



Bat Emergence and Re-entry Surveys

Barn at Lower Farm (Plot 6), Bowling Bank, Wrexham, LL13 9RY

Tony Walsh

Status	Issue	Name	Date
Draft	1	Louise Sawrey BSc (Hons), MRSB - Consultant	21/06/2021
Reviewed	1.1	Elen Griffin BSc (Hons), MRSB, Consultant	24/06/2021
Draft	1.2	Louise Sawrey BSc (Hons), MRSB - Consultant	24/06/2021
Final	2	Louise Sawrey BSc (Hons), MRSB - Consultant	24/06/2021

Arbtech Consultant's Contact details:

Louise Sawrey BSc (Hons)
Consultant

Tel: 07748275573 Email: louise@arbtech.co.uk

Arbtech Consulting Ltd
<https://arbtech.co.uk>

Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Executive summary

Arbtech Consulting Ltd was commissioned by Tony Walsh to undertake Bat Emergence and Re-entry Surveys (BERS) at Barn at Lower Farm (Plot 6), Bowling Bank, Wrexham, LL13 9RY. The surveys were completed on 15/05/2021, 29/05/2021 and 12/06/2021. The aim of the assessment was to confirm the presence/likely-absence of a bat roost and to provide an assessment of the current status of all the survey features. This includes providing evidence for species, numbers and levels of activity, to identify any entrance and egress points, and to gain an understanding of the activity of bats using the site in the local landscape.

The development proposals are for the conversion of the existing barn into a dwelling. A planning application has been submitted to Wrexham County Borough Council [ref: P/2019/0647].

Planning permission was granted in August 2019.

Recommendations

Building 1 (B1) is host to a day roost of three common pipistrelles. As the proposed development involves the conversion and re-roofing of B1 the bat roost in the barn will be damaged and destroyed.

A European Protected Species Mitigation Licence (EPSML) will be required from Natural Resource Wales prior to the commencement of works, once planning has been granted.

The licence application can be submitted within 3 months of the start of work. If more than 3 months elapses since the last survey, a material changes check will be required prior to licence submission. If more than 12 months elapses, updated dusk/dawn surveys will also be required to inform the licence application.

Contents

1.0 Introduction and Context	5
1.1 Background	5
1.2 Site Context	5
1.3 Scope of the report	5
1.4 Project Description	6
2.0 Methodology	6
2.1 Desk Study methodology	6
2.2 Site Survey methodology	6
2.3 Surveyors	7
2.4 Limitations	7
3.0 Results and Evaluation	8
3.1 Survey Results	8
4.0 Conclusions, Impacts and Recommendations	13
4.1 Informative guidelines	13
4.2 Evaluation	15
5.0 Bibliography	18
Appendix 1: Survey Plan	19
Appendix 2: Proposed Site Plan	20
Appendix 3: Legislation and Planning Policy related to bats	21

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd was commissioned by Tony Walsh to undertake Bat Emergence and Re-entry Surveys (BERS) at Barn at Lower Farm (Plot 6), Bowling Bank, Wrexham, LL13 9RY. The surveys were completed on 15/05/2021, 29/05/2021 and 12/06/2021. The assessment is informed by the Bat Conservation Trust publication, *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

These surveys were completed following recommendations made in the Preliminary Roost Assessment Survey report (Arbtech Consulting Ltd. 2021).

A Preliminary Ecological Appraisal including Roost Assessment, along with a suite for Bat Emergence/Re-Entry Surveys were carried out in 2019 by Leigh Ecology Ltd. Common pipistrelles were found roosting during the surveys in 2019. Planning permission was granted for the site in August 2019 [ref: P/2019/0647].

Since planning permission has been granted, the site has now been divided in two. This report refers to 'Plot 6' only. The updated site visit was required to discharge planning conditions 17, 18 and 22.

1.2 Site Context

The site is located at National Grid Reference Grid Ref SJ 40912 50546 and has an area of approximately 0.7ha. The site consists of improved grassland, hard standing surface, and a disused barn.

1.3 Scope of the report

This report provides a description of the bat activity observed and recorded during each survey. The aim of the assessment was to characterise any roosts present including species, number of individuals, number and location of roost access points, and to gain an understanding of how bats use the site.

Robust data has been collected, following good practice guidelines, to inform an assessment of the potential impacts of the proposed development on bats, and inform mitigation and enhancements. This report provides information on constraints to the proposals as a result of roosting bats, and summarises any mitigation required to achieve planning permission, and statutory consent to comply with wildlife legislation.

To achieve the aims of the assessment, the following steps have been taken:

- A desk study has been carried out.
- Field survey(s) has been undertaken, including an external survey and internal inspection.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on the requirements of a European protected species mitigation licence (EPSML) application if appropriate.

A survey plan is presented in Appendix 1 showing the location of each surveyor and the bat activity observed and recorded during each survey, proposed plans in Appendix 2 (where available), and a summary of relevant legislation is presented in Appendix 3.

1.4 Project Description

The development proposals are for the conversion of the existing barn into a dwelling. A planning application has been submitted to Wrexham County Borough Council [ref: P/2019/0647]. Planning permission was granted in August 2019.

2.0 Methodology

2.1 Desk Study methodology

The desk study included a 2km radius review of statutory and non-statutory designated sites, biodiversity action plan (BAP) priority habitats and granted EPSML records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Site Survey methodology

The survey methods were informed by the recommendations presented in the Preliminary Ecological Appraisal including Roost Assessment Survey report (Arbtech Consulting Ltd. 2021). This survey identified the following survey requirements in line with best practice:

Table 1: Recommended surveys

Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations
B1	The building is a confirmed roost as droppings were found internally on the upper floor. Crevice dwelling bats could also roost in gaps under roof tiles and gaps in the brickwork.	As the proposals include the conversion of this building, any bat roosts present would be destroyed.	Three updated bat emergence/re-entry surveys are required during the active bat season (May – September) to characterise the roosts present. One of these surveys must be a dawn re-entry survey. Two surveyors are required to provide full coverage of the building. The updated bat emergence/re-entry surveys are required to inform a European protected species mitigation licence application to Natural Resource Wales. Planning permission has been granted for the site.

The surveys involved surveyors positioned around the building ensuring that all elevations and roof sections with suitable roosting features could be clearly observed. Particular attention was paid to the areas of the building identified as providing suitable access points to bat roosts. The location of each surveyor during each survey is shown in Appendix 1. Each surveyor was assigned an area of the building to observe for the duration of the survey. Surveyors used heterodyne and frequency division bat detectors, and Wildlife Acoustics EM3+ and Echo Meter Touch

detectors connected to iPads. Bat echolocation calls recorded during the surveys were analysed using Wildlife Acoustics sound analysis software Kaleidoscope V3.1.7 when required. The Echo Meter Touch includes an auto ID function for bat species, however this is not 100% accurate and further post-survey sound analysis is often required to confirm species that could not be identified by the auto ID software during the survey. Surveyors also used head torches, survey record sheets and pens/pencils for recording all activity observed during the surveys. Each surveyor was also provided with a hand-held radio for communication between surveyors to assist with confirming ambiguous bat activity e.g. a bat emergence or a bat passing over the building.

In accordance with the latest bat survey guidelines (Collins, J. 2016) dusk emergence surveys commenced 15 minutes before sunset and continued for 1½ - 2 hours after sunset – depending upon bat activity and surveyor visibility. Dawn re-entry surveys commenced 2 hours before sunrise and continued until 15 minutes after sunrise.

Surveys were completed during optimal weather conditions i.e. when temperatures were above 10°C, with no rain or strong winds, as these adverse weather conditions can impact upon bat emergence and foraging behaviour.

2.3 Surveyors

The lead surveyor is Louise Sawrey (accredited agent to Natural Resource Wales bat licence number: 79422:OTH:CSAC:2018) and was assisted by one other experienced surveyor with several years of bat survey experience. Two surveyors were used to provide sufficient cover of the building during each survey. The designated position of each surveyor during each survey is detailed in the tables in Section 3.1 below and shown on the plan in Appendix 1.

2.4 Limitations

These surveys follow best practice guidance to confirm presence/likely-absence of roosting bats and where present, characterise the roost. However, this information is collected at finite dates and times, and provides an indication of the conditions on site only. The use of the building and the site as a whole by bats, at all times cannot be established based on this information. There were no specific limitations to the survey.

3.0 Results and Evaluation

3.1 Survey Results

The results of each survey are provided in the tables below.

Table 2: Survey results

Date		15/05/2021
Start and End Times		20:45 – 22:35 Sunset: 21:03
Weather Conditions		Start: Temp: 12°C Relative Humidity: 90% Cloud Cover: 90% Wind: 4mph Rain: Prior to start of survey End: Temp: 9°C Relative Humidity: 92% Cloud Cover: 70% Wind: 3mph Rain: None
Surveyor (position) As shown in Appendix 1		Louise Sawrey - (accredited agent to Natural Resource Wales bat licence number: 79422:OTH:CSAC:2018) (Position 1 – observing the southern and western elevation and roof structure of B1) Robert Hughes – Two years of experience carrying out bat emergence and re-entry surveys (Position 2 – observing the northern and eastern elevation and roof structure of B1)
Building Reference	Surveyor Position	Notes/observations:
B1	1	The first bat activity observed was an <i>emergence by a common pipistrelle at 21:33. The bat was seen emergence from a gap in the brickwork on the southeastern gable end.</i>  <i>Common pipistrelle emergence point.</i>

		Common pipistrelles were observed constantly feeding around the barn for the duration of the survey. A pass by a noctule bat at 21:46. The bat was heard on the detector but not seen.
B1	2	<i>The first bat activity observed was an emergence by a common pipistrelle at 21:34. The bat emerged from under the eaves on the eastern elevation of B1 (by the broken guttering). The bat was observed flying south towards the hedgerow.</i> <i>A second common pipistrelle was seen emerging from the same location at 21:37. The bat flew south towards the hedgerow.</i>  <i>Common pipistrelle emergence point.</i> Constant common pipistrelle foraging activity was observed throughout the remainder of the survey. A pass by a noctule bat at 21:46. The bat was observed flying high above the field, heading north to east.

Table 3: Survey results

Date		29/05/2021
Start and End Times		03:25 – 05:10 Sunrise: 04:55
Weather Conditions		Start: Temp: 13°C Relative Humidity: 89% Cloud Cover: 60% Wind: 2mph Rain: None End: Temp: 13°C Relative Humidity: 90% Cloud Cover: 40% Wind: 3mph Rain: None
Surveyor (position) As shown in Appendix 1		Louise Sawrey - (accredited agent to Natural Resource Wales bat licence number: 79422:OTH:CSAC:2018) (Position 1 – observing the southern and western elevation and roof structure of B1) Robert Hughes – Two years of experience carrying out bat emergence and re-entry surveys (Position 2 – observing the northern and eastern elevation and roof structure of B1)
Building Reference	Surveyor Position	Notes/observations:
B1	1	Constant common pipistrelle foraging activity was observed around the barn and the site throughout the duration of the survey. No bats seen re-entering into B1.
B1	2	Constant common pipistrelle foraging activity was observed around the barn throughout the duration of the survey. A pass by a noctule bat at 03:59. The bat was heard on the detector but not seen. No bats seen re-entering into B1.

Table 4: Survey results

Date		12/06/2021
Start and End Times		21:05 – 22:55 Sunset: 21:23
Weather Conditions		Start: Temp: 15°C Relative Humidity: 85% Cloud Cover: 30% Wind: 2mph Rain: None End: Temp: 16°C Relative Humidity: 91% Cloud Cover: 20% Wind: 3mph Rain: None
Surveyor (position) As shown in Appendix 1		Louise Sawrey - (accredited agent to Natural Resource Wales bat licence number: 79422:OTH:CSAC:2018) (Position 1 – observing the southern and western elevation and roof structure of B1) Robert Hughes – Two years of experience carrying out bat emergence and re-entry surveys (Position 2 – observing the northern and eastern elevation and roof structure of B1)
Building Reference	Surveyor Position	Notes/observations:
B1	1	<i>The first bat activity observed was an emergence by a common pipistrelle at 22:09. The bat was seen emergence from a gap in the brickwork on the southeastern gable end.</i>  <i>Common pipistrelle emergence point.</i> Constant common pipistrelle foraging activity was observed throughout the remainder of the survey.

B1	2	The first bat activity was a pass by a common pipistrelle at 22:10. The bat was heard but not seen. Feeding activity around the barn was observed throughout the remainder of the survey. Three soprano pipistrelles were seen feeding close by to the adjacent farmhouse. No bats seen emerging from B1.
----	---	--

4.0 Conclusions, Impacts and Recommendations

4.1 Informative guidelines

When bat roosts are present, the bat surveys undertaken at a site facilitate the characterisation of the roost type. This allows for appropriate mitigation and compensation to be designed to inform a European protected species mitigation licence (EPSML) application to Natural Resource Wales.

The definitions of bat roost types are provided below, taken from the *Bat Mitigation Guidelines* (English Nature, 2004) and the Bat Conservation Trust publication *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, J. (Ed) 2016).

Day roost: 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.

Night roost: a place where bats rest or shelter in the night but are rarely found in the day. May be used by a single individual on occasion or it could be used regularly by the whole colony.

Feeding roost: a place where individual bats or a few individuals rest or feed during the night but are rarely present by day.

Transitional / occasional roost: used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.

Swarming site: where large numbers of males and females gather during late summer to autumn. Appear to be important mating sites

Mating sites: sites where mating takes place from later summer and can continue through winter.

Maternity roost: where female bats give birth and raise their young to independence.

Hibernation roost: where bats may be found individually or together during winter. They have a constant cool temperature and high humidity. Sites where hibernating bats have been confirmed by appropriate survey effort should be classed as 'hibernation confirmed'.

Satellite roost: an alternative roost found in close proximity to the main nursery colony used by a few individual breeding females to small groups of breeding females throughout the breeding season.

Other: roost types are interchangeable and not always easy to classify according to the nuances of certain species.

The surveys undertaken to date in and around B1 provide sufficient information to inform a European Protected Species Mitigation Licence (EPSML). An EPSML **will be required** to enable the proposed works to be lawfully undertaken, whilst ensuring the favourable conservation status of the species concerned in their natural range; detailed mitigation will be described in the EPSML Method Statement. Appropriate justification for this assessment is provided in Section 3 of this report.

Natural Resource Wales issue licences under Regulation 55 of the Habitats Regulations to allow you to work within the law. Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. ***include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;***
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural Resource Wales issues bat mitigation licences for developments.

4.2 Evaluation

The following recommendations are provided taking the desk-based assessment and site survey results into account.

Table 5: Evaluation of the buildings on site

Ref	Survey conclusions	Foreseen impacts	Recommendations / Mitigation	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (July 2018)
B1	Confirmed day roost of three common pipistrelles.	As the proposed development involves the conversion and re-roofing of B1 the bat roost in the barn will be damaged and destroyed. Any bats present during the works could be injured or killed.	A European Protected Species Mitigation Licence (EPSML) will be required from Natural Resource Wales prior to the commencement of works, once planning has been granted. <u>The licence application can be submitted within 3 months of the start of work. If more than 3 months elapses since the last survey, a material changes check will be required prior to licence submission. If more than 12 months elapses, updated dusk/dawn surveys will also be required to inform the licence application.</u> Detail mitigation required under the Licence: - Bat boxes erected on site prior to commencement of works. These will include one of the following: Schwegler 2F Bat Box Schwegler 1FF Bat Box Schwegler 2FN Bat Box Improved Cavity Bat Box (Or similar alternative) Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance. - Pre-works inspection of the known roost locations by the licence Named Ecologist or their Accredited Agent immediately prior to the commencement of the destructive search.	The mitigation/compensation detailed for the EPSML will provide sufficient enhancements of the developed site for bats.

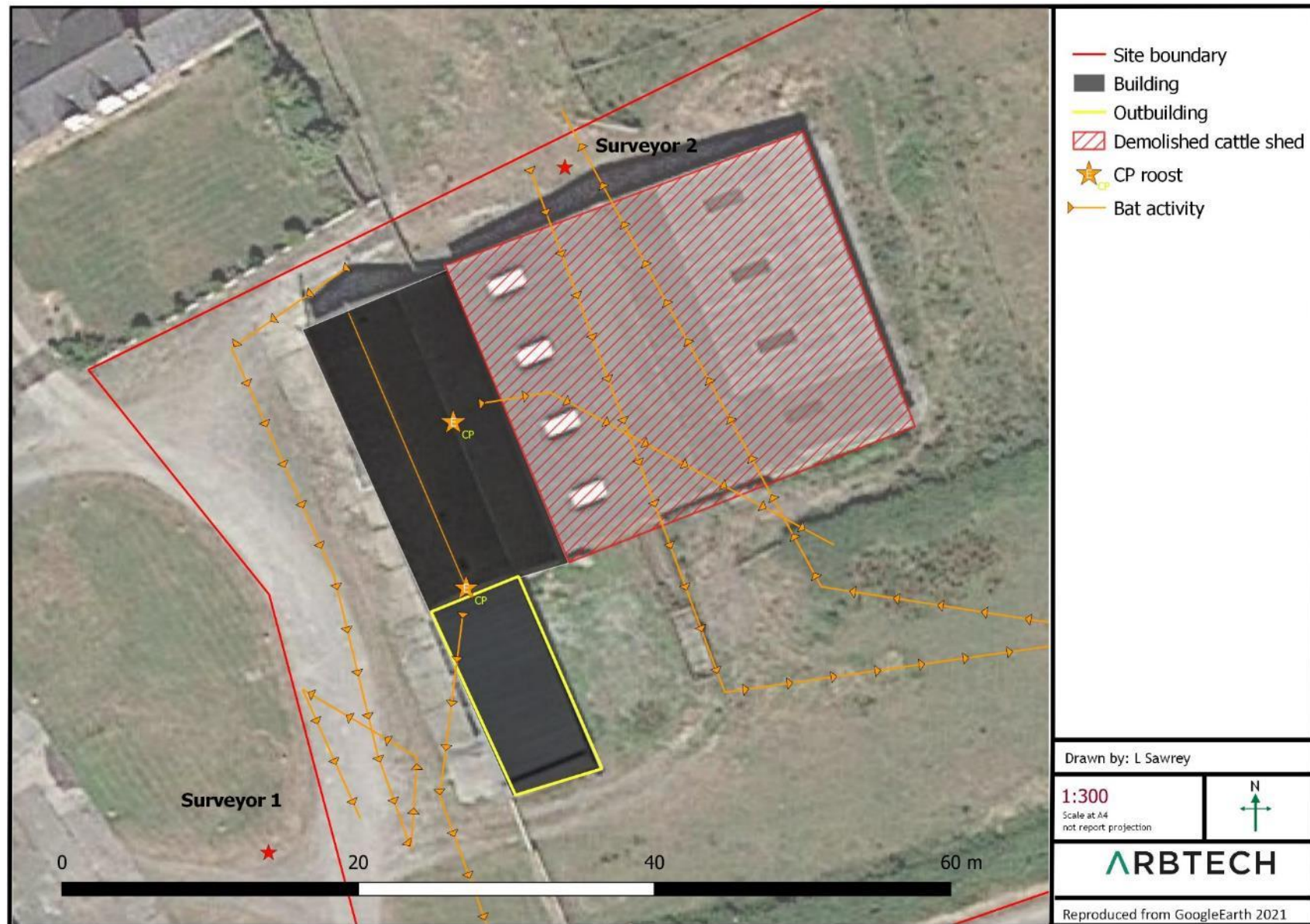
			• Destructive search via soft stripping by hand of the roof structure during re-roofing works. • Any bats located during the pre-works inspection and destructive search will be carefully captured by hand and transported to an appropriate bat box by the Licence Named Ecologist or their Accredited Agent. • Permanent replacement roosting provision will be incorporated into the new developed site this will include bat access tiles. • No post-development monitoring is required for low numbers of common species. Evidence to confirm that the bat compensation measures detailed within the EPSML have been installed will be provided by the Licensee for the Licence Return which will be submitted to Natural Resource Wales within 14 days of the Licence expiration date. • Lighting will be controlled across the developed site. Research into the effects of artificial lighting on bats has shown that it can impact upon bat emergence times and lead to a reduced foraging time (particularly for the light sensitive Brown long-eared bat). As bats are faithful to their roost sites, often returning to the same site for many years, the impact of lighting on emergence times and in turn reduced foraging times can ultimately result in the roosts being abandoned. • Key areas of the site which are sensitive to artificial lighting are the site boundaries which consist of hedgerows and tree lines providing foraging and commuting routes for bats. • No lighting will be installed along the site boundaries, thereby maintaining the existing dark areas within the developed site for bats. • Low impact lighting strategies will be adopted from the guidance outlined in the new Bats and Lighting Publication produced by the Institution of Lighting Professionals and the Bat Conservation Trust "Guidance Note 08/18 Bats and artificial lighting in the UK Bats and the Built Environment series" publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting • The lighting on the site will: - Use narrow spectrum light sources to lower the range of species affected by lighting. - Use light sources that emit minimal ultra-violet light. - Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue short wavelength content they should be of a warm / neutral colour temperature <4,200 kelvin.	
--	--	--	---	--

			- Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be positioned below the eaves, be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats), and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available. All of the above will ensure that the replacement bat roosts within the developed site will not be affected by any external lighting ensuring their long-term use.	
--	--	--	--	--

5.0 Bibliography

- Arbtech Consulting Ltd. (2021) – Preliminary Ecological Appraisal including Roost Assessment.
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2021) accessed on 16/06/2021.
- Magic database (2021) <http://www.magic.gov.uk/MagicMap.aspx> accessed on 16/06/2021.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Appendix 1: Survey Plan



Appendix 2: Proposed Site Plan

None provided.

Appendix 3: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the *Wildlife and Countryside Act 1981 (as amended 01.04.1996)* through their inclusion on **Schedule 5**. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (Wales)

Planning Policy Wales (updated February 2021)

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by Natural Resource Wales will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Wales and Natural England/Natural Resource Wales issue licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

- ***include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;***
- scientific and educational purposes,
- ringing or marking
- conserving wild animals

Development works fall under the first purpose and Natural Resource Wales issues bat mitigation licences for developments.