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Tyrer Ecological Consultants Ltd, Formby Business Centre, 42 Duke Street, Formby, L37 4AT

Dusk & Dawn Survey Results

June 2020

Higher Ash Farm,
Hawkshaw Lane,
Hawkshaw,
Bury,
BL8

National Grid Ref: SD760162



Higher Ash Farm, Hawkshaw Lane, Hawkshaw, Bury, BL8
Dusk & Dawn Survey Results

Document Title	Dusk Survey Results
Prepared for	Jake Packun
Prepared by	Tyrer Ecological Consultants Ltd

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Appendix I: *Bat Method Statement for Higher Ash Farm and associated survey documents*
(Angela Graham Bat Consultancy Service Limited, issued February 2016)

1.0 Background and Introduction

1.1 As part of a historic planning application at Higher Ash Farm off Hawkshaw Lane, Bury, Angela Graham Bat Consultancy Service Limited carried out a preliminary bat survey of a barn in March 2015, followed by two dawn and a single dusk survey that same year.

1.2 The 2015 surveys identified the building was being used by x3 Common Pipistrelle (*Pipistrellus pipistrellus*) bats each respectively roosting in three distinct places, with no evidence of roosting by any other species.

A bat method statement was produced by Angela Graham Bat Consultancy Service Limited which summaries the results of the surveys and outlines appropriate mitigation to ensure the favourable conservation status of the species concerned (see Appendix I).

1.3 Due to the lapse in time, a fresh 2020 planning application is proposed which proposes the conversion of the barn for residential use. Tyrer Ecological Consultants Ltd were therefore commissioned by Jake Packun to carry out two follow-up dusk & dawn surveys respectively in order to determine whether the building still supports bat roost(s) and if so determine what species are present, record abundance, log important flight lines and foraging areas on site and identify what areas of the building are host to bat roost(s), in corroboration with the findings of 2015.

1.4 The updated surveys (one dusk survey, one dawn survey) were carried out during May 2020, in accordance with the Bat Conservation Trust (BCT) - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), spaced two weeks apart during the active season of bats.

1.5 The results, conclusions and recommendations following the surveys, including any indicative mitigation required to inform an application to Natural England for a European protected species mitigation licence (EPSML), where necessary, will be supplied within this report.

1.6 This report should be read, understood and presented to the Local Authority as part of the planning application.

1.7 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019), measures have been recommended proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain.

2.0 Bats - Legislation & Policy

2.1 All British bats and their **roosts ¹are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

¹ **The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to “a *breeding site or resting place of such an animal*” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

2.2 Use of Buildings by Bats

- a) Summer breeding roost (May-August)
- b) Hibernation roost (October-March)
- c) Transitional or temporary roost (Mainly spring/summer months)

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Policy

- 2.3 The National Planning Policy Framework (NPPF) has replaced the Planning Policy Guidelines (PPG's). In relation to wildlife, PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF, in relation to species and habitats, are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development.

Paragraph 175 of the National Policy Planning Framework (as revised in 2019) stipulates:

"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".

...whilst Paragraph 174 states:

"To protect and enhance biodiversity and geodiversity, plans should... promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

- 2.4 The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation:

"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision."

- 2.5 This is supported by a guide to good practice entitled 'Planning for Biodiversity and Geological Conservation: Building in Biodiversity' in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments to benefit these species.

- 2.6 The Adopted Bury Unitary Development Plan echoes the aims of the NPPF in policy EN6 - CONSERVATION OF THE NATURAL ENVIRONMENT:

“The Council will retain, protect and enhance the natural environment of the Borough, particularly in relation to areas of ecological, wildlife and geological importance”.

3.0 Bats in Greater Manchester

- 3.1 Up to ten bat species have been recorded in Greater Manchester to date, most of which use built structures notably residential properties for roosting. The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Greater Manchester is reflected throughout the UK.

4.0 Dusk & Dawn Survey Results

- 4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:-

“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

Relative to the above the survey protocol has been determined using the collective and long standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

Survey Protocol

- 4.2 The timing of the surveys took place in May thus within the main active period of bats, at a time when maternity colonies have formed / returned to summer roosts and bats are in a highly active and social stage.

Where bats are roosting, they are likely to be detected by the ecologists, trained in the use of bat detector hardware, how to detect bats and how to correctly identify/disseminate bat calls.

In accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), it is specified that:

“The bat active period is generally considered to be between April and October inclusive”, though the period of May - August is the optimal most productive period that Natural England accept bat surveys and grant European Protected Species Mitigation licences (EPSML).

When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of the Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality and how complex a building is relative to observations.

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In this case the bat roost potential that exists at Higher Ash Farm presents a complex environment which warrants both dusk and dawn periods, to offer mixed detection rates; dawn surveys are productive when “back tracking” bat to a roost from foraging grounds.

- 4.3 The number of surveys and surveyors was adequate relative to the roost potential that was identified during a pre-survey roost assessment by the lead ecologist i.e. ‘Moderate’, in accordance with up to date BCT guidance. The building required three surveyors to accurately monitor potential roost features (PRF’s) at any one time.
- 4.4 Surveyors were strategically positioned so that all elevations with bat roost potential could be observed without limitations. The surveys were aided with Eco Meter Touch and Anabat electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed in the field and the next day using Analook computer software to verify field observations
- 4.5 See the following tables for Raw Data.

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- 4.6 The dusk emergence survey was undertaken on 7th May 2020 and the dawn re-entry survey was undertaken on 21st May 2020, by a combination of six surveyors as per Table 4.1.

Table 4.1 - Surveyor Credentials

Surveyors	Experience	Credentials
Mrs. H. Taylor-Boyd	6 years	A highly experienced bat surveyor with several years' experience with Tyrer Ecological Consultants Ltd
Mr. D. Boyd	6 years	A highly experienced surveyor currently working as a sub-contractor for Tyrer Ecological Consultants Ltd
Mr. H. Green	30+ years	Highly experienced bat surveyor whom has professional surveying experience spanning many years with Tyrer Ecological Consultants Ltd - Class 2 Natural England Bat Licence (CLS-03290)
Mr. M. Smith	5 years	An experienced bat surveyor with Tyrer Ecological Consultants Ltd
Ms. E. Saxon	2 years	Seasonal bat surveyor at Tyrer Ecological Consultants Ltd.
Mr. P. Harrison	4 years	A seasonal ecological consultant with experience of undertaking professional bat surveys.

- 4.7 Table 4.2 - 4.3 show the raw data from the surveys, whilst the following figures provide visual aids.

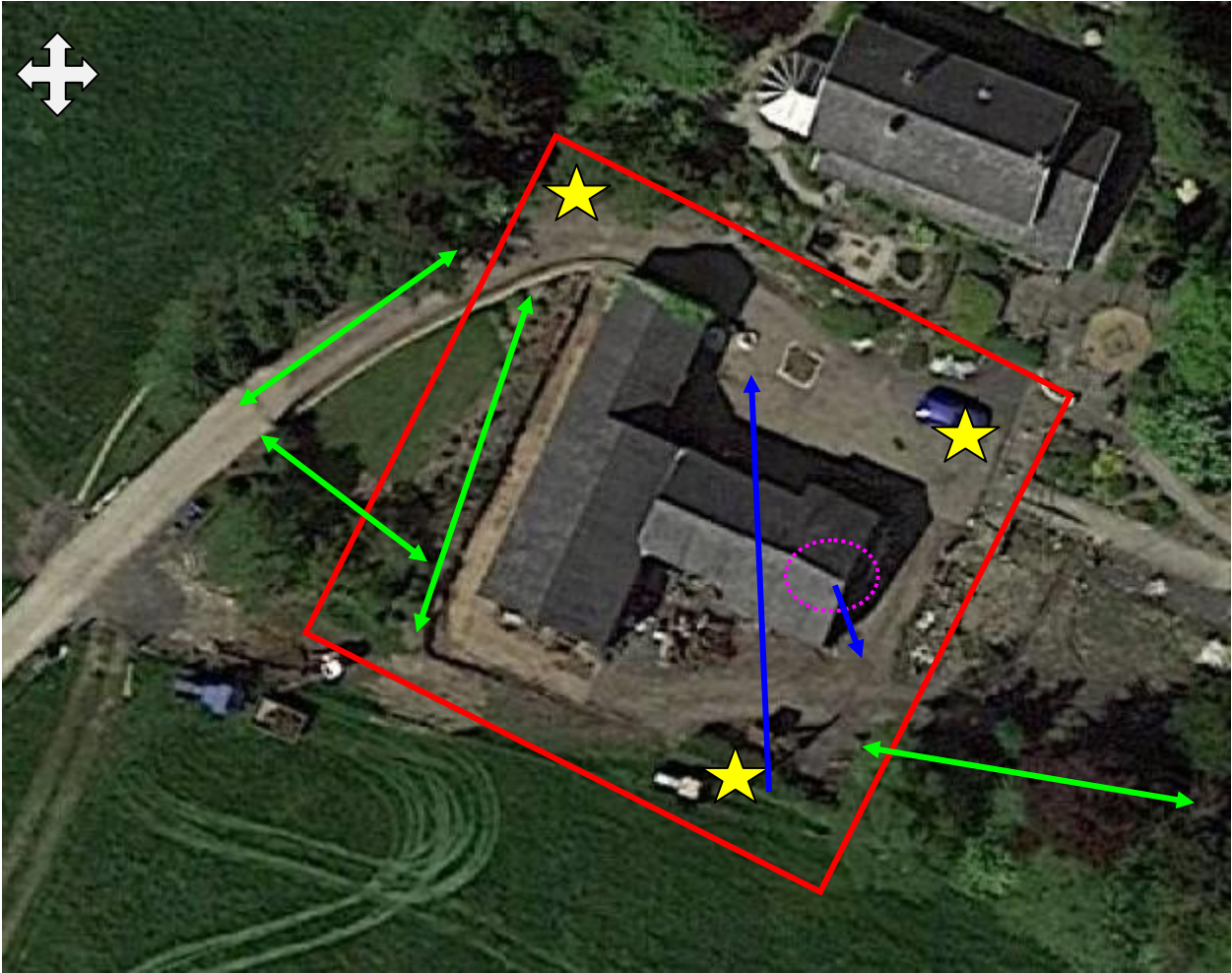
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Table 4.2 - Survey dates, times and weather conditions

Times of Survey	Date	Weather Conditions
Dusk survey 2031 - 2200	7th May 2020	Sunset: 2051: Drizzle, Calm, 90% cloud cover at start Start temp: 16 ° C End temp: 14 ° C
Dawn survey 0330 - 0459	21st May 2020	Sunrise: 0459: Dry, Light air, 0% cloud cover Start temp: 13 ° C End temp: 10.5 ° C

Table 4.3 – Dusk Survey Results

Dusk Survey	Time	Activity
07/05/2020 Dusk	2031 - 2200	Summary: Emergence of x3 Common Pipistrelle bats from a gap at the ridge tile in the east of the building. 2109 hrs: Emergence of three successive Common Pipistrelle bats from a gap at the ridge tile over 30 seconds; bats headed south. 2112 hrs: Common Pipistrelle bat passed over the building from the south-east headed north. 2115 hrs: Brief foraging in the west of the site by two-three Common Pipistrelle. 2121 - 2129 hrs: Constant foraging in the west of the site by two Common Pipistrelle bats. 2135 hrs: Common Pipistrelle bat passed over the building headed north-west and foraged over garden. 2138 hrs: Constant foraging in the west of the site by two Common Pipistrelle bats. Activity was frequent-constant throughout the survey by two-three Common Pipistrelle bats at any one time.
21/05/2020 Dawn	0330 - 0459	Summary: No bat re-entry was observed. 0429 hrs: Two Common Pipistrelle bats recorded foraging around the garden in the west. 0439 hrs: A single Common Pipistrelle bat swarmed briefly around the eastern gable end but no re-entry noted. Activity was limited to the observations above.



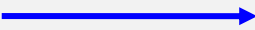
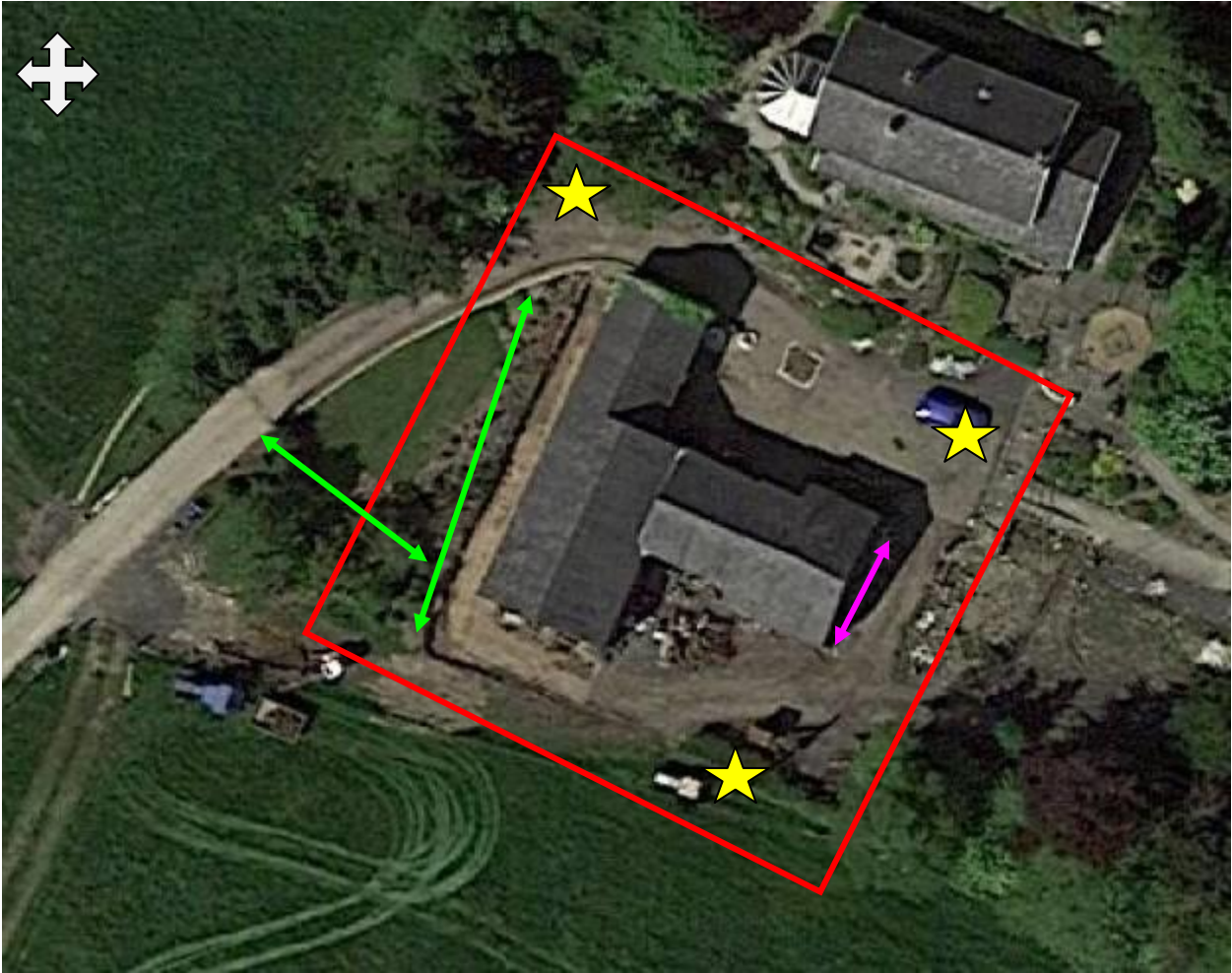
Key			
	Surveyed Area		Directional compass
	Surveyor Positions		Foraging activity
	Surveyor initials		Commuting activity
	Point of emergence		

Figure 4.1 - Visual Aid - Dusk Survey Results with Key



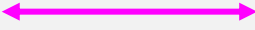
Key			
	Surveyed Area		Directional compass
	Surveyor Positions		Foraging activity
	Surveyor initials		Swarming activity

Figure 4.2 - Visual Aid - Dawn Survey Results with Key



Figure 4.3 - *Emergence point of three Common Pipistrelle bats at Dusk on 7th May 2020*
(Source: Mr. P. Harrison)

5.0 Dusk & Dawn Survey Conclusions & Recommendations

- 5.1 The 2020 survey results gathered by Tyrer Ecological Consultants Ltd conclude that the surveyed barn at Higher Ash Farm is being used by three Common Pipistrelle (*Pipistrellus pipistrellus*) bats for roosting purposes. The findings are somewhat consistent with the previous 2015 surveys conducted at the site by Angela Graham Bat Consultancy Service Limited; only IN 2020 the bats were using a single roost location as opposed to three as recorded in 2015.
- 5.2 The roost area is located at a gap under the ridge tiles atop the gable elevation that faces east (see Figure 4.3 previous). It is likely that the bats alternate between this roost location and the three other roost locations previously recorded.
- 5.3 In respect of modern roost categorization the evidence suggests the building is host to a 'day roost' for small numbers of Common Pipistrelle bats.

Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) describes a 'Day roost' as:

"a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer".

- 5.4 The permanent destruction/damage/modification/disturbance of bat roost(s) will therefore need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation. A European Protected Species Mitigation Licence (EPSML) will be required to legally destroy/damage/obstruct/modify/disturb a place that is actively used for breeding, rest or shelter (roost) by bats, however, before a licence can be applied for all planning issues need to be resolved.
- 5.5 In order that the LPA can implement its obligations under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), appropriate and proportionate mitigation will need to accompany the planning application which will demonstrate that the "favourable conservation status" of the species concerned can be maintained.
- 5.6 Installation of new lighting as part of a development scheme that exceeds current levels may have a negative impact upon foraging/commuting bats confirmed as present in the vicinity, particularly if increased light spillage occurs in areas currently free from illumination. There are several measures that can be used to offset impacts upon bats, where lighting is unavoidable; these include, however are not limited to, the light source used and luminaire design, and accessories to direct light at its intended target. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site.

Refer to the Bat Conservation Lighting Guidelines for further strategic information if applicable.

6.0 Indicative Mitigation

- 6.1 From the evidence gained during the dusk surveys, the use of the Barn at Higher Ash Farm is considered to be of 'low' level significance relatable to Common Pipistrelle bats and their current status (as according to - English Nature: Bat Mitigation Guidelines 2004); the proposed mitigation is proportionate to that use. However, if at any time that assessment is revised to a higher level, then the mitigation will also be accordingly revised.

- 6.2 The following procedures and mitigation recommendations are designed to allow the Local Planning Authority (LPA), in association with their ecological advisers, to determine a Planning Application or discharging a Planning Condition where a European Protected Species (EPS) has been identified and will be affected by the work for which the Planning Application seeks consent.

In addition, Local Planning Authorities in accordance with the obligations placed upon them by way of their duties under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) have to take into consideration the presence of a European Protected species (EPS) before determination of an application where it/they have been identified.

- 6.3 The LPA need to consider the mitigation in relation to the potential success of a Natural England licence application and/or if in their opinion the mitigation is considered as being appropriate, or if it is over and above what is required; if they determine that the mitigation is appropriate then a Planning Condition should be attached requiring the roost provision to be implemented. As a planning condition is already in effect, is should not be discharged until such time a EPSML has been granted.

If the LPA consider that the mitigation is over what is necessary but require “enhancement” as part of their Local Biodiversity/Net-Gain Planning Policies this should be included in the terms of Consent. The acting bat ecologist deems the proposed new roost creation as appropriate and not over and above what is required.

- 6.4 Notwithstanding that Planning Consent is granted or equally if the work is undertaken outside of the planning system, whereby projects that do not require planning consent may affect bats or their roost, including disturbance, it does not absolve the applicant, site owner, developer or any other party involved with the work from ensuring that an application is made for a Natural England development licence, to legally undertake work that will affect bat(s) or their roost(s).

If work is undertaken without a licence and bat(s) or their roost(s) is/are affected then a breach of current wildlife legislation will occur for which penalties are high.

- 6.5 Under Regulation 53(1) and 56(3)(a) of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), a licence is required prior to disturbing bats or destroying/damaging or obstructing any place that is used by bats as a resting place or breeding site. The licence is issued by the EPS Licensing Team of Natural England.

Summary of Mitigation

- 6.6 The proposed conversion of the barn is a key component of the site owners plans and it would result in roost destruction in the absence of mitigation; however, it is acknowledged that the presence of roosting bats needs to be addressed from both a legal and conservation perspective.

The mitigation proposals outlined in this report are seen to be the most productive way forward that will retain long term roosting opportunities for bats.

- 6.7 No habitat loss will occur, with works confined to areas of existing built structure and hardstanding; retained roosts and newly created roosts will therefore not be any further away from identified valuable foraging areas on site.

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- 6.8 As the building could be used by hibernating bats, works will take place during the period of March 1st - October 31st to avoid the period of the year when bats are most vulnerable.
- 6.9 To ensure that bats are not left without a roost while works take place, one Schwegler 2F bat box (or equivalent bat box if not available) will be erected on a suitable garden tree in the curtilage of the site, prior to any works, to act as a receptor roost. See Figure 6.1.

The receptor bat box will act as a receiver for if bats have to be captured by hand at the site and relocated to it by the ecologist during the work schedule; it will be retained permanently post-development to provide a long term roost opportunity for bats.



Model Type	Symbology in Image
Schwegler 2F or equivalent	

Figure 6.1 - Receptor bat box to be installed on suitable tree prior to works (Source: Google 2020)

Assigned Ecological Clerk of Works - EcOW

- 6.10 At the pre-commencement works stage a suitably qualified Ecologist will attend site and undertake induction 'toolbox talk' on possible bat presence and present/discuss document features taken from the license i.e. License, Method Statement, Mitigation Figures and Work Schedule to be kept on site for the duration of the work.

Prior to any work being undertaken the presence/absence bats as far as is possible will be established by undertaking detailed investigation of the areas at which bats have been observed using the building to date - typically below ridge tiles and gaps at wall plate. The ecologist will supervise careful dismantling of these areas and all places that will be removed/infilled as part of the proposed work which have been identified as offering roost access or roost potential, at the discretion of the ecologist. In addition, wherever opportunities for bats exist in other parts of the building, the supervised dismantling/repointing will extend to these areas with strategies for safely removing bat(s) employed, as long as a maternity colony is considered not to have taken up occupancy of the building.

All dismantling of roost features will be undertaken during favourable weather conditions.

External lighting is likely to be greater than what currently exists; where new lighting is to be installed it should be directed away from any new bat roost access points, flight paths and foraging areas.

Mitigation proposed is subject to the approval of the Natural England EPS team; all proposed roost provisions outlined hereafter will be dedicated for bats and permanent.

6.11 Work undertaken by the Ecologist

Capture/Exclusion: Once an EPSML licence is in place the contractor will provide a safe means of access to allow the ecologist to investigate the confirmed roost areas for bat presence at Higher Ash Farm.

In addition wherever opportunities for bats exist in other parts of the building the supervised dismantling will extend to these areas at the discretion of the ecologist in attendance. In the event of bat(s) being present, it/they will be removed, placed in a secure box with soft tissue and immediately transferred into the receptor bat box that will have previously been erected on a suitable tree nearby as indicated in Figure 6.1.

Once it has been established by the ecologist that bat(s) are absent the building works will continue to completion.

In the unlikely event that bats are found outside of supervision time, then as legal requirement and conditions of the licence work will immediately cease and the ecologist contacted for further advice; contractors must not touch, handle or in any way cause bats to move.

6.12 Work undertaken by the Contractor

Roost retention: During conversion of the Barn, two gaps in the stone and mortar on the eastern elevation which have been identified as supporting bat roost or ingress use will be left un-pointed and retained (see Figure 6.2).

In addition, a range of similar gaps will be left open/un-pointed at the discretion of the ecologist in attendance following a toolbox talk, all supervised dismantling works and end of day results concerning evidence of bats uncovered.

East-facing elevation (1)



Figure 6.2 - Areas of the eastern elevation where gaps will be retained/ remain unpointed in association with previous 2015 survey results (Source: Appendix I)

New Roost Creation: New roosting provision will be re-created in the form of two bat access slates to be incorporated in areas where bats are currently using.

- Two Bat Access Slates to be instated atop the roof on the eastern aspect,
- The two access slates will permit ingress opportunity to areas of newly overlain bitumen underfelt to be installed below the roofing slate for bats.

It is imperative to the favourable conservation status of the species concerned that traditional bitumastic roofing felt is used as opposed to any breathable roofing membrane (BRM). Modern breathable roofing membranes (BRM) entrap bats via their small claws in the synthetic polymers used to protect the breathable membrane, causing harm and death to bats. There are currently no bat-suitable BRM's on the market, despite contrary claims.

The new roost(s) will be permanent and dedicated for bats; they cannot be used for any other purpose. Management requirements for the roost/s are considered to be absent and it is in the best interests of the owner to ensure the building remains in favourable status long term.

New roost provision will not require any post development monitoring in this instance since they are day roosts.

See Figure 6.3 overleaf for illustrative aid.

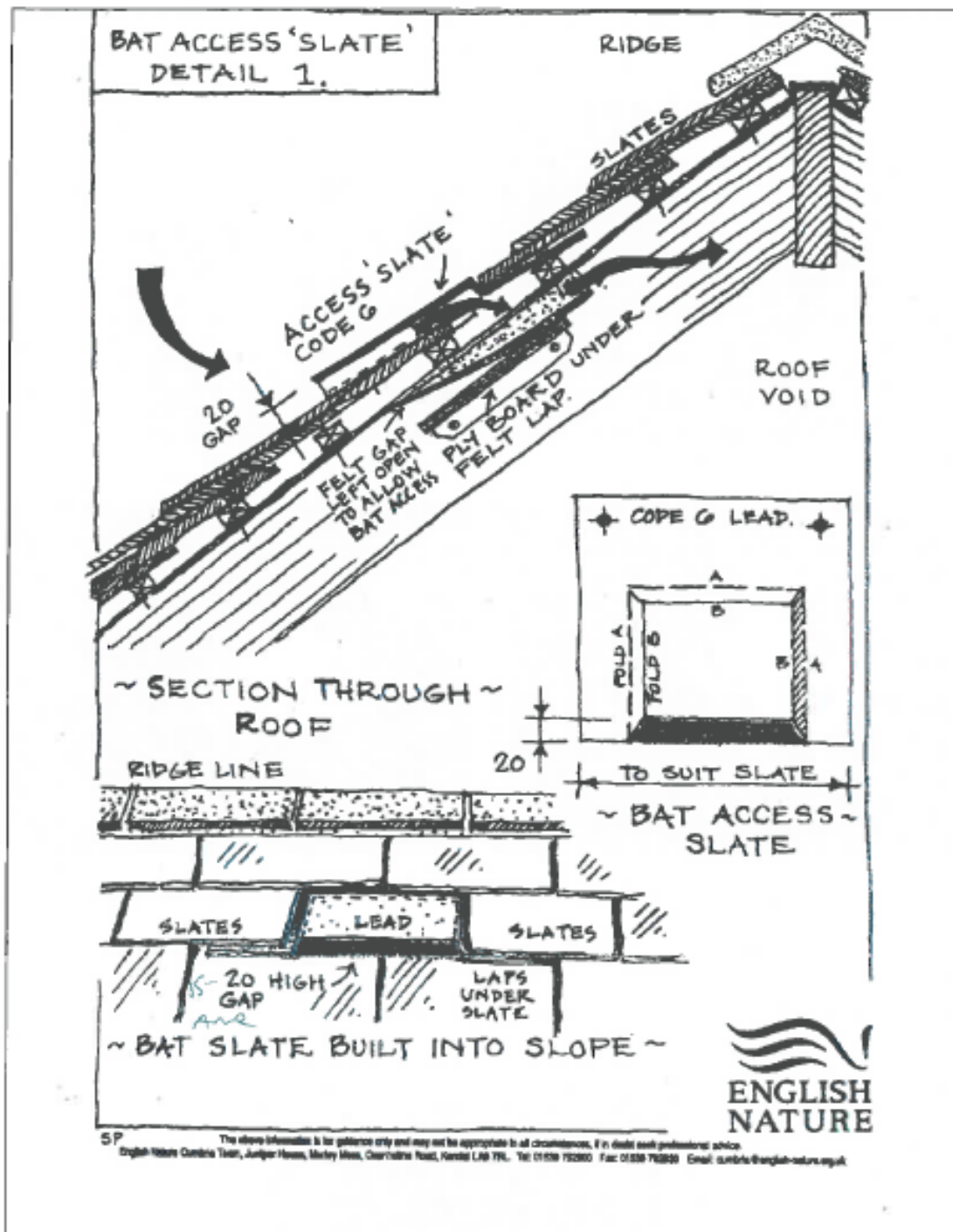


Visual Key	
Location of Bat slates to be installed, providing access to the bitumen underfelt below roofing slate, affixed by battens	



The Habibat Bat Access Slate has been carefully designed to provide much needed access to roof space for our protected bat species, whilst blending in seamlessly to your slate roof. The Bat Access Slate consists of a standard sized slate, with a capped vent which allows access to roof felt (for roosting Pipistrelles) or roof space (for Serotine, Leisler's, Daubenton's and Barbastelle Bats). We can supply a standard slate, but we also provide a service whereby an exact match for your roof can be achieved if this is desired. In such cases, please let us know your slate code or name at the time of ordering. We will then let you know if slates will need to be provided by yourselves or if they can be sourced by the manufacturer. These Access Slates are endorsed by the Bat Conservation Trust, though other designs can be used.

Figure 6.3 - Location of new roost creation (x2 bat access slates) as part of the conversion process



In this case there is no need to allow bat access into the loft. They need only to be able to roost beneath the slates.

Bitumastic felt (Type 1F BS 8747:2007 underfelt) must be used where bats are likely to come into contact with roof lining material. This is because bats can get their claws fatally entangled with the fine, tough fibres that make-up breathable membrane.

7.0 References

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