Land at Pendle Road, Clitheroe

Bat Emergence/Re-Entry Surveys

October 2022

MÜLLER
PROPERTY GROUP

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PENDLE MILL, CLITHEROE

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Prepared for:

MÜLLER PROPERTY GROUP

Report Ref: BEK-22035-4

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Project Quality Assurance Information Sheet

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REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

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The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

Summary

This report presents the results of bat emergence/re-entry surveys at Pendle Mill Clitheroe on the 23.06.2022,14.07.2022 (dusk) and 12.08.2022 (dawn). The report is required to accompany a planning application for the proposed demolition of the buildings, The aim of the assessment was to characterise any bat roosts and to determine the current use by bats or presence of bats on all survey features. This includes providing evidence for species, numbers and levels of activity, to identify any entrance and egress points, and to gain an understanding of the activity of bats using the site in the local landscape.

Low numbers of common bat species were recorded either emerging or re-entering the building and therefore a Natural England Protected Species Mitigation Licence will be required once planning permission has been obtained. Low numbers of single bat species were recorded foraging in the area. See the recommendations below for further actions and the enhancements at 4.3 in the PRA/PEA report (BEK, 2022).

Recommendations

- **A Natural England Protected Species Mitigation Licence (NEPSML) will be required once planning permission has been obtained.**
- **Work will not commence until NEPMSL has been granted.**
- 2 bat boxes installed prior to commencement of work.
- Works to be commenced outside the bat activity season (May to October) and in weather conditions suitable for bat activity (to avoid encountering hibernating bats).
- Lighting will be controlled across the developed site.
- Low impact lighting strategies will be adopted from the guidance outlined in the Bat Conservation Trust "Bats and Lighting" publications: http://www.bats.org.uk/pages/bats_and_lighting.html

If bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be sought for further advice.

TABLE OF CONTENTS

1.0 INTRODUCTION AND CONTEXT

1.1 Background

These surveys were completed following recommendations made in the Preliminary Roost Assessment Survey report (BEK PEA/PRA April 2022). The PRA report identified the buildings as having high potential for bats and recommended two emergence surveys and one dawn re-entry survey in line with best practice guidelines.

1.2 Site Context

The site is located at central National Grid Reference SD 74909 41547, currently a combination of retail and warehousing facility.

1.3 Scope of the report

This report provides a description of the bat activity observed and recorded during each survey. The aim of the assessment was to characterise any roosts present including species, numbers and access points, roosting locations, timing of use and type of roost, and to gain an understanding of how bats use the site.

Robust data has been collected, following good practice guidelines, to inform an assessment of the potential impacts of the proposed development on bats, and inform mitigation and enhancement.

This report provides information on constraints to the proposals due to roosting bats, summarises any mitigation required to achieve planning permission and statutory consent to comply with wildlife legislation.
To achieve the aims of the assessment, the following steps have been taken:

- A field survey has been undertaken, including a daylight external survey and dusk emergence survey. The daytime survey results are reported in the BEK PEA.PRA report April 2022.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing if appropriate.

A survey plan is presented in Appendix 1 showing the location of each surveyor and the bat activity observed and recorded during each survey. A summary of relevant legislation can be found in the Appendix 2.

2.0 METHODOLOGY

2.1 Daylight Survey methodology

The survey methods followed English Nature Bat Mitigation Guidelines (English Nature, 2004) and Bat Conservation Trust Best Practice Guidelines (J. Collins, 2016), therefore, considerations were:

- The availability of access to roosts for bats;
- The presence and suitability of cracks, crevices, tiles, soffits, hollows, ivy growth and other places as roosts;
- Signs of bat activity or presence, such as; bats themselves, droppings, bat grease marks, bat scratch marks, bat urine spatter and bat prey remains.

2.2 Emergence Survey Methodology

The surveys involved surveyors positioned around the buildings ensuring that all elevations and roof sections could be clearly observed. Particular attention was paid to the areas of the buildings identified as providing suitable access points to bat roosts. The location of each surveyor during each survey is shown in Appendix 1. Each surveyor was assigned an area of the building to observe for the duration of the survey. Surveyors used Batbox Duet, Peersonic RPA3 (with full spectrum recording) bat detectors, and an Echo Meter Touch 2 pro detector connected to an iPad. Bat echolocation calls recorded during the surveys were analysed using Wildlife Acoustics sound analysis software Kaleidoscope V3.1.7. Surveyors also used survey record sheets, pens/pencils, head torches for recording all activity observed during the surveys including foraging and commuting behaviour as well as emergence/re-entries by bats. All surveyors had hand held radios for communication between surveyors to assist with confirming obscure bat activity e.g. a bat emergence or a bat passing over the building.

In accordance with the latest bat survey guidelines (Collins, J. 2016) dusk emergence surveys commenced 15 minutes before sunset and continued for 1½ hours after sunset.

Surveys were completed during optimal weather conditions i.e. when temperatures were above 10^{o}C, with little rain or strong winds, as these environmental variables can impact upon bat emergence and foraging behaviour.

The surveys were well distributed across the bat activity period of May – September to represent all types of roosting behaviour. Surveyor positions were determined by the potential roosting features in the PRA (BEK, 2022), and adjusted as the season progressed due to sightlines changing (e.g trees developing foliage causing obstruction).

2.3 Surveyors

Lead surveyor Carol Edmondson (Natural England bat licence number: 2015-12195 CLS-CLS) 10 years' specific bat survey experience, Catherine Wood (Natural England Bat Licence Number: 2015-11257-CLS-CLS) 13 years of bat survey experience, Ryan Knight (Natural England Bat Licence Number2015-12611-CLS-CLS) 15 years' bat survey experience, Diane Rollin ((Natural England Bat Licence Number 2015-11856-CLS-CLS:) specific bat survey experience, 9 years , Martyn Barnes, 11 years' experience conducting bat surveys and assistant ecologists Richard Storton, 12 years bat survey experience, Andy Turnham, 12 years' bat survey experience and Matthew McLlellan 6 years bat survey experience. The designated position of each surveyor during each survey is detailed in the tables in Section 3.1 below, and shown on the plan in Appendix 1.

2.4 Survey Timings and Weather Conditions

The dates and times of each survey are presented in Table 1, along with sunset/sunrise times as applicable and the weather conditions at the start and end of each survey.

***Table 1**: Survey Schedule and Weather Conditions*

Survey date	***Survey Start and End Times Sunset/sunrise time***	***Weather Conditions Start***	***Weather Conditions END***
23/06/22	*21.30 - 23:15* *Sunset: 21:45*	*Temp: 19°C* *Cloud Cover: 100%* *Wind: 0BS* *Rain: light drizzle 21:30-:35*	*Temp: 18°C* *Cloud Cover: 100%* *Wind: 0BS* *Rain: None*
14/07/22	*21.15 – 23:10* *Sunset:.21.33*	*Temp: 15°C* *Cloud Cover: 5%* *Wind: 2BS* *Rain: 0*	*Temp: 14°C* *Cloud Cover: 5%* *Wind: 0BS* *Rain: 0*
12/08/22	*04.15 – 05.57* *Sunrise: 05:42*	*Temp: 18°C* *Cloud Cover: 5%* *Wind: 2BS* *Rain: light showers*	*Temp: 17°C* *Cloud Cover: 5%* *Wind: 0BS* *Rain: light showers*

2.5 Limitations – Evaluation of the Methodology

These surveys follow best practice guidance to confirm presence of roosting bats and where present characterise the roost. However, this information is collected at finite dates and times, and provides an indication of the conditions on site at that time only. Due to the transient nature of bats, the use of the building, and the site as a whole, by bats at all times cannot be established based on this information.
Whilst these surveys are used to determine presence of bats, they do not prove absence.
There were no specific limitations to the survey.

3.0 RESULTS AND EVALUATION

3.1 Survey Results

The daylight external inspection identified several potential emergence/roosting features in the roofing materials of the buildings, but no droppings or other evidence of use by bats was found.

The emergence survey recorded low numbers of common pipistrelle *(Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmeus)* bat species foraging around the trees on the periphery of the buildings, and commuting over and around the buildings.

On each survey one common pipistrelle bat was seen emerging from the building or re-entering at dawn.
The detailed results of the surveys are provided in the tables below and in the map at Appendix 1.

***Table 2**: Survey results – Dusk Emergence Survey/Dawn re-entry*

Surveyor Position	Notes/observations:
1 (CE)	23/06/2022 dusk, survey 1
	22:13 Pipistrelle sp x 1: silent pass.
	22:36 Pipistrelle sp x 1: silent high pass flying west
	22:55 Pipistrelle sp x 1: silent high pass east - west
	22:58 Common pipistrelle: forage nearby (unseen)
	No further activity.
1 (AT)	14/07/2022 dusk, survey 2
	22:23 – 23:01 Common pipistrelle x 1, occasional pass E-W
1 (AT)	12/08/2022 dawn, survey 3

	04:35 - 05:10 Common pipistrelle forage over surveyor position • **05:09 Common pipistrelle x 1 re- entry behind furniture store sign**
2 (CW)	<u>23/06/2022 dusk, survey 1</u> • **22:11 Common pipistrelle x 1: Silent emergence from fascia/soffit** 22:18 Common pipistrelle x 1: pass north – south 22:41-22:54 Common pipistrelle x 1: occasional brief forage No further activity.
2 (RS)	<u>14/07/2022 dusk, survey 2</u> 21:40 – 23:02 Pipistrelle sp. x 1: occasional brief pass north - south No further activity.
2 (CW)	<u>12/08/2022 dawn, survey 3</u> 04:35; 04:38; 04:45 Common pipistrelle x 1: brief forage & social calls 04:48 Common pipistrelle x 1-3: foraging above the whole west section of the site 05:05 Common pipistrelle x 1: brief forage and pass east to west then north No further activity.
3 (MM)	<u>23/06/2022 dusk, survey 1</u> 21:34 – end of survey Common pipistrelle x 1: frequent foraging over trees to the north of surveyor <u>14/07/2022 dusk, survey 2</u> 21:59 – end of survey Common pipistrelle x 1: frequent foraging over trees to the north of surveyor <u>12/08/2022 dawn, survey 3</u> 04:35 – 05:05 Common pipistrelle x 1: occasional brief forage – heard only, no activity seen
4 (RK)	<u>23/06/2022 dusk, survey 1</u> 21:40 – end of survey Common pipistrelle x 1: pass/forage along stream SE-NW 21:45 – 22:00 Common pipistrelle x 1-5: constant foraging 22:00 – 22:15 Common pipistrelle x 1-3: constant foraging 22:15 – end of survey Common pipistrelle x 1: occasional foraging 22:41 Soprano pipistrelle x 1: pass along stream SE - NW
4 (CW)	<u>14/07/2022 dusk, survey 2</u> 21:54 – end of survey Common pipistrelle x 2-4 bats: frequent foraging around trees and small yard • **22:01 Common pipistrelle x 1: emergence from west gable end**
4 (RK)	<u>12/08/2022 dawn, survey 3</u> 04:32 – 05:17 Common pipistrelle x 1-3 Constant foraging between trees, stream and buildings.

	No re-entry
5 (DR) 5 (CE) 5a (DR)	23/06/2022 dusk, survey 1 21:37 – end of survey Common pipistrelle x 1: intermittent pass/forage N-S & E-W 22:00 & 22:18 Soprano pipistrelle x 1: pass not seen 14/07/2022 dusk, survey 2 21:47 – end of survey Common pipistrelle x 1: occasional pass/forage around trees to north of surveyor 12/08/2022 dawn, survey 3 04:34 Common pipistrelle x 1: pass/forage not seem 04:37 BLE brief sighting/pass 04:40 – 05:25 Common pipistrelle x 1-2 bats: frequent pass/forage 04:55 & 04:59 Soprano pipistrelle x 1: pass No re-entry
6 (MB) 6 (MB) 6 (CD)	23/06/2022 dusk, survey 1 21:37 – end of survey Common pipistrelle x 1: occasional pass/forage around trees & surveyor No emergence 14/07/2022 dusk, survey 2 21:47 – end of survey Common pipistrelle x 1: intermittent forage around trees 21:57; 22:00; 22:27; 22:44 – end of survey, soprano pipistrelle x 1: intermittent forage around trees No emergence 12/08/2022 dawn, survey 3 04:30; 04:53; 05:10 Common pipistrelle x 1: forage around trees No re-entry

4.0 CONCLUSIONS, IMPACTS AND RECOMMENDATIONS

4.1 Summary

The surveys undertaken to date following current guidelines in and around the buildings provide sufficient information to conclude that this building is currently being used by single pipistrelle bats as a day roost, and foraging around the trees on site. The area around the site is important foraging habitat locally for bats.

4.2 Evaluation

Survey assessment conclusions:

Three locations of single bat roosts have been identified in the buildings. The evidence suggests that these are non-maternity roosts, probably of male common pipistrelle bats and opportunistic day roosts. Such roosts are common

and are of relatively low biodiversity value compared to maternity roosts and/or roosts of less common species. Nonetheless, the roosts are strictly protected by law.

Given the nature of the buildings, i.e. stone walls with missing mortar, broken windows, missing roof slates and no artificial heating, the possibility that bats use the buildings for hibernation during the winter months cannot be discounted.

- **Roost 1: detected at Survey 1**

  Behind the soffit on the south elevation of the sports retail building

- **Roost 2: detected at Survey 2**

  Within the gaps between the stonework on the west gable end on the northern elevation, over the culvert/brook.

- **Roost 3: detected at Survey 3**

  Behind the sign on the west elevation of the furniture store

4.3 Recommendations / Mitigation:

Any work which either disturbs bats whilst they are using a roost or damages/destroys/obstructs access to a bat roost will require a Protected Species Mitigation Licence (PSML) from Natural England.

A PSML will require a detailed mitigation strategy outlining how impacts on bats will be minimised. An outline of such measures is suggested below:

- Potentially damaging activities should be restricted to periods of reduced sensitivity for bats, e.g. mid-September – November and March - April.
- Soft stripping of building materials in known bat roost locations.
- Roosting sites to be provided in the design of the new building to replicate the positions of recorded roosting sites: small gaps (15-20 x 200mm) in masonry and beneath stone-slates for crevice-dwelling bat species and the use of built-in bat roosts e.g

  Build-In Woodstone Bat Access (wildcare.co.uk)

  https://www.wildcare.co.uk/soffit-bat-box.html
- Minimisation of external artificial lighting during construction.
- Low impact lighting strategies will be adopted from the guidance outlined in the Bat Conservation Trust “Bats and Lighting” publications: http://www.bats.org.uk/pages/bats_and_lighting.html.
- Adding 2 bat boxes to adjacent trees will provide additional roosting place whilst the work is on-going.

Given the mitigation measures described above it is considered likely that legal compliance can be ensured and the development will not adversely affect the favourable conservation status of bats

If bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted to seek further advice.

4.4 Enhancements

The installation of an additional 6 bat boxes or integrated bat bricks/tubes on the new building will provide enhanced roosting habitat for bats e.g.:

- Build-In Woodstone Bat Access (wildcare.co.uk)
- https://www.wildcare.co.uk/soffit-bat-box.html
- 1FF Schwegler Bat Box
- Greenwoods Ecohabitats
- https://www.greenwoodsecohabitats.co.uk/bats

Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.

The enhancements for birds as recommended in the PEA (BEK, 2022) & RAMS should also be adhered to.

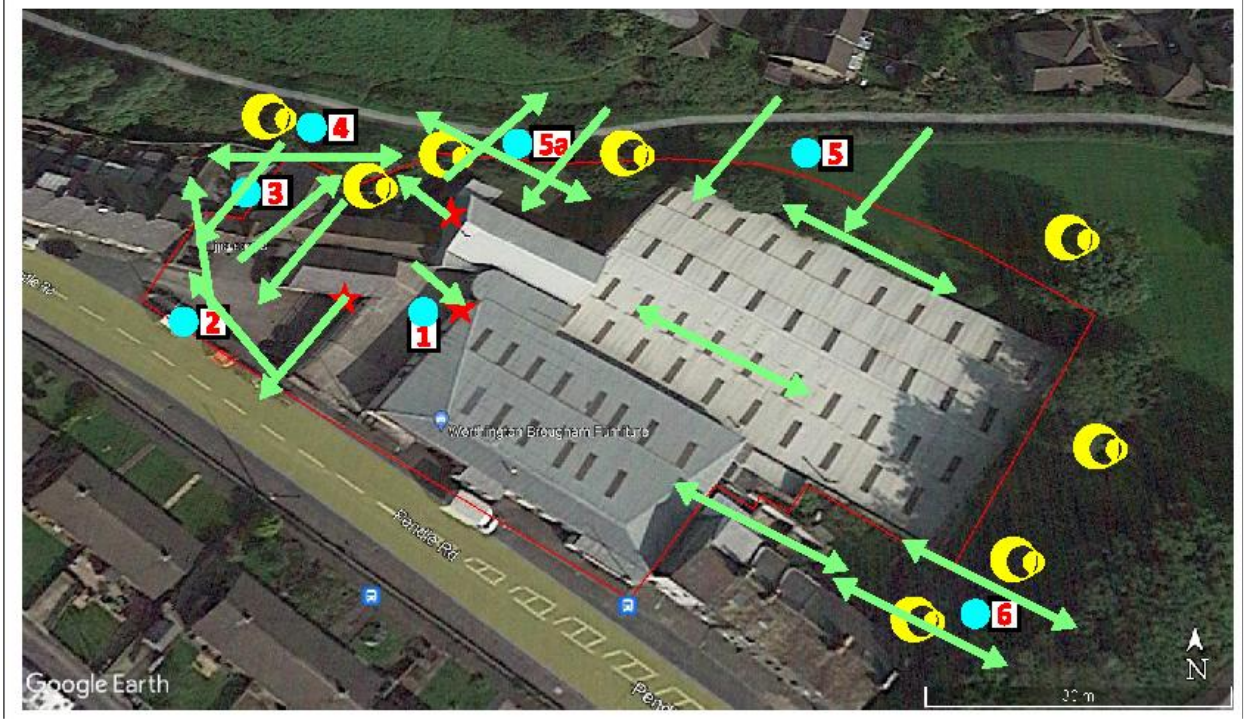
5.0 BIBLIOGRAPHY

- Bat Conservation Trust: http://www.bats.org.uk/
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth Pro (2022)
- Magic database (2022) http://www.magic.gov.uk/MagicMap.aspx
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

APPENDIX 1: Survey Plan

Bat Activity Survey Plan Pendle Mill, Clitheroe 2022

Drawn by CE Image from Google Earth Pro 2022



Legend

	Site boundary		Roost locations
	Flight path of bats		Foraging location
1	Surveyor positions		

APPENDIX 2: Legislation and Planning Policy related to bats

LEGAL PROTECTION

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2.

Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young

  (ii) to hibernate or migrate

  b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

Effect on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant statutory authority (e.g. Natural England) will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored.

The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

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