

**Preliminary Bat Roost Assessment, Endoscope
Survey of Weep Holes & Bat Activity Survey
at:
The Pavilions, Cambrian Park
Clydach Vale, Tonypandy CF40 2XX**



Prepared for:



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1. Executive Summary

Details

- Rhondda Cynon Taf County Borough Council commissioned Lingard Farrow Styles to undertake bat surveys at The Pavilions, Clydach Vale, Tonypany, Rhondda Cynon Taf.
- Building examinations were undertaken on the 13th and 19th of October 2023. From these inspections it was concluded that the weep holes in Pavilions B, D, E, F & the security lodge potentially provided roosting sites for bats. It was also concluded that Pavilion F showed low roost potential due to the presence of broken roof tiles, and mortar gaps under ridge tiles and a pair of garages showed low roost potential due to the presence of gaps in the woodwork at the gable ends, gaps behind wooden bargeboards and gaps in brickwork.
- A climb and inspect endoscope survey was undertaken to look for evidence of roosting bats in weep holes above windows in Pavilions B, D, E, F and the security lodge on the 2nd February 2024.
- A dusk emergence survey of Pavilion F and the Garages was undertaken on 7th May 2024.
- Proposed plans are for the demolition of all the buildings on the site to make way for the building of a new school.

Site and location

- Grid Ref: SS98122 92733. A former colliery site in the Nant Clydach stream valley. Woodland on a rising hill to the south and woodland to the west following the route of the Nant Clydach. A lake associated with the Nant Clydach to the north with urban housing to the north of the lake.
- The site itself is a collection of units built in the 1990s: 3 two-storey units (Pavilions B, D and E), 3 single-storey units (Pavilions A, C and F), a security lodge and a pair of garages.

Evidence of roosting bats

- The climb and inspect endoscope survey revealed no evidence of roosting bats in any of the Pavilions examined.
- The activity survey of Pavilion F and the Garages showed no evidence of bats roosting in these buildings.

Nesting birds

- Two bird nests were found in soffit vent holes (where the vent hole mesh was missing) in the security lodge.
- Pavilion F has similar soffit vent holes with the mesh missing but no nests were noted in those holes.

Conclusions & recommendations

- No bats were found to be using any of the buildings on site for roosting.
- Demolition works may proceed without the need for an NRW mitigation licence but it is recommended that a precautionary approach is taken and that the slate roof coverings on Pavilion F & the security lodge and the roof coverings of the garages are removed by hand.
- It is recommended that demolition works on those buildings where nests have been found (or have to potential to support nesting birds) are undertaken outside of the bird nesting season (the bird nesting season is March through to August inclusive). If it is not possible to schedule the works within this timeframe a bird nesting check should be undertaken by a suitably qualified ecologist in the 24hr period before works commence. If an active nest is found an exclusion zone should be set up around the nest until the young have fledged.

2. Introduction

2.1 Project Details	
Site Owner:	Rhondda Cynon Taf County Borough Council
Address:	The Pavilions, Cambrian Park, Clydach Vale, Tonypany, Rhondda Cynon Taf (Grid Reference: SS 98122 92733)
Project:	There are six main buildings on the site (named as Pavilions A -F) and three smaller ancillary buildings: a security lodge and 2 garages (see Figure 1 for the layout of the buildings on the site.). All buildings on the site are due to be demolished and the site redeveloped as a school.
2.2 Survey aims & objectives:	<ol style="list-style-type: none"> 1. To assess the buildings on site for current and potential usage by protected species (bats and breeding birds) through direct observation and in the context of local records and habitats. 2. Assess the potential implications of the proposed work on any protected species and, if required, recommend appropriate levels of further survey effort to identify and characterise any roost or nesting sites.
2.3 Notes on bat surveys:	<ol style="list-style-type: none"> 1. In recent history bat populations have declined to such an extent that all species, along with their roosting places, are now protected by law (see Appendix 2). 2. As small and nocturnal animals bats can be very difficult to survey; secretive behaviour and the need for often deep, secluded crevices means that, even if they are present, they can be easily missed. 3. Wales has relatively high numbers of most of the species that occur in Britain; the Welsh landscape with its abundance of wooded river valleys and hedgerows means buildings are commonly used as roosting sites by bats. This is particularly the case for older buildings located close to good feeding areas, on the edge of settlements or buildings that are rarely disturbed. 4. To determine whether a building is being used by bats, any survey will frequently rely on the signs they leave behind, e.g. droppings, the remains of insect prey or stains made around a frequently used entrance hole. 5. To understand bat use in buildings, additional activity surveys are usually required, involving dawn and/or dusk observations, which may need to be repeated at different times throughout the year.
2.4 Breeding birds:	During the nesting season (March to August) nesting sites are protected by law (see Appendix 2)

3. Survey methods and equipment

3.1 Desk study	
Previous site surveys:	<ul style="list-style-type: none"> • None
Local Records Centre data search :	A 2km SEWBRcC biodiversity records centre search was undertaken.
Open access, online resources:	Google Earth, Google Maps
In-house and inter-consultancy sharing of records from previous surveys:	-
Local Bat Group information:	-

3.2 Building examination	
Inspection date:	13/10/2023 & 19/10/2023
Equipment:	<ul style="list-style-type: none"> • Extendable Ladder • Binoculars • Canon G15 Optical Zoom Lens Camera • LEDLENSER P17 1000lm hand-held torch & LED headtorch • Anabat Scout bat detector
Target buildings:	<ul style="list-style-type: none"> • Pavilions A-F, security lodge and 2 garages
Target information:	<ul style="list-style-type: none"> • Physical signs of bat use: droppings, food remains, urine staining, fur rubbing marks, distinctive areas clear of cobwebs/dust or eroded surfaces. • Actual presence of bats: visible animals or audible calling. • Presence of Potential Roost Features (PRFs): Roof voids, crevices, cracks, cavities, perching areas/features etc. • Evidence of other protected species (e.g. breeding birds), and habitats (e.g. hedgerows, water courses) likely to be affected by development, that could host protected species.

3.3 Endoscope Survey	
Inspection date:	02/02/2024
Equipment:	<ul style="list-style-type: none"> • Extendable Ladder • Binoculars • Canon G15 Optical Zoom Lens Camera • LEDLENSER P17 1000lm hand-held torch & LED headtorch • Endoscope – 720P HD Video Endoscope Model: V5555
Target buildings:	<ul style="list-style-type: none"> • Weep holes in Pavilions B, D, E, F and the Security Lodge
Target information:	<ul style="list-style-type: none"> • Physical signs of bat use: droppings, food remains, urine staining, fur rubbing marks, distinctive areas clear of cobwebs/dust or eroded surfaces. • Actual presence of bats: visible animals or audible calling.

3.4 Activity Survey of Pavilion F and the Garages							
Type	Observers	Start	Finish	No. Remote detectors	No. recording periods	Notes	Equipment
Dusk Activity	3	≥15 min before sunset	1.5 hrs after sunset	2	1 - 7/05/2024	3 x Infrared cameras were deployed – 2 of which were paired with static bat detectors.	1 x Anabat Walkabout 2 x Anabat Scout 2 x Anabat Express 3 x Night Fox Whisker IR video camera

3.5 Survey limitations & personnel	
Aims	<ul style="list-style-type: none"> To determine if bats are roosting and birds nesting in the target buildings on site. To carry out survey work according to the British Standard 42020:2013 Biodiversity - Code of Practice for Planning & Development and the Good Practice bat survey Guidelines (2023).
Challenges posed by bats	<ul style="list-style-type: none"> Bats can be difficult to survey and can hide away in the smallest of cracks. They frequently do not leave signs of occupation, particularly if they are cool roosting (Appendix 1). They may also remain hidden for prolonged periods of time if conditions are unsuitable or they do not need to feed. Bats use a wide variety of roosting places throughout the year and may move from one roost to the next, as often as every few days. Such a roost site may only be used once a year, but for that time it may be important.
Interpretation	<ul style="list-style-type: none"> This is based on the evidence collected on the survey dates, enabling an assessment of the potential for the building's use by bats. From this, and with experience, it is possible to make an assessment of the building's actual and potential use by bats at other times of the year and the need for further surveys.
Limitations particular to the current site	<ul style="list-style-type: none"> The roof voids in Pavilions A – E were located above a suspended ceiling. It was not possible for the surveyor to move across the floor of the roof void as his weight would not be supported. Therefore, the search for signs of bats in these pavilions was limited. The infra-red camera at the south side of the garages during the activity survey failed to switch to IR mode. Breeding birds – the survey was undertaken outside of the bird breeding season, therefore the extent of nesting within suitable features may have been under-recorded.
Personnel:	<ul style="list-style-type: none"> An experienced field ecologist of over 35 years.
Lead Ecologist for Project: <i>D. Vaughan</i>	<ul style="list-style-type: none"> Specialist qualifications in bird, bat and dormouse surveys. A full-time independent ecological consultant in SW Wales since 2010, with Landsker Ecology and Biodiversity Solutions. Other contracts: RSPB, Edward Grey Institute (Oxford Univ.), Central Science Laboratory (DEFRA), Wildlife Trust SW Wales, British Trust for Ornithology, JNCC (Joint Nature Conservancy Council). Based in Maenclochog, Pems; operating throughout SW Wales.
Surveyor <i>L. Wolstenholme</i>	<ul style="list-style-type: none"> Accredited Agent under D. Vaughan's bat survey licence. BSc and PhD. Over 25 years' field ecology experience.
Surveyor: <i>K. Leonard</i>	<ul style="list-style-type: none"> Over 4 years' experience as a consultant ecologist undertaking protected species surveys, PEA surveys, report writing and working as an Ecological Clerk of Works.
Surveyor: <i>H. Brown</i>	<ul style="list-style-type: none"> Assistant Curator of Botany at the National Museum of Wales, Cardiff. Currently studying for a BSc in Natural History Undertakes bat surveys with local bat group and local bat surveyors.

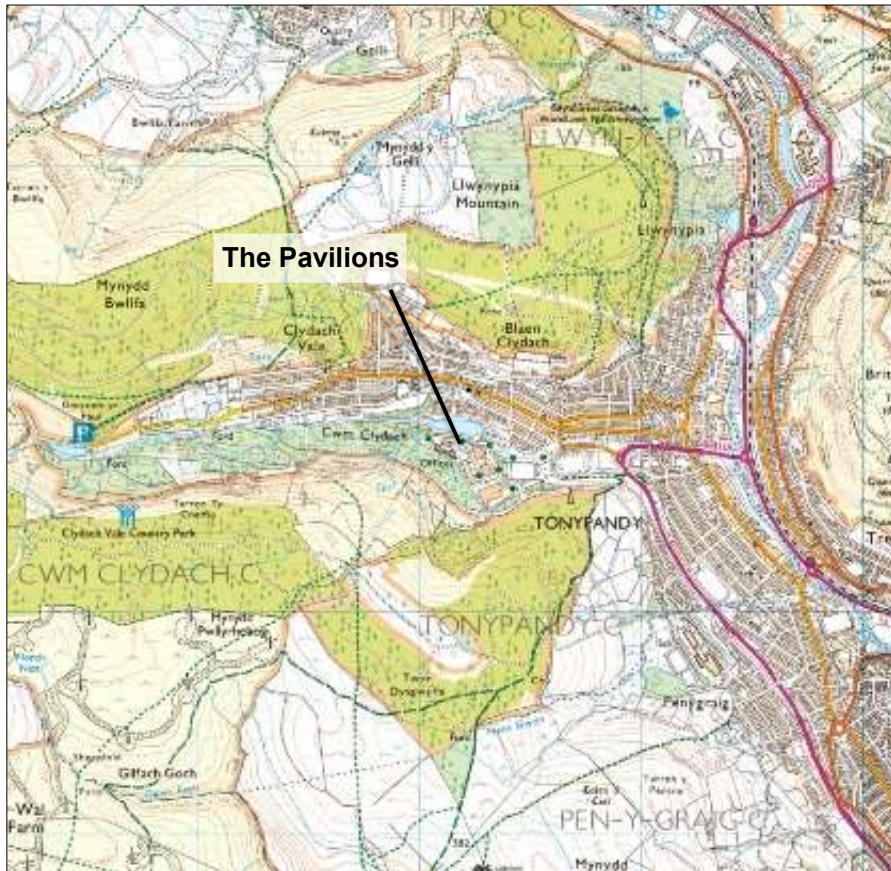


Fig.2. OS map (1:25,000 © Ordnance Survey).



Fig.3. Local area habitats.



Figure 4: Survey, detector and night vision camera positions for dusk emergence survey

4. Survey Results

4.1 Desk study		
Site location:	Grid ref: SS 98122 92733	Located in the Rhondda valley approximately 1km north-west of the town of Tonypanydy.
Altitude:	104m	Positioned on level ground.
Exposure level:	Relatively sheltered	Sheltered to the south by a hill and woodland. Somewhat exposed to the west by an open car park but woodland to the west beyond that. Sheltered to the north and east by planted trees and shrubs.
Connectivity:	Good	Good connectivity to woodland to the south and west. Planted trees and shrubs provide connectivity to a lake to the north and housing (potential roost sites) to the north of the lake.
Surrounding habitats:	<ul style="list-style-type: none"> • Deciduous woodland immediately to the south and west. • A ditch/stream immediately to the south of the site (marking the southern boundary of the site – and adjacent to the woodland to the south). • A stream (the Nant Clydach – flowing eastwards) and associated lake 200m to the north. • Urban habitat (Clydach Vale) to the north and east. • Cwm Clydach Country Park provided a range of habitats; two lakes, conifer and deciduous woodland, high ground and rough grazing • Large river (The Rhondda Fawr) flowing from north to south 1.3km to the east. 	
Local area bat potential:	High	High quality bat foraging habitat in the form of a wooded stream valley, a lake and deciduous woodland. Local housing and old buildings in Clydach Vale provided many potential bat roost sites.
Site bat potential:	Moderate	<ul style="list-style-type: none"> • High-quality adjacent feeding habitat • Modern buildings offering limited and minor roost potential for low significance roost sites.
Relevant Designated Sites	Craig Pont Rhondda SSSI 1.2km northeast designated for its coppiced sessile oak woodland. Potentially provides roosting and foraging habitat for bats – although bats are not a listed feature of this site.	
Bat records ≤2km: Bat records associated with urban areas to the north and west of the site. These include some roosts in buildings. See Figure 5 on next page for summary of bat records.		

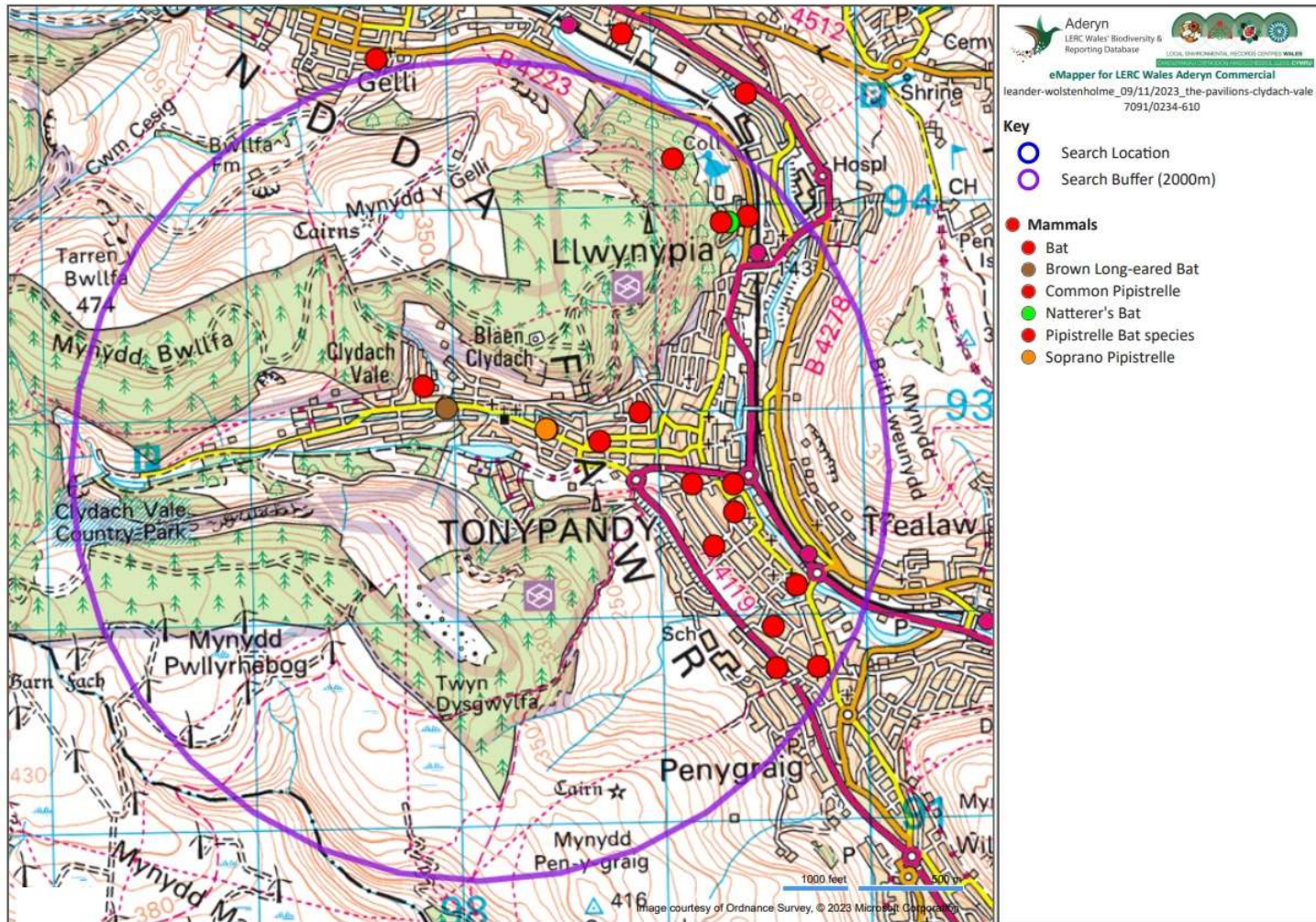


Figure 5: Records of Bats within 2km of The Pavilions

4.2 Buildings survey: Condition & Potential Roost Features (prfs)			
The Pavilions - General	Built on the former Cambrian Colliery site, The Pavilions is an array of buildings constructed in the 1990s and composed of 6 Pavilion buildings (labelled as Pavilions A-F), a security lodge and a pair of garages with a large car parking area to the west.		
Building	Structure & materials	Condition	PRFs
Pavilions A and C	<p>Pavilions A and C are single-storey buildings built to the same design as each other.</p> <p>External Walls: brickwork and large areas of glazing. Roofs: Metal sheeting with “pagoda-style” decoration at the centre. Large metal soffits, no fascias - the roofs edged by metal guttering. Double glazed windows and doors – green uPVC frames.</p> <p>Internal: False ceilings with rock-wool insulation above – not possible to access the roof voids fully due to suspended ceilings.</p>	<p>Good condition</p> <p>Some gaps in metalwork at the rear (south) side of both pavilions but gaps relatively unsuitable for use by bats due to slippery metal surfaces that would deter bats from using due to poor purchase at entrances to prfs. (see Figures 5.3-5.6)</p>	<p>External Features None</p>
Pavilions B, D and E	<p>Pavilions B, D and E are two-storey buildings built to the same design as each other. Pavilions D and E have a covered walkway that connects the two main entrances of these buildings.</p> <p>External Walls: brickwork and large areas of glazing. Roofs: Metal sheeting with “pagoda-style” decoration at the centre. Large metal soffits, no fascias - the roofs edged by metal guttering. Double glazed windows and doors – green uPVC frames.</p> <p>Internal: False ceilings with rock-wool insulation above - not possible to access the roof voids fully due to suspended ceilings.</p>	<p>Good condition</p>	<p>Weep holes in brickwork above windows (Figs. 7.2, 7.3 & 8.2) Damaged brickwork (Figure 8.3)</p>

Pavilion F	<p>A different design to the other Pavilions and has a more conventional roof void that is possible access and move about within.</p> <p>External Walls: brickwork and regular windows. Roof: Slate tiles and clay ridge tiles Double glazed windows and doors – green uPVC frames.</p> <p>Roof Void Ceiling of roof void – plywood sheets (sarking board)</p>	<p>Good condition A couple of broken roof tiles Mortar coming away under some sections of ridge tiles. Holes where soffit vent mesh has gone missing and gap adjacent to external artificial light in soffit (see Figures 8.8 and 8.9).</p>	<p>Broken roof slates (Figs. 9.2 & 9.5) Gap under roof slate (Figure 9.3) Mortar gaps under ridge tiles (Figure 9.4) Weep holes in brickwork above windows (Figure 9.7) Weep holes brickwork below windows (Figure 9.6) Brickwork gap (Figure 9.6) Mortar gap in brickwork (Figure 9.7)</p>
Security Lodge	<p>External Walls: brickwork and regular windows. Roof: Slate tiles and clay ridge tiles</p>	<p>Good condition Holes where soffit vent mesh has gone missing (Figures 10.3-10.5 show where birds have nested in these holes).</p>	<p>Weep holes in brickwork above windows (Figure 11.2)</p>
Garages	<p>Walls: Brick Roofs: Metal sheeting Wooden cladding on upper, triangular gable ends and associated wooden bargeboards.</p>	<p>Moderate condition</p>	<p>Gap in gable end wooden panelling (Figure 12.2) Gaps under wooden bargeboards (Figure 12.3) Gaps in rotten woodwork at gable end (Figure 12.3). Gaps in brickwork (Figure 12.4) Gable end gaps above brick wall potentially allowing bat access to inside of garage (Figure 12.5)</p>
Adjacent vegetation:	<p>Well-maintained lawns and ornamental shrubs and small trees in the immediate vicinity of the Pavilions with tarmac car parking to the west. Beyond this small brook/ditch to the south and woodland beyond.</p>		



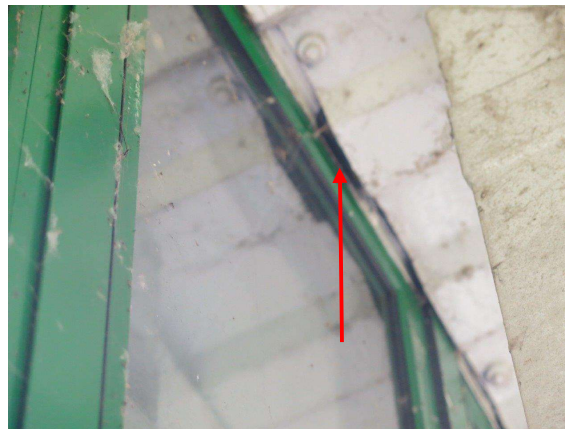
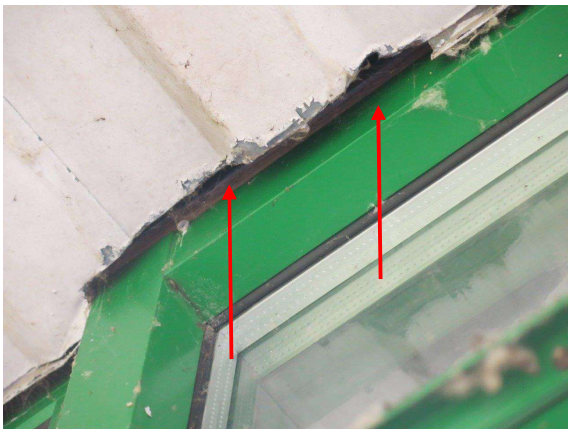
Figure 6.1: Pavilion A: North Elevation



Figure 6.2: Pavilion C: North Elevation.



Figure 6.3: Soffit metalwork. Gaps present but not considered suitable for bats due to poor thermal condition and smooth surface making it difficult for crawling bats to gain purchase.



Figures 6.4 & 6.5: Gaps between soffit board and window on S elevation of Pavilion A. Not considered suitable for bats a smooth survey would make it difficult for crawling bats to gain purchase.



Figure 6.6: Gap in soffit board above metal post in Pavilion C. Not considered suitable for bats a smooth survey would make it difficult for crawling bats to gain purchase.



Figure 7.1 Pavilion B (north elevation)



Figure 7.2 Pavilion B – weep hole PRF above window.



Figure 7.3 Pavilion B – weep holes above window.



Figure 8.1: Pavilions D & E (north elevation) showing covered walkway between the two.



Figure 8.2: Pavilion D – weep hole PRFs above ground-floor window



Figure 8.3: Pavilion E – gap between brickwork and window frame



Figure 9.1: Pavilion F ((east elevation)



Figure 9.2: Pavilion F (south elevation) broken roof tile PRF



Figure 9.3: Pavilion F (south elevation) gap under roof tile PRF.



Figure 9.4: Pavilion F (west elevation) PRF where mortar has come away from beneath ridge tile.



Figure 9.5: Pavilion F (west elevation) damaged roof tile PRF.



Figure 9.6: Pavilion F (east elevation) weep hole PRF below window and brickwork gap PRF.



Figure 9.7: Pavilion F (east elevation) weep hole PRF above window – also showing mortar gap PRF.

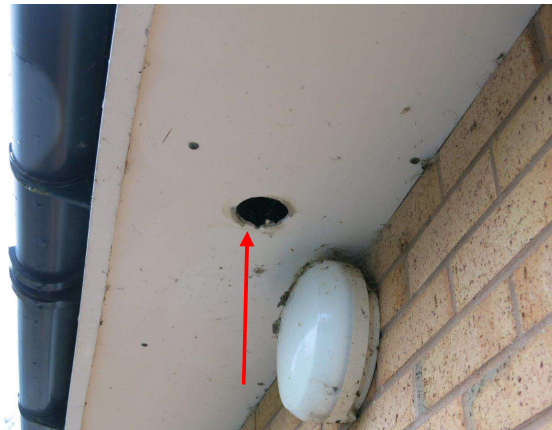


Figure 9.8: Pavilion F (east elevation) soffit vent gap- potentially used by birds as nest site although artificial light may deter birds (and bats) from using.



Figure 9.9: Pavilion F (east elevation) gap by light - potentially used by birds as nest site although artificial light may deter birds (and bats) from using.



Figure 10.1: Pavilion F roof void – facing



Figure 10.2: Pavilion F roof void showing plywood sarking boards.



Figure 10.3. Pavilion A roof void showing insulation above suspended ceiling tiles.



Figure 11.1: Security lodge (north and west elevations).



Figure 11.2: Security lodge (north elevation) - weep hole PRF



Figure 11.3: Security lodge (west elevation) - weep hole PRF and old bird's nest in soffit vent



Figure 11.4: Security lodge (west elevation) close-up of bird's nest in soffit vent gap.

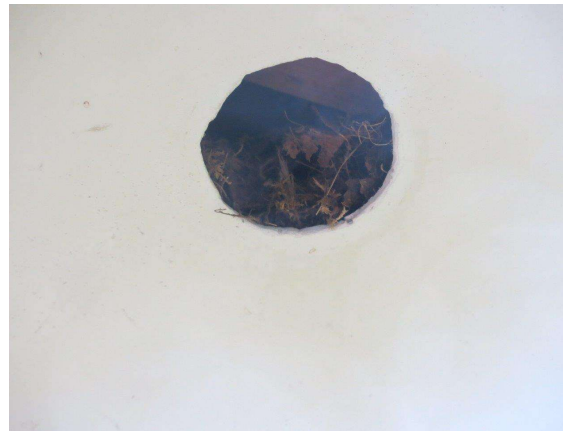


Figure 11.5: Security lodge (east elevation) - bird's nest in soffit vent gap.



Figure 11.6: Security lodge (south elevation) - soffit vent gap - unused by birds at time of survey.



Figure 12.1: The garages (north elevation)



Figure 12.2 Western Garage (north elevation) gap in gable end wooden paneling PRF/access point.



Figure 12.3 Eastern Garage (north elevation) gap behind bargeboard PRF and rotten wood PRF.



Figure 12.4: Eastern Garage (east elevation) brickwork gap PRF.



Figure 12.5: Western Garage (south elevation) gaps above brickwork potentially allow bats access to inside of garage.

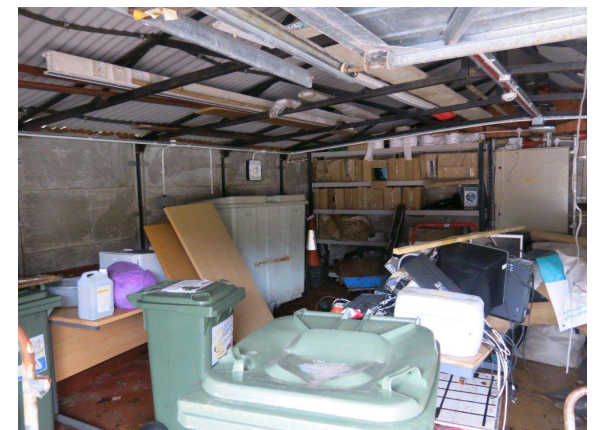


Figure 12.6: Inside of eastern garage.

4.3 Evidence of protected species - building inspection & endoscope survey	
Bats:	<ul style="list-style-type: none"> • None
Breeding birds:	<ul style="list-style-type: none"> • Two old nests in soffit vent gaps in the security lodge (see Figures 10.3, 10.4 & 10.5).

4.4 Activity Surveys – extrapolated from the data recording tables in Appendix 3. Example sonograms are presented in Appendix 4.		
Survey	Roost related activity	Other activity
Dusk activity 07/05/2024:	None	Two species of bat recorded: soprano pipistrelle (Ppyg), common pipistrelle (Ppip). Ppip foraging over woodland to the south. Ppip and Ppyg calls recorded over car park to the west and road with adjacent shrubs/woodland to the north.

5. Bat roost & roost potential - characterisation & evaluation

1.	<p>Pavilions A and C</p> <p>These single-storey buildings show no holes and potential entry points for bats. There are no weep holes in the brickwork. There are some holes in the metalwork of the soffits on the south side of both buildings but these are considered to be unsuitable for use by bats as the metalwork will make it difficult for bats to grip and enter the holes. These buildings are therefore considered to have very low to negligible potential to support bat roosts.</p>
2.	<p>Pavilions B, D & E</p> <p>These two-storey buildings show very limited bat roost potential. However, there are weep hole PRFs in the brickwork above all ground-floor windows and one damaged brick PRF that could potentially be used by crevice-dwelling bats (e.g. pipistrelles) as roosts. These PRFs were checked for the presence, and signs of, bats through the endoscope survey. The weep holes were found to be only the depth of the brick outer skin with no access to wall cavities. No bats or signs of bats were found during the endoscope survey and it is therefore considered that Pavilions B, D & E have negligible bat roost potential.</p>
3.	<p>Pavilion F</p> <p>This pavilion shows a more conventional build than the other pavilions and possesses an accessible roof void. The presence of broken roof slates and mortar gaps under the ridge tiles means that this building does have potential to accommodate a bat roost. This pavilion also has weep hole PRFs in the brickwork above and below windows. Following the building survey, Pavilion F was considered to have low bat roost potential but following a dusk emergence survey where no bats were noted using the building it is considered that bats are not using this building for roosting. No bats or signs of bats were found during the endoscope survey of the weep holes in Pavilion F.</p>
4.	<p>Security Lodge</p> <p>This building is of a more conventional build than the pavilions. The roof slates and ridge tiles are all tight and show no gaps that could be used by bats as roosts. There are weep hole PRFs in the brick work that could potentially be used (see paragraph 2 above). These have been checked for the presence, or signs, of bats. No bats or signs were found and the building is considered to have negligible bat roost potential.</p>
5.	<p>Garages</p> <p>The two garages show a low number of features that could potentially be used by bats for roosting. These are gaps in woodwork and brickwork. The garages are also located quite close to woodland to the south and are therefore in a better position for bat roosts than the other buildings on site. Following the building survey, the garages were considered to have low bat roost potential but following a dusk emergence survey where no bats were noted using the buildings it is considered that bats are not using these buildings for roosting.</p>

6.	<p>Trees The trees on site are all young and do not show any features that could be used by bats for roosting.</p>
7.	<p>Other species Birds have been nesting in the soffit vents of the security lodge where the vent mesh has gone missing. There are similar soffit vent holes in Pavilion F although no evidence of nesting in those holes – but there is potential for birds to nest there.</p>

6. Conclusions & recommendations

1.	It is concluded that the potential for bats to be using any of the buildings on site for roosting is very low.
2.	Whilst it is unlikely that bats are using the buildings on site, it should be born in mind that bats can opportunistically move into a building with roost features at any time. Therefore, it is recommended that demolition works on Pavilion F, the garages and the security lodge (buildings with roost potential) are undertaken using the following precautionary principle: all roof coverings should be removed by hand being lifted rather than rolled or pulled and checked on their underside prior to stacking/disposal to ensure no bats are clinging to the underside. If a bat is encountered during works, it should be carefully covered and work in that area cease immediately and the ecologist contacted for advice.
3.	All species of birds are protected whilst at nest (including whilst building a nest). Therefore, the demolition of structures where birds are likely to be present will need to take place either outside of the bird nesting season (March through to August inclusive) or a suitably qualified ecologist will need to undertake a nest check in the 24-hour period before works commence. If an active nest is found, a suitably sized exclusion zone must be set up around the nest and will remain in place until the young have fledged.
4.	All planning developments in Wales must demonstrate a net gain for biodiversity. Ways of achieving this net gain are set out in the accompanying Preliminary Ecological Assessment report but include the installation of an array of bat boxes. The exact number and locations of the bat boxes to be used are to be confirmed by a qualified ecologist during the design stage of the new school building and are to be marked up on subsequent plans. Examples of the types of integrated and wall-mounted bat boxes that could be used are shown in section 7 of this report.

7. Provision for roosting bats – examples of bat boxes

Selection of recommended in-wall bat boxes.



1. Woodstone 'Segovia' cavity wall bat box



2. Habibat 001 bat box - unfaced for rendering



3. Ibstock Type C bat box



4. Schwegler bat tube

Selection of recommended externally mounted bat boxes.



1. Beaumaris externally mounted bat box



2.1 Schwegler 1FE wall-cavity access panel



2.2 Schwegler 1FE additional back plate - to create a bat box with no cavity access.

Appendix 1 - Bat roost definitions

a) Roost types

There are two basic divisions for a bat's roosting requirements: They are cool roosting or resting places and warm roosting or resting places. Both are essential for the survival of bats in any area, but many more cool sites are required than warm ones. Nursery sites are always warm and hibernation sites are always cool, but a number of the other types can be either.

Maternity roosts. Warm sites where female bats congregate to give birth and rear their young. The sites are frequently traditional with the same individuals returning year after year. Enclosed roof spaces, wall cavities, soffit boxes, spaces under roofing materials and a variety of tree holes and crevices are all examples. One colony can have numerous sites and may move between them.

Hibernation roosts. Sheltered and undisturbed places with relatively high humidity and cool, stable temperatures throughout the winter. For example: underground sites (caves, mines, adits etc.); deep cracks and crevices in built structures (houses, bridges etc.); deeper hollows, cracks and crevices in trees.

*Dispersal roosts**. Any suitable crevice of space close to the nursery roost, where young bats can shelter during the early stages of independence.

*Night roosts**. Places away from the day roosts where bats rest after feeding, or for handling large prey items. They are not necessarily suitable for day roosting but are often associated with a day roost. They may also be used prior to going into cool roosting sites where bats may enter a state of torpor.

Mating/male roosts. Often a territorial roost site that a male bat will attempt to attract females to, for mating and will defend against other males. Sometimes these occur in groups known as 'leks' and include cavities in stonework, underground sites, trees and buildings.

*Intermediate roosts**. These sites are usually used by small groups of bats prior to taking up residence in, or after dispersal from, the maternity roost before hibernation. They are likely to be in or close to good feeding areas.

* Can be transitory roosts that may be used irregularly and temporarily or traditionally over many years.

b) Roost Potential 'classification'

(BCT, Bat Survey Good Practice Guidelines 3rd ed., 2016) – to be applied through professional judgement.

Suitability Roost potential	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by commuting or foraging 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 large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of commuting bats such as a gappy hedge or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, appropriate conditions and/or suitable 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.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees scrub grassland or water
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions [incl: temperature, humidity, light levels, height above ground & levels of disturbance) and surrounding habitat.	Continuous high-quality habitat that is well connected to the wider landscape and likely to be used regularly by commuting bats such as river valleys, streams, hedges, lines of trees and woodland edges. High quality habitat e.g. broad-leaved woodland, tree lined water courses and grazed unimproved parkland – all well connected together. The other feature is that the site is close to and connected to other known roosts.

Appendix 2 - Protected species legislation & planning

A. Bats

All bat species, their roosts and breeding sites in the UK are protected under the Wildlife and Countryside Act 1981 (plus amendments) through inclusion in Schedule 5.

Bats are also protected under Schedule 2 of the Conservation of Natural Habitats and Species Regulations 2010 which transcribes the EC Habitats directive (Council directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna) into UK law. This means that it is an offence to:

- Deliberately or recklessly take, injure or kill a bat
- Deliberately or recklessly disturb a bat in its roost
- Damage or destroy a bat roosting place even if bats are not occupying the roost at the time.
- Deliberately or recklessly disturb or obstruct a bat roost or bats whilst occupying a roost.

In Court “deliberately” will probably be interpreted as someone who, although not intending to capture, injure or kill a bat, has performed an action whilst being sufficiently informed and aware of the consequences the actions will most likely have.

Similarly, under the Wildlife and Countryside Act bats are protected against disturbance and destruction of their resting places.

The defence in regulation 40, that covered acts which were the incidental result of a lawful operation and could not have been reasonably avoided (commonly known as the “incidental result defence”), was removed in 2007. This means there is no defence to the strict liability offence of *damaging or destroying a breeding site or resting place of any bat*. Anyone who commits this offence, even by accident, is open to prosecution.

Several bat species are afforded greater levels of protection under EU Habs. Dir. through being listed on Annex II e.g. the greater and lesser horseshoe bats.

B. Birds

In the UK all wild birds, their nests and their eggs are protected under the Wildlife and Countryside act: A wild bird is defined as any bird of a species which is resident in or is a visitor to the European Territory of any member state in a wild state (with certain exceptions).

For the purposes of a development the following four of eight basic protections apply:

- Intentionally kill, injure or take any wild bird.
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird.
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Exceptions exist around ‘pest species’ under licence, incidental result from lawful operations, public health & safety, disease or agricultural damage, game birds in season (schedule2, part 1 species), care of or humane destruction of sick/injured birds.

C. Planning Policy

A range of planning policies are in place which ensure that developers and public bodies consider the potential impacts of any development upon wildlife and are designed to ensure that there is no net loss in biodiversity as a result of the implementation of such proposals. Key points of such policies are outlined below.

Planning Policy Wales 10

- Chapter 3 - Strategic & Spatial Choices; Sustainable Management of Natural Resources, paragraph 3.32: "...halting and reversing the loss of biodiversity;"
- Chapter 6 - Distinctive & Natural Places; Biodiversity & Ecological Networks, section 6.4, paragraph 3: "The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement..."

Technical Advisory Note (TAN) 5: Nature Conservation and Planning (2009) provides supplementary advice about how the planning system should contribute to protecting and enhancing biodiversity and geological conservation. Local planning authorities must take into account the principles detailed within the document when assessing development applications. The document is designed to ensure the protection of both species and habitats of conservation importance and outlines the Welsh Government's objectives for the conservation and improvement of the natural heritage, as follows:

- Promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats.
- Ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment.
- Ensure that statutorily designated sites are properly protected and managed.
- Safeguard protected species; and to
- Promote the functions and benefits of soils, and in particular their function as a Carbon store.

Natural Environment and Rural Communities (NERC) Act (2006). In addition to the above, public authorities have a duty to conserve biodiversity under the Natural Environment and Rural Communities (NERC) Act, which came into force in 2006. This states that "any public body or statutory undertaker in England and Wales must have regard to the purpose of conservation of biological diversity in the exercise of their functions...and that decisions of public bodies work with the grain of nature and not against it" (Part 3, Paragraph 60). The Act also includes a range of measures to strengthen the protection of wildlife and habitats.

New Biodiversity duty (Section 6 Duty) - Environment Wales Act, 2016 which enshrines the UN convention on Biological Diversity: A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.

Rhondda Cynon Taf Borough Council Local Development Plan Biodiversity Duty

Local authorities also have a duty under regulation 9 (parts 1 and 5) of the **Habitat Regulations** to have regard for the requirements of the Habitat Directive which includes the requirement to maintain the populations of European Protected Species (including all bats) in a "favourable conservation status".

UK and Local Biodiversity Action Plans

The UK Biodiversity Action Plan (UK BAP) was the UK Government's response to the Convention on Biological Diversity (CBD), signed up to in 1992. UK BAP describes the biological resources of the UK and provides detailed plans for conservation of these resources; action plans for the most threatened species and habitats are set out to aid recovery and show how the UK BAP is contributing to the UK's progress towards the significant reduction of biodiversity loss called for by the CBD.

Local BAPs are produced by local authorities with biodiversity aims and objectives specific to those areas; they are guided by the UK BAP and supported through the Wales Biodiversity Partnership.

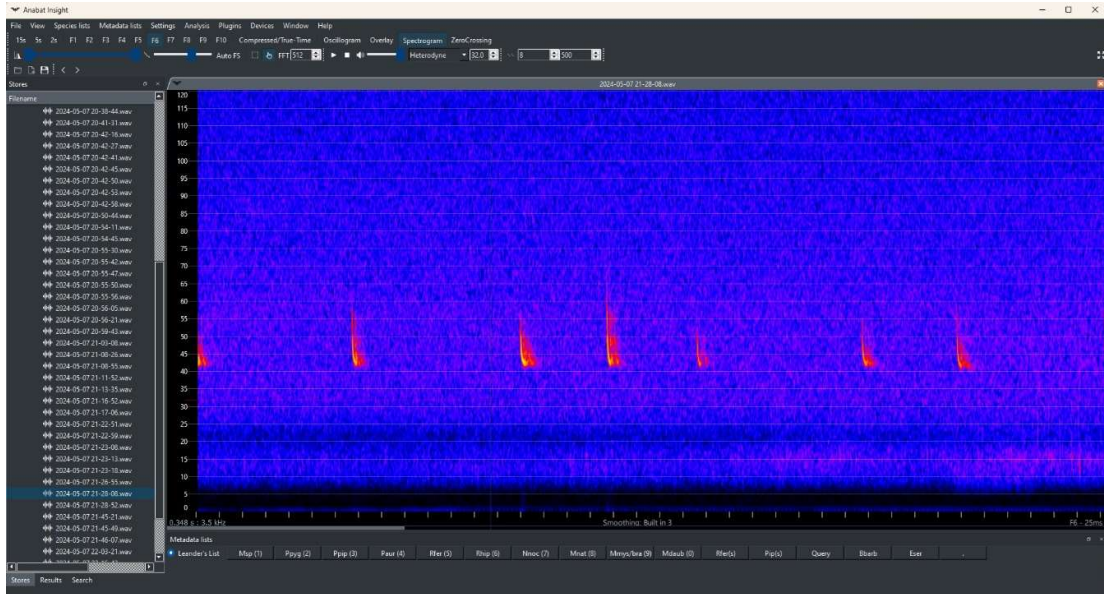
Appendix 3 – Survey Tables

p = bat pass (heard/recorded) b = bat (seen) NS = not seen NR = not recorded Q = I.D. uncertain	Nnoc = noctule (<i>Nyctalus noctula</i>) Ppip = common pipistrelle (<i>Pipistrellus pipistrellus</i>) Ppyg = soprano pipistrelle (<i>P. Pygmaeus</i>) Psp = undetermined pipistrelle Species	Paur = brown long-eared (<i>Plecotus auratus</i>) Mnat = Natterer's (<i>Myotis nattereri</i>) Mm/b = Whiskered/Brandt's (<i>M. mystacinus/brandtii</i>) Msp = <i>Myotis</i> species Rfer = greater horseshoe (<i>Rhinolophus ferrumequinum</i>) Rhip = lesser horseshoe (<i>R. hipposideros</i>)
¹ x1 pass = x1 sound file containing at least 1 call pulse of a species		

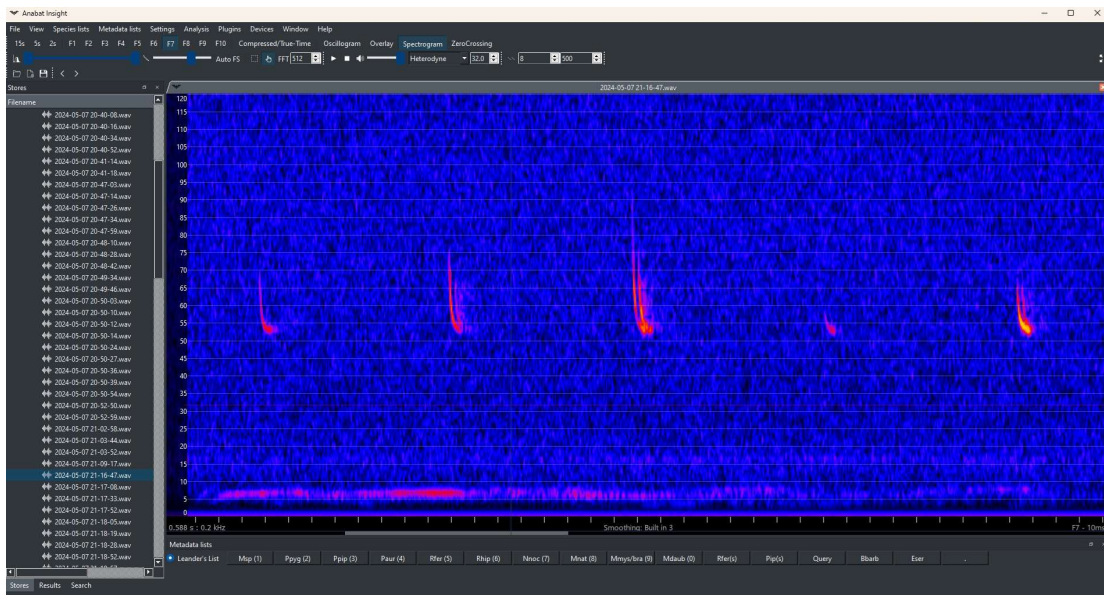
Site address		The Pavilions, Canal Road, Mountain Ash		
Date/type of Survey		07/05/2024	Dusk activity	
Sunrise/Sunset		20:47		
Time Start/Finish		20:32	22:17	
Temperature		15°C		
Wind		Calm		
Cloud	Ppt/RH	100% at start of survey 20% by end of survey		Dry
Any Comments		*1 pass = x1 sound file with ≥ 1 bat call pulse.		
Ref.	Time	Species	No. passes*	Notes
3. KL S of Garages	20:50 – 20:59			
	21:00 – 21:09			
	21:10 – 21:19			
	21:20 - 21:29	Ppip	1	Foraging in woodland behind the surveyor
	21:30 - 21:39			
	21:40 - 21:49			
	21:50 - 21:59			
	22:00 – 22:09			
	22:10 – 22:19	Ppip	7	HNS – faint calls
2. HB NE corner of Pavilion F	20:50 – 20:59	Ppip	1	
	21:00 – 21:09			
	21:10 – 21:19	Ppip Ppyg	1 1	Bats foraging to the north
	21:20 - 21:29			
	21:30 - 21:39			
	21:40 - 21:49	Ppip	1	
	21:50 - 21:59			
	22:00 – 22:09			
	22:10 – 22:19			
1. LW West of Pavilion F and Garages	20:50 – 20:59			20.50 – very bright security light came on at the apex of the north facing gable end of the eastern garage.
	21:00 – 21:09			21.02 – very bright security light came on at the apex of the north facing gable end of the western garage. 21.03 – street lights coming on along the road to the north of Pavilion F.
	21:10 – 21:19	Ppyg	1	HNS
	21:20 - 21:29			
	21:30 - 21:39			
	21:40 - 21:49			
	21:50 - 21:59	Ppyg	1	HNS
	22:00 – 22:09	Ppip Pip(s)	1 12	HNS
	22:10 – 22:19	Pip(s)	1	HNS

Remote detector (Anabat Express) – Car Park between Pavilion F and Garages	20:50 – 20:59			
	21:00 – 21:09			
	21:10 – 21:19	Ppyg	1	
	21:20 – 21:29	Ppip	1	
	21:30 – 21:39			
	21:40 – 21:49	Ppip	1	
	21:50 – 21:59	Ppyg	1	
	22:00 – 22:09			
	22:10 – 22:19	Ppyg	2	
Remote detector (Anabat Express) – South of Garages	20:50 – 20:59			No calls were recorded.
	21:00 – 21:09			
	21:10 – 21:19			
	21:20 – 21:29			
	21:30 – 21:39			
	21:40 – 21:49			
	21:50 – 21:59			
	22:00 – 22:09			
	22:10 – 22:19			

Appendix 4 - Sonograms

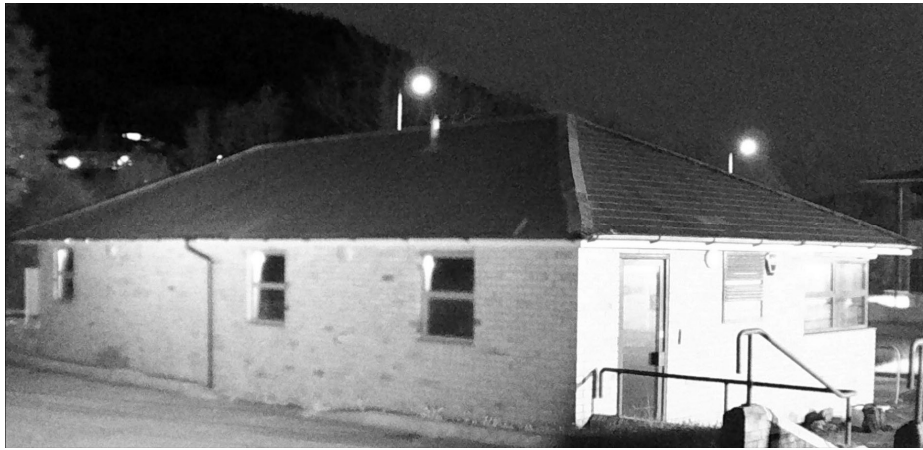


Common Pipistrelle

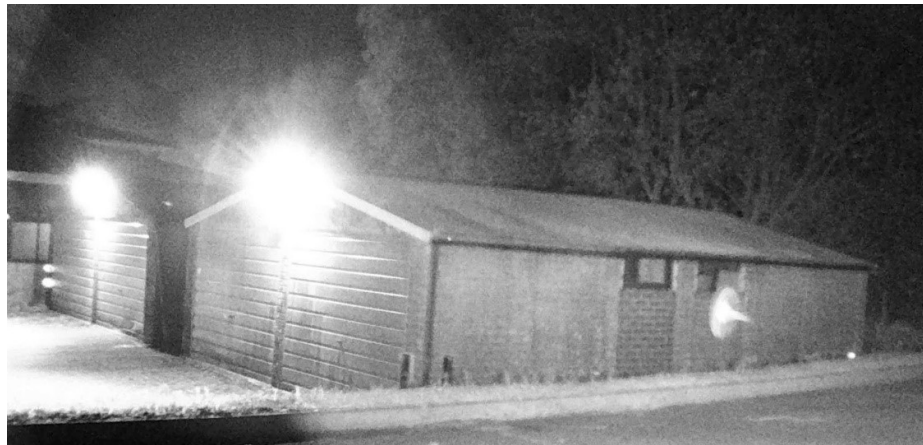


Soprano Pipistrelle

Appendix 5 – Images from Night Vision Equipment



Pavilion F – south and west elevations



Garages – north and west elevations



Garages – south and west (part) elevations. IR illumination failed on this camera.

Appendix 6 - Additional information sources

a.) Information

Bat Conservation Trust website:

http://www.bats.org.uk/pages/accommodating_bats_in_buildings.html

http://www.bats.org.uk/pages/about_bats.html including the ROOST section of the BCT website

'Bat surveys – Good Practice Guidelines'. 4th Edition 2023

b.) Reference material

Mitchell-Jones, A. J. [2004] Focus on Bats English Nature, Peterborough

<http://www.english-nature.org.uk/pubs/publications/>

Mitchell-Jones, A. J. & McLeish, A.P. [2004] Bat Worker's Manual, 3rd Edition, English Nature, Peterborough

<http://www.english-nature.org.uk/pubs/publications/>

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

Bat roosts and timber treatment products

Natural England Technical Information Note TIN092; second edition 04

February 2013. www.naturalengland.org.uk

C.) Emergency contact numbers for bat help and advice:

Natural Resources Wales: specieslicence@naturalresourceswales.gov.uk Tel. 0300 0653000

Licensed Ecologist and Bat handler:

Den Vaughan – 01437 532580 / 07815 166735 / den@landskerecology.co.uk