

Emergence Survey Report – Bats

Site Location	18 Riverside, Churnet View Road, Oakmoor, ST10 3AE
Document reference	CE3072/B – Updated 14 th December 2022 <i>This document should be read in conjunction with the Preliminary Roost Assessment for bats completed on the 15th July 2022, document reference: CE3072</i>
Date of survey	Emergence Survey – 15 th August 2022 Emergence Survey – 31 st August 2022 Emergence Survey – 17 th September 2022
Report by	Garry Smith – Senior Ecologist

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1.0 Introduction

Brief

This report will present the findings of an emergence survey of the named site on the below dates;

Emergence Survey – 15th August 2022

Emergence Survey – 31st August 2022

Emergence Survey – 17th September 2022

2.0 Executive Summary

Chase Ecology undertook an emergence survey at the named site to assess the building for bats following a preliminary roost assessment which deemed the structure to offer value for roosting.

Survey Methodology	All emergence surveys were conducted during the optimal recommended survey times following best practice guidelines. All surveys were carried out during optimal weather conditions. Each elevation of the structure which offers value to bats was viewed during the survey visit with no limitations.
Results of emergence surveys	Following the emergence survey of the structure, it has been identified that bats are using the building for daytime roosting and the following roosts were identified; • Roost 1 – Common Pipistrelle daytime roost (2 x max count) within front left roof coverings. • Roost 2 – Common Pipistrelle daytime roost (1 x max count) within rear lower roof coverings. • Roost 3 – Common Pipistrelle daytime roost (1 x max count) within rear lower roof coverings. In addition to the above recorded bat roosts, several other bats were observed to be using the site for both feeding and commuting. See Section 5: Results of Phase 2 Activity Surveys
Requirements for Additional Survey	No further survey requirements have been identified during the emergence surveys conducted to date. See Appendix 1: Mitigation, Protection & Enhancement.
Predicted Impacts of Development on Bats	Low impacts will be offered to bats if all guidance & recommendations within appendix one for mitigation, protection and enhancement are implemented during all stages of development. See Appendix 1: Mitigation, Protection & Enhancement.
Licensing Requirements for Bats	A Protected species mitigation licence for bats will be required and sort prior to any disturbance to both bats and

	their roosts which have been identified and recorded within this report. The following bat roosts recorded will need to be mitigated under licence from Natural England; • Roost 1 – Common Pipistrelle daytime roost (2 x max count) within front left roof coverings. • Roost 2 – Common Pipistrelle daytime roost (1 x max count) within rear lower roof coverings. • Roost 3 – Common Pipistrelle daytime roost (1 x max count) within rear lower roof coverings. See Appendix 1: Mitigation, Protection & Enhancement.
Biodiversity Net Gain	See Appendix 2: Biodiversity Net Gain

3.0 Legislation

- 1.1.1** All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017, making it an offence to:
- Deliberately kill, injure or capture a bat;
 - Deliberately disturb bats;
 - Damage or destroy a breeding site or resting place
- 1.1.2** In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly Obstruct access to any structure or place which any bat uses for shelter or protection; or Disturb any bat while occupying a structure or place which it uses
- 1.1.3** If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.
- 1.1.4** In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 (as amended). All wild birds, their nests and eggs are protected it an offence to: • kill, injure, or take any wild bird; • take, damage or destroy the nest of any such bird whilst it is in use or being built; or • take or destroying an egg of any such wild bird.
- 1.1.5** Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

4.0 METHODOLOGY

- 4.1 All reporting undertaken by Mr Garry Smith who is an experienced licensed bat ecologist in England [Class 2 registration 2017-28032-CLS-CLS] with over 9 years' experience practical of professional ecological surveys.
- 4.2 It is recommended that emergence surveys should be carried out within the optimal survey season from May to August, April & September are also useful times if weather conditions remain optimal, in line with the Good Practice Guidelines, 3rd edition, Bat Conservation Trust
- 4.3 Surveys were conducted following "The Bat Workers Manual "(JNCC 2004), "The Bat Mitigation Guidelines" (EN 2004) and the Bat Conservation Trust 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (2016) recommendations.
- 4.4 All elevations of the structure were visible throughout the survey to capture any bats emerging from within or into the structure throughout the duration of the survey.

5.0 Results of Phase 2 Activity Surveys

Date	15th August 2022					
Sunset/ Sunrise	Start Time	Finish Time	Temperature		Wind Beaufort Scale	Cloud Cover
19:59	19:44	21:30	20	19	2	100%
		Name	Position		Detector	
Lead Surveyor		Craig Davis	Rear left		EMT PRO	
Assistant Surveyor		Meg smith	Front right		EMT PRO	
Assistant Surveyor		Adam Parker	Right side watching out building		EMT PRO	

Emergence/Re-Entry Data

Point	Time	Species	Activity
One	20:51	Common Pipistrelle	1 x emerged from front left lower roof coverings.

Activity from Bats during survey

Species	Activity
Common Pipistrelle	1 x commuting pass across front of site during early stages of the survey. 1 x commuting pass from front road to rear of site during early stages of the survey. 1 x foraging lower down the site close to the road areas and neighbouring sites for up to 15 minutes during mid stages of the survey. Brief intervals of foraging during late stages of survey, no visual
Noctule	1 x commuting pass during mid stages of the survey, no visual.

Any other information including photographs of emergence points	Point One 
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Date	31st August 2022					
Sunset/ Sunrise	Start Time	Finish Time	Temperature		Wind Beaufort Scale	Cloud Cover
20:36	20:21	22:04	Start 20	End 18	1	50%
		Name	Position		Detector	
Lead Surveyor		Craig Davis	Rear left		EMT PRO	
Assistant Surveyor		Tony Teece	Front right		EMT PRO	
Assistant Surveyor		Adam Parker	Right side watching out building		EMT PRO	

Emergence/Re-Entry Data

Point	Time	Species	Activity
One	21:10 21:13	Common Pipistrelle	2 x emerged from front left lower roof coverings.
Two	21:11	Common Pipistrelle	1 x emerged from rear lower roof coverings.
Three	20:17	Common Pipistrelle	1 x emerged from rear lower roof coverings.

Activity from Bats during survey

Species	Activity
Common Pipistrelle	1 x foraging across side of site and neighbouring site for up to 20 minutes following emergence from point two. 1 x commuting pass during mid stages of the survey, no visual.
Noctule	3 x commuting passes during mid stages of the survey, only one observed above the property.
Natterer's	1 x commuting pass during late stages of the survey, no visual

Any other information including photographs of emergence points	Point One 
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Point Two



Point Three



Date	17 th September 2022					
Sunset/ Sunrise	Start Time	Finish Time	Temperature		Wind Beaufort Scale	Cloud Cover
			Start	End		
06:45	05:15	07:00	8	8	1	50%
	Name	Position	Detector			
Lead Surveyor	Garry Smith	Left Elevation	EMT PRO			
Assistant Surveyor	Tony Teece	Front Right	EMT PRO			
Assistant Surveyor	Annika Smith	Rear Elevation	EMT PRO			

Emergence/Re-Entry Data

Point	Time	Species	Activity
Two	06:07	Common Pipistrelle	1 x re-entry into lower section rear roof coverings close to the guttering.

Activity from Bats during survey

Species	Activity
Common Pipistrelle	1 x commuting pass during mid stages of the survey, no visual. 1 x brief foraging around rear areas of site/roof coverings prior to re-entry to point two.

Any other information including photographs of emergence points	Point Two 
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6.0 Ecological Experience

Garry Smith - England [Class 2 registration 2017-28032-CLS-CLS]

On joining the ecological sector in 2008 he has developed practical experience of UK protected species from phase-1 habitat assessments through to phase-2 assessments and mitigation works.

Garry has a working knowledge of mammals, reptiles, amphibians and birds. Garry has worked on both private and commercial projects both residential and industrial.

Garry has experience and knowledge for developing and implementing Ecological Impact Assessments, Construction Ecological Management plans, Habitat Regulations Assessments, Biodiversity Net Gain assessments, Biodiversity Enhancement Schemes.

Craig Davies – Craig has worked within the ecology sector since 2016 and offers a firm knowledge for UK Bats and best practice guidelines.

Craig has been involved with both large commercial and residential surveys from Preliminary Bat Roost Assessments, Emergence Surveys and Mitigation Works for bats.

Craig has supported Chase Ecology since 2018 as a component survey team leader and competently delivers supervision to survey assistance at all levels on site.

Adam Parker – Adam has worked within the ecology sector since 2018 as a seasonal survey assistant.

He has worked on both private and commercial developments and holds a clear understanding of bat survey best practice guidelines and correct use of technologies whilst conducting emergence surveys.

Tony Teese – Tony has worked within the ecology sector since 2014 and gained his MSc Ecology and Conservation degree in 2016.

Tony has delivered both phase-1 & phase-2 bat surveys on both commercial and private contracts and has a clear understanding of species best practice guidelines for bats and maintaining legislation.

Tony has developed his skills with Chase Ecology since 2018 and now offers the ability to supervise other survey assistance and team lead emergence surveys.

Annika Smith – Annika has worked as an assistant ecologist with Chase Ecology since 2017 and has in this time gained a suitable level of knowledge for delivering both phase-1 & phase-2 bat surveys.

She has supported works on mitigation and habitat creation and has a good understanding of maintaining best practice guidelines and survey protocols.

Megan Smith – Meg has worked as an assistant ecologist with Chase Ecology since 2021 and has in this time gained a suitable level of knowledge for delivering both phase-1 & phase-2 bat surveys.

7.0 References

Bat Conservation Trust. 2012. Bats and Buildings. Bats and the Built Environment Series. London. Bat Conservation Trust. 2018.

http://www.bats.org.uk/pages/bat_boxes.html (Accessed July 2021).

Bat Conservation Trust. 2018.

Bats and Artificial Lighting in the UK.

Bats and the Built Environment Series. London. Collins, J. (ed). 2016.

Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition.

Bat Conservation Trust. Multi-Agency Geographical Information for the Countryside web <http://magic.defra.gov.uk> Mitchell-Jones, A.J. 2004 Bat mitigation guidelines.

English Nature, Peterborough. Mitchell-Jones, A.J. and McLeish, A.P. 1999 (revised 2004).

The Bat Workers Manual. Joint Nature Conservation Committee, Peterborough. Stone, E.L. 2013. Bats and Lighting: Overview of Current Evidence and Mitigation Guidance.

Appendix 1: Mitigation, Enhancement & Protection

This document must be available to all involved in the planned development. All contractors must be aware of the potential of protected & priority species being found on site and care should be taken during works to avoid harm (including during any tree works), if protected species are found then all work should cease and an ecologist should be consulted immediately.

Mitigation

During the three emergence surveys a total of three individual daytime bat roosts were identified which will suffer total loss during the proposed development works;

Roost 1 – Common Pipistrelle daytime roost (2 x max count) within front left roof coverings.

Roost 2 – Common Pipistrelle daytime roost (1 x max count) within rear lower roof coverings.

Roost 3 – Common Pipistrelle daytime roost (1 x max count) within rear lower roof coverings.

Prior to any development works which would offer disturbance to the two roost locations within the main roof coverings a Protected Species Mitigation Licence will need to be obtained from Natural England as below;

- Mitigation License to be applied and granted prior to any disturbance works to both bat roosts which have been identified within this report.
- Mitigation methods agreed with contractors prior to any development works on site.
- During mitigation, a licenced and experienced bat worker will be on site to co-ordinate the mitigation works and to supervise a hand strip of all roost locations. During this time, any roosting bats located will be moved to a suitable bat box within the site.
- Three bat boxes will be installed within the site for use during mitigation & development and remain as a permanent fixture. This will be three crevice style boxes.
- On completion of all mitigation works the licenced ecologist will complete all relevant return documentation to Natural England and conduct any post development checks where appropriate.

- In addition to the agreed mitigation requirements, a suitable level of roost creation/biodiversity net gain has been agreed and will be implemented during the development works.

Bat box location within the site for mitigation



Protection measures to be implemented during development

Lighting

It is recommended that during the development process the levels of lighting such as security floodlighting and lighting around working platforms if any should be limited to reduce the level of disturbance caused to bats which have been recorded locally.

Disturbance caused by high power lighting can cause disturbance to common commuting and foraging areas currently used by bats.

It is advised that all works should be carried out during the hours of daylight to further reduce the levels of disturbance caused to bats and other nocturnal wildlife in the surrounding environment.

Nesting Birds

Although no nesting activities were demonstrated within the building where development will take place consideration and protection must be implemented during March to September to prevent disturbance.

If nesting birds are identified within the building during this time which may face disturbance from any planned works the client should seek advice from an experienced ecologist.

Protection of Wildlife During the development

All excavations if any should be closed where possible during the hours of darkness to prevent entrapment of wildlife such as mammals which may use the site during the hours of darkness for commuting & foraging.

For excavations which require to be left open a shallow slope should be in place to aid escape.

All external pipe's & services must be capped during development/overnight to prevent animals entering/entrapment.

The site should remain in a tidy fashion with waste materials removed daily to prevent any use from wildlife as a natural refugia.

Appendix 2: Biodiversity Net Gain

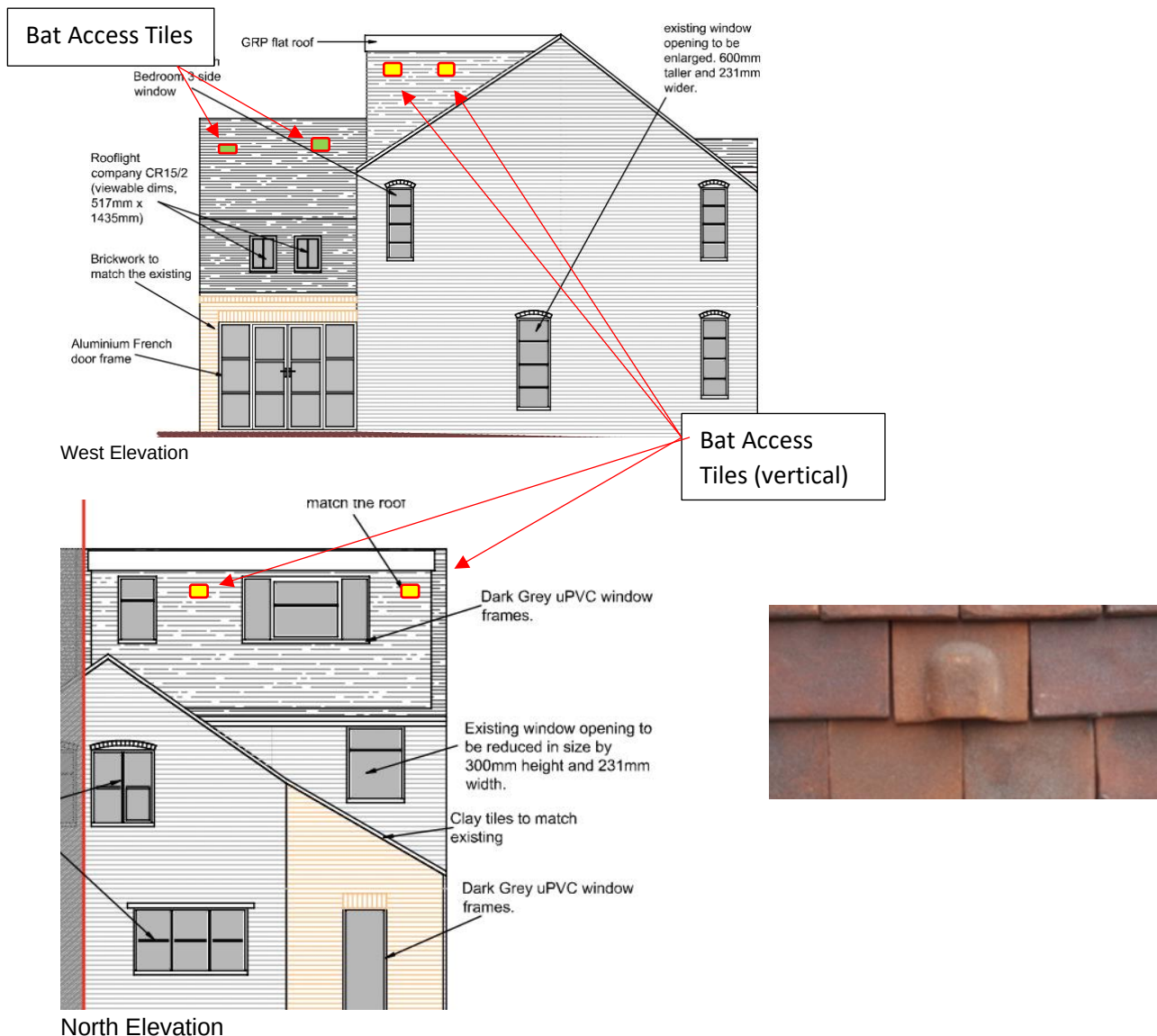
The below biodiversity net gain features have been agreed and will be incorporated within the build/site during the development process and will be maintained by the land owner for the life of the property.

It is the land owners responsibility to contact an ecologist if any of the features below for protected species suffer damage/disturbance during this time.

As bats are a UK protected species the land owner must be aware that they are not permitted to disturb both the recorded features of bats themselves. This must be conducted by a licenced bat worker only.

Bats

To offer a suitable level of roost creation/net gain, a total of 4 integrated vertical bat tiles will be applied to the vertical hanging tiles as below along with two access tiles within the new roof coverings to the rear section



The vertical bat tiles and roof tiles will offer roost habitats for crevice dwelling species such as Pipistrelle which have been recorded to be using the property for daytime roosting along with feeding/commuting through the site.

The tiles offer a maintenance free roosting habitat and can be obtained in several colours to match the proposed tiles.

If a membrane coverings is to be applied behind the vertical tiles and main roof coverings, this must be an F1 felt membrane as breathable membrane coverings have been recorded to offer danger to bats and not permitted for use with mitigation/roost creation.

All features within the development for bat habitat will remain as a permanent fixture and be accessible to bats throughout the life of the property.