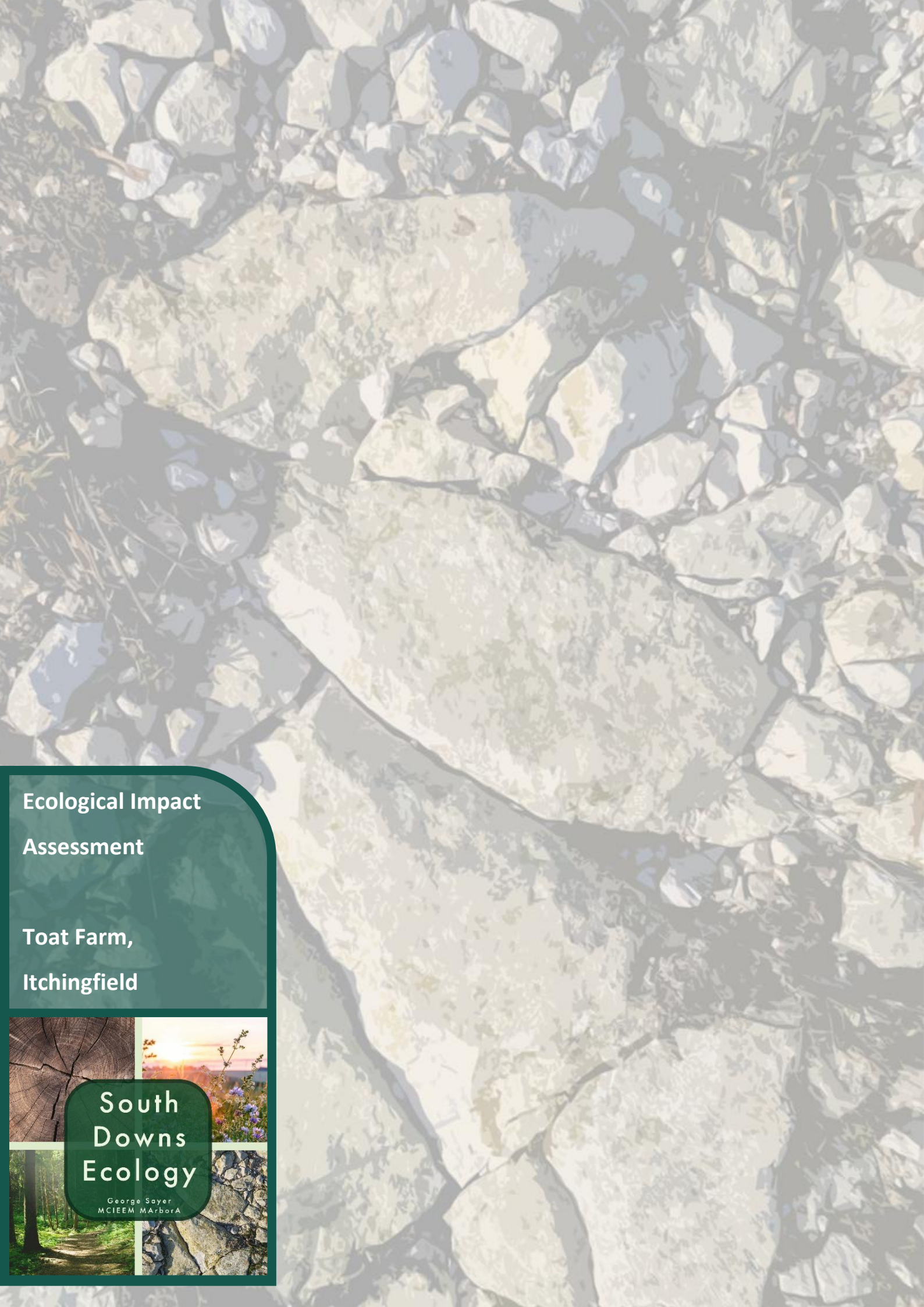
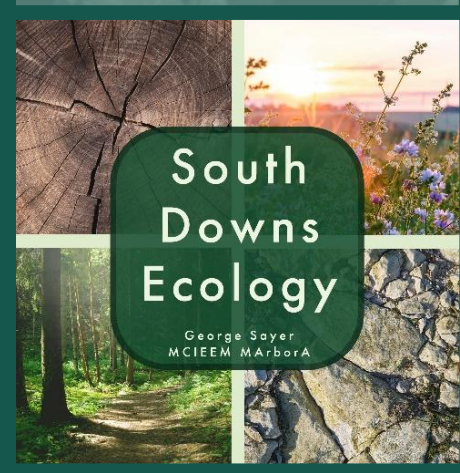




Ecological Impact Assessment

Toat Farm,
Itchingfield



South
Downs
Ecology

George Sayer
MCIEEM MArborA

Ecological Impact Assessment

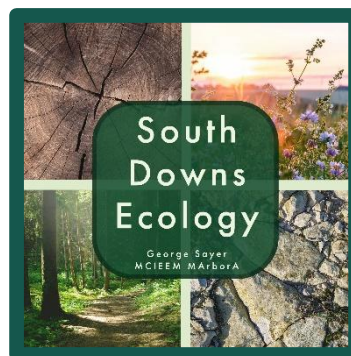
Toat Farm, Itchingfield

Quality Assurance:

Document reference	AB015.ToatFarm.EcIA.v3
Site	Toat Farm, Bashurst Hill, Itchingfield, Horsham, RH13 0PB
Client	Mark Alford Design Limited
Author	Aidan Bird BSc ACIEEM, Consultant Ecologist
Reviewer	 George Sayer BSc (Hons) PgDip MCIEEM MARborA Principal Ecologist and Director, South Downs Ecology
Revision Number	3
Report issue date	09/12/2025
Report conditions	The methods and recommendations in this report are based on the following: • CIEEM Guidelines for Ecological Report Writing 2017 (CIEEM, 2017) • CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2024) • Surveys have been carried out following the guidance sources set out in CIEEM's Good Practice Guidance for Habitats and Species (CIEEM, 2021), which include: ○ CIEEM Guidelines for Preliminary Ecological Appraisal, Second Edition (CIEEM, 2017) ○ CIEEM Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. Second Edition (CIEEM, 2017) ○ Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (BCT, 2023)

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Summary

Mark Alford Designs Limited have commissioned Bat Emergence Surveys and ecological impact assessment for proposals at the existing property; Toat Farm, Bashurst Hill, Itchingfield, Horsham, RH13 0PB (TQ 12306 29102, hereafter referred to as 'the site').

A Preliminary Bat Roost Assessment was carried out on the 27th of November 2024 by Alex Rosenfeld (Freelance Ecologist) and report produced (Appx.E).

An update site visit was carried on the 6th March 2025 and a suite of bat emergence surveys were undertaken of the barn B1 on 10th May 2025, 3rd June 2025, and 27th June 2025. The following ecological impact assessment report was completed by Aidan Bird (BSc Ecology and Conservation, ACIEEM –NE Level 2 Bat Licence 2025-13045-CL18-BAT) with supervision by George Sayer (BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN – Principal Ecologist).

The site contains two buildings, the main house B2 in the centre of the site and a detached open sided barn B1 on the southern boundary. The preliminary bat roost assessment deemed the barn suitability for bats to be moderate however the update daytime assessment considered both the main property B2 and barn B1 to be of high suitability for roosting bats; only the barn is due to be impacted by the proposals therefore the main house was only surveyed externally and does not require bat emergence surveys.

The proposals are to convert the barn B1, currently used for storage, into a two-bedroom annex to the main property. The plans involve a significant increase in windows, skylights, and doors with a terrace leading out on the western end.

The on-site dwelling B2 was confirmed as a bat roost during the update site visit, and no further surveys were conducted as the structure is not to be affected by the proposals. Further surveys and other methods ascertained that the barn B1 is a day roost for widespread species including 2no. Common pipistrelle *Pipistrellus pipistrellus* roosting separately, 1no. Soprano pipistrelle *Pipistrellus pygmaeus*, 2.no Brown long-eared *Plecotus auritus*; rarer 1no.Natterer's myotis *Myotis Nattereri*, and very rare annex II species, Barbastelle *Barbastella barbastellus*. The surveys also revealed two barbastelle bats emerging in tandem on the third survey (27th of July), most likely indicating a mother and pup given the time of year. The barn is therefore classified as a suspected satellite roost with individuals assumed to form part of the maternity group studied at The Mens SAC (Appx.A_Fig.5) however could form part of another unknown population or coincidental. Moreover, the barn has significance for all these species throughout the year with a large volume of social calls identified in September indicative of use as a mating roost.

Sufficient mitigation would include, at minimum, a like-for-like replacement for all roosts present; multiple crevice roosts across all aspects of the barn, multiple void roosting areas with enhancements such as squeeze boxes and double ridges, and at least one large open access void area with exposed rough timber with dimensions similar to the large section of the barn to facilitate mating. Additionally, any sky facing glasswork must incorporate automatic blind systems that prevent nocturnal light spill.

A European Protected Species Mitigation License will be applied for, or the site will be registered under a Bat Mitigation Class / Earned Recognition Licence before destructive works can be undertaken, adhering to the mitigation strategy set out above.

When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon habitats or other protected species, *i.e* great crested newt *Triturus cristatus*, in accordance with planning policy and once enhancements are considered, would result in a minor net gain. The proposals would therefore accord with the relevant local and national planning policies and the relevant legislation.

1.0 Introduction

- 1.1 Mark Alford Designs Limited have commissioned Bat Emergence Surveys and ecological impact assessment for proposals at the existing property; Toat Farm, Bashurst Hill, Itchingfield, Horsham, RH13 0PB (TQ 12306 29102, hereafter referred to as 'the site').
- 1.2 A Preliminary Bat Roost Assessment was carried out on the 27th of November 2024 by Alex Rosenfeld (Freelance Ecologist) and report produced (Appx.E).
- 1.3 An update site visit was carried on the 6th March 2025 and a suite of bat emergence surveys were undertaken of the barn B1 on 10th May 2025, 3rd June 2025, and 27th June 2025. The following ecological impact assessment report was completed by Aidan Bird (BSc Ecology and Conservation, ACIEEM –NE Level 2 Bat Licence 2025-13045-CL18-BAT) with supervision by George Sayer (BSc (Hons) Environmental Sciences, PgDip Endangered Species Recovery, MArborA, MCIEEM, NE Licence Holder – Bats Level 2 and GCN – Principal Ecologist).
- 1.4 The site contains two buildings, the main house B2 in the centre of the site and a detached open sided barn B1 on the southern boundary. The preliminary bat roost assessment deemed the barn suitability for bats to be moderate however the update daytime assessment considered both the main property B2 and barn B1 to be of high suitability for roosting bats; only the barn is due to be impacted by the proposals therefore the main house was only surveyed externally and does not require bat emergence surveys.
- 1.5 This appraisal consisted of an assessment of habitats and structures to determine their potential for protected species. Following this an on-site and desktop assessment was undertaken, of the likelihood of National or European Protected Species being present on or near site, and the constraints these may pose on the development proposals.
- 1.6 Based on the results of the appraisal, recommendations for further survey, mitigation and potential ecological enhancements were provided.

Site Description and Surrounding Area

- 1.7 The site consists of a central farmhouse B2 surrounded by variety of habitats including permeable surfaces, maintained grassland, wildflower strips, boundary hedgerows and an assortment of trees. The farmhouse demonstrates local architectural techniques with Horsham stone roof and Sussex clay hanging tiles across all elevations. A medium sized pond can be found north of the main house B2 with well-established native and nonnative flora around. The barn B1 on the southern boundary consists of an original section with clay tiles, no bitumen felt and significant proportions of cladding lost or warped; the west portion follows similar construction techniques but is in far better condition with intact 1f bitumen felt membrane and good condition timbers. The barn B1 sits on a concrete slab with an open northern front to the newer section (west) and missing barn doors alongside significant cladding gaps on the old (east).
- 1.8 The site is accessed via an electronic wooden gate off Bashurst Hill road. Properties within the local area are of similar size with significant gardens and interconnected by semi mature and mature trees. The wider area is covered by agricultural fields, small woodlands, and connective treelines

Proposals

- 1.9 The proposals are to convert the barn B1, currently used for storage, into a two-bedroom annex to the main property. The plans involve a significant increase in windows, skylights, and doors with a terrace leading out on the western end. All ceilings are due to be vaulted therefore will result in loss of all roost spaces within the current barn B1.

2.0 Scope of Assessment

1. *Categorise habitats present on the site;*
2. *Identify habitat which may have potential for protected species;*
3. *Identify whether any signs of protected species are present on-site;*
4. *Recommend whether further surveys are required, or whether there are any relevant constraints with regards to protected species;*
5. *Identify impacts of the proposed development and set out appropriate avoidance, mitigation and compensation measures;*
6. *Provide recommendations as to how the site and proposals could be enhanced with regards to protected species and habitats.*

- 2.1 This appraisal and assessment is deemed to be relevant for a maximum of 18 months due to the possibility of changes in the habitats on-site. Should the site or proposals alter, the ecologist should be consulted to confirm that the appraisal is still valid.

3.0 Planning Policy and Legislation

National Planning Policy

- 3.1 The National Planning Policy Framework (NPPF) was updated in December 2024 and sets out the government planning policies for England and how they should be applied. 'Chapter 15: Conserving and Enhancing the Natural Environment' states that development should be 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'
- 3.2 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

Local Planning Policy

- 3.3 The site is within the Horsham District area; the Local Plan consists of the Horsham District Planning Framework (HDPF) which identifies six themes to prioritise and sets out policy for the years up to 2031.
- i. Economic Development: Plan for a successful local economy with high levels of employment
 - ii. Efficiency and Taxation: Delivering excellent value and high performance
 - iii. Arts, Heritage and Leisure: Build an arts, leisure and culture reputation that also supports our economy
 - iv. Living, Working Communities: Working together to support the life of local communities
 - v. Environment: A better environment for today and tomorrow
 - vi. Safer and Healthier: Improving health and well being

Policy 24 - Environmental Protection

- 3.4 The high quality of the district's environment will be protected through the planning process and the provision of local guidance documents. Taking into account any relevant Planning Guidance Documents, developments will be expected to minimise exposure to and the emission of pollutants including noise, odour, air and light pollution and ensure that they:
- i. Address land contamination by promoting the appropriate re-use of sites and requiring the delivery of appropriate remediation;
 - ii. Are appropriate to their location, taking account of ground conditions and land instability;
 - iii. Maintain or improve the environmental quality of any watercourses, groundwater and drinking water supplies, and prevents contaminated run-off to surface water sewers;
 - iv. Minimise the air pollution and greenhouse gas emissions in order to protect human health and the environment;
 - v. Contribute to the implementation of local Air Quality Action Plans and do not conflict with its objectives;
 - vi. Maintain or reduce the number of people exposed to poor air quality including odour. Consideration should be given to development that will result in new public exposure, particularly where vulnerable people (e.g. the elderly, care homes or schools) would be exposed to the areas of poor air quality; and
 - vii. Ensure that the cumulative impact of all relevant committed developments is appropriately assessed. Incorporates partnership working with conservation organisations to improve public understanding of biodiversity and to manage public access to designated sites, particularly on the coast, to reduce harm to nature conservation interests.

Policy 25 - The Natural Environment and Landscape Character

- 3.5 The Natural Environment and landscape character of the District, including the landscape, landform and development pattern, together with protected landscapes and habitats will be protected against inappropriate development. The Council will support development proposals which:
- i. Protects, conserves and enhances the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintains settlement separation.
 - ii. Maintain and enhances the Green Infrastructure Network and addresses any identified deficiencies in the District.
 - iii. Maintains and enhances the existing network of geological sites and biodiversity, including safeguarding existing designated sites and species, and ensures no net loss of wider biodiversity and provides net gains in biodiversity where possible.
 - iv. Conserve and where possible enhance the setting of the South Downs National Park.

Policy 26 - Countryside Protection

- 3.6 Outside built-up area boundaries, the rural character and undeveloped nature of the countryside will be protected against inappropriate development. Any proposal must be essential to its countryside location, and in addition meet one of the following criteria:
- i. Support the needs of agriculture or forestry;
 - ii. Enable the extraction of minerals or the disposal of waste;
 - iii. Provide for quiet informal recreational use; or
 - iv. Enable the sustainable development of rural areas.
- 3.7 In addition, proposals must be of a scale appropriate to its countryside character and location. Development will be considered acceptable where it does not lead, either individually or cumulatively, to a significant increase in the overall level of activity in the countryside, and protects, and/or conserves, and/or enhances, the key features and characteristics of the landscape character area in which it is located, including;
- i. The development pattern of the area, its historical and ecological qualities, tranquillity and sensitivity to change;
 - ii. The pattern of woodlands, fields, hedgerows, trees, waterbodies and other features; and
 - iii. The landform of the area.

Policy 28 - Replacement Dwellings and House Extensions in the Countryside

- 3.8 Outside the defined built-up areas, house extensions, replacement dwellings and ancillary accommodation will be supported if the development can be accommodated appropriately within the curtilage of the existing dwelling. In addition:
- i. Replacement dwellings will only be supported on a one for one basis and if it can be demonstrated that the property is not derelict.
 - ii. Replacement dwellings should not be disproportionate to the size of the existing dwelling whilst extensions should also, and in addition, be in keeping with the scale and character of the existing dwelling. The cumulative impact of existing extensions will be taken into account.
 - iii. Ancillary accommodation and garaging will be required to meet with all other appropriate policies, particularly design principles, and demonstrate that the need for additional space cannot be met from an existing dwelling or buildings suitable of conversion on the site. The size of any new outbuilding should have regard to the dwelling they serve and should be grouped with the house. The use of ancillary accommodation as a separate dwelling will not be supported, and
 - iv. Garages and any new outbuildings should have regard to the dwelling they serve and should be grouped with the house. The use of ancillary accommodation as a separate dwelling will not be supported.
 - v. Subsequent extensions to converted agricultural buildings which detract from the original form and character will be resisted

Policy 31 - Green Infrastructure and Biodiversity

- 3.9 Development will be supported where it can demonstrate that it maintains or enhances the existing network of green infrastructure. Proposals that would result in the loss of existing green infrastructure will be resisted unless it can be demonstrated that new opportunities will be provided that mitigates or compensates for this loss, and ensures that the ecosystem services of the area are retained.
- 3.10 Development proposals will be required to contribute to the enhancement of existing biodiversity, and should create and manage new habitats where appropriate. The Council will support new development which retains and /or enhances significant features of nature conservation on development sites. The Council will also support development which makes a positive contribution to biodiversity through the creation of green spaces, and linkages between habitats to create local and regional ecological networks.
- 3.11 Where felling of protected trees is necessary, replacement planting with a suitable species will be required.
- 3.12 Particular consideration will be given to the hierarchy of sites and habitats in the district as follows:
- i. Special Protection Area (SPA) and Special Areas of Conservation (SAC)
 - ii. Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)
 - iii. Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs) and any areas of Ancient woodland, local geodiversity or other irreplaceable habitats not already identified in i & ii above.

3.13 Where development is anticipated to have a direct or indirect adverse impact on sites or features for biodiversity, development will be refused unless it can be demonstrated that:

- i. The reason for the development clearly outweighs the need to protect the value of the site; and
- ii. That appropriate mitigation and compensation measures are provided.

3.14 Any development with the potential to impact Arun Valley SPA or the Mens SAC will be subject to a HRA to determine the need for an Appropriate Assessment. In addition, development will be required to be in accordance with the necessary mitigation measures for development set out in the HRA of this plan.

Policy 35 – Climate Change

3.15 Development will be supported where it makes a clear contribution to mitigating and adapting to the impacts of climate change and to meeting the district's carbon reduction targets as set out in the Council's Acting Together on Climate Change Strategy, 2009.

3.16 Measures which should be used to mitigate the effects of climate change include;

- i. Reduced energy use in construction;
- ii. Improved energy efficiency in new developments, including influencing the behaviour of occupants to reduce energy use;
- iii. The use of decentralised, renewable and low carbon energy supply systems;
- iv. The use of patterns of development which reduce the need to travel, encourage walking and cycling and include good accessibility to public transport and other forms of sustainable transport; and
- v. Measures which reduce the amount of biodegradable waste sent to landfill.

3.17 Development must be designed so that it can adapt to the impacts of climate change, reducing vulnerability, particularly in terms of flood risk, water supply and changes to the district's landscape. Developments should adapt to climate change using the following measures:

- i. Provision of appropriate flood storage capacity in new building development;
- ii. Use of green infrastructure and dual use SuDS to help absorb heat, reduce surface water runoff, provide flood storage capacity and assist habitat migration;
- iii. Use of measures which promote the conservation of water and/or grey water recycling; and
- iv. Use of site layout, design measures and construction techniques that provide resilience to climate change (opportunities for natural ventilation and solar gain). If it is not possible to incorporate the adaption and mitigation measures proposed, an explanation should be provided as to why this is the case.

Legislation

3.18 Legislation relating to wildlife and biodiversity of particular relevance to this PBRA includes:

- The Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act 1981 (as amended);
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Hedgerow Regulations 1997;
- The Protection of Badgers Act 1992;
- The Wild Mammals (Protection) Act 1996;
- The Environment Act 2021.

3.19 All species of bat and their roosts are protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981. It is an offence to intentionally kill, injure or handle a bat, to possess a bat (live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

3.20 All UK bird species are protected against disturbance whilst occupying a nest under the Wildlife and Countryside Act 1981. Developments that could predictably disturb, kill or injure nesting birds could result in an offence. Furthermore, a number of bird species are targets of UK and Local Biodiversity Action Plans and listed as Species of Principle Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.

3.21 All widespread reptiles are protected against killing and injury under the Wildlife and Countryside Act 1981, with rarer reptiles receiving further protection under EU regulation. Reptiles must also be given consideration under the NERC Act 2006 as part of the planning process.

3.22 Great crested newts (GCN) are protected under The Conservation of Habitats and Species Regulations 2017. It is an offence for anyone to intentionally kill, injure or disturb a GCN or to damage, destroy or block access to areas of suitable habitat.

3.23 Badgers are protected under the Protection of Badgers Act 1992. It is an offence to harm badgers or disturb badgers and their setts.

3.24 Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and are a priority conservation species. It is an offence to intentionally capture, kill or injure water voles, damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care), disturb them in a place of shelter or protection (on purpose or by not taking enough care), possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

3.25 In the UK, dormice are legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and have significant further protection as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). Dormice are also a 'Species of Principal Importance for the conservation of biodiversity' listed under section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). It is an offence for anyone to intentionally kill, injure or disturb a dormouse or to damage, destroy or block access to areas of suitable habitat.

3.26 All other mammals receive general protection against cruelty, inhumane killing or injuring under the Wild Mammals (Protection) Act 1996. This protection includes 'intentional' crushing and asphyxiation, for example that might occur when excavating mammal burrows.

3.27 In England, Biodiversity Net Gain (BNG) is mandatory from 12 February 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Developers must deliver a BNG of 10%. There are a number of exemptions such as for custom and self-build applications. This development is exempt from Mandatory BNG.

4.0 Methodology

Desktop Study

- 4.1 A desktop study was conducted using the government 'MAGIC' Map GIS tool; a search was carried out for all international statutory designated sites (Ramsar, SAC, SPA) within 2.0 km of the site; national statutory designated sites (SSSI, NNR, LNR) within 2.0 km of the site; and non-statutory designated sites (SNCI) and priority habitats within 1.0 km of the site. Any sites of relevance to the proposals are summarized below and their significance considered in the context of the development proposals. A search was also carried out to identify features of ecological interest in the area, such as water bodies and ancient woodland. Given the overall scale and nature of the site and the proposals, a full data search from SxBRC was not considered appropriate however a 2km search was completed for records of protected species for which the proposals may impact (Bats and Great crested newt). This is in accordance with CIEEM current guidance for such projects.

Site Visits

- 4.2 A Preliminary Bat Roost Assessment (PBRA) was carried out on the 27th of November 2024 by Alex Rosenfeld (Freelance Ecologist) for its potential to hold roosting bats and PBRA report produced (Appx.E).
- 4.3 An updated site assessment was conducted on 6th March 2025 by Aidan Bird BSc ACIEEM, NE CL18 Level 2 Bat Licence (2025-13045-CL18-BAT), at the time acting as an accredited agent under George Sayers CL18 L2 Bat Licence (2018-34434-CLS).
- 4.4 The site contains two buildings; a central two storey detached farmhouse B2 and historically extended barn B1 on the southern redline boundary. The main building B2 was assessed externally through use of artificial torch light predominantly focused on the hanging tiles whilst the barn B1 was assessed both internally and externally as subject to the proposals. The update daytime visit by Aidan Bird additionally used thermal imaging and an endoscope to inspect potential roosting features PRFs.
The buildings were classified by potential suitability based on potential roosting and habitat features within the proposal zone as per the survey best practice guidelines.
- 4.5 Bat droppings were collected from within the barn B1 following the first emergence survey and sent off for DNA analysis by Ecotype Genetics (Appx.D).
- 4.6 Despite two site visits carried across two separate days some months apart, it is possible that some signs of habitats, protected species, and other ecology may not be apparent within this short timeframe. This is a constraint recognised within the Survey Guidelines and all reasonable effort has been made to identify evidence of protected species. Other species have been considered where relevant.

Bat Emergence Surveys

- 4.7 A suite of bat emergence surveys were undertaken of the barn B1 on 10th May 2025, 3rd June 2025, and 27th June 2025 in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines Fourth (2023) Editions, and the Interim Guidance on the Use of Night Vision Aids (2022).
- 4.8 The dusk emergence survey began c.20 minutes before sunset and continued until c.1.5 hours after. Extended surveys which continued until c.2 hours after sunset were conducted following BCT good practice guidance when required.
- 4.9 All surveys were designed and led by Aidan Bird ACIEEM (Level 2 Bat Licence 2025-13045-CL18-BAT), with supervision from George Sayer MCIEEM (Level 2 Bat Licence 2018-34434-CLS) where required, using assistant surveyors with at least 1 year of emergence survey experience. Surveyors and cameras thoroughly covered the survey area and the likelihood of bats being missed is very low.

4.10 Bat detection was carried out using Full Spectrum Recording Bat Detectors, Batlogger M, Echo Meter Touch 2 Pro and Petterson M500-384 USB, enabling a sampling rate of 384kHz to capture sounds of up to 192kHz ensuring that all British bat species calls are detectable. Analysis of recordings were carried out where necessary using Sonobat software. Infrared camera footage was reviewed at between 0.25-2x speed on VLC media player where necessary.

Table 1 – Summary of Bat Surveys

Date	Sunset	Start	End	Weather Conditions – Start	Weather Conditions - End
10 th May 2025	20:37	20:17	22:07	17.5°C, BF.2, Okt.0, RH47%	14.4°C, BF.2, Okt.3, RH51%
3 rd June 2025	21:10	20:50	22:40	15.3°C, BF.1, Okt.4, RH77%	12.5°C, BF.1, Okt.7, RH88%
27 th June 2025	21:20	21:00	22:50	19.5°C, BF.2, Okt.3, RH79%	17.6°C, BF.2, Okt.2, RH85%

4.11 The building was covered using varying numbers of experienced surveyors and night vision aids; thermal and infrared cameras to improve coverage, better vision later into the survey and the ability to review potential emergencies. All cameras were equipped with a 720nm filter to block visible light for a clearer image of the building. When surveyors deemed light levels too low to identify features on the building, the use of external monitors (10 inch with 1024 x 600 resolution) displaying camera outputs were implemented.

Survey 1 (10th May 2025)

4.12 Six surveyors, five external cameras (Canon XA20, XA40, XA50, XA60, and Pixfra Arc 613), and two internal cameras (Canon XA40 and Sony A7s IR adapted) were used to cover the barn B1. Each infrared set up was accompanied by two Illuminators - Nightfox XB5 Pro 850nm torches and additional separate double or triple mounted infrared floodlights were used. Five surveyors were positioned externally with one internally at the northeast end of the barn.

Survey 2 (3rd June 2025)

4.13 Five surveyors, six external cameras (Canon XA20, XA40, XA50, XA60, and Pixfra Arc 613), and two internal cameras (Canon XA40 and Sony A7s IR adapted) were used to cover the barn B1. Each infrared set up was accompanied by two Illuminators - Nightfox XB5 Pro 850nm torches and additional separate double or triple mounted infrared floodlights were used. All surveyors were positioned externally.

Survey 3 (27th June 2025)

4.14 Six surveyors, five external cameras (Canon XA20, XA40, XA50, XA60, and Pixfra Arc 613), and five internal cameras (Canon XA10, XA11, XA40 and Sony A7s IR adapted) were used. Each infrared set up was accompanied by two Illuminators - Nightfox XB5 Pro 850nm torches and additional separate double or triple mounted infrared floodlights were used. Four surveyors were positioned externally with two internally, one in each of the two sections of the barn B1.

Static Bat Detection

4.15 Static bat detectors were placed within the original section of the barn B1 between the 10th May and 25th May (S1 - Anabat Express), and between the 7th June and 27th June (S2 - Anabat Chorus). These were placed at an approximate elevation of 1m in the centre of the structure.

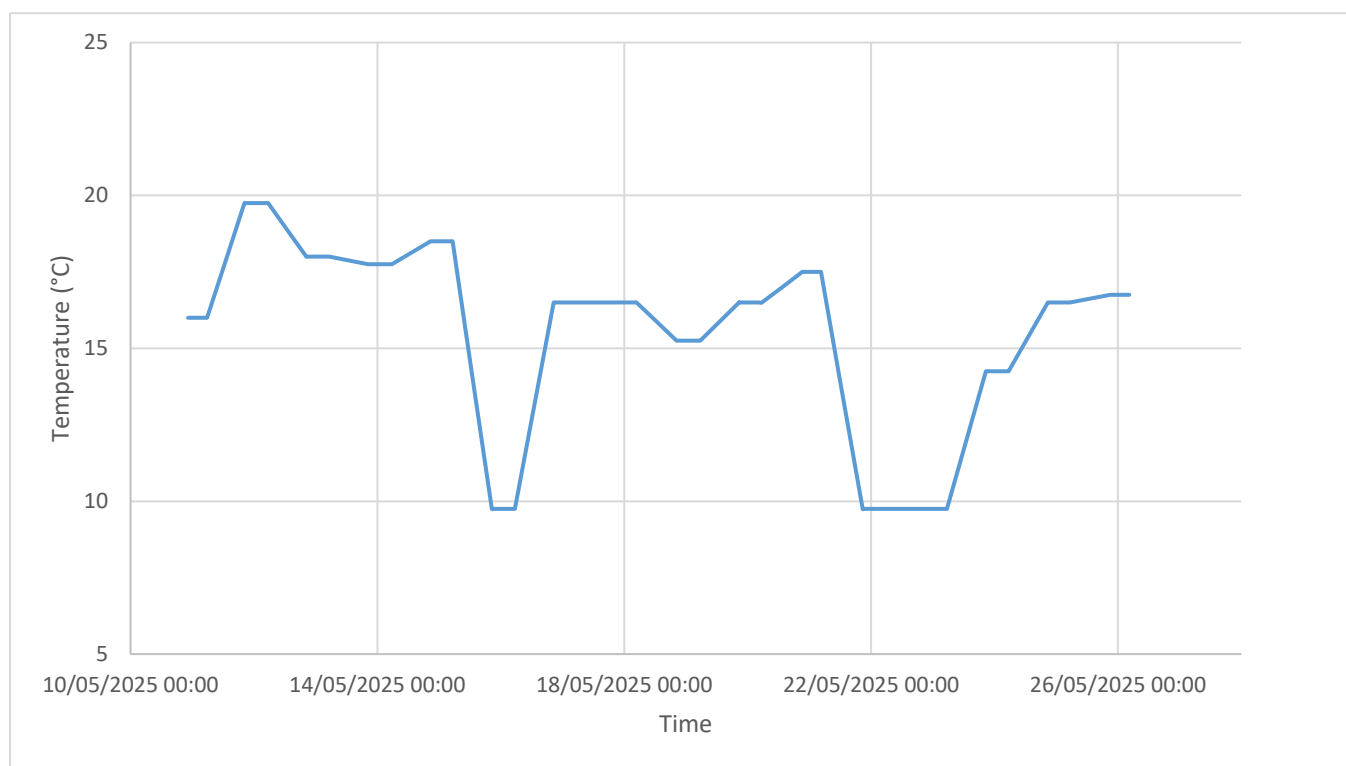


Figure 1 – Static Bat Detector (S1) temperature over deployment (10th May to 26th May 2025)

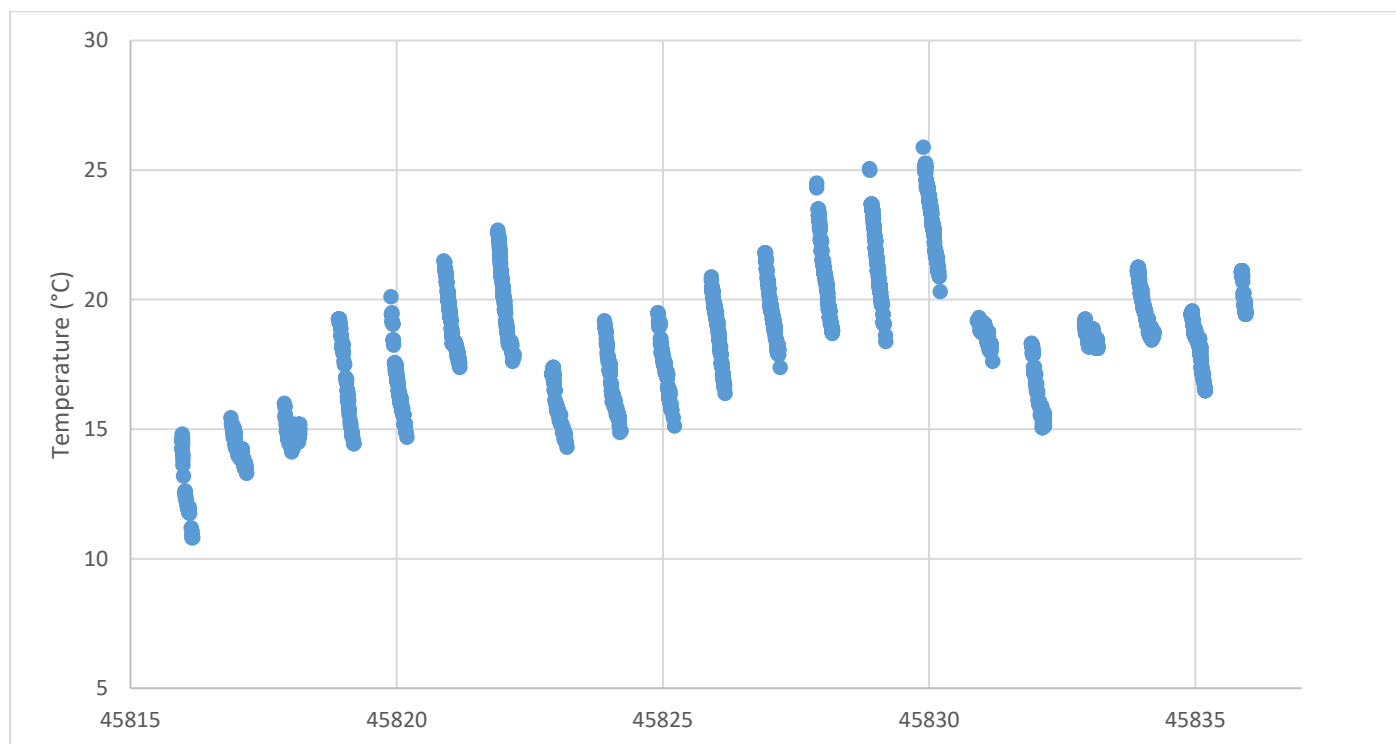


Figure 2 – Static Bat Detector (S2) temperature over deployment (7th June to 27th June 2025)

4.16 Further deployment of static bat detectors were deemed necessary following results of emergence surveys to gain additional data regarding each species use of the structures over the mating and swarming period. Two detectors were installed on top of cross beams approximately 1.5-2m below the internal ridgelines, one in each section of the barn (Appx.C_Fig.1). An Anabat Chorus was used in the original section (S3) and Petterson DX500 (S4) in the newer section. Barbastelle social calls were confirmed by Ellie Hack (ACIEEM, CL19 & CL20 Bat Licences, Lead Ecologist at John's Associates) and Neil Middleton (ACIEEM, CL19 & CL20 Bat Licences, MD Batability).

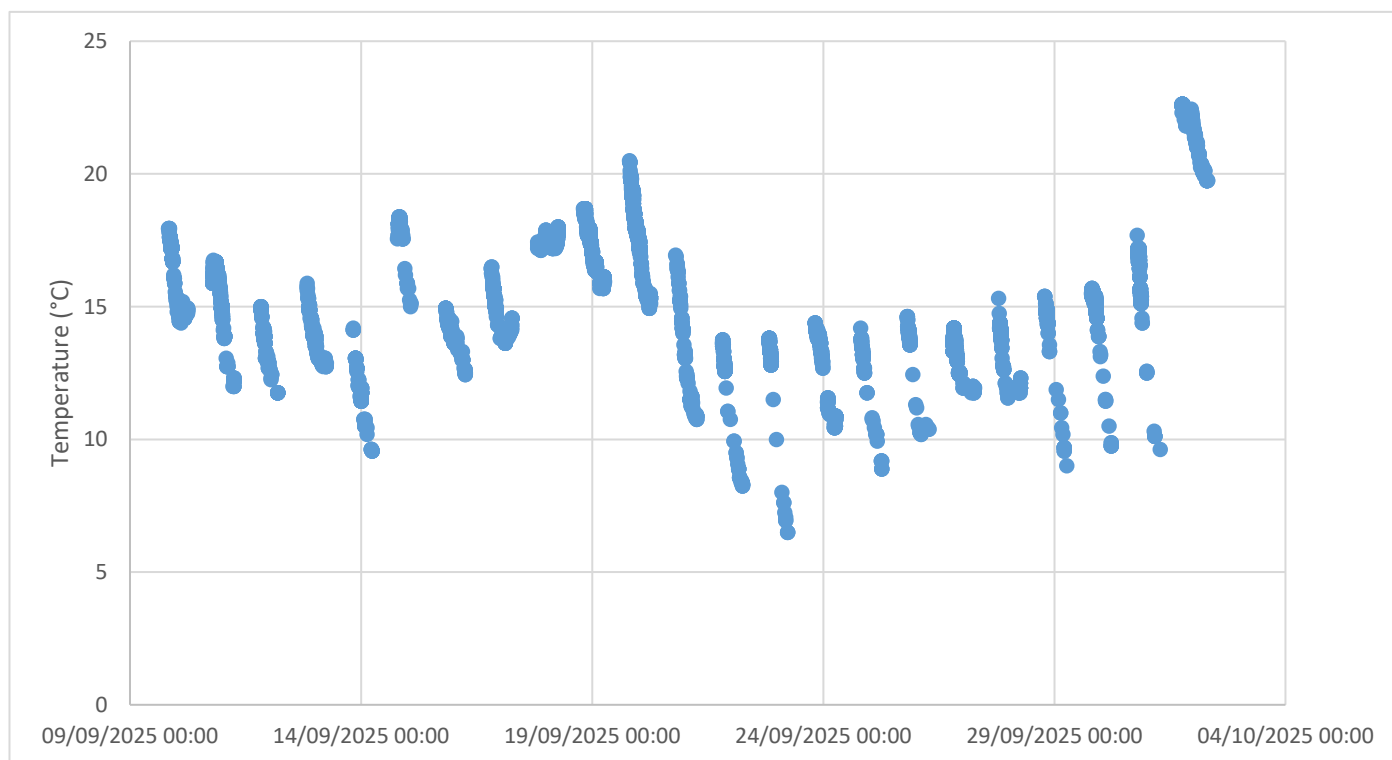


Figure 3 – Static Bat Detector (S3) temperature over deployment (9th September to 2nd October 2025)

4.17 One of the static detectors, Petterson DX500 (S4), had a technical failure following the first night of deployment however did capture 20 barbastelle and 1 common pipistrelle call beforehand. Calls recorded could be from individuals passing the barn and not closely associating therefore consideration for this must be considered upon analysis and interpretation of results. Conversion and analysis of calls were conducted on Anabat Insight and Sonobat software.

Great Crested Newt (GCN) Surveys

4.18 Landowners with waterbodies, identified through the desk study, within 500m were contacted to request access. All accessible ponds and waterbodies were subjected to a Habitat Suitability Index (HSI) assessment and suite of surveys to prove presence/absence. Ponds with great crested newt presence were subject to a additional surveys in order to produce a population size class assessment. All surveys were conducted under George Sayer's Great crested newt level 1 survey licence: 2017-32670-cls-cls allowing use of torch light, hand nets, funnel/bottle traps, and handling.

4.19 No access was granted to any other private property to assess nearby ponds however surveys were undertaken of the on-site pond North of the main farmhouse B2. Presence/absence surveys, requiring four visits using 3 survey methods per visit, were conducted during between mid-March and mid-June with more than half during mid-April and mid-May. Where GCN were identified, population size class assessments were conducted using bottle-trapping and torch light surveys across 6 visits in suitable weather conditions between mid-march and mid-June; at least half of these must occur between mid-April and mid-May.

Habitat Suitability Index (HSI) Assessment

4.20 The HSI assessment was developed by Oldham *et al.* (2010) as a means to evaluate habitat quality and quantity by assessing indices known to affect GCN to produce a numerical value between 0 and 1. HSI assessments are very good at calculating the habitat suitability but is not a reliable substitute for newt surveys. The ten key habitat indices contributing to the geometric HSI score are:

- | | |
|---------------------------|--|
| i. Geographical Location; | vi. Waterfowl; |
| ii. Pond area; | vii. Fish; |
| iii. Permanence; | viii. Pond count (e.g. other ponds within 1 km); |
| iv. Water quality; | ix. Terrestrial habitat; |
| v. Shade; | x. Macrophytes |

4.21 The HSI score produced can be compared to the scoring system produced:

- i. <0.5 : Poor
- ii. 0.5-0.59 : Below Average
- iii. 0.6-0.69 : Average
- iv. 0.7-0.79 : Good
- v. >0.8 : Excellent

Field Survey Methods

4.22 There are six different survey techniques for GCN with the following being implemented for the on-site pond:

- i. Bottle Trapping – Comprised of adapted 2 litre plastic bottles with cut inverted tops and bamboo canes, these traps are placed around the pond margins, submerged with an air bubble, and left overnight. Traps were deployed every 2m around the pond and only when overnight air temperature does not drop below 5°C. Particular care was taken to account for all deployed traps after visits; all bottles were left for no more than 9 hours, and collected before 9am, to ensure adequate dissolved oxygen and temperature for any trapped newts.
- ii. Egg Search – Searching for newt eggs on submerged macrophytes and detritus where females lay then fold leaves over. Where possible leaves are left intact but careful ‘unwrapping’ ensued to confirm identification. This method was only used until successful identification of great crested newt eggs/embryos occurred.
- iii. Torch Survey – Searching for GCN at night using a high powered (1 million candlepower) strategically around the periphery of the pond. This method can provide strong results however is limited by water turbidity, weather conditions and plant growth.
- iv. Hand Netting – Dip netting using a specialised pond net for 15 minutes per 50m of shoreline. Particular care was taken when encountering newt efts due to their delicate gill structures.

Table 2 – Great Crested Newt Survey Methods Summary

Date	Activity
6 th March 2025	HSI Assessment Conducted
25 th April 2025	Torchlight, Egg Search
26 th April 2025	Torchlight, Hand Netting, Bottle Trapping
28 th April 2025	Torchlight, Bottle Trapping
3 rd May 2025	Torchlight, Bottle Trapping
7 th May 2025	Torchlight, Bottle Trapping
13 th May 2025	Torchlight, Bottle Trapping
27 th May 2025	Torchlight, Bottle Trapping

5.0 Results

Update daytime assessment

- 5.1 Multiple roosting bat species were identified under the hanging tiles of the main farmhouse B2 including Common pipistrelle, Soprano pipistrelle, Serotine and small myotis species. The small myotis rotated as torched to reveal a slim penis indicative of Whiskered or Alcahoie male individual; considering known roosts it is highly probable this was a Whiskered Myotis bat.
- 5.2 Fresh bat droppings were identified within the barn B1 which could potentially come from foraging rather than roosting bats therefore were not initially collected for DNA analysis. No other significant evidence was found to confirm roosting bats.
- 5.3 Several defunct nests were identified in the barn B1 structure of species including swallow, pigeon/stock dove, and wren with a single active song thrush nest in the centre of the building.

Data Search

Great crested Newt

- 5.4 The data search produced a singular record from 2001/2002 for Great crested newt within a 2km radius of the site. This was a field record within the 10km grid reference area of TQ12 which includes the site.

Bats

- 5.5 90 records of bats were returned following the 2km search with all but a single soprano pipistrelle record between over 1.5km away from the site. No records were obtained within 600m of the site.

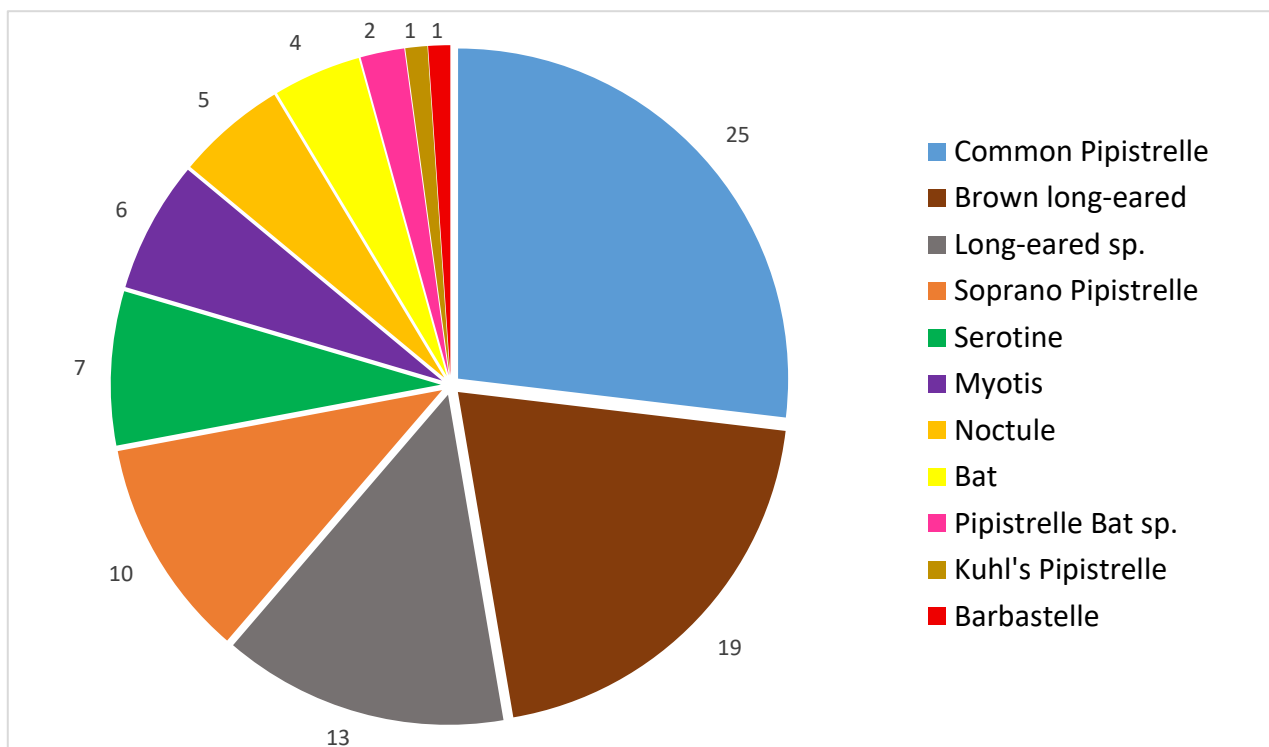


Figure 4 – SxBRC bat records within a 2km radius displayed as a pie chart

Bat Emergence Surveys

Survey 1 (10th May 2025)

- 5.6 Pre survey inspection of the barn revealed no bats roosting in any visible location.
- 5.7 Throughout the survey multiple species used the barn flying around and between the two sections. Five bats were recorded emerging from the barn B1 across at least four different species:
- i. Common pipistrelle from the original section of the southwest roof (17 minutes after sunset)
 - ii. Myotis species from the south end internal apex of the original barn section (38 minutes after sunset)
 - iii. Brown long eared from the original section west end internal apex (39 minutes after sunset)
 - iv. Barbastelle from the internal northwest end of the additional section (34 minutes after sunset)
 - v. Non echolocating pipistrelle sized bat from the bottom row of roof tiles of the northeast additional section (32 minutes after sunset)
- 5.8 Droppings across both sections of the barn B1 were collected for DNA analysis (Appx.B) including particular attention to the area directly below the emerging myotis species and non-echolocating bat. Results from genetic testing confirmed, alongside call analysis and style of flight, the emerging Myotis bat was highly likely to be a Natterer's myotis.
- 5.9 Species recorded;
- i. Common pipistrelle *Pipistrellus pipistrellus*
 - ii. Soprano pipistrelle *Pipistrellus pygmaeus*
 - iii. Nathusius' pipistrelle *Pipistrellus nathusii*
 - iv. Barbastelle *Barbastella barbastellus*
 - v. Myotis *Myotis spp.*
 - vi. Noctule *Nyctalus noctula*
 - vii. Long-eared bat *Plecotus sp.*

Survey 2 (3rd June 2025)

- 5.10 Throughout the survey multiple bat species used the barn but notably were two pipistrelle bats entering and flying within the original barn section briefly (24 minutes of the survey) with their origin suspected to be from the main house B2 given the direction and time.
- 5.11 Five bats were recorded emerging from the barn B1 across five different species:
- i. Soprano pipistrelle from the southeast end of the original barn, emerging internally and proceeding to exit via the main door (9 minutes after sunset)
 - ii. Common pipistrelle from the original section of the southwest roof as per survey one, then loops into the barn via damaged cladding before exiting via the main door (10 minutes after sunset)
 - iii. Myotis species from the north end apex of the original barn section, then emerging via a slipped cladding board on the north gable of the original section (39 minutes after sunset)
 - iv. Brown long-eared from the original section's internal northwest apex (1 hour 23 minutes after sunset)
 - v. Barbastelle from the west end of the additional section (28 minutes after sunset)

5.12 Species recorded;

- i. Common pipistrelle *Pipistrellus pipistrellus*
- ii. Soprano pipistrelle *Pipistrellus pygmaeus*
- iii. Barbastelle *Barbastella barbastellus*
- iv. Myotis *Myotis spp.*
- v. Noctule *Nyctalus noctula*
- vi. Long-eared bat *Plecotus spp.*

Survey 3 (27th July 2025)

5.13 The survey demonstrated similar use of the barn to the first two surveys with several common and soprano pipistrelles flying through the dilapidated lower cladding of the barn's original section.

5.14 Seven bats were recorded emerging from the barn B1 across four different species:

- i. Common pipistrelle from additional section northeast roof (42 minutes after sunset)
- ii. Myotis species from the north end internal apex of the original barn section (58 minutes after sunset)
- iii. Two Brown long eared bats from internally of the original section (50 minutes and 1 hour after sunset)
- iv. Three Barbastelle bats from the internal northwest end of the additional section (37, 37, and 39 minutes after sunset)

5.15 Species recorded;

- i. Common pipistrelle *Pipistrellus pipistrellus*
- ii. Soprano pipistrelle *Pipistrellus pygmaeus*
- iii. Barbastelle *Barbastella barbastellus*
- iv. Noctule *Nyctalus noctule*
- i. Serotine *Eptesicus serotinus*
- ii. Leisler's *Nyctalus leisleri*
- iii. Serotine *Eptesicus serotinus*
- iv. Long-eared bat *Plecotus sp.*

Static Ultrasonic Recording

Table 3 – Bat calls from S1 (10th May to 26th May 2025) sorted by species and date

	PIPPIP	PIPPYG	EPTSER	NYCNOC	BARBAR	MYOSPP	PLESPP	PIPNAT	Total
10/05/2025	11	8	0	0	1	2	2	0	24
11/05/2025	45	25	1	1	2	2	7	0	83
12/05/2025	88	31	5	1	1	28	4	0	158
13/05/2025	15	23	5	0	2	19	4	1	69
14/05/2025	45	8	0	0	1	30	2	0	86
15/05/2025	30	12	3	1	2	34	6	0	88
16/05/2025	24	6	0	0	1	9	8	0	48
17/05/2025	28	4	1	0	3	13	1	0	50
18/05/2025	37	20	5	0	3	4	6	0	75
19/05/2025	26	20	1	0	4	1	6	0	58
20/05/2025	31	6	7	0	1	15	9	0	69
21/05/2025	18	12	2	1	1	38	11	0	83
22/05/2025	16	24	0	0	0	11	10	0	61
23/05/2025	18	11	3	0	3	19	4	0	58
24/05/2025	2	4	2	5	7	10	4	0	34
25/05/2025	21	43	8	1	7	26	4	0	110
26/05/2025	11	8	2	0	1	13	8	0	43
Total	466	265	45	10	40	274	96	1	1197

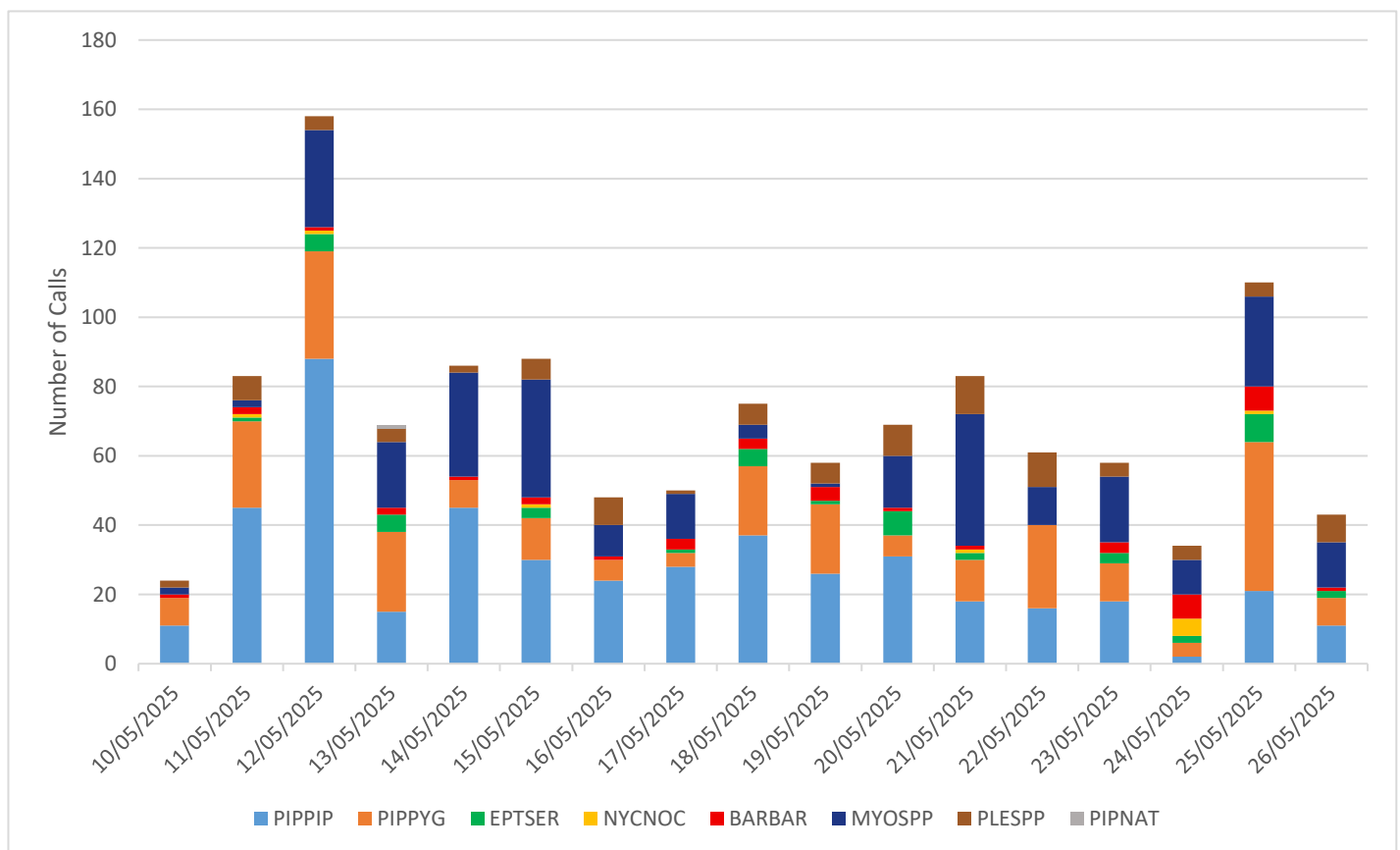
Figure 5 – Bat calls from S1 (10th May to 26th May 2025)

Table 4 - Bat calls from S2 (7th June to 27th June 2025) sorted by species and date

	PIPPIP	PIPPYG	PIPNAT	NYCNOC	NCYLEI	EPTSER	BARBAR	PLEAUR	PLESPP	MYONAT	MYOSPP	Total
07/06/2025	2	1	0	0	0	2	1	0	1	0	19	26
08/06/2025	13	30	0	2	0	3	3	3	1	3	10	68
09/06/2025	42	38	2	1	0	4	5	17	1	3	1	114
10/06/2025	47	25	2	3	0	3	6	32	1	6	9	134
11/06/2025	29	9	0	6	0	4	3	20	0	0	17	88
12/06/2025	42	46	0	5	0	2	8	20	0	1	13	137
13/06/2025	41	34	0	1	0	5	6	20	0	0	8	115
14/06/2025	62	23	0	2	0	5	8	19	0	1	8	128
15/06/2025	44	28	0	0	0	2	18	24	0	1	2	119
16/06/2025	56	25	1	2	6	2	5	24	0	2	4	127
17/06/2025	56	23	0	0	0	5	15	10	0	1	23	133
18/06/2025	50	39	0	0	4	9	8	13	0	0	11	134
19/06/2025	49	42	0	2	3	10	4	22	0	0	9	141
20/06/2025	73	34	0	4	4	5	9	10	0	0	16	155
21/06/2025	78	28	0	4	0	5	7	10	0	0	22	154
22/06/2025	90	69	0	5	0	6	3	21	1	0	24	220
23/06/2025	94	89	0	1	0	1	5	17	0	0	40	249
24/06/2025	61	36	2	2	7	18	7	53	0	0	15	204
25/06/2025	72	25	0	6	5	9	20	51	0	0	53	241
26/06/2025	59	39	0	4	3	6	9	47	2	0	41	210
27/06/2025	64	34	0	0	5	5	12	37	0	0	15	172
Total	1124	717	7	50	37	111	162	470	7	18	360	3063

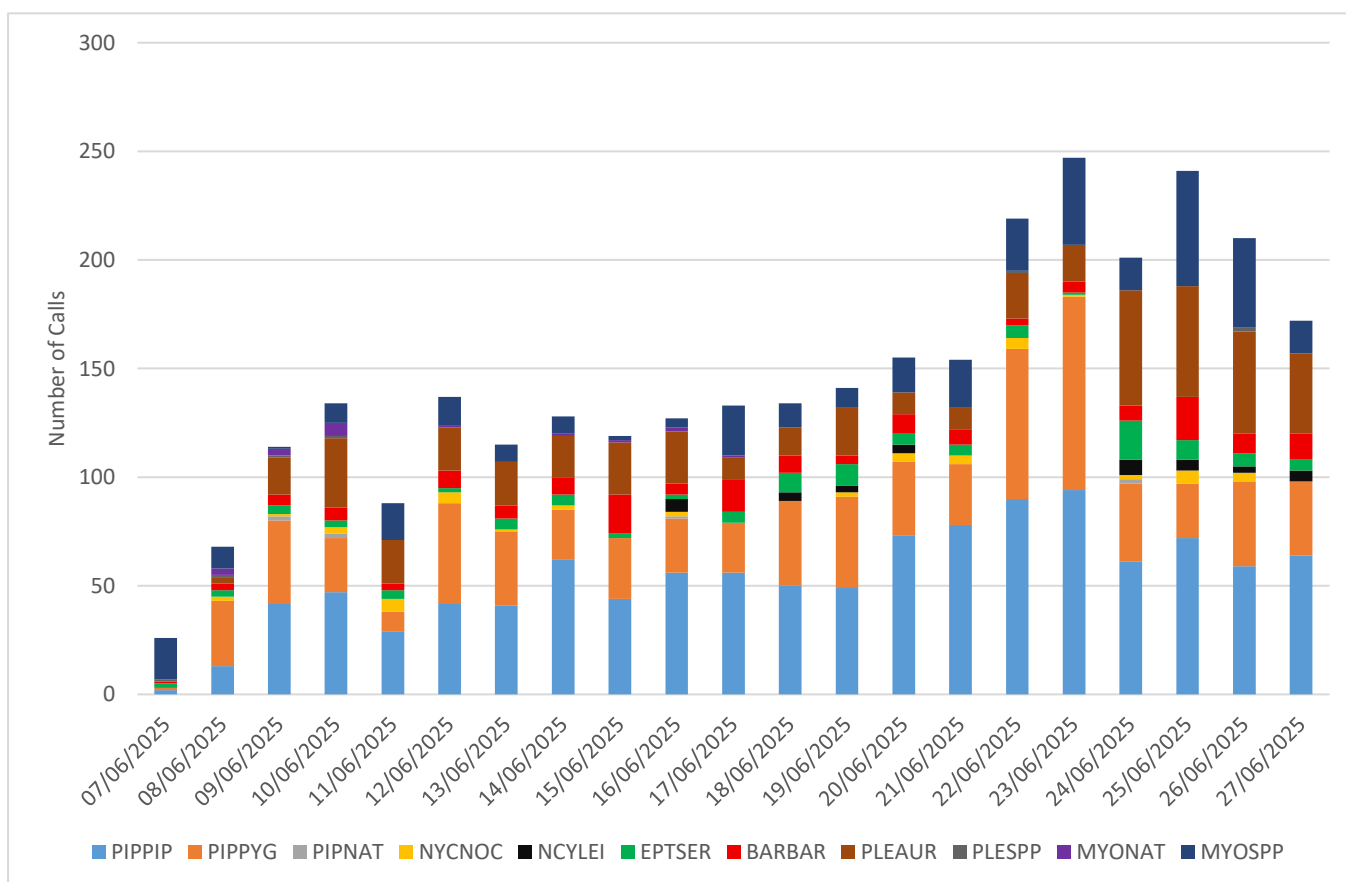
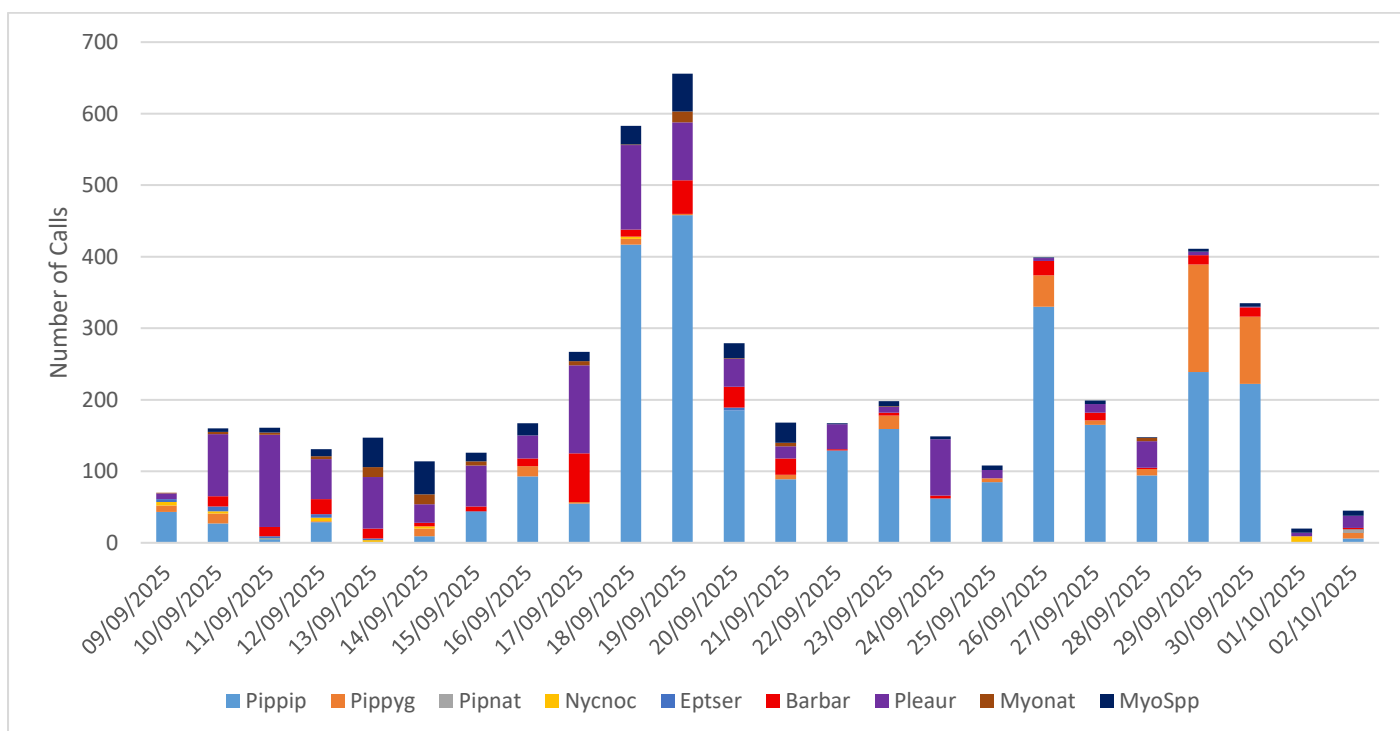


Figure 6 – Bat calls from S2 (7th June to 27th June 2025)

Table 5 - Bat calls from S3 (9th September to 2nd October 2025) sorted by species and date

	Pippip	Pippyg	Pipnat	Nycnoc	Eptser	Barbar	Pleaur	Myonat	MyoSpp	Total
09/09/2025	43	9	0	5	4	0	8	1	0	75
10/09/2025	27	14	0	3	7	14	87	3	5	175
11/09/2025	5	0	0	1	3	13	129	3	7	162
12/09/2025	29	1	0	5	5	21	56	4	10	131
13/09/2025	0	0	0	4	2	14	72	14	41	149
14/09/2025	9	11	0	3	0	5	26	14	46	114
15/09/2025	43	0	0	0	1	7	57	6	12	126
16/09/2025	93	14	0	0	0	11	32	0	17	167
17/09/2025	55	2	0	0	0	68	123	6	13	267
18/09/2025	417	8	0	3	0	10	118	1	26	582
19/09/2025	458	2	0	0	0	47	81	15	53	656
20/09/2025	185	0	0	0	4	29	39	1	21	279
21/09/2025	89	6	0	0	0	23	17	5	28	168
22/09/2025	129	0	0	0	0	2	35	0	1	167
23/09/2025	159	19	0	0	0	4	8	1	7	198
24/09/2025	62	0	0	0	0	4	79	0	4	149
25/09/2025	85	5	0	0	0	0	12	0	6	108
26/09/2025	330	44	0	0	0	20	4	0	1	399
27/09/2025	165	6	0	0	0	11	12	0	5	199
28/09/2025	94	9	0	0	0	2	37	5	1	148
29/09/2025	239	150	0	0	0	13	5	0	4	411
30/09/2025	222	94	0	0	0	13	1	0	5	335
01/10/2025	0	0	0	9	0	0	5	0	6	20
02/10/2025	6	8	5	0	0	2	17	0	7	45
Total	2944	402	5	33	26	333	1059	79	326	5230

Figure 7 – Bat calls from S3 (9th September to 2nd October 2025)

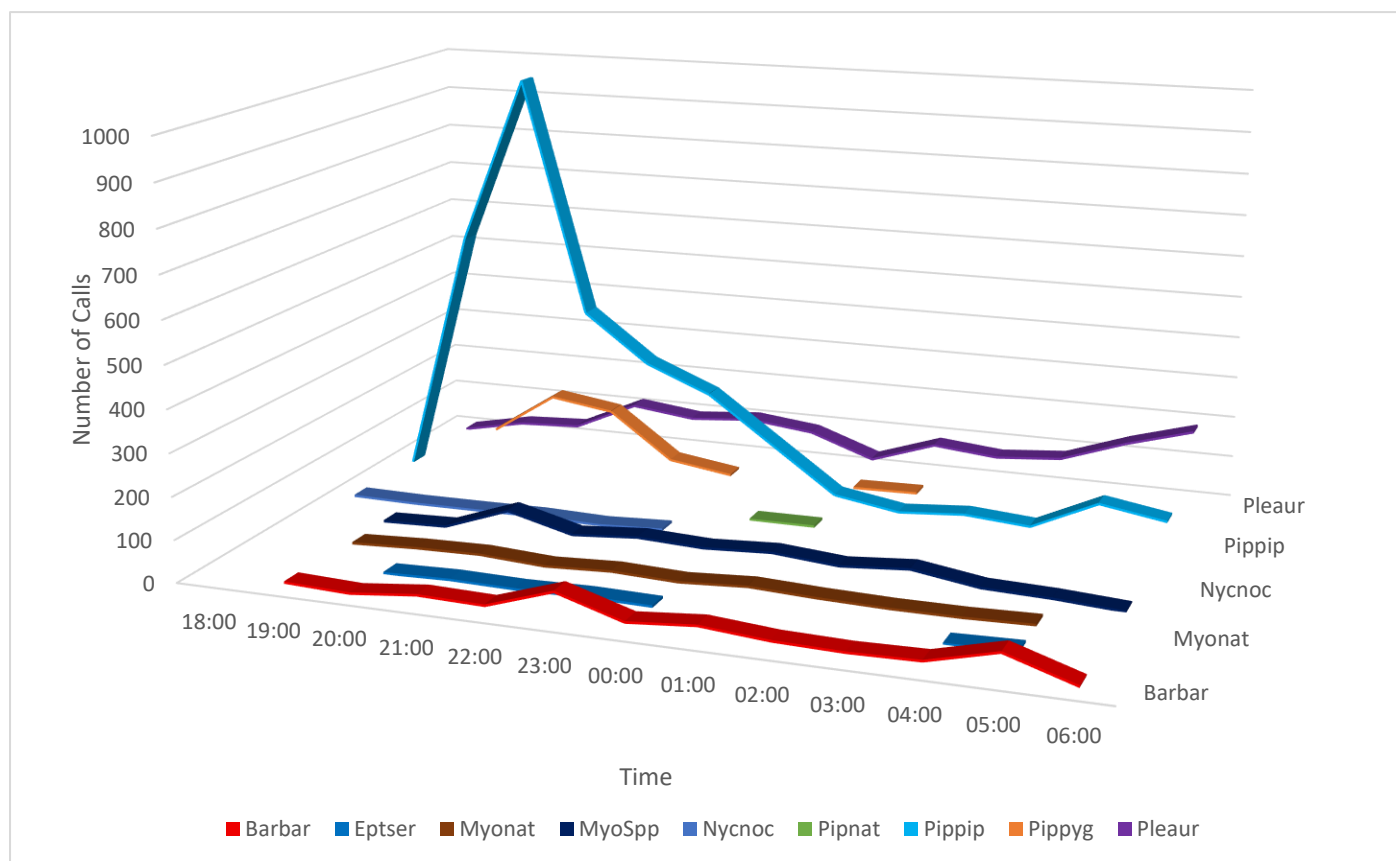


Figure 8 – Bat calls from S3 (9th September to 2nd October 2025) separated by species across time recorded

Summary

- 5.16 The first survey captured a non-echolocating bat of pipistrelle sized which is suspected to be a common pipistrelle as the third survey identified this species to have emerged from a similar location.
- 5.17 Surveys and static recording identified high use of both barn sections by bats both roosting and foraging within across a large array of species. Static records identified all day roosts are likely to have constant use following calls for each species recorded consistently across all nights deployed. Furthermore, daytime assessment indicates the main house to be roost to multiple species of varying classifications of which many individuals are likely to use the barn upon emergence.
- 5.18 Identification of three barbastelle bats on the final survey, two of which emerged in close succession from the same point, highlight the potential for a transitional or satellite maternity roost but cannot be confirmed without more intrusive survey techniques.
- 5.19 September static detector deployment demonstrated significantly higher use of the barn by common pipistrelle bats compared with earlier periods of monitoring. Social calls for all roosting species were identified with a large volume allocated to Brown long-eared bats. It is likely the barn is a mating roost for all of the swarming species present with roosts within the barn.

5.20 Roosts identified in the barn B1 were:

- i. Two common pipistrelle day roosts (each up to 1 individual)
- ii. Soprano pipistrelle day roost (up to 1 individual)
- iii. Brown long eared day roost (up to 1 individual)
- iv. Barbastelle day roost (up to 1 individual)
- v. Barbastelle satellite roost (up to 2 individuals)
- vi. Natterer's day roost (up to 1 individual)

Birds

5.21 Several defunct nests were identified in the barn B1 structure of species including swallow, pigeon/stock dove, and wren with a single active song thrush nest in the centre of the building.

Great Crested Newt (GCN) & Other Amphibians

5.22 Following positive identification of GCN eggs survey on the 25th, population size class assessment surveys were undertaken whereby Adult GCN were confirmed on 6 of 7 surveys. Peak count of adults from combined methods reached 3 for GCN, 9 for smooth newt, 7 for Palmate. Further species were identified during the surveys including Common frog, Pond Skater, Pond snails, Whirligig beetle, Great diving beetles, and Dragonfly nymph.

Date	Great Crested Newt		Smooth Newt		Palmate Newt		Newt Efts		Eggs		Other
	Male	Female	Male	Female	Male	Female	GCN	Small	GCN	Small	
25 th April 2025			2	5*					Yes	Yes	Frog
26 th April 2025		1	1	2							Frog
28 th April 2025		3	9		2						
3 rd May 2025	1	1	4		3						
7 th May 2025		1	2		1			1			
13 th May 2025	1	1	3	1	2	1		1			
27 th May 2025	1		4		3	4	1	1			Frog Tadpoles

*Small newt females present could either be smooth or palmate with identification through torchlight

6.0 Evaluation of Impacts and Mitigation

Bats

Potential Impacts

- 6.1 The barn B1 is a day roost for widespread species including 2no. Common pipistrelle *Pipistrellus pipistrellus* roosting separately, 1no. Soprano pipistrelle *Pipistrellus pygmaeus*, 2.no Brown long-eared *Plecotus auritus*; rarer 1no. Natterer's myotis *Myotis Nattereri*, and very rare annex II species, Barbastelle *Barbastella barbastellus*. The surveys also revealed two barbastelle bats emerging in tandem on the third survey (27th of July), most likely indicating a mother and pup given the time of year. The barn is therefore classified as a suspected satellite roost with individuals assumed to form part of the maternity group studied at The Mens SAC (Appx.A_Fig.5) however could form part of another unknown population or coincidental. Moreover, the barn has significance for these species throughout the year and into the autumn mating and swarming period.
- 6.2 The proposals are for conversion to the current barns into a habitable dwelling using the existing structure involving wholesale loss of internal roost spaces to accommodate vaulted ceilings therefore directly impacting any pre-emergence flight, 'light sampling', area for species such as Natterer's myotis and Brown long eared. All works planned on the barn will directly and/or indirectly impact bats, their roosting features and internal conditions of the barn B1. Furthermore, the designs also incorporate a significant increase in glass therefore could have major impacts on all species of bat present on site as a result of light spill.
- 6.3 There is a low risk of tree roosts being present and impacted by the proposed works – no tree with bat roost potential is currently proposed for removal.
- 6.4 Furthermore, in the absence of mitigation, incorrect lighting could lead to loss of foraging and commuting areas.

Mitigation and Compensation

- 6.5 Given the assemblage of species present and the additional number roosting within the adjacent main house B2 which likely also interact with the barn B1, the barn is deemed to be of regional importance however may vary depending on interpretation of geographical location.
- 6.6 Sufficient mitigation would include, at minimum, a like-for-like replacement for all roosts present; multiple crevice roosts across all aspects of the barn, multiple void roosting areas with enhancements such as squeeze boxes and double ridges, and at least one large open access void area with exposed rough timber of dimensions similar to the large section of the barn to facilitate feeding perch and mating behaviours. Additionally, any sky facing glasswork must incorporate automatic blind systems that prevent nocturnal light spill.
- 6.7 It is determined that a full European Protected Species Mitigation Licence (EPSML), or the site will be registered under a Bat Mitigation Class / Earned Recognition Licence, would be required and measures adopted to ensure no harm to bats and compliance with legislation.
- 6.8 It is highly recommended that consultation with Natural England's discretionary advice service (DAS) occur before the finalisation of mitigation measures.

6.9 The following theoretical mitigation strategy will be employed to ensure no harm to the bats or conservation status of the species in the vicinity. Given the complex nature of the roosts, the proposed mitigation might alter subject to licence requirements:

- Full European protected species licence obtained from Natural England – no works which impact bats can proceed prior to this;
- A minimum 4no. temporary bat boxes will be installed on an appropriate nearby trees or structures – at least 1no. must be a large cavity box and 2no. multi-crevice boxes;
- No works between 30 minutes before sunset and 30 minutes after sunrise;
- No external works lighting;
- Prior to works commencing, the buildings will be inspected by a licenced or accredited bat ecologist;
- All areas will be soft-stripped under licence and with ecological supervision; this includes, but is not limited to: roof tiles, cladding, timber beams, and 1F felt;
- Should any bats be found, it shall be identified down to species, sex and condition will be recorded. Following this they will be placed in a cloth bag and relocated to the temporary bat box;
- Any disturbance to the identified roosts will be temporary and new features, in similar locations, will be installed to ensure no permanent loss. New building to contain new bat roost features (integrated bat boxes and bespoke inbuilt features) to replace any loss of roost potential;
- Created bat features to be checked post-construction;
- 1F felt to be used in the new works unless buildings can be sealed against bat ingress – no breathable membranes to be used where bats can access. If breathable membranes are to be used they must either be TLX Batsafe, or must be sufficiently sealed that bats will not access them during the material's lifespan;
- If possible, works to avoid times when bats would be present, or times when bats would be hibernating. Preferred times would be autumn or spring, when disturbance would be minimal;

6.10 Any new lighting will be expected to accord with the principles within the BCT/ILP Guidance Note 08/23; consideration will be given to the following aspects should any external lighting be required:

- No illumination of features with bat roost potential such as roof tiles;
- Temperature – 2700K or below is preferable;
- Power – the lowest power necessary;
- Lighting type – LED lighting tends to emit a lower-intensity beam than older styles of lighting, although the full lighting spectrogram must be assessed as some LED lights emit blue and white light;
- Angle – lights must be angled below the horizontal and as far down as possible;
- Adaptations – luminaires can be fitted with guards or cowls to reduce the angle of light spill;
- Timings and controls – lighting controls should aim to minimise light use when not necessary – PIRs can be used but must be set to be low-sensitivity; lights should be set to automatic shut-off whenever possible.

Residual Impacts

6.11 The overall impact of the scheme will be negligible. No significant effects are anticipated upon any designated site for bats, provided basic avoidance measures are built into the proposals.

Birds

Potential Impacts

- 6.12 Several defunct nests were identified in the barn B1 structure of species including swallow, pigeon/stock dove, and wren with a single active song thrush nest in the centre of the building. The likelihood of any birds being disturbed is very high during nesting season.
- 6.13 Furthermore, the significant increase in glass could potentially lead to a drastic increase in impacts and collisions by multiple bird species.

Mitigation and Compensation

- 6.14 Where possible, any demolition should be conducted outside of nesting season. All buildings should be checked immediately prior to works to ensure no new nests are present. Should an active nest be found, any chicks must be allowed to fledge before removal. Additional nest boxes are to be installed on site as mitigation, integrated into the new building or as external boxes on structures on site. At least one of each style box suitable for the identified species must be included.
- 6.15 Where possible any glass should be created with a bird friendly glass to reduce the possibility of collisions, especially given the number of internal nests.

Residual Impacts

- 6.16 The overall impact of the scheme will be negligible. No significant effects are anticipated upon any designated site for birds, provided basic avoidance measures are built into the proposals.

Great Crested Newts & Other Amphibians

Potential Impacts

- 6.17 No direct impacts are proposed to any waterbodies given there will be nearly no expansion to the current foundation footprint area however there are anticipated impacts to the surrounding habitat through secondary factors such as delivery vehicles, material storage, and scaffolding etc. Any work on the surrounding foundations could potentially disturb great crested newts present.

Mitigation and Compensation

- 6.18 All grass surrounding the barn and construction zone will be kept at a low height cut to deter succession into larger, more appealing grassland for any amphibian species. Any excavational work shall preferentially occur outside of hibernation periods and pre commencement checks required before any significant groundworks not discussed before with an appropriately qualified ecologist.
- 6.19 No vehicular movements over grass should occur at any time and restrictions to be put in place prohibiting all vehicular movements between sunset and sunrise when Great crested newts are active. All material storage should be elevated from ground level and not accessible to newts. A visible 5m perimeter should be in place around the on-site pond with no vehicles or equipment entering this area, this can be done through a temporary fence or rope. Providing that sufficient avoidance measures are in place; it is determined that a mitigation licence for Great Crested Newt will not be required.

Residual Impacts

- 6.20 The overall impact of the scheme will be negligible provided basic avoidance measures are built into the proposals.

7.0 Ecological Enhancements

- 7.1 Because of the scale and nature of the proposals, ecological enhancement opportunities within the construction zone are limited. The most beneficial enhancements would involve creation of a hibernaculum for great crested newts nearby to the pond and removal of some debris caused by the overarching oak. Furthermore, addition of bird nesting or bat roosting features such as sparrow terraces, swift boxes/cups, and bat boxes. Creation of bat hibernation opportunity, ideally subterranean, would be significantly beneficial to the bat species present. These additions would also demonstrate a positive impact for ecology on site.
- 7.2 Bug hotels and bee bricks are excellent enhancements to aid invertebrates. These can be purchased or self-made using natural materials, such as straw, bark, wood, and bamboo canes. Guides for construction are available across many different platforms including (The Wildlife Trust, 2023) (RSPB, 2023).
- 7.3 Deadwood can provide a home for many species. Leaving wood piles on the ground under a shaded area will maintain a moist environment and encourage a multitude of organisms including fungi (The Royal Horticultural Society, 2023a).
- 7.4 Efficient nests are essential for hedgehogs to survive the winter months. Supplying a dedicated hedgehog box can provide them with a safe and suitable location to hibernate (The British Hedgehog Preservation Society, 2023). Hedgehogs travel extensive distances so ensuring there is good accessibility to and from the site will be a benefit to the species. This could be done by as simple as cutting a 13cm² hole in fencing (Hedgehog Street, 2023).
- 7.5 Water is an essential resource for wildlife. Where space is limited, the addition of a water receptacle such as a bird bath will be a significant benefit to many species, especially during summer months.
- 7.6 Garden plants are becoming increasingly important for wildlife. They interact with multiple organisms from providing sources of food such as berries, fruits, nectar to creating habitat. There are many plants that will encourage a variety of wildlife, such as the RHS 'Plants for Pollinators' list (The Royal Horticultural Society, 2023c).
- 7.7 It is also good to consider a range of plants with varying flowering and fruiting times, to support wildlife during every month of the year.

8.0 Conclusions

- 8.1 Overall, the proposals are likely to represent a significantly negative impact upon ecology unless mitigation measures above are incorporated within the design proposals; should sufficient actions be completed then there is potential to both mitigate and enhance opportunities on site for multiple protected species.
- 8.2 The on-site dwelling B2 was confirmed as a bat roost during the update site visit, and no further surveys were conducted as the structure is not to be affected by the proposals. Further surveys and other methods ascertained that the barn B1 is a day roost for widespread species including 2no. Common pipistrelle *Pipistrellus pipistrellus* roosting separately, 1no. Soprano pipistrelle *Pipistrellus pygmaeus*, 2.no Brown long-eared *Plecotus auritus*; day roost for the rarer 1no. Natterer's myotis *Myotis Nattereri*, and day roost for the very rare annex II species, Barbastelle *Barbastella barbastellus*. The surveys also revealed two barbastelle bats emerging in tandem on the third survey (27th of July), most likely indicating a mother and pup given the time of year. The barn is therefore classified as a suspected satellite roost with individuals assumed to form part of the maternity group studied at The Mens SAC (Appx.A_Fig.5) however could form part of another unknown population or coincidental. Moreover, the barn has significance for all these species throughout the year with a large volume of social calls identified in September indicative of use as a mating roost.
- 8.3 The proposed conversion of the barn would result in loss of bat roosts present and therefore require a Natural England mitigation licence and to follow the afore mentioned mitigation strategy to ensure no offence is committed. Relatively strict timing and implementation controls are proposed to ensure no harm to bats and the effectiveness of the proposed mitigation measures.
- 8.4 Sufficient mitigation would include, at minimum, a like-for-like replacement for all roosts present; multiple crevice roosts across all aspects of the barn, multiple void roosting areas with enhancements such as squeeze boxes and double ridges, and at least one large open access void area with exposed rough timber of dimensions similar to the large section of the barn to facilitate feeding perch and mating behaviours. Additionally, any sky facing glasswork must incorporate automatic blind systems that prevent nocturnal light spill.
- 8.5 **A European Protected Species Mitigation License will be applied for, or the site will be registered under a Bat Mitigation Class / Earned Recognition Licence before destructive works can be undertaken, adhering to the mitigation strategy set out above.**
- 8.6 The only other impacts identified would be to nesting birds, amphibians and hedgehogs; such impacts can easily be avoided with appropriate precautions. No impacts upon designated sites or priority habitats are anticipated
- 8.7 When mitigation and enhancements have been taken into account, the proposals are not considered to have a negative impact upon habitats or other protected species, *i.e* great crested newt *Triturus cristatus*, in accordance with planning policy and once enhancements are considered, would result in a minor net gain. The proposals would therefore accord with the relevant local and national planning policies and the relevant legislation.

9.0 References

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- Russo D, *et al* (2004) Roost selection by barbastelle bats (*Barbastella barbastellus*, Chiroptera: Vespertilionidae) in beech woodlands of central Italy: consequences for conservation. Biological Conservation, 117,73-81.

10.0 Appendix A - Site Maps

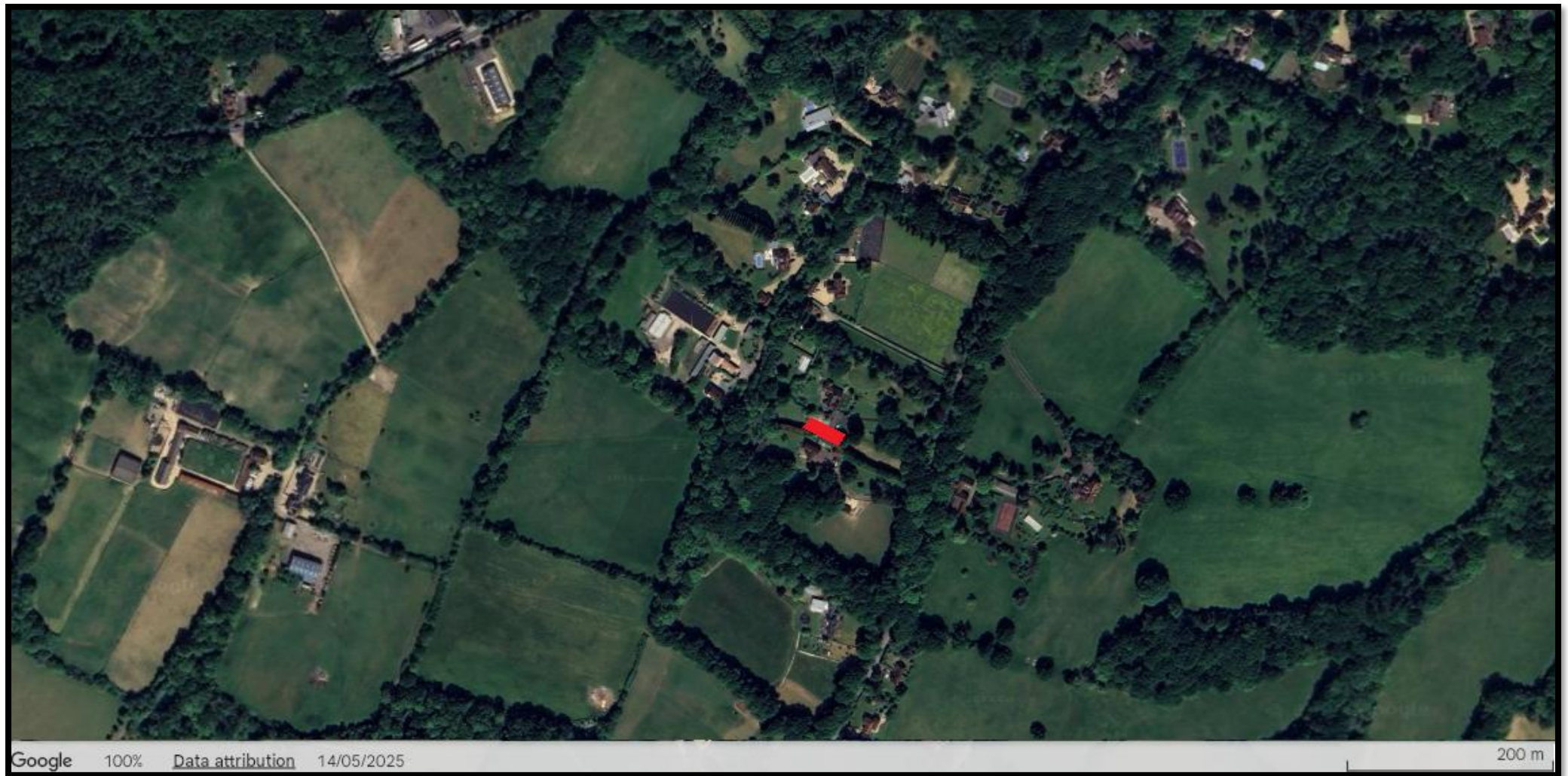


Figure 1: Aerial imagery of the site, displayed as a red polygon marker, and surrounding area. Map created using © 2025 Google Earth



Figure 2: Bat records within 2km of the site boundary from a SxBRC search



Figure 3: Horsham District Council map demonstrating predominantly ancient woodland and entire site within the bat sustenance zone

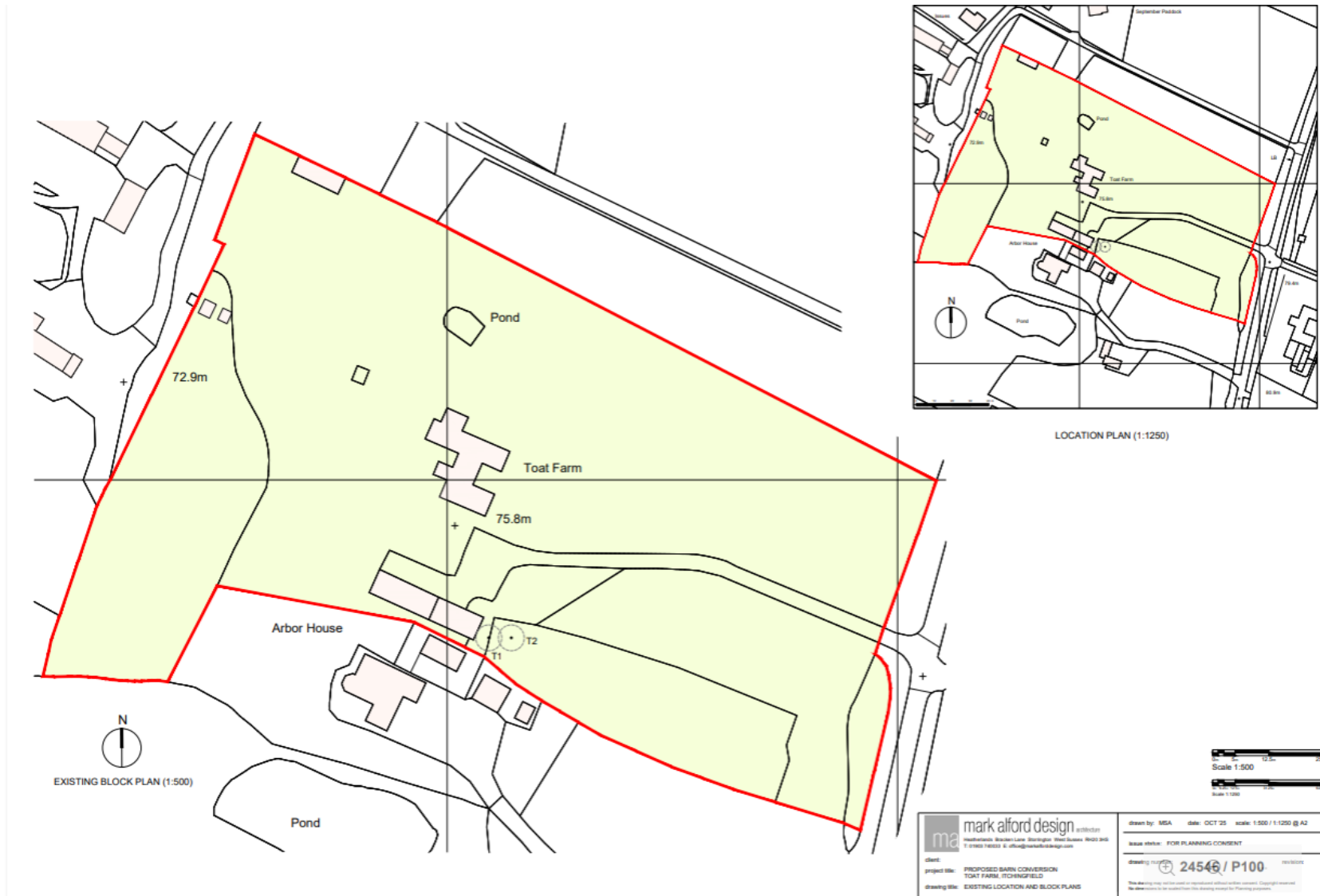
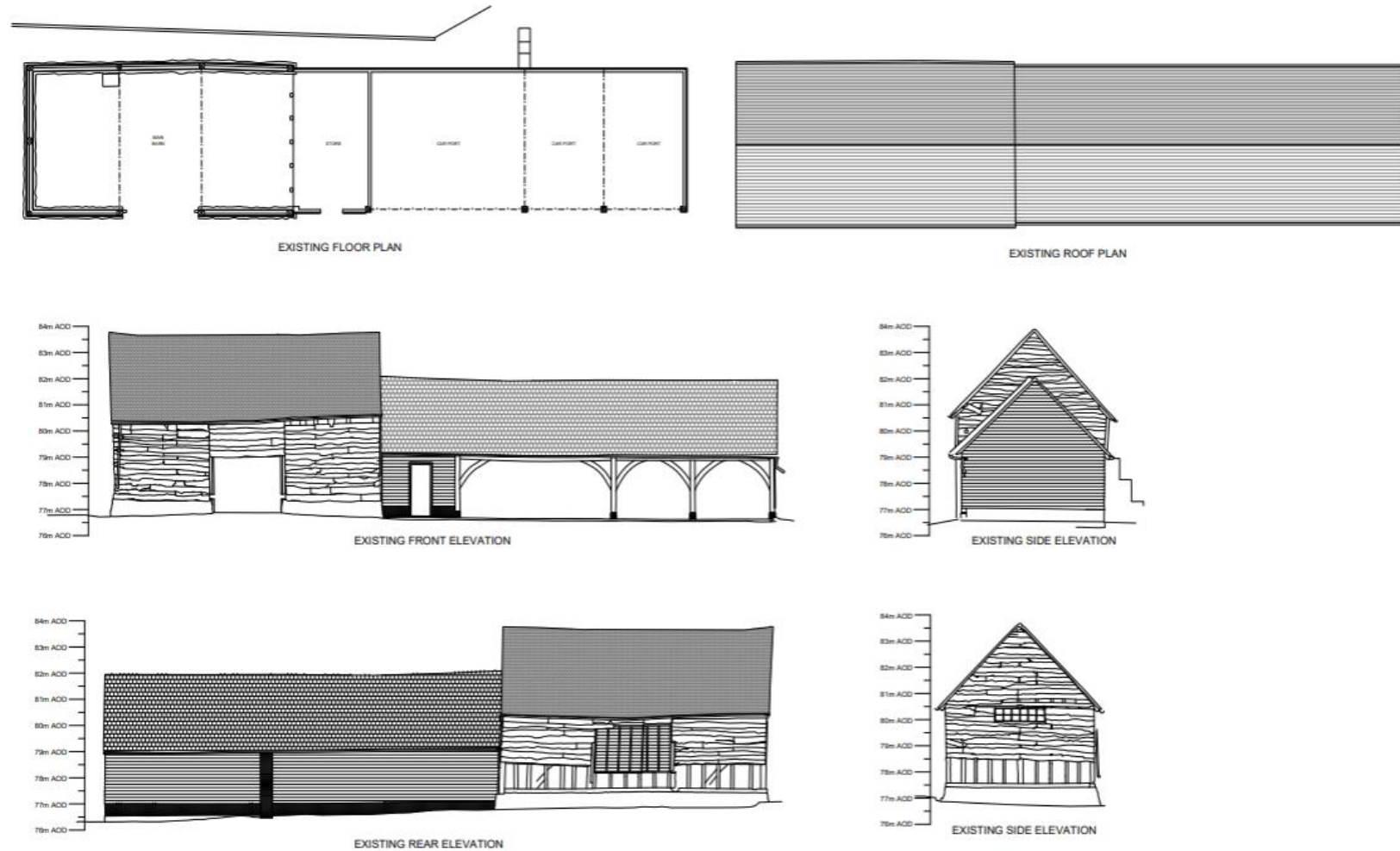


Figure 4: Existing site plan (Mark Alford Design)



Scale 1:100

 mark alford design	drawn by: MSA date: OCT 25 scale: 1:100 @ A2	
	issue: 01/01/2020 FOR PLANNING CONSENT	
	client: PROPOSED BARN CONVERSION TOAT FARM, ITCHESTERFIELD	
	drawing title: EXISTING PLANS AND ELEVATIONS	

Figure 5: Current Barn (Mark Alford Design)

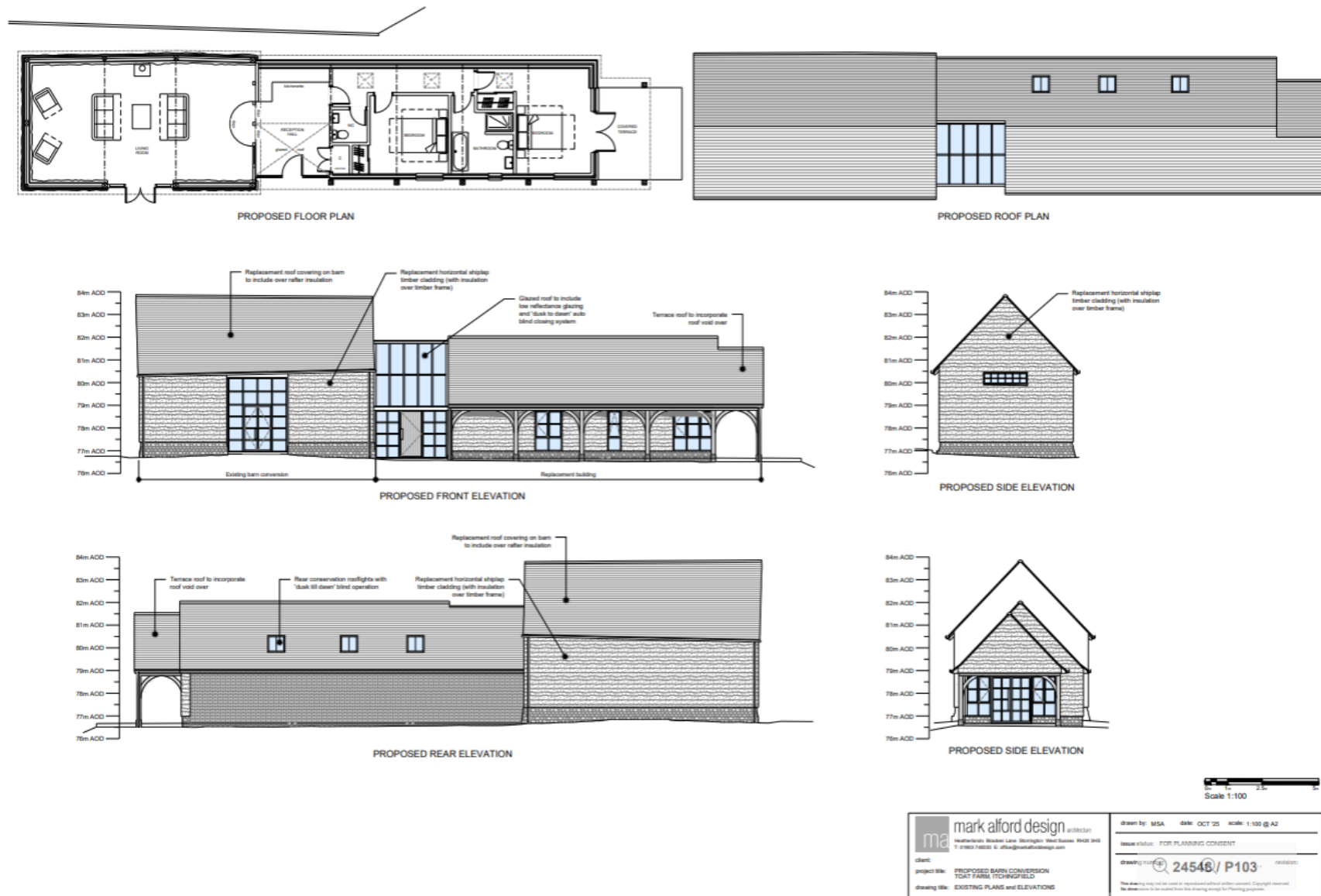
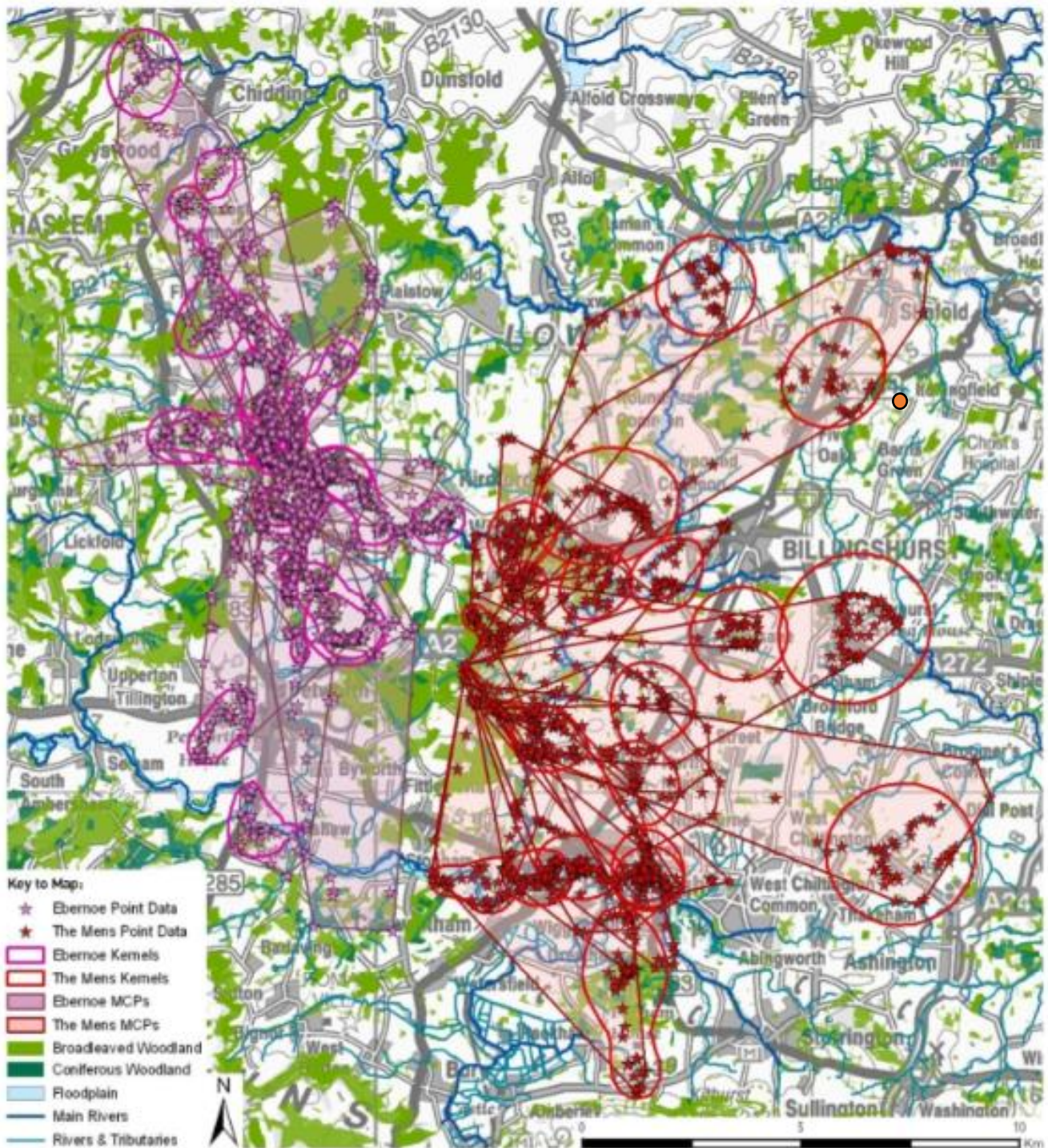


Figure 6: Proposed Barn Conversion (Mark Alford Design)



This map is based upon or reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown Copyright. All Rights Reserved. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or other civil proceedings. West Sussex County Council 100023447. 2008. Natural England 100046223. 2008.

Sussex Habitat Framework was created by GeoData on behalf of the Sussex Biodiversity Record Centre in 2007. Data used in the framework is sourced from Sussex Biodiversity Record Centre partnership partners and individual recorders. Hydrological data provided by The

Figure 7: Map produced by the 2008 Barbastelle in the Sussex West Weald project report (1997-2008) focused on The Mens and Erbenoe Common. Toat farm, the site, indicated by an orange circle indicating its connectivity to the wider barbastelle populations.



Results

Sample ID: EG-2207-1

Sample information:

Sample type: Faecal	Species group: Bats
Suspected species:	Site Location: TQ 12296 29071
Comments: Toat Farm Barns, Bashurst Hill, Horsham RH13 0PB	

Laboratory information:

DNA Extraction Code: EG-2025-1046 **Identification method:** qPCR

Analysis Procedure Notes:

Laboratory Comments:

None

Species Identified:

Species 1: Pipistrellus pipistrellus (Common pipistrelle bat)	qPCR Ct Value: 24
Species 2: Plecotus auritus (Brown long-eared bat)	qPCR Ct Value: 20
Species 3: Myotis nattereri (Natterer's bat)	qPCR Ct Value: 20
Species 4: Barbastella barbastellus (Barbastelle bat)	qPCR Ct Value: 27

Ecotype Genetics Limited.

Registered in England. **Company No:** 11328606. **VAT:** 295 2037 94

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e: orders@ecotypegenetics.co.uk **t:** 01273704505 **w:** ecotypegenetics.co.uk

Figure 1: Genetic Analysis of bat droppings collected throughout both barns

12.0 Appendix C – Bat Survey Plan

Figure 1 - Static Deployment Locations

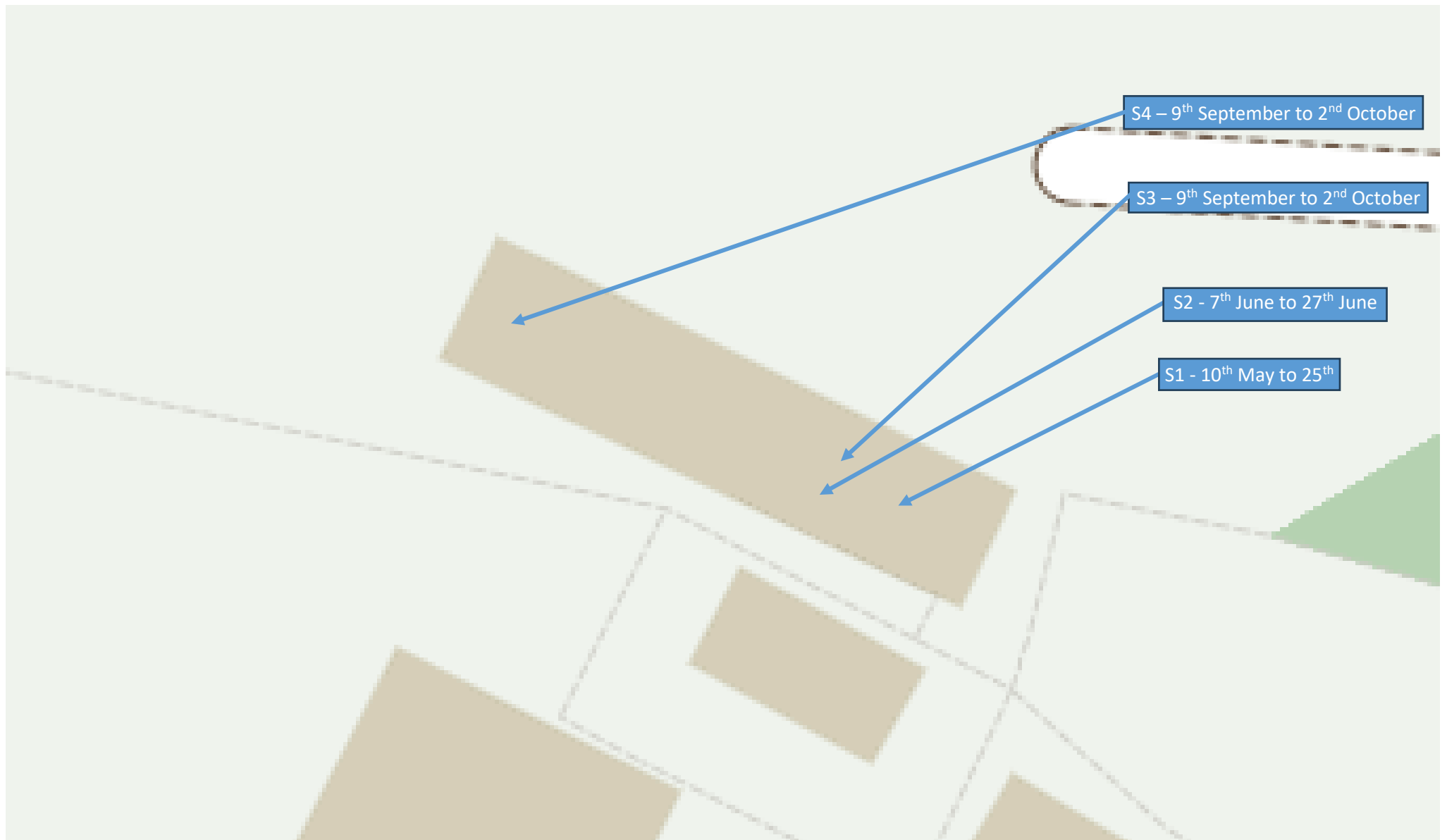


Figure 2- Survey 1: 10th May 2025

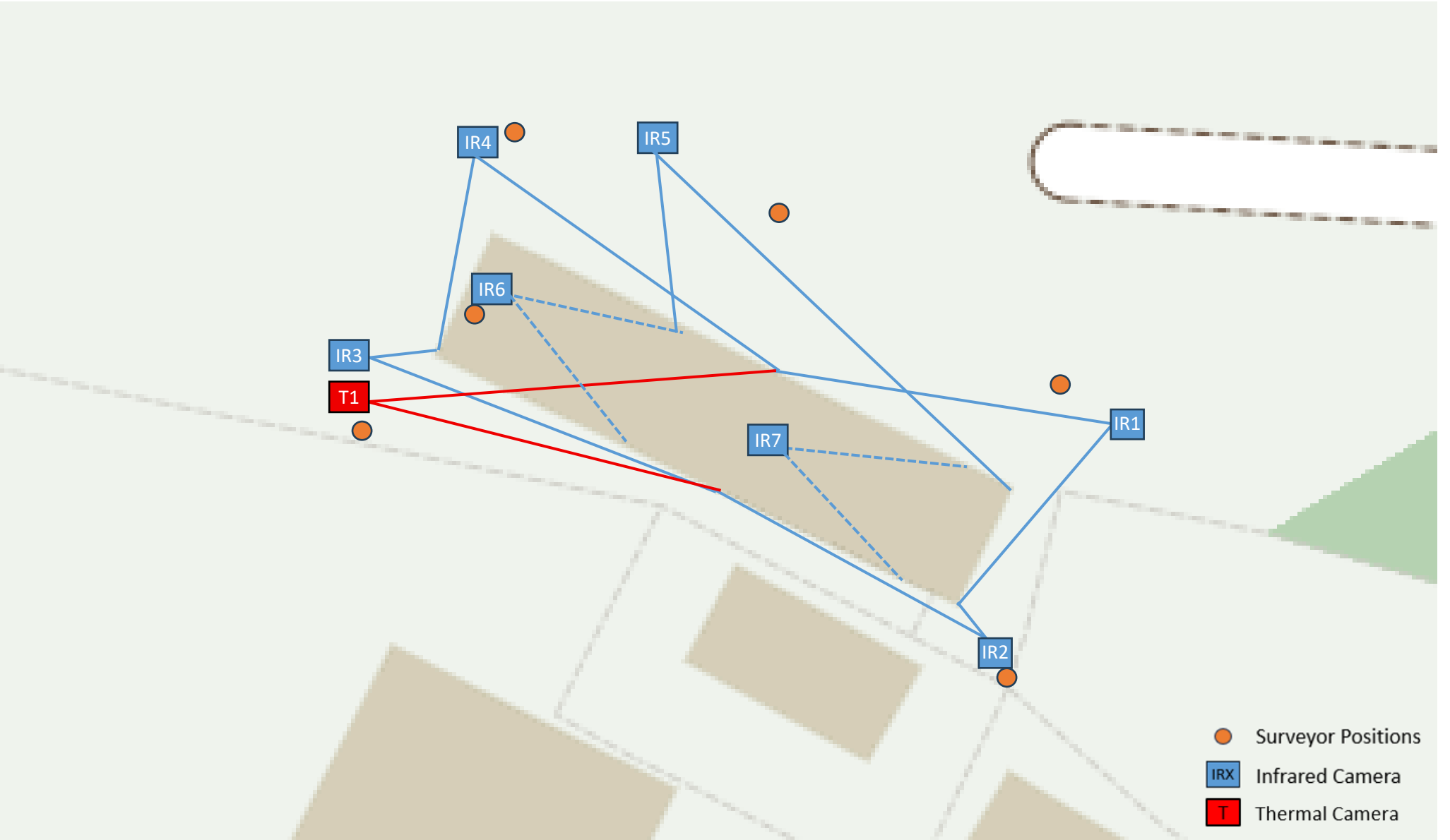


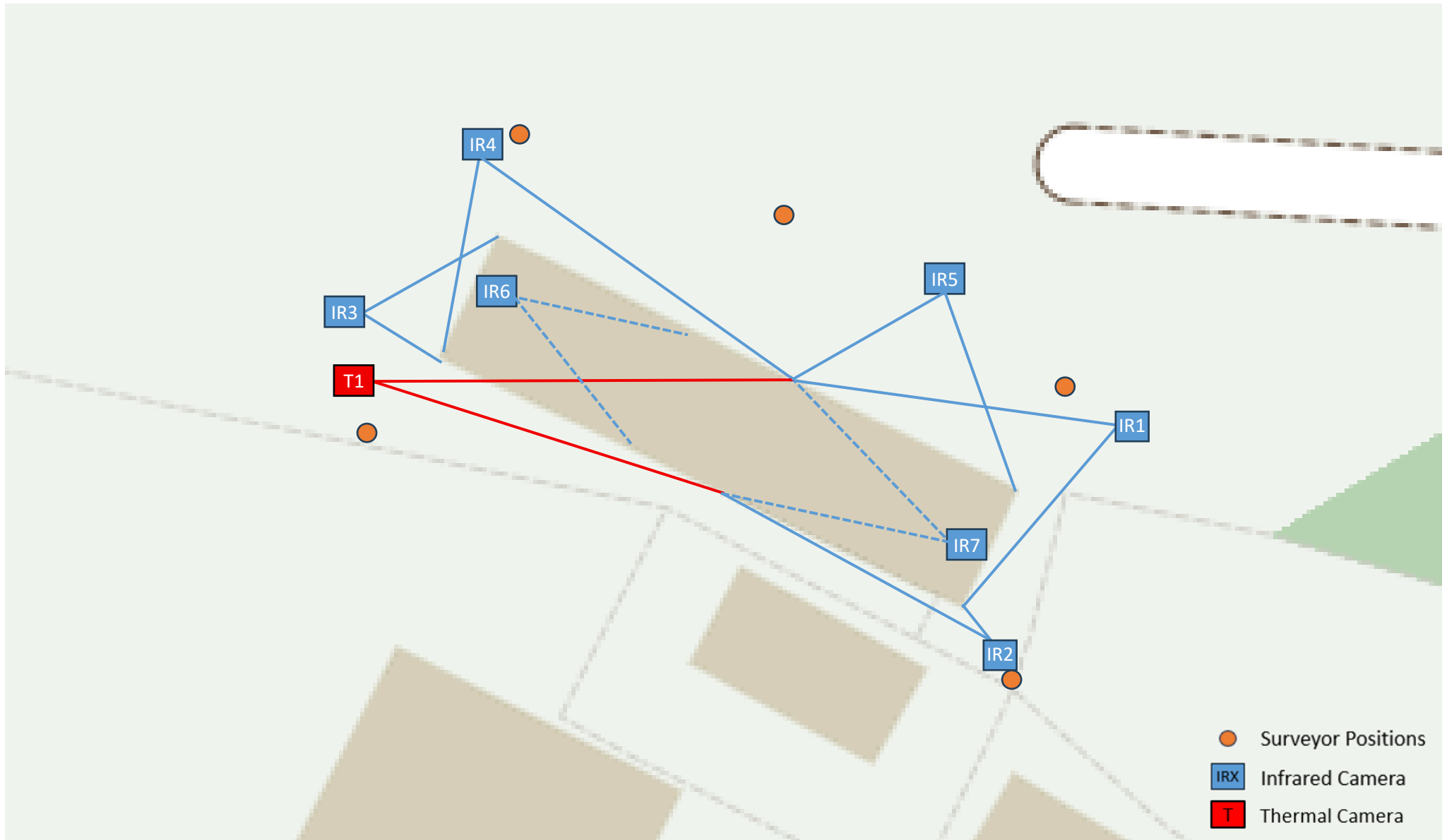
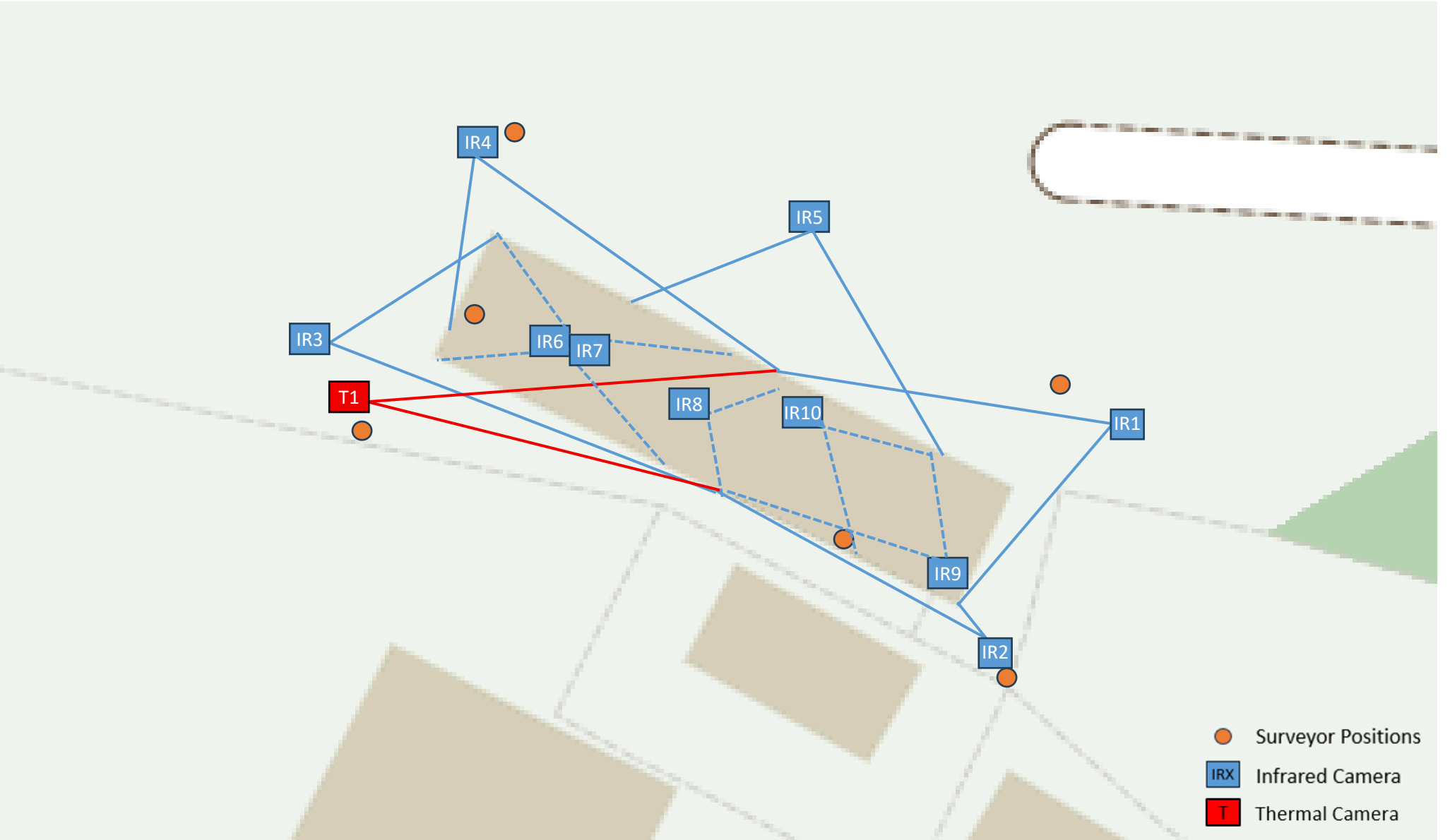
Figure 3 - Survey 2: 3rd June 2025

Figure 4 - Survey 3: 27th June 2025



13.0 Appendix D - Night vision Stills from Emergence Surveys

Survey 1 – 10th May 2025



Photo 1 – IR.1 Start



Photo 2 - IR.1 End



Photo 3 – IR.2 Start



Photo 4 - IR.2 End



Photo 5 – T.1 Start



Photo 6 – T.1 End



Photo 7 – IR.3 Start



Photo 8 - IR.3 End



Photo 9 – IR.4 Start



Photo 10 – IR.4 End



Photo 11 – IR.5 Start



Photo 12 – IR.5 End



Photo 13 – IR.6 Start



Photo 14 – IR.6 End



Photo 15 – IR.7 Start

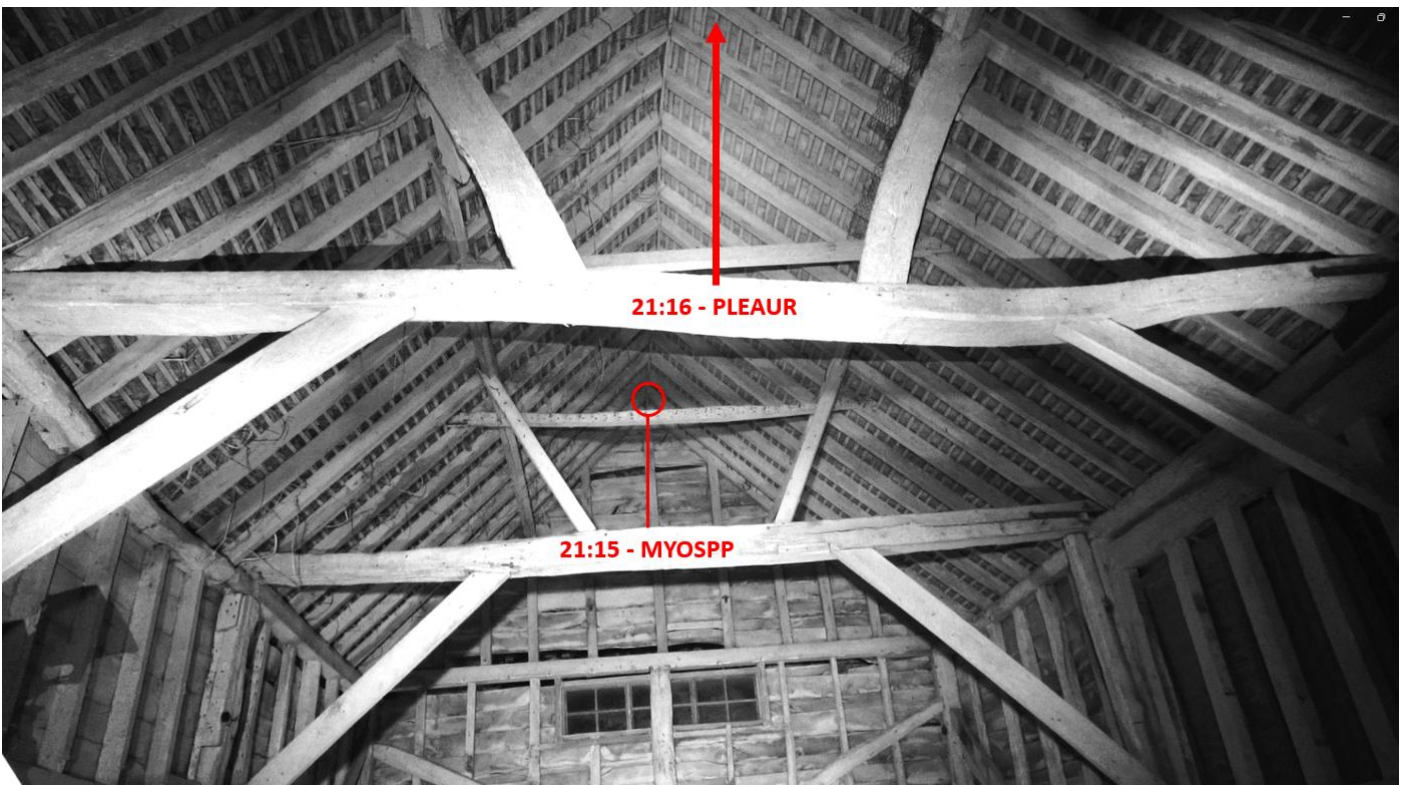


Photo 16 – IR.7 End

Survey 2 – 29th May 2025



Photo 17 – IR.1 Start



Photo 18 - IR.1 End



Photo 19 – IR.2 Start



Photo 20 – IR.2 End



Photo 21 – T1 Start

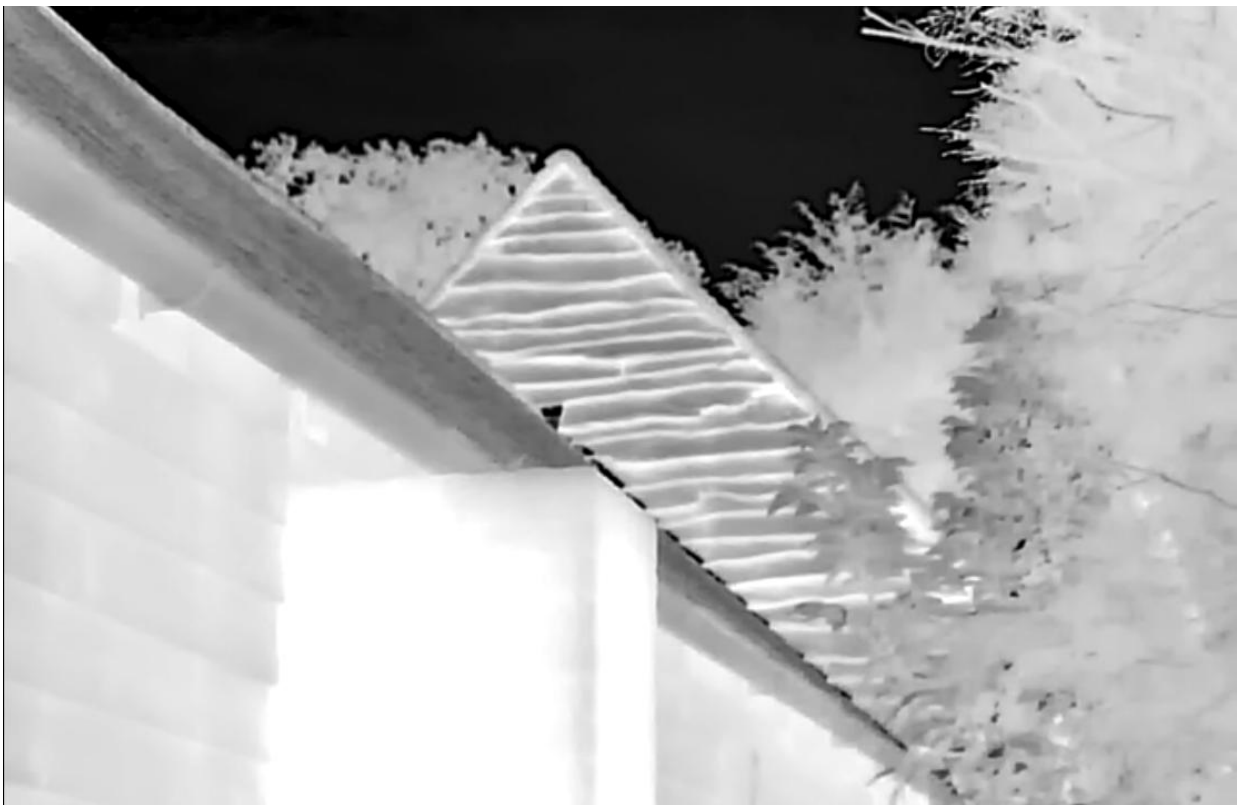


Photo 22 – T1 End



Photo 23 – IR.4 Start



Photo 24 - IR.4 End



Photo 25 - IR. 5 Start



Photo 26 - IR.5 End

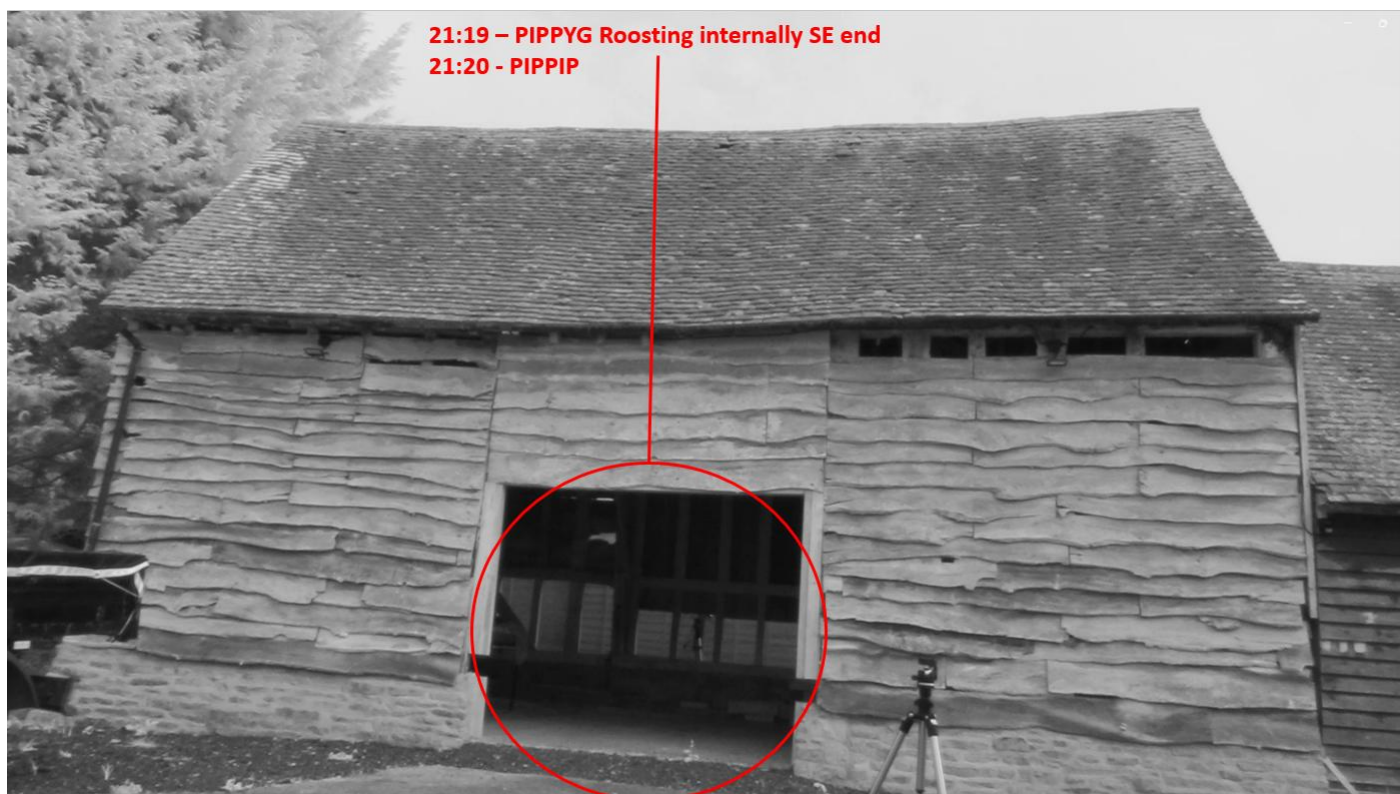


Photo 27 – IR.6 Start



Photo 28 – IR.6 End



Photo 29 – IR.7 Start



Photo 30 - IR.7 End



Photo 31 - IR.8 Start



Photo 32 - IR.8 End

Survey 3 – 3rd June 2025



Photo 33 – IR.1 Start



Photo 34 - IR.1 End

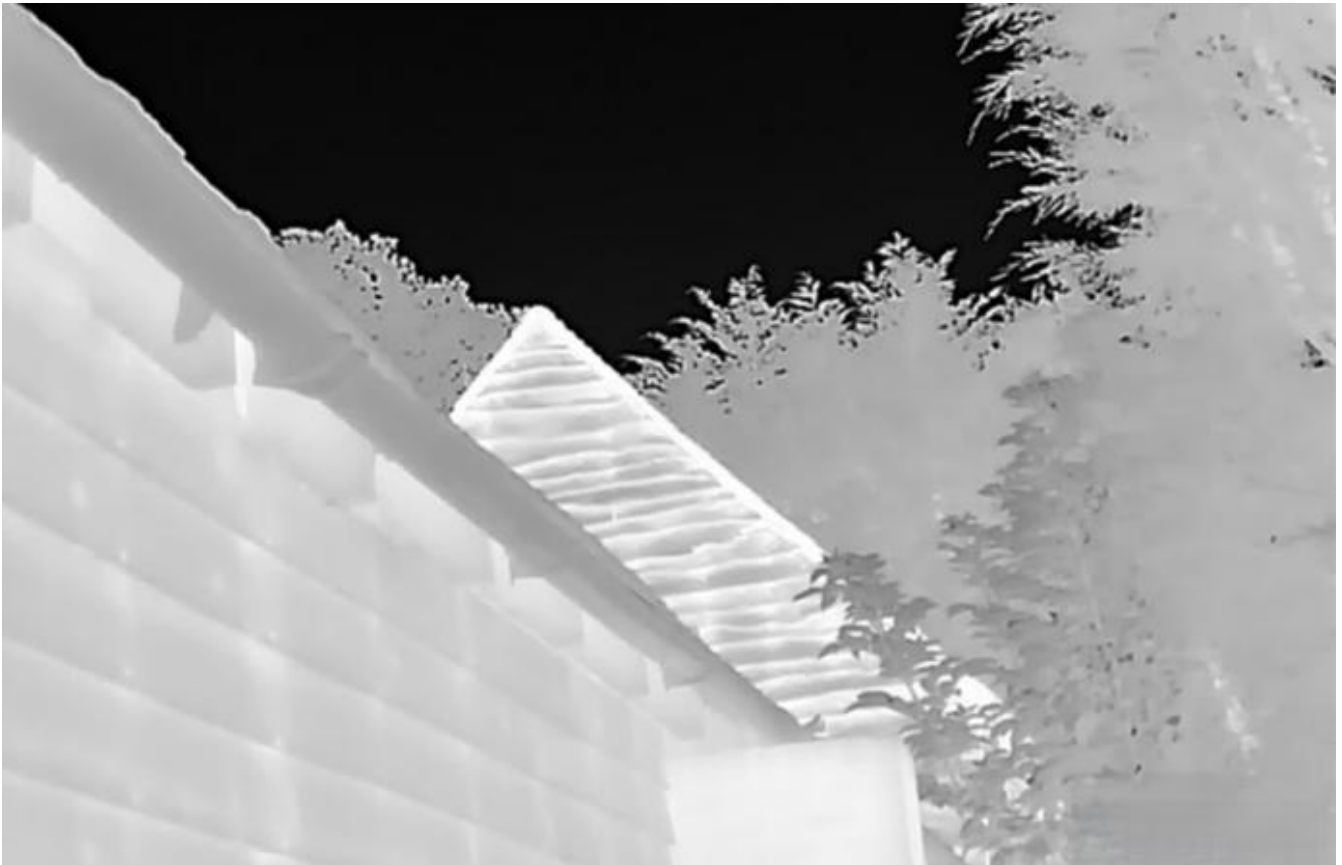


Photo 35 – T1 Start

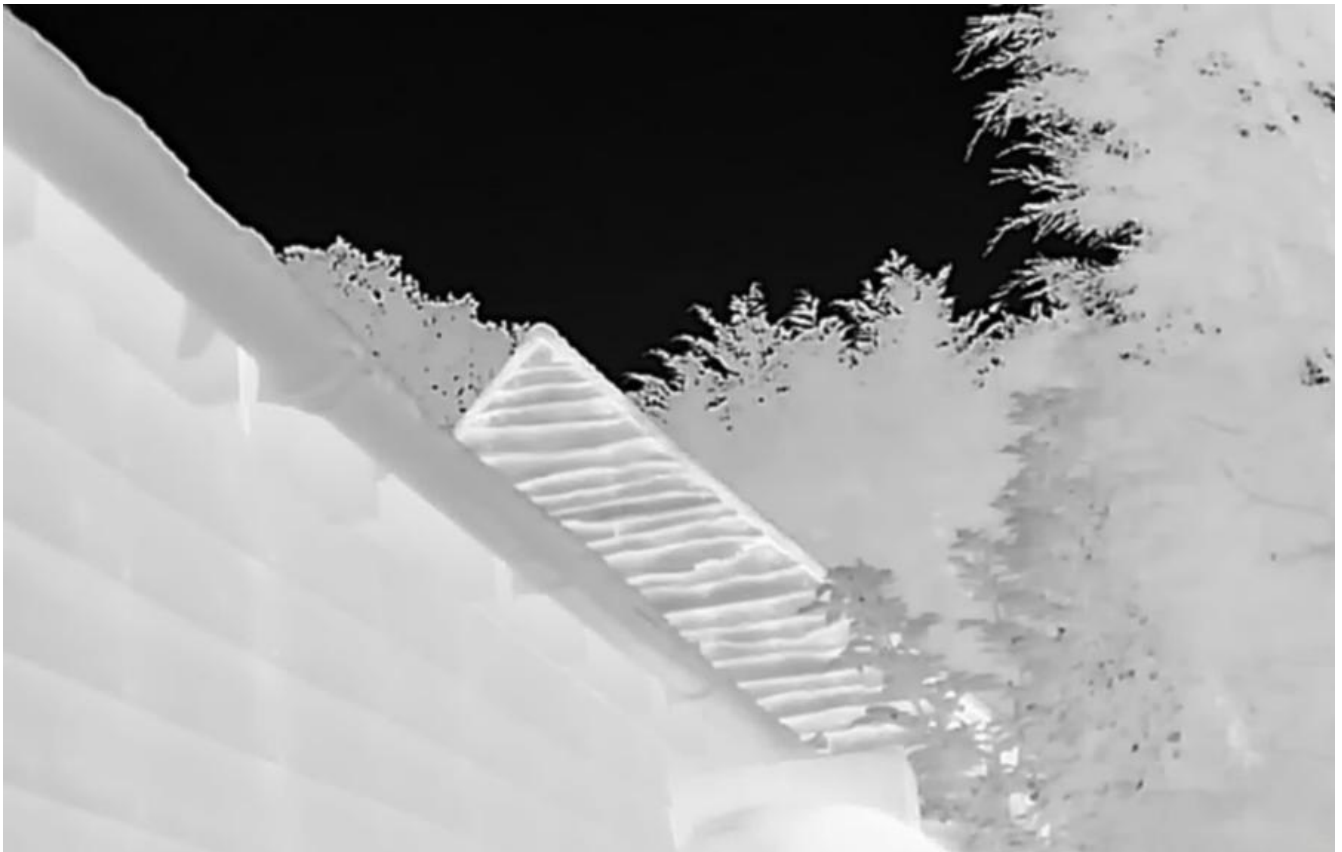


Photo 36 – T1 End



Photo 35 – IR.2 Start



Photo 36 - IR.2 End



Photo 37 – IR.3 Start



Photo 38 – IR.3 End



Photo 39 – IR.4 Start



Photo 40 - IR.4 End



Photo 41 – IR.5 Start



Photo 42 - IR.5 End



Photo 43 – IR.6 Start



Photo 44 – IR.6 End



Photo 45 – IR.7 Start



Photo 46 - IR.7 End



Photo 47 – IR.8 Start



Photo 48 – IR.8 End

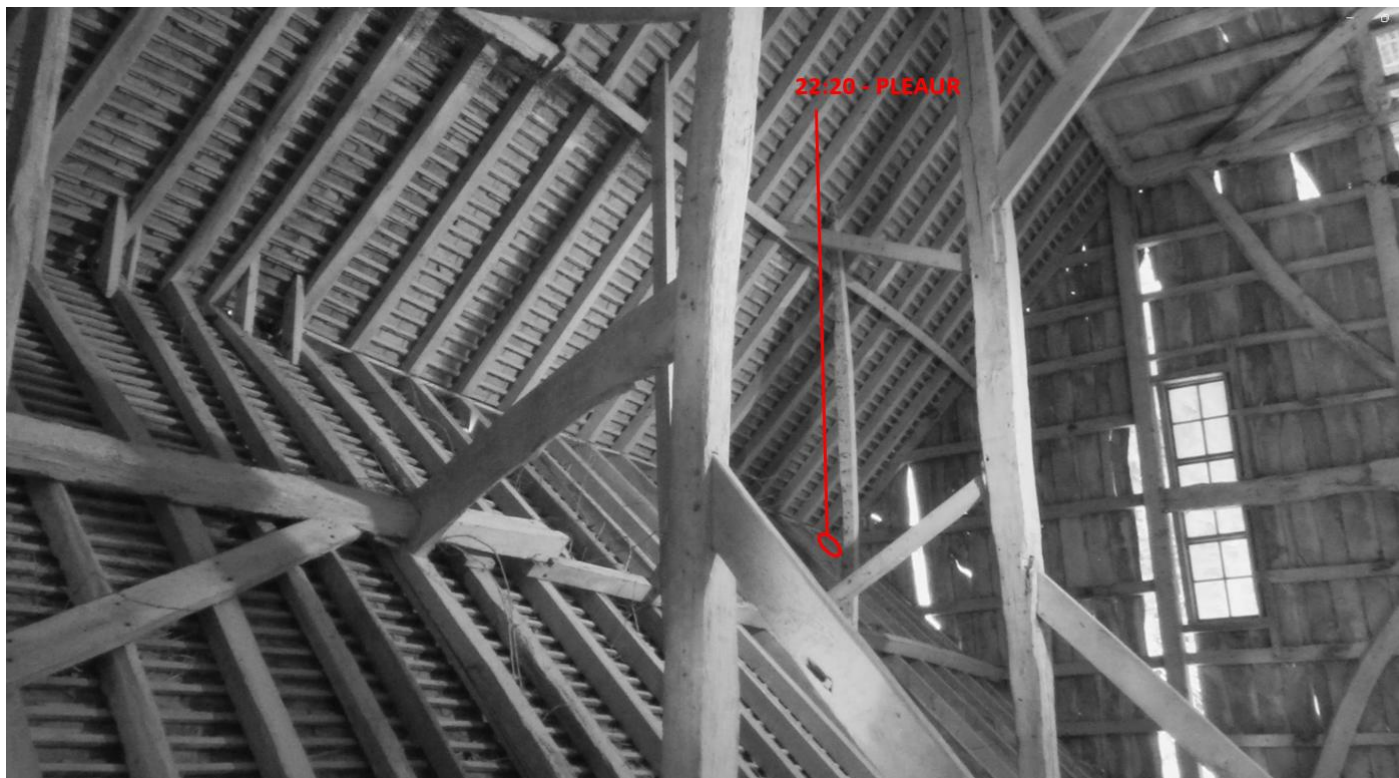


Photo 49 – IR.9 Start



Photo 50 – IR.9 End

14.0 Appendix E – PBRA

Preliminary Bat Roost Assessment

Site – Toat Farm, Itchingfield, RH13 0PB

Client – Mark Alford Design

Revision – v1

Author – Alex Rosenfeld (*QCIEEM*)

Issue date – 27th December 2024