Bat Emergence and Re-entry Surveys

Eastwick Farm, Clay Lane, Stoke Ash, Eye, Suffolk, IP23 7DZ

Clive and Suzanne Stevens

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Executive Summary

Arbtech Consulting Ltd was instructed by Clive and Suzanne Stevens to undertake Bat Emergence and Re-entry Surveys (BERS) at Eastwick Farm, Clay Lane, Stoke Ash, Eye, Suffolk, IP23 7DZ (hereafter referred to as "the site"). The survey was required to inform a planning application for the refurbishment of an existing agricultural building on site (The Old Cow Shed) which is currently supported by scaffolding due to storm damage (planning reference – DC/23/02414; hereafter referred to as "the proposed development").

The following is work you will need to commission to comply with planning policy and legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 6 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Building	Roost 1: Species: common pip Peak count: 1 Roost type: day roost Roost location: within the void between the exterior timber cladding and the Interior paper lining Access points: a tear In the lining In the south eastern corner of the building. Access points Into the building are through the upper window on the eastern gable end. This roost is considered to have low conservation value, in line with the Bat Mitigation Guidelines (English Nature, 2004). Due to the poor condition of the building, it likely does not provide value for hibernation roosts.	Proposed works: refurbishment of the existing building. The refurbishment of the building will result In the destruction of the bat roost present. The proposed development will not include the use of exterior lighting.	A BMCL application to Natural England will be required to legally permit the proposed works. Due to the number of roosts and species present, the site is eligible for a Bat Mitigation Class Licence (BMCL). The BMCL application requires that surveys have been undertaken within the most recent active bat season (optimal May to August, suboptimal September). Planning permission must have been granted and all relevant bat-related conditions have been discharged prior to submission, where possible to do so. The survey effort should include at least two surveys between May and August when the detection rate of bat roosts is highest. A Material Changes Check will be required within three months of the BMCL submission, if no survey work has been undertaken within that period.

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Clive and Suzanne Stevens to undertake Bat Emergence and Re-entry Surveys (BERS) at Eastwick Farm, Clay Lane, Stoke Ash, Eye, Suffolk, IP23 7DZ (hereafter referred to as "the site"). The survey was required to inform a planning application for the refurbishment of an existing agricultural building on site (The Old Cow Shed) which is currently supported by scaffolding due to storm damage (planning reference – DC/23/02414; hereafter referred to as "the proposed development"). A plan showing the proposed development is provided in Appendix 1.

The aim of the BERS was to determine the presence or likely absence of roosting bats and to characterise any roosts present. This has been undertaken with due consideration to the "Bat Surveys for Professional Ecologists —Good Practice Guidelines" publication (Collins, 2016).

The BERS have been informed by a Preliminary Roost Assessment (PRA) which was completed by Arbtech Consulting Limited on 19th of July 2023 (Arbtech, 2023). The assessment concluded at building B1 was a confirmed roost based on the droppings found below the wall cavity between the paper lining and wooden cladding. Urine marks were also discovered. The surrounding trees, ponds and hedgerows could be used by local bat populations for foraging and commuting. The droppings were subsequently sent off for DNA analysis and It was confirmed that the species of origin was Common Pipistrelle (see appendix 4).

1.2 Site Location and Landscape Context

The site is located at National Grid Reference TM 12156 70996 and has an area of approximately 0.66ha comprising several buildings and agricultural outbuildings, areas of hardstanding, grassland, ponds, hedgerows and scattered trees, It is set in a rural context on the outskirts of the village of Stoke Ash, Suffolk. It is surrounded by arable fields on all sides, with a residential property and large garden with good tree cover directly to the west and a small pocket of woodland/scrub to the east. A minor road (Clay Lane) runs adjacent to the southern boundary. The wider landscape comprises further arable land and scattered residential and agricultural infrastructure, including several ponds. The River Dove runs approximately 400m south of the site. UK BAP priority habitats with 2km include lowland meadows, coastal and floodplain grazing marsh, deciduous woodland and wood pasture and parkland, the closest of which is wood pasture and parkland approximately 250m east. The is a strong network of hedgerows and tree lines within 2km of the site which coalesce in places with woodland pockets may also provide bat roosting value. The scattered trees and ponds on site and within the adjacent gardens will provide further opportunities for foraging and commuting bats in the locality. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of the bat activity observed and recorded during BERS. The aim of the surveys was to determine the presence or likely absence of bats and 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. The report provides information

on possible constraints to the proposed development as a result of bats and summarises the requirements for any mitigation proposals, including a European Protected Species Licence (EPSL), where appropriate, to achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- BERS of built structures has been undertaken to determine the presence or likely absence of bat roosts.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 BERS

Three BERS, comprising two dusk emergence and one dawn re-entry surveys, were undertaken of building, as per the recommendations from the Preliminary Roost Assessment. 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. 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 Echo Meter Touch detectors connected to iPads or Android tablets. 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 handheld radio for communication between surveyors to assist with confirming ambiguous bat activity e.g., a bat emergence or a bat passing over the building.

One infrared recording kit was set up to monitor the building during the BERS. This comprised Nightfox Red Goggles set up on a tripod with two separate infrared lamps on a second tripod to provide additional illumination. Analysis of the footage was subsequently undertaken to detect roosting activity.

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 a minimum of two weeks apart.

Surveys were completed during optimal weather conditions i.e., when temperatures were above 10^{o}C, with no rain or strong winds (greater than 5m/s), as these adverse weather conditions can impact upon bat emergence and foraging behaviour. Periods of high moon illuminance (>80%) were also avoided insofar as possible as this can reduce bat activity.

2.2 Surveyors

A total of two surveyors were used to cover building B1. The name, bat licence details or level of bat survey experience and 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 3.

2.3 Bat Roost Characterisation

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 Licence (EPSL) application to Natural England.

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

2.4 Limitations

These surveys follow best practice guidance to confirm presence or 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. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

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 and shown on the plan in Appendix 3.

Table 1: Survey results (first visit)

Date	02/08/23	
Internal check	Prior to the survey, an Internal check was undertaken. Fresh droppings were seen at the base of the tear In the Internal paper lining. 	
Start and end times	20:30 – 22:46 Sunset: 20:46	
Weather conditions	**Start:** Temp: 17°C Relative Humidity: 83% Cloud Cover: 30% Wind: 12.0mph Rain: 0mm	**End**: Temp: 16°C Relative Humidity: 92% Cloud Cover: 100% Wind: 12.0mph Rain: 0mm
Surveyor (position) **As shown in Appendix 3**	**Georgia Arnold (Lead)** – Three years of bat surveying experience **– Position 1** – observing the southwest and southeast elevations and roof structure of B1. **Bradley Clements** – Three years of bat surveying experience – **Position 2** – observing the northeast and northeast elevations and roof structure of B1.	
IR position	**Position 1** - observing the southwest and southeast elevations and roof structure of B1.	

As shown in Appendix 3		
Building reference	**Surveyor position**	**Notes/observations:**
B1	1	**No roosting activity observed** – Activity began at 21:13 with a common pipistrelle pass forwards the ponds (northeast). Two more passing and foraging activity by common and soprano pipistrelles towards the pond between 21:16 and 21:43. The final observation was at 22:21 with a serotine which was heard but not seen.
B1	2	**No roosting activity observed** – Activity began at 21:04 with a common pipistrelle which was heard but not seen. Frequent activity throughout the survey period by common pipistrelle seen flying northward. The final observation was at 10:22 with a serotine which was heard but not seen.
Building reference	**IR position**	**Notes/observations:**
B1	1	**No emergences Recorded** - At 21:13 and 21:16, a common pipistrelle passed from the barn yard at the south-west over to the pond at the north-east out of field of view of the camera. At 21:29 and 21:32, a common pipistrelle and a soprano pipistrelle can be heard on the detector foraging around the pond, out of field of view of the camera. At 21:42, 1 x soprano pipistrelle and 1 x common pipistrelle pass in view of the camera near B1 from the pond at the north-east over to the barn yard at the south-west and back around near B1 back over to the pond to forage briefly. Low levels of insect activity were visible throughout the survey. 
Other observations		No other significant observations were made during the survey period.

Table 2: Survey results (second visit)

<table>
<tr><td colspan="2">Date</td><td colspan="2">16/08/23</td></tr>
<tr><td colspan="2">Internal check</td><td colspan="2">An updated Internal check was undertaken prior to the survey. A number of fresh droppings were located at the base of the tear In the Internal paper lining.
  </td></tr>
<tr><td colspan="2">Start and end times</td><td colspan="2">04:14 – 05:59
Sunrise: 05:44</td></tr>
<tr><td colspan="2">Weather conditions</td><td>Start:
Temp: 15°C
Relative Humidity: 91%
Cloud Cover: 20%
Wind: 3.0mph
Rain: 0mm</td><td>End:
Temp: 16°C
Relative Humidity: 89%
Cloud Cover: 20%
Wind: 3.0mph
Rain: 0mm</td></tr>
<tr><td colspan="2">Surveyor (position)
As shown in Appendix 3</td><td colspan="2">Georgia Arnold (Lead) – 3 years of bat surveying experience – Position 1 – observing the southwest and southeast elevations and roof structure of B1.
Bradley Clements – Three years of bat surveying experience – Position 2 – observing the northeast and northeast elevations and roof structure of B1.</td></tr>
<tr><td colspan="2">IR position
As shown in Appendix 3</td><td colspan="2">Position 1 - observing the southwest and southeast elevations and roof structure of B1.</td></tr>
<tr><td>Building reference</td><td>Surveyor position</td><td colspan="2">Notes/observations:</td></tr>
<tr><td>B1</td><td>1</td><td colspan="2">Roosting activity observed.</td></tr>
</table>

		The first activity of the survey was several faint passes by a single common pipistrelle and brown long eared bat which were heard but not seen at 4:19. The first observed activity of the survey was a pass by a common pipistrelle; It was seen flying west along the southern elevation of B1. **At 4:45 a common pipistrelle flies from the west alongside B1 and round to the eastern gable end and re-enters the barn through the upper window. At 4:46, a common pipistrelle emerges from the upper window of the barn and flies towards the pond before circling round back past B1 to the west. At 5:08, a single common pipistrelle was seen re-entering through a small gap at the end of the wooden cladding at the southeastern corner of B1.** Throughout the survey, bats were seen foraging above the pond. **It Is considered that the roosting activity observed was undertaken by a single common pipistrelle, meaning the peak count of the roost Is one.**  Common Pipistrelle emergence (red) and re-entry points (blue) are shown above.
B1	2	**No roosting activity observed** – Activity began at 04:16 with a common pipistrelle which was briefly heard but not seen. Frequent activity throughout the survey by common pipistrelles seen at 04:27 passing towards the northern pond, at 04:36 a pass down the northwest elevation of B1. Feeding was also heard by common pipistrelles at 04:41. The final observation was at 05:17 with a soprano pipistrelle which was heard but not seen.

Building reference	IR position	Notes/observations:
B1	1	**A review of the IR footage confirmed the roosting activity recorded from surveyor position 1.** No further roosting activity was noted. 
Other observations		No other significant observations were made during the survey period.

Table 3: Survey results (third visit)

Date		30/08/23	
Internal Check		Prior to the survey, an updated internal check was undertaken. Newer and fresher droppings were found internally, at the south eastern corner of B1 under a tear in the paper lining. This tear provides access into a void which is present between the exterior cladding and the internal lining, and is the assumed location of the roost. 	
Start and end times		19:30 – 21:15 Sunset: 19:47	
Weather conditions		**Start:** Temp: 14°C Relative Humidity: 77% Cloud Cover: 75% Wind: 4.0mph Rain: 0mm	**End**: Temp: 12°C Relative Humidity: 80% Cloud Cover: 90% Wind: 4.0mph Rain: 0mm
Surveyor (position) **As shown in Appendix 3**		**Georgia Arnold (Lead)** – Three years of bat surveying experience **– Position 1** – observing the southwest and southeast elevations and roof structure of B1. **Bradley Clements** – Three years of bat surveying experience – **Position 2** – observing the northeast and northeast elevations and roof structure of B1.	
IR position **As shown in Appendix 3**		**Position 1** - observing the southwest and southeast elevations and roof structure of B1.	
Building reference	**Surveyor position**	**Notes/observations:**	

B1	1	**Roosting activity observed** - The first activity of the survey was at 20:07; a soprano pipistrelle was observed foraging around the pond before flying west to the north of the barn towards the other surveyor position. At 20:09, 20:17 and 20:32, a soprano pipistrelle was observed foraging around the pond. From 20:10 until 20:31 a common pipistrelle appeared from the south/barn yard and was observed foraging between the pond and barn yard near the eastern gable end of B1. At 20:34, a common pipistrelle circled from the east around the surveyor position and back east and from 20:36 until 20:48 a common pipistrelle was heard but not seen consistently foraging nearby. **At 20:48, a common pipistrelle passed from the pond and re-entered B1 through the upper window on the eastern gable end (one of same re-entry points as on second survey). Soon afterwards the common pipistrelle emerged again through the window and flew south towards the barnyard. At 20:49, common pipistrelle passed from south-west into the barn through the upper window on eastern gable end and was visible flying around inside the barn briefly before emerging again through the window and flying south towards the barnyard.** From 20:50 until 21:07 a common pipistrelle was heard but not seen occasionally foraging nearby. **It Is considered that the roosting activity observed was undertaken by a single common pipistrelle, meaning the peak count of the roost Is one.** 

		Common Pipistrelle emergence (red) and re-entry points (blue) are shown above.
B1	2	**No roosting activity was observed.** The first observed activity of the survey was at 19:59 when a single common pipistrelle was seen flying north west. Overall, bat activity levels were low from surveyor position 2. Distant passes, along with faint social calls and foraging were heard but not seen throughout the survey. The final recorded activity of the survey was a commute by a common pipistrelle where it was seen flying north.
Building reference	**IR position**	**Notes/observations:**
B1	1	**A review of the IR footage confirmed the roosting activity observed from surveyor position 1.** No further roosting activity was Identified. 
Other observations		No other significant observations were made during the survey period.

3.2 DNA Analysis

Droppings found in the loft void of B1 during the Initial PRA were sent off for DNA analysis. This confirmed the species to be common pipistrelle. The DNA analysis report is included in Appendix 4.

4.0 Conclusions, Impacts and Recommendations

Taking the field survey results into account, Table 4 presents an evaluation of the value of the building for roosting bats in relation to the proposed development which will comprise the refurbishment of an existing agricultural building on site (The Old Cow Shed) which is currently supported by scaffolding due to storm damage.

Table 4: Evaluation of building on site for roosting bats

Building	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities[1]
Building	Roost 1: Species: common pip Peak count: 1 Roost type: day roost Roost location: within the void between the exterior timber cladding and the Interior paper lining Access points: a tear In the lining In the south eastern corner of the building. Access points Into the building are through the upper window on the eastern gable end. This roost is considered to have low conservation value, in line with the Bat Mitigation Guidelines (English Nature, 2004).	Proposed works: refurbishment of the existing building. The refurbishment of the building will result In the destruction of the bat roost present. The proposed development will not include the use of exterior lighting.	A BMCL application to Natural England will be required to legally permit the proposed works. Due to the number of roosts and species present, the site is eligible for a Bat Mitigation Class Licence (BMCL). The BMCL application requires that surveys have been undertaken within the most recent active bat season (optimal May to August, suboptimal September). Planning permission must have been granted and all relevant bat-related conditions have been discharged prior to submission, where possible to do so. The survey effort should include at least two surveys between May and August when the detection rate of bat roosts is highest. A Material Changes Check will be required within three months of the BMCL submission, if no survey work has been undertaken within that period. The BMCL will include the following measures: • The installation of one bat boxes at the site (one bat box per species) prior to works commencing to form a receptor site for any bats found during the works. These boxes may be installed on buildings or trees but must be in an undisturbed location and will need to be maintained in this location post-development. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. Suitable locations could be on the mature tree to the north east of the building, as shown in Appendix 5. • The provision of a toolbox talk to contractors, by the Registered Consultant or an Accredited Agent, to inform them of the presence of bat roosts. • A pre-commencement inspection of any roost features by the Registered Consultant or an Accredited Agent using a torch and an endoscope (this may be via ladders, scaffolding or a mobile elevated platform).	The installation of two wall mounted or integrated bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be installed on the cow shed once the refurbishment has been completed. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for crevice dwelling species.

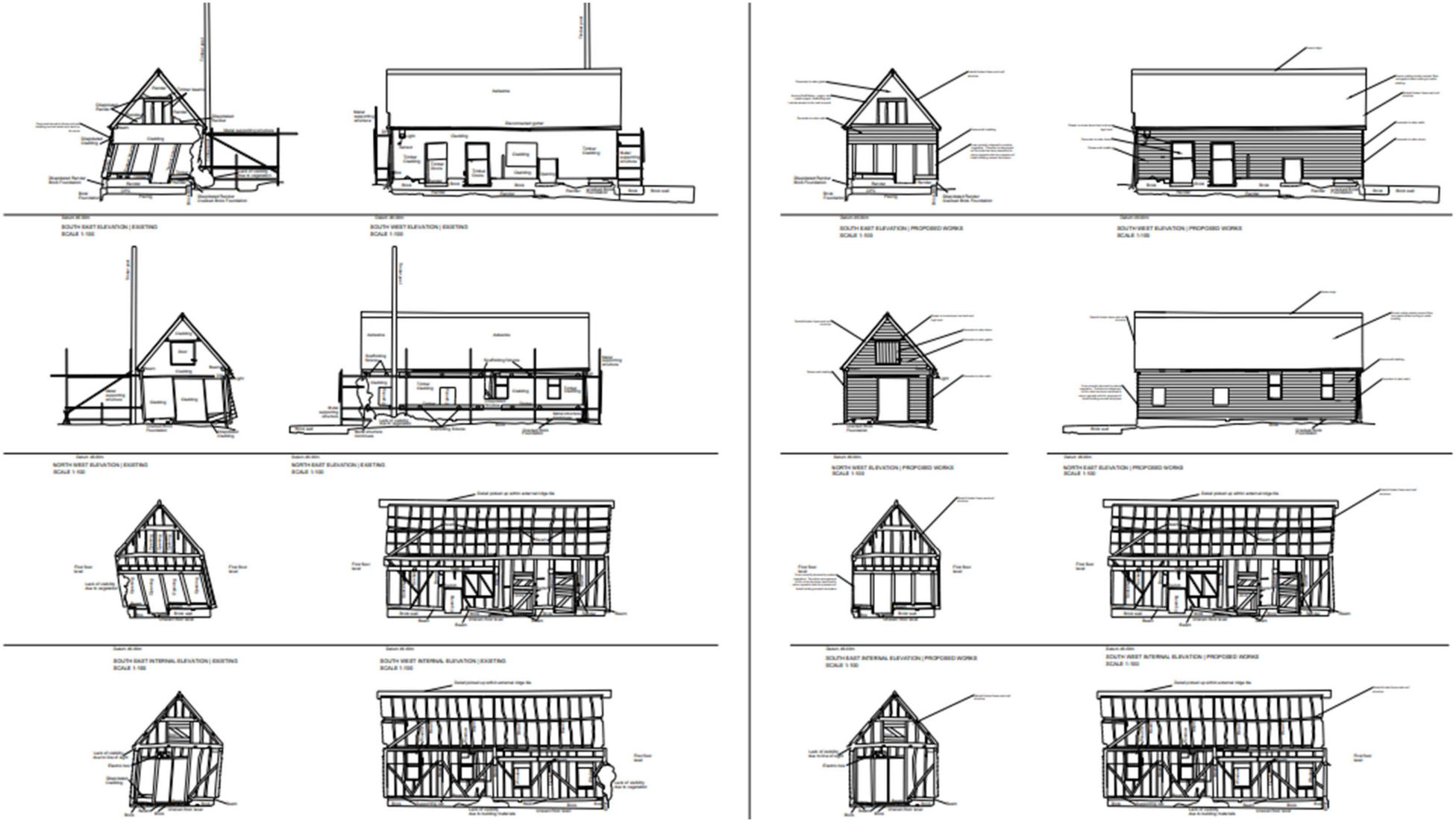
[1] The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	Due to the poor condition of the building, it likely does not provide value for hibernation roosts.		• The removal of bat roost features by hand under the supervision of the Registered Consultant or an Accredited Agent (where it is not possible conclude absence of bats during the pre-commencement inspection). • Avoiding the use of unnecessary lighting, particularly at night, or implementing a low impact lighting strategy to avoid illumination of retained or newly created roosts or roost features. • Avoiding excessive noise or vibration disturbance e.g. from power tools or radios, within close proximity of retained or newly created roosts or roost features. The BMCL will only include the bat species, numbers and roost types listed above. If bats are found during periods of adverse weather conditions, these must be left undisturbed until weather conditions become more favourable to move bats to the receptor bat box. BMCLs do not allow for the disturbance of hibernating bats. Therefore, if any bats are found during the hibernation period November to March or if any unexpected bat species or roost types are identified works must cease and advice must be sought from the Registered Consultant regarding the possible requirement for further bat surveys and whether a BMCL is still appropriate.	

5.0 Bibliography

- Collins, J. (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected? http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf
- Institution of Lighting Professionals (2018). 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.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25.
- Arbtech Consulting Limited. (2023) Preliminary Roost Assessment, Eastwick Farm, Clay Lane, Stoke Ash, Eye, Suffolk, IP23 7DZ.

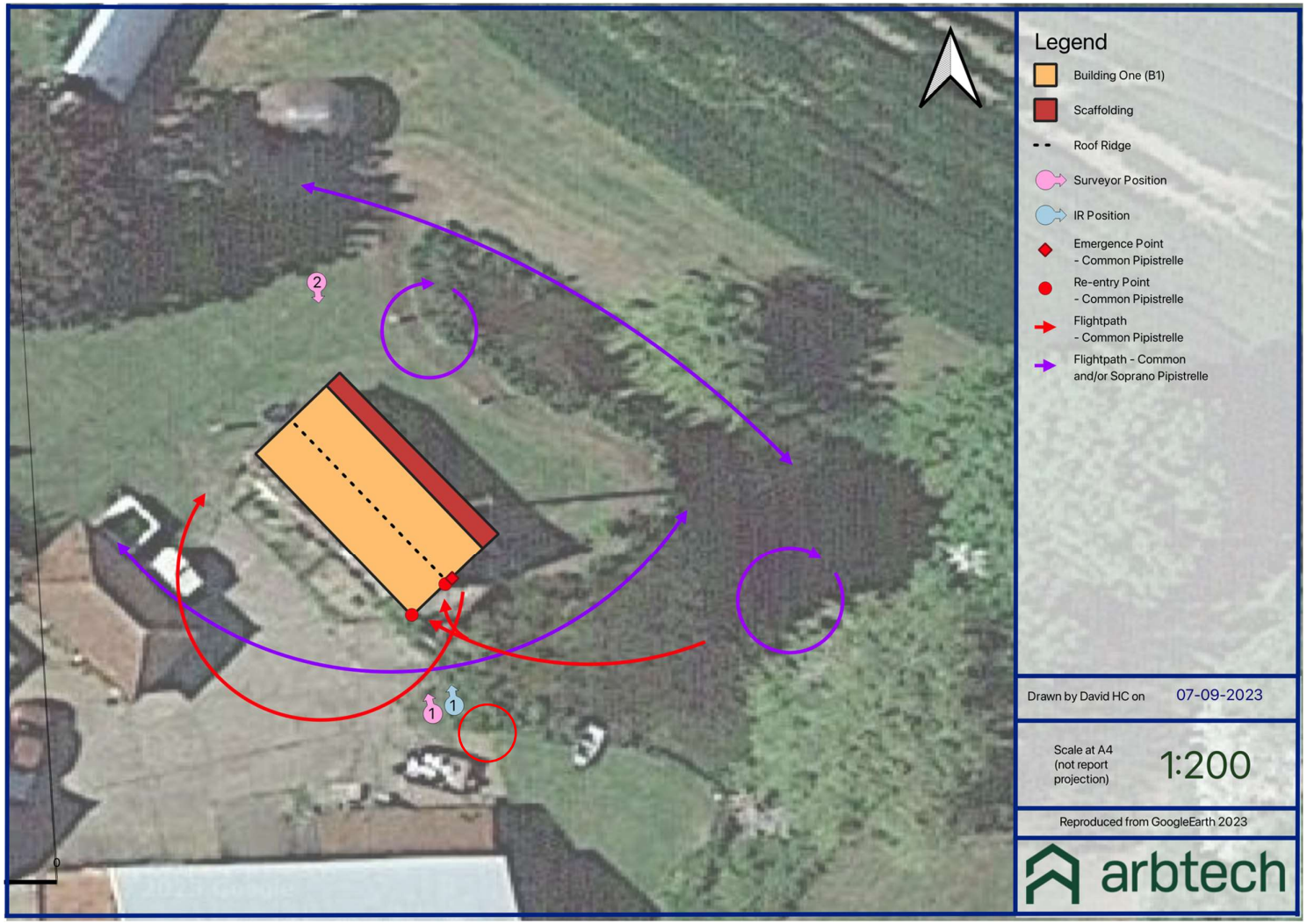
Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan

Appendix 3: BERS Plan

Survey 1) The tear in the interior lining is outlined in red below.


Legend
Building One (B1)
Scaffolding
Roof Ridge
Surveyor Position
IR Position
Emergence Point - Common Pipistrelle
Re-entry Point - Common Pipistrelle
Flightpath - Common Pipistrelle
Flightpath - Common and/or Soprano Pipistrelle
Drawn by David HC on 07-09-2023
Scale at A4 (not report projection) 1:200
Reproduced from GoogleEarth 2023
arbtech
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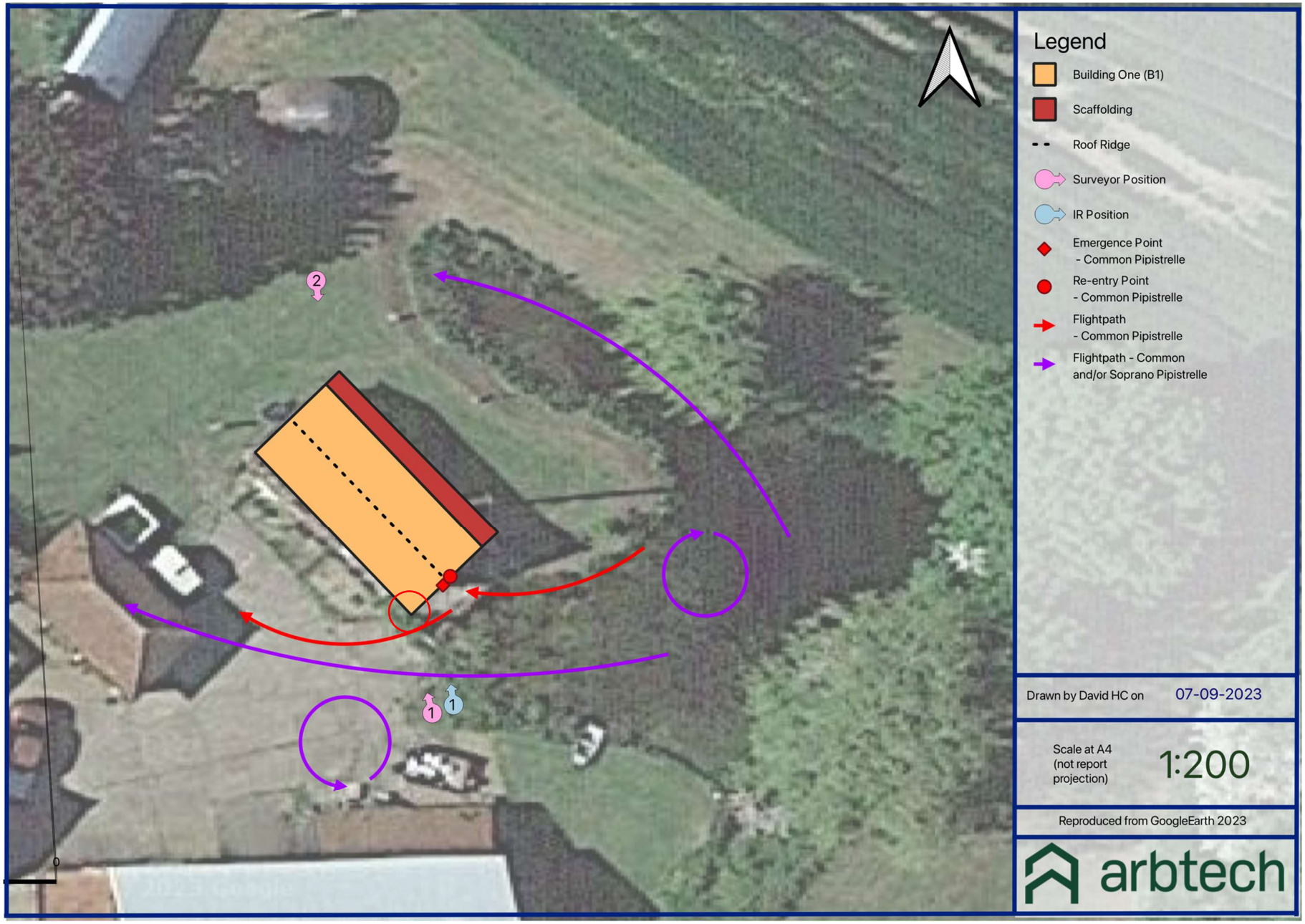

Legend
Building One (B1)
Scaffolding
Roof Ridge
Surveyor Position
IR Position
Emergence Point
- Common Pipistrelle
Re-entry Point
- Common Pipistrelle
Flightpath
- Common Pipistrelle
Flightpath - Common
and/or Soprano Pipistrelle
Drawn by David HC on
07-09-2023
Scale at A4
(not report
projection)
1:200
Reproduced from GoogleEarth 2023
arbtech
2
1
1
0

Appendix 4: DNA Analysis

Results

Sample ID: EG-1134-1

Sample information:

Sample type: Faecal
Species group: Bats
Suspected species: C.pip
Site Location: IP23 7DZ
Comments:

Laboratory information:

DNA Extraction Code: EG-2023-1074
Identification method: qPCR

Analysis Procedure Notes:

All UK bat species tested for - only a single species detected in this sample.

Laboratory Comments:

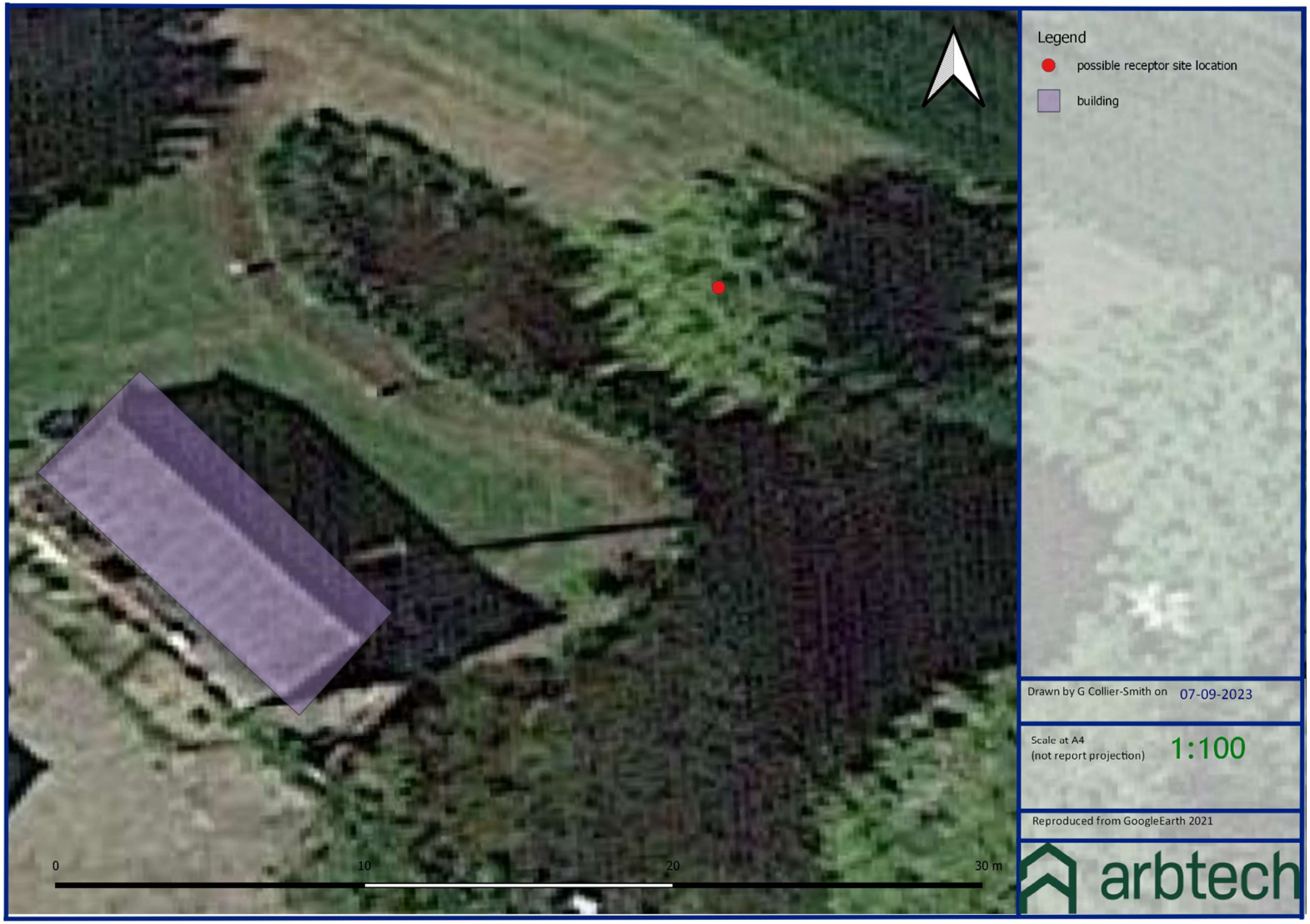
None

Species Identified:

Species 1: Pipistrellus pipistrellus (Common pipistrelle bat)
qPCR Ct Value: 16

Appendix 5: Bat Mitigation and Enhancement Plan

Note: The location of the bat box will be superseded by the conditions of the BMCL and should be subject to a planning condition.



Appendix 6: 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*** (as amended) 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) 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

National Planning Policy Framework 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 species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) 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; measurable gains in biodiversity in and around developments are incorporated; 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 OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England 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 Natural England issues 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; and,
- conserving wild animals.

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

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.