Mill Way, Millom

Bat Survey Report

For As If By Magic Ltd.

August 2019

Lakeland Business Park, Lamplugh Road, Cockermouth, Cumbria, CA13 0QT

Tel: 01900 898600

Email: ecology@wyg.com

Document Control

Project:	Mill Way, Millom
Client:	As If By Magic Ltd.
Job Number:	A114055
File Origin:	\\lds-dc-vm-002\Group Ecology\Projects\Projects A114000 on\A114055 Mill Way, Millom\REPORTS\

Issue 1	August 2019	FINAL
Prepared by:		Patryk Gruba MCIEEM **Senior Ecologist**
Checked By:		Laura Holmes MCIEEM **Principal Ecologist**
Verified By:		Jonathan Jackson CEnv MCIEEM **Principal Ecologist**

Rev:	Date:	Updated by:	Verified by:	Description of changes:

Contents

Executive Summary **1**
Glossary **2**
1.0 Introduction **3**
1.1 Background 3
1.2 Site Description 3
1.3 Previous Reports / Desk Study 3
1.4 Development Proposals 4
1.5 Purpose of the Report 4
2.0 Methodology **5**
2.1 Field Surveys 5
2.2 Limitations 6
3.0 Baseline Conditions **7**
3.1 Field Survey 7
4.0 Relevant Planning Policy & Legislation **10**
5.0 Discussion & Recommendations **12**
5.1 Potential Impacts 12
5.2 Mitigation 12
6.0 Summary **15**
7.0 References **16**

FIGURES
Figure 1 – Site Location Plan
Figure 2 – Bat Survey Results – Dusk Emergence Survey
Figure 3 – Bat Survey Results – Dawn Re-entry Survey

Appendix A – Report Conditions
Appendix B – Detailed Building Inspection Results (WYG, 2018)

Executive Summary

Contents	Summary
Site Location	North of Devonshire Road in the Borwick Rails area east of Millom, Cumbria (SD 18444 79800).
Proposals	The proposals are to convert the existing workshop (B1), to provide bunk house type accommodation, self-catering suites, function space and a café. The single storey extension (B2) containing offices, kitchen and stores will be demolished.
Existing Site Information	An Ecological Appraisal Report for the site that also included a bat roost assessment of the buildings was produced by WYG in February 2018.
Scope of this Survey(s)	The scope comprised bat emergence / re-entry surveys to provide information on presence / likely absence of roosting bats within the buildings on site and to ascertain the characteristics of the roosts.
Results	The survey work identified two low status day roosts of common pipistrelles within B2. The proposed works to demolish B2 will destroy the identified bat roosts.
Recommendations	• An EPSML (via standard EPSML or BMCL site registration) must be granted by Natural England prior to commencement of development works on site. The EPSML can only be gained once full planning consent has been granted and will place reasonable conditions on the development to ensure that no bats are killed / injured during works and that the favourable conservation status of the species present is maintained. • Before any works to the building commence, two bat boxes should be erected on trees / buildings on or close to the site. These will provide continues roosting provisions for bats during works and enhance the site for bats post-works. • The identified roosts will be subject to endoscopic inspection prior to any works commencing on site. Following the inspection, the identified bat roosts will be subject to destructive search under supervision and will be made unsuitable for roosting bats. • Two replacement bat roosts will be provided within the southern elevation of the converted B1. • Sensitive lighting strategy is to be implemented on site as part of the proposed development • Full details of the mitigation strategy will be provided within the EPSML method statement / BMCL site registration form, and in consultation with the consultants / contractors appointed to undertake the proposed works

Glossary

BCT	Bat Conservation Trust
BMCL	Bat Mitigation Class Licence
CBDC	Cumbria Biodiversity Data Centre
CEnv	Chartered Environmentalist
CIEEM	Chartered Institute of Ecology & Environmental Management
EPS	European Protected Species
EPSML	European Protected Species Mitigation Licence
Habitat Regulations	Conservation of Habitats and Species Regulations 2017 (as amended)
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
ODPM	Office of the Deputy Prime Minister (UK)
W&CA	Wildlife & Countryside Act 1981 (as amended)

1.0 Introduction

1.1 Background

WYG was commissioned by As If By Magic Ltd. in June 2019 to undertake bat presence / absence surveys of two buildings (B1 and B2) at Mill Way, Devonshire Road, Millom. The site is located to the north of Devonshire Road in the Borwick Rails area of Millom, Cumbria and is centred at Ordnance Survey National Grid Reference SD 18444 79800 (see Figure 1).

During the detailed inspection of the buildings conducted in February 2018 as part of the Ecological Appraisal for the site (WYG, 2018), B1 was assessed to have moderate potential for roosting bats and B2 was assessed to have low potential for roosting bats. Subsequently, it was recommended nocturnal surveys (dusk emergence and dawn re-entry surveys) were conducted on site in order to establish presence / likely absence of bats within the surveyed buildings.

This report covers the bat presence / absence surveys undertaken in summer 2019 and it was prepared by WYG Senior Ecologist Patryk Gruba MCIEEM. It should be read in conjunction with and with reference to the Report Conditions provided in Appendix A.

1.2 Site Description

The site comprises buildings and hardstanding and is located in the semi-rural location. To the north of the site, there is Borwick Rails harbour with extensive areas of coastal habitats that include coastal grassland, saltmarsh and mudflats. Immediately adjacent to the west, there are small trees / scrub and an area of grassland. To the south and east, there is Devenoshire Road, areas of amenity grassland and buildings that include residential and industrial units. Extensive area of coastal and floodplain grazing marsh extends beyond the industrial buildings at the south.

The surveyed buildings included a main workshop (B1) and a small single storey extension (B2). The buildings are currently used as a offices and a workshop for renovating caravans and gypsy wagons. Detailed descriptions of the buildings conducted as part of the Ecological Appraisal Report (WYG, 2018) are provided in Appendix B.

1.3 Previous Reports / Desk Study

An Ecological Appraisal Report for the site that also included a bat roost assessment of the buildings on site was produced by WYG in February 2018 (WYG, 2018).

Records for bats were obtained from the Cumbria Biodiversity Data Centre (CBDC) as part of the Ecological Appraisal conducted for the site in 2018 (WYG, 2018).

The desk study found six records of bats within 2 km of the site, five of which denote the presence of a roost (**Error! Reference source not found.**).

Table 1: Bat records within 2 km of the site

Species / Group	Location	Year	Type / Description	Distance from Site (km)
Bats (unidentified)	SD 167 802	2014	Roost – Present Count of Droppings	1.8
Common pipistrelle *Pipistrellus pipistrellus*	SD 168 805	2002	Roost	1.8
Pipistrelle bat species *Pipistrellus sp.*	SD 166 805	2005	Roost – 91 count of colony	1.98
Pipistrelle bat species	SD 166 805	2005	Roost - One count of colony	1.98
Bats (unidentified)	SD 166 805	2004	Roost – One count	1.98
Noctule bat *Nyctalus noctula*	SD 174 815	1998	Casualty (not road) – One count of Male; one count of dead	1.99

A search of the MAGIC database found no granted EPSMLs in respect of bats within 2 km of the site.

1.4 Development Proposals

It is proposed to convert the workshop (B1), to provide bunk house type accommodation, self-catering suites, function space and a café. The proposals involve raising the roofline of the workshop building and replacing the existing concrete tile roof with a profiled metal roof. The mono-pitched roof over the southern elevation of the building will be replaced with a flat roof supporting a balcony.

B1 will be finished with timber cladding and exposed brick; it has been assumed that the existing brickwork will be re-pointed. Bricked-up window openings to the eastern, northern and western elevations will be re-instated and the sill heights of the windows on the eastern elevation will be raised.

The single storey extension (B2) containing offices, kitchen and stores will be demolished.

1.5 Purpose of the Report

This report provides the results of bat surveys undertaken on the 4th and 26th July 2019, completed with the following objectives:

- to identify presence / likely absence of roosting bats;
- to ascertain roost characteristics (if rooting bats identified to be present); and
- to provide an assessment of the potential ecological constraints to and impacts from the development and recommendations for avoidance, mitigation and enhancement where appropriate.

2.0 Methodology

2.1 Field Surveys

The surveys were completed in accordance with current best practice guidelines given in BCT's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016).

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

2.1.1 Update Building Inspection

A walkover of the site and buildings was conducted by Patryk Gruba and Elizebeth Wilcox on the 4th July 2019 between 20:30 and 21:30, taking note of any changes on site since the Ecological Appraisal of February 2018 and changes to potential roost features present within the exterior and interior of the building on site.

The buildings and surrounding grounds were inspected externally and internally for signs of bats, using a high-powered torch (Clulite CB2 1M candle power). Signs of bats include: droppings, feeding remains (in association with droppings), wear marks on potential egress points, staining on stone, clear areas in cobwebs, the smell of bats, audible signs of bats or the presence of bats.

The interiors to the buildings were accessed and the internal loft / attic space to the warehouse (B1) was accessed and inspected.

The exterior walls, windows, boards and surfaces were examined for potential and any signs of bats that may have adhered to them. Any accessible gaps and crevices were examined for bats using a high-powered torch. The grounds surrounding the buildings were examined for droppings that may have collected beneath roost sites.

2.1.2 Bat Emergence and Re-Entry Surveys

One dusk emergence survey and one dawn re-entry survey were completed in July 2019. The dusk emergence survey commenced 15 minutes before sunset and continued for 1.5 hours after sunset. The dawn re-entry survey commenced 1.5 hours before sunrise and continued until 15 minutes after sunrise. The date, type and personnel involved in each of the surveys are provided in Table 2. Table 3 summarises the survey times and weather conditions.

Table 2: Date and weather conditions for emergence surveys

Survey	Date	Survey Type	Building Surveyed	Lead Surveyor	Other Surveyors
1	04.07.19	Dusk emergence	B1 and B2	Patryk Gruba	Elizebeth Wilcox, Mike Brown, Andrew Crone
2	26.07.19	Dawn re-entry	B1 and B2	Patryk Gruba	Elizebeth Wilcox, Jessica Yorke Penny Ward

Table 3: Dates, Times and Weather Conditions for the Surveys

Survey	Date	Sunset/ sunrise	Start	Finish	Start Temp (°C)	End Temp (°C)	Rain	Wind	Cloud (% cover)
1	04.07.19	21:47	21:32	23:17	17	16	None	1-2	100%
2	26.07.19	05:16	3:35	5:31	19	21	None	0	50-30%

Surveys were led by WYG Senior Ecologist Patryk Gruba MCIEEM (NE Class 2 licensed bat surveyor, reference 2015-11080-CLS-CLS), assisted by the following surveyors:

- WYG Principal Ecologist Penny Ward;
- WYG Consultant Ecologist Jessica Yorke;
- WYG Field Ecologist Elizebeth Wilcox;
- WYG Field Ecologist Andrew Crone; and
- WYG Field Ecologist Mike Brown.

Surveys were completed using four surveyors, in order to provide adequate coverage of all potential roost locations for each building. Surveyor locations are shown in Figures 2 and 3. Bat detectors used during the surveys were Elekon Batlogger M, which is a real time, full-spectrum detector, with recording and automatic species identification functions. The recording function was utilised to allow post-recording computer analysis of the bat calls recorded using BatExplorer software, where necessary. British bat calls: A guide to species identification (Russ, J., 2012) book was used to aid the bat call sound analysis.

2.2 Limitations

There were no seasonal or environmental constraints to the nocturnal surveys as all were completed within the optimal season in suitable weather conditions, in accordance with the BCT guidelines (Collins, 2016). All elevations of the building were visible during the above surveys.

The details of this report will remain valid for a period of **one year (i.e. July 2020)** from the date of the survey. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or construction programme which this report was based on.

3.0 Baseline Conditions

3.1 Field Survey

3.1.1 Update Building Inspection

During the additional day roost inspection it was noted that an external outdoor scaffold with plywood roof was present within the building yard between B1 and B2 (see Photograph 1). No other changes to site conditions were noted with comparison to the Ecological Appraisal results (WYG, 2018).

No bat droppings / sings of bat occupancy were noted within the loft / attic of B1 or on the exterior of B1 or B2.

Photograph 1 – Showing external scaffold with a plywood roof.

3.1.2 Bat Emergence / Re-entry Surveys

The nocturnal survey results are summarised in Table 4.

Table 4: Summary of nocturnal bat survey results

Date of survey	Start and end times	Species	Roost Type	Roost Location	Access Points	Dimensions of roosting location or explanation where the roost is (as appropriate)
04.07.19	Start: 21:32 End: 23:17 Sunset: 21:47	**Common pipistrelle x1**	Day	Edge of the roof – southwest corner of B2	Single access through the crevice under heap tile.	The roost is located under the heap tile at the southwest roof corner of B2

Date of survey	Start and end times	Species	Roost Type	Roost Location	Access Points	Dimensions of roosting location or explanation where the roost is (as appropriate)
26.07.19	Start: 3:35 End: 5:31 Sunrise: 5:16	**Common pipistrelle x1**	Day	Hip ridge of the roof - southwest corner of B2	Single access through the crevice under heap tile.	The roost is located under the heap tile at the southwest hip ridge of the B2

Dusk emergence survey 4th July 2019

During the dusk emergence survey, common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus* and noctules *Nyctalus noctula* were recorded.

A common pipistrelle was observed emerging from the southwest roof corner of B2 at 22:18 (31 minutes after sunset). See Photograph 2 below for the roost location.

The first bat observed was a common pipistrelle commuting west along the southern boundary of the site at 22:08.

Moderate levels of foraging / commuting pipistrelle activity was observed on / within close proximity to the site between 22:08 and 23:11, with the highest foraging activity level along the eastern and southern boundary of the site. A single noctule bat was recorded overflying the site at 22:15.

Photograph 2 – Location of the day roost used by a single common pipistrelle bat on the 4th July 2019.

Dawn re-entry survey 26th July 2019

During the dawn re-entry survey, common and soprano pipistrelle bats were recorded within the site grounds.

A common pipistrelle was observed entering the southwest hip ridge of the building B2 at 04:34 (42 minutes before sunrise). See Photograph 3 below for the roost location.

In general, low foraging / commuting pipistrelle activity was observed on / within close proximity to the site between 03:44 and 04:44, with the highest foraging activity level along the western and southern boundary of the site.

Photograph 3 – Location of the day roost used by a single common pipistrelle bat on the 26th July 2019.

4.0 Relevant Planning Policy & Legislation

National Planning Policy

Natural England's standing advice to Local Planning Authorities (LPAs) follows the principles and advice set out in the National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2019).

Paragraph 109 of the NPPF states that:

The planning system should contribute to and enhance the natural and local environment by:

- Protecting and enhancing valued landscapes, geological conservation interests and soils;
- Recognising the wider benefits of ecosystem services; and
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Office of the Deputy Prime Minister (ODPM) Circular 06/2005: Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. This circular should be read in conjunction with the National Planning Policy Framework and planning practice guidance.

If there is reasonable likelihood that a protected species is present, sufficient information (in the form of species surveys) should be undertaken before the planning application is considered.

ODPM Circular 06/2005 states that:

"*It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is granted.*"

Legislation

All British bat species are given special protection within England by their inclusion on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

As a result, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat's roosting place (even if bats are not occupying a roost at the time);
- Possess or advertise, sell or exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost

With specific reference to the offence of disturbance, Regulation 41(1) of the Conservation of Habitats and Species Regulations 2017 (as amended) states that a person commits an offence if they:

"…*deliberately disturb wild animals of any such species [i.e. a European Protected Species] in such a way as to be likely significantly to affect:*

(i) the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or

(ii) the local distribution or abundance of that species".

Where development will result in damage to, or obstruct access to, any bat roost (whether occupied or not) or risks harming or significantly disturbing bats, a European Protected Species Mitigation Licence (EPSML) is required from Natural England to allow the development to proceed.

Bats are also afforded more general protection in England (and Wales) within the Natural Environment and Rural Communities Act (NERC) 2006. This imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "…*to have due regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity*" [Section 40 (1)]. It notes that "conserving biodiversity includes restoring or enhancing a population or habitat" [Section 40 (3)]. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as roosts, flight corridors and foraging areas.

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

Seven species of bats (soprano pipistrelle, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat, *Rhinolophus hipposideros* barbastelle *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii* and noctule) are listed under Section 41 of the NERC Act 2006.

5.0 Discussion & Recommendations

B1 and B2 were assess to have moderate and low suitability respectively for spring / summer roosting bats due to external potential roost features (namely gaps in the brickwork and lifted slates). The buildings were not considered to offer potential for use by hibernating bats.

Two active common pipistrelle day roosts were identified within B2 during the surveys:

- Roost R1 is located at the southwest corner / edge of the roof to B2, with the single egress point through the gap under a hip tile. A single common pipistrelle was observed using this roost on one occasion (during the dusk emergence survey) (see Photograph 2 and Figure 2).
- Roost R2 is located at the southwest hip ridge of the roof to B2, with the single egress point through the gap under a hip tile. A single common pipistrelle was observed using this roost on one occasion (during the dawn re-entry survey) (see Photograph 3 and Figure 3).

Roosts used by individual bats / small numbers of common and rarer species (not maternity or hibernation sites) are relatively low in significance to local populations and their status is identified to be 'low' (Mitchell-Jones A. J., 2004, Chapter 7.2, Figure 4).

As B2 was assessed to have low suitability for roosting bats and only low status day roost used by common bat species were identified within this building, it is considered that the evidence collated during the update building inspection and two presence / absence surveys provided sufficient information to characterise the identified roosts, inform impact assessment and design mitigation measures.

5.1 Potential Impacts

The proposals to demolish B2 will destroy the identified common pipistrelle day roosts; there is a risk of harm / death to low number of common pipistrelles during the demolition works.

The proposed development will be contained within the footprint of existing buildings / hardstanding; therefore, it is considered that no significant foraging / commuting bat routes will be lost as part of the proposed works.

5.2 Mitigation

5.2.1 Mitigation strategy

As the proposed works will destroy the common pipistrelle day roosts that were identified within B2, an European Protected Species Mitigation Licence (EPSML) must be obtained from Natural England (NE) prior to commencement of development works.

The licence can only be gained once full planning consent has been granted and in order to obtain an EPSML it will be necessary to demonstrate that:

- There are imperative reasons of over-riding public and / or social interest or public health and safety;
- There is no satisfactory alternative to the proposed development; and

- The favourable conservation status of the species in the area will be maintained.

Mitigation will be required as part of the EPSML to make sure that:

- Bats are not killed or injured during the works; and
- The development is not detrimental to the favourable conservation status of the populations of the species.

Two licensing options are available. The standard EPSML route or the simpler Bat Mitigation Class Licence (BMCL) site registration process. The BMCL could be used as the site supports two low conservation value roosts of used by low numbers of common bat species.

Full details of the mitigation strategy will be provided within the EPSML method statement or BMCL site registration, and agreed in consultation with the consultants / contractors appointed to undertake the proposed works. At which point it will be possible to provide detailed information relating to the phasing and delivery of works and relevant associated mitigation required. The detailed mitigation strategy will be based in the following principles:

- Appropriate timing of works and appropriate working methods which minimise negative impacts on bats, and avoid bats being killed or injured; and
- Provision of alternative roosting opportunities for the bat species present.

In accordance with the NE Bat Mitigation Guidelines (Figure 4) (Mitchell-Jones, 2004), the proposed mitigation strategy should be proportionate to the *"type of impact and importance of the population affected".* As there is only individual / small numbers of common species present roosting on site (not maternity roosts), there is flexibility regarding new roost facilities and timing constraints.

5.2.2 Measures prior to development works starting

Before any works to the building commence, two bat boxes will be erected on retained trees / buildings on or close to the site. This could be in form of standard wooden bat boxes (such as Kent Bat Box) or woodcrete boxes (such as 2F Schwegler Bat Box). These will provide continuous roosting provisions for bats during the conversion works and enhance the site for bats post-works.

5.2.3 Internal and external works conducted under the EPSML

As there is no evidence of breeding bats and negligible potential for hibernacula within the surveyed building, the demolition works can commence any time of year in accordance with the bat mitigation guidelines for non-breeding summer roosts.

The identified roosts will be subject to endoscopic inspection prior to any works commencing on site. Following the inspection, the identified bat roosts will be subject to destructive search / made unsuitable for roosting bats. All of the above works will be conducted under the close supervision of the EPSML / BMCL named ecologist or an accredited agent. The roof cladding to B2 will be removed by hand in anticipation that bats may be present.

Two replacement bat roosts will be provided within the southern elevation of the converted B1; this could be in the form of built-in bat boxes (such as WoodStone or Schwegler 1WI) or bat access panels (such as 1FE Schwegler or similar).

5.2.4 Lighting Strategy

Sensitive lighting strategy is to be implemented on site as part of the proposed development; this will form part of the EPSML conditions and should be in line with the *Bats and artificial lighting in the UK Guidance Note* (BCT, 2018). The lighting design should consider:

- Consideration of the available lighting technology to minimise impacts on bats, i.e. use of LED lights (as opposed to high pressure sodium, mercury, and white SON). These have been shown to have the least impact on bats (as well as invertebrates). LED lighting also emits little UV light (which attracts invertebrates), and these lamps can be programmed to switch off, or dim at certain times;
- The lights being directional with light spillage avoided. Hoods / cowls can be used to direct light below the horizontal plane (ideally at an angle less than 70 degree);
- Lights designed to be as low to the ground as possible (specifically not above 8m); and
- Avoidance of direct lighting on replacement / new roosting provisions.

6.0 Summary

- The survey work identified two low status day roosts of common pipistrelles within B2.
- The proposed works to demolish B2 will destroy the identified bat roosts.
- An EPSML must be obtained from Natural England prior to commence of development works on site. This can be a standard EPSML or site registration under the BMCL.
- The EPSML can only be gained once full planning consent has been granted and will place reasonable conditions on the development to ensure that no bats are killed / injured during works and that the favourable conservation status of the species present is maintained.
- An outline mitigation strategy for works has been provided as part of this report. Full details of the mitigation strategy will be provided within the EPSML method statement / BMCL site registration form, and in consultation with the consultants/contractors appointed to undertake the proposed works.

7.0 References

- Bat Conservation Trust (2018) Bats and artificial lighting in the UK Guidance Note.
- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- Mitchell-Jones A. J (2004) Bat Mitigation Guidelines. English Nature.
- Ministry of Housing Communities and Local Government, (2019), *National Planning Policy Framework*, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf, Accessed July 2019.
- ODPM, (2005), Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf, Accessed July 2019.
- Russ, J., (2012). British bat calls: A guide to species identification. Pelagic publishing, Exeter.
- Statutory Instrument 2017 No. 192; The Conservation (Natural Habitats &c.) Regulations 1994 (as amended), HMSO.
- Statutory Instrument 2017 No. 490; The Conservation of Habitats and Species Regulations 2010 (as amended), HMSO.
- Wildlife and Countryside Act, 1981 (as amended), HMSO.
- WYG, (2018), *Ecological Appraisal Report*, Unpublished report on behalf of As If By Magic Ltd., WYG Project No. A107254.

FIGURES

Figure 1 – Site Location Plan
Figure 2 – Bat Survey Results – Dusk Emergence Survey
Figure 3 – Bat Survey Results – Dawn Re-entry Survey

Rev	Date	Notes
A	25/07/19	Initial map production

Legend

Site boundary

0 50 100 200 Metres

N

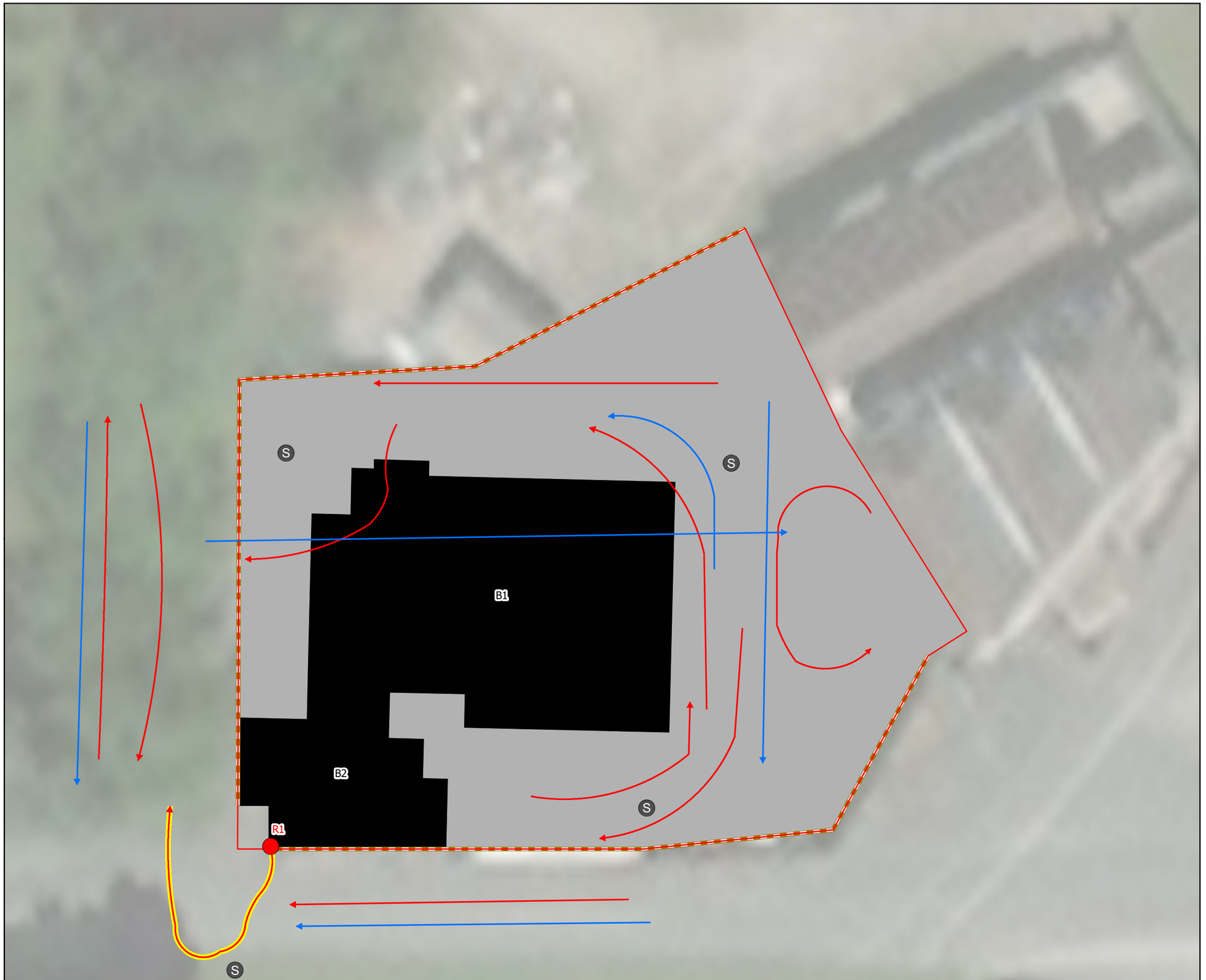
Site Location Plan

Mill Way Millom Bat Surveys
As If By Magic Ltd.

Scale at A3:	Project No:	Drawing No:	Revision:
1:5,000	A114055	Figure 1	A

Drawn by:	Drawn date:	Approved by:
Maddie Errington	25/07/2019	Patryk Gruba

G:\GIS Southampton\A1 JOBS_Mill Lane Millom\MXD\Figure1_SiteLocation_250719.mxd



Rev	Date	Notes
A	30/07/19	Initial map production

Legend

- Site boundary
- Buildings
- Hardstanding
- Wall
- Common pipistrelle 22.18 emergence
- Common pipistrelle
- Soprano pipistrelle
- Common pipistrelle day roost
- Surveyor location

0 2.5 5 10 Metres

N

Bat Survey Results – Dusk Emergence Survey

Mill Way Millom Bat Surveys
As If By Magic Ltd.

Scale at A3:	Project No:	Drawing No:	Revision:
1:250	A114055	Figure 2	A

Drawn by:	Drawn date:	Approved by:
Maddie Errington	30/07/2019	Patryk Gruba

G:\GIS Southampton\A114055_MillwayMillom\MXD\Figure2_DuskEmergenceSurvey_(A0)19_300719.mxd

Rev	Date	Notes
A	30/07/19	Initial map production

Legend

- Site boundary
- Buildings
- Hardstanding
- Wall
- Common pipistrelle 4.34 re-entry
- Common pipistrelle
- Soprano pipistrelle
- Common pipistrelle roost
- Surveyor location

0 2.5 5 10 Metres

N

Bat Survey Results – Dawn Re-entry Survey

Mill Way Millom Bat Surveys
As If By Magic Ltd.

Scale at A3:	Project No:	Drawing No:	Revision:
1:250	A114055	Figure 3	A

Drawn by:	Drawn date:	Approved by:
Maddie Errington	30/07/2019	Patryk Gruba

G:\GIS Southampton\A114055_Millum\millum\MXD\Figure3_DawnReEntry Survey_26Jul19_30Jul19.mxd

Appendix A – Report Conditions

REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of As If By Magic ("the Client") for the proposed uses stated in the report by WYG Environment Planning Transport Limited ("WYG"). WYG exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

No liability is accepted or warranty given for; unconfirmed data, third party documents and information supplied to WYG or for the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report. WYG does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.

August 2019

Appendix B – Detailed Building Inspection Results (WYG, 2018)

Building Ref	Description		Bat Roost Suitability
	External	**Internal**	
B1	Building B1 comprises the detached workshop located towards the western edge of the site. The building comprises the main workshop, a single-storey lean-to extension to the southern elevation (Photograph 1), a single-storey lean-to extension to the western elevation and a 1.5 storey pitched roof extension to the western elevation (Photograph 2). The building is occupied during the daytime and is used for restoring caravans. The exterior walls are exposed brick, having been stripped of their render approximately 18 months prior to the survey. The workshop has a pitched concrete tile roof, with concrete ridge tiles. There are potential access points for bats at the eaves of the roof on the eastern and western gables, due a lack of pointing exposing gaps between the tiles and roof lining (Photographs 1, 3 & 5). There are also numerous gaps in the pointing and brickwork on all elevations (Photographs 1 & 4) including a notable void on the southern elevation between the lean-to part of the building and the main workshop, opposite B2 (Photograph 6). Crevices, which provide access to potential wall cavities are also associated with a sealed window on the eastern elevation (Photograph 7) of the building and a sealed doorway on the northern elevation. Gaps are present in the soffits, to the northern, southern and western elevations (Photograph 8) that could allow bats to access the interior roof void.	Internally, several loft voids are present. It was not possible to fully access the roof void of the lean-to part of the building on the western elevation and this area could only be viewed through a hole in the plasterboard ceiling. No access was possible to the roof void of the lean-to structure located to the southern elevation of the building. All other voids were fully accessible The main void has a modern trussed rafter construction and the roof is lined with a breathable membrane (Photographs 8 & 9). The void is split into two by a concrete breeze block partition wall, with the eastern void space the largest. The ridge beam is a thin plank and provides no suitable crevices where the timbers join, as these are secured with metal plates. Gaps in the soffits on the northern and southern elevations of the building and a gap at the gable apex on the western elevation provide potential access points for bats into the roof void. The void has strip lighting and is accessed via a staircase from the workshop below. It is used for storage of household items and houses the water tank for the buildings. Due to the lighting and staircase the main void is considered likely to be quite frequently disturbed. The lean-to structure to the western elevation of the building has a typical joist and rafter construction with timber sarking (Photograph 10). No potential access points into the void via the roof structure were noted. However it was not possible to fully access the roof void as no loft hatch was present. The void is unlit, but is exposed to some disturbance from the ground floor of the building due to the hole in the ceiling. The 1.5 storey pitched roof extension (Photograph 11) has a collar beam construction and is lined with modern breathable roofing membrane (although the original timbers appear to have been retained, unlike in the main void). Potential access points into the void for bats include gaps in the soffits and missing	**Moderate**

Photograph 1: N & E elevations

Photograph 2: W elevation

brickwork/pointing at the gable apex. The void is unlit and is considered less likely to be disturbed than the main void.

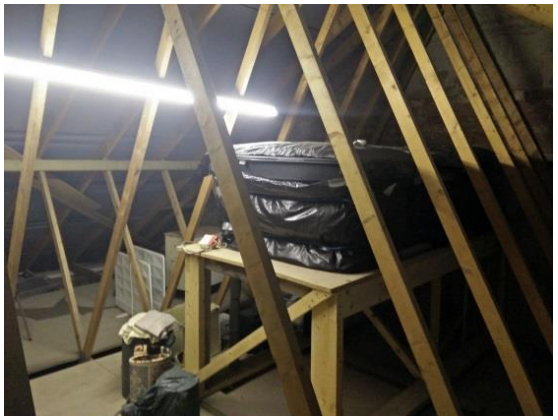
No evidence of bats was found in any of the roof voids. Evidence of bird roosting was noted in the main void against the western gable wall.

Photograph 9: Main roof void east

Photograph 3: E elevation

Photograph 4: N elevation

Photograph 10: Main roof void west



Photograph 11: Roof void, lean to structure to W

Photograph 5: W elevation

Photograph 6: S elevation

Photograph 12: Roof void, 1.5 storey extension to W

	Photograph 7: Window to N elevation  **Photograph 8: Soffit to N elevation** 		

Building Ref	Description		Bat Roost Suitability
	External	**Internal**	
B2	Building B2 comprises a single storey building, with a hipped slate roof to the southern elevation and a gable to the northern elevation, two single storey flat-roofed stores and a single storey building with a pitched concrete tile roof connecting to the main workshop building (Photographs 13, 14 & 15). The slate-roofed building, stores and the eastern elevation of the pitched roof building are rendered, with the western elevation of the pitched roof building has exposed brickwork. Potential access points for bats are present via lifted slates to the eastern elevation (Photograph 13), missing mortar/brickwork to the eastern elevation (Photograph 14). The barge boards associated with the north-facing gable (Photograph 15) could potentially provide additional opportunities for bats but could not be fully inspected from the ground. **Photograph 13: E elevation** 	Internally, two connected voids are present within the hipped slate roof and the concrete tiled roof. The flat-roofed stores lack roof voids. The southern hipped roof has a queen post type construction, the northern pitched roof has a king post construction. Both voids show evidence of fire damage to the roof timbers. The joints between the timbers in both parts of the void provide potential roost features for bats. However, there were no apparent access points into the void from the exterior of the building. The undersides of the slates have been completely sealed with expanding foam (Photograph 16). The rafters in the northern part of the void have been packed with insulation. The void is lit by strip lighting and access via a hatch. However nothing is stored in the void and is considered likely to remain relatively undisturbed most of the time.	**Low**

Building Ref	Description		Bat Roost Suitability
	External	Internal	
	Photograph 14: E elevation  **Photograph 15: W elevation** 	**Photograph 16: Southern part of void within slate roofed building**  **Photograph 17: Northern part of roof void**