Tyrer Ecological Consultants Ltd
Specialists in Protected Species

Bringing Together Over 30 Years of
Ecological Excellence

Tyrer Ecological Consultants Ltd, Roselands, Suite 1, 3, Cross Green, Formby, L37 4BH

Dusk Survey Results Inclusive of a Preliminary Roost Assessment

September 2023

The Manor Care Home
Chatburn
Clitheroe
BB7 4AW

National Grid Ref: SD76904408

Document Title	Dusk Survey Results Inclusive of a Preliminary Roost Assessment
Issue no.	1.0
Prepared for	PAB Architects Ltd
Prepared by	Tyrer Ecological Consultants Ltd

Surveyors	Mr. D. Burrows; Mr. H. Green; Mr. M. Smith; Ms. H. Taylor-Boyd; Miss. A. Hamer; Miss K. Swift					
Author	Mr. D. Burrows Qualifying CIEEM					
Survey Dates	**PRA**	11/07/2023	**Dusk 1**	11/07/2023	**Dusk 2**	01/06/2023
Reviewed by	Mr. J. Pescod Qualifying CIEEM					
Review Date	06/09/2023					
Approved by	Mrs. K. Wilding CEnv MIEMA ACIEEM					
Date of Issue	06/09/2023					

Terms of use:

This report has been prepared by Tyrer Ecological Consultants Ltd with all reasonable skill, care and diligence within the terms of the instruction and permissions granted by the client. The results, conclusions and recommendations of this report are presented in line with the British Standard 42020:2013.

Tyrer Ecological Consultants Ltd have produced this report with all due integrity and adhere to the CIEEM Professional Code of Conduct, with the aim of upholding these objectives and the reputation of the profession.

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

This report is confidential to the client.

This report and contents therein are to be used only in conjunction with the Planning Application for which the report has been produced. It must not be used for any other purpose, copied, re-produced or sent to any other party other than the Local Planning Authority Department without the express permission of Tyrer Ecological Consultants Ltd. Furthermore, the data contained herein must not be copied, re-produced or sent to any other party/organisation whatsoever without the express permission of Tyrer Ecological Consultants Ltd.

Tyrer Ecological Consultants Ltd will however consider forwarding data that is collected as part of its reports to the relevant wildlife records centre.

Table of Contents

1.**0** Background & Introduction

2.**0** Bats – Legislation and Policy

3.**0** Bats in Lancashire

4.**0** Survey Methodology

5.**0** Survey Results

6.**0** Survey Conclusions & Recommendations

7.**0** Bibliography

Appendix I: Photographs of the Preliminary Roost Assessment of B2

Appendix II: Bats & Breeding Birds: The Manor Care Home (Tyrer Ecological Consultants Ltd, 2023)

1.0 Background & Introduction

1.1 As part of a proposed planning application regarding The Manor Care Home, Chatburn, Tyrer Ecological Consultants Ltd conducted a Preliminary Roost Assessment of the main care home in February 2023, which concluded the following:

> *It is recommended that two dusk and/or dawn emergence/re-entry surveys are conducted at the site during the active season of bats (May – August, extending into September), in order to establish if/how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence/re-entry.*

1.2 Proposals are understood to involve the construction of a roof top dormer extension on the western elevation and conversion of a single storey storage building located in the car park; see **Figure 1.1** for site plans.

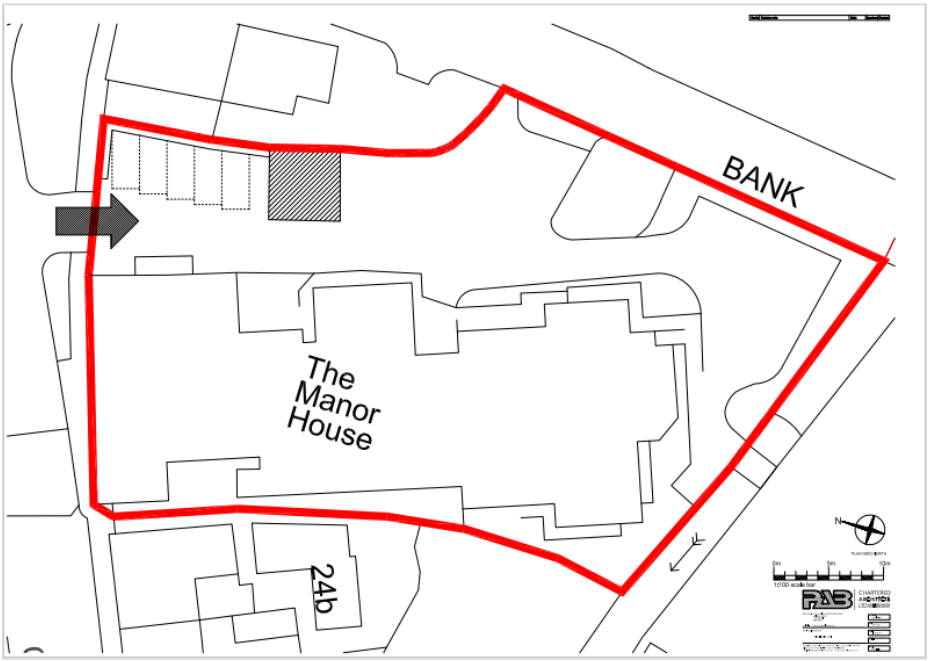


Figure 1.1 – *Red line boundary of the proposed application site (PAB Architects, 2023)*

1.3 A further PRA was undertaken to include a single storey storage building in additional to the main care home, in July 2023; the aim of the assessment was to ascertain if this building was of value to bats. If any potential roost features (PRFs) were found to be suitable for bats, or signs of use were observed, then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August (extending into September).

1.4 Tyrer Ecological Consultants Ltd were therefore commissioned by PAB Architects to undertake further bat surveys as recommended in the preliminary survey report; the surveys (two dusk emergences) were carried out in July 2023 in accordance with current Bat Conservation Trust (BCT) Guidelines during the active season of bats (see **Figure 1.2**).

1.5 The results, conclusions and recommendations following the surveys, including any indicative mitigation to inform an application to Natural England for a European Protected Species Mitigation License (EPSML), where necessary, will be supplied within this report.

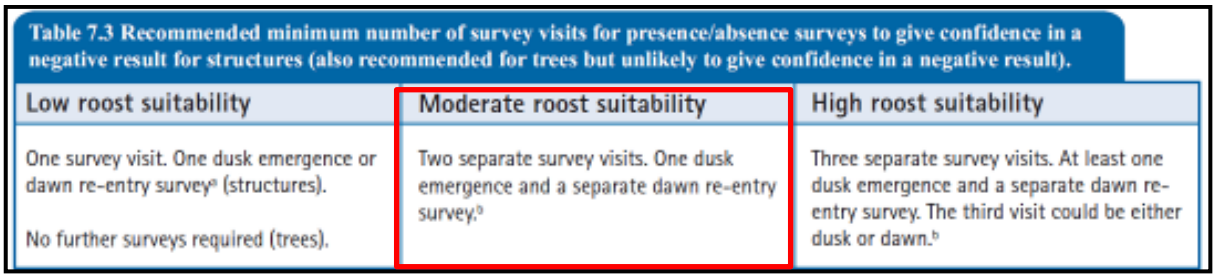


Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey[a] (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.[b]	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.[b]

Figure 1.2 - Extract from Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016)

1.6 This report should be read, understood, and presented to the local authority as an additional document to **Appendix II** (see contents page).

1.7 In accordance with *Biodiversity Net Gain: Good Practice Principles for Development (CIEEM et al. 2019),* measures have been recommended proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain.

2.0 Bats – Legislation and Policy

2.1 All British bats and their **roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2019) (EU Exit). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Use of Buildings by Bats

a) Summer breeding roost (May – August)
b) Hibernation roost (October – March)
c) Transitional or temporary roost (other months)

2.3 Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance; climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

*** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to "a breeding site or resting place of such an animal" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used, is legally protected whether or not bats are in occupation.*

Policy

2.4 Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) states:

When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

2.5 Key Statement EN4: Biodiversity and Geodiversity, of the Ribble Valley Borough Council Local Plan Core Strategy, echoes the national focus on preserving biodiversity, stating (see **Figure 2.1**):

KEY STATEMENT EN4: BIODIVERSITY AND GEODIVERSITY

The Council will seek wherever possible to conserve and enhance the area's biodiversity and geodiversity and to avoid the fragmentation and isolation of natural habitats and help develop green corridors. Where appropriate, cross-Local Authority boundary working will continue to take place to achieve this.

Negative impacts on biodiversity through development proposals should be avoided. Development proposals that adversely affect a site of recognised environmental or ecological importance will only be permitted where a developer can demonstrate that the negative effects of a proposed development can be mitigated, or as a last resort, compensated for. It will be the developer's responsibility to identify and agree an acceptable scheme, accompanied by appropriate survey information, before an application is determined. There should, as a principle, be no net loss of biodiversity.

These sites are as follows:

- Sites of Special Scientific Interest (SSSIs)
- Local Nature Reserves (LNRs)
- Local Biological Heritage sites (CBHs)
- Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)
- Local Geodiversity Heritage Sites
- Ancient Woodlands
- Lancashire Biodiversity Action Plan priority habitats and species
- European Directive on Protected Species and Habitats - Annexe 1 Habitats and Annexe II Species
- Habitats and Species of Principal Importance in England

With respect to sites designated through European legislation the Authority will be bound by the provisions of the relevant Habitats Directives and Regulations.

For those sites that are not statutorily designated and compensation could be managed through a mechanism such as biodiversity off-setting via conservation credits.

3.0 Bats in Lancashire

3.1 Up to eleven bat species have been recorded in Lancashire, many of which use built structures and trees for roosting. A variety of building types and features are utilised by bat species at different times of year ranging from occupied residential dwellings to disused barns and bridges. The most frequently encountered species is the common pipistrelle bat (*Pipistrellus pipistrellus*); its abundant status in Lancashire is mirrored throughout the UK.

4.0 Survey Methodology

4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:

"*The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

4.2 Relative to the above, the survey methods and protocol adopted were determined using the collective and long standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

Survey Protocol

Preliminary Roost Assessment (PRA) – Single-story Storage Building

4.3 A pre dusk PRA was conducted on the 11th July 2023 in bright, clear conditions (15ºC), average wind 1/12 (Beaufort scale), average 20% cloud cover, by the following surveyor (see **Table 4.1**).

Table 4.1 – Surveyor credentials

Name	Description of most relevant credentials
Mr. D. Burrows Qualifying CIEEM	• Consultant Ecologist with 4 years of training and experience • Relevant Degree: BSc (hons) Wildlife Conservation; MSc Conservation and Biodiversity • Licensed for Great Crested Newt: CL08 (Great Crested Newt Survey Level 1) – 2022-10604-CL08-GCN. • Accredited agent on the Natural England Bat Class 2 Bat Licence of Mrs. K. Wilding

4.4 Bat Conservation Trust (BCT) - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) states:

"*The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

4.5 The single storey storage building was inspected for potential places that may be of value to bats or breeding birds, and to determine if evidence of use by either group was present. An internal assessment of the building took place with the aid of a high-powered torch for evidence of bat use, which mainly includes bat droppings and/or prey items, or the incidental presence of live or dead animals, and investigated for evidence of breeding birds which broadly involves a search for nesting materials, presence of pellets or accumulated faeces and/or dead juveniles/hatchlings.

4.6 External elevations were investigated with the aid of a high-powered torch and close focus binoculars (where necessary) for places that can be used as a roost by bats or as a means of ingress for bats and birds leading to areas of roosting/nesting potential. These features are typically referred to as potential roost features (PRF) concerning bats. All external features, with exception to the roof, were able to be surveyed without constraint.

4.7 Categorisation criteria, as laid out in **Appendix II**, has been used to value the single storey storage buildings capacity to support roosting bats; furthermore, desk study information from the stated report has also been used to inform the categorisation of the building.

Dusk Emergence Surveys

4.8 In accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), it is specified that: "*The bat active period is generally considered to be between April and October inclusive*", though the period of **May – August** is the optimal most productive period that Natural England accept bat surveys and grant species development licences in relation to bats.

4.9 The timing of the surveys took place in May – June, at a time when bats have entered their active season and a period of the year when maternity colonies are forming at established bat roosts, following on from winter hibernation. The active season of bats is generally accepted as May – August across the industry.

4.10 Where bats are roosting, they are likely to be detected by the ecologists who are trained in the use of bat detector hardware and call analysis software, and specifically how to detect bats and to correctly identify / disseminate bat calls.

4.11 When considering survey protocol, the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality as well as any visual limitations at the survey site.

4.12 In this case, despite the visual limitations associated with the building, discussed in **Section 4.18**, a dawn survey would not have provided any additional information that would not otherwise be collected during the dusk emergence surveys therefore negating the need for a dawn survey. Furthermore, at dawn, temperatures are usually lower then at dusk, and as a result bat activity can be less frequent, in some locations.

4.13 BCT issued an Interim Guidance Note in May 2022 in advance of a 4th edition of bat survey guidelines to be published in Summer 2023, which supersedes existing guidelines and states in relation to dawn surveys that:

"Whilst dawn surveys can reward surveyors with displays of dawn swarming behaviour, there is a concern that bats that have returned earlier will be missed…

The 4th edition of the survey guidelines will therefore transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys in favour of dusk surveys supported by NVAs. The use of NVAs has the potential to improve the quality of dusk surveys, providing clarity on exact emergence points and bat counts that might not otherwise be available because of the limitations of the human eye."

4.14 Survey protocol should not be determined by parties who are 1) not familiar with the site, and 2) do not have a sufficient level of experience in relation to the undertaking of dusk/dawn bat surveys.

4.15 The number of surveys and surveyors was adequate relative to the roost potential that was identified during the daytime appraisal – i.e. **moderate** potential, four surveyors were required to accurately monitor potential roost features (PRF's) on the Manor Care Home, inclusive of the single story storage building at any one time.

4.16 Surveyors were strategically positioned so that all elevations with bat roost potential, as described in the daytime report, could be observed without limitation. The surveyors were aided with Anabat SD2, Batlogger M & M2, Echometer EM2, Peersonic RPA3, or equivalent electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed the next day using Analook, Kaleidoscope, BatExplorer or equivalent computer software to verify field observations. Where deemed appropriate by the attending ecologists, elevations were also surveyed via the use of a Night Visual Aid (NVA) Camera (Panasonic HC-VXF990) – recordings would be subject to review the following day to identify emergences / flight lines and species / abundance.

4.17 A pre-dusk inspection of the single-story storage building was also undertaken prior to the first dusk survey taking place, to identify potential evidence of bat roosting locations and, if present, the species, abundance, and roost type, to further inform surveyors given the delay in time since the initial planning application. Given the presence of an historic roost, the loft was fully inspected to check for evidence of usage of the building, particularly in areas close to the roost location, to identify whether or not there had been an increase in the number of droppings located.

Survey Limitations

4.18 Due to the complex design of the Manor Care Home, in addition to the limited amount of external courtyard space and presence of dense foliage, it is evident that visual limitations were present during the course of the survey effort specifically on the western elevations. Expanding on this, spatial limitations within the grounds of the application site made it difficult to situate surveyors in locations that would allow complete coverage of the building, with foliage on the western aspect obscuring surveyors line of sight; furthermore, neighbouring buildings obscured elements of the northwestern section of the building. In order to mitigate this limitation, a surveyor partnered with a infra-red video camera was placed approximately 60 meters west of the western elevation of the Manor Care Home, allowing for a clear line of sight to the areas marked for development, and positioned the camera so it was zoomed in on the unobscured areas of the western section of the roof; an Anabat Express was placed in proximity to the west of the building in order to capture calls and cross-reference with the camera footage. The surveyor was able to use the camera to determine any emergence events during the course of the survey. Nonetheless, a precautionary approach has been taken with respect to the mitigation measures.

4.19 Following the completion of the further surveys, having carefully considered the results and conclusions derived from all surveys to date, no significant constraints were experienced that might hinder the gathering of ecological data on which to base sound conclusions and recommendations.

5.0 Survey Results

Preliminary Roost Assessment – Single Storey Storage Building (B2)

5.1 This element of the report should be read in conjunction with **Appendix I** & **II**.

5.2 The surveyed building is a single storey structure, stone brick-built with a pitched slated roof; external features include wooden lintels and barge boards and is considered to be considerably Ivy-clad on the northern and western sides. The structure is used currently for storage purposes. The approximate dimensions are 7.0m x 7.0m x 4.0m (Length x Width x Height) and whilst the surveyor is not qualified to assess the structural integrity of the building, it was adjudged to be in aesthetically favourable condition with only local areas of superficial deterioration on the exterior walls.

5.3 Internally the building comprised of a single storey layout with a ground and upper floor; the upper floor is open to the ridge and of a trussed construction with no loft void present. Breathable Roof Membrane is present beneath the slates and spans the extent of the roof. The upper floor, similar to that of the ground floor, is used for storage and as such is considered to be cluttered with paraphernalia. The internal conditions of the building were considered to be cool, draughty and dark, with cobwebbing present towards the apex of the ridge; a light is present and is not considered to be turned on at all times, but due to the buildings use for storage it is perceived that the light is utilised somewhat frequently.

5.4 Due to the aforementioned reasons, the building, in its current condition is considered broadly unsuitable for the breeding purposes of loft-dwelling bat species such as the brown long-eared (*Plecotus auratus*) which generally prefer warm, dark, open spaces which allow free flight. No evidence to indicate presence of loft-dwelling bats was identified despite a meticulous search of accessible areas.

5.5 Externally, the building was found to be absent of any significant potential roost features (PRF's) that could provide ingress opportunities to bat species, with the roof appearing to be tight fitting, the wall being well-pointed and no significant gaps within the lintels or wooden barge boards; furthermore, an external security light was found to be present on the southern elevation. That being said, the western and northern aspects were noted as considerably ivy-clad, which may be obscuring PRFs. Therefore, solely on a precautionary basis the single story storage building has been duly categorised as pertaining to '**Low**' bat roost potential in line with BCT Guidelines. Refer to **Appendix I** for photographs.

Dusk Emergence Survey

5.6 Two dusk emergence surveys were conducted at the site on 11th July and 25th July 2023 by four surveyors at a time. See **Table 5.1** below for surveyor credentials, **Table 5.2 – 5.3** for detailed survey results and **Figure 5.1 – 5.5** for visual aids to further assist in the understanding of survey results.

Table 5.1 – Surveyor names and credentials

Name	Experience	Surveyor Credentials
Mr. H. Green	30+ years	• Highly experienced Bat Specialist and carer whom has professional surveying experience over decades with Tyrer Ecological Consultants Ltd - Class 2 Natural England Bat Licence (CLS-03290)

Mrs. K. Swift	10+ years	• Highly experienced seasonal ecologist who has extensive experience undertaking professional bat surveys with Tyrer Ecological Consultants Ltd, • Holds a Class 2 Natural England bat license (CLS-22801).
Mr. M. Smith	7 years	• An experienced seasonal bat surveyor with Tyrer Ecological Consultants Ltd
Mr. D. Burrows	4 years	• An experienced Consultant Ecologist with 4 years of professional training and experience; • holding a BSc in Wildlife Conservation and MSc in Conservation & Biodiversity. Holds a Natural England Great Crested Newt: CL08 Class 1 license 2022-106040-CL08-GCN. • Accredited agent on the Class 2 Natural England bat license of Mrs. K. Wilding (CLS-14227).
Miss. A. Hamer	2 years	• An experienced Ecologist working as a sub-contractor for Tyrer Ecological Consultants who holds a Natural England Class 1 bat licence (2021-54008-CLS-CLS)

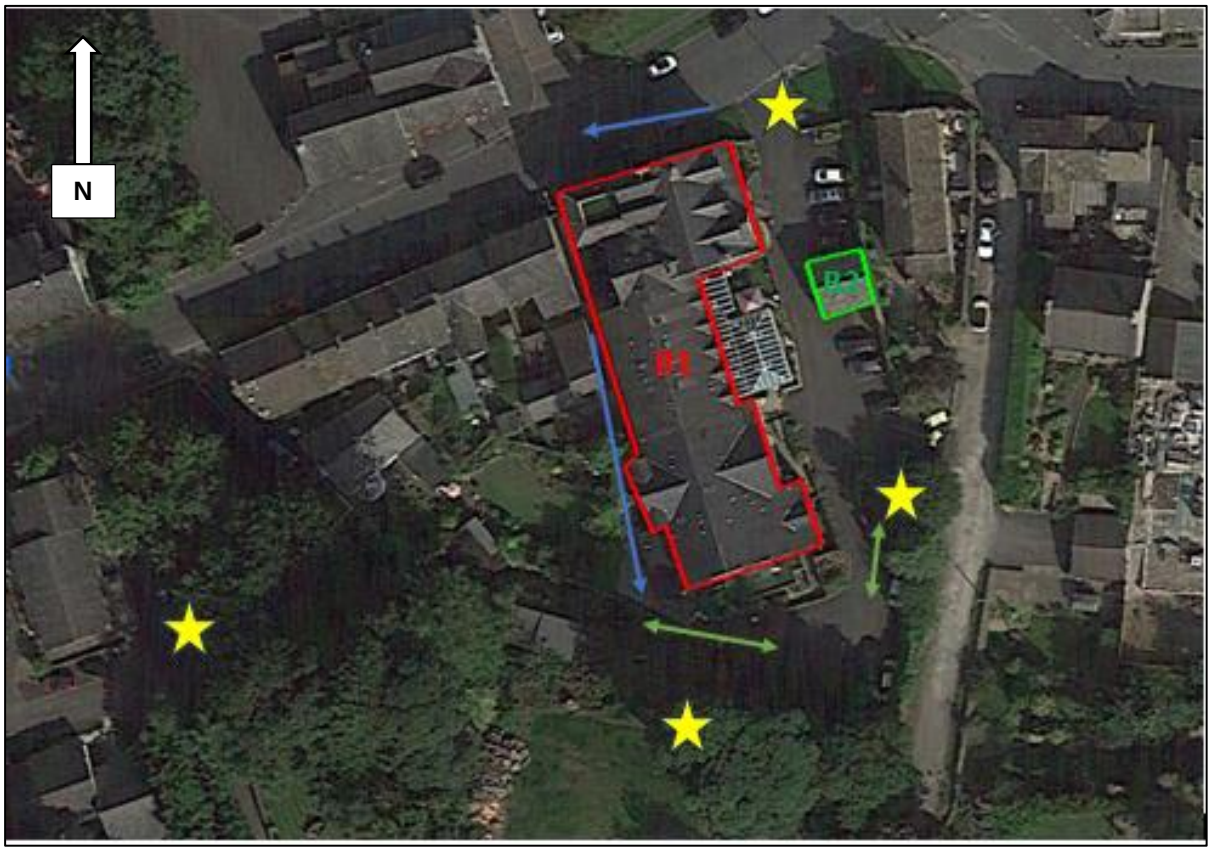
Table 5.2 – Survey dates, times and weather conditions

Times of Survey	Date	Weather Conditions
Dusk survey 1 2119 – 2310	11/07/2023	**Sunset**: **21:39**: Dry, No wind, 10% cloud cover Start temp: 14.0 º C End temp: 13.0 º C
Dusk survey 2 2100 – 2250	25/07/2023	**Sunset**: **21:20**: Dry, Gentle breeze, 80% cloud cover Start temp: 15.0 º C End temp: 13.0 º C

Table 5.3 – Raw data from the surveys

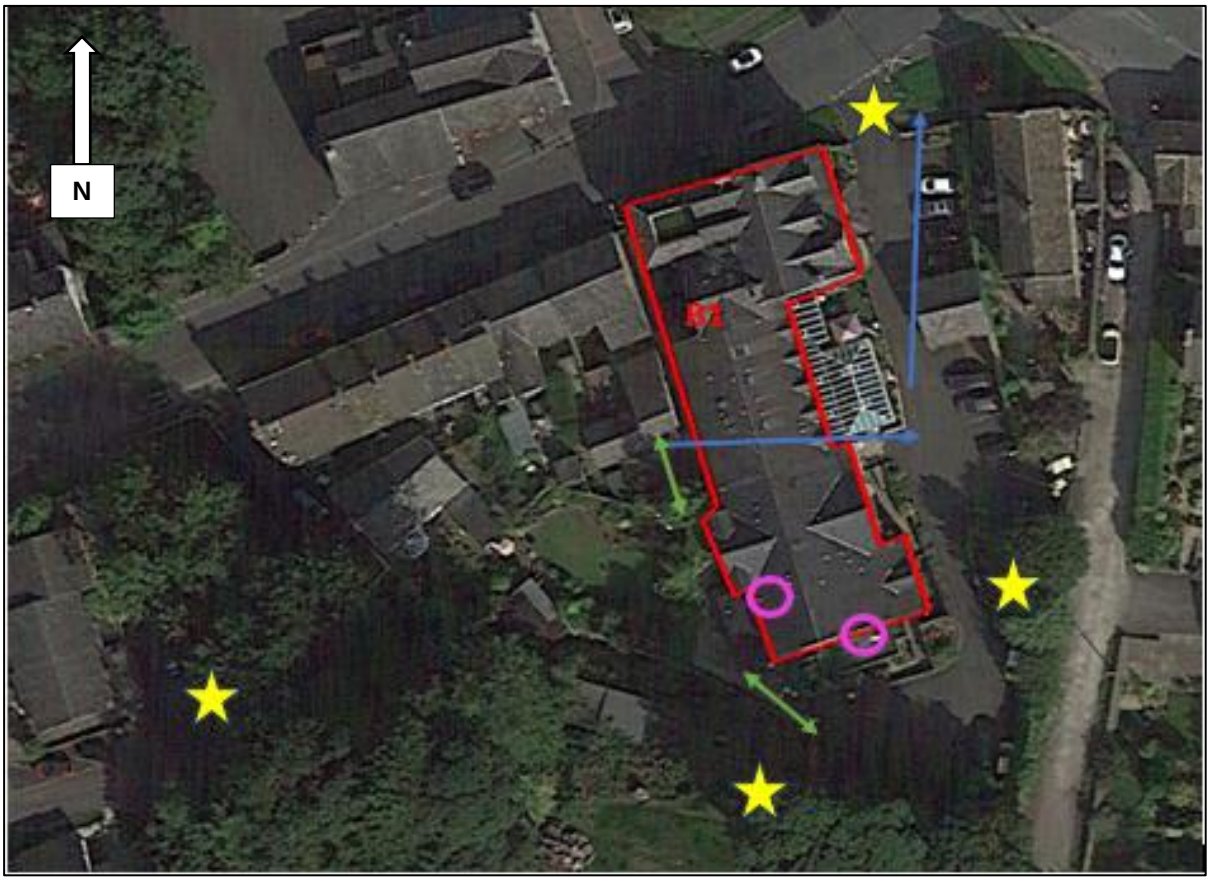
Survey	Time	Activity
Dusk survey 1 11/07/2023	2119 – 2310	**Summary: No bat emergence from either B1 or B2 for the duration of survey.** 21:59 hrs: Commuting Common Pipistrelle (CP) adjacent to the west of the main care home building (B1), flight path obscured by trees, however, was north to south. 22:10 hrs: CP passing from the main road down the side of the building to the west.

		22:10 hrs: Similar commuting pass by a single CP was observed along the west of B1 between the trees and neighbouring buildings. 22:14 hrs: A pass by a CP from north to south. 22:19 hrs: Foraging of a single CP within the southwest corner of the building. 22:21 hrs: An individual CP foraging in the eastern section of the courtyard. 22:30 hrs: Additional foraging by a single CP in the southwest corner. General activity comprised of commuting around the site and foraging around the southwest of the building by a maximum of two common pipistrelle bats.
Dusk survey 2 25/07/2023	2100 – 2250	**Summary: Emergence of a total of five common pipistrelles from two distinct emergence points on the southwestern and southern elevations respectively.** 21:22 hrs: Emergence of three CP from the southwestern elevation from a gap beneath a slate of B1 (**EM1)**. 21:24 hrs: Emergence of a single CP (**EM1**). 21:24 hrs: Emergence of a single CP from a gap to the right of the apex on the southern gable elevation of B1 (**EM2**). 21:27 hrs: Foraging CP flying north to south to the west of the building. 21:28 hrs: CP passing west to east. 21:33 hrs: Foraging CP flying north to south on the western elevation of the building. 21:38 hrs: CP passing west to east. 21:40 hrs: Two individual commuting CP heading north. 21:45 hrs: Commuting CP flying west to east. 22:01 hrs: Commuting CP flying northeast to southwest. 22:11 hrs: Commuting Noctule (N) heard not seen. General activity comprised of frequent foraging of common pipistrelle over to the southwest and south of the Manor Care Home; a single Noctule was recorded commuting.



	Survey boundary		Foraging activity
	Surveyor positions		Commuting activity
N	Directional compass		

Figure 5.1 – *Dusk survey 1 results (adapted over Google Earth 2022/23)*



	Survey boundary		Foraging activity
	Surveyor positions		Commuting activity
N	Directional compass		Emergence points

Figure 5.2 – *Dusk survey 2 results (adapted over Google Earth 2022/23)*

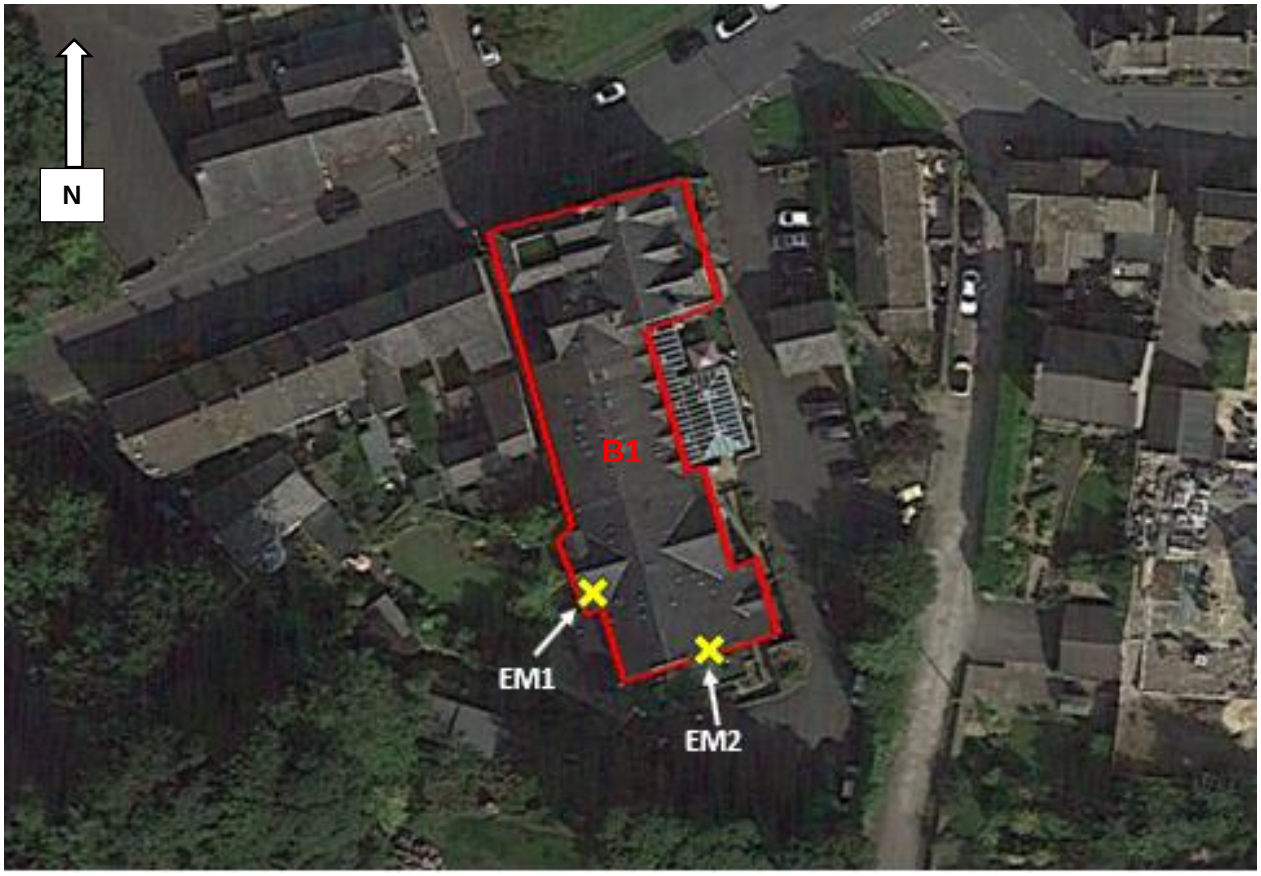


Figure 5.3 – *Emergence locations identified during the emergence survey*

Figure 5.4 – *Emergence Point 1 identified on the southwest elevation of the Manor Care Home*

Figure 5.5 – *Emergence Point 2 identified on the southern elevation of the Manor Care Home*

6.0 Survey Conclusions & Recommendations

6.1 From the July 2023 dusk survey results, the Manor Care Home (B1) has been ascertained as hosting two distinct bat roosts that support a single Common Pipistrelle bat (each). The number of bats encountered, and timing of the surveys in July of the bat active season, strongly indicates the roosts to be 'Day roosts' – defined as '*a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer'.*

6.2 The proposals are for dormer extension located within the central section of the western elevation, refer to **Figure 6.1** for the indicative location of the proposed plans within the Manor Care Home (B1).

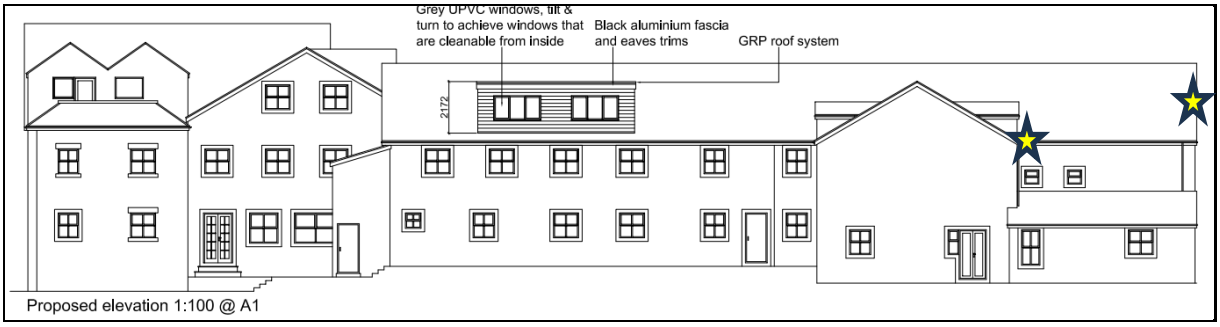


Figure 6.1 – Indicative location of the proposed dormer extension on the western elevation of the Manor Care Home; yellow stars are the locations of the identified day roosts for spatial context (*PAB Architecture Ltd, 2023*).

6.3 Close study of the formal drawings provided by PAB Architecture Ltd to be submitted to the LPA as part of the planning application, with respect to the central location and distance from the identified day roosts (20m north of **EM1**) and scale of the proposed development, suggests that the bat roosts to the south of the building can be retained, not destroyed, not damaged, nor modified, which would effectively maintain the status-quo for bats ate site level, and, maintain the favourable conservation status of bats long term.

6.4 Furthermore, if reasonable avoidance measures (RAMs) were applied that crucially included timing certain noise and vibration works to avoid the sensitive active season of bats (May – September), then no disturbance would take place to bat(s), as bats would not use a roost with the required thermal qualities for day roost use in the hibernation months of October – April.

6.5 Therefore, based on survey information, experience of the attending Ecologist further supported by the Director of Tyrer Ecological Consultants Ltd (who holds a Class 2 Bat Survey License: CLS-14227), on balance the proposals are reasonable unlikely to result in any offence being committed. As such a European Protected Species Mitigation License (EPSML) is not required at this time.

6.6 If at any point proposals change to include works to additional areas of the property, that may affect bats, specifically any areas/ around the roof to the southwest of the Manor Care Home (B1), a Natural England Mitigation License will be required to legally continue with the work.

6.7 As a reasonable precaution following the surveys, including mitigating the visual limitations described in **Section 4.0,** the following measures have been recommended:

- Timings are recommended to avoid the active season of bats (May-September) in as much as possible, with works that are likely to generate the loudest noise carried out within the period of 1st October to 30th April.

- Works that affect the removal of roof slates or underlining within and around the areas of development should be done so under the supervision of a suitably licensed ecologist, or Ecological Clerk of Works (ECoW). This area will be subject to inspection using a torch and/or endoscope prior to the commencement of work, to inspect for the unlikely presence of bats or bat droppings; if absent the works should proceed to completion. However, if bat(s) is/are located, work will cease, contact will be made to a suitably licensed Ecologist to discuss the most appropriate course of action. A granted European Protected Species Mitigation License (EPSML) would further be required to legally proceed with the scheme.

- The above measures can be secured by a Section 106 agreement, or, by way of a condition(s) of planning permission.

6.8 It should be borne in mind that whilst the recommendations have been based on sound scientific evidence, Bats are a highly transient species and can often have multiple roosts in a locale, and can use buildings that offer potential roost features at any time of the year, therefore, it should be stated that if bats, or evidence of bats (see Figure 6.1) is discovered at any stage during the works to the other areas of the Manor Care Home, then as a legal requirement the work at the site should immediately cease and a Bat licenced ecologist should be contacted for further advice.

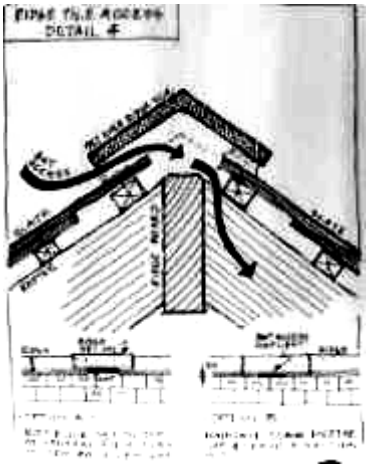
Figure 6.2 – *Bat droppings (left) and pipistrelle bat (right)*

Enhancing a Development Site for Bats

Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.

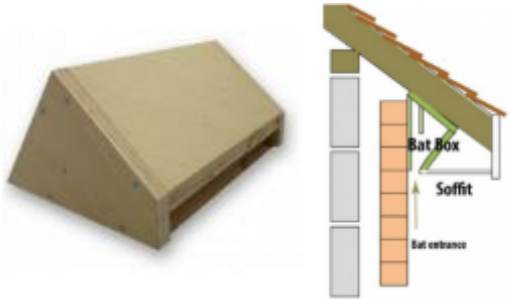
Ridge access



Where appropriate, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box, with more examples present online.

7.0 Bibliography

- **Bat Conservation Trust (BCT)**, 2018. *Bats and artificial lighting in the UK: Bats and the Built Environment series*. Available from: www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/

- **Bat Conservation Trust (BCT)**, 2022. *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys.* Available from: https://cdn.bats.org.uk/uploads/images/Interim-guidance-note-on-NVAs-May-2022-FINAL.pdf?v=1652957834

- **CIEEM *et al***, 2019. *Biodiversity Net Gain: Good practice principles for development*. Available from: www.cieem.net/data/files/Publications/Biodiversity_Net_Gain_Principles.pdf

- **CIEEM**, 2016. *Guidelines for Ecological Impact Assessment in the UK and Ireland*, 2nd edition. Available from: www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf

- **CIEEM**. 2020. *Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK*. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester, UK

- **CIEEM**, 2017. *Guidelines for Preliminary Ecological Appraisal*, 2nd edition. Available from: www.cieem.net/data/files/Publications/Guidelines_for_Preliminary_Ecological_Appraisal_Jan2018_1.pdf

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

- **Communities & Local Government (C&LG)**, 2018. *National Planning Policy Framework*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

- **Gunnell, K. Grant, G. and Williams, C.** 2012. '*Landscape and urban design for bats and biodiversity*'. Bat Conservation Trust.

- **Magic Maps Application**, 2022. Available from: www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

- **Mitchell-Jones, A.J. and McLeish, A.P**. (Eds) (2004). *Bat Workers' Manual*, Joint Nature Conservation Committee, Peterborough.

Appendix I: Photographs from the Preliminary Roost Assessment

Photograph 1 – *The northern aspect of B2*

Photograph 2 – *The western aspect of B2*

Photograph 3 – *The southern aspect of B2*

Photograph 4 – *The internal character of B2*

Appendix II: Bats & Breeding Birds: The Manor Care Home (Tyrer Ecological Consultants Ltd, 2023)