and Rights of Way Act 2000. LPAs must consult Natural England on planning applications that might affect SSSIs. Operations that could damage special interests require consent by Natural England. It is an offence for any person to intentionally or recklessly damage or destroy any of the features of special interest of an SSSI, or to disturb wildlife for which the site was notified.

3. Methodology.

3.1 Scope of the Assessment.

The zone of influence of this development is defined as being the site itself, habitats to the immediate boundaries within 2km.

The assessment has included consideration of;

- designated sites
- habitats and species of principal importance for conservation of biodiversity
- protected species, namely bats.

3.2 Desktop Survey.

Natural England's Magic on the Map website was accessed for details of any designated wildlife sites within 2km.

The Environmental Records Information Centre North East (ERIC) data search has been restricted to bats, as this is the major constraint to building on the existing footprint, which would constitute a small-scale development.

Natural England's Magic on the Map and OS Explorer 1:12500 maps were used to assess the distance to habitat features close to the site.

3.3 Site Survey

The survey area covered the building only within the red line boundary as shown within Figure 2 and included searching for signs of any wildlife using the site with the key aspects listed below.

The survey included an assessment of habitats on site for use by bats following the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists, Good Practice Guidelines* (3rd edition, 2016) and Natural England's definitions except where indicated. The survey effort at the site has taken account of the recommendations of the BCT Good Practice Survey Guidelines, taking proportionality into account and the proposals.

Field Survey for Bats and Birds

Visual Inspection

A close inspection of the building was made in good light, and by torch where required. The 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 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. Any nesting material was noted and beneath ledges the ground was examined for feathers, pellets and birdlime that could indicate occupation by birds.

Emergence Survey

As dusk fell 2 surveyors, each using visual observations and bat detectors (Echo Meter Touch), and two-way radios, carried out the evening emergence surveys, covering all aspects of the buildings. Bat detectors demodulate 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.

Re-entry Survey

A dawn survey was also carried out. For a dawn survey surveyors are on site one and a half hours before sunrise until a quarter of an hour after sunrise.

Timing and Weather Conditions

Survey	Date	Timings	Weather
Inspection	27 June 2021	Externally 30 mins	Fine and dry
Dusk Survey	27 June 2021	9.35 pm – 11.20pm (Sunset 9.49pm)	Fine, light cloud and still. 15-13°C
Dawn Survey	29 May 2021	3.10am – 4.55am (Sunrise 4.40am)	Fine, cloudy and still. 10°C

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. 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. 15 years of experience.

Beth Patience. 11 years of experience.

3.4 Assessment.

The assessment has been conducted according to the *Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater, Coastal and Marine*, CIEEM, September 2018. Impacts are considered for during construction and occupation.

Preliminary Ecological Appraisal Reports (PEAR) which CIEEM guidelines¹ states can be used to support a planning application where it can be determined that the project would have no significant ecological effects, no mitigation is required, and no further surveys are necessary. PEARS though can also provide;

- the results of initial ecological surveys associated with a proposed development
- identify further ecological surveys necessary to inform an EcIA
- identify ecological constraints to a project
- make recommendations for design changes
- highlight opportunities for ecological enhancement.

4. Baseline Ecological Conditions

4.1 General

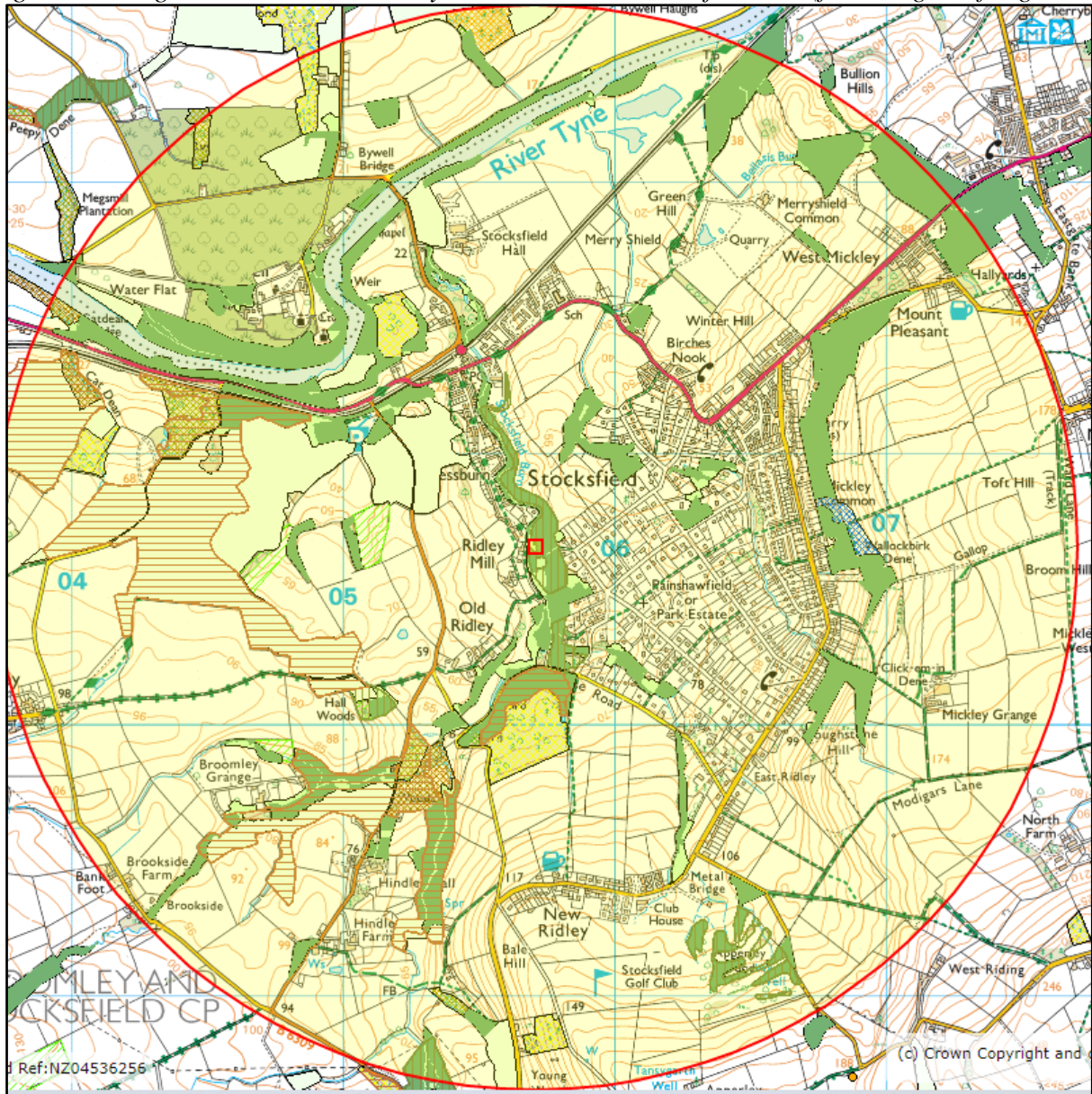
The building surveyed is located at NZ057606 as indicated below.

¹ *Guidelines for Ecological Report Writing Second Edition* December 2017

4.2 Designated Sites

There are no statutory designated sites within 2km of the site with the closest site being River Tyne at Ovingham SSSI, which lies 4.2km to the northeast. The development site falls within the impact risk zones for the SSSI's in the wider area.

Figure 4. Designated Sites and Priority Habitats within 2km of the site (from magic.defra.gov.uk)



4.3 Habitats

Figure 4 shows BAP Priority Habitats, within 2km (listed under Section 41 of the Natural Environment and Rural Communities Act 2006). These habitats are mainly deciduous woodland with some ancient and semi-natural woodland immediately to the east and north of the site and along Stocksfield Burn. Wood pasture and parkland is also present 1.8km to the south.

4.4 Species and Species Groups

4.4.1 Desktop Search

Records from the Environmental Records Information Centre North East (ERIC) show results from within 2km of the site for bats. The Magic Site shows no ponds within 500m

of the building. There is one granted European Protected Species licence for bats and none for great crested newts within 2km.

Habitat description

Eden House is situated on the west side of Stocksfield, in Northumberland. The buildings surveyed are immediately adjacent to woodland (ancient and semi-natural), which run along the banks of the Stocksfield Burn 20m to the west of the site. To the west the surrounding land consists of improved grassland and arable with boundaries of fences and hedges.

The area has some sheltered feeding and protection immediately in the village with better foraging to the south and east. Bat roost potential will be present in Stocksfield, the scattered hamlets in the area and any suitable tree.

4.4.2 Site survey

The site is a house situated in the centre of the plot surrounded with mainly hardstanding to the east and gardens to the west. To the east is mixed deciduous woodland with Beech and Oak trees present.

4.4.3 Bats

Pre-existing information on the species at the site.

There are no known pre-existing records for the site.

Status of species in the local/regional area.

Data search results reveal that there are numerous known maternity roosts of Pipistrelle 55kHz, Pipistrelle 45kHz, Pipistrelle sp. and Brown long-eared with Natterer's (1997-2013) and Daubenton's (2018) roosts also known within 2km. Foraging Whiskered/Brandt's (2015), Noctules (2010-2017) and possible Leisler's (2010-2014) bats are also recorded within 2km. Occasional roosting Pipistrelle 45kHz bats are known 60m to the southwest (2018) and a maternity of Pipistrelle sp. 141m to the southwest (2007). (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 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.

Granted European Protected Species licences for bats within 2km consist of an occasional roost of Pipistrelle 45kHz being affected 560m to the southeast of the site (2013 (Magic Site)).

Bats – Daytime Risk Assessment

The buildings surveyed are a two-storey house with brick walls and a slate roof with sound walls and pointing, being bonded brick there is no wall cavity that will be affected. The garage is brick built with a pitched slate roof with a timber sarking, internally well sealed with a crevice on the west corner, giving a moderate risk that bats may be present. The outbuildings are brick with a corrugated metal mono-pitch roof and flat concrete roof with a parapet wall, both well pointed and both had no roost potential. No bat droppings or feeding evidence were located externally or internally in either set of buildings. The trees surveyed (T1 and T4) had no obvious bat roost potential however due to their age they were also covered in the surveys. Other trees have subsequently been recommended for removal (T2, T5 and T7), however these were not assessed in detail. Please see photographs below for more detail for the buildings and trees.

No potential bat hibernation sites were identified in the building; however, bats may be present if there is a suitable crevice at any time of the year.

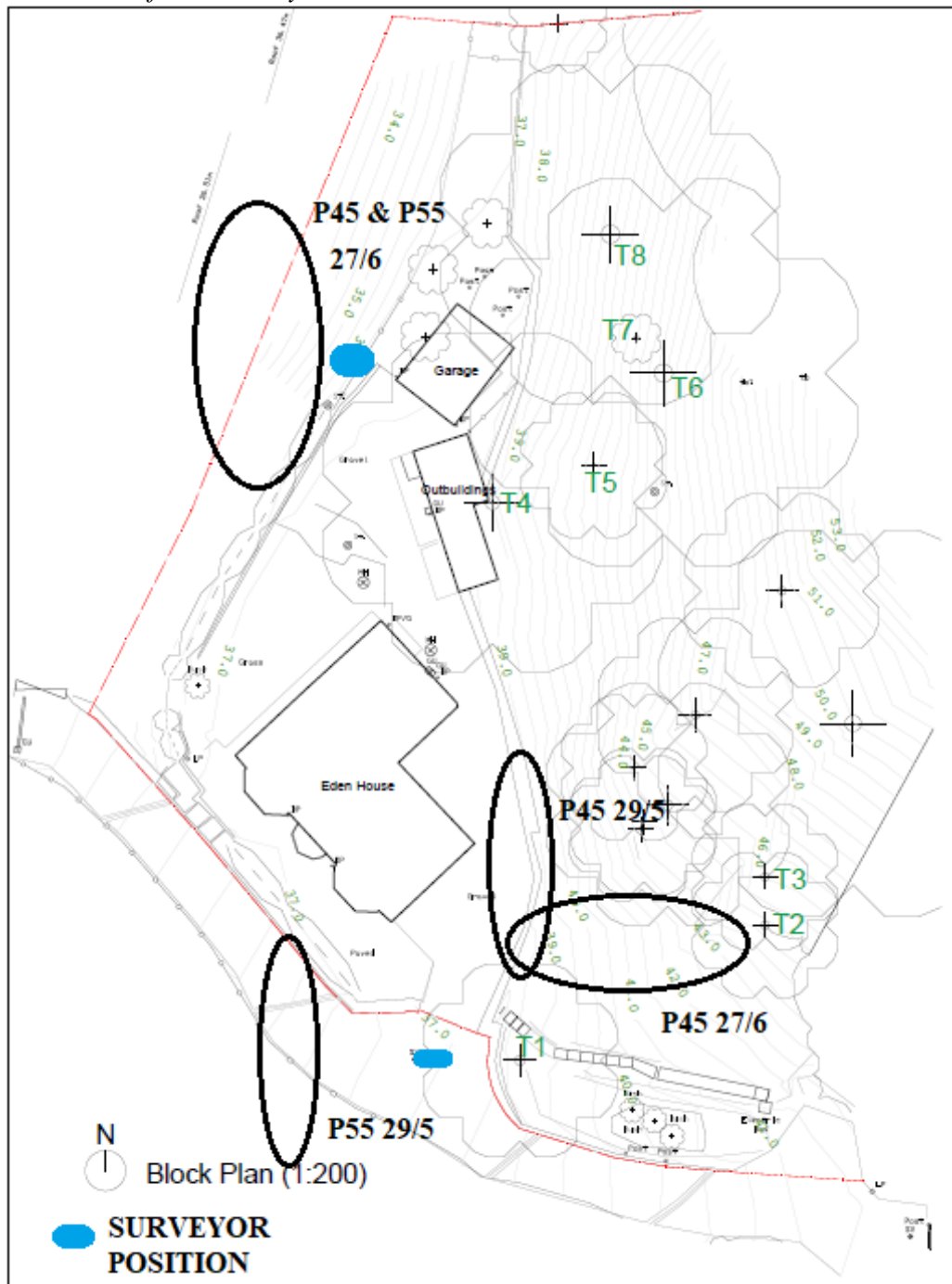
Trees nearby to the development

Tree No.	Species	Diameter at chest height (cm)	Comments *Earmarked for felling
1	Oak -Sessile	60	*No obvious bat potential
2	Birch	50	*Cavities present
3	Scots Pine	40	No obvious bat potential
4	Beech	70	*No obvious bat potential
5	Yew	15	*
6	Beech	90	No obvious bat potential
7	Oak	30	*
8	Beech	100	Bat roost potential present

Bats – Activity Surveys

The emergence survey identified no bat emergence from the building however the occasional Pipistrelle 45kHz, Pipistrelle 55kHz, Daubenton's, Whiskered/Brandt's, Natterer's and Noctule bats were noted foraging or commuting. The dawn survey only identified the occasional foraging Pipistrelle 45kHz, Pipistrelle 55kHz and Noctule. Please see Appendix 2 for detail.

Figure 5. Plan of Bat activity



4.4.4 Bird Assessment

No nesting birds or evidence of nests were identified around the building. The trees will be used by nesting birds between April and September. A tawny owl was noted calling during the dusk survey.

4.4.5 Invasive Species

These are non-native invasive species included in Schedule 9 of the Wildlife & Countryside Act 1981 (as amended), which makes it illegal to release or allow to escape into the wild.

Survey

No invasive species were noted on site.

5. Photographs of the Site



Garage from the west

Outbuildings from the northwest



Outbuilding from the southwest



Northeast gable of the garage



Crevices below the slate on the garage

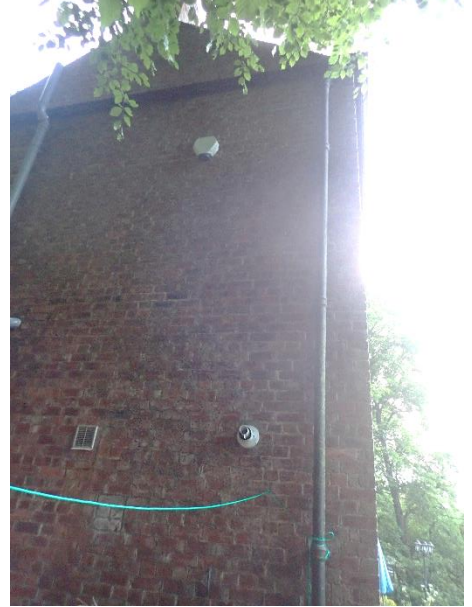


Wood sarking within the garage





House, northwest aspect, showing bonded brick walls



Northeast wall



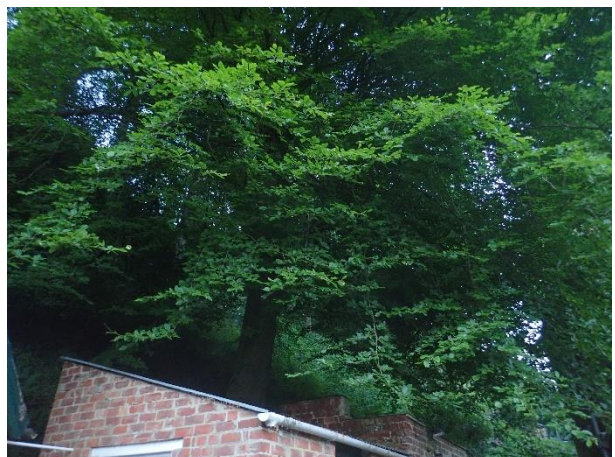
Interior of outbuilding with concrete roof



Outbuilding with



T1 Sessile Oak

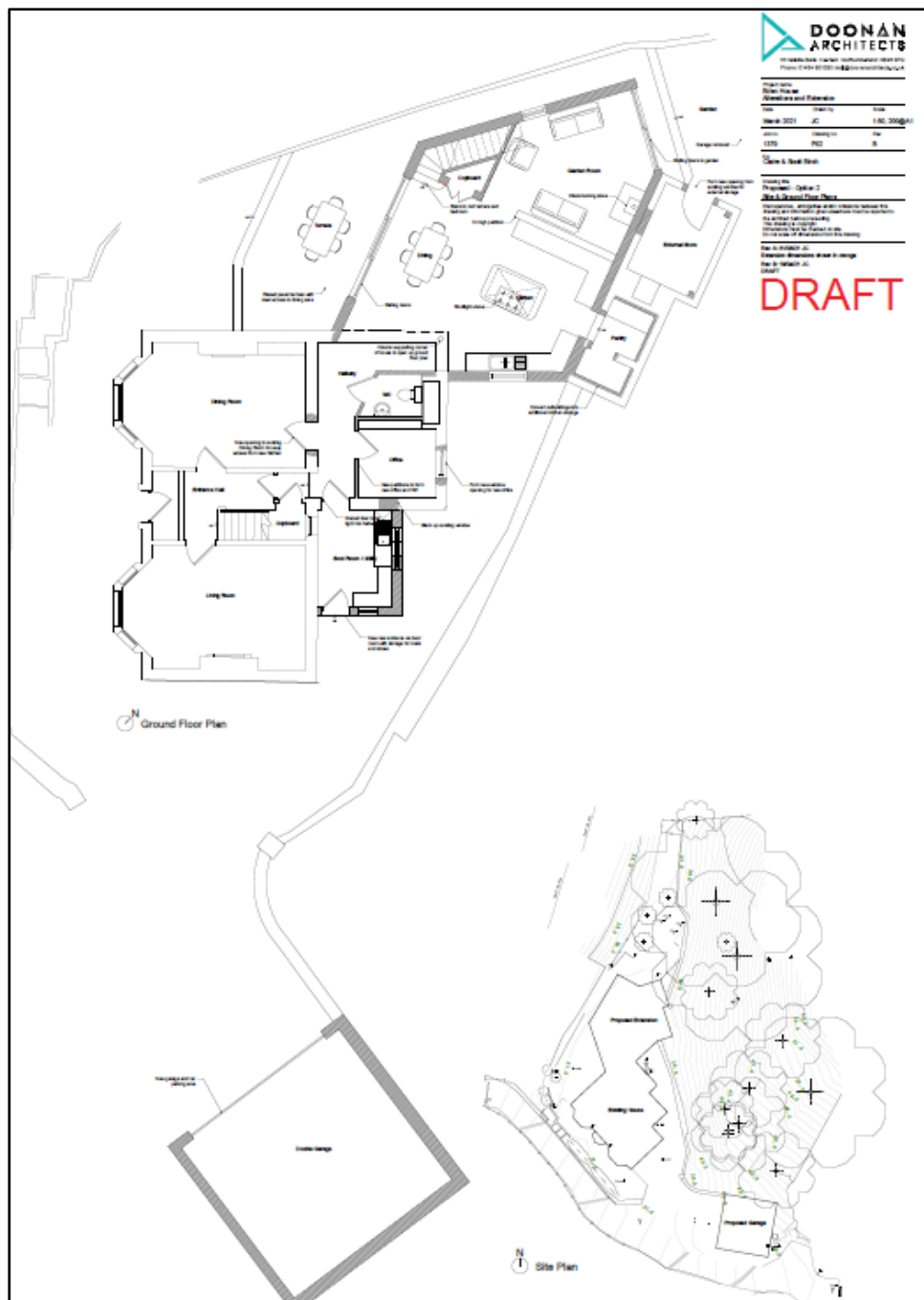


T4 Beech

6. Description of Proposed Development.

The proposals are to demolish the garage and to build a two-storey extension to the house. A garage will be built to the southeast. The development will entail several trees being felled.

Figure 5. Proposed Works



7. Assessment of Impacts

7.1 Constraints

No constraints were present, the dusk and dawn survey demonstrated no bat roosting activity.

7.2 Site Based Impacts.

The development will result in the loss of no bat roosts within the buildings on site. The building due to be extended has minimal conservation significance for bats as a roost site.

Pre-activity impacts are negligible with no changes being made to the use of the buildings. Mid-activity impacts would be high 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.

Site Assessment

The site is considered to have minimal conservation significance for bats, birds or great crested newts. Trees within a designated ancient and semi-natural woodland will be removed in the proposals, however root protection areas within the woodland area for the remaining trees will not be impacted, apart from where the garage is planned, where the bank will be impacted, giving a low impact. These features will be used by nesting birds.

7.3 Impacts on SSSI's.

The development site falls within the risk impact zones for the SSSI in the wider area, however the development is a relatively small residential scheme and it is unlikely to greatly impact the designated area.

8. Mitigation and Enhancement.

The National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains. The following recommendations will likely be translated into conditions placed on any planning consent. They are intended to reduce the risk of this development to protected species and habitats.

Natural England guidelines on mitigation states timing constraints and like-for-like replacement is a minimum requirement.

8.1 Pollution Prevention

To protect any nearby waterways and drains, measures to be made to ensure that there is no runoff (herbicides, wheel washing, cement washings etc.) either during construction to prevent pollution or sediment issues, or after development. (See Environment Agency's Pollution Prevention Guidelines (PPG5) for guidance.

8.2 On Site Mitigation

An integrated Build-in WoodStone Bat Box to be built into a west wall at 500mm below the walltop of the new build. Please see plan below for locations and Appendix 2 for detail.

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 timbers 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 (F1) 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.

Any trenches or excavations to be closed overnight or provided with an earth or timber ramp not less than 300mm wide and no steeper than 45 degrees to provide an escape route for ground animals that might otherwise become entrapped.

To prevent any disturbance to the trees or hedges on this site the tree root protection areas will be cordoned off to prevent machinery access and excavated soils from being dumped in between trees causing damage and disruption to vegetation and the tree roots.

8.3 Mitigation Summary

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

- Sensitive timing of any destructive and demolition works to the roof in April to October to avoid the hibernation period of bats.
- Method statement for bats to be followed, please see Appendix 3.
- Advice given for the safe removal of any bats found from harm during the development under different weather conditions.
- Provision of a Woodstone build-in bat box (suitable for Pipistrelle and all species of bats) within the new build extension.
- 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.
- Tree root protection areas to be observed.
- Prior to felling T2, further survey required to ensure that no bats are roosting in this tree.
- Any nesting bird species will be allowed access to the nest until the young have fledged.

Figure 6. Mitigation Locations

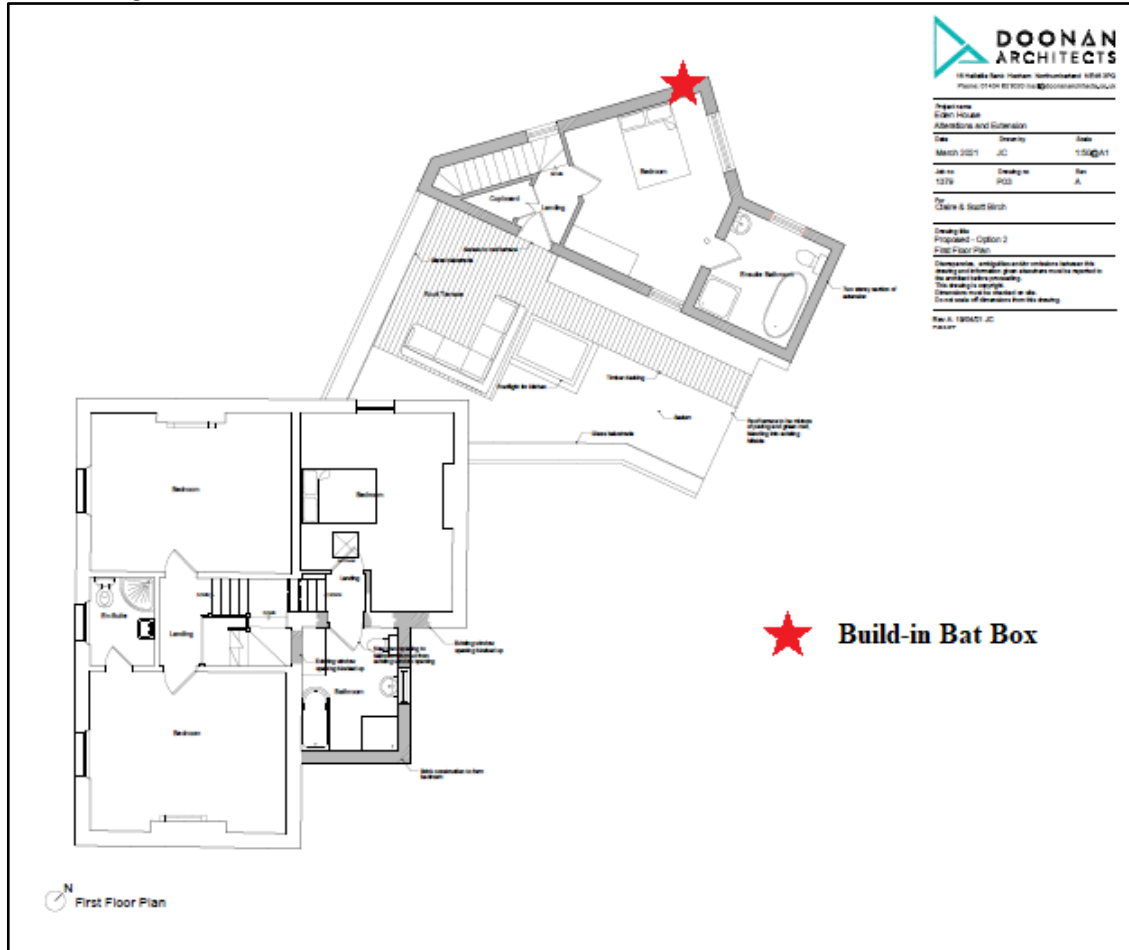


Table 1 Mitigation Summary

Location	Mitigation Type
West wall	One integrated Build-in WoodStone Bat Box

8.4 Enhancement

In suitable locations with a clear canopy replace the trees felled with 2- 3 Oak saplings (*Quercus petraea*), spaced 3-5m apart.

8.5 Monitoring

Due to low bat activity on site, no monitoring after the development is completed will be required 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.

8.6 Conclusions

- Without any mitigation the proposed works will result in minimal impact on the bat and bird population present.
- The provision of mitigation in the form of a built-in box and replacement oak saplings will help maintain biodiversity over the existing site.

9. 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:** <https://www.nhbs.com/low-profile-woodstone-bat-box>
- 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>
- Sparrow Terrace:** www.nhbs.com/1sp-schwegler-sparrow-terrace
- Swift boxes:** <https://www.nhbs.com/vivara-pro-cambridge-swift-nest-box>
- Bird box:** <https://www.nhbs.com/1b-schwegler-nest-box>

APPENDIX 1. LEGISLATION RELATING TO PROTECTED SPECIES

Bats

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.

Barn Owls

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.

Biodiversity

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.'

APPENDIX 2. SURVEY DATA

Table 2 Bat activity survey results.

Date	Bat Activity
27 June 2021 9.49pm 9.49pm 9.55pm 10.11pm 10.12pm 10.17pm 10.18pm 10.20-10.42pm 10.36pm 10.58pm 11.05pm 11.20pm	Sunset. Pipistrelle 45kHz bat heard not seen along the road to the south. Pipistrelle 55kHz bat heard not seen along the road to the south Noctule bat heard not seen. Pipistrelle 45kHz bat heard not seen to the north. Pipistrelle 45kHz bat foraging high above the trees to the south. Tawny owl heard to the northeast. Pipistrelle 45kHz and Pipistrelle 55kHz bats foraging to the northwest over the neighbour's garden. Daubenton's bat heard not seen Whiskered/Brandt's heard to the north. Natterer's bat heard not seen to the north Noctule bat heard not seen Daubenton's bat heard not seen Survey concluded.
29 May 2021 4.06- 4.15am 4.08am 4.08-4.15am 4.16-4.25am 4.40am 4.55am	Noctule bat heard not seen intermittently. Pipistrelle 45kHz bat heard not seen to the north Pipistrelle 55kHz bat foraging along the road to the south Pipistrelle 45kHz bat foraging southeast of the house Sunrise Survey concluded

APPENDIX 3. BAT 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.

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.

Timing

Any development work involving the removal of the existing roof materials or brickwork will be carried out avoiding the hibernation period (November to March inclusive). Periods of cold weather (below 5°C including night temperatures) will also be avoided 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 within the loft space 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.

Any nesting bird species will be allowed access to the nest until the young have fledged between April and October.

Table 3 General Methodology for Demolition Works

STRUCTURE	METHOD	INSPECT
Roofs	Remove any ridge tiles, flashing or loose roof coverings by hand, lifting vertically to prevent any bats from being crushed. Removal of any timbers/beams.	Check any crevices underneath the roofing materials and on the underside of the materials as it is removed, for the presence of bats. Check any crevices around the beams as work proceeds.
Walls/Eaves	Expose the wall tops. Remove any fascia boards and gutters by hand. Expose the wall cavity/wall tops. Leave for 24 hours.	Examine the wall top for bat droppings and any wall cavities for bats. Be observant for the presence of bats.
Windows/doors	Remove any windows, doors and frames by hand, where crevices are present around the frames.	Examine any wall cavities/crevices exposed.

When the roof coverings and the wall tops have been exposed for 24 hours the remainder of the buildings can be demolished, however if this is carried out in temperatures below 5°C the walls will be left for a further two days.

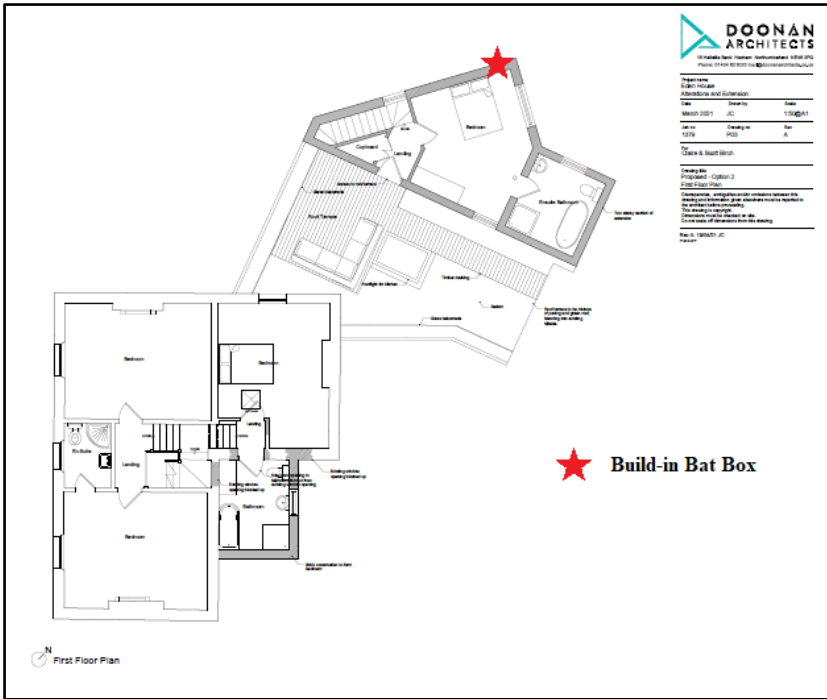
Mitigation Summary

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

- One integrated Build-in WoodStone Bat Box, to be located on the west aspect of the new build extension, 500mm below the apex. Please see plan below for locations.
- Timbers used should be treated only with ‘bat friendly’ products; permethrin or cypermethrin based as insecticides or chitin inhibitors, your contractors should be able to advise.
- 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 trenches or excavations to be closed overnight or provided with an earth or timber ramp not less than 300mm wide and no steeper than 45 degrees to provide an escape route for ground animals that might otherwise become entrapped.
- To protect any nearby waterways and drains, measures to be made to ensure that there is no runoff (herbicides, wheel washing, cement washings etc.) either during construction to prevent pollution or sediment issues, or after development. (See Environment Agency’s Pollution Prevention Guidelines (PPG5) for guidance.
- To prevent any disturbance to the trees on this site the tree protection areas will be cordoned off with no impact past the retaining wall to prevent machinery access and excavated soils from being dumped in between trees causing damage and disruption to vegetation and the tree roots.
- Any nesting bird species will be allowed access to the nest until the young have fledged.

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.

Mitigation Locations



Build-in WoodStone Bat Box

