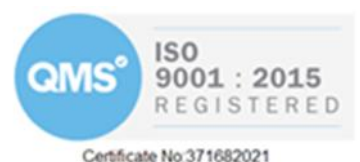


THE BARN, TRENACHE FARM, NEATH PRELIMINARY ROOST ASSESSMENT FOR BATS

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THE BARN, TRENACHE FARM, NEATH
PRELIMINARY ROOST ASSESSMENT FOR BATS

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1.0 EXECUTIVE SUMMARY

This report is a brief summary of findings and recommendations of the Preliminary Roost Assessment for bats undertaken on behalf of Mr Jonathan Morgan (hereafter referred to as the client) at The Barn, Trenache Farm, Neath, SA10 8AB. The report should be read in its entirety for full details of the survey.

- ExCAL Limited was commissioned by the client to undertake a Preliminary Roost Assessment for bats at The Barn, Trenache Farm, Neath, SA10 8AB. The survey comprised of an internal and external inspection of the building, to assess its potential to support roosting bats and identify whether any evidence of bats within the property was present;
- The client intends to convert and renovate the barn for further residential living space, potentially amounting to a high level of disturbance and destruction of bat roosts (if present) within the structure;
- Local Record Searches were undertaken using Department for Environment, Food & Rural Affairs MAGIC geographic mapping software to determine the importance of the site from a biodiversity perspective in the context of its surroundings;
- The data search returned no records of statutory or non-statutory designated sites existing within 1km of the survey area;
- The preliminary roost assessment was undertaken on Thursday 4th November 2021. No evidence of bats was identified during the survey. Furthermore, no potential access/egress points for bats were recorded to the building interior, and external features such as soffits, fascia boards, ridge tiles and general roof condition were found to be in excellent condition, with no potential suitable accesses or features for either crevice-dwelling or void-dwelling bats being recorded. Although potential roosting features were recorded within the building interior, no potential gaps or openings allowing potential access/egress to the building interior for bats were recorded. These factors, along with high levels of light and disturbance within the building, led to the building being assessed as possessing **low** potential for roosting bats;
- Due to the building being classified as having low potential/suitability for bats, **no further survey effort is recommended with respect to bats**;
- Recommendations and best practice techniques are outlined in Section 5.2.

2.0 INTRODUCTION

2.1 Brief

ExCAL Limited was commissioned by Mr Jonathan Morgan (hereafter referred to as the client) to undertake a Preliminary Roost Assessment (PRA) for bats at The Barn, Trenache Farm, Neath, SA10 8AB, which is set to be converted and renovated from its current use as a wood workshop / storage to further residential living space.

2.2 Objectives

The building was subjected to an internal and external inspection to assess both its potential to support roosting bats on and within the building, and to determine whether any bats have historically or are currently roosting within the building.

2.3 Site Context

The survey building is accessible via a private road of approximate 0.75km length, which joins the A474 servicing Ammanford to Briton Ferry, and the OS grid reference for the approximate centre of the survey site is SN 74803 01204.

The survey building consists of a stone, two-storey former barn of approximate 10m x 7m size, referenced as The Barn, Trenache Farm. The exterior stone and mortar of the building was found to be in excellent condition. The building possesses a slate gable roof, the condition of which was excellent, with no damage, lifting or slipping of any tiles or masonry ridge caps being recorded during the survey. The roof possesses timber bargeboards, fascia boards and soffits, whilst UPVC downpipes and guttering with a brown painted finish were recorded. All features of the roof were in excellent condition, with no areas of damage or degradation providing potential access or opportunity for crevice-dwelling bats being recorded.

A number of slit windows can be found across all floors. These are open from the exterior of the property in nature, however have been well-sealed from the building interior, with no potential access/egress points being noted. The building is surrounded by a small area of hardstanding on the eastern and southern sides which is used as access and parking for the buildings. The northern and western sides of the building meanwhile are surrounded by amenity grassland in the form of a well maintained garden lawn. An area of broadleaved woodland is located beyond the grassland and hardstanding, and extends from the property to the north, east and west, providing good foraging and commuting value and opportunity for bats.

The property is surrounded by a mixture of agricultural fields and areas of semi-natural broadleaved woodland which provide good foraging and commuting opportunity and potential for bats in the vicinity.

Commercial industries and residential areas in the vicinity include The Dyffryn Arms public house, located ~0.72km south-west of the survey area, whilst a gas distribution centre is located approximately 1.89km to the north-east. A Traditional Wrought Ironworks and Gilfach Quarry, operated by Cemex meanwhile are located 1.15km and 1.36km to the south-east respectively. The communities of Bryncoch, Rhos and Cilfrew are located approximately 1.2km, 2.1km and 2.4km south-west, north-west and south-east of the site respectively.

2.4 Proposed Development

The proposed development consists of the conversion and renovation of the barn interior from its current usage as a wood workshop and storage area to further residential living space. This will comprise the renovation of the underside of the existing roof space as part of the development works which could lead to the potential disturbance and destruction of bat roosts if these are present within the building.

2.5 Legislation

All UK bat species and their roosts are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). All bats are also included in Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) (Habitats Regulations), which defines "European protected species of animals".

The combined legislation makes it illegal to: -

- Intentionally kill, injure or capture bats;
- Deliberately disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts;
- Possess or transport a bat or any part of a bat, unless acquired legally; and
- Sell, barter or exchange bats, or parts of bats.

As a signatory to the Bonn Convention (Agreement of Bats in Europe) the UK is also required to protect their habitats, requiring the identification and protection from damage or disturbance of important feeding areas.

2.6 Limitations

This report has been prepared for the benefit of the client and its contents should not be relied upon by others without the written authority of ExCAL Ltd. Unauthorised third party use of this report is done so at the parties' own risk and ExCAL Ltd owe these parties no duty of care or skill.

3.0 SITE LOCATION

3.1 Site Location

The approximate centre of the site is located at Grid Reference SN 74803 01204 and the site address is listed below: -

The Barn
Trenache Farm
Bryncoch
Neath
SA10 8AB

Figure 1 – Survey Area



4.0 PRELIMINARY ECOLOGICAL APPRAISAL SURVEY

This report has been designed to comply with the British Standard Biodiversity – Code of practice for planning and development – BS 42020:2013 (BSI, 2013); the Chartered Institute of Ecology and Environmental Management Guidelines for Ecological Report Writing (CIEEM, 2016; CIEEM, 2013) and Bat Conservation Trust – Bat Survey Guidelines (Collins, J. 2016).

The property was subjected to an internal and external inspection to assess its potential to support roosting bats.

4.1 Desk Study

Local Record Searches were undertaken using Department for Environment, Food & Rural Affairs MAGIC geographic mapping software to determine the importance of the site from a biodiversity perspective in the context of its surroundings, and to determine the sites proximity to statutory designated sites within a 1km radius of the survey area.

4.2 Field Survey

The building was surveyed both externally and internally for evidence of (and potential for) bats. The survey was undertaken by Stephen Owen a licenced surveyor (NRW Licence no: **S086958/1**) on 04th November 2021.

The external inspections were undertaken during daylight hours from ground level. All of the roof underside areas were accessible from the building interior and surveyed extensively for evidence and potential access/egress points for bats.

4.2.1 Preliminary Roost Assessment for Bats

During the preliminary roost assessment, the following evidence was sought: -

- The presence of potential access and egress routes for bats into and out of likely roosting sites and evidence of the use of such potential access points by bats such as scattered droppings, urine staining or scratching around entrances;
- Corpses or skeletons;
- Feeding remains;
- Bat droppings;
- Likely commuting routes and nearby habitat assessment for potential use by bats;
- Any other signs of use by bats including the presence of bats themselves.

In addition the overall site and its wider surroundings were evaluated for the potential to support commuting and/or foraging bat species.

The internal inspections were undertaken during daylight hours and were aided by the use of a high-powered torch. All areas accessible to bats were searched for evidence of bat droppings and feeding remains. Internal signs of roost access and egress points were also identified, for example, by light shining into internal building spaces from the exterior of the building, or damage to any internal roof linings.

Bats regularly utilise specific areas within buildings which were searched as a priority for any bat fields signs. Examples of these are outlined below: -

- Dividing walls;
- Underneath ridge beams;
- Beneath hip joints and junctions;
- Timber/wall joints;
- Voids between block work;
- Staining above/around gaps;
- Droppings around gaps.

Roosting bats and signs of their presence are not always visible, so any potential bat roosting locations were also noted during the survey.

4.3 Preliminary Ecological Appraisal Survey Limitations

External and internal inspections for bats can be undertaken at any time of year. The survey was conducted using the recommended equipment and was led by a licenced bat worker. Due to the height of the building and fragility of the roof, any gaps within the roof could not be physically accessed; however they were identified and investigated from ground level where applicable using a high powered torch.

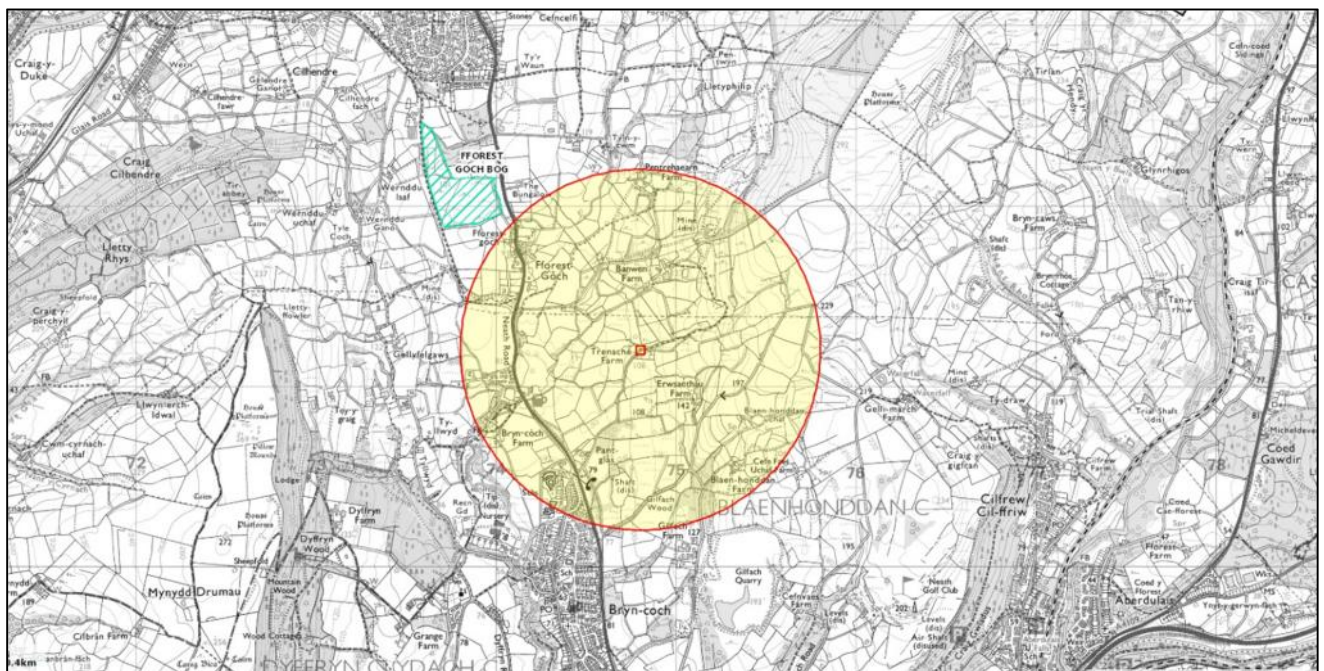
The above survey limitations are considered to have not affected the robustness of the survey results for the purpose of this study. It is considered therefore that there were no limitations to the survey works.

4.4 Desktop Study

4.4.1 Statutory Designated Sites

The desk study returned no records of statutory designated sites within 1km of the survey area. The 1km buffer area along with the site location is visible in Figure 2 below: -

Figure 2 – 1km Buffer Area Search Record



The nearest statutory designated sites to the survey area are outlined below: -

- Fforest Goch Bog (SSSI) – 1.08km NW;
- Cilybebyll (SSSI) 3.81km N;
- Glais Moraine (SSSI) – 4.72km SW.

4.4.2 Ancient Woodland

A number of records of ancient woodland within 1km of the survey area were returned during the desktop study. The direction and distance with approximate areas of these are visible below: -

- Ancient Semi-natural Woodland (0.30 ha) – 0.03km (N) ;
- Ancient Semi-natural Woodland (0.76 ha) – 0.37km (W);
- Ancient Semi-natural Woodland (1.03 ha) – 0.39km (S);
- Ancient Semi-natural Woodland (0.89 ha) – 0.62km (N);
- Ancient Semi-natural Woodland (0.97 ha) – 0.63km (S);
- Ancient Semi-natural Woodland (0.31 ha) – 0.71km (NW);
- Ancient Semi-natural Woodland (0.30 ha) – 0.72km (S);
- Restored Ancient Woodland Site (3.09 ha) – 0.82km (SE);

- Ancient Semi-natural Woodland (0.36 ha) – 0.85km (NW);
- Plantation on Ancient Woodland Site (1.18 ha) – 0.88km (SE);
- Ancient Semi-natural Woodland (1.30 ha) – 0.91km (S);
- Ancient Semi-natural Woodland (0.56 ha) – 0.92km (W);
- Ancient Semi-natural Woodland (0.67 ha) – 0.97km (SW).

4.5 Preliminary Roost Assessment for Bats

4.5.1 Building Exterior

The survey building consists of a single two-storey stone former barn building, approximately 10m in length and 7m in width and of rectangular shape.

Images of the exterior of the survey building are visible in Figures 3 - 8 below: -

Figure 3 – Survey Building (W) Aspect

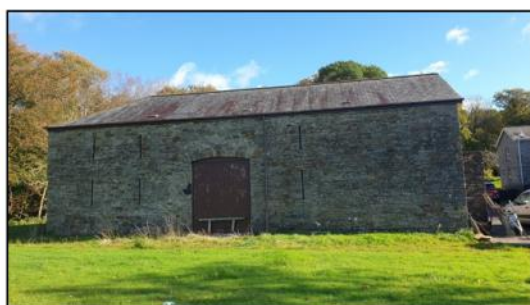


Figure 4 – Survey Building (E) Aspect



Figure 5 – Survey Building (NW) Aspect



Figure 6 – Survey Building (N) Aspect



Figure 7 – Survey Building (S) Aspect



Figure 8 – Survey Building (W) Aspect



The building has been constructed with stone which has been bound together with mortar. The masonry was found to be in excellent condition, with no areas identified which allow potential access or egress to the building interior for bats. Similarly, no suitable crevices, gaps or damaged areas of the masonry were identified which could be suitable for crevice-dwelling bats on the exterior of the building.

The building possesses a slate gable roof, the condition of which was excellent, with no damage, lifting or slipping of any tiles or masonry ridge caps being recorded during the survey. The roof possesses timber bargeboards, fascia boards and soffits, whilst the guttering and downpipes were identified to be comprised from

UPVC which had been finished with a brown paint. All features of the roof were in excellent condition, with no significant damage to the soffits, fascia boards or bargeboards being recorded, and no gaps which may be suitable for crevice-dwelling bats behind fascia boards being identified. Lead flashing on the roof was found to be in excellent condition, with no degradation or lifting being recorded.

A number of slit windows can be found across all floors. These are open in nature from the building exterior, but have been well-sealed from the building interior using plastic sheeting which has been cut to size for each window. These areas were inspected thoroughly from the building exterior for potential access points or features which may be suitable for crevice-dwelling bats. The slit windows were found to be well-sealed with no potential access/egress points to the building interior for bats being noted, and no features such as damaged masonry or gaps being recorded which may be suitable for crevice-dwelling bats.

A small area of hardstanding can be found on the eastern and southern sides of the building which is used as access and parking for the properties at Trenache Farm. The northern and western sides of the building meanwhile are surrounded by amenity grassland in the form of a well maintained garden lawn. An area of broadleaved woodland is located beyond the grassland and hardstanding, and extends from the property to the north, east and west, providing good foraging and commuting value and opportunity for bats.

4.5.2 *Building Interior*

General Interior

The interior of the building consists of a single room with exposed stone and mortar walls up to roof level, where the underside of the timber framework of the roof and associated felt over which the external slate tiles are overlaid are visible.

The barn is currently being used as a wood workshop, whereby frequent daily use of industrial equipment including a Dewalt Power Shop Radial Arm Saw leads to significant levels of disturbance during the day within the building interior. The barn is also used to store materials and equipment, with usage being frequent. The interior of the building is well lit by artificial strip lighting, located on the underside of the timber ceiling joists and ties which run laterally along the building. The frequent use and disturbance, along with high levels of light significantly reduces the building's potential to support day roosts.

A number of slit windows are present on the northern, eastern and western walls of the barn, with a total of 4, 6 and 1 slit windows being located on the northern, western and eastern sides of the building respectively. These slit windows have been blocked from the interior of the barn with plastic signage, which has been cut to size for each window in order to protect the equipment and materials within the building interior from external weather. The windows were found to be well-sealed, restricting access to the barn interior, whilst the plastic sheeting used to block the windows was semi-translucent in nature, allowing some natural light from the building exterior to enter the barn.

The western and eastern sides of the building were each found to possess a wooden double barn door, with concrete lintel. The timber and associated stonework were found to be well-sealed and in excellent condition, preventing access to the building interior.

The surveyed room of the barn does not extend along the whole length of the building. A second internal room is located toward the southern end of the building and is accessible from a well-sealed double wooden door on the eastern side of the building. This room can be further accessed from an external stairway and single wooden door at first-floor level, as visible in Figure 7.

Internally, this room is separated by a stone wall which rises to roof level. This wall was found to be well-sealed, preventing access between the two separate rooms from the interior of the building. The separation of these internal rooms is not visible from the exterior of the building.

Images of the building interior, including loft spaces are visible in Figures 9 – 18 overleaf: –

Figure 9 – Interior Looking (S)



Figure 10 – Interior Looking (N)



Figure 11 – Interior Looking (SW)



Figure 12 – Well-sealed Window Detail



Figure 13 – Underside of Roof Looking (N)



Figure 14 – Underside of Roof Looking (S)



Figure 15 – Slates in Excellent Condition



Figure 16 – Underside of Roof Detail



Figure 17 – Well-sealed Windows (NW)



Figure 18 – External view of Sealed Windows (NW)



A number of timber purlins and rafters present within the exposed underside of the roof were identified to be suitable for free-hanging bats, whilst there is also adequate space within the room which would be suitable for void-dwelling bats.

The roof felt on the underside of the roof was found to be in generally excellent condition, although a few small tears were recorded which may allow access to a void between the external roof slates and the roof felt from

the building interior. It should be noted that the external roof slates were observed to be in excellent condition, with no areas of damage, lifting or slipping being recorded during the survey.

Due to the lack of any observable potential access/egress points from the exterior of the building to the building interior, and due to the separate components of the roof being in excellent condition, these factors in conjunction mean that the property and loft are extremely well sealed from the interior and exterior and as a result, it is highly unlikely that bats are able to enter the void between the roof felt and the roof sheets to utilise this space for roosting purposes.

Small areas of damage / missing masonry were recorded within the walls of the interior of the building. These gaps and crevices were identified to be superficial in nature, with no direct access/egress point being recorded to the building exterior or the adjacent southern room of the barn, which was not surveyed. These damaged areas and holes within the masonry were inspected thoroughly for evidence of usage, either historical or current, by bats, with no evidence being found. Similarly, gaps above the extent of the stone walls of the building interior were surveyed for crevice-dwelling bats, with no evidence of usage being found.

The building was surveyed extensively for evidence of bats in the form of feeding remains, smudging, droppings, live bats etc., with no current or historical evidence of bats being found. Furthermore, due to the features identified within the loft and given the potential suitability of the loft as a roost for void-dwelling bats, the loft was surveyed extensively for potential suitable access/egress points for bats. No potential access/egress points allowing access to the building interior for bats were identified during the survey, significantly reducing the potential and suitability of the building for roosting bats.

4.5.3 *Signs of Bats*

No signs of bats in the form of feeding remains, droppings, smudging, staining or other evidence of bat use were observed in the building throughout the survey.

Furthermore, external features including soffits, fascia boards, barge boards, roof tiles, ridge tiles and stonework/masonry were all found to be in excellent condition, with no significant cracks, voids, crevices or damage being recorded, significantly reducing the potential of the building for bats.

Any gaps in the masonry throughout the survey area were thoroughly inspected for evidence of current and historical usage of bats, with none being found. These areas were also inspected for the potential to allow access/egress to the building / loft interior for bats, however they were found to be well-sealed, with no potential access points to the building interior being identified via these avenues.

4.5.4 *Potential Access for Bats*

No potential access or egress points to the building interior were recorded during the survey. Furthermore, external features including masonry and roof slates were found to be in excellent condition, with no significant external damage being recorded allowing access/egress to the building.

4.5.5 *Potential Features for Bats*

Potential roosting areas within the building are primarily found within the exposed underside of the roof associated with the barn.

A number of roosting features were noted, including; horizontal rafters, purlins and ridge beams used to support the roof – suitable for free-hanging and void-dwelling bats, small gaps where beams adjoin the masonry of the building which may be suitable for crevice-dwelling bats, connections between ceiling joists, rafters and areas below the rafters, and small holes and gaps above the extent of the masonry of the walls of the building interior. All cracks and gaps were inspected thoroughly for any evidence of bat use. No evidence was recorded in or around these areas, and similarly no evidence of bat use was recorded throughout the entirety of the building.

The masonry, soffits, fascia boards, barge boards, slate roof, ridge tiles and slit window and wooden doorframes were all found to be in excellent condition, given the age of the building, with no significant areas of damage being recorded and no gaps allowing potential access into these areas for crevice-dwelling bats being noted.

Small areas of damage within the masonry were recorded however, particularly within the interior of the barn, whereby some damage to the masonry was recorded, along with gaps above the extent of the stone walls and

where these walls intersect. These damaged areas and holes were inspected thoroughly for evidence of usage, either historical or current, by bats, with no evidence being found. Furthermore, these holes and gaps were found to be well-sealed, with no access or egress points to the building interior being recorded.

The remaining general masonry of the building was found to be in excellent condition.

The internal inspections identified the building is excellently sealed, with no gaps to the building exterior being recorded, or external light found to be leaching to the interior of the building via potential damaged areas.

No evidence of bats in the form of droppings, markings, feeding remains or other indications was identified within the building. The building was relatively warm owing to the residential property being located adjacent to the north-eastern side of the barn. High levels of human disturbance in the form of light, noise and vibration also occur within the barn throughout the year owing to the barn's usage as a wood workshop and storage area. As a result, the barn was assessed as being unsuitable for hibernating bats.

Although potentially suitable roosting features were present within the building, no access or egress points for bats were recorded allowing entry to the building interior.

Suitable habitat for bats was identified around the building however, with areas of semi-natural broadleaved woodland and agricultural fields being identified particularly to the north and east of the property. These features were assessed as being of moderate value to bats, due to providing suitable foraging and commuting opportunity, whilst also providing additional potential suitable roosting habitat for bats which utilise trees.

4.5.6 *Surrounding Habitat*

The immediate vicinity of the building comprises an area of hardstanding to the east and south which is used for access and car parking purposes. A small area of amenity grassland is located to the north and west of the barn, which was found to be well maintained and frequently mowed.

A number of areas of woodland are located in the vicinity of the property, with 13 distinct areas of ancient woodland being recorded within 1km of the survey building. The woodland and open agricultural fields provide good foraging and commuting opportunity for bats between the study area and areas of more suitable foraging potential further away from the site. The overall ecological value of the site and its surroundings for bats was classified as moderate, due to these potential foraging, commuting and roosting areas within the woodland.

4.5.7 *Overall Potential of Survey Building to Support Roosting Bats*

Although a number of potential suitable roosting locations for bats were recorded during the survey (particularly within features associated with the underside of the roof of the barn), due to the absence of access/egress points being recorded during the survey whereby bats could freely enter and leave both the main building / underside of the roof, along with the lack of evidence of bats being recorded during the preliminary roost assessment, the building was classified as possessing **low** potential to support roosting bats.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 Discussion

5.1.1 Preliminary

Roost Assessment Summary

The building was surveyed externally and internally for bats on 4th November 2021 and the proposed development consists of the conversion and renovation of the building from a wood workshop and storage area to residential living space.

Table 4.1 within the BCT Good Practice Guidelines state the following guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement: -

- **Negligible:** - Negligible habitat features on site likely to be used by roosting bats;
- **Low:** - A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger number of bats; (i.e. unlikely to be suitable for maternity or hibernation);
- **Moderate:** - A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat, but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed);
- **High:** - A structure or tree with one or more potential roost sites that are obviously suitable for use by larger number of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Furthermore, BCT Good Practice Guidelines state that further surveys (particularly presence/absence surveys) are required if: -

- The preliminary roost assessment has not ruled out the reasonable likelihood of a roost being present (because there are locations with potential for bats to roost undetected in concealed cracks, crevices or voids), but no definitive evidence of the presence of bat roosts has been recorded;
- Potential roost features inspection survey has identified moderate and high suitability potential roost features, but no definitive evidence of the presence of bats has been established;
- A comprehensive inspection survey is not possible due to restricted access, but features are present with a reasonable likelihood of supporting bats;
- There is a risk that evidence of bat use may have been removed by weather or human activities.

The aims of these surveys would be to determine the presence or absence of bats at the time of the survey and the need for further surveys and/or mitigation.

If sufficient areas of a structure have been inspected and no evidence found, then further surveys may not be appropriate. However, if there is a reasonable likelihood that bat roosts could be present and particularly if there are areas inaccessible for survey, then further surveys may be required proportionate to the circumstances encountered.

5.1.2 Evaluation of Bat Roost Potential within The Barn, Trenache Farm

The Barn at Trenache Farm was surveyed in detail to assess its potential to support roosting bats. Although some roosting features were present within the building, particularly within the underside of the roof where the presence of horizontal timber purlins, rafters, joists and ties provide roosting opportunity for free-hanging bats,

the lack of any suitable access / egress points into the building interior, along with the absence of any evidence of bats within the building such as from droppings, feeding remains, smudging, staining etc. reduces the likelihood that bats are utilising the property for roosting purposes.

It should be noted that a number of features were identified which significantly reduce the likelihood of bats utilising the building; particularly with respect to the interior of the building. The building does possess some potential for bats, particularly within the underside of the roof and within gaps in the masonry in the building interior; however the building was assessed to possess low potential due to the high levels of natural and artificial light throughout the building, along with high levels of disturbance in the form of noise, vibration and human activity which the building is subject to on a day-to-day basis.

The Preliminary Roost Assessment survey concluded that the building possesses **low potential to support roosting bats** due to: -

- Large levels of artificial and natural light within the building interior from strip lighting suspended on the underside of timber ceiling joists and ties, which is used during workshop activities, and some natural light entering the building from the exterior via the translucent plastic panels which have been used to block the slit windows from the interior of the building;
- High level of noise and disturbance within the building due to building's usage as a wood workshop and storage area. Heavy industrial tools including woodworking saws lead to high levels of noise and vibration disturbance within the building, reducing the building's potential to support roosting bats;
- No evidence of bats identified during an extensive internal survey of the property, included within any gaps in masonry, where timber framework meets masonry and behind any gaps or crevices;
- Stonework, masonry and mortar was in excellent condition, with no significant suitable cracks and crevices being recorded for bats which were not inspected;
- Roof slates and ridge tiles were found to be in excellent condition, with no lifting, slipping or areas of damage being recorded which could allow access to the building interior;
- No access/egress points to the building interior being recorded, with well-sealed slit windows and doors and timber fascia boards, soffits and bargeboards found to be in excellent condition during the survey.

Due to the building being classified as having low potential/suitability for bats, **no further survey effort is recommended with respect to bats.**

5.2 Recommendations

The building was assessed as having **low** potential for bats therefore no further survey effort is recommended. It is concluded therefore that the proposed works will not have a detrimental effect on bats or potential roosts within the building surveyed.

In order to ensure that general disturbance is kept to a minimum and contractors are aware of the procedure to follow in the event a bat is unexpectedly found during the works, the following measures are recommended: -

- If any demolition works are scheduled to be undertaken between April and September, they must be preceded by a breeding bird survey to rule out the presence of nesting birds which may be utilising the building. If no nesting birds are present works can begin. If nesting birds are identified however, works will be delayed to allow the birds to complete their nesting cycle undisturbed or a license obtained from Natural Resources Wales to allow the works to continue;
- A toolbox talk is given to the contractors prior to the works to explain that, although it is not anticipated that any bats will be encountered during the works due to the absence of evidence of bat roosting, if bats will be encountered during the demolition then works will cease and a suitably qualified ecologist / Natural Resources Wales will be contacted for further advice;
- Due to the highly mobile nature of bats, it is recommended that if the proposed works are not undertaken within 1 year of this assessment, the building is assessed again to ensure that the character, potential and suitability of the building for bats has not changed within this time.

6.0 REFERENCES

CIEEM (2015) *Guidelines on Ecological Report Writing*. Chartered Institute of Ecology and Environmental Management, Winchester.

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

Mitchell-Jones, A.J., & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, JNCC.

APPENDIX A

Photographs

Appendix A - Photographs

Photo 1 – Main Bld. (W) Elevation



Photo 2 – (W) Door from Barn Interior



Photo 3 – Main Barn, looking at (S) Partition Wall



Photo 4 – Roof Detail with Roosting Features

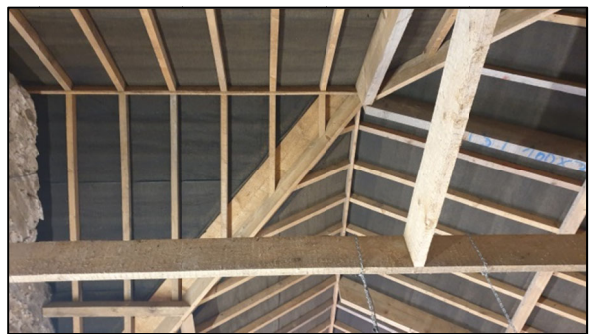


Photo 5 – Underside of Roof Detail, Looking (NW)



Photo 6 – Underside of Roof Detail, Looking (S)



Photo 7 – (NW) Corner of Room when Strip Lighting Turned on. Plastic Sheeting used to Block the Slit Windows is Visible, Tightly Sealing the Windows



Photo 8 – (NW) Corner of Room when Strip Lighting is Turned off. Some Natural Light can be Seen Entering via the Translucent Plastic Sheets



Appendix A - Photographs

Photo 9 – Downpipe and Fascia Detail on (E) Elevation of the barn



Photo 10 – Slit Window Detail with Internal Plastic Sheeting used to Block Windows Visible



Photo 11 – Closer view of Slit Window Internally Blocked by Plastic Sheeting



Photo 12 – Small gaps between stones of Semi Circular Arch above (E) Barn Door Visible



Photo 13 – (W) Aspect of the Building with Typical Example of Excellent Condition of Masonry



Photo 14 – (W) Aspect of the Building Showing Excellent Condition of Roof Slates and Masonry



Photo 15 – (S) Section of Barn with Dedicated Window and Double Door – Not Surveyed

