ARBOR VITAE
ECOLOGY • FORESTRY • LAND USE

Bat Activity Survey

Date prepared:	23/07/2026
Site name:	Ty Llwyd
Site address:	Ty Llwyd, High Street, Glyn Ceiriog, LL20 7EH
Grid reference:	SJ20313813
Local authority:	Wrexham County Borough Council
Client:	Forge Property
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EXECUTIVE SUMMARY

Planning permission will be sought for the conversion of an outbuilding into a useable space and as such, planning permission will be required.

Several external Potential Roost Features were noted during the initial inspection and access by bats into the rear loft of the property is achievable through the eaves. The presence or absence of bat species cannot be confidently concluded from a daytime inspection.

Preliminary examination of the building indicated that it had 'moderate' potential as a bat roost and therefore two activity surveys were judged to be required to confirm presence or absence of bats.

Two activity surveys were carried out on 12/06/26 and 16/07/26. No bats were seen emerging from the building, but activity surrounding was moderate. The static detectors identified no internal bat calls.

A set of reasonable avoidance measures should therefore be adopted as follows:

- If any bats are identified during development, all works must cease immediately.
- A wildlife sensitive lighting plan should be adopted.

No breeding bird mitigation is required.

Following the completion of the conversion, the following is recommended to provide opportunities for protected species on site by installing artificial roost sites:

- Two general purpose Woodcrete bat boxes.

1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the conversion of an outbuilding into a useable space and as such, planning permission will be required.

This may have implications for bats which could be using the building for roosting.

Preliminary examination of the building indicated that it had 'moderate' potential as a bat roost and therefore two activity surveys were judged to be required to confirm presence or absence of bats.

1.2 SCOPE OF SURVEY

Arbor Vitae were commissioned to undertake two bat activity surveys to determine if the building is in use by roosting bats.

- Bats and their roosting sites are legally protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981.

The surveys were also designed to assess the presence of any breeding birds using the building.

- All wild nesting birds, their nests and eggs are legally protected under The Wildlife and Countryside Act 1981.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

Ty Llwyd is on the northern edge of the village of Glyn Ceiriog on the high street. Other residential buildings are located to the south; there are broadleaved woodlands to the north and west of the site. Further surrounding the site are grazed paddocks, native hedgerows and broadleaved tree lines.

2.2 BUILDING DESCRIPTION

The outbuilding is a stone barn located to the rear of the main house at Ty Llwyd. The barn is built into an embankment at its rear elevation. The window and door apertures are mostly covered although some are open. They are fitted with timber frames which allow for gaps around the framing. The roof is a mixture of fibre cement and corrugated tin sheets, supported by timber purlins and rafters which rest on the wall plate at either gable ends. Cast iron gutters and downpipes are fixed in place externally and internally, there is an electrical supply.

The outbuilding is used mostly for storage of logs and personal possessions.

3 SURVEY METHODOLOGY

3.1 VISUAL INSPECTION

One visit was made to carry out a preliminary visual assessment of the property on the 22nd September 2025. This assessed the potential of the building to provide a roost site for bats. Any Potential Roosting Features were noted, and evidence was sought for bat activity including droppings and feeding signs.

The objective of the survey was to find and record any signs of use by bats, for example:

- Droppings, sometimes in concentrations below roost sites,
- Feeding signs such as butterfly and moth wings,
- Staining of timber, brickwork around access points.

The general structure of the building was assessed for its potential to provide bats with roosting opportunities.

3.2 ACTIVITY SURVEYS

Two activity surveys were carried out using two observers equipped with bat recorders and infrared cameras.

Survey Type	Date	Start, end and sunset times	Structure reference	Equipment used	Weather
Bat activity survey	12/06/26	21:00-23:12 (21:38)	Outbuilding	Wildlife Acoustics Echometer 2 Pro microphone, with iPad Air/Android tablets and the Nightfox infrared HD binoculars, 2 x Anabat internally	Cloud: 30% Rain: No Rain Wind: 4 (BFT) Temp: 13°C
Comments: 2 Surveyors					
Bat activity survey	16/07/26	21:16-23:00 (21:30)	Outbuilding	Wildlife Acoustics Echometer 2 Pro microphone, with iPad Air/Android tablets and the Nightfox infrared HD binoculars, 1 x Anabat internally	Cloud: 10% Rain: No Rain Wind: 0 (BFT) Temp: 22°C
Comments: 2 Surveyors					

3.3 BREEDING BIRDS

The building was assessed for its potential to provide birds with nest sites, and to record any existing evidence of previous nesting.

3.4 PERSONNEL

Date	Personnel
12/06/26	- Dr Joy Miles, Natural England bat licence number: 2026-89370-CL17-BAT, lead surveyor - Ash Pierpoint, experienced bat surveyor
16/07/26	- Jennifer Spelling BSc MSc MCIEEM Natural Resources Wales bat licence number: S095517/1, lead surveyor - Sam Coxon, experienced surveyor

3.5 CONSTRAINTS

There were no constraints to the survey according to the Bat Conservation Trust good practice guidance.

4 SURVEY RESULTS

4.1 VISUAL INSPECTION

There are gaps visible in the mortar of the external stonework and the top of the wall plate is unsealed.

There are numerous gaps in the stonework of the external walls, and internally at first floor height. The top of the wall plate is unsealed and allows easy access into the building from beneath the overhanging roof structure.

Conditions within the first-floor loft are not entirely dark but there are sufficient crevices and cavities in which bats could conceal themselves.

Scattered droppings characteristic of pipistrelle was found in the first-floor loft of the barn during the survey.

The structure provides 'moderate' suitability as a bat roost and two dusk emergence surveys are required to establish in what capacity the building is in use by roosting bats.

4.2 ACTIVITY SURVEYS

Dusk survey, 12th June 2026.

Four species of bat were recorded during this survey: noctule, brown long eared common and soprano pipistrelle.

The first observation of the survey was a noctule which was heard but not seen at 21:33 to the north of the building, another noctule call was recorded by the same surveyor at 21:49. A common pipistrelle was observed flying close above the roof of the building at 21:45, this flight line was observed on multiple occasions, with multiple common pipistrelles foraging around the building for the duration of the survey. A soprano pipistrelle was heard but not seen to the south of the building at 23:02. Overall, the bat activity was 'moderate' with frequent pipistrelle flight paths around the building being observed.

Internal static data revealed no internal calls on either detector during the survey.

Dusk survey, 16th July 2026.

Three species of bat were recorded during this survey: brown long eared common and soprano pipistrelle.

The first observation of the survey was a common pipistrelle foraging amongst the trees to the southwest of the building at 21:45, two more bats, including a soprano pipistrelle also foraged around this area from 21:50 until around 22:15. From 21:50 until 22:10 there was frequent common pipistrelle foraging around and over the building. A brown long eared bat was observed flying to the west of the building, heading south towards the trees at 22:21. Faint soprano pipistrelle calls were recorded to the east of the building at 22:56. Activity levels were higher for the second survey than the first, with the majority of observed bats foraging to the south and around the building.

Faint common pipistrelle calls were recorded from 21:57 until 22:36, these were likely external and picked up by the internal detectors due to the open structure of the building (e.g. open window frames).

4.3 BREEDING BIRDS

No breeding birds were seen to be using the building during either the preliminary inspection or the bat activity survey.

5 EVALUATION OF RESULTS AND IMPACT

5.1 BATS

Overall, four bat species were recorded during the surveys: Noctule, brown long eared, common and soprano pipistrelle.

No bats were seen emerging from the building, but foraging activity surrounding the building was moderate. The static detectors placed internally returned no internal calls.

Given the results of this survey, there does not appear to be a current roosting site within the building. It is recommended that works proceed adhering to a strict reasonable avoidance measures method statement and if works start later than 12 months from the date of this report, updated survey work will be required prior to commencement.

5.2 BREEDING BIRDS

No breeding birds were observed.

6 MITIGATION & ENHANCEMENT

6.1 BATS

The two surveys revealed that the building is not currently in use as a roosting site by bats. However, there was frequent foraging and commuting activity around the building. A set of reasonable avoidance measures should therefore be adopted as follows:

- If bats are found, or suspected to be present, all work will stop immediately, and a qualified ecologist will be contacted for advice.

A Wildlife Sensitive Lighting plan with the following recommendations will be included if any external lighting is altered:

Wildlife sensitive Lighting plan

- Hedgerows and key habitat features including mature trees on the site will not be illuminated in order to retain dark movement corridors for nocturnal wildlife.
- Security or decorative lights to be installed on the site will be less than 3m from the ground and fitted with hoods to direct the light below the horizontal plane, at an angle of less than 70° from vertical, and shall not be fixed to, or directed at, bat boxes, gables or eaves.
- Security lighting will be set on motion sensors with short timers less than 1 minute and will be LED.
- External lighting will be hooded and directed toward the ground to reduce upward light spill.
- A warm white spectrum will be adopted throughout the scheme to reduce blue light component (<2700Kelvin).
- Internal luminaires will be recessed where installed in proximity to windows to reduce glare and light spill. LED luminaires will be used internally where possible due to their sharp cut-off, lower intensity and dimming capability. The luminaires will always be mounted horizontally with an upward light ratio of 0%.

6.2 BREEDING BIRDS

None required.

6.3 ENHANCEMENT

Following the completion of the conversion, the following is recommended to provide opportunities for protected species on site by installing artificial roost sites:

- Two general purpose Woodcrete bat boxes will be installed into a nearby mature tree or similar. They should be positioned at least 3m from the ground and face southwest.

7 REFERENCES

Bat Conservation Trust (2018) Bats and artificial lighting in the UK. *Bats and the Built Environment series*, Guidance Note 08/18. Institution of Lighting Professionals.

Collins, J (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.

Mitchell-Jones, A.J. (2024) Bat mitigation guidelines. English Nature.

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

FIGURE 1 LOCATION 1:25000:

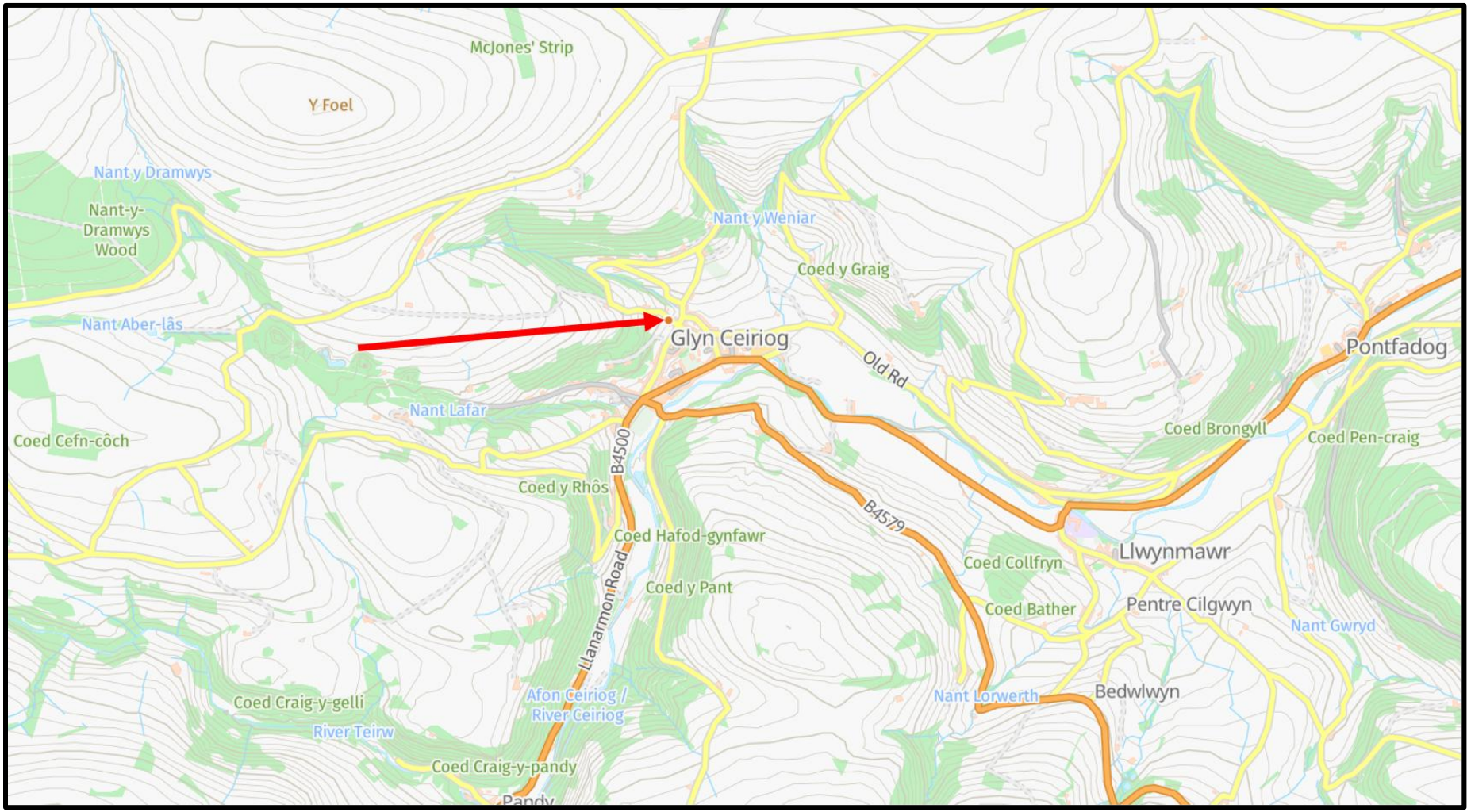


FIGURE 2 AERIAL PHOTOGRAPH:



FIGURE 3 SURVEYOR AND DETECTOR LOCATION:



APPENDIX 1 PHOTOGRAPHS

	
Southern gable end and eastern elevation of building.	Crevices on southern gable end
	
Roof of building	Interior of building
	
Interior of building	Interior of building