Bat Survey Report

GTO House, Bath Road, Twyford, RG10 9ES

Surveys conducted May 2024

Document Control Sheet

Project Name: **GTO House, Twyford**
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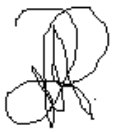
	Name	Position	Signature	Date
Prepared by:	Lisha Price	Senior Ecologist		23/05/24
Checked by:	Nick Kirke	Ecologist	NK	26/05/24

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SUMMARY

An internal and external daytime inspection for evidence of bats and bat roosting potential was conducted by ecologist Lisha Price of Plan Ecology at GTO House, Twyford which included the adjacent summer house, on 7th of May 2024.

Previous surveys in 2012, 2014, 2016, 2019 and 2023 have been completed on the property by other ecology companies. However, these walkovers were mainly assessing the large storage shed and adjacent land on site. In 2023 the barn was found to have negligible bat roosting potential by ecologists.

See Clarke Webb Ecology Limited's Ecological Appraisal of GTO House.

The proposed elevations have yet to be drawn. However, the intended proposed works are to demolish the existing summer house and construct a two-storey extension on the back section of GTO house. Once the plans are drawn up, they will be added to this report.

The site consists of a two-storey, brick-built building used as office space with a newer extension to the rear. There is an adjacent wooden clad 'summer house'. Other buildings on the Site include the barn (building 1) with negligible bat potential and a serious of other working structures. The buildings are surrounded by concrete hardstanding, car parks, and some mature trees. The site is located in the village of Hare Hatch and sits in a largely rural area surrounded by arable fields.

The buildings to be affected by the works were carefully inspected, and the potential features were examined in the accessible spaces using an endoscope.

The summerhouse had bat roosting potential in the form of the small gaps in the exterior cladding. The potential was assessed according to the scale negligible, low, moderate, or high and the structure was deemed to have low bat roosting potential.

The rear, 1980s section of GTO house was deemed to also have low bat roosting potential since it has no loft space but there are some small gaps in in the soffits.

The front section of GTO house was inspected and was found to have brown long eared bat droppings in the loft space. The potential was assessed and was found to have high potential with a confirmed roost present.

One bat activity survey was carried out for both the summer house and the rear section of GTO house. The surveys took place during optimal weather conditions. The surveys were conducted during a time of the year (May) when bats are generally fully active.

Since the front section of GTO house will not be affected by the proposed works and the loft space is separate from the extension, no further surveys were recommended or completed for this area of the house despite the confirmed roost. The works will be to the rear of the extension and will not disturb the roof or loft of the original GTO House building.

No bat droppings or other evidence of bats was found during the surveys where the proposed works will take place. No bats were noted to emerge from the buildings during the emergence surveys.

No evidence of bats roosting was found during this survey, it is recommended that the proposed works can proceed without any further bat surveys at this time.

The result of a survey can never completely rule out the presence of bats at a building as use may be obscure or occasional. If bats or evidence of bats such as bat droppings are discovered, the works must be paused, and you should seek advice from Plan Ecology or Natural England via the Bat Conservation Trust bat helpline Tel 0845 1300 228.

It is recommended that works only take place in the daytime to avoid any light or noise disturbance to bats or birds which may be nesting or foraging nearby.

1. INTRODUCTION

1.1 Site Description

GTO House, Bath Road, Twyford, RG10 9ES consists of a two-storey, brick-built house with an adjacent wooden clad summer home. The buildings are surrounded by concrete hardstanding, which is used as several car parks, and some mature trees. The site is located in the village of Hare Hatch and sits in a largely rural area surrounded by arable fields.

See APPENDIX 1 for Building Locations.

1.2 Proposed works

The proposed elevations have yet to be drawn. However, the intended proposed works are to demolish the existing summer house and construct a two-storey extension on the back section of GTO house. Once the plans are drawn up, they will be added to this report.

1.1 Aims of the survey

A Phase 1 bat survey was carried out with the aim to look for evidence of bats roosting and for the presence of structures within the buildings which hold bat roosting potential. Bat roosting potential was identified, and Phase 2 emergence and dawn surveys were there carried out.

1.2 General information about bats and buildings

Loft spaces can potentially be utilised by bat species such as e.g. Brown Long-eared bats or Serotine bats which are known to commonly roost inside loft spaces. This can generally be discovered via droppings inside the loft as the droppings will stay protected from weather elements.

External features of the building can potentially be used as roosting sites by e.g. Pipistrelle bat species (*Pipistrellus* spp). Pipistrelle bats are the most common bats out of the British species and they are known to almost exclusively roost inside buildings utilising areas such as cavity walls, soffits and fascia boards, and between tiles and roofing felt. It is not practical to carry out a full physical examination of such building features, which is why activity surveys must be done during summer months (May-September) when the bats are fully active.

Access points of 1-2 centimetres only are used by bats to enter and exit their roosting sites. Most buildings will have gaps of such size in roof areas as ventilation of the roof void would otherwise not be possible.

2. METHODOLOGY

The surveys were undertaken in accordance with the methods described in the Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn), Bat Conservation Trust (BCT). As per the interim guidelines from the bat conservation trust (2022) two dusks were carried out which is a suitable survey effort for a moderate potential building if used in conjunction with sufficient infra cameras. The night vision aids can vastly improve the detection of bats as they emerge from their roosts and reduce the need for dawn re-entry surveys where deemed appropriate.

2.1 External and internal inspection - Phase 1

The building was surveyed during the daytime on the 7th of May 2024 by Lisha Price (Natural England bat licence No. 11503-CLS) of Plan Ecology. Lisha has over 18 years of experience conducting ecology surveys.

The buildings were inspected for evidence of bats in the form of live or dead bats, droppings, urine staining and insect feeding remains such as moth and butterfly wings.A careful visual search using a Clulite torch was conducted in the loft space. An endoscope (Ridgid) was used for spot checks of internal and external gaps. The exterior of the building was surveyed for droppings on walls and window ledges.

See APPENDIX 2 for Photographs

2.2 Bat roosting potential – Phase 1

The buildings were examined internally and externally to identify structural features that hold bat roosting potential.

The bat roosting potential was assessed according to the scale negligible, low, moderate, high or confirmed:
Negligible: Negligible habitat features on site likely to be used by roosting bats. For example; a simple wooden garden shed, a corrugated iron barn or precast concrete modular garage may fit this category.
Low: A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost Sites do not provide enough space, shelter, protection, appropriate conditions and/ or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate: A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status.
High: A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Confirmed: This category is used where evidence of bats such as live or dead bats or bat droppings are present, or where there are records of a bat roost in the building.

2.3 Emergence survey methodology - Phase 2

The emergence survey of the buildings was conducted by Nick Kirke (Bat licence 2020-50736), Myfanwy Price (2019-40496), Ashley Johnson (2022-10735), Joanna Davies, Hayley Johnstone and Bethany Johnson of Plan Ecology Ltd on the 16th of May 2024. The survey started 15 minutes before the official sunset and were completed 1½ hour after sunset. Bat passes were recorded with EchoMeter Touch Pro bat detectors. Infrared cameras (Sony AX53) and associated equipment was used to assist the surveys. A series of large infrared lights are used to light up areas for the camera once it is dark enough to use night mode.

2.5 Weather conditions

This information was taken from the BBC Weather online forecast for Twyford, to illustrate that the survey was conducted during suitable weather conditions. Bats are generally fully active in the months of May - September at temperatures above 10°C if there are favourable weather conditions such as no strong winds (less than 15 mph) and no overnight rain.

Survey date	Sunset/ Sunrise	Weather 22:00/04:00	Temp	Wind speed	Humidity
16th May 2024	20:51	Mostly cloudy	13°C	3 mph	88%

2.6 Sound Analysis

The recordings made during the surveys were analysed on kaleidoscope software. All bat call recordings were compared to published reference material such as British Bat Calls Jon Russ (2012) and to a private reference library of previous recordings made from known bat species.

3. RESULTS

3.1 External and internal inspection results – Phase 1

Bat roosting potential:

The buildings to be affected by the works were carefully inspected, and the potential features were examined in the accessible spaces using an endoscope.

The summerhouse had bat roosting potential in the form of the small gaps in the exterior cladding. The potential was assessed according to the scale negligible, low, moderate, or high and the structure was deemed to have low bat roosting potential.

The rear, 1980s section of GTO house was deemed to also have low bat roosting potential since it has no loft space but there are some small gaps in in the soffits.

The front section of GTO house was inspected and was found to have brown long eared bat droppings in the loft space. The potential was assessed and was found to have high potential with a confirmed roost present.

Evidence of bats: No bats or evidence of bats were found during the internal inspection in the areas that will be affected by the proposed works.

See APPENDIX 2 for photographs

3.2 Emergence survey results – Phase 2

16th May 2024: Common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*), and Noctule (*Nyctalus noctula)* bats were recorded and observed foraging and commuting near the property.

No bats emerged from the buildings.

3.3 Identified bat roosting areas

No bat access points, or roosts were identified during the surveys of the Summer House and the rear extension of GTO House.

See APPENDIX 3 for survey results and surveyor positions.

4. ASSESSMENT

4.1 Constraints on study information

All accessible areas of the buildings could be surveyed without restrictions.

The phase 1 survey was carried out during the month of May. As such, seasonal variations could not be observed and potentially only a selection of all species that occur within the survey area will have been noted. The Survey therefore provides a general assessment of potential nature conservation value. However, it is considered that the combination of biological records from the desk study and the site visit provides an accurate representation of the various species and habitat types present or potentially present within the survey area.

Bat survey results are generally considered to be valid within two years of the survey date or until the next active bat season of May-September. The County Council Ecologists and/or Natural England may ask for updated surveys if the reports are older than one year.

4.2 Potential impacts on bat foraging and commuting habitat.

There will be no negative impact on bat commuting and foraging areas as the building will not increase significantly in footprint enough to have an effect.

4.3 Legislation and policy guidance

As population numbers have fallen, all bats and their roosts are protected under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017.

Under this legislation it is an offence to:

- deliberately capture (or take), injure or kill a bat;
- intentionally, recklessly or deliberately disturb a bat (in relation to the Wildlife and Countryside Act 1981 (as amended) the offence applies whilst the species is occupying a structure or place which it uses for shelter or protection; in relation to the Conservation of Habitats and Species Regulations 2017 it applies anywhere);
- damage or destroy the breeding or resting place (roost) of a bat;
- possess a bat (alive or dead), or any part of a bat;
- intentionally or recklessly obstruct access to a bat roost;
- sell (or offer for sale) or exchange bats (alive or dead), or parts of bats.

Please refer to the original legislation for the definitive interpretation.

5. RECOMMENDATIONS

5.1 Discussion of results

The summerhouse had bat roosting potential in the form of the small gaps in the exterior cladding. The potential was assessed according to the scale negligible, low, moderate, or high and the structure was deemed to have low bat roosting potential.

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It is recommended that works only take place in the daytime to avoid any light or noise disturbance to bats or birds which may be nesting or foraging nearby.

5.2 Survey Effort

The summerhouse and the rear section of GTO house were assessed as having low bat roosting potential and one bat activity survey was carried out. The survey took place in accordance with the Bat Conservation Trust Bat Survey Guidelines. These guidelines are used by Local Planning Authority ecology team during the planning application process to determine the level of survey effort that is needed.

One bat activity survey was carried out during optimal weather conditions. The survey was conducted during a time of the year (May) when bats are generally fully active.

As no evidence of bats roosting was found during this survey, it is recommended that the proposed works can proceed without any further bat surveys at this time.

The front section of GTO house will not be affected by the proposed works and the loft space is separate from the extension, no further surveys were recommended or completed for this area of the house despite the confirmed roost. The works will be to the rear of the extension and will not disturb the roof or loft of the original GTO House building. If any plans change which may affect the front building the survey and report will need to be revisited by an ecologist and updated recommendations made.

7. REFERENCES

Collins, J. (ed.)(2016) Bat Surveys for Professional Ecologists: Good Practise Guidelines (3rd edn).The Bat Conservation Trust, London.

Mitchell-Jones A J & McLeish A P (Ed.), 2004. *The Bat Workers' Man*ual. JNCC, Peterborough, United Kingdom.

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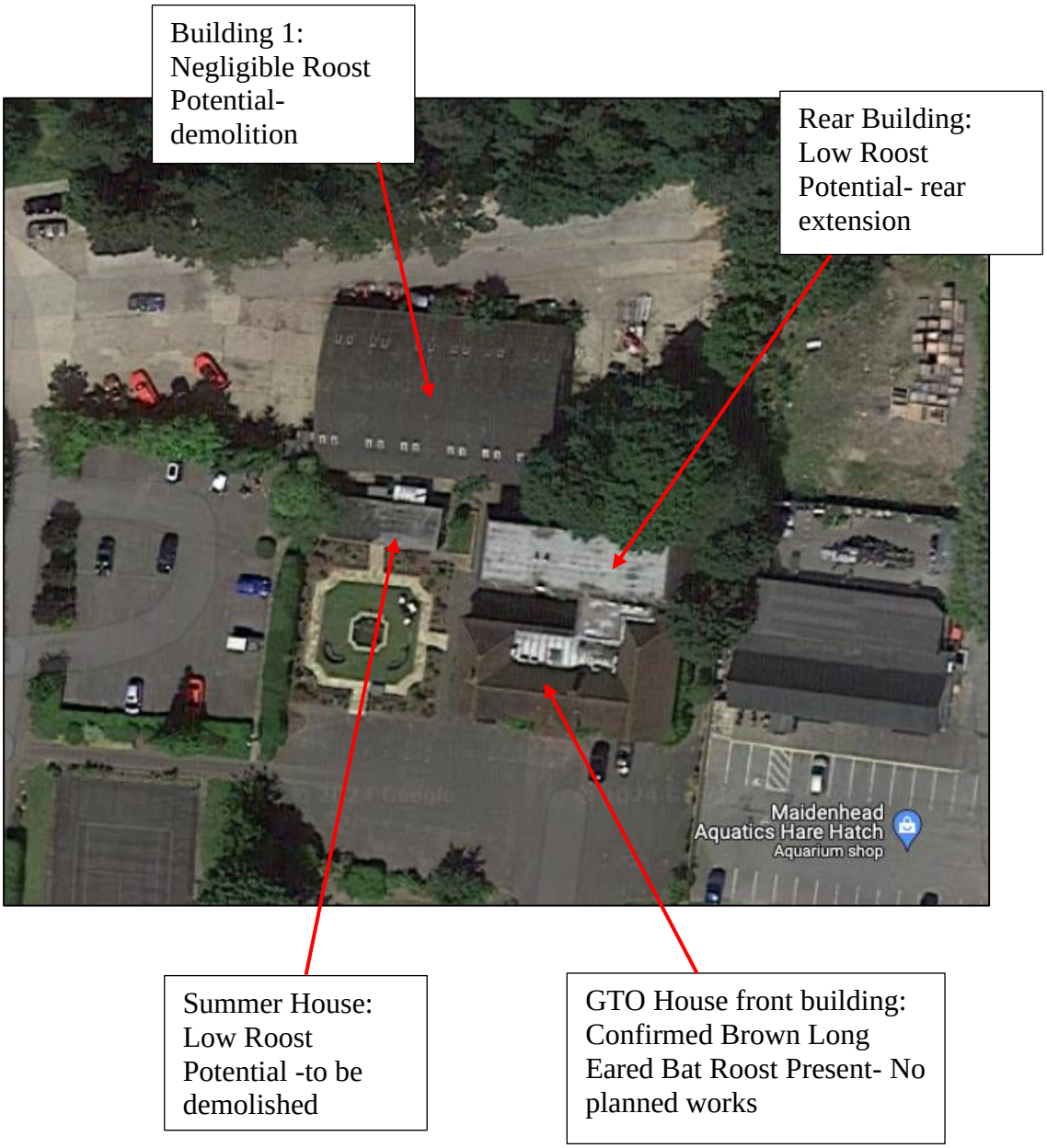
Parsons, K *et al* (Ed.) 2007. *Bat Surveys - Good Practise Guidelines.* Bat Conservation Trust, London, United Kingdom.

Richardson, P. 2000. *Distribution Atlas of Bats in Britain and Ireland 1980-1999.* Bat Conservation Trust, London, United Kingdom.

Russ, J. 1999. *The Bats of Britain and Ireland*. Alana Books, Alana Ecology Ltd. United Kingdom.

APPENDIX 1: Building Locations

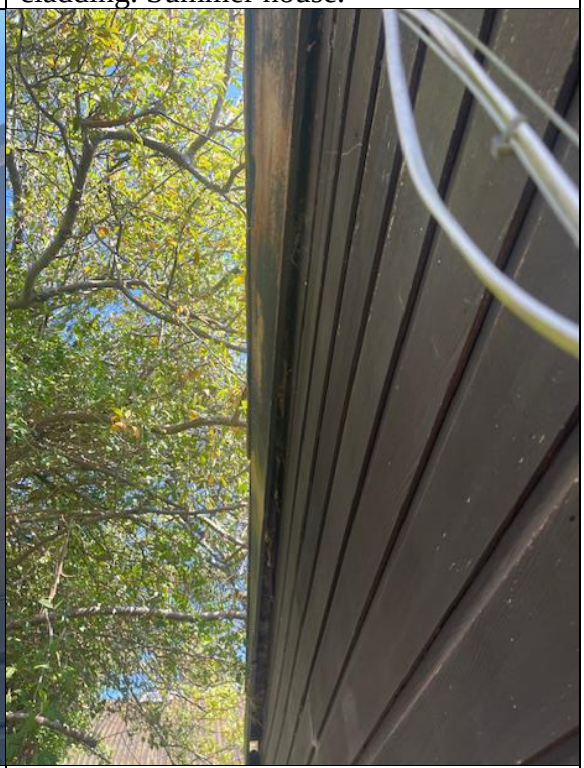


APPENDIX 2: Photographs

Photograph 1: Adjacent wooden clad summer house.

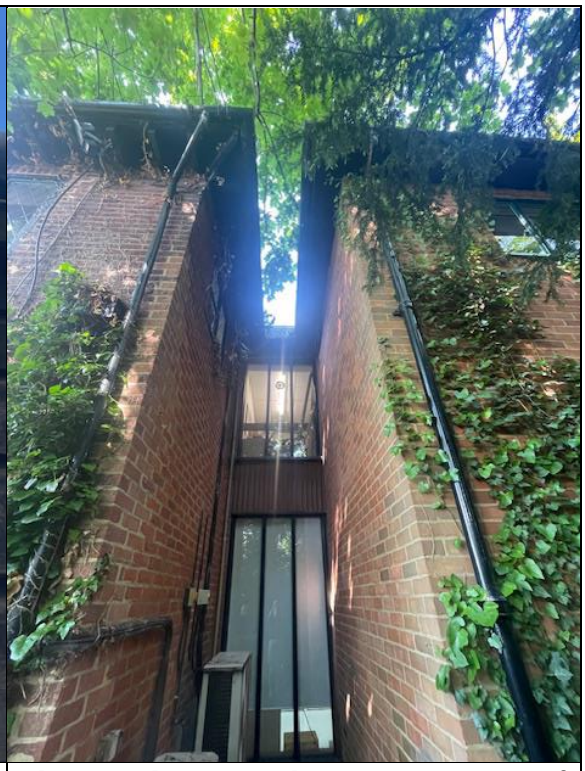
Photograph 2: Small gaps in exterior cladding. Summer house.

Photograph 3: Small gaps in exterior cladding. Summer house.

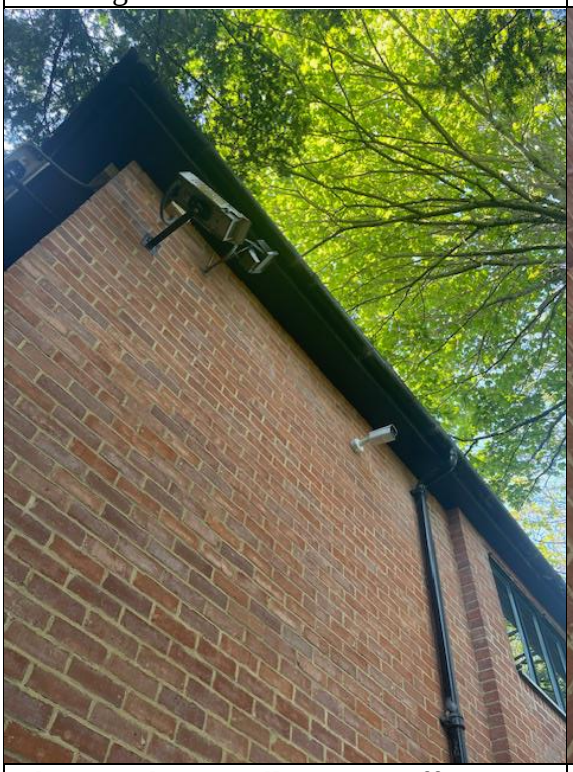


Photograph 4: Small gaps in exterior cladding. Summer house.

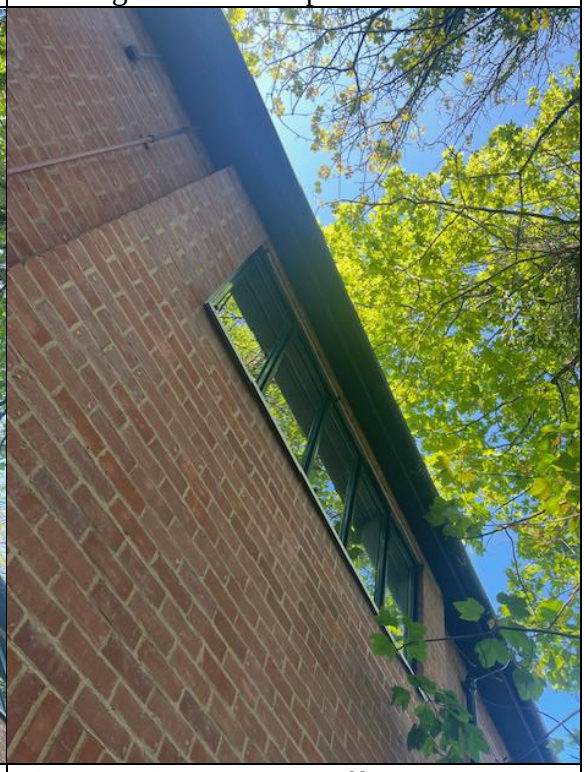
Photograph 5: Small gaps in exterior cladding. Summer house.



Photograph 6: GTO house rear section of building with no loft space.



Photograph 7: Small gaps in soffits. GTO House rear extension.



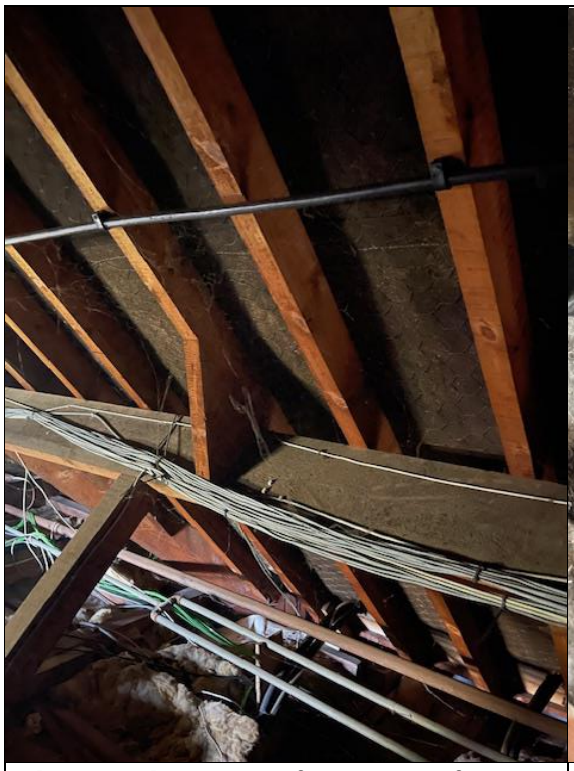
Photograph 8: Gaps in soffits. GTO House rear extension.

Photograph 9: Rear section of building. GTO House rear extension.

Photograph 10: Rear section of building. GTO House rear extension.

Photograph 11: Rear section of building. GTO House rear extension.

Photograph 12: Rear section of building. GTO House rear extension.

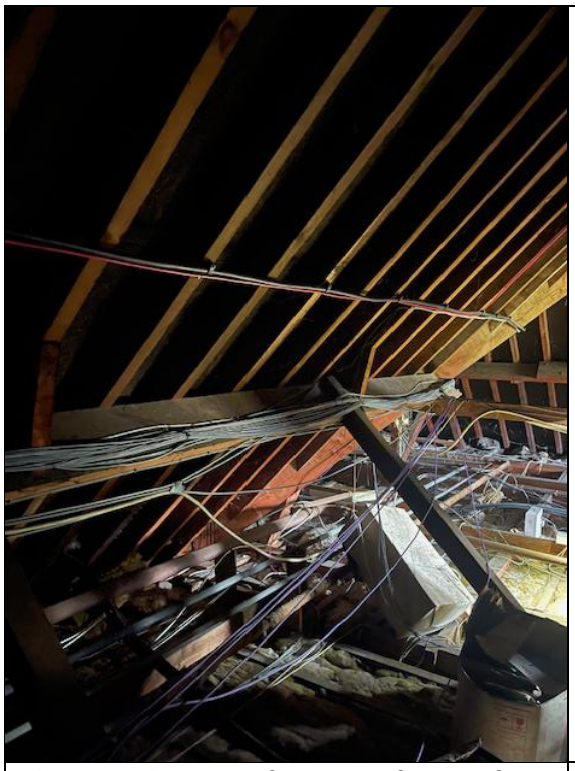


Photograph 13: Loft space of GTO original front building.

Photograph 14: Bat droppings in loft space. GTO original front building.

Photograph 15: Loft space with window. GTO original front building.

Photograph 16: Concentrated bat droppings in loft space. GTO original front building.

	
Photograph 17: Loft space of GTO front building.	

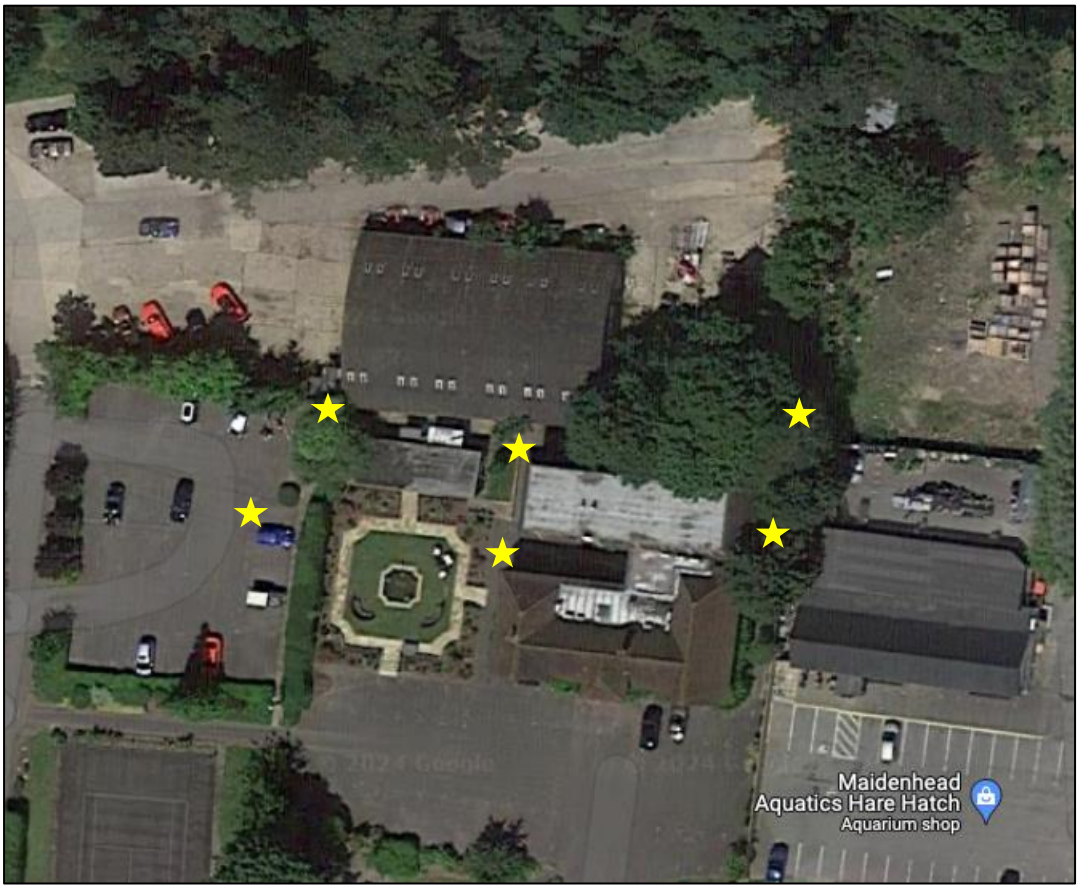
APPENDIX 3: Activity Survey & Sound Analysis Results

Emergence 1 Survey 16th May 2024

Surveyors Joanna Davies, Nick Kirke, Ashley Johnson, Myfanwy Price, Bethany Johnson and Hayley Johnstone

Time	Species	Activity	Flight Direction
20:36	Survey start		
20:51	Official sunset		
21:01	Soprano pipistrelle	Foraging	
21:22	Soprano pipistrelle	Commuting over building	E-W
21:23	Soprano pipistrelle	Foraging NE around buildings	
21:29	Common pipistrelle	Foraging	
21:32	Soprano pipistrelle	Commuting over building	W-E
21:41	Common pipistrelle	Foraging	
21:55-22:03	3 Common pipistrelles	Foraging constantly around trees	
22:00	Noctule	Commuting	W-E
22:15	Common pipistrelle	Foraging	
22:21	Survey Finish		

Surveyor and camera positions



Buildings after dark- view from camera.