

Bat Emergence and Re-Entry Surveys (BERS)

Survey site: Hopehill Scout Campsite, South Street, Wrotham Road, Meopham, Kent, DA13 0QJ

Client: Gravesham Scouts

Report date: 19th August 2024

Project: This report is prepared to inform a planning application with the Gravesham Borough Council. The proposal is described as:
The side extension of a toilet block.

BERS survey methodology and legislation can be found in the Arbtech Supplement: [BERS Methodology and Legislation - 2024.](#)

This report is an addendum to and must be read in conjunction with the Preliminary Ecological Appraisal and Preliminary Roost Assessment report completed by Arbtech (May 2024) for the same site address and client. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the report writer for advice.

Executive Summary

Background

PRA – Arbtech May 2024

Number of buildings on site – Thirteen

Buildings requiring further survey – One. The other buildings on site will not be impacted by the proposed development.

B1 - Confirmed roost due to approximately 50–100 droppings found in the loft space, deposited by a brown long-eared bat. The species was confirmed via DNA analysis (Appendix 3).

BERS results

B1 was subject to three surveys with two surveyors. The surveys confirmed the following roosts in B1:

1. Common pipistrelle day roost x 2 individual bats from the gap in the eaves at the northern elevation. These bats could be roosting in the gap itself or within the loft void.
2. Common pipistrelle day roost x 1 individual bat from the northwest corner, between the ridge and the roofing material.
3. Brown long-eared day roost (multiple individuals judging from the number of droppings) at the ridge beam at the north-west end of the barn. This roost was identified from droppings during the PRA, no brown long-eared bat was seen roosting within B1. DNA analysis can be seen in appendix 3.

The development will need to be permitted by a bat mitigation licence.

The site surveys were designed and managed by Josie Cooper (Accredited Agent on Natural England Bat licence number: 2019-41480-CLS-CL18).

Dusk Emergence Survey 1					
Date:	30/07/2024				
Building reference:	B1				
<i>Building inspection prior to survey</i>	An internal inspection was undertaken prior to the survey, undertaken by Josie Cooper (Accredited Agent on Natural England Bat licence number: 2019-41480-CLS-CL18). The interior was searched for evidence of bats. Droppings present during the PRA were present with no new areas being covered. No bats were seen.				
Start and end times	20:34 – 22:49 Sunset: 20:49				
<i>Weather conditions</i>	Start: Temperature (°C): 22 Relative humidity (%): 58 Cloud cover (%): 10 Wind : 11km/h Rain: None		End: Temperature (°C): 22 Relative humidity (%): 57 Cloud cover (%): 10 Wind: 13km/h Rain: None		
<i>Surveyor positions and any additional IR As shown in Appendix 1</i>	Surveyor 1 - Josie Cooper, Ecological Surveyor - (Accredited Agent on Natural England Bat licence number: 2019-41480-CLS-CL18) - Fourth year of bat survey experience - observing the north and west elevation and roof structure of B1 Surveyor 2 – Katie Cooper – 2 nd year bat survey experience – observing the south and east elevations				
<i>Equipment used</i>	Echometer Touch, Batbox Duet, Nightfox Whisker IR Cameras and torches and hand-held radios.				
Headline results					
Building reference	Species and numbers	Roost type	Roost location	Access points	Dimensions and explanation of roost location
B1	1x common pipistrelle	Day roost	Bat could be roosting in the eaves or in the interior of the loft.	Gap in the eaves on the northern elevation.	The gap could lead into the interior of the roof, or the bat could be roosting in the gap itself.
B1	1x common pipistrelle	Day roost	Under the north-east ridge	Gap under metal roofing material	Under the ridge.
Surveyor notes/observations					

<i>Surveyor 1</i>	No emergencies. The first bat was a common pipistrelle seen at 21:13 which passed north to south along the eastern elevation of B1. At 21:17 a common pipistrelle was seen passing down the west of B1. Common pipistrelles were seen flying over the building at 21:21 and 21:33. Additionally, common pipistrelles were seen foraging in front of the building at 21:33 and 21:36. Common pipistrelles were heard throughout the survey. At 22:26, a brown long eared bat was heard but not seen.	
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IR position 1

Emergence seen. Review of the IR video revealed a common pipistrelle emergence from the eaves of the building.

Emergence circled in red.



<i>Surveyor 2</i>	No emergencies. Common pipistrelle activity throughout the survey. The first bat was a noctule at 20:58 which was heard but not seen. Common pipistrelles were seen passing from south to north along the east of B1, and common pipistrelles were seen passing along the east and south elevations, The first bat was seen at 21:21 and the last seen at 22:26. A brown long eared bat was heard but not seen at 22:26.	
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*IR position 2***Emergence seen.** Review of the IR video revealed a common pipistrelle emergence from the ridge of B1 at 21:30 ???

Dusk Emergence Survey 2					
Date:		20/08/2024			
Building reference:		B1			
Start and end times		19:55 – 22:10 Sunset: 20:10			
Interior inspection		An internal inspection was undertaken during this survey. Hundreds of droppings were still present under the ridge beam, and no new areas of droppings were identified.			
Weather conditions		Start: Temperature (°C): 18 Relative humidity (%): 44 Cloud cover (%): 0 Wind : 16km/h Rain: None		End: Temperature (°C): 16 Relative humidity (%): 59 Cloud cover (%): 0 Wind : 21km/h Rain: None	
Surveyor positions and any additional IR As shown in Appendix 1		Surveyor 1 - Josie Cooper, Ecological Surveyor - (Accredited Agent on Natural England Bat licence number: 2019-41480-CLS-CL18) - Fourth year of bat survey experience - observing the north and west elevation and roof structure of B1 Surveyor 2 – Katie Cooper – 2 nd year bat survey experience – observing the south and east elevations			
Equipment used		Echometer Touch, Batbox Duet, Nightfox Whisker IR Cameras and torches and hand-held radios			
Headline results					
Building reference	Species and numbers	Roost type	Roost location	Access points	Dimensions and explanation of roost location

B1	2x common pipistrelle	Day roost	Bats could be roosting in the eaves or in the interior of the loft.	Gaps in the eaves on the northern elevation.	The gap could lead into the interior of the roof, or the bat could be roosting in the gap itself.
Surveyor notes/observations					
<i>Surveyor 1</i>		No emergences. The first bat was seen at 20:26 which was a common pipistrelle passing along the north of B1. Common pipistrelle bats were seen foraging 20:33, 20:43, 20:58, and 21:01. Common pipistrelles passed along the western elevation at 20:37, 20:56, 20:57, 21:09, and 21:10. Bats were seen passing along the east elevation at 20:49, 20:53, and 20:55. At 21:01, a common pipistrelle was seen circling B1 until 21:14.			

IR position 1

Emergences seen. At 20:54, two common pipistrelles emerged from the eaves. Emergence point in red.



<i>Surveyor 2</i>	No emergencies seen. The first activity was a common pipistrelle passing from the northwest elevation west towards the surveyor, and then turning to fly towards the southwest at 20:26. A noctule was heard but not seen at 20:27. At 20:27, a common pipistrelle passed southwest to north. At 20:30, a common pipistrelle was foraging over the surveyor. There was activity which was heard not seen from common pipistrelles from 20:33 to 20:40. At 20:38, a common pipistrelle was foraging in front of the building. At 20:40, a common pipistrelle passed northwest to east along the northeast elevation. Between 20:45 and 21:15, there was constant common pipistrelle activity along the south and west elevation.	
<i>IR position 2</i>	No emergencies seen. The IR footage reflected the surveyors findings.	

Dusk Emergence Survey 3					
Date:	16/09/2024				
Building reference:	B1				
Start and end times	18:56 – 21:11 Sunset: 19:11				
<i>Weather conditions</i>	Start: Temperature (°C): 14 Relative humidity (%): 82 Cloud cover (%): 0 Wind: 6km/h Rain: None		End: Temperature (°C): 16 Relative humidity (%): 63 Cloud cover (%): 0 Wind: 13km/h Rain: None		
<i>Surveyor positions and any additional IR As shown in Appendix 1</i>	Surveyor 1 - Josie Cooper, Ecological Surveyor - (Accredited Agent on Natural England Bat licence number: 2019-41480-CLS-CL18) - Fourth year of bat survey experience - observing the north and west elevation and roof structure of B1 Surveyor 2 – Katie Cooper – 2 nd year bat survey experience – observing the south and east elevations				
<i>Equipment used</i>	Echometer Touch, Batbox Duet, IR camera, IR torches				
Headline results					
Building reference	Species and numbers	Roost type	Roost location	Access points	Dimensions and explanation of roost location
B1	No emergences	NA	NA	NA	NA
Surveyor notes/observations					

<i>Surveyor 1</i>	No emergences. The first bat was seen at 19:16 which was a common pipistrelle which passed along the northern elevation of B1. Common pipistrelles were seen foraging to the north of B1 at 19:23. Common pipistrelles passed down the eastern elevation of B1 at 19:22, 19:30, and 19:54. From 19:37 to 19:42, a common pipistrelle was circling the building.	
<i>IR position 1</i>	No emergences. IR footage reflects the view of the surveyor.	

<i>Surveyor 2</i>	No emergences. The first activity was a common pipistrelle which was heard not seen at 19:22. At 19:31 a common pipistrelle passed southwest to northeast over the southeast elevation. A common pipistrelle passed at 19:40 from east to northwest. At 19: 36 21:44 there was constant activity of common pipistrelles flying around the building. This occurred again at 19: 53 and 20: 00. The last activity was a common pipistrelle which was heard not seen at 20: 49.	
<i>IR position 2</i>	No emergences. IR footage reflects the view of the surveyor.	

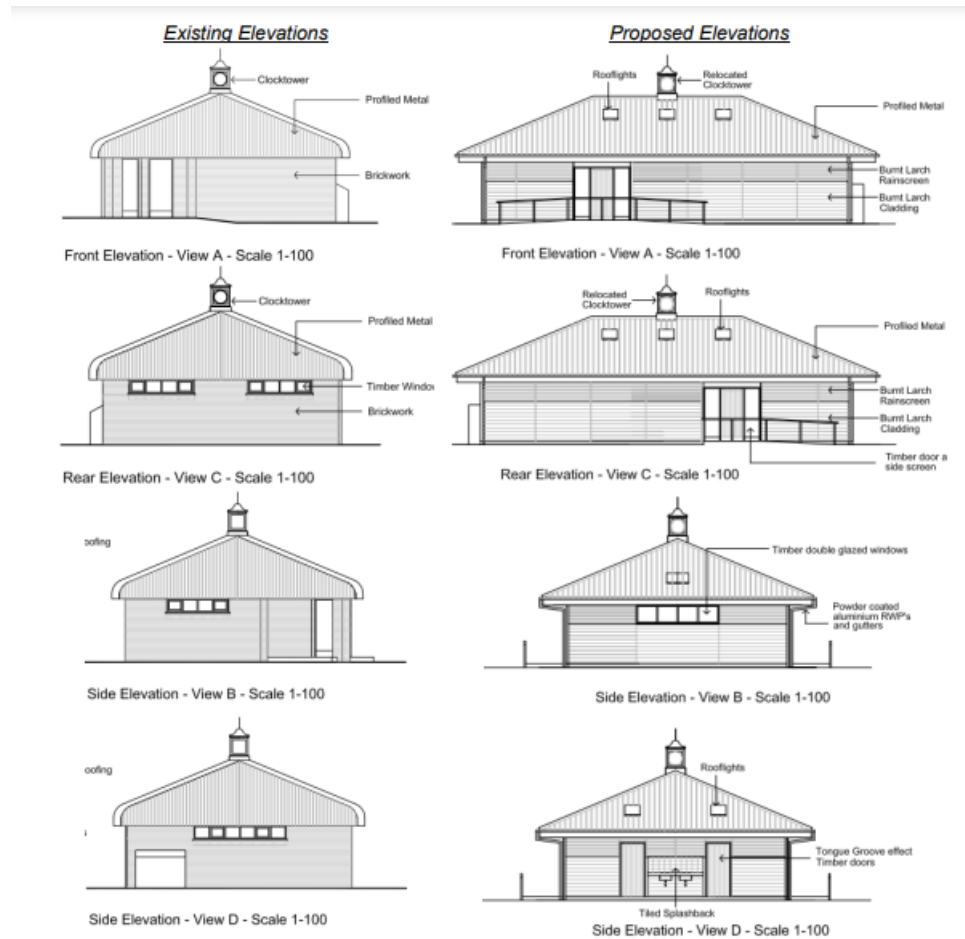
Conclusions, Impacts and Recommendations	
Building Reference: B1	
<i>Survey Results Summary</i>	The surveys confirmed the following roosts in B1: 1. Common pipistrelle day roost x 2 individual bats from the gap in the eaves at the northern elevation. These bats could be roosting in the gap itself or within the loft void. 2. Common pipistrelle day roost x 1 individual bats from the northwest corner, between the ridge and the roofing material. 3. Brown long-eared day roost (multiple individuals judging from the number of droppings) at the ridge beam at the north-west end of the barn. This roost was identified from droppings during the PRA, no brown long-eared bat was seen roosting within B1. DNA analysis can be seen in appendix 4. Total number of bats: 3 Common pipistrelles: 3 Brown long eared: multiple judging from droppings found within the PRA and the loft inspection during the PRA.
<i>Impact Assessment</i>	The proposed development is the extension and reroofing of the building. All roosts will be destroyed by the proposed works. An increase/change in artificial lighting on site could disrupt bat roosting, foraging and commuting behaviour.
<i>Recommendations</i>	An EPSL application to Natural England will be required to legally permit the proposed works. The EPSL application requires that surveys have been undertaken within the most recent active bat season (optimal May to August, suboptimal September). Planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission, where possible to do so.

	A Material Changes Check will be required within three months of the BMCL submission, if no survey work has been undertaken within that period. The BMCL will include the following measures: • The installation of one bat box at the site prior to works commencing to form a receptor site for any bats found during the works. These boxes may be installed on retained buildings or trees but must be in an undisturbed location and will need to be maintained in this location post-development. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. • The provision of a toolbox talk to contractors, by the Registered Consultant or an Accredited Agent, to inform them of the presence of bat roosts. • A pre-commencement inspection of any roost features by the Registered Consultant or an Accredited Agent using a torch, ladders and an endoscope • The removal of bat roost features by hand under the supervision of the Registered Consultant or an Accredited Agent (where it is not possible conclude absence of bats during the pre- commencement inspection). • Avoiding the use of unnecessary lighting, particularly at night, or implementing a low impact lighting strategy to avoid illumination of retained or newly created roosts or roost features. • Avoiding excessive noise or vibration disturbance e.g. from power tools or radios, within close proximity of retained or newly created roosts or roost features. The EPSL will only include the bat species, numbers and roost types listed above. If bats are found during periods of adverse weather conditions, these must be left undisturbed until weather conditions become more favourable to move bats to the receptor bat box. EPS do not allow for the disturbance of hibernating bats. Therefore, if any bats are found during the hibernation period November to March or if any unexpected bat species or roost types are identified works must cease and advice must be
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	sought from the Registered Consultant regarding the possible requirement for further bat surveys and whether an EPSL is still appropriate.
<i>Enhancement opportunities</i>	The installation of 2 bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be installed on trees on site (appendix 4). Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for both crevice dwelling and void dwelling bats such as 1FF Schwegler Bat Box. Suggested bat box position is shown on the Proposed Development plan in Appendix 2.

Appendix 1: BERS plan

Appendix 2: Proposed plans



Appendix 3: DNA results**Results****Sample ID: EG-1533-1***Sample information:***Sample type:** Faecal**Species group:** Bats**Suspected species:****Site Location:** DA13 0QJ**Comments:***Laboratory information:***DNA Extraction Code:** EG-2024-1128**Identification method:** qPCR**Analysis Procedure Notes:**

All UK bat species tested for - only a single species detected in this sample.

Laboratory Comments:

None

*Species Identified:***Species 1:** *Plecotus auritus* (Brown long-eared bat)**qPCR Ct Value:** 22

Appendix 4: Proposed bat box placement (Red dots)



Version control			
Status	Issue	Name	Date
Draft	0.1	Josie Cooper BSc, Consultant Ecologist	11/10/2024
Review	0.2	Josephine McCarthy, Consultant Ecologist, [Natural England Bat Licence Number: 2019-41480-CLS-CLS (CL18 Level 2)]	22/10/2024
Final	1.0	Beth Ellison-Perrett BSc (Hons) MSc MRSB, Senior Ecologist	23/10/2024

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