



Former Treharris Rugby Social Club,

Dusk Emergence Survey Report

August 2023

REPORT CONTENTS

1.	INTRODUCTION	1
1.1.	BRIEF	1
1.2.	PROPOSED WORKS	1
1.3.	LEGISLATION AND PLANNING POLICY	1
1.4.	SURVEY SCOPE	2
1.5.	REPORTING	2
2.	METHODS.....	3
2.1.	FIELD STUDY	3
3.	RESULTS	4
3.1.	FIELD STUDY	4
4.	EVALUATION	6
4.1.	SUMMARY OF DUSK EMERGENCE SURVEY	6
4.2.	CHARACTERISATION OF IDENTIFIED ROOSTS	6
4.3.	POTENTIAL FOR WINTER USE	6
4.4.	BIRDS – INTERPRETATION OF NESTING BIRD SURVEY	6
5.	IMPACT ASSESSMENT	7
5.1.	POTENTIAL IMPACTS OF DEVELOPMENTS ON BATS	7
5.3.	SUMMARY OF IMPACTS - BATS AND BIRDS	8
6.	REQUIRED ACTIONS	9
6.1.	LICENSING REQUIREMENTS FOR BATS	9
6.2.	PRECAUTIONARY MEASURES	9
6.3.	MITIGATION AND COMPENSATION MEASURES	11
6.4.	LONGEVITY OF REPORT	11
7.	REFERENCES	12

DRAWINGS AND PLANS

DRAWING 1A: EXISTING AND PROPOSED FRONT

DRAWING 1B: EXISTING AND PROPOSED REAR

DRAWING 1C: EXISTING AND PROPOSED WEST SIDE

DRAWING 1D: EXISTING AND PROPOSED EAST SIDE

PLAN 1: LOCATION PLAN

PLAN 2: DUSK EMERGENCE SURVEY RESULTS (15TH AUGUST 2023)

PLAN 3: MITIGATION PLAN

PLAN 4: LOCATION OF ROOSTS

APPENDICES

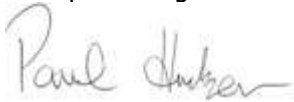
APPENDIX 1: BAT ECOLOGY AND LEGISLATION PROTECTING BATS AND THEIR ROOSTS

APPENDIX 2: SURVEYOR EXPERIENCE

APPENDIX 3: VIVARA WOODSTONE BAT BOX

APPENDIX 4: RIDGE TILE ACCESS

DOCUMENT CONTROL

Former Treharris Rugby Social Club Dusk Emergence Survey				
Revision	Date	Prepared by	Checked by	Approved by
1.0	29 August 2023	Margareth Necesito Assistant Ecologist 	Daisy Smith Assistant Ecologist 	Paul Hudson MCIEEM Principal Ecologist 

Acer Ecology Ltd accepts no responsibility or liability for the use of this document, other than by the client for the purpose for which it was originally commissioned and prepared.

Acer Ecology

Summary

Brief and Site Location	This report presents the findings of a bat and nesting bird survey of the former Treharris Rugby Social Club, located at Perrott Street, Treharris, CF46 5ET (Ordnance Survey Grid Reference: ST 09945 97025).				
Proposed Works	Proposed Works comprises of the conversion of rugby social club to provide 15 No. flats. A planning application for the change of use has been submitted (Planning Reference number: P/23/0080).				
Survey Methods	The survey comprised one dusk emergence survey of the rugby club.				
Results of Dusk Emergence Survey	The survey confirmed the following roost is present:				
	Bat Species	Roost Type	Roosting Location/Access Points	Rarity Category ¹ and Estimated Population ²	Importance of Roost ³
	Common pipistrelle	Day roost ⁴	Underneath the fascia on the southern side.	Abundant and widespread. Estimated population in Wales in 2021: 297,000 (96,600 – 732,000) (JNCC and Bat Conservation Trust, 2021)	Local
Evidence of Nesting Birds	No evidence of nesting birds was found during the survey.				
Predicted Impacts of Development on Bats and Nesting Birds	The development proposals (without mitigation and compensation) would result in the permanent loss of a common pipistrelle day roost. The survey information suggests that the building is being used by only quite low numbers of bats, therefore, impacts would have a low local significance and negligible significance regionally. Based on the conclusion that birds are not currently nesting in the building, no negative impacts on birds are anticipated.				
Mitigation and Compensation of Proposed Impacts	The following mitigation is proposed:				
	Bat species	Proposed Mitigation/Compensation Measures			
	Common pipistrelle	- One Vivara Pro WoodStone bat box; and - Two raised ridge tiles on the southern elevation.			
Licensing Requirements for Bats	A bat licence is required from NRW prior to works on the building. The Natural Resources Wales Protected Species licence application will need to be accompanied by a detailed method statement which sets out the activities to be carried out under the licence to ensure that bats will not be harmed during development. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of the development.				
Required Actions	Detailed recommendations are given in Section 6 of this report which includes the following: Applying for a bat development licence;				

¹ Rarity as defined in Table 3.1 of the Bat Mitigation Guidelines (2nd edition) Beta version.

² JNCC and Bat Conservation Trust (2021) *National Bat Monitoring Programme Annual Report 2021*

³ Importance of Roost as defined in Table 3.2. of the Bat Mitigation Guidelines (2nd edition) Beta version.

⁴ Day roosts are defined by NE 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.

Acer Ecology

	• Precautionary measures to avoid and minimise potential impacts on bats and nesting birds during works; • Bat roosting provision; • Nesting bird provision; and • Post-construction monitoring.
--	--

1. Introduction

1.1. Brief

This report presents the findings of a bat and nesting bird survey of a building, known as Former Treharris Rugby Club located at Perrott Street, Treharris, Merthyr Tydfil CF46 5ET (Ordnance Survey Grid Reference: ST 09945 97025)⁵. The building proposed for development is referred to as the 'building' throughout the remainder of this report.

The building is situated within the boundary of Merthyr Tydfil Council.

1.2. Proposed Works

Proposed Works comprises of the conversion of rugby social club to provide 15 No. flats. The proposed plans can be found in Drawings 1, 2 and 3: Proposed Development Plans. A planning application for the change of use has been submitted (Planning Reference number: P/23/0080⁶).

1.3. Legislation and Planning Policy

1.3.1. Bats

All UK species of bat are designated as 'European Protected Species'. Their breeding sites or resting places⁷ (roosts) are fully protected under the Wildlife and Countryside Act 1981⁸ (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018⁹, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019¹⁰. Works affecting bats are subject to licensing procedures by Natural Resources Wales (NRW). The legal protection and licensing procedures are summarised in Appendix 1.

1.3.2. Nesting Birds

All wild British birds (whilst building nests, nesting and sitting on eggs) and their nests and eggs, (with certain limited exceptions¹¹) are protected by law under Section 1 of the Wildlife and Countryside Act 1981¹² (as amended) and the Countryside and Rights of Way Act 2000¹³. Some species, such as barn owls (*Tyto*

⁵ Latitude and Longitude: 51.664763, -3.3034690, what3words: grudge.pythons.veered

⁶ <https://publicaccess.merthyr.gov.uk/online-applications/applicationDetails.do?activeTab=externalDocuments&keyVal=RRGNLFKQKG700>

⁷ Resting places are defined as 'areas that are essential to sustain an animal or group of animals when they are not active' (Anon 2007).

⁸ <https://www.legislation.gov.uk/ukpga/1981/69>

⁹ <http://www.legislation.gov.uk/uksi/2018/1307/contents/made>

¹⁰ EU Exit – The European Union (Withdrawal) Act 2018 (the EUWA) will end the supremacy of EU law in UK law, will convert directly applicable EU legislation (in particular, EU Regulations and Decisions) as it stands at the moment of exit into domestic law, and will preserve legislation previously made in the UK to implement EU obligations. The legislation will generally have the same effect that it had before the UK left the EU, unless or until it is changed by Parliament. In some cases, there may be changes in referencing and guidance as a result of secondary legislative amendments.

¹¹ Details of the exceptions are available at <https://bit.ly/2KiQTFH>

¹² <https://www.legislation.gov.uk/ukpga/1981/69>

¹³ <https://www.legislation.gov.uk/ukpga/2000/37>

alba), are listed in Schedule 1 have additional protection from disturbance during the breeding season as do their nests, eggs and dependent young.

1.4. Survey Scope

The survey comprised one dusk emergence survey of the building.

1.5. Reporting

This report aims to:

- Outline the survey methodology used;
- Present the results of the survey;
- Provide an interpretation of the survey results;
- Determine the need for further targeted surveys on site; and
- Provide suitable recommendations in line with planning policy and wildlife law including potential licencing requirements, mitigation, compensation and enhancement measures.

2. Methods

2.1. Field Study

2.1.1. Dusk Emergence

Seven surveyors: Paul Hudson, Margareth Necesito, James O'Brien, Evan Smith, Frank Peake, Josh James and Johnathan Dixon, undertook the dusk emergence survey. Surveyor details can be found in Appendix 2. The surveyors were all equipped with Elekon Batlogger M or Anabat Scout bat detectors. Four Nightfox red infrared cameras were used giving good visual coverage of the building, each supplemented with a Nightfox XB5 850nm Infrared LED flashlight. Video footage was subsequently viewed using VLC media viewer.

The evening dusk emergence survey commenced 15 minutes prior to sunset and continued until 90 minutes after sunset. Surveyors were positioned at viewpoints where they had good sight of all elevations of the buildings, so that all potential roosting features could be observed to detect any bat emerging from, or re-entering, the building. Bat activity near the building was recorded to help ascertain flight lines.

In accordance with Section 2.6.1 of the Bat Conservation Trust's Bat Surveys for Professional Ecologists (Collins, 2016) surveys were undertaken during nights with temperatures above 10°C at sunset and during mornings where the previous sunset temperature was above 10°C. The surveys were also undertaken in the absence of rain and strong wind (5.4 m/s or greater, which is equivalent to 13 mph or Beaufort 4).

2.1.2. Survey for Nesting Birds

A visual search was undertaken for active bird nests, as well as any signs which might indicate either past or current nesting, such as guano, singing birds, birds carrying nesting material, food items, faecal sacs and calling chicks.

2.1.3. Constraints

General Temporal Constraints

An ecological survey can only identify what was present on site at the time it was conducted. However, habitat usage by species can change over time.

3. Results

3.1. Field Study

3.1.1. Dusk Emergence Survey

The results of the dusk emergence survey are summarised below.

Table 1: Summary of Conditions During Dusk Emergence Survey

	Survey 1
Date	15/08/2023
Sunset/Sunrise Time	20:37
Start Time	20:22
Finish Time	22:07
Start Temperature	16°C
Sunset/Sunrise Temperature	16°C
Rain	None
Wind ¹⁴	1
Cloud Cover	1

Table 2: Summary of Dusk Emergence Survey Results

	Survey 1: Dusk Emergence
Emergences/ Re-entries	One common pipistrelle (<i>Pipistrellus pipistrellus</i>) emerged from underneath the plywood panel covering the window on the southern side of the building (see photo 1).
Important Commuting/ Foraging Routes	Common and soprano pipistrelles (<i>Pipistrellus pygmaeus</i>) regularly foraged in the in the trees to the east of the building. A lesser horseshoe bat (<i>Rhinolophus hipposideros</i>) was also recorded foraging in this location. Common and soprano pipistrelles regularly commuted along the vegetation to the southwest of the building and the vegetation forming the property boundary to the southern side of the building.
Bat Activity ¹⁵	High levels of activity of common pipistrelles and moderate levels of activity of soprano pipistrelles were recorded. Low levels of activity of noctules (<i>Nyctalus noctula</i>) and lesser horseshoe bats were also recorded.

¹⁴ Estimated on site using the Beaufort scale.

¹⁵ Activity thresholds have been quantified using personal judgement according to past experience of surveying similar sites.

Acer Ecology

Photos Showing Confirmed Common Pipistrelle Roost /Access Sites

Photo 1: Photo Showing Common Pipistrelle Roost (Blue Circle)



Photo 2: IR Camera Viewpoint – Common Pipistrelle Roost (Blue Circle)



3.1.2. Nesting Bird Survey

No signs of birds having recently nested were found during the survey within or on the exterior of the building during the dusk emergence survey.

4. Evaluation

4.1. Summary of Dusk Emergence Survey

The dusk emergence survey recorded a common pipistrelle day roost within the southern side of the building. A maximum count of one bat was recorded using one roosting location.

4.2. Characterisation of Identified Roosts

The dusk emergence survey confirmed that the following roost is present within the building:

Table 3: Dusk Emergence Survey Results

Bat Species	Maximum Count	Roost Type	Roosting Location/Access Points	Rarity Category ¹⁶ and Estimated Population ¹⁷	Importance of Roost ¹⁸
Common pipistrelle	One	Day roost ¹⁹	Underneath the plywood attached to the window on the southern side.	Abundant and widespread. Estimated population in Wales in 2021: 297,000 (96,600 – 732,000) (JNCC and Bat Conservation Trust, 2021).	Local

4.3. Potential for Winter Use

The building has potential for supporting hibernating bats under gaps in fascias and bargeboards, gaps around window frames and gaps around chipboard used to block up holes within the windows.

4.4. Birds – Interpretation of Nesting Bird Survey

No evidence of past or current nesting by birds was observed during the survey.

¹⁶ Rarity as defined in Table 3.1 of the Bat Mitigation Guidelines (2nd edition) Beta version.

¹⁷ JNCC and Bat Conservation Trust (2021) *National Bat Monitoring Programme Annual Report 2021*

¹⁸ Importance of Roost as defined in Table 3.2. of the Bat Mitigation Guidelines (2nd edition) Beta version.

¹⁹ Day roosts are defined by NE 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.

5. Impact Assessment

5.1. Potential Impacts of Developments on Bats

Short-term Impacts: Disturbance

If the proposed work was undertaken whilst bats were present, it could result in the physical disturbance of bats, direct human interference, increased noise²⁰ and vibration disturbance, and potentially direct injury or killing of bats from being crushed or entombed. If the work is undertaken between April and September, there is greater potential bats to be impacted.

Short-term Impacts: Noise, Dust and Vibration During Construction Phase

Potential indirect impacts on bats during the construction phase include noise, dust and vibration disturbance or obstruction of access points due to the possible installation of scaffolding, particularly if it is combined with netting, sheeting or boarding.

Long-term Impacts: Roost Loss and Modification

In the absence of mitigation, the proposed works would lead to the permanent loss of a common pipistrelle day roost.

Work that may impact bats roosting within the building will include the following:

- Removal of two vents on the roof and replacing it with roof tiles;
- Works on the current roof voids and their associated structure;
- Removal, modification and/or replacement of the current fascia boards and their associated structures and replacement with close-fitting ones.
- Loss of the access points or the roosts due to removal of the roof, fascias, soffits and bargeboards.
- Re-pointing of external and internal walls;
- Replacement of fascias/soffits and bargeboards; and
- Closing off/replacement of window and door openings.

Increased Lighting

It is not known to what extent lighting is proposed at the site. However, any additional lighting has the potential to adversely affect roosting bats. Precautionary measures are outlined in Section 6.

5.2 Potential Impact of Development on Birds

There are anticipated to be no potential direct impacts due to the absence of evidence of nesting birds in the building.

²⁰ Low-pitched noises, audible to humans but not to bats, are unlikely to cause significant disturbance; conversely ultrasound could do so. Sudden, loud noises could potentially disturb bats and cause abandonment of roosts (Pearson, Koford and Pearson, 1952; Humphrey and Kunz, 1976; Kunz, 1982; Fenton, 1997; Ferrara and Leberg, 2005)

5.3. Summary of Impacts - Bats and Birds

The development proposals (without mitigation and compensation) would result in the permanent loss of a common pipistrelle day roost. The survey information suggests that the building is being used by only quite low numbers of bats, therefore, impacts would have a low local significance and negligible significance regionally. No impacts on nesting birds are anticipated.

6. Required Actions

6.1. Licensing Requirements for Bats

An NRW bat development licence is required. An application can only be made when planning consent has been granted and requires the following elements:

- A completed and signed application form;
- A copy of the planning consent/listed building consent (if applicable) and supplementary planning reports (planning officer delegated report/committee meeting minutes);
- A completed and signed Local Authority Planning Consultation form;
- A completed method statement which sets out a timetable of the development and details the provision for new or continued roosting opportunities for bats;
- The bat survey report/s; and
- Confirmation that any relevant associated planning conditions have been discharged by the Local Authority.

6.2. Precautionary Measures

The implementation of the following measures will minimise the potential for disturbing, injuring or killing bats during works:

6.2.1. Installation of Bat Boxes for Bats Displaced During Works

In advance of the works, one Vivara Pro WoodStone Bat Boxes (or suitable alternative) will be installed, as there are no trees on site, the bat box will be bolted on the southern wall to provide compensatory alternative roosting habitats during the construction period for any common pipistrelle bats which may be displaced as a result of the works (see Appendix 3).

The location of the bat boxes is shown on Plan 3a: Mitigation Measures (Bat box location).

6.2.2. Timing of Works

Ideally, works will commence during October to November or March to April to avoid the active bat season of May to September and the core hibernation period of December to February, to minimise disturbance to bats.

6.2.3. Site Induction/Toolbox Talk

Prior to the start of works, a suitably qualified bat ecologist will deliver a 'tool-box talk' to all contractors undertaking works that could affect bats. All site workers will be made aware of the role of the ecologist and briefed on the legal status of bats, the likely places to find them, the working practices that will be undertaken to minimise and avoid harming or disturbing bats (e.g. the procedure required for removing tiles etc.), the action to be taken if bats are encountered during the works and that all activities relating to bats and bat roosts are restricted to the terms and conditions of the licence.

All site workers will be made aware that in the event of bats (or occupied birds' nests) being found, or suspected, when the ecologist is not on site, all works must stop in the affected area until appropriate expert advice sought from the bat ecologist or NRW. A copy of the NRW licence and the Bat Licence Method Statement will remain on site at all times and a summary sheet of guidance will be given to the contractors working on site.

6.2.4. Ecological On-Site Supervision

A licensed bat worker will supervise the 'soft strip' whereby all features with bat roosting potential will be exposed and removed. This will include (but not be limited to) the ridge tiles¹, roof tiles, roofing felt, soffit, fascias and bargeboards etc. The tiles and any associated timbers must be lifted off vertically (and not rolled or sprung), and checked on their underside to ensure that no bats are clinging to the underside. This will minimise the chance of bats being killed/injured.

Any removal work will be undertaken using hand tools, (i.e. picks, crowbars, slate rippers, bow saws etc.). These features will be carefully removed by hand and contractors will check for the possible presence of bats on the undersides of these features before they are lifted off, prior to discarding or storing them. During the soft strip process, any cracks or crevices that have the potential to be used by bats will be inspected by a licensed bat worker using a high-powered torch to ensure they are not in use. Cavities will be carefully prised open using a crowbar.

6.2.5. Bat Discovery Action Plan

If bats are encountered during supervised works, the licensed bat handler will capture the bat/s with thin gloved hands or a hand-held net, conduct a health check and then place it in a drawstring calico cloth bag. Removed bats will be temporarily transferred to a well-ventilated container. The removed bat will then be transferred into a bat box that was fixed at a suitable location before works commenced. The access point of the bat box will be blocked with a cloth or other suitable material until the working day has been completed. This will allow the bat/s to settle in a safe place for the remainder of the day, and to emerge safely in the evening. Any injured bats or bats requiring supplementary feeding will be immediately taken into care.

If individual bats species not covered by the licence are discovered unexpectedly, works to that building/structure must stop immediately. The Named Ecologist will re-assess the structure and determine whether works can continue under this licence, or whether a modification/amendment to the licence is required prior to works recommencing. A written record must be kept of this decision and be made available to Natural Resources Wales or any police officer on request. This incidence must also be reported on the licence return form.

6.3. Mitigation and Compensation Measures

A suitably qualified and experienced bat ecologist will oversee the installation of all aspects of the bat mitigation. A summary of the proposed mitigation is given in the table below:

Table 4: Summary of Proposed Mitigation/Compensation Measures

Bat species	Proposed Mitigation/Compensation Measures
Common pipistrelle	• One Vivara Pro WoodStone bat boxes; and • Two raised ridge tiles on the southern elevation.

Ridge Tile Access Gaps

Access to the ridge will be provided by leaving gaps in the mortar underneath two of the new ridge tiles along the roof, providing external roosting opportunities. The gaps will be 20mm x 100mm (see Appendix 4), gaps may be cut in the lower part of the ridge tiles themselves.

A 'wet ridge system' rather than a 'dry ridge system' will be used to allow gaps to be created in the mortar. See Plan 3b: Mitigation Measures (Ridge Tile Access Points) for location of the ridge tile access gaps.

6.4. Longevity of Report

Bat Surveys for Professional Ecologists (Collins, 2016) states that the survey data should ideally be from the last survey season before a planning or licence application is submitted, although the length that survey data remains valid should be decided on a case-by-case basis and is dependent upon several factors²¹. It is considered that if development works do not begin within eighteen months (CIEEM, 2019) to two years of the date of this report, an update survey may be required in accordance with guidance in BS 42020:2013²² and CIEEM (2019), to determine if conditions and evidence of bat use has changed since described in the current report.

²¹ The factors identified are as follows: Were the original surveys carried out according to good practice guidelines?; Were the original surveys constrained in any way?; Do the results of the original surveys support the original conclusions and are these still relevant?; Has the nature of the site or the surrounding area changed since the original surveys were undertaken; and are additional surveys likely to provide information that is material to a decision, the design of mitigation measures, or specific advice relating to a proposed activity.

²² As set out in Section 6.2.1, Point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

7. References

- Anonymous (2007)** *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*. Final version, February 2007.
- BSI (2013)** *BS 42020:2013 Biodiversity – Code of practice for planning and development*. British Standards Institution, London.
- CIEEM (2019)** Advice Note on the Lifespan of Ecological Reports and Surveys <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>
- CIEEM (2016)** *UK Guidelines for Accessing and Using Biodiversity Data*. Chartered Institute of Ecology and Environmental Management (CIEEM).
- Collins, J (ed) (2016)** *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- Eaton, M, Aebischer, N, Brown, A, Hearn, R Lock, L, Musgrove, A, Stroud, D and Gregory, R (2014)** Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108. December 2015. 708-746. Available online at <http://bit.ly/2h23DqV>.
- Institute of Lighting Professionals (2012)** *Guidance for The Reduction of Obtrusive Light*.
- Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004)** *Bat Workers' Manual (3rd Edition)*. Joint Nature Conservation Committee, Peterborough.
- Mitchell-Jones, A.J. (2004)** *Bat Mitigation Guidelines*. Natural England, Peterborough.

Drawing 1A: Existing and Proposed Front



Existing Front



Proposed Front

Drawing 1B: Existing and Proposed Rear



Existing Rear



Proposed Rear

Drawing 1C: Existing and Proposed West Side



Existing West Side



Proposed West Side

Drawing 1D: Existing and Proposed East Side



Existing East Side

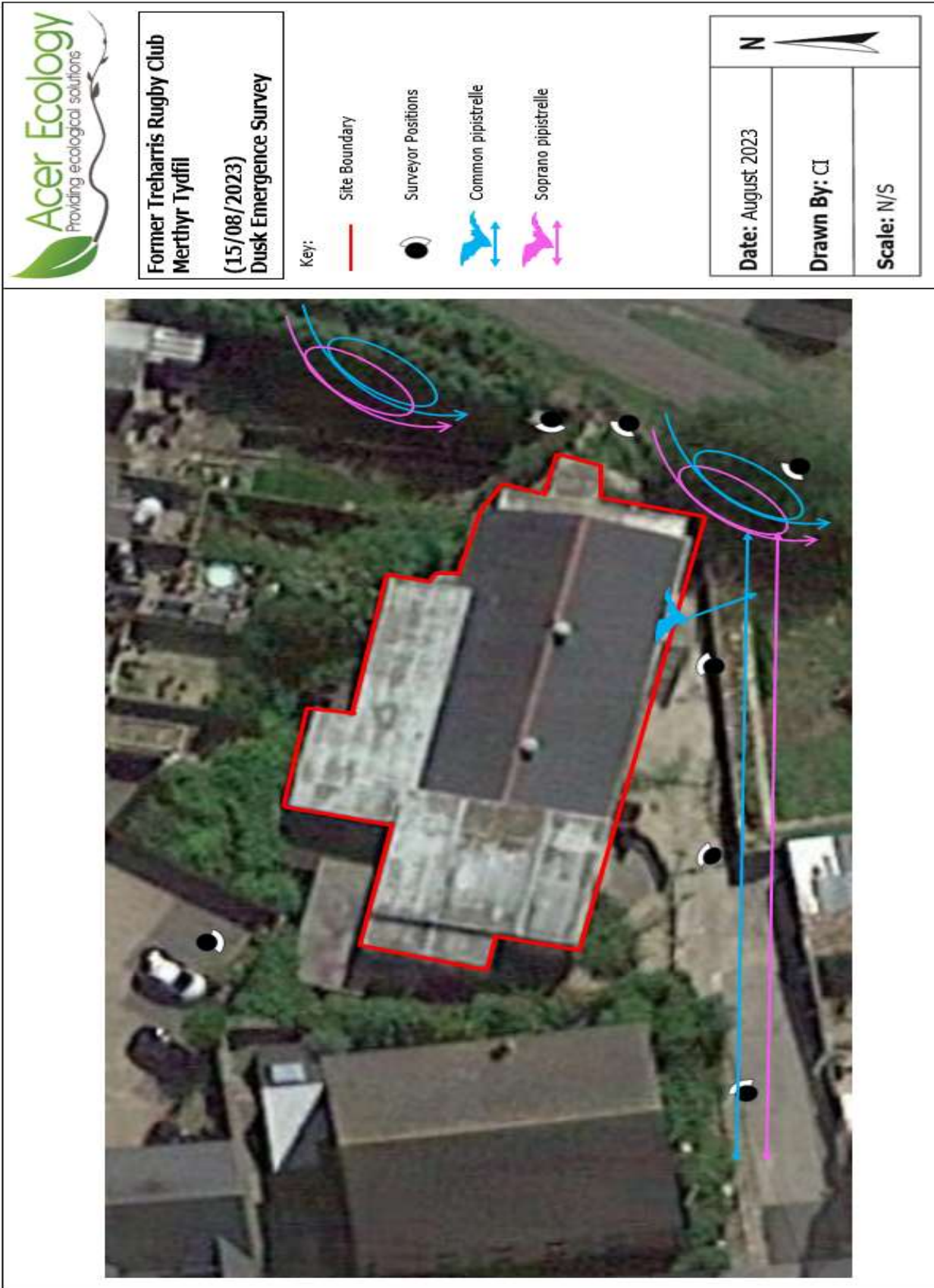


Proposed East Side

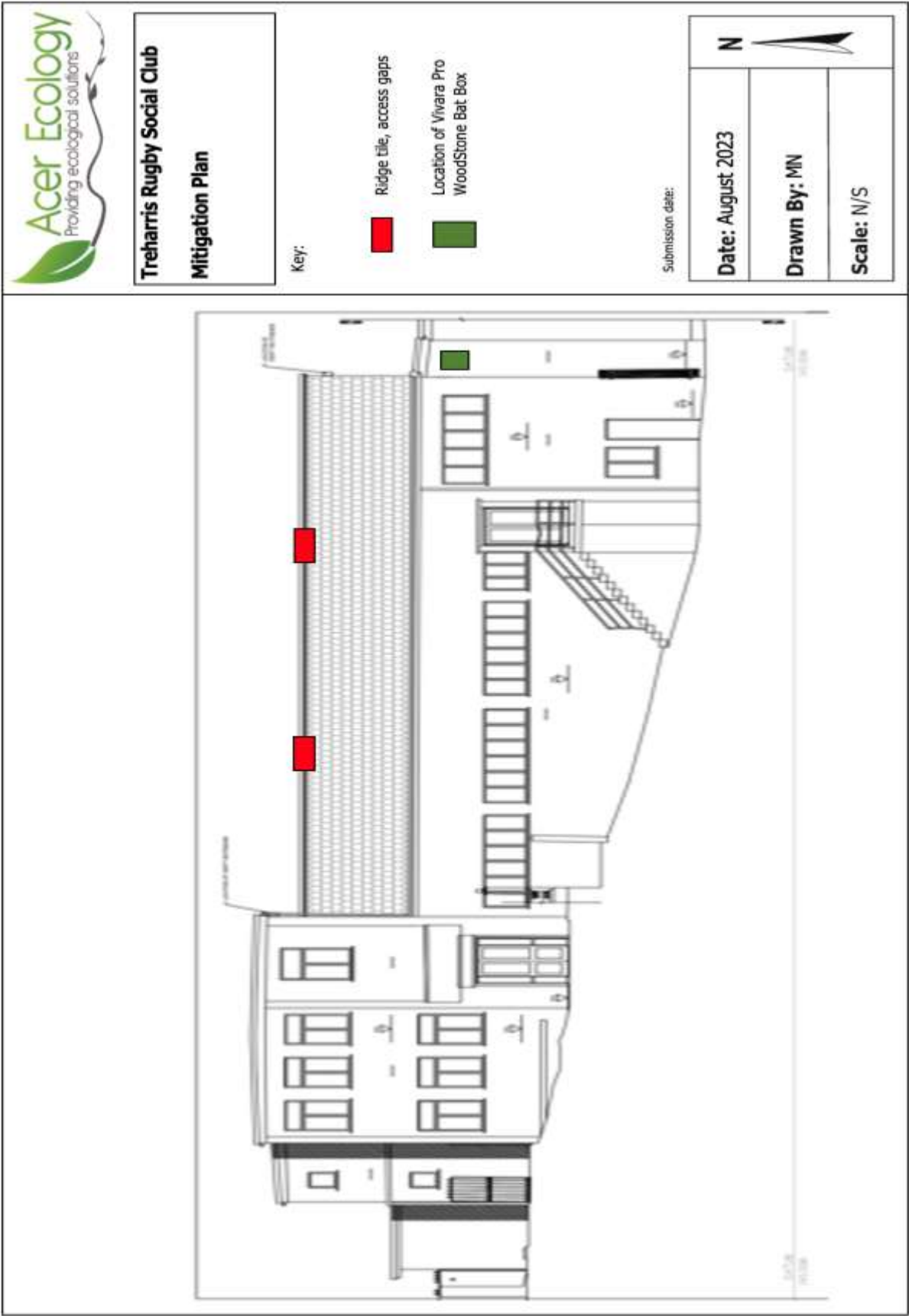
Plan 1: Location Plan



Plan 2: Dusk Emergence Survey Results (15th August 2023)



Plan 3: Mitigation Plan



Appendix 1: Bat Ecology and Legislation Protecting Bats and Their Roosts

Bat Ecology

There are 17 known breeding species of bat found in the UK, with additional species recorded as migrants or vagrants. All of them are small, nocturnal, flying, insectivorous mammals that are under conservation threat and many having undergone massive population declines over the last century. Some species, such as common and soprano pipistrelle are relatively common and widespread in the UK, while others, such as greater horseshoe (*Rhinolophus ferrumequinum*) bats, have an extremely restricted distribution.

Most bats will use a variety of roosts of different types throughout the year. The winter hibernation sites typically have cool, humid conditions with a stable microclimate and low levels of disturbance. Most British bats hibernate in caves or artificial structures that fulfil these requirements such as mines, tunnels and cellars. Bats emerge from hibernation around late March or early April and move into transition or intermediary roosts. Around early May, female bats gather in colonies to form summer or maternity roosts, and it is here where they will give birth between late May and early July. A colony may consist of many individuals (sometimes hundreds of bats) of mixed age and sex. Roosts may be in a variety of habitat types including tree-holes, caves, buildings and other secure crevices or internal spaces with appropriate stable temperatures and humidity. Bats may change roost locations many times during a year and colonies may split up and reform during this period. Males occupy solitary roosts in autumn, to which they attract females for mating.

Legislation

All British bat species and any place used for shelter or protection, or a breeding site or resting place (their roosts) are fully protected under the amended Wildlife and Countryside Act 1981 through inclusion in Schedule 5. The roosts are protected irrespective of whether bats are present at the time. All bats are 'European Protected Species' and fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) ['CHSAEU'] Regulations 2019. These pieces of legislation make it illegal to deliberately or recklessly:

- kill, injure or capture bats;
- disturb bats;
- damage, destroy, or obstruct access to bat roosts (including sites that are currently unoccupied);
- possess or transport a bat or any part of a bat unless acquired legally; or
- sell, barter or exchange bats or parts of bats.

Disturbance is defined as that which is likely to impair bats ability:

- to survive, to breed or reproduce, or to rear or nurture their young;
- to hibernate or migrate; or
- to affect significantly the local distribution or abundance of the species to which they belong.

Habitats Regulations Licensing

If a European Protected Species will be affected by a development, Natural Resources Wales (NRW) can issue licences under the Habitats Regulations to permit otherwise prohibited acts. Licences for certain activities can be granted providing “3 tests” are satisfied, that is:

1. the purposes of “preserving public health or safety, or for reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”;
2. there must be “no satisfactory alternative”; and,
3. the derogation is “not detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”.

Licences are issued by NRW, with NRW assessing Test 3, and the Local Planning Authority assessing tests 1 & 2 (where proposals are not subject to planning, then NRW alone will assess all three tests). Where Planning regulations apply, NRW will only issue a licence after determination of the planning application.

The licence application will require the production of a detailed method statement, which sets out the activities to be carried out under the licence to minimise the risk of bats being harmed during construction works, and to ensure that bats will be conserved during the development of the site. This will need to detail the mitigation proposed (such as the replacement or compensation roost), the timescale and schedule of works, the number, size and locations of bat access points to be provided, the type of materials to be used (roofing material, roof lining, fascias, soffits and bargeboards etc.), lighting proposals, action to be taken in the event bats are found during works and a post-development monitoring programme. The method statement will need to be accompanied by scaled plans and maps detailing the bat mitigation features. A cross-section of the access points and roost space is often required. The method statement must ensure that provision is made for new or continued roosting opportunities after the completion of development works. In some instances, a method statement is requested by the Local Planning Authority or Natural Resources Wales before the planning application is determined.

Environment (Wales) Act 2016

The Environment (Wales) Act 2016²³ dictates that Local authorities have a duty to have regard to the conservation of biodiversity in exercising their functions. The duty affects all public authorities and aims to raise the profile and visibility of biodiversity, to clarify existing commitments relating to biodiversity, and to make it a natural and integral part of policy and decision making. Part 1 Section 7 of the Act provides a list of the ‘*living organisms of principal importance for maintaining and enhancing biodiversity in relation to Wales*’. This includes seven bat species (soprano pipistrelle, barbastelle (*Barbastella barbastellus*), Bechstein’s (*Myotis bechsteini*), noctule, brown long-eared, lesser horseshoe and greater horseshoe bats).

²³ <http://www.legislation.gov.uk/anaw/2016/3/contents>

Appendix 2: Surveyor Experience

15/08/2023

Paul Hudson MCIEEM - Paul graduated with a degree in Environmental Biology from Reading University and a Postgraduate Diploma in Conservation Management from the University of East Anglia. He has worked within ecological consultancy since 2000 and has been involved in bat work since 2001. He holds licences to disturb bats in both Wales (S088190-7 valid until June 2022) and England (2018-36707-CLS-CLS valid until 2028). Further details of his qualifications and experience can be found at <https://www.linkedin.com/in/batsurvey>.

Jonathan Dixon – Jonathan graduated with a degree in Renewable Energy and the Built Environment from the University of Wales Trinity Saint David. He is in his third season of bat survey work. Further details of his qualifications and experience can be found at: <https://www.linkedin.com/in/jonathan-dixon-/>.

Frank Peake - Frank graduated from Aberystwyth University with a degree in Zoology. He is in his second season of bat survey work. Further details of his qualifications and experience can be found at <https://www.linkedin.com/in/frank-peake-93aa491b3/>

Margareth Necesito - Margareth graduated with a degree in International Wildlife Biology from University of South Wales and a degree in Global Ecology and Conservation from Cardiff University. Margareth is currently working as an Assistant Ecologist and receiving training from Acer Ecology. Further details of her qualifications and experience can be found at <https://www.linkedin.com/in/margareth-necesito>.

Evan Smith - Evan graduated with a bachelors degree in Conservation Biology and Ecology from the University of Exeter. He is in his first season of bat survey work with Acer Ecology. Further details of his qualifications and experience can be found at: <https://www.linkedin.com/in/evan-smith-9b73a719a>

Joshua James – Josh recently graduated from the University of South Wales with a degree in Geography. With a keen interest in ecology. This is his first season of bat surveying.

James O'Brien – James graduated in Environmental Geography (BSc) from Cardiff University and has undertaken basic bat survey training. He is in his first bat survey season. Further details of his experience can be requested.

Appendix 3: Vivara WoodStone Bat Box



The Vivara Pro WoodStone Bat Box is a hard-wearing bat box. It is made from WoodStone, a mixture of wood fibres from fully certified FSC wood sources and concrete, and it is designed to last for years.

It is breathable so there will be no problems with condensation and WoodStone maintains a consistent temperature inside, providing excellent insulation for roosting bats. WoodStone also provides a rough surface which the bats can easily cling to and move around the box. The Vivara Pro WoodStone Bat Box is black with a grey front panel.

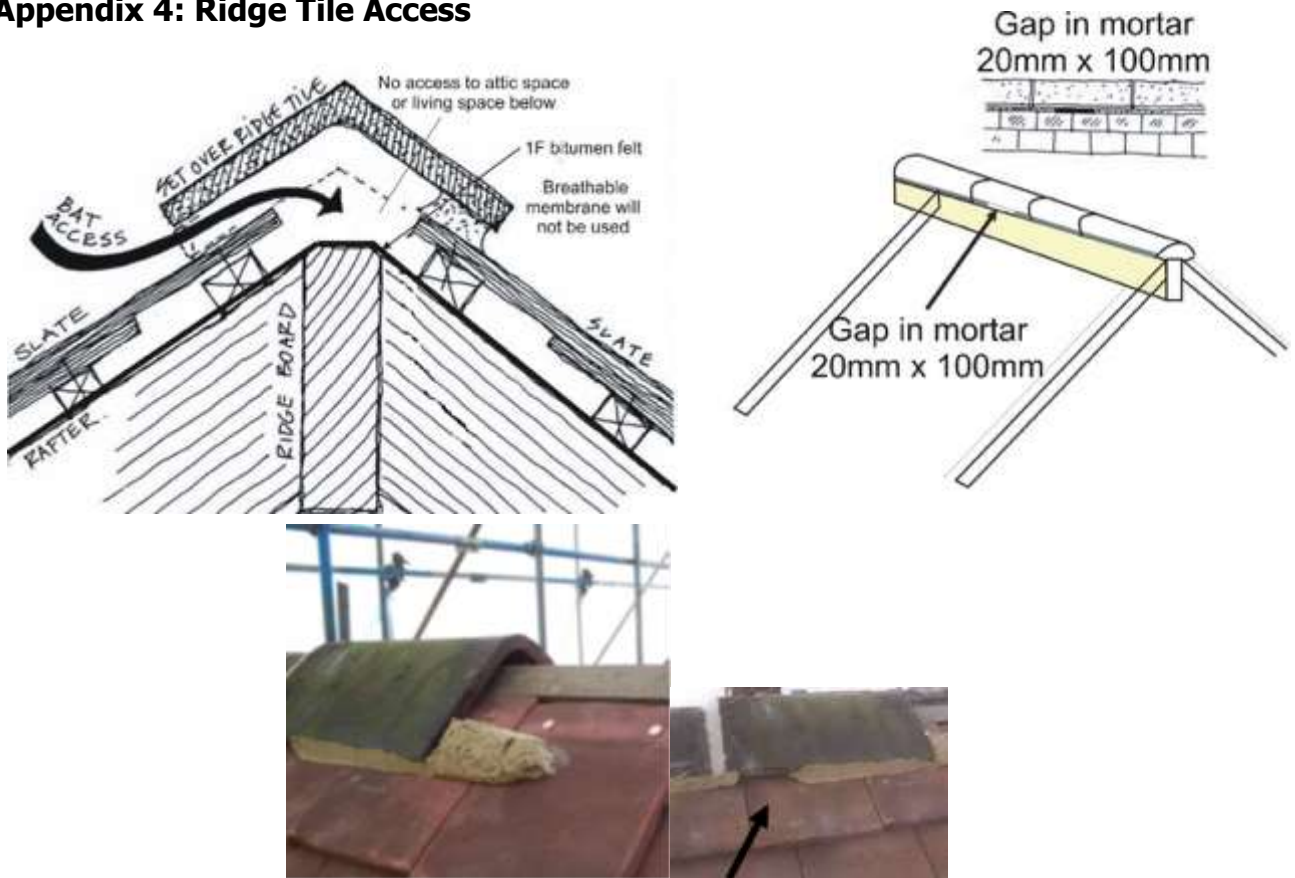
Siting - The box can be attached to either a wall or a tree and should be sited at a height of at least 3 m from the ground. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups.

Dimensions - (H) 250 x (W) 190 x (D) 165 mm, weight: 4.5 kg.

Bat Box Availability

The bat box is available from NHBS (www.nhbs.com) where it retails at approximately £20.99 including VAT plus postage costs.

Appendix 4: Ridge Tile Access



A gap of 20 x 100mm will be left in the mortar to allow bats to roost inside the cavity under the ridge tiles

Acer Ecology
