

Report Title	Proposed Extension to Fern Villa, Llangollen Road, Acrefair, Wrexham – Preliminary Roost Assessment
Date issued	23rd January 2017
Author	Stan Irwin
Report Version	C314/ 1.0
Client	Mr. N. Swift
Contract Ref.	C314

this report was produced by The Tyrer Partnership on behalf of



**Unit 23, The Malthouse Business Centre,
Regent Street, Llangollen, Denbighshire, LL20 8HS
01978 860889**

Marches Ecology is the trading name of Marches Ecology LLP, Partnership No. OC362423, Registered in England and Wales. Registered address: Unit 23, The Malthouse Business Centre, Regent Street, Llangollen, Denbighshire, LL20 8HS.

Quality Assurance

Survey/ Assessment Work Schedule		
Survey/Assessment Type	Surveyors/ Author	Date
Preliminary (Bat) Roost Assessment	Stan Irwin	04/01/17

Review Schedule				
Issue	Date	Author	Reviewed by	Approved by
1.0	23/01/17	Stan Irwin	Tom Knight	Tom Knight

This report has been prepared by Marches Ecology with all reasonable skill, care and diligence within the terms of the Contract with the client.

The terms of this Contract have been fulfilled by Marches Ecology in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

CONTENTS

1	INTRODUCTION	4
2	PROPOSED DEVELOPMENT	4
3	SURVEY METHODOLOGY	5
4	SURVEY CONSTRAINTS	5
5	SURVEY RESULTS.....	6
5.1	HABITAT ASSESSMENT	6
5.2	PRELIMINARY ROOST ASSESSMENT	6
6	CONCLUSIONS.....	9
7	RECOMMENDATIONS.....	9
	APPENDIX 1 – LEGISLATION.....	10
	BATS	10

1 INTRODUCTION

Marches Ecology was commissioned by Mr. N. Swift to undertake a Preliminary Roost Assessment (PRA) of an existing outbuilding at Fern Villa, Llangollen Road, Acrefair, Wrexham (Approximate OS Grid Ref. SJ 272 428). The existing outbuilding is proposed for conversion to a home office and would form part of a new single-storey extension linked to the main house. This report is required to provide additional information requested by Wrexham County Borough Council (WCBC) (Ref. P/2016/0889; letter dated 25/11/16) and as supporting information to a planning application.

The PRA was required to establish the presence/ potential presence or absence of roosting bats. Should bats be present or features of potential value for roosting be identified then the requirement for further survey would be considered. Potential development constraints and outline mitigation measures would be identified if relevant.

Legislation relevant to bats is summarised in *Appendix 1* at the end of this report.

The location of Fern Villa in relation to adjacent properties is shown on a CB Architectural Design plan entitled 'Site Plan As Proposed', Dwg. No. 753/Sk04, dated 18/07/16.

2 PROPOSED DEVELOPMENT

The existing outbuilding is proposed to be converted to a home office and would be linked via a stairwell to a new single-storey extension. This extension would link the home office to the main house. The proposal includes some internal renovation of Fern Villa on the ground floor as well as landscaping of the garden. It is assumed that no trees would be impacted by the proposed development and as such no trees were subject to assessment for their potential value to roosting bats. No further details are available at this stage.

3 SURVEY METHODOLOGY

The day-time inspection was conducted on the 4th January 2017 by Stan Irwin. It followed the guidance for a Preliminary (bat) Roost Assessment (PRA) in accordance with the current best practice guidelines (Collins 2016¹), which states the following:

'The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive.'

Taking the above into consideration the survey and interpretation of the findings was undertaken by Mr S. Irwin a highly experienced bat surveyor. Mr. Irwin holds a Natural Resources Wales bat 'disturbance' licence (Licence no. 71664:OTH:DBE:2016).

The outbuilding was inspected for potential places that may be of value to bats and for actual evidence of use (e.g. droppings, prey items, etc). The external elevations were investigated from ground floor level with the aid of close focussing binoculars for places that are frequently used by bats as roosts, or ingress points that may provide access into roost chambers. The interiors were inspected with the aid of a high-powered torch. During the survey the surrounding habitat was evaluated in relation to bats as very often roost selection is closely correlated with the surrounding habitat.

Fern Villa, or at least that part to which the extension would be joined, was also assessed so as to consider any potential for impacts on bats and therefore whether further survey might be required.

The results, conclusions and recommendations included in this report are based on a number of factors such as:

- Practical experience of the surveyor;
- Knowledge of bat species relevant to the site location;
- Nature of the immediate and surrounding habitat in relation to foraging opportunities;
- Condition of the structure; and
- Presence/ absence of roost potential and value of roost potential if present.

4 SURVEY CONSTRAINTS

The day-time inspection was conducted outside the breeding season of bats (and within their hibernation period). As such the presence of bat droppings on external elevations is less likely. The inspection was undertaken outside the optimum period for such surveys. The optimum time to investigate any structure for evidence of a bat roost is May – August, however that is not to say they cannot be inspected and assessed outside of that time.

No access restrictions were experienced that may have prevented a full inspection and assessment of the buildings. It is considered that the survey constraints were not sufficiently significant to prevent the gathering of information on which to base conclusions and recommendations.

¹ Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.

5 SURVEY RESULTS

5.1 Habitat Assessment

Fern Villa is located approximately six kilometres due east of Llangollen town centre within a mixed urban and rural environment. Immediately to the north of the site the Tref-y-nant Brook flows from northwest to southeast and borders an area of broad-leaved woodland. This woodland extends further to the north providing a link with more open countryside. There are further small blocks of woodland to the south, on the opposite side of the A539 road. The tree-lined Tref-y-nant Brook corridor also extends further south though a section has been culverted due to built development.

The immediate and wider habitat can be considered to be of high value for foraging/ commuting for all bat species that are known to be present in the county of Wrexham. It is likely that the crevice dwelling *Pipistrelle* (*Pipistrellus*), which is the most frequently encountered species within urban environments, can be anticipated to be present in the immediate vicinity of Fern Villa.

The adjacent high value habitat, in particular the connectivity provided by the brook corridor and woodland, increases the likelihood of bats being present in buildings at this location. However, occupation of buildings close to favourable habitat is dependent on roost and access opportunities being available.

5.2 Preliminary Roost Assessment

The outbuilding is constructed in brick with a tiled roof. It appears that it has been re-roofed with the addition of an under-slate breathable roofing membrane. Internally it is open to the underside of the ridge beam as the existing ceiling has been removed. As such there is no loft space. This significantly reduces potential breeding opportunities for loft-dwelling species, such as Long-eared (*Plecotus*) or Horseshoe (*Rhinolophus*) despite the habitat in the immediate area being suitable for the specific foraging requirements of both species. It was noticeable however that the original loft would have been relatively shallow and as a result would not have been ideal for Long-eared bats. Furthermore it appears that open access for Horseshoe bats has not previously been available. While the absence of a loft space in a building reduces the breeding potential for loft-dwelling bats they can be used for other roost purposes, e.g. occasional transitional, day roost, 'feeding station' or during the hibernation season.

No recent or historic evidence of bat use was located during the internal inspection. Potential roost opportunities such as crevices/cavities were also found to be absent. The eaves are open at wall plate level which creates draughts within the building. As a result internal temperatures will be variable and not conducive to the requirements of bats during the hibernation or breeding seasons.

Externally the building lacks fascia/ barge boards. The roof and ridge tiles are also close fitting with a smooth surface. This significantly reduces bat roost potential, particularly for crevice dwelling bat species.

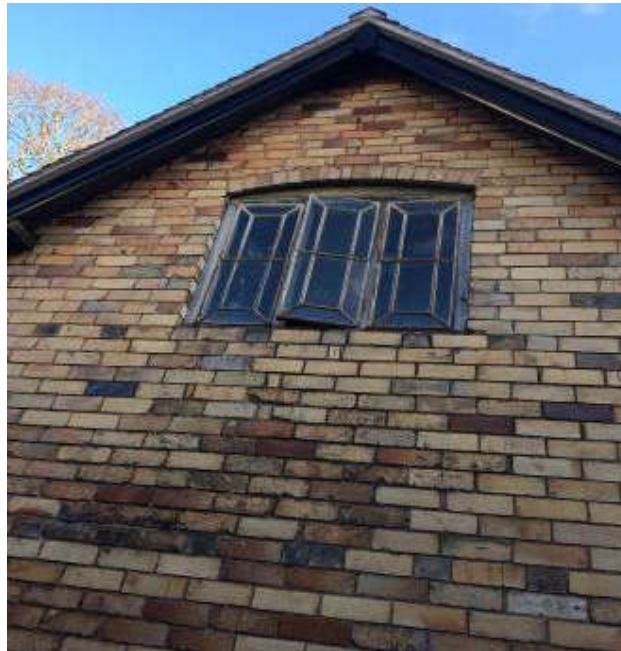
The outbuilding is considered to be of negligible bat roost potential and the proposed conversion is of less than low risk to bats.

No obvious bat roost potential was identified on the external elevation of Fern Villa where the proposed extension would join on to it.

Site Photographs



Outbuilding proposed for conversion.



Gable elevation soffits and roof verges – all sealed.



Side elevations where eaves are open.



Interior with ceiling removed and breathable membrane evident.

6 CONCLUSIONS

No physical evidence was identified during the inspection that would suggest the current or recent presence of loft or crevice dwelling bats. The outbuilding is of negligible potential value for roosting bats.

No potential bat roost potential was identified in Fern Villa where this building would be impacted by the proposed extension. The proposed work would be at sufficient distance from the roof line of Fern Villa so as not to affect it.

7 RECOMMENDATIONS

No further survey for bats (either of the outbuilding or Fern Villa itself) is considered necessary at this time. Should the development not be implemented within 12 months of the date of the inspection then it may be necessary to repeat the inspection of the building (prior to any works commencing).

Due to the presence of a breathable membrane under the roof tiles of the outbuilding it is recommended that during the course of the work all eaves are completely sealed externally (Some bats can access gaps of 10-15 mm) to avoid the possibility of bats coming into contact with this material. The fine claws of bats can, after time, cause fraying of this material which results in bats becoming entangled in the fine fibres.

No further specific mitigation measures are proposed.

Notwithstanding the above if bat(s) are found at any time during the proposed development all work at the site should immediately cease and a suitably qualified bat ecologist should be contacted for further advice. The work should not re-commence until this has been confirmed by the ecologist.

APPENDIX 1 – LEGISLATION

Bats

All species of British bat are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended)², and receive full protection under *Section 9*. They are also listed as European Protected Species on *Schedule 2* of *The Conservation of Habitats and Species Regulations 2010* (as amended)³ which gives them full protection under *Regulation 40(1)*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the *CRoW Act 2000*)⁴.

Under the above legislation it is an offence to intentionally or recklessly:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

All species of British bat are also protected under *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended). This protection relates specifically to trapping and direct pursuit of the species.

Several species of bat are included on *Section 7* of the *Environment Act 2016*⁵.

² HMSO (1981). *The Wildlife and Countryside Act 1981*. HMSO, London.

³ HMSO (2010). *The Conservation of Habitats and Species Regulations 2010*. HMSO, London.

HMSO (2012). *The Conservation of Habitats and Species (Amendment) Regulations 2012*. HMSO, London.

⁴ HMSO (2000). *The Countryside and Rights of Way Act 2000*. HMSO, London.

⁵ HMSO (2016). *The Environment Act (Wales) 2016*. HMSO, London.