



**Former Dew Street Library, 13 Dew Street,
Haverfordwest, Pembrokeshire, SA61 1ST**

Bat Survey Report for Ateb Group



***A European Protected Species Licence will not be required
for this development to be undertaken***

Report type	Bat Survey Report
Report reference	IG2022FormerDewStreetLibrary
Site	Former Dew Street Library, 13 Dew Street, Haverfordwest, Pembrokeshire, SA61 1ST
Grid reference	SM 95093 15476
Client	Ateb Group
Date(s)/time(s)/type(s) of survey(s)	Scoping survey: 2nd August 2022 1st Dusk activity survey (Former Library): 2nd August 2022 between 20:55 and 23:10 1st Dawn activity survey (Community Learning Centre): 3rd August 2022 between 03:45 and 05:50 2nd Dawn activity survey (Former Library): 16th August 2022 between 04:05 and 06:10 2nd Dusk activity survey (Community Learning Centre): 17th August 2022 between 20:25 and 22:40
Surveyor details	Scoping survey: Mr Glyn Lloyd-Jones, Natural Resources Wales Licence number S091520/1 and Mr Iestyn Evans, Natural Resources Wales Licence number S090746/1 Dawn activity surveys: Mr Iestyn Evans, Natural Resources Wales Licence number S090746/1; Mr Pete Watts; Mr Greg Evans; and Mr Lewis Jones Dusk activity surveys: Mr Glyn Lloyd-Jones, Natural Resources Wales Licence number S091520/1; Ms Sharon Doherty; Ms Bonnie Illingworth; and Mr Lewis Jones
Architect/Agent	Client

Version	Status	Changes	Name	Position	Date
1	Draft	Sent for review on 19/10/2022	Ceri Daugherty	Author	19/10/22

	Name	Position	Date
Reviewed by	Ceri Daugherty	Author	19/10/2022
Approved by	Iestyn Evans	Director	19/10/2022
Sent to Client	Glyn Lloyd-Jones	Director	19/10/2022

I&G Ecological Consulting Ltd, Awelfryn, Llannon, Llanelli, Carmarthenshire, SA14 6BY.
www.I&Gecology.com email: Office.igecol@gmail.com, lestyn.igecol@gmail.com or Glyn.igecol@gmail.com or call Iestyn on 07733 214829 and Glyn on 07973 685423

Pembrokeshire County Council & Pembrokeshire Coast National Park Authority



Ecological Survey Report Guidance

Table 1 details information that should be included in all ecological survey reports submitted with planning applications.

Requirements for bats are provided in Table 2.



Prior to the commencement of any work ensure all survey work (Protected Species, Phase 1, Code for Sustainable Homes) has been considered and coordinated. Surveys should reflect national and local planning policy and adhere to the requirements set out in European Legislation.

Please be aware in some cases it may be necessary to request additional surveys or further information.

Table 1: Ecological Survey Reports	Checklist
Ensure that the scope of the survey has been considered and that the correct survey is carried out – Protected Species/Phase 1/Code for Sustainable Homes.	Y
Disclaimer to be signed by the agent/architect/developer and applicant stating they have read and understood the survey report: I, [name], acknowledge receipt of the ecological survey dated [date] relating to [address]. I have read the contents and understand my legal obligations regarding any protected species and habitats that may be present at this address. [Signed].	Sent to client/architect to submit separately alongside report
The surveyors name, qualifications, professional membership (where applicable), experience and relevant EPS licence (where applicable).	Y
Executive summary setting out the key findings, recommendations (including mitigation) and if further surveys are required (in bold).	Y
Introduction and site summary (site name, grid reference, site location plan, date of survey).	Y
Desk study (to include summary from Local Records Centre data search – West Wales Biodiversity Information Centre).	Y – LRC data search N/A
Survey methodology (cross reference to guidelines followed, justification for method, equipment to be used, limitations).	Y
Site description (to include particular features of interest and relevant adjoining habitats).	Y
Survey results (to include species scientific name, number found (if applicable), recorder name, date recorded, weather conditions, date, time of survey, duration).	Y
Map summarising records of species and habitats (to include Phase 1 Habitat/NVC codes).	N/A

Table 1: Ecological Survey Reports	Checklist
Overall evaluation of the site, habitat and species in their ecological and physical context and according to status in legislation (EPS, LBAP).	Bats only
Assessment of potential impact(s) of development (to include direct, indirect, construction, ongoing use, short and long-term effects) on the site, species and adjoining habitats and how impacts can be avoided, mitigated or compensated for.	Bats only
Recommendations (to include details of proposed mitigation, compensation and enhancement and method statement e.g. timing). Clearly state which recommendations are compulsory and specify actions for the agent/developer/applicant in relation to the planning application (ensuring mitigation and/or compensation is transposed on to the architectural drawings).	Bats and birds only

Table 2: European Protected Species: Bats	Checklist
A description of the building/structure, trees/hedgerows, adjoining habitat/site, corridors linking habitat features and overall assessment of the potential of the site to support bats both externally and internally (should include illustrations or photos).	Y
Summary of bat evidence found (such as number/type of droppings, staining) and conclusions (such as type of roost).	None found
Plans showing location of evidence (such as suitable features, identified roosts, access points, flight lines, light-sampling, swarming areas).	N/A in building - flight lines around building included
Detailed mitigation and/or compensation strategy specific to the development proposal, targeted to the species and type of roosts found (to include method statement detailing timing, landscaping/planting, lighting, order of works). This must be discussed with the architect/agent and be included on the architectural drawings (dimensions, location of access points, materials, enhancement).	Recommendations for enhancement included

Executive summary

- ✦ At the Former Dew Street Library (the property) the **Former Library** is a large, up to five storey brick built building with flat roofs that is subject to proposed plans for non-residential development. It is generally in good condition, has been well maintained and is well-sealed. The walls are intact but there are some features on the eastern elevation which could possibly provide opportunities for roosting. In addition, there are no wall top gaps, and the windows and doors are all intact and remain closed when not in use with no gaps around any of the window frames, although there are some small (but potentially exploitable) gaps around the large metal roller door on the eastern elevation. In relation to the flat roofs, there is no damage to any areas and no gaps under any of the edge trims. The **Community Learning Centre** is a part two storey/part single storey brick built building with flat roofs that is subject to proposed plans for demolition. It is generally in good condition, has been well maintained and is well-sealed. The walls are intact but there are a small number of crevices in the brick work which could possibly provide opportunities for roosting. In addition, there are no wall top gaps, with the fascia/soffit boards tight to the walls while the windows and doors are all intact and remain closed when not in use with no gaps around any of the frames. In relation to the flat roofs, there is no damage to any areas and no gaps under any of the edge trims.
- ✦ On 2nd August 2022, I&G Ecological Consulting Ltd undertook a daytime bat scoping survey of the property. To provide extra confidence a dusk and dawn activity surveys were undertaken on the **Former Library** on 2nd and 16th August 2022, respectively while dawn and dusk activity surveys were undertaken on the **Community Learning Centre** on 3rd and 17th August 2022, respectively. The weather conditions present at the property were conducive to bat activity; access was available to all parts of the property. They were conducted by experienced, licensed ecologists and assistants.
- ✦ This report confirms the findings of these surveys, completed in accordance with current best practice (Collins, J. (Ed.) 2016) and current government and CIEEM guidelines in relation to the COVID-19 pandemic. It is to be read in conjunction with the Preliminary Ecological Appraisal (PEA) produced by I&G Ecological Consulting in 2022.
- ✦ The property sits within a predominantly residential area within the town of Haverfordwest. It is within close proximity to moderately favourable bat habitat and is **within 2km of two sites which are designated for their bat interest.**
- ✦ As part of the scoping survey undertaken by I&G Ecological Consulting Ltd, no bats or their signs were found. The property is considered to have **low** potential to support roosting bats, and a **low** risk of bats using the features present. During the activity survey two bat species: **Common pipistrelle** and **Soprano pipistrelle** were using the surrounding environment for foraging and commuting, but no bats were seen to leave or enter any part of the buildings. **There are therefore currently no bats using the property,** it receives no ecological protection under wildlife legislation and there are no ecological constraints to the proposed works.
- ✦ **No evidence of bats, nesting birds, or signs of owl activity** were discovered. However, biodiversity enhancement measures are required to be submitted to ensure the development complies with the Environment (Wales) Act 2016, Future Wales 2040, and PPW (Edition 11, February 2021). Recommendations for bats are as follows (**see appendix 7 for examples**) while measures for other species and for broadscale enhancement are included in the PEA:
 - ✦ **Recommendation 1 (Enhancement):** Prior to works commencing 2 x Harlech Woodstone, 2 x Kent Style, and 2 x Vincent Pro (or similar) bat boxes to be affixed to mature trees within the curtilage of the property. See [Putting up your box - Bat Boxes - Bat Conservation Trust \(bats.org.uk\)](https://www.bats.org.uk/putting-up-your-box-bat-boxes-bat-conservation-trust)
 - ✦ **Recommendation 2 (Enhancement):** 2 x Beaumaris Woodstone (or similar) bat boxes to be affixed to the west elevation of the property. See [Putting up your box - Bat Boxes - Bat Conservation Trust \(bats.org.uk\)](https://www.bats.org.uk/putting-up-your-box-bat-boxes-bat-conservation-trust)

Contents

Executive summary	ii
Contents.....	v
1. Introduction	1
1.1 Scope and purpose of survey.....	1
1.2 Site characteristics and proposed works	1
2. Desk study methods and results.....	3
2.1 Methods.....	3
2.2 Results	3
3. Field survey methods and results	4
3.1 Methods	4
3.2 Survey results.....	6
4. Interpretation, conclusions and recommendations	7
4.1 Interpretation and conclusions.....	7
4.2 Recommendations	8
5. Outline method statement for planning	9
5.1 Outline method statement for planning.....	9
LIST OF FIGURES	
Figure 1: Aerial view of the property	2
Figure 2: Map showing the wider environment	2
Figure 3: Location plan.....	3
Figure 4: Surveyor positions during the activity survey	5
Figure 5: Aerial map showing the flight lines of bats detected	7
LIST OF APPENDICES	
Appendix 1: An introduction to bat surveys	10
Appendix 2: Overview of the legislation	12
Appendix 3: Types of bat roost and survey timings	15
Appendix 4: List of surveyors.....	17
Appendix 5: Site plans.....	18
Appendix 6: Site survey images	1
Appendix 7: Roost compensation & enhancement measures	9
Appendix 8: I&G Ecological Consulting Ltd legal disclaimer	10
Appendix 9: References, bibliography and sources of information	11

1. Introduction

1.1 Scope and purpose of survey

1.1.1 Any sign of use of a site by bats is enough to confirm that the space has ‘bat interest’ and is enough to confirm the importance of the location to bat species. All species, as well as their resting places, are protected by law and the site is protected even when bats are not present. See appendix 1 for an introduction to bat surveys, including the aims of the scoping survey, appendix 2 for an overview of the legislation, and appendix 3 for information on roost types and survey timings. Appendix 4 lists all surveyors who undertake work for I&G Ecological Consulting Ltd and includes their experience.

1.1.2 This report confirms the results of, and conclusions and recommendations from, the surveys undertaken. It aims to provide the local planning authority with sufficient information to enable a full assessment of the potential ecological impacts of the proposed development. The CIEEM Guidelines for Ecological Report Writing (2017) state that it is important that the structure and content of a report should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. This report has therefore been written in line with these guidelines. It has also been written in line with GN.37: Protection and Enhancement of Biodiversity. This states that all development should demonstrate a positive approach to maintaining and, wherever possible, enhancing biodiversity. Development that would disturb or otherwise harm protected species or their habitats, or the integrity of other habitats, sites or features of importance to wildlife and individual species, will only be permitted in exceptional circumstances where the effects are minimised or mitigated through careful design, work scheduling or other appropriate measures.

1.1.3 For the purposes of this survey report, the site boundary is defined as the building(s) and surfaces within the overall site footprint.

1.2 Site characteristics and proposed works

1.2.1 The Former Dew Street Library (the property) sits within a predominantly residential area within the town of Haverfordwest. Despite its location within a well-lit built up area, it is within close proximity to moderately favourable bat habitat with features that connect to such habitat. These include the environment on the 3.3 acre site itself which has mature woodland on the western and eastern side of the site as well as mature gardens with mature trees at the surrounding properties. These link to areas such as the allotments 360m to the west, cemetery 530m to the north-west, churchyards 200m to the east and 230m to the north, and the grounds of Haverfordwest Castle 310m to the north-east. Beyond these are small agricultural fields within 800m to the north and east and 1km to the south which while predominantly semi-improved and improved do have some mature hedgerows that provide good connectivity. There are also a small number of woodlands – including ancient woodland – within 2km. In relation to waterbodies and watercourses, the Western Cleddau is 450m to the east, Cartlett Brook is just over 1km to the north-east, and Merlin’s Brook is approximately 900m to the south.

1.2.2 The property comprises the **Former Library** which is subject to proposed plans for non-residential development, and a **Community Learning Centre** that is subject to proposed plans for demolition. Figure 1 on the following page is an aerial view of the property, figure 2 is of the wider environment around the property, and figure 3 is a location plan. Additional plans are included in Appendix 5.



Figure 1 (left): Aerial view of the property – the **Former Library** is outlined in red and the **Community Learning Centre** is outlined in blue (from Apple® Maps)

Figure 2 (below): Map showing the wider environment. The property is indicated by a blue dot (from Apple® Maps)



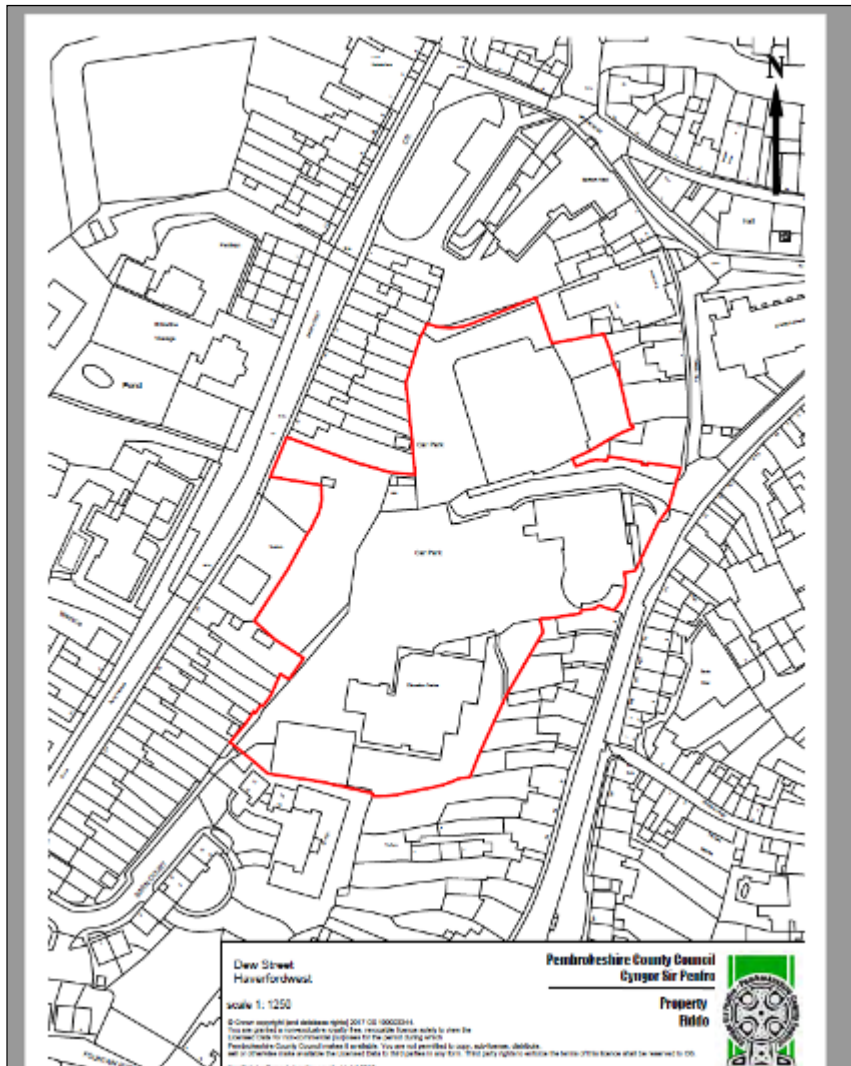


Figure 3 (left): Location plan (provided by the client)

2. Desk study methods and results

2.1 Methods

2.1.1 A 2km search area is used which covers the predicted zone of influence of the proposed development. Multi-Agency Geographic Information for the Countryside (MAGIC) and Lle are both used to establish the proximity of National and International Statutory Designations, particularly in relation to designations for bat interest. Species searches are also conducted through the Local Records Centre (LRC) where appropriate. An online search of planning applications at the property is undertaken to understand its planning history, especially relating to bats.

2.2 Results

2.2.1 No statutory or non-statutory protected features of ecological significance are present within or adjacent to the property. Within 2km, 450m to the east is the Western Cleddau River Site of Special Scientific Interest (SSSI) which forms part of the Afon Cleddau Special Area of Conservation (SAC). The river and associated habitat is an important feeding corridor and resting site for an assemblage of bat species including **Greater horseshoe (*Rhinolophus ferrumequinum*)**, **Lesser horseshoe (*Rhinolophus hipposideros*)** and **Common pipistrelle bat (*Pipistrellus pipistrellus*)**. In addition, 720m to the east is the Milford Haven Waterway SSSI which forms part of the Pembrokeshire Marine SAC. Within the vicinity of the SSSI are important bat breeding sites, supporting internationally important populations of ***R. ferrumequinum*** as well as nationally important numbers of ***R. hipposideros***. Broadleaved woodland and scrub, along with estuarine and grassland habitats, which border the main channel and its various embayments and inlets, provide essential feeding grounds for the bats, as well as flight paths between sites. The ***Rhinolophus*** bats and other bat species also roost in buildings and caves (adjacent to and within the site) during the year. These roosts are used by bats as daytime roosts, night-feeding roosts, or as winter hibernacula. Within 2km there are also three areas of Ancient Semi Natural Woodland and 12 Restored Ancient Woodland Sites (RAWS); the closest being a RAWS 150m north of the

centre of the site. There are no Wildlife Trust Sites, Local or National Nature Reserves, nor any Sites of Importance for Nature Conservation within 2km.

2.2.2 A formal LRC data search was not undertaken due to the small size, low predicted impact, and nature of the development. The overall impact on biodiversity is likely to be localised and of low significance and current proposals suggest no land will be lost or linear features severed. It is considered very unlikely that the development will have any impact outside the footprint of the works. The data search results would be considered unlikely to impact on the decision-making process as appropriate well-staffed surveys were undertaken at optimum times of year. This approach is consistent with the CIEEM Guidelines for Accessing and Using Biodiversity Data (2020). **An online search found records for the following bat species within 2km of the property: Western barbastelle (*Barbastella barbastellus*), Serotine (*Eptesicus serotinus*), Brandt's (*Myotis brandtii*), Daubenton's (*Myotis daubentonii*), Whiskered (*Myotis mystacinus*), Natterer's (*Myotis nattereri*), Noctule (*Nyctalus noctula*), Nathusius's pipistrelle (*Pipistrellus nathusii*), *P. pipistrellus*, Soprano pipistrelle (*Pipistrellus pygmaeus*), Brown long-eared (*Plecotus auritus*), *R. ferrumequinum*, and *R. hipposideros*.**

2.2.3 In relation to bird interest at sites within 2km, within the Western Cleddau River SSSI, although not of special interest in their own right, the site supports a range of breeding birds including dipper (*Cinclus cinclus*), grey heron (*Ardea cinerea*), kingfisher (*Alcedo atthis*), grey wagtail (*Motacilla cinerea*), mallard (*Anas platyrhynchos*), moorhen (*Gallinula chloropus*), mute swan (*Cygnus olor*), sedge warbler (*Acrocephalus schoenobaenus*) and grasshopper warbler (*Locustella naevia*). Associated wetlands provide valuable feeding habitats for snipe (*Gallinago gallinago*), curlew (*Numenius arquata*), lapwing (*Vanellus vanellus*), and barn owl (*Tyto alba*). In addition, the saltmarsh and mudflats within the Milford Haven Waterway SSSI support significant numbers of over-wintering wildfowl and waders. This number rises during particularly hard winters, when the mild Pembrokeshire climate results in the Haven population becoming augmented by wildfowl and waders coming in from other estuaries to the east that have become frozen. Species of special interest within the Haven include little grebe (*Tachybaptus ruficollis*), shelduck (*Tadorna tadorna*), wigeon (*Anas penelope*), teal (*Anas crecca*), dunlin (*Calidris alpina*) and *N. arquata*.

2.2.4 An online search found no previous applications for the property. An online search of other applications within the postcode found no applications for which a Bat Survey Report had been produced. However, 2022 reports for two properties within 500m produced by I&G Ecological Consulting Ltd reported foraging and commuting records for *P. pipistrellus* and *P. pygmaeus*.

3. Field survey methods and results

3.1 Methods

3.1.1 A Preliminary Roost Assessment (PRA) was undertaken on 2nd August 2022 to identify Potential Roost Features (PRF). Details of the equipment used by I&G Ecological Consulting Ltd can be found in appendix 1, and the survey was undertaken by Glyn Lloyd-Jones and Iestyn Evans.

3.1.2 In relation to survey limitations, many of the UK species of bat are crevice dwelling, and bats or signs of bats can be difficult to find within a building. In addition, there may be

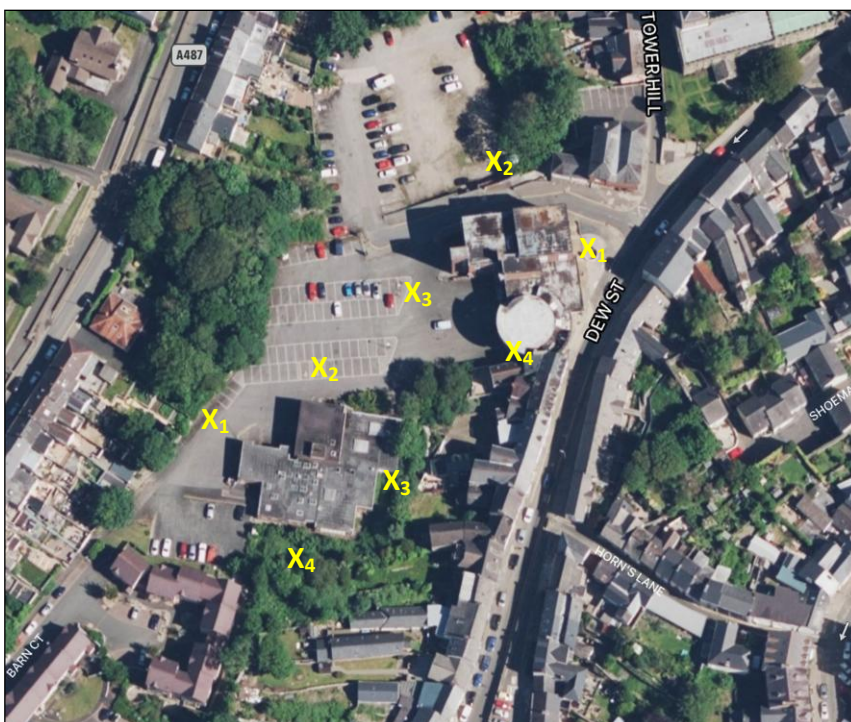
areas that are inaccessible to the surveyor. Externally, sufficient access was available to enable a thorough survey from ground level, noting that the **Former Library** is up to five storeys high in places while internally, access was available to all areas. In addition, one activity survey was undertaken in good weather conditions to provide confidence in the results, and to understand how bats are using the surroundings. Therefore, using the equipment available to them all areas were thoroughly surveyed by the surveyors to maximise effectiveness.

3.1.3 The first dusk activity survey was undertaken on the **Former Library** on 2nd August 2022, and the surveyors were Glyn Lloyd-Jones, Sharon Doherty, Bonnie Illingworth, and Lewis Jones. Sunset was at 21:07, the survey started at 20:55 and ended at 23:10. The weather remained dry throughout the survey with 80% cloud at the start, humidity was 95%, there was a light westerly wind of 5mph, and the temperature started at 18.8°C and ended at 18.1°C.

3.1.4 The first dawn activity survey was undertaken on the **Community Learning Centre** on 3rd August 2022, and the surveyors were Iestyn Evans, Greg Evans, Pete Watts, and Lewis Jones. Sunrise was at 05:45, the survey started at 03:45 and ended at 05:50. The weather remained dry throughout the survey with 85% cloud at the end, humidity was 95%, there was a light westerly wind of 3mph, and the temperature started at 18.3°C and ended at 18.7°C.

3.1.5 The second dawn activity survey was undertaken on the **Former Library** on 16th August 2022, and the surveyors were Iestyn Evans, Greg Evans, Pete Watts, and Lewis Jones. Sunrise was at 06:06, the survey started at 04:05 and ended at 06:10. The weather remained dry throughout the survey with 45% cloud at the end, humidity was 80%, there was a light westerly wind of 3mph, and the temperature started at 16.1°C and ended at 17.1°C.

3.1.6 The second dusk activity survey was undertaken on the **Community Learning Centre** on 17th August 2022, and the surveyors were Glyn Lloyd-Jones, Sharon Doherty, Bonnie Illingworth, and Lewis Jones. Sunset was at 20:39, the survey started at 20:25 and ended at 22:40. The weather remained dry throughout the survey with light (25%) cloud with sunny spells at the start, humidity was 70%, there was a light northerly breeze of 2mph, and the temperature started at 19.8°C and ended at 15.4°C.



3.1.7 Figure 4 shows the position of surveyors during the activity survey. Each surveyor had a Magenta 5 or an Elekon Batscanner bat detector to assist in identification and detection of bats and their behaviour. **Surveyors moved along the elevation they were watching during the surveys.**

Figure 4: Surveyor positions during the activity survey (from Apple® Maps)

3.2 Survey results

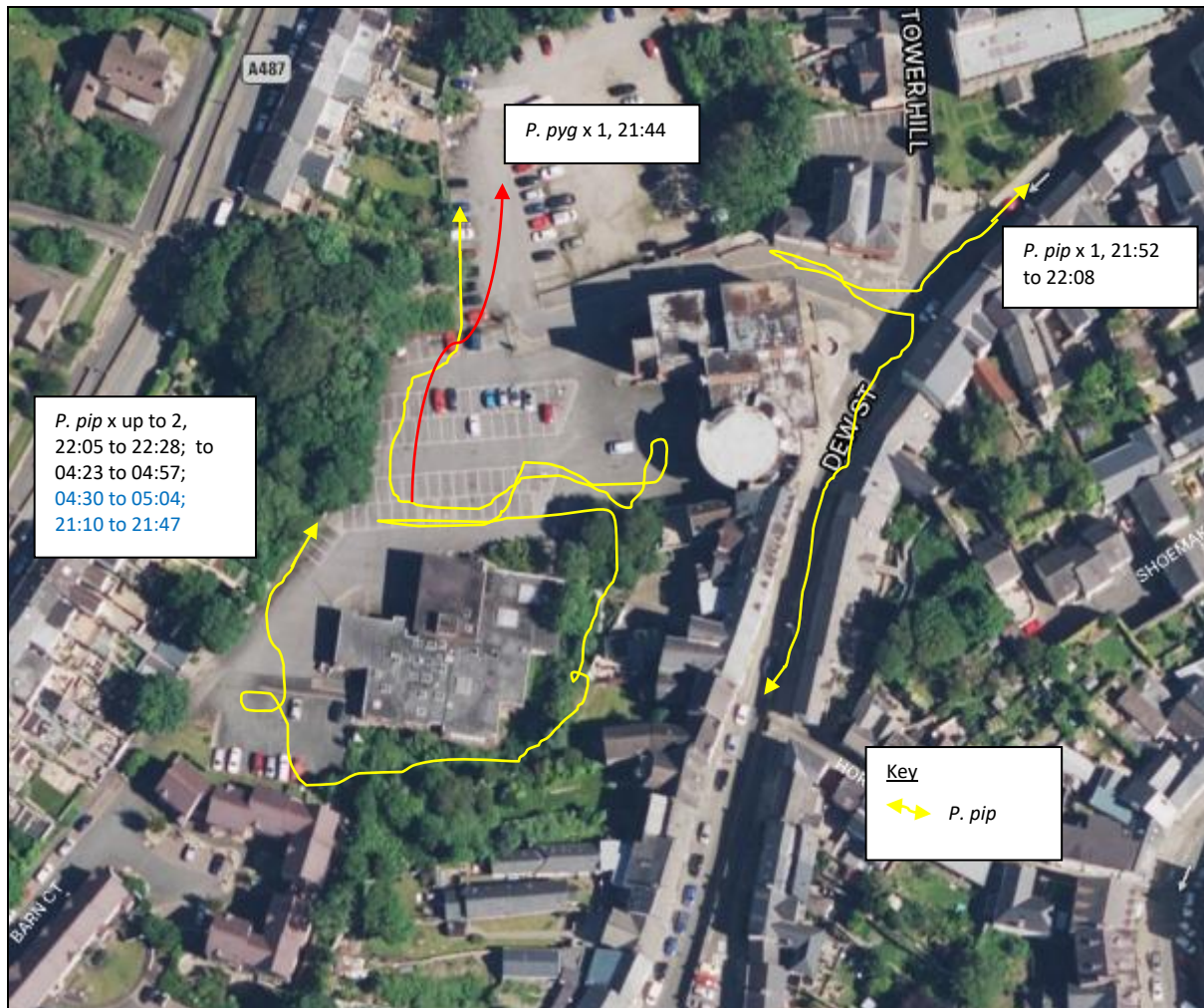
3.2.1 The PRA found that at the property the **Former Library** is a large, up to five storey brick built building with flat roofs that is generally in good condition, has been well maintained and is well-sealed. The walls are intact but there are some features on the eastern elevation which could possibly provide opportunities for roosting. In addition, there are no wall top gaps, and the windows and doors are all intact and remain closed when not in use with no gaps around any of the window frames, although there are some small (but potentially exploitable) gaps around the large metal roller door on the western elevation. In relation to the flat roofs, there is no damage to any areas and no gaps under any of the edge trims. Within the **Former Library** there are no loft spaces but there is damage to some of the ceilings which has created some gaps that could potentially be exploited, and there are dark, sheltered areas with crevices that could provide roosting opportunities. However, the only accessible internal area is where the metal roller door is and there are no areas which could offer opportunities within this area. In addition, all the items and surfaces are clean with only undisturbed cobwebs and dust in places. The **Community Learning Centre** is a part two storey/part single storey brick built building with flat roofs that is generally in good condition, has been well maintained and is well-sealed. The walls are intact but there are a small number of crevices in the brick work which could possibly provide opportunities for roosting. In addition, there are no wall top gaps, with the fascia/soffit boards tight to the walls while the windows and doors are all intact and remain closed when not in use with no gaps around any of the frames. In relation to the flat roofs, there is no damage to any areas and no gaps under any of the edge trims. Within the **Community Learning Centre** there are no loft spaces but there are gaps in some of the ceilings that could potentially be exploited, and there are dark, sheltered areas with crevices that could provide roosting opportunities. However, there are no access points which could be exploited and all the items and surfaces are clean with only undisturbed cobwebs and dust in places. **No live or dead bats or their signs (e.g., droppings, urine stains and smells) were found anywhere).** As a result of the findings, it is considered that the property has **low** potential to support roosting bats, and a **low** risk of bats using the features present. There are currently **no bats** using any building. Site survey images are included in appendix 6.

3.2.2 Figure 5 on the following page shows the flight lines of bats detected and the times they were detected. The species of bats detected during the survey, and the nature of their activity was as follows:

- ***P. pipistrellus***: Bats were detected foraging and commuting on site during all the surveys with the focus of activity being to the west. The earliest activity on the dusk surveys was during the second dusk survey when bats were detected from 31 minutes after sunset while the earliest activity on the first dusk survey was 58 minutes after sunset. The latest activity on the first dawn survey was 48 minutes before sunrise while the latest activity on the second dawn survey was 62 minutes before sunrise. During the first dusk survey only an individual bat was also detected foraging and commuting along the road to the east of the **Former Library** between 45 and 61 minutes after sunset an individual bat was seen commuting to the north to the rear of the property at 39 minutes after sunset, and an individual bat was detected foraging and commuting along the road to the front of the property between 46 and 59 minutes after sunset.
- ***P. pygmaeus***: An individual bat was seen commuting to the north along the western side of the property at 37 minutes after sunset on the first dusk survey but no other activity

was detected on site during any of the other surveys. However, calls were heard to the west and north on all surveys – during the second half of the dusk surveys and the first half of the surveys during the dawn surveys.

Figure 5: Aerial map showing the flight lines of bats detected (from Apple® Maps)



02/08/2022: Sunset was at 21:07, the survey started at 20:55 and ended at 23:10

03/08/2022: Sunrise was at 05:45, the survey started at 03:45 and ended at 05:50

16/08/2022: Sunrise was at 06:06, the survey started at 04:05 and ended at 06:10

17/08/2022: Sunset was at 20:39, the survey started at 20:25 and ended at 22:40

3.2.3 Activity summary: No bats were seen to neither leave or enter the property, nor fly across any part of it but low numbers of two species (*P. pipistrellus* and *P. pygmaeus*) were using the surroundings for foraging and commuting.

3.2.4 No evidence of nesting birds was found and **no signs of owl activity** were discovered.

4. Interpretation, conclusions and recommendations

4.1 Interpretation and conclusions

4.1.1 The results for each at species were interpreted as follows:

- ***P. pipistrellus*:** There is one site within 2km that is designated for this species, and there are also publicly accessible records within 2km. However, no bats or their signs were

found either externally or internally, and no bats were seen to either enter or leave the property. Bats were detected foraging and commuting on site during all the surveys with the focus of activity being to the west. The earliest activity on the dusk surveys was during the second dusk survey when bats were detected from 31 minutes after sunset while the earliest activity on the first dusk survey was 58 minutes after sunset. The latest activity on the first dawn survey was 48 minutes before sunrise while the latest activity on the second dawn survey was 62 minutes before sunrise. During the first dusk survey only an individual bat was also detected foraging and commuting along the road to the east of the Former Library between 45 and 61 minutes after sunset an individual bat was seen commuting to the north to the rear of the property at 39 minutes after sunset, and an individual bat was detected foraging and commuting along the road to the front of the property between 46 and 59 minutes after sunset. The evidence as a whole therefore suggests that this species is using the area as part of its foraging and commuting habitat.

- ***P. pygmaeus***: There are no sites within 2km that are designated for this species, but there are publicly accessible records within 2km. However, no bats or their signs were found either externally or internally, and no bats were seen to either enter or leave the property. An individual bat was seen commuting to the north along the western side of the property at 37 minutes after sunset on the first dusk survey but no other activity was detected on site during any of the other surveys. However, calls were heard to the west and north on all surveys – during the second half of the dusk surveys and the first half of the surveys during the dawn surveys. The evidence as a whole therefore suggests that this species is using the area as part of its foraging and commuting habitat, with the focus being away from the site itself.

4.1.2 Using the findings of the desk study and field surveys, it is concluded that the property is within close proximity to favourable bat habitat but currently has **low potential** to support roosting bats. During the activity survey two bat species (*P. pipistrellus* and *P. pygmaeus*) were using the surroundings for foraging and commuting, **but bats are not currently using any part of the property. It is therefore considered that proposed development will not have a negative impact upon the favourable conservation status of the bat species using the area.** The localised scale of the proposed development also suggests that the impact on the local ecology and it is anticipated that the proposed enhancements detailed in 4.2 will result in a positive impact and net gain for biodiversity.

4.1.3 There are not considered to be any survey limitations which would impact upon the findings and recommendations of this report.

4.2 Recommendations

4.2.1 Enhancement measures will be required to help meet obligations within the Environment (Wales) Act 2016, Future Wales 2040, and Planning Policy Wales 11th Edition (February 2021); as well as to compensate for the loss of roosting opportunity. Excellent long-term enhancement can be delivered by implementing measures outlined within appendix 7. Proposed enhancements are as follows:

- ✦ **Recommendation 1 (Enhancement)**: Prior to works commencing 2 x Harlech Woodstone, 2 x Kent Style, and 2 x Vincent Pro (or similar) bat boxes to be affixed to mature trees within the curtilage of the property. See [Putting up your box - Bat Boxes - Bat Conservation Trust \(bats.org.uk\)](https://www.bats.org.uk/putting-up-your-box-bat-boxes/)

- ✦ **Recommendation 2 (Enhancement):** 2 x Beaumaris Woodstone (or similar) bat boxes to be affixed to the west elevation of the property. See [Putting up your box - Bat Boxes - Bat Conservation Trust \(bats.org.uk\)](https://www.bats.org.uk/putting-up-your-box/)

4.2.2 This ecological report will remain valid for a period of 18 to 24 months from the date of the last survey i.e. **until the period 17/02/2024 to 17/08/2024 (CIEEM, 2019)**. A further scoping survey may be required to update the site information if planning is not obtained or works do not commence within a two year period following the survey, especially if the property has fallen into disrepair.

5. Outline method statement for planning

5.1 Outline method statement for planning

5.1.1 **No bats** were detected utilising the property and there are no restrictions on the timing of the work in relation to bats. Where proposed plans involve works to the roof(s) extra care will be taken at wall tops and when stripping any part of the roof(s). All materials are to be lifted and not slid as – despite a negative survey – bats can still be found in these areas. **If bats are found at any stage, all works will stop and a qualified ecologist called for advice and guidance.** As no bats or bat signs were detected at the property, no monitoring is proposed (Mitchell-Jones, 2004 – figure 4, page 39).

5.1.2 Current **lighting** plans for the site are not known but should any be proposed they must ensure that exterior lighting is kept to a minimum to prevent any adverse impacts on bats. In particular, external lighting around the recommended enhancement must be carefully designed to avoid any impact upon bats (Institution of Lighting Professionals, 2018). If an external lighting scheme is proposed for this application a plan will be produced that demonstrates compliance with the guidance referenced above.

5.1.3 Where **external lighting** is necessary, this should utilise a number of key design points to limit any impact, as follows: Low level lighting pointed towards the ground; LED bulbs to be used of 2700 Kelvin (*p.18 of the lighting guidelines referenced above*) and below (warm white light and not daylight); use of light shields and hoods to direct the light downwards and prevent vertical and horizontal light spill; and use of passive infrared (PIR) motion sensors on timers to ensure lights only come on when necessary.

Appendix 1: An introduction to bat surveys

A note on bat surveys

- ✧ All bats and their roosts, irrespective of the number of bats, species, and whether bats are present or not, are fully protected by the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). Bats are the only mammal capable of true flight. They are notoriously difficult to survey for as they cannot be heard unaided and are difficult to see due to their nocturnal behaviour. They are also small and can live in the smallest of crevices, so may often be overlooked because of their size.
- ✧ Wales has relatively high numbers of most of the species that occur in Britain; the rural landscape with its abundance of wooded areas, river valleys and hedgerows means that buildings are commonly used as roosting sites by bats. This is particularly the case for older buildings (typically with stone walls and slate roofs) that are located close to good feeding areas, on the edge of settlements, or that are rarely disturbed.
- ✧ Bats may also change their resting and feeding places regularly throughout the year, depending on the time of year and weather conditions. Thus, other signs of use are also looked for such as their droppings or signs of feeding.
- ✧ To gain an understanding as to how bats are using a building, a survey may also involve dusk and/or dawn observations which may need to be repeated at different times throughout the year.
- ✧ The search buffers implemented as part of the survey are considered to more than adequately cover the predicted zone of influence of the proposed development. The reasons for the site designations have also been considered when discussing potential impacts on the biodiversity of these sites. If the sites are designated for their bat or bird interest, this will be mentioned.
- ✧ Survey methodologies are implemented as appropriate, based on the surveyors' assessment of the site features and with particular reference to the advice in Bat Surveys for Professional Ecologists: Good practice guidelines, 3rd edition (Collins, J. (Ed.), 2016) & The Bat Workers' Manual, 3rd edition. (Mitchell-Jones, A.J., & McLeish, A.P. (Ed.), 2004). Reports are written with reference to the CIEEM (2015) Guidelines as well as BS42020.
- ✧ A PRA visit (scoping survey) is used to identify all potential access and egress points for bats in the building, and to identify crevices and possible dwelling places. Internal and external inspections are aided using powerful binoculars and close-focussing monoculars, as well as ladders, high powered Cree flashlights and head-torches. We also have thermal imaging cameras and night vision devices at our disposal as well as full spectrum photographic cameras which can photograph a bat in complete darkness with an infrared flash. Exploitable crevices are also endoscoped with either a hand-held digital scope or a smart phone compatible scope. Digital thermometers and hygrometers are also at our disposal.
- ✧ The survey consists of a visual inspection of the interior and exterior of the building for evidence of bat use, including droppings, smells, feeding remains, staining, and scratching around roost exit and entry points. Potential features conducive (but not necessarily predictive) to bat presence include voids in the stonework, wooden beams, any associated rot holes, gaps behind soffits or within walls and fascia boards, raised tiles, any raised render, and any sufficiently large crevices. The general condition of the building is

examined, including the structure of the roof, condition of walls, the potential for disturbance, and the position of the building in relation to connectivity to good bat habitat.

✧ If positive bat signs are discovered, or the construction style suggests cryptic bats *may* be present, an Anabat SDII or Anabat Express is deployed within the space of the building surveyed. These commonly record all bats from within and to the exterior of a building as they have extremely sensitive microphones so clusters of calls or high frequency of calls over short periods that are repeated (not just a vocal (Chatty) bat passing the microphone once on a foraging /socialising expedition) may indicate a presence within the building. Supporting evidence is then needed to make a decision, such as bats seen during surveys, droppings and feeding signs as well as building suitability for a given species. For example, we have had clear sonograms for Serotine bats (*Eptesicus serotinus*) from a loft space deployed recorder where no gaps existed anywhere and no droppings from serotines were present. These large bats must have been present elsewhere on site or use the site for foraging.

✧ The outcomes have been used to specify whether further surveys are required, or to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed works.

✧ If positive signs of bat activity are found then it will be necessary to assess whether a licence is needed at all (damage and disturbance to the roost and harm to bats can be avoided through thoughtful and planned working practices), or whether a licence is recommended as damage, disturbance or harm are unlikely to be avoided.

Appendix 2: Overview of the legislation

- ✧ All bats and their roosts, irrespective of the number of bats, species, and whether bats are present or not, are fully protected by the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).
- ✧ There is a risk that works could result in the damage or destruction of a bat roost or roosts, the disturbance of bats, and the potential killing or injury of bats, sufficient survey effort (where indicated) helps to minimise this risk.
- ✧ All wild birds, their nests, eggs, and dependent young are afforded protection under the Wildlife and Countryside Act 1981 (as amended), with the bird nesting season generally from 1st March until 31st August.
- ✧ Technical Advice Note (TAN) 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species. Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':
 - Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long- term perspective;
 - Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
 - Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
 - Ensure that appropriate weight is attached to designated sites of international, national and local importance;
 - Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
 - Ensure that all material considerations are taken into account, and decisions are informed by adequate information about the potential effects of development on nature conservation;
 - Ensure that the range and population of protected species is sustained; and
 - Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered.

- ✧ Bats are listed under Schedule 5 and 6 of the Wildlife and Countryside Act 1981 and protected under sections 9 and 11 (as amended by the Countryside and Rights of Way (CROW) Act 2000).
- ✧ The Environmental Damage (Prevention & Remediation) Regulations 2009 – A protected species and its habitat are protected under this legislation as well as others.
- ✧ The Conservation of Habitats and Species Regulations 2017 – (regulation 43) fully protects all bats and their roosts, making it **an offence to deliberately kill, injure or capture** (take) bats; *to deliberately disturb bats; damage or destroy bat roosts* or resting places (this is considered an ‘Absolute Offence’ as damage and destruction may detrimentally effect the Continuous Ecological Functionality of that roost/resting place); possess or transport a bat or any part of a bat; sell (or offer for sale) or exchange bats or parts of bats.
- ✧ Bats are also protected by: Appendix III of the Bern Convention; Appendix II of the Bonn Convention (including the Convention's Agreement on the conservation of Bats in Europe); Natural Environment and Rural Communities Act 2006 (in England); and The Environment (Wales) Act 2016: specifically, Sections 6 (*places a duty upon Local Authorities to enhance biodiversity and the **resilience of ecosystems***) and 7 (*Creating local biodiversity lists and a duty to take steps to **maintain and enhance biodiversity***).
- ✧ For any offence to occur a derogation or **European Protected Species (EPS) licence** must be gained from Natural Resources Wales. To gain an EPS Licence, they must be satisfied that;
 - i. granting the licence would not be detrimental to the Favourable Conservation Status (FCS) of the populations of species concerned within its natural range;
 - ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment; and
 - iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce, the need for any adverse impact to the species.
- ✧ All bats are listed in Annex IV of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and are therefore designated as *European Protected Species*. These *protected* species are afforded enhanced protection and more stringent licensing provisions than those protected by the Wildlife and Countryside Act (WACA) alone. There are also biodiversity obligations to be met within the Well-being of Future Generations (Wales) Act 2015 [WFG] and the seven well-being goals which include an emphasis on socio-economic resilience as well as protecting culture, heritage and the Welsh language. One Act does not take precedence over the other.
- ✧ Planning Policy Wales (11th Ed.) also emphasises the importance of ensuring – wherever possible – a net gain to biodiversity from any development. Future Wales (The National Plan 2040) highlights in the 10th of 11 outcomes that the aim is for a “Wales where people live...in places with biodiverse, resilient and connected ecosystems”. Highlighting the importance for creating and enhancing resilient and diverse eco-systems.

- ✦ Future Wales – the National Plan 2040 states the following:
 - Outcome 10 focuses on places with biodiverse, resilient and connected ecosystems. As such, the variety of flora and fauna found across Wales make Wales a special place. Biodiversity underpins the functioning of healthy, resilient ecosystems and the multiple benefits they provide. While biodiversity has declined in recent decades, we will reverse these losses and enhance the resilience of ecosystems. The planning system will ensure wildlife is able to thrive in healthy, diverse habitats, both in urban and rural areas, recognising and valuing the multiple benefits to people and nature.
 - Policy 9 is about Resilient Ecological Networks and Green Infrastructure. To ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, the Welsh Government will work with key partners to:
 - identify areas which should be safeguarded and created as ecological networks for their importance for adaptation to climate change, for habitat protection, restoration or creation, to protect species, or which provide key ecosystems services, to ensure they are not unduly compromised by future development; and
 - identify opportunities where existing and potential green infrastructure could be maximised as part of placemaking, requiring the use of nature-based solutions as a key mechanism for securing sustainable growth, ecological connectivity, social equality and well-being.Planning authorities should include these areas and/or opportunities in their development plan strategies and policies in order to promote and safeguard the functions and opportunities they provide. In all cases, action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature-based approaches to site planning and the design of the built environment.

Appendix 3: Types of bat roost and survey timings

As the mitigation guidelines state: The presence of a significant (important) bat roost... can normally be determined on a single visit at any time of year; providing that the entire structure is accessible and that any signs of bat activity have not been removed by others. The table below shows the applicability of survey methods. The table has been reproduced from Bat Mitigation Guidelines (table 5.2) (2004).

Season	Roost type	Inspection	Bat detectors and emergence counts
Spring (Mar – May)	Building	Suitable (signs, perhaps bats)	Limited, weather dependent
	Trees	Difficult (best for signs before leaves appear)	Very limited, weather dependent
	Underground	Suitable (signs only)	Static detectors may be useful
Summer (June – August)	Building	Suitable (signs and bats)	Suitable
	Trees	Difficult	Limited: use sunrise survey
	Underground	Suitable (signs only)	Rarely useful
Autumn (September – November)	Building	Suitable (signs and bats)	Limited, weather dependent
	Trees	Difficult	Rather limited, weather dependent; use sunrise survey?
	Underground	Suitable (signs, perhaps bats)	Static detectors may be useful
Winter (December – February)	Building	Suitable (signs, perhaps bats)	Rarely useful
	Trees	Difficult (best for signs after leaves have gone)	Rarely useful
	Underground	Suitable (signs and bats)	Static detectors may be useful

The table below shows the recommended survey timings and is reproduced from the Good Practice Guidelines (table 7.1) (3rd Edition, 2016). This is for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
May to August (structures) No further surveys required (trees)	May to September ^a with at least one of the surveys between May and August ^b	May to September ^a with at least two of the surveys between May and August ^b

^a September surveys are both weather and location dependent. Conditions may become more unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season.

^b Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more, unless there are specific ecological reasons for the surveys to be closer together (for example, a more accurate count of a maternity colony is required but it is likely that the colony will soon disperse). If there is potential for a maternity colony then consideration should be given to detectability. A survey on 31 August followed by a mid-September survey is unlikely to pick up a maternity colony. An ecologist should use their professional judgement to design the most appropriate survey regime.

The table below shows the recommended minimum number of surveys to be carried out according to roost potential. It is reproduced from the Good Practice Guidelines (table 7.3) (3rd Edition, 2016).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry ^a (structures). No further surveys required (trees)	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn ^b

^aStructures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (as noted in section 5.2.9 of the guidelines). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

^b Multiple survey visits should be spread out to sample as much of the recommended survey period (see table 7.1 above) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

Roosts required by bats

Hibernation sites (hibernacula). Sheltered areas with relatively stable winter temperatures.

Underground cavities, caves, mines, cellars, hollow trees and cavities and crevices in buildings or similar structures are examples.

Nursery roosts (maternity roosts). Places usually warm, where adult females of a colony gather to give birth and rear their young. These are often traditional sites with a history of such use and include roof voids, walls, soffit boxes, hollows and cracks/splits in trees and cavities in bridges and similar structures.

Night roosts/feeding perches. Places where bats may gather at night away from the day roost after initial feeding. These places are often quite exposed and may not be suitable for day roosting. They are often recognisable by deposits of droppings and insect remains.

Intermediate/dispersal roosts. Sites where small numbers of bats may gather after hibernation before taking up residence in the nursery roost. Bats may return to these sites after dispersal from the nursery roost and before entering hibernation.

Mating/male roosts. Places that an individual male may defend from other males and to which he will attempt to lure females. These will include small holes/cavities in trees, stonework, caves, mines and buildings.

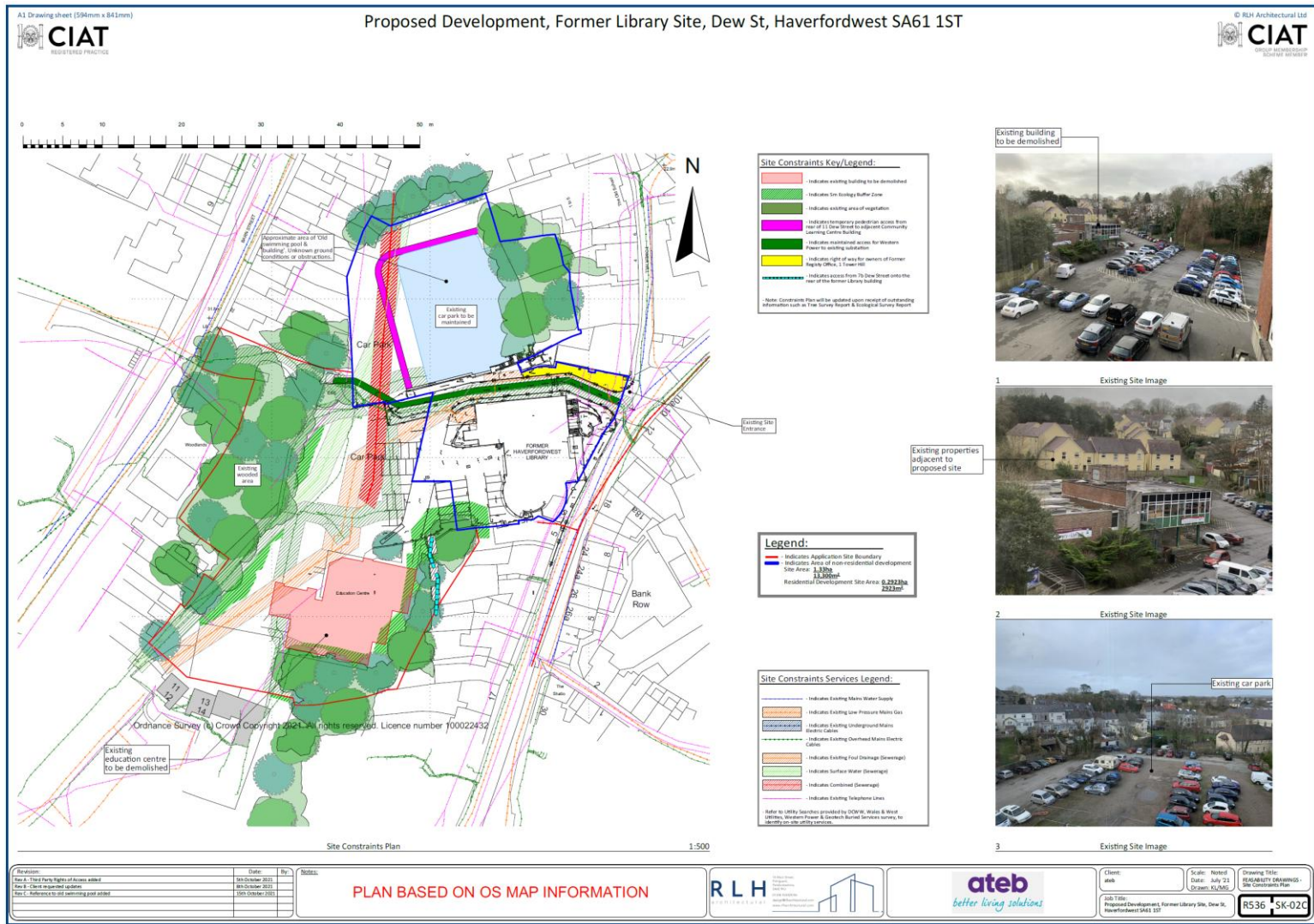
Access, size of roost space and structure

- *Crevise-dwelling bats* (such as Soprano pipistrelles) can crawl into roosts via small gaps in the range of 15–20mm high by 20–50mm wide. The roost area should maintain a crevice of this approximate size gap that the bats can roost between. The area this roost provision covers can be small but about 1m² would be useful for summer nursery roosts. The height of entry can be from 2–7m.
- *Roof-void dwelling bats* require similar dimensions to access the roost but typically need timber joists or beams on which to roost. The height of entry can be from 2–7m.
- *Bats needing a flying area* require the same access dimension as mentioned above, 15–20mm (h) x 20–50mm (w) situated over 2m in height. The roosting area should not be trussed, to allow flight, and should ideally (wherever possible) be of similar dimensions to the roost being replaced.
- *Horseshoe bats* need a larger access so that they can fly (instead of crawl) directly into the roost. Lesser horseshoe bats need an access of 300mm (w) x 200mm (h), while greater horseshoe bats need 400mm (w) x 300mm (h). As above, the roosting area should not be trussed, to allow flight, and should again (where possible) be of similar dimensions to the roost being replaced.

Appendix 4: List of surveyors

Surveyor	Licence	Experience/background
Mr Glyn Lloyd-Jones	Bats	Glyn has significant experience in survey skills and has assisted/worked with many other licensed bat surveyors as well as local bat groups over the past years. He possesses both a Bachelor's (with honours) and Master's degree in the biological sciences and is a Chartered Biologist & member of the Royal Society of Biology. He has worked for EAW, NRW and CCW for over a decade and has gained significant experience of working for regulators and conservation bodies. He also holds a Class 2 bat licence in England and has undertaken many badger, tree and herpetofaunal surveys. Natural Resources Wales Licence number S091520/1. I&G were shortlisted for a BCT roost award in 2021.
Mr Iestyn Evans	Bats	Iestyn has extensive experience in conservation, habitat improvement and management and has also worked with and assisted other licensed bat workers for many years. He has also helped with local bat group surveys and assisted in data gathering for the Beacon for Bats project undertaken by the Vincent Wildlife Trust. Iestyn has also assisted the Glamorgan Bat Group and will also help supervise and mentor (if needed) members of the newly incarnated Carmarthenshire Bat Group. Natural Resources Wales Licence number S090746/1.
Miss Ceri Daugherty	Bats	Ceri worked at Team Leader level within the SNCO for Wales for many years, dealing with customers and negotiating with landowners. She also has practical conservation management experience as both a Countryside Ranger and a conservation volunteer. She possesses a Master's degree in Environmental Impact Assessment and a Bachelor's degree (with honours) in the natural sciences. She is a member of the Carmarthenshire Bat Group. Natural Resources Wales Licence number S089483/1.
Mr Pete Watts	Trainee	Peter provides survey support with his keen eye for detail and vigilance. He has accompanied I&G Ecological Consulting Ltd on many surveys and is becoming a valuable and experienced surveyor.
Mr Greg Evans	Trainee	Greg attends dusk and dawn surveys to provide extra monitoring for possible entry and exit points for bats. He is currently building his experience in this area and is a keen amateur natural historian with an enthusiasm and affinity for bats.
Mr Mike Jones	Assistant	Whenever we need extra assistance in observing and recording bat activity on buildings, Mike provides an excellent and reliable service
Ms Sharon Doherty	Assistant	Whenever we need extra assistance in observing and recording bat activity on buildings, Sharon provides an excellent and reliable service.
Mr Lewis Jones	Assistant	A Graduate with a background in the biological sciences with an aptitude and passion for ecology. Lewis has undertaken courses in herpetology and phase 1 surveys and has a hunger to learn. With a fondness for bats and owls he's also keen to develop his survey skills in this area.
Ms Bonnie Illingworth	Assistant	Bonnie has been a member of the Kent Bat Group for a number of years and has undergone formal training in leading Bat Walks by Shirley Thompson, who set up The Young Batworkers group/magazine etc. She has led several educational sessions for the Scouts and local community groups. She has undertaken many bat activity surveys and has enjoyed conservation work with BCT.
Ms Wendy Larcombe	Assistant	Wendy has an Honours degree in Environmental Biology and over 17 years' experience working in conservation, including as a Planning Ecologist and a freelance Ecologist. She has a wide range of experience, which includes extended Phase 1 habitat surveys, building assessment for bats, bat/barn owl surveys, summer roost counts (Gower), and winter roost counts (Black Mountains). She has undertaken a range of training including bat ecology and surveying and is a valued member of the team.

Appendix 5: Site plan



Site plan

Appendix 6: Site survey images



The **Former Library** is a large, up to five storey brick built building with flat roofs that is subject to proposed plans for non-residential development. It is generally in good condition, has been well maintained and is well-sealed.



The walls are intact but there are some features on the eastern elevation which could possibly provide opportunities for roosting. In addition, there are no wall top gaps, and the windows and doors are all intact and remain closed when not in use with no gaps around any of the window frames, although there are some small (but potentially exploitable) gaps around the large metal roller door on the western elevation.



In relation to the flat roofs, there is no damage to any areas and no gaps under any of the edge trims.



Within the **Former Library** there are no loft spaces but there is damage to some of the ceilings which has created some gaps that could potentially be exploited, and there are dark, sheltered areas with crevices that could provide roosting opportunities. However, the only accessible internal area is where the metal roller door is and there are no areas which could offer opportunities within this area. In addition, all the items and surfaces are clean with only undisturbed cobwebs and dust in places. **No live or dead bats or their signs (e.g.,**

droppings, urine stains, smells) were found anywhere).



Additional interior images showing the absence of any bats or their signs.



The **Community Learning Centre** is a part two storey/part single storey brick built building with flat roofs that is subject to proposed plans for demolition. It is generally in good condition, has been well maintained and is well-sealed. The walls are intact but there are a small number of crevices in the brick work which could possibly provide opportunities for roosting. In addition, there are no wall top gaps, with the fascia/soffit boards tight to

the walls while the windows and doors are all intact and remain closed when not in use with no gaps around any of the frames.



Additional exterior images showing the absence of any bats or their signs – there is vegetation close to the building.



In relation to the flat roofs, there is no damage to any areas and no gaps under any of the edge trims.



Within the **Community Learning Centre** there are no loft spaces but there are gaps in some of the ceilings that could potentially be exploited, and there are dark, sheltered areas with crevices that could provide roosting opportunities. However, there are no access points which could be exploited and all the items and surfaces are clean with only undisturbed cobwebs and dust in places. **No live or dead bats or their signs (e.g., droppings, urine stains, smells) were found anywhere).**

Appendix 7: Roost compensation & enhancement measures



Top: From left to right, the in-wall Schwegler 1FE, the tree mounted 1FF and the multi season 1WQ. The bottom image shows the 1FR in situ.



Left: The Harlech WoodStone bat box offers excellent insulation with a minimum of condensation for roosting bats. WoodStone® is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so there will be no problems with condensation and Woodstone maintains a consistent temperature inside, providing excellent insulation for roosting bats. Height 24cm x width 19cm x depth 18cm; Weight 4.4kg; Colour: Black with White front panel; Hook for hanging; Removable front panel for inspection/cleaning; and 10 Year Manufacturers Guarantee. **Below left:** The Beaumaris bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. This means that, not only

does the box have excellent insulating



properties maintaining a more consistent temperature throughout the year, it also provides excellent protection from predators. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The interior of the box has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight. Suitable for attaching to external walls and should be sited as high up on the façade as possible, at a height of at least 3m from the ground. Avoid siting under artificial lights. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups.

Appendix 8: I&G Ecological Consulting Ltd legal disclaimer

This report was prepared by I&G Ecological Consulting at the instruction of, and for use by, our client(s) named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. I&G Ecological Consulting excludes to the fullest extent lawfully permitted, all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however, exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

We confirm that in preparing this report, we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work, and prevailing site conditions.

Advice in this report is based on the judgement of I&G Ecological Consulting and the interpretation of data gathered during the course of their survey on the property named in this document. ***Until payment has been received, this report remains the intellectual property of I&G Ecological Consulting and can be withdrawn from the planning process at our request. You are also not covered by any of our indemnity or liability insurance until the report has been paid for in full.***

The findings and advice given during the course of this survey is provided by employees of I&G Ecological Consulting acting only on behalf of I&G Ecological Consulting.

The employees of I&G may hold other paid employment but none of their advice, nor work undertaken in respect of producing this report, refers to any roles or responsibilities held in any other employment other than that held at I&G Ecological Consulting.

All work undertaken in this report is the sole responsibility of I&G Ecological Consulting.

Appendix 9: References, bibliography and sources of information

- Bat Conservation Trust, 2010. Bats in Buildings. *Bats and the Built Environment Series: Volume 1*.
- British Standards Institute, BS42020:2013. Biodiversity. Code of practice for planning and development. London, UK.
- British Standards Institute, BS8596:2015. *Surveying for Bats in Trees and Woodland*. London, UK.
- CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J (ed.), 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Ed*. The Bat Conservation Trust. London.
- Council of Europe, 1979. *Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention)*. Strasbourg.
- Council of Europe, 1979. *The Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention)*. Strasbourg.
- Dietz, C., von Helversen, O., Nill, D., 2009. *Bats of Britain, Europe and Northwest Africa*. A. & C. Black, London.
- HM Government, 2000. *Countryside and Rights of Way (CROW) Act*. HMSO. London.
- HM Government, 2009. *Environmental Damage (Prevention and Remediation) Regulations*. HMSO. London.
- HM Government, 2006. *Natural Environment and Rural Communities Act*. HMSO. London
- HM Government, 2010 (as amended 2017). *The Conservation of Habitats and Species Regulations*. HMSO. London.
- HM Government, 1981. *The Wildlife and Countryside Act 1981 (as Amended)*. HMSO. London.
- Institution of Lighting Professionals, 2018. *Bats and Artificial Lighting: Bats and the Built Environment Series. Guidance Note 08/18*. ILP, Rugby.
- Lle. Retrieved from <http://lle.gov.wales/home>
- MAGIC. Retrieved from <https://magic.defra.gov.uk/>
- Mitchell-Jones, A.J., 2004a. *Bat Mitigation Guidelines*. English Nature, Peterborough.
- Mitchell-Jones, A.J., & McLeish, A.P. Ed., 2004. *3rd Edition Bat Workers' Manual*. English Nature, Peterborough.
- Mitchell-Jones, A.J., Cooke, A.S., Boyd, I.L., Stebbings, R.E., 1989. Bats and remedial timber treatment chemicals a review. *Mammal Rev.* **19**, pp 93–110.
- Morris, P.A., 1993. *A Red Data Book for British Mammals*. The Mammal Society, London.
- Waring, S. D., Essah, E. A., Gunnell, K., Bonser, R. H. C., 2013. Double Jeopardy: The Potential for Problems when Bats Interact with Breathable Roofing Membranes in the United Kingdom. *Architecture and Environment*.

Welsh Government, 2021. Planning Policy Wales. 11th ed. Retrieved from https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf

Welsh Government, 2021. Future Wales: the national plan 20:40. Retrieved from https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf

Welsh Government, 2016. *Environment (Wales) Act*. Welsh Government. Cardiff.

Welsh Government, 2009. *Technical Advice Note (TAN) 5, Nature Conservation and Planning*. Welsh Government. Cardiff.

Welsh Government, 2003. *List of Species and Habitats of Principal Importance for the Conservation of Biological Diversity*. Welsh Government. Cardiff.

Williams, C., 2010. *Biodiversity for low and zero carbon buildings: a technical guide for new build*. RIBA Pub., London.