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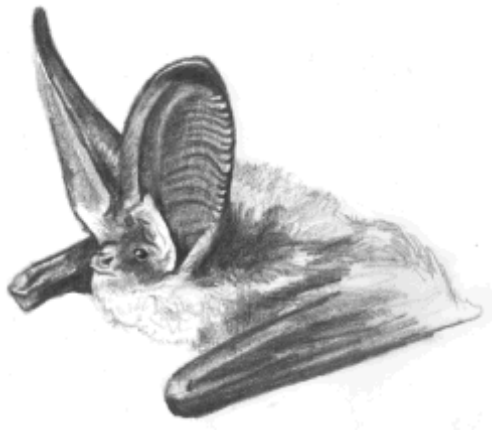
EWS

Ecology & Wildlife Services

Specialists in Ecological Surveys, Assessments and Wildlife Management

Bat Survey

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1.0 EXECUTIVE SUMMARY

This bat activity survey report details the findings of survey work undertaken during May, July, August and September 2022 at Swansea Holiday Cottages, (Ordnance Survey Grid Reference: (SN 74874 04069). Building 1 in aerial pic below.

This report is to support and update previous surveys undertaken at this site by Just Mammals Phase 1 and protected species survey 2012 & Protected species survey 2015 and Building inspection and bat survey report 2019 undertaken by Bay ecology should be read in conjunction with this report.

Two trees will be affected by the Conversion of the Barn and an arboricultural survey was undertaken March 2022 Trees T1, T2 & T3

T3 Will require removal for redevelopment of the redundant concrete farm building and old barn will require the removal of the diseased and moribund ash (T2) from the bank of the stream. This tree will be retained as a coppice stool along the stream bank for conservation purposes until it dies

Proposed works to be undertaken at the site comprise –

The owners of Plas Farm, Cilybebyll, propose to convert the building to provide a holiday let accommodation. This report will investigate if there is potential to disturb bats and will be used to assist in the planning process.

From the surveys undertaken at the site during 2022 supported previous findings in identifying 5 species of bat using the site for foraging commuting . Two species were identified as using the barn being surveyed for roosting purposes These species were , Common Pipistrelle, Brown Long Eared with Soprano pipistrelle . Noctule and Brands/whiskered bats foraging and commuting around the wider site.

The presence of roosting bats within the barn means the renovation works will require a European Protected Species (EPS) derogation licence, which will require appropriate mitigation built into the proposed Holiday Cottage structure. The EPS licence application will require an accompanying bat method statement that will detail timings of works, required watching briefs, sensitive working methodologies, required mitigation and monitoring. A whole site mitigation strategy will be devised including the Manor house , cottage and associated buildings. This approach will ensure that the site is enhanced for Biodiversity and ensure the long term use for bats of all buildings on site.

T2 will need to be coppiced due to Ash die back a climbed assessment of the tree is not possible and a section felling method using an aerial platform and ecological supervision will be provided.

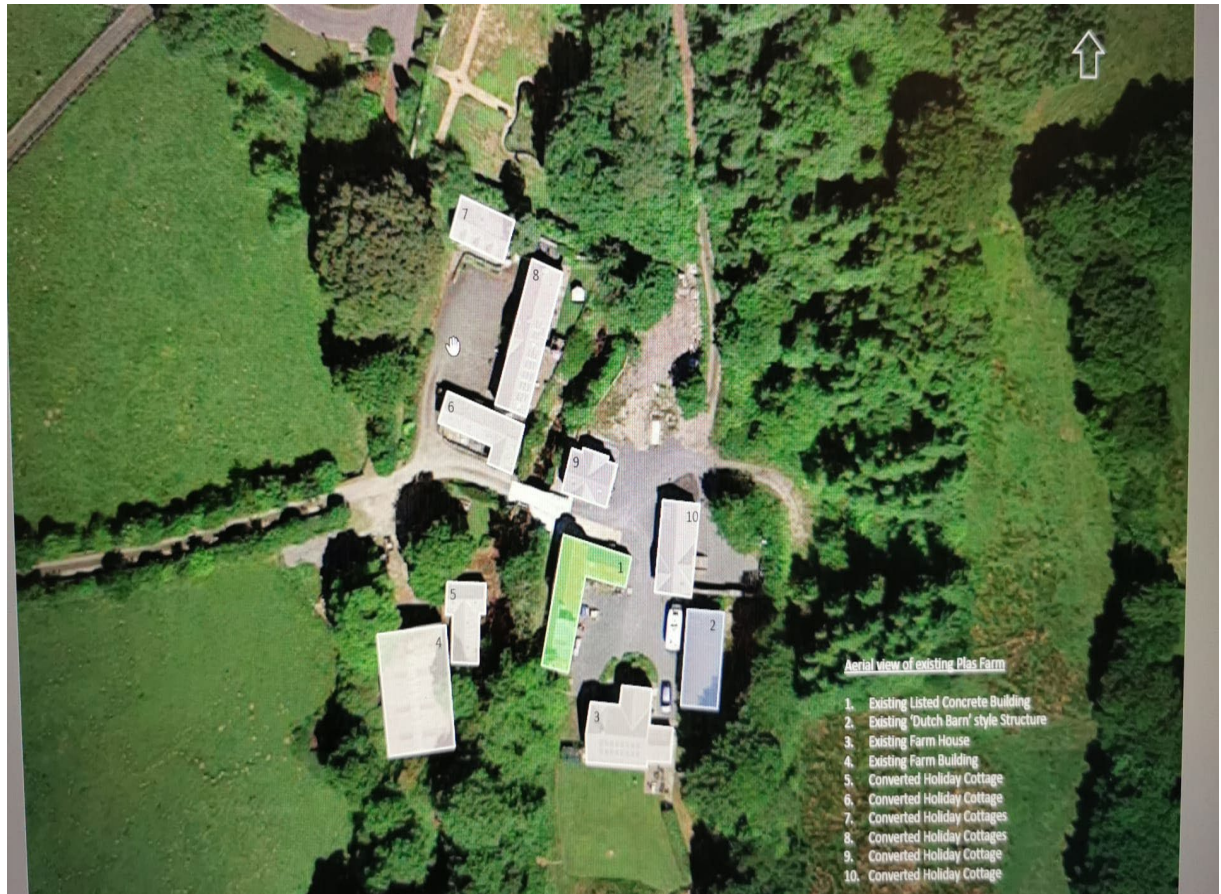
2.0 INTRODUCTION

This report outlines the findings of bat survey work carried at Swansea Holiday Cottages, (Ordnance Survey Grid Reference: (SN 749 041) , by N. Price of EWS.

2.1 Site Description and Proposed Works

The derelict Former barn is an L-shaped building whose main structure is two storeys with a single storey annex located at the northern extent of the eastern elevation. The building is constructed from cast in situ concrete with corrugate metal roofing. A single storey breeze block storage shed was located adjacent to its southern extent. The ground floor of the cottage was being utilised for storage, whilst the first floor was partially used for storage. The adjacent storage structure was also being utilised for storage. The cottage is located immediately adjacent to (east) the river Clydach and its associated broadleaf woodland corridor. Tourist accommodation is located immediately north, south and east of site; whilst a mixed woodland corridor bordered the tourist site along its eastern extent with agricultural land located to the west.

The National Grid Reference of the site is: SN 74874 04069. Building **1 Barn building proposed for conversion.**



2.2 Objectives

The objectives of the survey were to obtain sufficient data to:-

1. Identify potential bat activity levels and use of building(s) on site e.g. roosting within the building(s) identified and/or foraging in and around the surrounding area.
2. Identify any other potential constraints to redevelopment on the site from other species/habitats present.
3. Assess whether the proposed redevelopment of the site would be likely to have an impact upon those species if present.
4. Make recommendations for further survey work (if necessary) to establish the seasonal use of the site and to help determine the species status, if present; and
5. Recommend a mitigation strategy (where possible) for those habitats/species present that pose a constraint to the redevelopment of the site.

3.0 Legislation

Bats

All bats are European Protected Species (EPS). It is against the law to damage or destroy a bat roost, or deliberately to capture, kill, injure, or disturb a bat. Natural Resources Wales (NRW) issues EPS licenses in Wales.

All British bat species are protected under the Conservation of Habitats and Species Regulations 2010 (further amended 2017) known as the 'Habitats Regulations'.

Under the Habitats Directive, it is an offence if you:

- Deliberately capture, injure, or kill any wild animal of an EPS,
- Deliberately disturb wild animals of any such species,
- Damage or destroy a breeding site or resting place of such an animal.

Disturbance is defined as that which is likely:

1. To impair their ability –
 - to survive, to breed or reproduce, or to rear or nurture their young, or
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
2. To significantly affect the local distribution or abundance of the species to which they belong.

Defra and the Welsh Government published a joint guidance document on the interpretation of the offences relating to disturbance, and to damage and destruction of breeding sites and resting places.

There are other offences relating to possession, transport, and sale.

The Conservation of Habitats and Species Regulations 2010 (as amended 2017) makes it illegal:

- To be in possession of, or to control
- To transport
- To sell or exchange, or
- To offer for sale or exchange, any live or dead EPS which has been taken from the wild, or any derivative.

Another international agreement is the Implementation in the Community of the Convention of International Trade in Endangered Species of wild Fauna and Flora (CITES). CITES aims to regulate international trade in species which are endangered, or which may become endangered if over exploited. It lists species in three Appendices, according to the level of protection they need.

Licensing

NRW issues licenses under Regulation 53 of the Habitats Regulations. NRW will issue a license for specific purposes stated in the Regulations, if the following three tests are met:

- the purpose of the work meets one of those listed in the Habitats Regulations (see below).
- that there is no satisfactory alternative.
- that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range.

Licensing purposes

The Habitats Regulations permits licenses to be issued for a specific set of purposes including:

- include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
- scientific and educational purposes,
- ringing or marking
- conserving wild animals

The introduction of the Conservation of Habitats and Species Regulations 2017 has removed the defence of killing or injuring a protected species during a lawful operation, thus even in an instance where planning permission is granted, the presence of bats must be considered and mitigated for prior to commencement of works. Under the above regulations, an NRW licence can only be given if three tests are satisfied:

1. The action proposed is in the interest of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance to the environment.
2. That there is not a satisfactory alternative.
3. That the action proposed will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Failure to satisfy the regulations and obtain an EPSL where required is likely to result in prosecution and can lead to severe fines of up to £5000 per bat and possible imprisonment. Eight species of bat are listed under section 7 of the Environment Wales Act (2106). Section 7 of the Act provides a list of living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This is a list of species considered at threat within Wales and in need of conservation management to maintain and enhance population numbers. A duty is placed on the Local Authority by the Welsh Assembly Government to maintain and enhance populations of species listed in Section 7.

TAN 5

Planning Policy Wales Technical Advice Note (TAN) 5, Nature Conservation and Planning, provides advice on how the planning system should contribute to biodiversity protection and enhancement. TAN 5 recognises the importance of biodiversity and the enjoyment of it. TAN 5 requires Local Planning Authorities (LPA's) to protect and enhance biodiversity during the planning process and to encourage sustainable developments. It also requires LPA's to ensure that protected sites are properly accounted for within the planning system.

Nesting Birds

All British birds, their nests and eggs are protected in law. It is an offence to deliberately take, kill or injure any wild bird or to take, damage, or destroy any nest or egg of any wild bird under Part 1 of the Wildlife and Countryside Act 1981 (WCA 1981) (as amended) (this applies to birds whilst building a nest and/or near a nest containing eggs and/or young).

4.0 METHODOLOGY

4.1 Internal and External Survey

Refer to Bat Scoping Survey Assessment by Just Mammals Phase 1 and protected species survey 2012 & Protected species survey 2015 & Building inspection and bat survey report 2019 undertaken by Bay ecology attached

4.2 Activity Surveys

Dusk emergence and dawn return surveys were undertaken in weather conditions conducive to bat activity i.e. little or no rain and temperatures in excess of 10°C.

The emergence surveys began half an hour before sunset and continued for an hour and a half after sunset, when it was considered that all bat species would have emerged according to Mitchell-Jones and McLeish (2004).

The dawn survey started 2 hours before sunrise and ended 15 minutes after sunrise

Each of the bat surveyors were positioned so they had a clear view of the section of building they were surveying, and each surveyor had a heterodyne Pettersson detector and an Echometer touch on a Samsung tablet/ Ipad or a Petterson M500-384 to record. All bat activity detected during the survey was recorded and analysed. Anabat Express static detectors and Anabat Swift Static detectors were used as the static detectors.

Flir BHM- series Bi-Ocular thermal camera was used to film the barn during all surveys recording for the full duration of the survey.

4.3 Survey Constraints

There were no constraints to the survey as: -

- Suitable bat survey weather conditions are when the ambient air temperature exceeds 10°C and when there is little/no wind or rain.
- The surveys were carried out in optimal weather conditions during the time period recommended in the BCT Best Practise Guidelines.

5.0 RESULTS

5.1 Survey Personnel and Experience

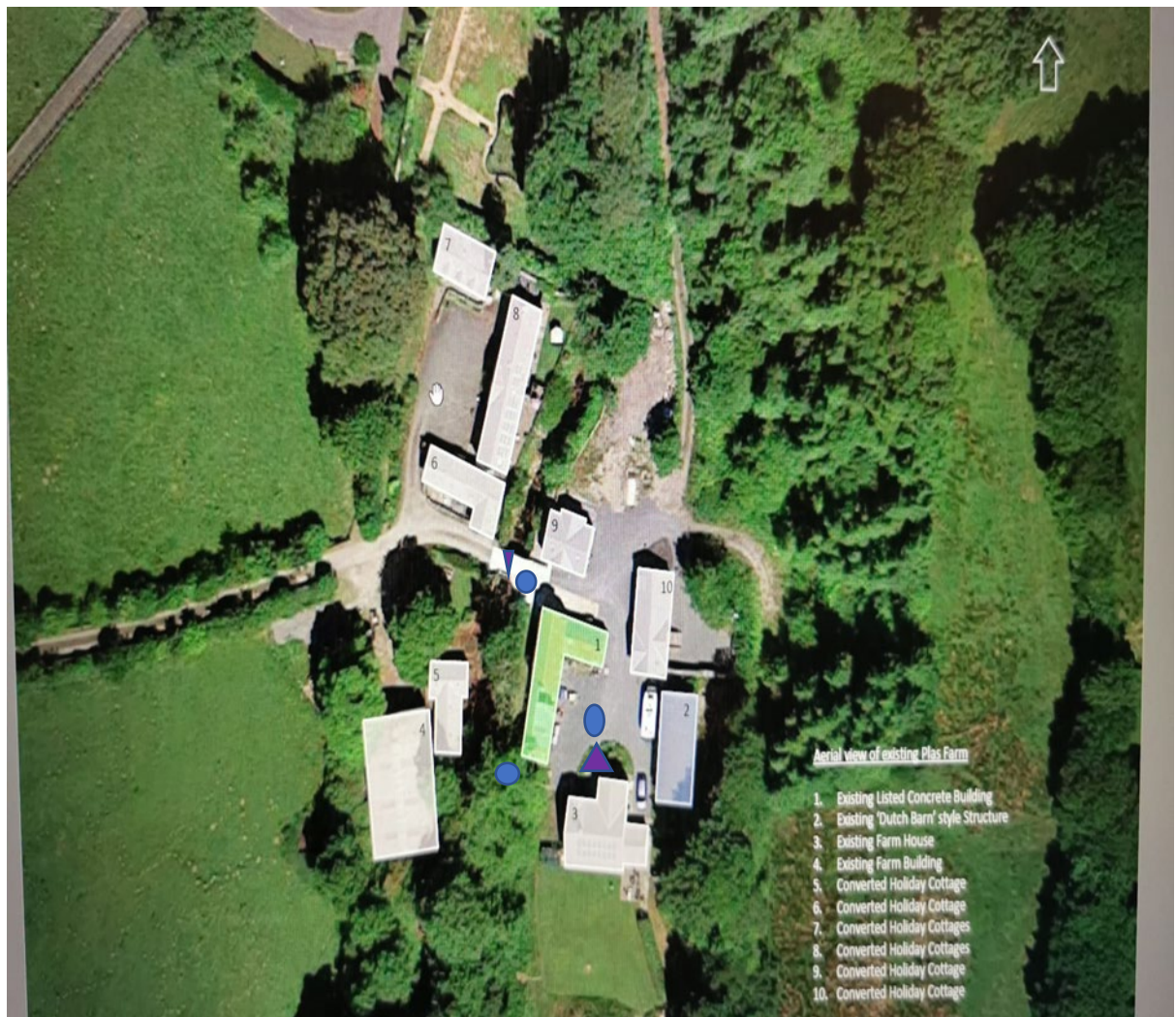
Name	Surveys undertaken	Experience
Neil Price	Emergence x 2 Dawn x2	Licensed Bat worker 20+ years' experience
Hannah Price	Emergence x2	Experienced survey assistant with 10+years' experience
Carol Price	Emergence x 2 Dawn x 2	Experienced survey assistant with 20 +years' experience

5.2 Survey Effort

Survey	Result	Other observations
19/05/22 Dusk/ activity survey Sunset 21.08 Temp 11°C Dry	21.16 common pipistrelle observed emerging from fascia on Eastern elevation. 21.22 common pipistrelle observed emerging from Chimney. - Constant foraging activity around site recorded by all surveys until survey ended 23.30 21.51 Brown long eared bat detected along river corridor	
6/08/22 Dusk survey Sunset 20.56 Temp 20°C Dry	20.50 2 x common pipistrelle observed emerging from fascia on Eastern elevation. 20.55 common pipistrelle observed emerging from sliding door on Eastern elevation	

27/08/2022 Dawn Return survey Sunrise 5.22 Temp 16 °c Dry	• 5.32 1 x brown long eared bat observed returning to fascia on Western Elevation • 5.33 2 x brown long eared bat observed returning to fascia on Western Elevation • 5.34 2 x brown long eared bat observed returning to fascia on Western Elevation	
17/09/2022 Dawn Return survey Sunrise 6.53 Temp 11 °c Dry	• 6.48 1 x Brown long eared observed returning to Fascia Western elevation	
Anabat Swift recording inside the barn 28 th March for 9 nights 19 May for 12 nights	Brown long eared bats Common pipistrelle bats foraging in building at Dusk and Dawn . regular single calls picked up during night.	

Positions of surveyors



Position of surveyors during activity surveys

● Dusk surveys 2022

▲ Position of Thermal Camera during surveys



Emergence locations Eastern Elevation Common Pipistrelle



Emergence Locations Southern Elevation Common Pipistrelle

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Returning Brown Long Eared Bats Position Western Elevation

6.0 DISCUSSION & CONCLUSION

6.1 Bats

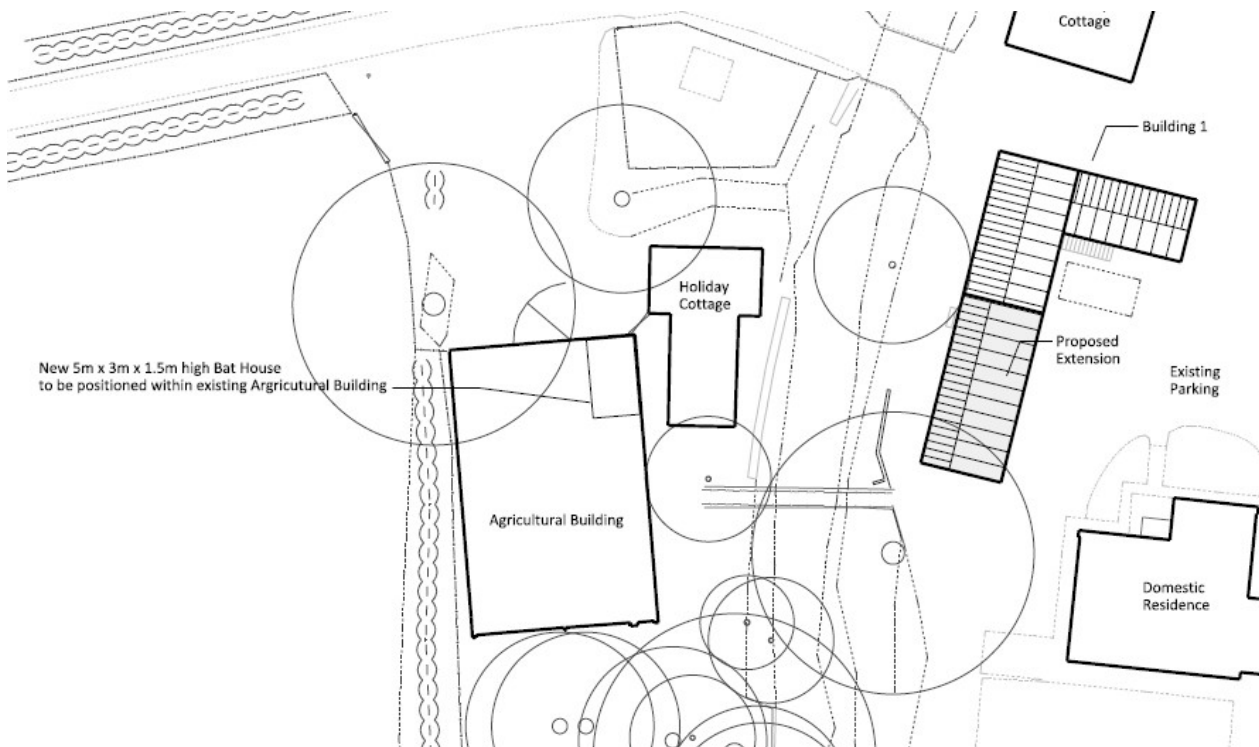
From the survey work undertaken during the dusk emergence and dawn return survey two species of bats were recorded and observed bats using the building surveyed for roosting purposes. The Anabat Express static detector recorded for 22 nights inside the barn , and reflected the surveyors observations and recordings with 2 species regularly recorded within the barn

Biodiversity Enhancement and Mitigation Statement

The identification of roosting bats within the cottage means the renovation works will require a European Protected Species (EPS) derogation licence, which will require appropriate mitigation built into the proposed cottage structure. The EPS licence application will require an accompanying bat method statement that will detail timings of works, required watching briefs, sensitive working methodologies, required mitigation and monitoring.

To enable EPS a whole site approach to bat mitigation is to be adopted which will include the manor house, cottage and associated buildings.

It is proposed to create a purpose-built roost for Brown Long Eared and Common Pipistrelle bats in an agricultural building [Building 4 on the plan shown in Section 2.1] which is situated alongside the building to be developed [Building 1 on the plan shown in Section 2.1]. The River Clydach flows between the two buildings. Building 4 has been selected due to limited space in the Grade II listed barn [Building 1] and to maximise roosting opportunities for bats on site. The roost will be located in the NE corner of the building as shown in the plan below. It will be constructed from insulated plywood and be a minimum of 5m long x 3m wide x 1.5m high. It will include an inspection hatch to facilitate long term monitoring of the site. Bat boxes will also be located around the site with location agreed with the supervising ecologist.



Proposed location of purpose built bat roost

The developer is committed to improving the biodiversity on site. A heritage orchard of 28 rare varieties of Welsh apple tree was planted on the 9th January 2023 alongside the complex of buildings to boost biodiversity and support the bat population that live in the buildings.



Heritage Orchard at Plas Farm, Cilybebyll. Planted 9th January 2023.

Artificial Lighting

All bat species are affected by artificial light to a greater or lesser extent. Their emergence time may be delayed if exit points are lit, or they may no longer use a site for foraging/commuting/roosting if there is too much artificial lighting.

This can have an impact upon their foraging success. Consideration will therefore be given to the level of external lighting around the site. If lighting is considered necessary, installation of security or other external lighting will be:

Located with consideration for bats and other nocturnal species, any lights will be pointed towards the ground and shaded to prevent spill to the surrounding areas and should be no higher than 3 metres from the ground and will be confined only to areas where there is access or particular security considerations and where health and safety issues need to be considered. Light spill into the adjacent areas should be prevented.

From the survey work undertaken there will be no constraints to the proposed works on the site from the presence of bats. However due to the nomadic nature of bats, care should be taken during the proposed works as there is a possibility that bats could be encountered during the work. If this happens work should stop, and advice be sought from Natural Resources Wales or a suitably qualified bat ecologist.

7.0 References

- Mitchell-Jones, A.J. and McLeish, A.P. (2004) : *The Bat Worker's Manual*, 3rd Edition, Joint Nature Conservation Committee.
- Bat Conservation Trust (2016): Bat surveys – Good Practice Guidelines
- Natural England (2004): Bat mitigation guidelines
- Just Mammals (2012): Phase 1 and protected species Survey
- Just Mammals (2015): Protected Species Survey
- BayEcology (2019): Building Inspection Survey & Bat Activity Survey

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