

EAST ECOLOGY

3 PANDY COTTAGES, TRELEWIS, MERTHYR TYDFIL

POTENTIAL ROOST ASSESSMENT AND BAT PRESENCE ABSENCE SURVEY 2023 AND ENHANCEMENTS



Produced for Chris Rees

QUALITY ASSURANCE

Author	Reviewer	Revision	Date Issued
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Revision	Notes
V1.1	Various small amendments

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SUMMARY

3 Pandy cottages is a stone cottage at the end of a small terrace and in the process of being renovated.

The applicant wishes to take down a small rear extension of the property and replace it with a two-storey extension which will tie into the existing slate roof.

A preliminary roost assessment for bats was commissioned followed by a bat emergence survey to inform a planning application for extension.

The surveys and desk study followed best practice guidelines using appropriate equipment, under suitable weather conditions and was undertaken by an experienced and qualified bat ecologist.

The data search found no records of bats at the address, but a few roosts are known in the search area. No designated sites were found in the search area relating specifically to bats.

The evaluation of the building was of **low potential for roosting bats**, as a few small crevices were noted around the extension, where small numbers of crevice dwelling common bats could roost.

One dusk emergence survey was carried out in May 2023 but found **bats to be likely absent**.

Precautionary actions regarding bats are needed but where they are found unexpectedly during work. All work would need to cease in that area while the advice of the ecologist is sought.

In terms of increasing the biodiversity value of the building a bat box in the new extension and bird boxes are recommended.

INTRODUCTION

3 Pandy Cottages, Trelewis, Merthyr Tydfil, CF46 6BU lies at an approximate National grid reference **ST10679661**. The building which is the subject of this report is a two storey stone dwelling built at least 100 years ago or more. The building has undergone some internal and external renovations to make it habitable in the last 12 months. The stone cottage currently has to the rear a single storey lean-to kitchen extension of about 30 years old.

The building lies at the end of a terrace of three houses with a further detached house nearby. All four houses lie at the edge of the Nant Caeach river which flows to the rear of the properties. The houses are separated from the main area of housing along and beyond the on Hight Street B4255 to the east and lie down a small track into a tree-lined dell. Adjacent to the houses along the northeast lies a former disused railway line which is lined by mature and semi-mature trees over a cyclepath. The wooded areas surrounding the cottages are very well connected to the Llancaiach Fawr area and Taff Bargoed river which joins the Taff. The valley through which it flows is very wooded. A areas of agricultural land lies to the south and west of the cottages where it is surrounded by the built up area of Nelson to the south and Quakers Yard to the west. The relative position of the building is shown in figure 1.

The owner of 3 Pandy Cottages has applied to Merthyr Tydfil County borough Council for permission to demolish the small existing rear extension and replace it with a two-storey extension of a large footprint under reference P/22/0282. The work is necessary to bring the house up to modern standards by creating a second bedroom for the small cottage and a larger kitchen.

The author of this report, Rebecca of East Ecology has twenty years post graduate experience in ecological consultancy and nature conservation and holds Natural Resources Wales survey licences for protected species including bats. Rebecca is also a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist.

LEGISLATION AND POLICY

Conservation of Species and Habitats Regulations (Amendment) Regulations 2017

All bats found in the UK are High Level Protected Species (HLPS) being protected under the Conservation of Habitats and Species Regulations 2017, known as the 'Habitats Regulations'.

Under the Habitats Regulations, it is an offence to:

- Deliberately capture, injure or kill any wild animal of an HLPS,
- 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 the animal's 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 (e.g. bats), to hibernate or migrate; or
2. To affect significantly the local distribution or abundance of the species to which they belong.

Other offences also exist relating to possession, transport and sale.

Wildlife and Countryside Act 1981

Section 9 of the Wildlife and Countryside Act 1981 (as amended) offers varying degrees of protection to species including otter, bats, dormice, amphibians and reptiles. Animals listed on Schedule 5 of the Act are protected against one or more of the following:

- intentional killing, injuring or taking (not applicable to bats, as covered by the regulations above);
- intentional or reckless damage or destruction, or obstruction of access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection;
- disturbance of any such animal while it is occupying a structure or place which it uses for that purpose;
- sell, offer or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in schedule 5, or any part of, or anything derived from such an animal.

Environment Act (Wales) 2016

Section 7 of the Environment (Wales) Act has replaced the Section 42 of the NERC Act 2006 in Wales. Section 7 lists the living organisms and types of habitat in Wales which are considered to be of key significance to sustain and improve biodiversity in relation to Wales.

The Act states that Welsh Ministers must take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section and encourage others to take such steps.

Planning Policy Wales 2021

Section 5.2.8 of Planning Policy Wales states that: 'The planning system has an important part to play in meeting biodiversity objectives by promoting approaches to development which create new opportunities to enhance biodiversity, prevent biodiversity losses, or compensate for losses where damage is unavoidable.'

METHODOLOGY

Desk Study

A search was made for available information relating to designated sites within a 10km area for their bat interest, including Internationally and Nationally important sites; Special Areas of Conservation (SAC) and Sites of Species Scientific Interest (SSSI). A data search was not thought to be necessary on this occasion due to the scale of the impacts and lack of evidence found at the site in line with the guidelines for accessing and using biodiversity data in the UK issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). Freely available information was obtained from internet source Multi Agency Geographical Information for the Countryside (MAGIC). The data search was conducted to the latest bat survey guidelines 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (Collins 2016)'.

Site Survey

Potential roost assessment

3 Pandy Cottages was visited on 19th December 2022 during daylight hours by an experienced and licensed bat ecologist (licence number S089583-1).

All accessible elevations of the building were examined on the outside as well as inside. Equipment used in the searches included a high-powered torch, a telescopic ladder and a pair of close focusing binoculars.

The surveyor searched for evidence of bats:

- Sightings of live bats
- Dead bats
- Bat droppings
- Urine staining
- Grease marks
- Claw marks
- Sound or smell of bats

The surveyor asked the owner if they had any prior knowledge of bats at the property.

The surveyor also noted down features of the building which would be suitable for bat roosting, suitability of the surrounding area with respect to food sources and connectivity of the landscape was also noted according to the latest bat survey guidelines.

While every effort is made during this type of survey to identify positive signs of bat use, evidence may be absent or difficult to access even if small numbers of bats are present. An absence of evidence identified does not necessarily indicate an absence of bats as a structure may still have potential for them.

Dusk emergence survey

The dusk emergence survey was carried out on the 9th May 2023 by and experienced an licensed bat ecologist (licence number S089583-1). Details of the timing and weather condition can be found in table 1.

Date	Start temp	Weather	Sunset/sunrise time	Start time	Finish time
09/05/2023	14°C	50%cloud, no wind , no rain, flying insects abundant	20:49	20:34	22:19

Table 1 Times and weather conditions of dusk emergence survey

The surveyor observed the previously identified potential roost features for crevice dwelling bats from approximately 15 minutes before sunset.

Rebecca Sheahan-East observed all elevations of the small extension building. The surveyor has twenty years' experience of conducting bat surveys and used a Wildlife Acoustics EM3+.

Constraints

There were no constraints to the survey which would produce invalid results.

RESULTS

Desk Study

Designated Sites

No sites designated for their bat interest were found in the search area.

Potential Roost Assessment

3 Pandy Cottages was a two-storey end of small terrace dwelling set away from other housing in very close proximity to the Nant Caeach. It was built at least 100 years ago or more and was constructed of stone with windows to the front and a modest mono pitched extension to the rear with a large window and door. The main roof of the building was covered by artificial slate, but the extension had over it moulded concrete tiles.

The main body of the cottage was constructed of well-pointed solid stone and therefore had no opportunity for summer or winter roosting. The rear extension is likely to be constructed with a cavity wall, which could offer winter hibernation to bats so long as the cavity is accessible. The internal construction of the walls is unknown.

External

The building has been subject to various renovation work internally and externally over the last few months.

The most notable gaps affected by the proposed demolition and construction were noted at the edges of the join of the extension to the rear wall of the house. A gap was noted on both sides of the extension. There was small gap along beneath the barge boards on the north and south sides.

No external lighting was noted to the rear of the cottage nor was there any on the adjoining neighbour's house. Some light spill onto the rear yard was possible via the kitchen window but not onto the building or potential roost features themselves.

Internal

Although the small mono-pitched roof contained a small void, there was no access hatch through which to view it without damaging the interior ceiling.

Other Species

No other species of conservation concern were noted at 3 Pandy Cottages, and there was very little opportunity for them. The Nant Caeach runs south to north at the end of the very small rear yard approximately 4/5m from the building. The watercourse was fairly fast flowing downhill over rocks, but is likely to be used by otters. The lack of exterior lighting indicates that otters may pass through behind the domestic gardens without any disruption.

Emergence survey

Bat activity in the area of the cottages was moderate to high, with several species noted in flight. No bats were seen to emerge from the extension or the main cottage roof or wall and are thought to be likely absent. Bats thought to be emerging from a nearby property to the west were common pipistrelles which emerged about 10 to 15 minutes after sunset. Other species recorded in flight were soprano pipistrelle, Daubenton's and bat brown long eared bat.

Full notes for the bat emergence survey can be found in Appendix B.

EVALUATION

No designated sites fell into the search area designated specifically bats.

The small rear extension to the cottage was found to have small gaps and a void which was not possible to inspect, thought to be suitable for small numbers of crevice dwelling bats. The building was positioned among good and well-connected bat foraging habitat. An evaluation of low potential was assigned to the extension building following the potential roost assessment.

Following the recommended dusk emergence survey, no bats were observed emerging from the identified potential roost features. The building may be classed as having bats likely absent for summer roosting.

There remains a very small possibility of bats using the extension cavity wall during winter, should they be able to access it.

IMPACT ASSESSMENT

The proposals to demolish the existing extension and build a larger one over its footprint is unlikely to have impacts on bats as they are thought to be likely absent. However there remains a small opportunity for them to use the cavity wall during winter, should this be accessible to them.

As a precaution, ecologist supervision of the removal of the most sensitive areas for bats will be needed to limit any impacts on bats. This will occur between April and October, outside of the hibernation season to avoid any impacts to hibernating bats when they are most vulnerable.

Working during hours of darkness and use of flood lighting will not be allowed during the construction period to ensure no impacts to otters occur as well as bats in flight.

No fixed exterior lighting will be added to the rear of the extension on completion to eliminate impacts on otters and bats into the future.

CONCLUSIONS AND ENHANCEMENT

3 Pandy Cottages was thought to hold low roosting potential for small numbers of bats of common and crevice dwelling species, particularly in the existing extension.

As recommended a single dusk emergence survey was carried out, but no bats were seen to emerge from the building. Bat activity was moderate and the building is thought to have bats likely absent, although a small possibility of hibernation use remains possible if bats have access to the cavity wall.

As a precaution, ecologist supervision of the removal of the most sensitive areas of the extension will be needed, as well as precautionary installation of a bat box suitable for summer and winter use.

A simple method statement containing the details of the areas and manner of work, persons responsible, timings and method of reporting will be followed. Please see Appendix C.

The survey data within this report is considered by NRW as valid for up to two years. Following this point in time the site will require further survey to detect any changes in bat use of the building if the project is delayed.

Enhancements

Bats

One built-in bat box will be needed on the west elevation at one of the highest points of the new extension. This should be at least 3m from ground level and away from potential predator perches and light spill from windows (figure 4). This 1WI Schwegler model is appropriate for summer and winter bat use and can be incorporated into the exterior wall skin.

<https://www.nhbs.com/1wi-schwegler-summer-and-winter-bat-box>.

Birds

Wall mounted bird boxes will also be added to the different elevations. A sparrow terrace such as the vivara pro sparrow nest box https://www.nhbs.com/equipment?q=&hPP=60&idx=titles&p=0&fR%5Bdoc_s%5D%5B0%5D=false&fR%5Bhide%5D%5B0%5D=false&fR%5Blive%5D%5B0%5D=true&hFR%5Bsubjects_equipment.lv1%5D%5B0%5D=Bird%20Boxes%20%3E%20Integrated%20Bird%20Boxes&qview=195281

would be appropriate and a vivara woodstone open nest box would also be desirable. Both bird box models are to be integrated into the exterior walls of the extension on the side elevations as indicated in figure 4. https://www.nhbs.com/equipment?q=&hPP=60&idx=titles&p=0&fR%5Bdoc_s%5D%5B0%5D=false&fR%5Bhide%5D%5B0%5D=false&fR%5Blive%5D%5B0%5D=true&hFR%5Bsubjects_equipment.lv1%5D%5B0%5D=Bird%20Boxes%20%3E%20Integrated%20Bird%20Boxes&qview=195281

[5D=false&fR%5Bhide%5D%5B0%5D=false&fR%5Blive%5D%5B0%5D=true&hFR%5Bsubjects_equipment.lvl1%5D%5B0%5D=Bird%20Boxes%20%3E%20Integrated%20Bird%20Boxes&qtview=200428](#).

FIGURES

Figure 1. Location of 3 Pandy Cottages. Contains Ordnance Survey data © Crown copyright and database right 2013

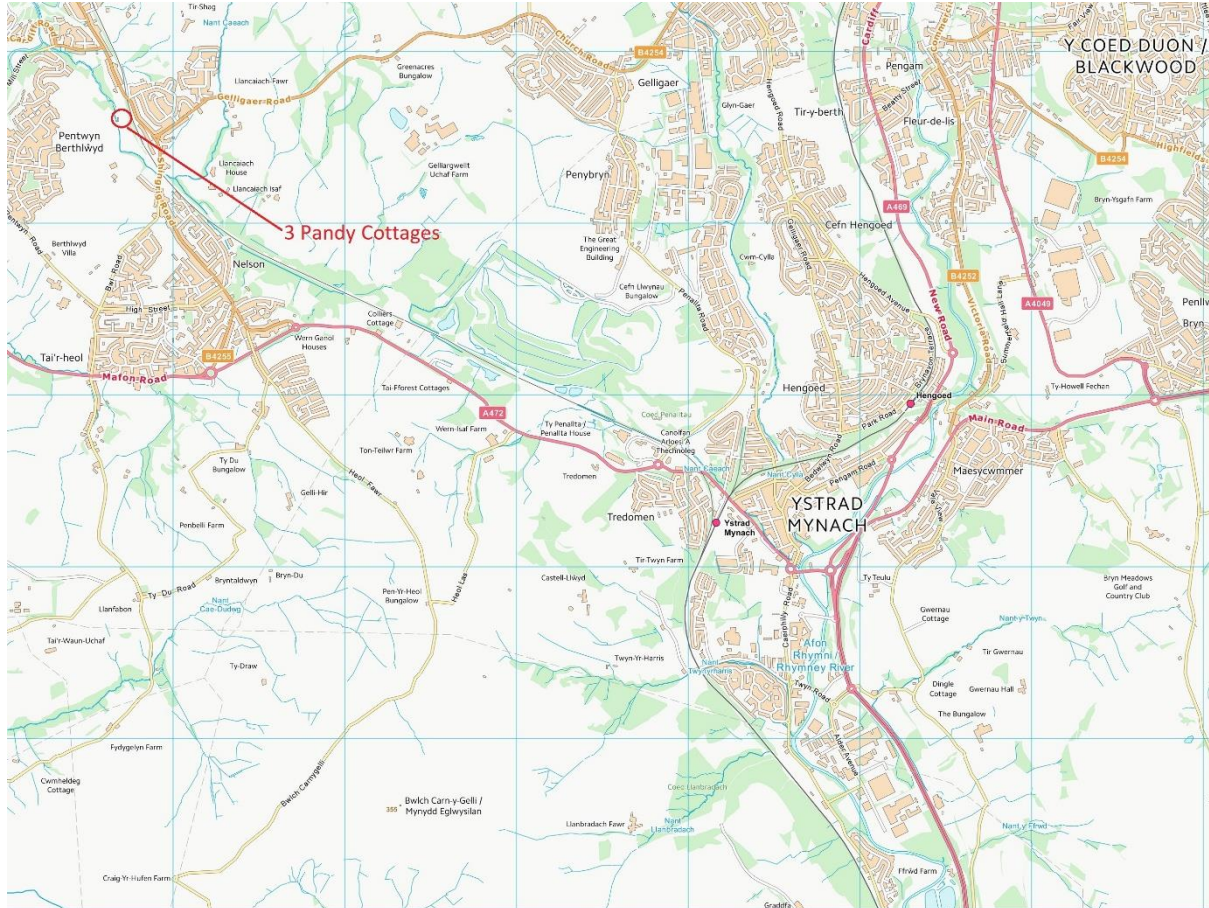


Figure 2. Existing and proposed extension footprint adapted from K.J Lloyd Chartered Architect Drawing SL01

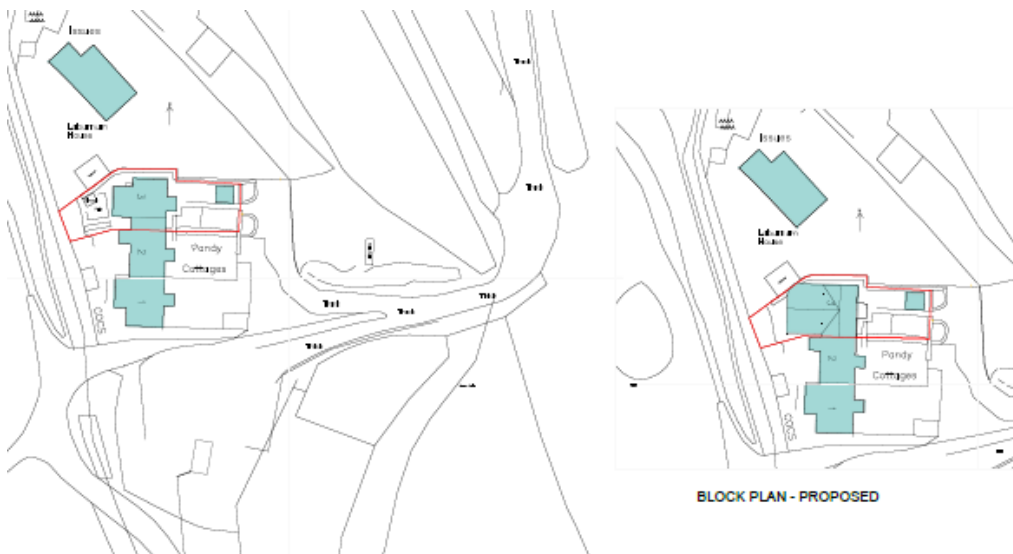


Figure 3. Existing and proposed rear elevations

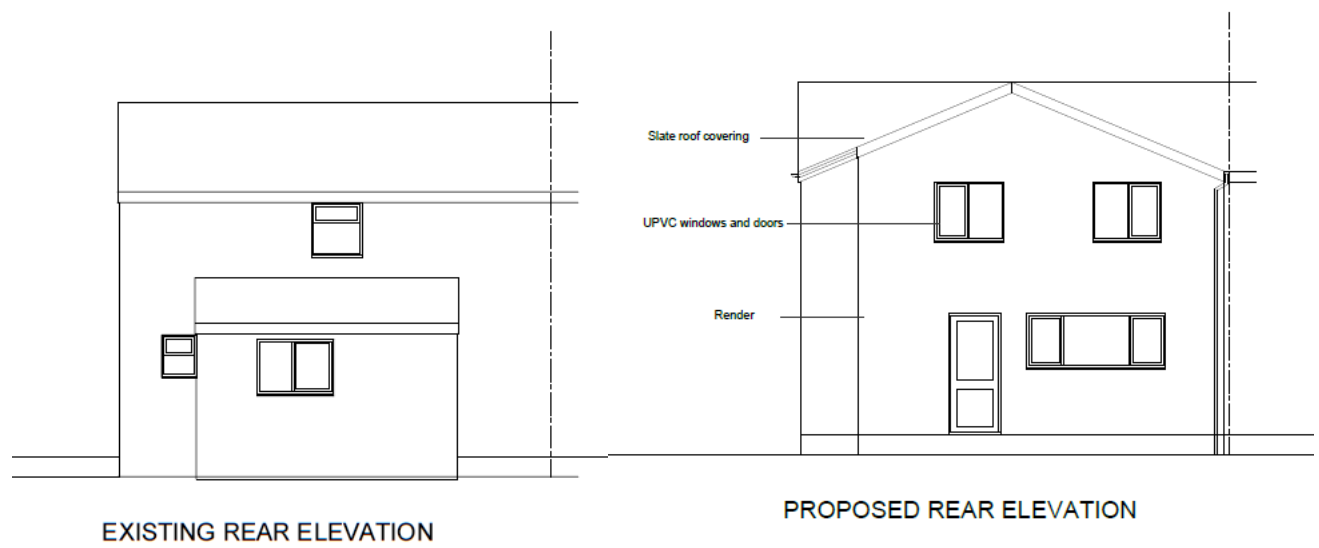
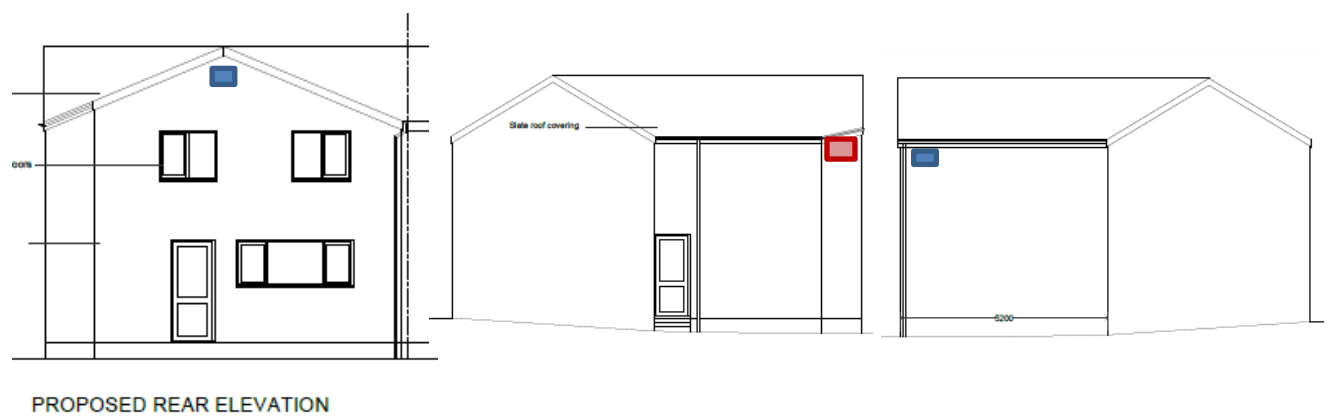


Figure 4. recommended locations for bat (red) and bird boxes (blue)



REFERENCES

Collins J. (Ed) (2016) Bat Surveys for Professional Ecologists: Good Practise Guidelines (3rd Edition) Bat Conservation Trust, London

Department of the Environment, Food and Rural Affairs (2016) *MAGIC interactive maps*
<http://magic.defra.gov.uk/website/magic/>

Natural Resources Wales, designated sites search (2022)
<https://naturalresources.wales/conservation-biodiversity-and-wildlife/find-protected-areas-of-land-and-seas/designated-sites-search/?lang=en>

Mitchell-Jones A.J. (2004) Bat Mitigation Guidelines. Natural England

APPENDIX A SITE PHOTOS



Photo 1.
Front
(east)



Photo 2.
Rear
(west)
with
lean -to
for
demoliti
on



Photo 3.
Side of
extensio
n (north)



Photo 4.
Gap at the
flashing extensio
n at roof tie-
in



Photo 5.
Gaps at
the rear
fascia



Photo 6.
Gaps at
chimney
flashing
and
misalign
ed slates



Photo 7.
Gaps in
flashing
edge of
extensio
n tie-in



Photo 8
General
view
inside
main
cottage
loft



Photo 9.
Interior
of
cottage
loft
including
gable
end



Photo
10. Nant
Caeach
to the
rear of
the yard

APPENDIX B EMERGENCE SURVEY NOTES

Rebecca Sheahan-East observing all elevations of the extension.

No exterior lights at rear of No's 1, 2 or 3. Lights at rear of adjacent detached house. Sound of water falling over rocks – difficult to hear the heterodyne.

Time	Species	Observation
21:00	C pipistrelle	HNS distant
21:02	C pipistrelle	HNS
21:03	C pipistrelle	South to north
21:12	C pipistrelle	HNS
21:14	Daubenton's	HNS but in trees over river
21:16	S pipistrelle	South to north
21:18	S pipistrelle	Through the gardens east to west
21:22	Myotis (Daubenton's?)	HNS
21:30	S pipistrelle	HNS
21:48	Brown long eared	HNS
21:52	Brown long eared	HNS
22:04	S pipistrelle	HNS v distant
22:13	Daubenton's	HNS
22:15	Daubenton's	HNS
22:16	Daubenton's	HNS
22:18	Daubenton's	HNS

APPENDIX C METHOD STATEMENT REGARDING BATS AND DEMOLITION AT 3 PANDY COTTAGES

- Part of the removal of the existing extension must be done by hand using a soft strip method. The flashings, tiles fascia and barge boards must be removed using this method under the supervision of an ecologist, following a toolbox talk (Ec & Con).
- Once the roofing materials have been removed and the cavity wall is exposed the ecologist will inspect it for signs of or live bats (Ec).
- The extension must be removed between the months of April and October (Ec & App).
- If bats are encountered at any stage of the work the supervising ecologist must be contacted while work in those areas is halted (Con & App).
- A Natural Resources Wales licence will be needed if bats are found to be using the building which must be completed by an ecologist (Ec).
- Advice should also be sought from NRW if any other higher level protected species are encountered at any stage of the development (Ec, Con, App).
- No working after dusk will be permitted where this will cause noise and light disturbance to passing bats and otters. Interior work after dusk is permitted (Con & App).
- No fixed lighting on the completed extension will be permitted as this is likely to disturb nocturnal wildlife (Con & App).
- A built-in bat box will be installed to the new extension which is suitable for summer and winter bat occupation. This will be at least 3m from ground level, away from potential predator perches and light spill from dwelling windows (Con & App).
- Bird boxes will be positioned on elevations other than those containing the bat box (Con & App)
- Evidence of the ecologist supervision and completed enhancements (above) will be reported by the ecologist to the planning officer (Ec).

Ecologist (Ec), Contractor (Con), Applicant (App)