



Bat Survey Report

Building B1, Lamyatt Lodge, Lamyatt, Somerset, BA4 6NP

I & C Developments Ltd.

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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.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

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 I & C Developments Ltd. to undertake Bat Emergence and Re-entry Surveys (BERS) at Lamyatt Lodge, Lamyatt, Somerset, BA4 6NP (hereafter referred to as “the site”). The survey was required to inform a planning application which details the partial demolition and subsequent alteration to an existing courtyard and orangery (hereafter referred to as “the proposed development”).

As a result of the PRA and BERS, six bat roosts have been recorded within B1. The bat roosts have been characterised as follows:

- **Roost Location 1:**
Common pipistrelle day roost – max count two bats.
- **Roost Location 2:**
Common pipistrelle day roost – max count two bats.
- **Roost Location 3:**
Common pipistrelle day roost – max count three bats.
- **Roost Location 4:**
Common pipistrelle day roost – max count four bats.
- **Loft Space within stone-built extension:**
Brown long-eared day roost – no emergence or re-entry; c. 100 - 150 droppings present.
- **Utility room:**
Brown long-eared day/ night roost – no emergence or re-entry; <10 droppings present.

Given the limited scale of the proposed development and that bat roosts recorded through the BERS will be retained, it is assessed that an EPSL is not required from Natural England to lawfully progress the development. However, it is assessed that mitigation measures are required to be implemented during construction to prevent obstructing access to Roost Location 4 and to reduce indirect impacts to roosting bats to an acceptable level during development works. Required mitigation measures and recommendations for enhancements are included within **Table 5**.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd. was instructed by I & C Developments Ltd. to undertake Bat Emergence and Re-entry Surveys (BERS) at Lamyatt Lodge, Lamyatt, Somerset, BA4 6NP (hereafter referred to as “the site”). The survey was required to inform a planning application which details the partial demolition and subsequent alteration to an existing courtyard and orangery (hereafter referred to as “the proposed development”). A proposed development plan 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 has been informed by a Preliminary Roost Assessment (PRA) which was completed by Arbtech Consulting Limited on 7th July 2022 (Arbtech Consulting Ltd 2022). The PRA results are summarised in **Table 1** below.

Table 1: Results of the PRA and subsequent survey requirements

Feature	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>
Roosting bats	Building B1 is assessed to represent a confirmed bat roost . The proposed development comprises the partial demolition and subsequent alteration to an existing courtyard and orangery. Development works could destroy a bat roost and could cause death or injury to bats.	<p>Current guidance states that buildings assessed to represent a confirmed roost should be subject to further survey to characterise the roost type to inform both the planning application and any future Natural England European Protected Species Licence (EPSL) requirements.</p> <p>In line with current guidelines, it is recommended that two dusk emergence surveys and a separate dawn re-entry survey are completed to characterise the roost present. The dusk/ dawn surveys must be undertaken during the active bat season between May and September where at least two of the surveys are completed during the optimal survey period between mid-May and August. The surveys should be separated by a minimum of two weeks.</p> <p>Three surveyors are recommended to provide full coverage of B1.</p> <p>An EPSL application to Natural England may be required. Any EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.</p> <p>Please note that a Material Changes Check will be required within three months of any EPSL submission if no survey work has been undertaken within that period to inform the EPSL application. Furthermore, bat droppings collected during the PRA will need to be sent for DNA analysis to confirm the bat species present.</p>

1.2 Site Context

The site is located at National Grid Reference ST 66109 36521 and has an area of approximately 0.23ha. The site is characterised by a grade II listed Georgian house alongside an associated cottage and outbuildings; this report is focussed on the main Grade II listed residential dwelling (hereafter referred to as B1). The site is enclosed by associated gardens to the north and east, and Portway Hill Road and open agricultural land to the south and west. 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 the 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 to be impacted by the proposed development has been undertaken to determine the presence or likely absence of bat roosts in accordance with recommendations detailed within the associated PRA report.
- 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 surveys and a separate dawn re-entry survey were undertaken of building B1, as per the recommendations from the Preliminary Roost Assessment. The surveys involved surveyors positioned around the 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.

Infrared video recording equipment was also set up to monitor the building during the BERS. This comprised the use of “*Night fox Red Goggles*” set up on a tripod with two separate high-powered infrared lamps to provide enhanced illumination of surveyed building features. Analysis of the footage was subsequently undertaken to double check bat activity recorded during the site survey during hours of darkness when visibility is significantly reduced. A photograph showing the building aspect covered by the IR camera during the BERS is shown in **Appendix 3**.

The Dusk emergence surveys commenced 15 minutes before sunset and continued for 1.5 - 2 hours after sunset – depending upon bat activity and surveyor visibility. Dawn re-entry surveys commenced 1.5 - 2 hours before sunrise and continued until 15 minutes after sunrise.

Surveys were completed during optimal weather conditions i.e., when temperatures were above 7°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

The lead surveyor was Jonathan Stuttard (**JS**) (Natural England Bat Licence Number: **2022-10409-CL17-BAT**). **JS** was assisted by Andy Blincow (**AB**), Nicky Hunt (**NH**), and Amy Hall (**AH**). Each surveyor has either several years of professional bat survey experience or has completed bat survey training and been signed off as competent. Three surveyors were used to provide sufficient cover of the roosting features during the survey. The designated position of each surveyor is shown on the plan in **Appendix 4**.

2.2 DNA analysis

Bat droppings collected from within B1 were sent off to Warwick University School of Life Sciences for DNA analysis and species identification. Species identification is based on a DNA sequence taken from a single dropping as to provide a definitive identification.

2.3 Limitations

The Bat Emergence Survey was completed in accordance with 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 and are able to 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 BERS Survey Results

The results of the BERS are provided in **Table 2**, **Table 3**, and **Table 4** below. The results are illustrated on the plan provided in **Appendix 4**.

Table 2: First Dusk Emergence Survey Results

Date		27/07/22		
Start and end times		20.50 – 22:35 Sunset: 21:05		
Weather conditions		<table border="0"> <tr> <td style="vertical-align: top;"> Start: Temp: 17°C Relative Humidity: 70% Cloud Cover: 40% Wind (BF): 0/8 Rain: None </td> <td style="vertical-align: top;"> End: Temp: 15°C Relative Humidity: 67% Cloud Cover: 10% Wind (BF): 1/8 Rain: None </td> </tr> </table>	Start: Temp: 17°C Relative Humidity: 70% Cloud Cover: 40% Wind (BF): 0/8 Rain: None	End: Temp: 15°C Relative Humidity: 67% Cloud Cover: 10% Wind (BF): 1/8 Rain: None
Start: Temp: 17°C Relative Humidity: 70% Cloud Cover: 40% Wind (BF): 0/8 Rain: None	End: Temp: 15°C Relative Humidity: 67% Cloud Cover: 10% Wind (BF): 1/8 Rain: None			
Surveyor (position) As shown in Appendix 4		JS – NE Bat Licence 2022-10409-CL17-BAT - Position 1: Observing the northeast building aspect. AB – NE Bat Licence 2019-40256-CLS-CLS – Position 2: Observing the northwest building aspect. NH – Second season undertaking BERS - Position 3: Observing the southeast building aspect.		
Building reference	Surveyor Position	Notes/observations:		
B1	1	<p>No bats recorded emerging from this building aspect.</p> <p>The first activity recorded comprised a soprano pipistrelle <i>Pipistrellus pygmaeus</i> that was recorded but not seen at 21.25. No additional soprano pipistrelles were recorded throughout the survey. Seven common pipistrelles <i>Pipistrellus pipistrellus</i> were recorded between 21.29 and 21.59. These bats were predominantly recorded commuting from north to south adjacent to the east of B1. Two common pipistrelles were also recorded foraging over vegetation in the associated garden. A whiskered bat <i>Myotis mystacinus</i> and a daubenton's bat <i>Myotis daubentonii</i> were recorded at 22.07 and 22.29 respectively. Both bats were recorded commuting from north to south adjacent to the east of B1.</p>		
B1	2	<p>Two common pipistrelles were recorded emerging from underneath a lifted roof tile on the east facing roof aspect adjacent to the north facing gable end (Roost location 1; see Appendix 4). The location is shown in Figure 1.</p> <p>The first activity recorded comprised the first emerging common pipistrelle at 21.15. The second emerging common pipistrelle was recorded at 21.24. An additional nine common pipistrelles were recorded between 21.30 and 22.30. These bats were predominantly</p>		

recorded commuting in both northerly and southerly directions adjacent to the west of B1. Two common pipistrelles were also recorded foraging over vegetation north of B1. No other bat species were recorded.



Figure 1: The northwest aspect of B1. The red arrow denotes the emergence location of two common pipistrelles from underneath a tile.

B1	3	<p>No bats recorded emerging from this building aspect.</p> <p>The first activity recorded comprised a common pipistrelle at 21.18 commuting from north to south adjacent to the east of B1. An additional twelve common pipistrelles were recorded throughout the survey between 21.19 and 22.22. Most of these bats were recorded foraging under an adjacent ash tree canopy to the southeast of B1. No other bat species were recorded.</p>
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Table 3: Dawn Re-entry Survey Results

Date		16/08/22		
Start and end times		04.20 – 06.12 Sunrise: 05:57		
Weather conditions		<table border="0"> <tr> <td style="vertical-align: top;"> Start: Temp: 16.5°C Relative Humidity: 90% Cloud Cover: 90% Wind (BF): 1/8 Rain: None </td> <td style="vertical-align: top;"> End: Temp: 16°C Relative Humidity: 85% Cloud Cover: 100% Wind (BF): 1/8 Rain: None </td> </tr> </table>	Start: Temp: 16.5°C Relative Humidity: 90% Cloud Cover: 90% Wind (BF): 1/8 Rain: None	End: Temp: 16°C Relative Humidity: 85% Cloud Cover: 100% Wind (BF): 1/8 Rain: None
Start: Temp: 16.5°C Relative Humidity: 90% Cloud Cover: 90% Wind (BF): 1/8 Rain: None	End: Temp: 16°C Relative Humidity: 85% Cloud Cover: 100% Wind (BF): 1/8 Rain: None			
Surveyor (position) As shown in Appendix 4		JS – NE Bat Licence 2022-10409-CL17-BAT - Position 1: Observing the northeast building aspect. AB – NE Bat Licence 2019-40256-CLS-CLS – Position 2: Observing the northwest building aspect. NH – Second season undertaking BERS - Position 3: Observing the southeast building aspect.		
Building reference	Surveyor position	Notes/observations:		
B1	1	<p>No bats recorded emerging from this building aspect.</p> <p>The first activity recorded comprised a common pipistrelle at 04.30 that was recorded but not seen. An additional six common pipistrelles were recorded throughout the survey between 05.00 and 05.38. These bats were either recorded but not seen or recorded foraging over vegetation in the associated garden. Two whiskered bats were recorded but not seen at 04.39 and 04.48. Two brown long-eared bats <i>Plecotus auritus</i> were also recorded but not seen at 05.23 and 05.34.</p>		
B1	2	<p>Five common pipistrelles were recorded re-entering B1 underneath the gable end timber fascia board at two locations (Roost locations 2 & 3; see Appendix 4). The locations are shown in Figure 2. Two bats were recorded re-entering on the eastern side (Roost location 2) and three bats were recorded re-entering on the western side (roost location 3).</p> <p>The first activity recorded comprised a common pipistrelle that was recorded but not seen at 04.27. Two additional common pipistrelles were recorded foraging over vegetation adjacent to the north of B1 at 05.22 and 05.33. All other bat activity recorded relates to the re-entries. Common pipistrelles were recorded re-entering roost location 2 at 05.42 and 05.44, and three common pipistrelles were recorded re-entering roost location 3 at 05.45, 05.47, and 05.51.</p>		



Figure 2: The northwest aspect of B1. The red arrows denote bat re-entry locations 2 and 3.

<p>B1</p>	<p>3</p>	<p>common pipistrelles were recorded re-entering B1 through a small hole where external cables are routed between stonework and brickwork (Roost location 4; see Appendix 4). The location is shown in Figure 3.</p> <p>The first activity recorded comprised a common pipistrelle that was recorded but not seen at 04.27. Regular common pipistrelle activity was subsequently recorded throughout the survey between 04.29 and 05.21. These bats were predominantly recorded foraging under an adjacent ash tree canopy before leaving the site. Three serotines <i>Eptesicus serotinus</i> were recorded but not seen at 04.33, 05.21, and 05.34. All other bat activity recorded relates to the re-entries. Common pipistrelles were recorded re-entering roost location 3 at 05.46 and 05.50.</p>
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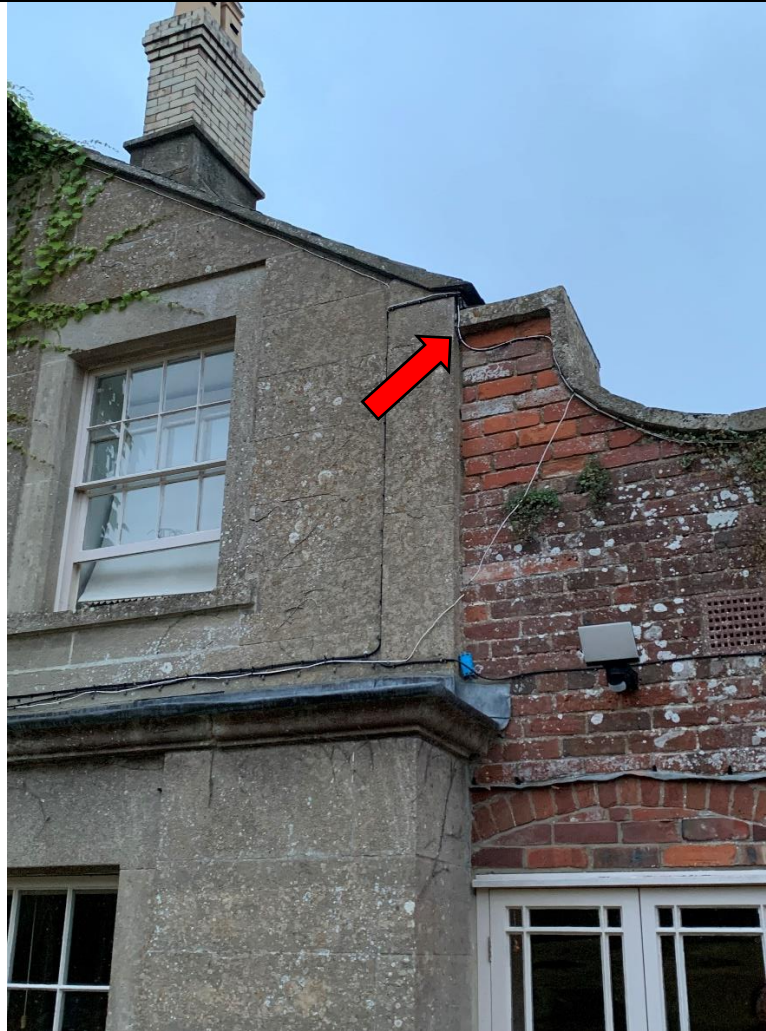


Figure 3: The northwest aspect of B1. The red arrow denotes the emergence location of two common pipistrelles.

Table 4: Second Dusk Emergence Survey results

Date		30/08/22		
Start and end times		19.46 – 21.31 Sunset: 20:01		
Weather conditions		<table border="0"> <tr> <td style="vertical-align: top;"> Start: Temp: 18°C Relative Humidity: 66% Cloud Cover: 10% Wind (BF): 2/8 Rain: None </td> <td style="vertical-align: top;"> End: Temp: 18°C Relative Humidity: 76% Cloud Cover: 0% Wind (BF): 0/8 Rain: None </td> </tr> </table>	Start: Temp: 18°C Relative Humidity: 66% Cloud Cover: 10% Wind (BF): 2/8 Rain: None	End: Temp: 18°C Relative Humidity: 76% Cloud Cover: 0% Wind (BF): 0/8 Rain: None
Start: Temp: 18°C Relative Humidity: 66% Cloud Cover: 10% Wind (BF): 2/8 Rain: None	End: Temp: 18°C Relative Humidity: 76% Cloud Cover: 0% Wind (BF): 0/8 Rain: None			
Surveyor (position) As shown in Appendix 4		JS – NE Bat Licence 2022-10409-CL17-BAT - Position 1: Observing the northeast building aspect. NH – Second season undertaking BERS – Position 2: Observing the northwest building aspect. AH – Second season undertaking BERS - Position 3: Observing the southeast building aspect.		
Building reference	Surveyor position	Notes/observations:		
B1	1	<p>No bats recorded emerging from this building aspect.</p> <p>The first activity recorded comprised a common pipistrelle commuting from north to south adjacent to the east of B1 at 20.20. An additional six common pipistrelles were recorded throughout the survey between 20.23 and 20.25. These bats were also recorded commuting from north to south adjacent to the east of B1. A noctule <i>Nyctalus noctula</i> was recorded but not seen at 20.39, presumably commuting high over the site. A barbastelle <i>Barbastellus barbastellus</i> and a Leisler's bat <i>Nycatalus leislerii</i> were recorded but not seen undertaking a quick pass at 21.17 and 21.27.</p>		
B1	2	<p>A single common pipistrelle was recorded emerging roost location 2.</p> <p>The first activity recorded was of a common pipistrelle that was recorded but not seen at 20.20. An additional twelve common pipistrelles were recorded throughout the survey between 20.22 and 21.30. The emerging common pipistrelle was recorded at 20.30, most other common pipistrelles were recorded either commuting from south to north adjacent to the east of B1 or foraging underneath an adjacent ash tree canopy. A brown long-eared bat and a unidentified <i>Myotis spp.</i> bat were recorded but not seen at 20.41 and 20.49 respectively. Two noctule bats were recorded but not seen at 20.26 and 21.26, presumably commuting high over the site.</p>		
B1	3	<p>Four common pipistrelles were recorded emerging from roost location 4.</p> <p>The first activity recorded comprised a common pipistrelle emerging from roost location 4 at 20.15. Three additional common pipistrelles were recorded emerging from roost location 4 at 20.25, 20.27, and 20.28. An additional six common pipistrelles were recorded between</p>		

		20.20 and 21.30. These bats were predominantly recorded foraging under an adjacent ash tree canopy. A noctule was also recorded but not seen at 21.17, presumably commuting high over the site.
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3.2 DNA Analysis Results

The DNA analysis confirmed the droppings within B1 were deposited by brown long-eared bats. Full results of the DNA analysis are provided in **Appendix 5**.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in **Appendix 6**.

Bats are protected under the Wildlife and Countryside Act and the Conservation of Habitats and Species Regulations 2017 (amended by the Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019).

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.

An EPSL **will not be required** to enable the proposed works to be lawfully undertaken. Appropriate justification for this assessment is provided in **Table 5** of this report

4.2 Evaluation

Considering the results of surveys undertaken at the site, **Table 5** presents an evaluation of the value of building B1 for roosting bats in relation to the proposed development.

Table 5: Evaluation of the buildings surveyed on site for roosting bats

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021) and local planning policy</i>
Roosting bats	<p>As a result of the PRA and BERS, six bat roosts have been recorded within B1. The bat roosts have been characterised as follows:</p> <p>Roost Location 1: Common pipistrelle day roost – max count two bats.</p> <p>Roost Location 2: Common pipistrelle day roost – max count two bats.</p> <p>Roost Location 3: Common pipistrelle day roost – max count three bats.</p> <p>Roost Location 4: Common pipistrelle day roost – max count four bats.</p>	<p>The proposed development is limited to the central courtyard and orangery only, as shown on the plan in Appendix 1. As a result, all roost locations will be retained and thus no direct impacts are anticipated.</p> <p>However, there is potential for indirect impacts to bat roosts through disturbance during development activity including noise, artificial light spill, vibration, and other pollution pathways. Most notably, the entrance to Roost Location 4 is located in close proximity to the works</p>	<p>Given the limited scale of the proposed development and that bat roosts recorded through the BERS will be retained, it is assessed that an EPSL is not required from Natural England to lawfully progress the development. However, it is assessed that mitigation measures are required to be implemented during construction to prevent obstructing access to Roost Location 4 and to reduce indirect impacts to roosting bats to an acceptable level during development works. The following mitigation measures are considered necessary:</p> <ul style="list-style-type: none"> • Demolition works required to facilitate the proposed development must be supervised by a bat licensed ecologist, who will act as an Ecological Clerk of Works (EcOW). • Although no bat roosts were recorded within the area subject to demolition, there remains a small number of bat roost features underneath roof tiles that could be occupied by roosting bats. Roof tiles must therefore be carefully removed by hand and supervised by the EcOW. Once the EcOW determines the risk to have been effectively reduced through sensitive destruction of existing roost features, works can then commence in the absence of an EcOW. • No scaffolding or any other temporary access structure will be positioned within 3m of Roost Location 4, the location of which is clearly shown in Figure 3 and on the plan provided in Appendix 4. It is 	<p>The installation of a minimum of two bat boxes or integrated bat bricks should be installed in accordance with the proposed development. Recommended bat boxes/ bricks include:</p> <ul style="list-style-type: none"> • 2F Schwegler Bat Box • 1FF Schwegler Bat Box • 2FN Schwegler Bat Box • Beaumaris Bat Box • Vivara Pro Woodstone Bat Box • Schwegler 1FR Bat Tubes <p>Bat boxes can be installed retrospectively and attached to the outside of buildings. Bat bricks require material consideration and are integrated into the fabric of the building.</p> <p>Bat boxes/ bricks should be positioned 3-5m above ground level facing in a south, south-easterly or south-westerly direction with a</p>

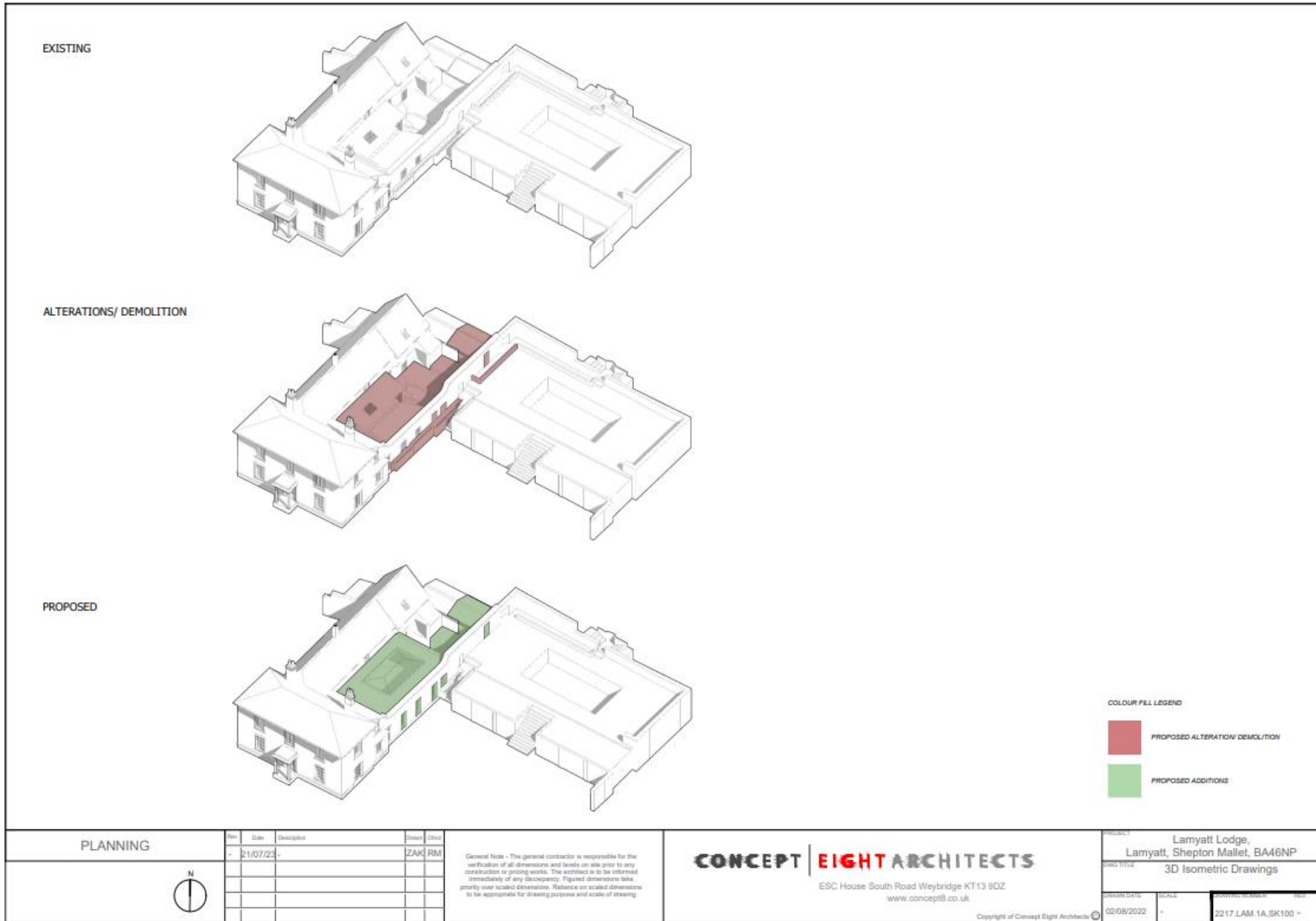
	<p>Loft Space within stone-built extension: Brown long-eared day roost – no emergence or re-entry; c. 100 – 150 droppings present.</p> <p>Utility room: Brown long-eared day/night roost – no emergence or re-entry; <10 droppings present.</p> <p>It is noted that these roost types are considered to have low conservation value in line with the Bat Mitigation Guidelines (English Nature, 2004).</p>	<p>and there is additional risk that temporary access infrastructure, such as scaffolding, could obstruct the entrance.</p>	<p>noted that it is anticipated that no temporary access structures will be required in proximity to any other roost location.</p> <ul style="list-style-type: none"> • Timing of the works will be constrained to the winter months (November to March) when bats using day roosts will have relocated to different hibernation roost sites significantly reducing the likelihood of occupation of B1 during development activity. • Artificial light spill over all roost locations must be avoided. All works must be undertaken during daylight hours, reducing artificial lighting requirements. If external lighting is required for short durations during works, lighting must be implemented in accordance with current guidance (Bat Conservation Trust and the Institute of Lighting Professionals 2018). • Avoiding excessive noise and vibration disturbance during the works, which is predominantly caused by power tools or radios within close proximity of the retained created roosts. Radios must be located at least 10m from all roost locations. Works must only take place between typical working hours, such as between 8am and 5pm to avoid unnecessary extended periods of noise and vibration. • In the unlikely event that a bat or recent evidence of bats is discovered within the building section subject to demolition works during construction, all work must stop and a bat licensed ecologist contacted for further advice. Requirements for the project to progress under an EPSL will be reviewed. It is possible works may not be able to continue until an EPSL has been obtained. 	<p>clear flight path to and from the entrance, away from artificial light.</p>
<p>Foraging and commuting bats</p>	<p>Foraging and commuting activity was recorded throughout the surveys adjacent to all aspects of B1. Numerous bat</p>	<p>The proposed development is located within the existing building curtilage only and</p>	<p>A low impact lighting strategy should be adopted for the site, which should include the following measures as to comply with current guidelines with regards to the impacts or artificial lighting on bats (Bat Conservation Trust and the Institute of Lighting Professionals 2018):</p>	<p>A Preliminary Ecological Appraisal has been undertaken at the site to inform the planning application (Arbtech Consulting Ltd. 2023). Numerous ecological</p>

	<p>species were recorded to be active including a single pass by a barbastelle bat, which is an Annex II bat species (see Appendix 6). Annex II bat species are afforded additional consideration through the planning process due to their rarity and limited distribution in the UK.</p>	<p>thus no direct impacts to foraging and commuting bats are anticipated. However, there is potential for significant indirect disturbance to foraging and commuting bats through an increase in artificial light pollution resulting from external lighting installation.</p>	<ul style="list-style-type: none"> • Use of narrow spectrum light sources to lower the range of species affected by lighting. • Use of light sources that emit minimal ultra-violet light. • Avoidance of 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 shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Absence of bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. <p>Light spill should 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.</p> <p>External lighting should 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.</p>	<p>enhancements have been undertaken at the site including extensive tree and hedgerow planting, and wildflower grassland creation. Such enhancements are considered to suitably compensate for the loss of habitats resulting from the linked barn extension. Detail of this habitat enhancement is included within the Preliminary Ecological Appraisal.</p>
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5.0 Bibliography

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Appendix 1: Proposed Development Plan



Rev	Date	Description	Drawn	Checked
-	21/07/23		ZAK	RM

General Note - The general contractor is responsible for the verification of all dimensions and levels on site prior to any construction or pricing works. The architect is to be informed immediately of any discrepancy. Figured dimensions take priority over scaled dimensions. Reference on scale dimensions to be appropriate for drawing purpose and scale of drawing.

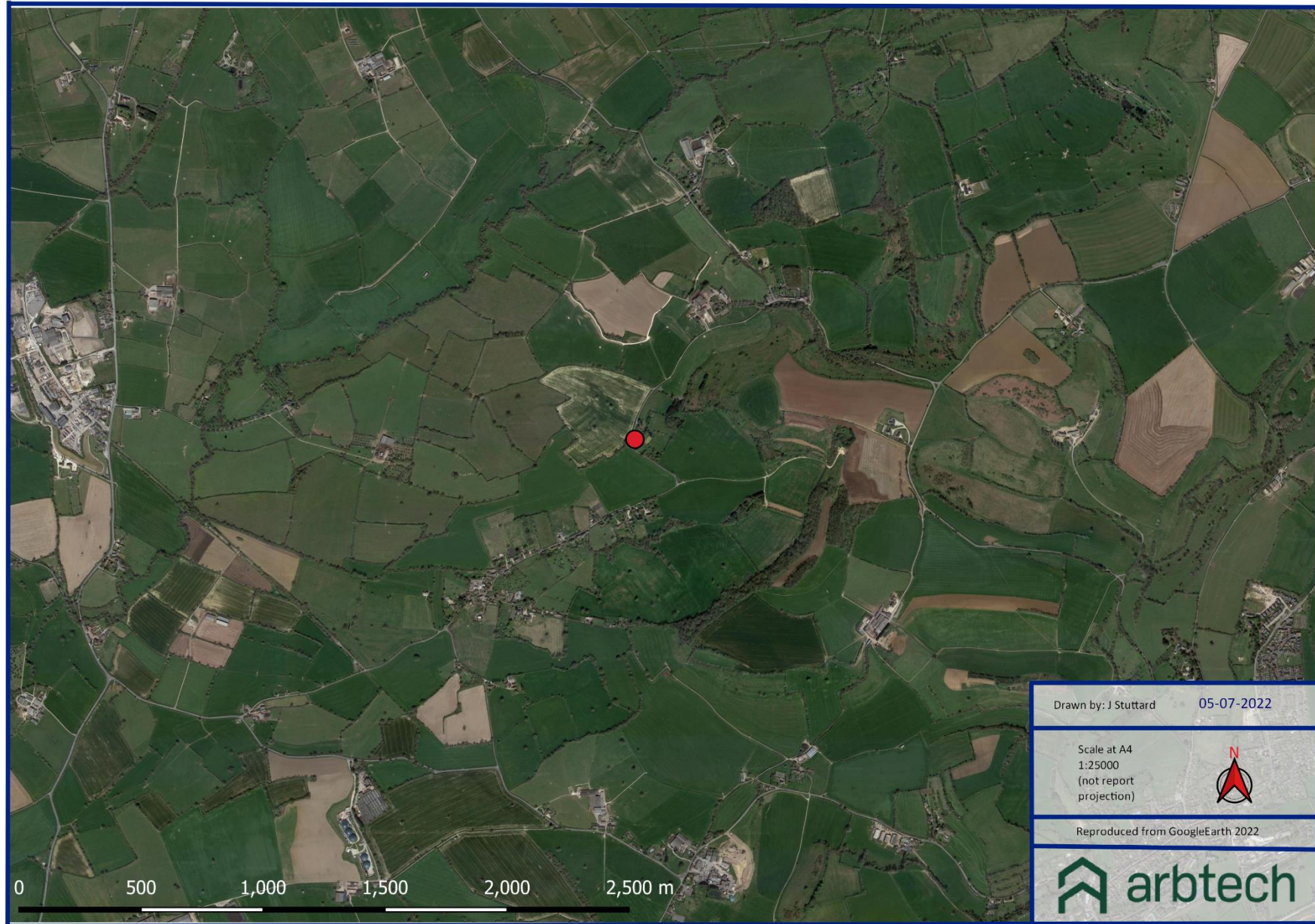
CONCEPT | EIGHT ARCHITECTS

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www.concept8.co.uk

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PROJECT		Lamyatt Lodge, Lamyatt, Shepton Mallet, BA46NP	
WORK TITLE		3D Isometric Drawings	
ISSUE DATE	SCALE	DRAWING NUMBER	REV
02/08/2022	-	2217 LAM 1A_SK100 -	

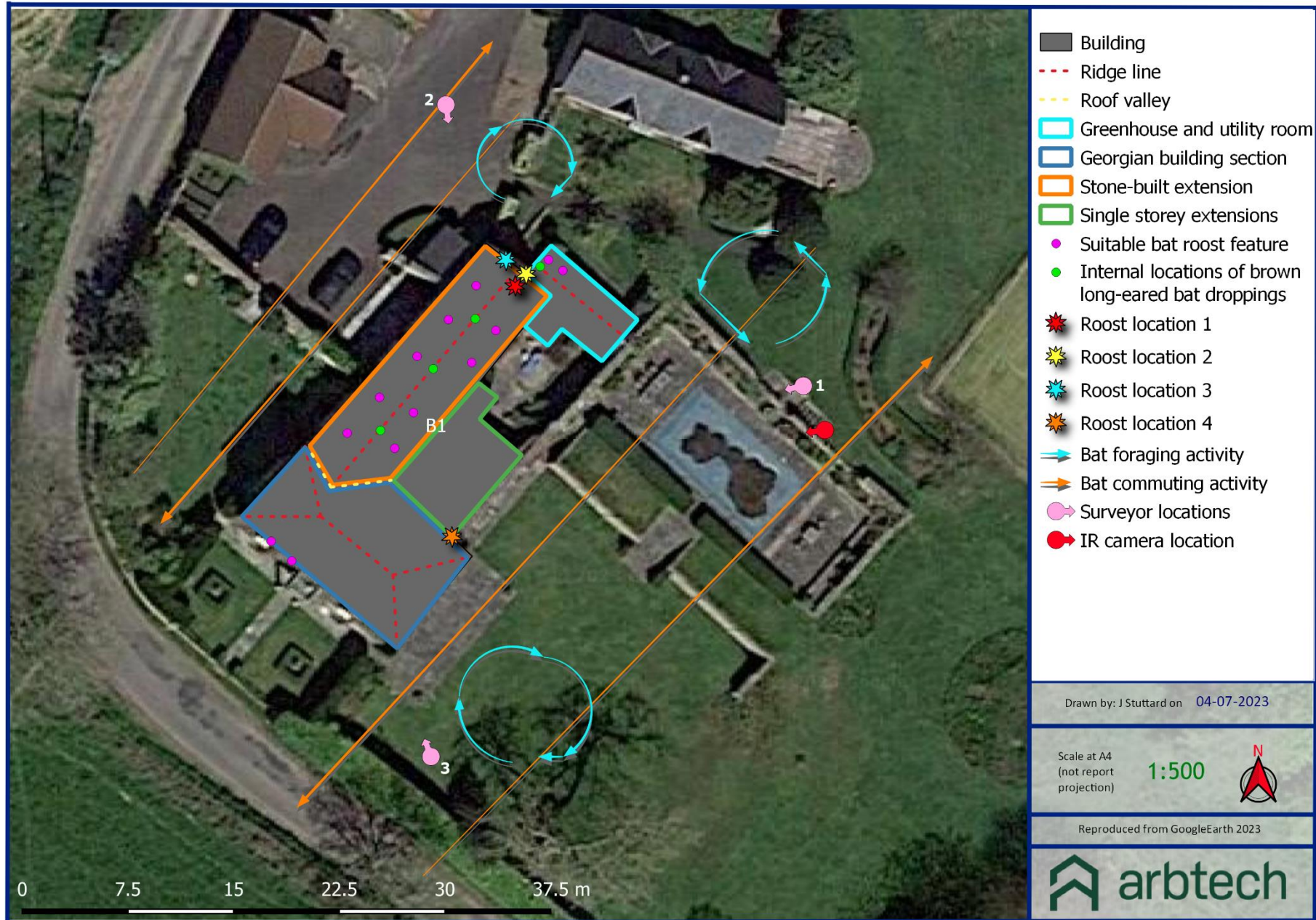
Appendix 2: Site Location Plan



Appendix 3: Screenshot of Infrared Video Recording



Appendix 4: Bat Survey Plan



Appendix 5: DNA Analysis Results



15 August 22

Re: Identification Results for Johnathan Stuttard, Arbtech Consulting Ltd

Job number 18634, received 08 August 2022

Sample labelled: Lamyatt Lodge, BA4 6NP

PCR amplification successful. DNA sequence:

```
ATGACCAACATTGAAAATCCCACCCTCTCATAAAAAATTATCAATGACTCATTGATTGA  
CTTACCTGCTCCCTCAAATATTTTCATCATGATGAAACTTTGGATCTTCTAGGCATTT  
GCCTAGCAC
```

Phylogenetic analysis identification: *Plecotus auritus*

Confirmed by maximum likelihood, maximum parsimony, bootstrap 100%.

Best regards,

Professor Robin Allaby

The results and conclusions in this report are based on an investigation of mtDNA sequence analysis. The results obtained have been reported with accuracy. The interpretation represents the most probable conclusion for the DNA sequence obtained rather than the sample provided given current levels of species data. It should be borne in mind that different circumstances might produce different results. Therefore, care must be taken with interpretation of the results especially if they are used as the basis for commercial recommendations.

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University of Warwick,
Coventry CV4 7AL
Tel: 02476575059
Fax: 02476574500
Email: r.g.allaby@warwick.ac.uk

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 (ENGLAND)

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.

LOCAL PLANNING POLICY

Mendip District Local Plan Part I

The Mendip District Local Plan Part I is the key document outlining the long-term spatial vision for the district. The document includes policies which relate to biodiversity and nature conservation which are relevant to this report. Such policies are detailed below:

Part I Policy DP5: “*Biodiversity and Ecological Networks*” states:

“The Council will use the local planning process to protect, enhance and restore Somerset’s Ecological Network within Mendip.

- 1. All development proposals must ensure the protection, conservation and, where possible, enhancement of internationally, nationally or locally designated natural habitat areas and species.*
- 2. Proposals with the potential to cause adverse impacts on protected and/or priority sites, species or habitats are unlikely to be sustainable and will be resisted.*

Exceptions will only be made where:

- a. the impacts cannot be reasonably avoided.*
- b. offsetting/compensation for the impacts can be secured.*
- c. other considerations of public interest clearly outweigh the impacts, in line with relevant legislation.*

Offsets as mitigation or compensation required under criterion b) will be calculated using Somerset County Council’s Biodiversity Offsetting methodology.”

Part I Policy DP6: “*Bat Protection*” states:

“Planning Applications for development on sites within the Bat Consultation Zone will require a ‘test of significance’ under the Habitats Regulations to be carried out. Applicants must provide, with their application, all necessary information to enable compliance with the Habitats Regulations (or their successor), including any necessary survey work, reports and avoidance / mitigation measures.”

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:

- 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 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.