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Formby Business Centre, 42 Duke Street, Formby, Merseyside, L37 4AT

Tel: 01704 875781 Mobile: 07719 108429

Email address: stan@tyrer-ecologicalconsultants.co.uk
kylee@tyrer-ecologicalconsultants.co.uk

**Plas Power Home Farm Buildings, Ruthin Road, Coedpoeth, Wrexham, LL11 3BP
(National Grid Reference: SJ 30308 50720)**

Inspection & Assessment in Relation to Bats & Breeding Birds

Prepared for:

Mr Marc Williams

Issued: 18th October 2017

Plas Power Home Farm Buildings, Ruthin Road, Coedpoeth, Wrexham, LL11 3BP Inspection & Assessment in Relation to Bats & Breeding Birds

Summary

A planning application in respect to the Plas Power Home Farm buildings, Wrexham proposes the conversion of the existing structures with the addition of a link way to the north connecting the two buildings to provide a complete 'U' shape. The Tyrer Partnership, therefore, undertook a daytime assessment of the building in relation to bats and breeding birds during May 2017.

Plas Power Home Farm buildings comprise of two parallel and adjacent structures with central courtyard; both of which are currently redundant, however, in a reasonable condition and representative of their former purpose.

Building 1 - a former coach house incorporating tack room and stables is sited to the west of the plot; a large upper floor is present which was found to offer and meet the basic requirements of loft dwelling bats, such as the Brown Long Eared bat (*Plecotus auritus*) and Lesser Horseshoe bat (*Rhinolophus hipposideros*). The investigation revealed no recent or historic evidence to suggest the presence of loft dwelling bats during the inspection, however, their presence can not be definitively ruled out, and it appeared there may have been some recent disturbance within this area that may have inadvertently destroyed evidence of use.

The section of B1 to the south incorporates two stables, both of which are noted to be open to the ridge, light filled and draughty, thus not considered suitable in terms of loft dwelling bats.

It is observed that a lime mortar has been applied beneath the roof tiles of B1 which will reduce potential for crevice dwelling bat species at roof level due to a lack of internal lining; notwithstanding this external potential for bat access at B1 is located at eaves level, roof verge, and ventilation holes, all of which are typical features favoured by bat for ingress into buildings.

Building 2 – incorporates stables, store and open garage; upper floors or loft spaces are absent within this structure and all compartments were found to be open to the ridge and partially light filled. Thus, are not considered entirely suitable for breeding purposes for loft dwelling bats, however, they can not be discounted for other purposes, and during the investigation up to 60 droppings were identified within the open garage to both internal elevations; the droppings indicative of Lesser Horseshoe bat, with a further 5 Brown Long Eared bat droppings, thus, it is inferred this section is being used as a night roost for both species.

Similarly to B1 a lime mortar has been applied beneath the tiles which will reduce potential for crevice dwelling bat species at roof level due to a lack of internal lining. However, during the external inspection ingress for bats was identified at the roof verge, end ridge tile and at eaves level all of which are typical places favoured by crevice dwelling species such as the Pipistrelle.

The presence of Schedule 1 species such as Barn owl (*Tyto alba*) is considered to be possible within the vicinity, as the immediate environs would offer hunting habitat; however, no recent or historic signs of use such as discarded pellets or faecal splashing was observed within any of the buildings on the day of the survey, and the structures are generally not considered suitable in terms of supporting this species for breeding purposes.

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Potential for more common bird species is present within the structures - a number of historic Swallows (*Hirundo rustica*) nests, and actual birds were observed within building 2 and around the site in general; Swallows are faithful to their nesting sites and return on an annual basis.

It is further observed that a Blue Tit (*Cyanistes caeruleus*) is currently nesting and feeding young at the roof verge of the southern elevation of B2.

It is recommended that in order to establish if/how the identified features at the Plas Power Home Farm buildings are being used by bats dusk emergence or/and dawn surveys should be undertaken. The surveys will need to be conducted during the active season of bats i.e. between May – August as bats, particularly Pipistrelle bats often alternate between roosts and do not necessarily use one roost over their active season.

NB: Were more detailed bat surveys are recommended, following an initial investigation, then Local Authorities on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e. by conducting dusk/dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2010 (as amended). Therefore it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.

As per the recommendations contained within the daytime recommendations one dusk emergence and one dawn re-entry survey were subsequently undertaken on the 27th June and 14th July, 2017. The surveys identified the emergence of two bats from the coach house building (B1) comprising of Common Pipistrelle and Brown Long-Eared bat and two Common Pipistrelle bats re-entered the buildings (B1 and B2) on the 14th July. As such, the presence and destruction of two bat roosts will need to be addressed from both a conservation and legal perspective along with appropriate mitigation prior to the undertaking of any proposed works as indicated within sections 9-11 of this report.

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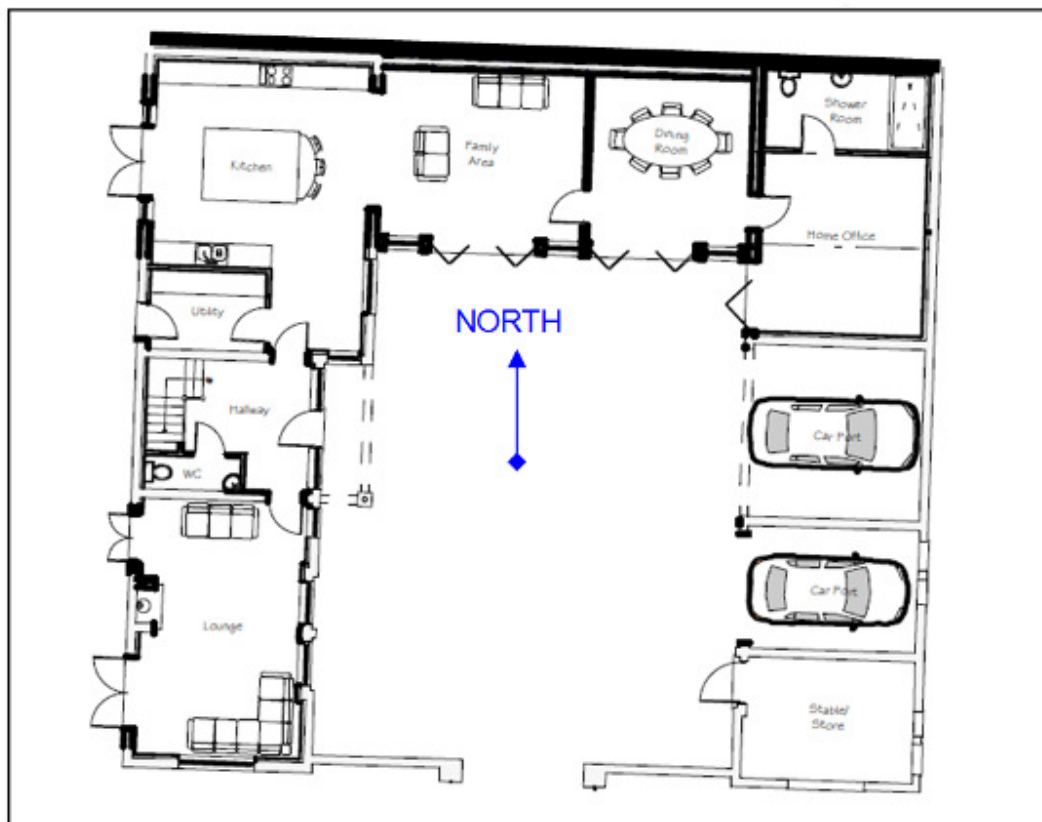
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Plas Power Home Farm Buildings, Ruthin Road, Coedpoeth, Wrexham, LL11 3BP Inspection & Assessment in Relation to Bats & Breeding Birds

1.0 Introduction & Reason for Surveys

- 1.1 As part of a proposed Planning Application at Plas Power Home Farm buildings, Wrexham a daytime inspection was undertaken in relation to bats & breeding birds. Mr. Marc Williams, the site owner, commissioned the inspection and report. Proposed plans for the site include the conversion of the existing structures with the addition of a link way to the north connecting the two buildings to provide a complete 'U' shape. As part of the Local Authority's Planning Policies ecological surveys are generally required, prior to permission being granted, particularly where a protected species is or may be present that could be affected by the proposals for which the Application seeks consent.



Proposed site plan at Plas Power farm

- 1.2 The aim of the inspection was to initially ascertain if the buildings are of value to bats or breeding birds; if it was found to be suitable for bats, signs of use were located or the survey was inconclusive then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August. If bat/s or their roost/place of rest/shelter is subsequently affected by the work then a Natural Resources Wales Development Licence would be required to proceed with the development.

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- 1.3 The optimum time to investigate buildings for evidence of a bat roost is May – August, however that is not to say they cannot be inspected and assessed outside of that time and frequently the results can be conclusive, which can save time and expense for Planning Applicants but it should be borne in mind that equally the inspection can be inconclusive.

2.0 Protected Species & Their Requirements

- 2.1 All British bats and their **roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2010 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.
- 2.2 *Planning Policy Wales* (PPW) (2002) sets out the land use planning policies of the Welsh Government (WG). It is supplemented by a series of Technical Advice Notes (TANs). Procedural advice is given in National Assembly for Wales / Welsh Office circulars. PPW, Ministerial Interim Planning Policy Statements (MIPPS), the TANs and circulars together comprise national planning policy to which local planning authorities in Wales must have regard in the preparation of development plans.
- 2.3 Detailed advice on the preparation of unitary development plans (UDPs) is contained in *Unitary Development Plans Wales*, 2001. Detailed advice on the preparation of Local Development Plans (LDPs) under the Planning and Compulsory Purchase Act 2004 is given in *Local Development Plans Wales*, 2005.
- 2.4 Technical Advice Note (TAN 5 2009) provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. This guidance note should be read in conjunction with *Planning Policy Wales* (2002), in particular with Chapter 5 *Conserving and Improving the Natural Heritage and Coast* which sets out the Assembly Government's objectives for the natural heritage and the land use planning policies which support these.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:-

If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused

2.5 Use of Buildings by Bats

- a) Summer breeding roost.
- b) Hibernation.
- c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

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** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats & Species Regulations 2010 (Regulation 41) the term roost is not used but refers to “a breeding site or resting place of such an animal” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

- 2.6 All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected under the Wildlife & Countryside Act 1981 (as amended). Birds listed on Schedule 1 e.g. barn owls are afforded a greater level of protection. Where nesting birds are present then work should be timed outside of the nesting season (March – August) so as to avoid disturbance.
- 2.7 Barn owls (*Tyto alba*) are a specially protected as a Schedule 1 Part 1 species under the 1981 Wildlife & Countryside Act (as amended), which gives protection to barn owls at all times. The main points in relation to nest sites are: “It is offence to intentionally or recklessly disturb them at or near a nest containing eggs or young. Intentionally damage or destroy a barn owl nest whilst in use or being prepared for use. It is also an offence to intentionally or recklessly disturb dependant young of a wild barn owl.”
- 2.8 Within buildings adaption to artificial nest boxes occurs given that suitable habitat exists within feeding range and linear features such as hedgerow, ditches or watercourses are present as links to other areas, which allows the expansion of young barn owls looking for territories. The boxes can serve both as a breeding site and as a place for general roosting or shelter.
- 2.9 Barn owls are essentially a bird of the open countryside, particularly where rough grassland exists, which supports their main prey by way of small mammals and successful breeding is heavily dependant upon 1) a secluded nest site and 2) a plentiful supply of prey being available. It is possible that loss of an occupied nest site can have an adverse affect even if other alternative sites were made available.

Thus where possible it is always preferable to retain an occupied site and not take the approach of providing an alternative in a different location.

3.0 Bat Species in North Wales

- 3.1 Up to eleven bat species have been recorded in North Wales, most of which use built structures, notably occupied residential properties, for roosting. The most frequently encountered species is the Pipistrelle bat (*Pipistrellus*) and its abundant status in North Wales reflected throughout the UK.
- 3.2 Barn owls are regularly recorded within North Wales where an agricultural matrix that includes suitable bank sides of drainage ditches or rough pasture that will provide habitat for their main prey i.e. small mammals; however they are constantly under threat from loss of habitat and nest sites, which is a situation that is mirrored throughout most of the UK.

4.0 Survey Methodology

4.1 BCT Survey Good Practice Survey Guidelines state:

The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive.

4.2 In context with the above the survey was conducted by Mrs K Wilding, a highly experienced bat surveyor whom holds a Natural England Class 2 bat license (2015-14227-CLS) in addition to a barn owl survey licence (CL29/00276), but more relevant to the site location is an accredited agent on a Natural Resources Wales bat license (Mr S Irwin: 73156: OTH: CSAB: 2014); the inspection was undertaken at a time when bats are within their breeding season which falls within the optimum time to undertake such surveys.

4.3 The daytime survey was conducted on the 17th May 2017 when the buildings at Plas Power Farm were inspected for potential places that may be of value to bats and if evidence of use was present. An upper floor is present within one of the structures which was investigated with high powered torch for evidence of use, which mainly includes droppings or prey items; the interior was also considered in terms of its suitability for roosting bats and all external elevations were investigated from ground floor level, with the aid of close focussing binoculars for places that are frequently used by bats as roosts or as access into roost chambers.

4.4 The results, conclusions and recommendations are based on a number of factors i.e.

Practical experience of surveyor
Knowledge of bat species relevant to the site location and geographical range
Nature of the immediate and surrounding habitat in relation to foraging opportunities
Condition of the building
Presence/absence of a loft space
Presence/absence of roost potential
Value of roost potential – if present

4.4 The inspection for birds was conducted in tandem with the investigation for bats; external elevations and the interior of the buildings were inspected for signs indicative of nesting birds such as nests, or accumulations of nesting materials and droppings. The overall potential of the site including the surrounding habitat to meet the basic requirements of nesting birds was also assessed during the site visit.

5.0 Constraints

5.1 The daytime survey was conducted within the breeding season when bats will be within or forming maternity colonies. The assessment was also conducted within the breeding season of birds at a time when migrating birds which commonly rely upon such buildings such as Swallows will have returned to nesting sites.

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- 5.2 Taking into consideration the above it is considered that there were no survey constraints that would prevent the gathering of information on which to base conclusions and recommendations.

6.0 Daytime Results

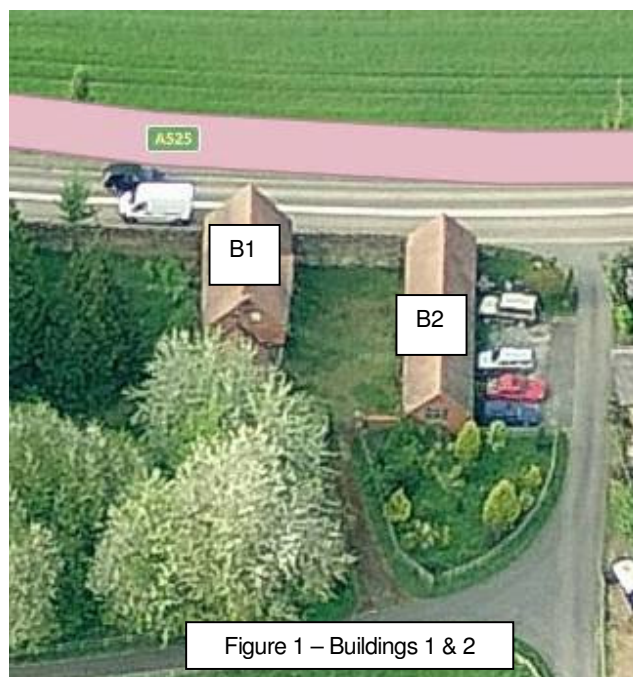
- 6.1 Plas Power Home Farm buildings which are the subject of the current planning application are located adjacent to the A525 within a rural environment approximately 2 kilometres south east of Coedpoeth village. The buildings reside in their own grounds, however, a number of further structures incorporating residential dwellings and associated farm buildings are noted within the immediate vicinity; the habitat on site comprises of hardcore, and general ruderal vegetation to the west, however, to the same aspect the site borders an established belt of Broad Leaved Woodland (National Forest Inventory GB).
- 6.2 Notable habitats within the extending landscape include extensive and established deciduous, ancient and semi – natural woodland at Cil Hentre and within the grounds of Plas Power Park located to the south of Plas Power farm buildings. The additional landscape features further favourable environs where mature woodland is present at Nant Mill, (Common Pipistrelle & Lesser Horseshoe bats present) Plas Power woods and the River Clywedog sited 1.20 kilometres south west. All of the aforementioned of which feature highly favourable habitat for the species for which the survey was undertaken, i.e. bats and breeding birds. Where such habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available.



Location of Plas Power within the immediate landscape

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- 6.3 Open pasture and agricultural land within the immediate and wider landscape provides a high level of favourable hunting grounds for barn owls, and where this landscape is present close to buildings the percentage use of those buildings, by barn owls increases given that roost/nesting opportunities are available and vice versa.
- 6.4 Plas Power Home Farm buildings comprise of two parallel and adjacent structures with central courtyard; both of which are currently redundant, however, in a reasonable condition and representative of their former purpose, notwithstanding this, a significant amount of remedial and modernisation work is required to restore them to a habitable condition in line with today's energy efficient standards. For clarity the buildings have been labelled B1 and B2 (see figure 1), and their description and findings can be found below:



- 6.5 Building 1 - a former coach house incorporating tack room and stables is sited to the west of the plot; it is of brick construction with tile pitched roof. During the internal investigation a large upper floor is present to estimated dimensions of 10 metres long x 4.5 metres wide; during the diurnal assessment, this area is found to be warm and largely of a darkened nature, thus, as a result would offer and meet the basic requirements of loft dwelling bats, such as the Brown Long Eared bat (*Plecotus auritus*) and Lesser Horseshoe bat (*Rhinolophus hipposideros*) which are species that for breeding generally favour large, darkened and unrestricted loft spaces that allow free flight, with consistent warm and relatively stable temperatures. Furthermore, the immediate and extending habitat offers potential to suit the specific foraging requirements of this species. The investigation revealed no recent or historic evidence to suggest the presence of loft dwelling bats during the inspection, however, their presence can not be definitively ruled out, and it appeared there may have been some recent disturbance within this area that may have inadvertently destroyed evidence of bat use.

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The section to the south of B1 incorporates two stables, both of which are noted to be open to the ridge, light filled and draughty, thus not considered suitable in terms of loft dwelling bats.

- 6.6 Due to the construction of B1, it is observed that a lime mortar has been applied beneath the roof tiles, although now in a deteriorating condition; roof lining such as a bitumen underfelt is absent which will reduce potential for crevice dwelling bat species at roof level; the presence of such lining can provide opportunities whereby they often roost between tiles/slates and roofing materials, provided external access exists. The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony. During the investigation historic or recent evidence to suggest the presence of this species was not located.
- 6.7 Externally, potential for access at B1 is located at eaves level, roof verge, and ventilation holes, all of which are typical features favoured by bat for ingress into buildings.
- 6.8 Building 2 – incorporates stables, store and open garage; it is of the same construction as B1, however, upper floors or loft spaces are absent within this structure and all compartments are found to be open to the ridge and partially light filled. Thus, due to the reasons outlined within 6.5 are not considered entirely suitable for breeding purposes for loft dwelling bats, however, they can not be discounted for other purposes, and during the investigation up to 60 droppings were identified within the open garage to both internal elevations; the droppings are indicative of Lesser Horseshoe bat, with a further 5 Brown Long Eared bat droppings located, thus, it is inferred this section is being used as a night roost for both species.
- 6.9 Similarly to B1 a lime mortar has been applied beneath the tiles and additional roof lining is absent, which therefore reduces the potential for crevice dwelling bats at roof level. However, during the external inspection ingress for bats was identified at the roof verge, end ridge tile and eaves level all of which are typical places favoured by crevice dwelling species such as the Pipistrelle.

Daytime Results - Birds

- 6.10 The presence of Schedule 1 species such as Barn owl (*Tyto alba*) is considered to be possible within the vicinity, as the immediate environs would offer hunting habitat; however, no recent or historic signs of use such as discarded pellets or faecal splashing was observed within any of the buildings on the day of the survey, and the structures are generally not considered suitable in terms of supporting this species for breeding purposes.

Potential for more common bird species is present within the structures - a number of historic Swallows (*Hirundo rustica*) nests, and actual birds were observed within building 2 and around the site in general; Swallows are faithful to their nesting sites and return on an annual basis.

It is further observed that a Blue Tit (*Cyanistes caeruleus*) is currently nesting and feeding young at the roof verge of the southern elevation of B2.

7.0 Conclusions

- 7.1 From the survey results it can be concluded that the upper floor of building 1 is of adequate dimensions that would meet the requirements of loft dwelling species, and the immediate / surrounding habitat is favourable for these species specific foraging requirements, despite no recent or historic evidence of use observed on the day of the survey, the presence of this species can not be ruled out thus, the proposed works may impact on this species should they be present. Evidence of Lesser Horseshoe and Brown Long Eared bats has been identified within the open section of B2; it is suggested this area is currently being utilised by both species as a night roost.
- 7.2 Ingress opportunities were located to the exterior of both of the Plas Power Home Farm buildings that could be used by crevice dwelling species such as the *Pipistrellus*. The habitat immediate to the building is more than capable of meeting their foraging requirements; roost opportunities identified on the building are initially categorised as offering moderate potential, thus the combination of the roost potential combined with the quality of the immediate habitat will instigate recommendations for dusk/dawn surveys to be undertaken prior to conversion or any further work being undertaken.

8.0 Daytime Survey Recommendations

- 8.1 It is recommended that in order to establish if/how the identified features at the Plas Power Home Farm buildings are being used by bats dusk emergence or/and dawn surveys should be undertaken. The surveys will need to be conducted during the active season of bats i.e. between May – August as bats, particularly Pipistrelle bats often alternate between roosts and do not necessarily use one roost over their active season.

Two dusk surveys are generally accepted as being an appropriate level of survey effort where moderate potential has been identified and roosting features identified are localised but may be increased subject to the results of those surveys. The two surveys need to be spaced between the months of May-August (see below for extract from Bat Conservation Bat Surveys: Good Practice Guidelines).

Bat Conservation Trust

Table 7.3 Recommended minimum number of survey visits 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
One survey visit. One dusk emergence or dawn re-entry survey ^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

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- 8.2 It should be noted that where bat/s or their roost/place of rest/shelter will be affected by the proposed works, then to allow work at the site to legally commence, an application for Natural Resources Wales Development Licence will be required. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation. It should also be noted that before a licence can be applied for all Planning issues including Consent and any pre-commencement Planning Conditions relative to bats should be resolved.
- 8.3 Natural Resources Wales provides information and guidance about licensing, however, it is not their role to provide mitigation which should be undertaken by a suitably experience bat ecologist.
- 8.4 It is recommended that scheme in respect to the buildings should be timed outside of the breeding season of birds (March - September) so as to avoid potential damage to any occupied Swallow or Blue Tits nests and subsequently committing an offence. It is further recommended that provision for the species located during the daytime survey is incorporated within the converted structure (see Appendix II).

NB: *Were more detailed bat surveys are recommended, following an initial investigation, then Local Authorities on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e. by conducting dusk/dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2010 (as amended). Therefore it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.*

9.0 Dusk Survey Results

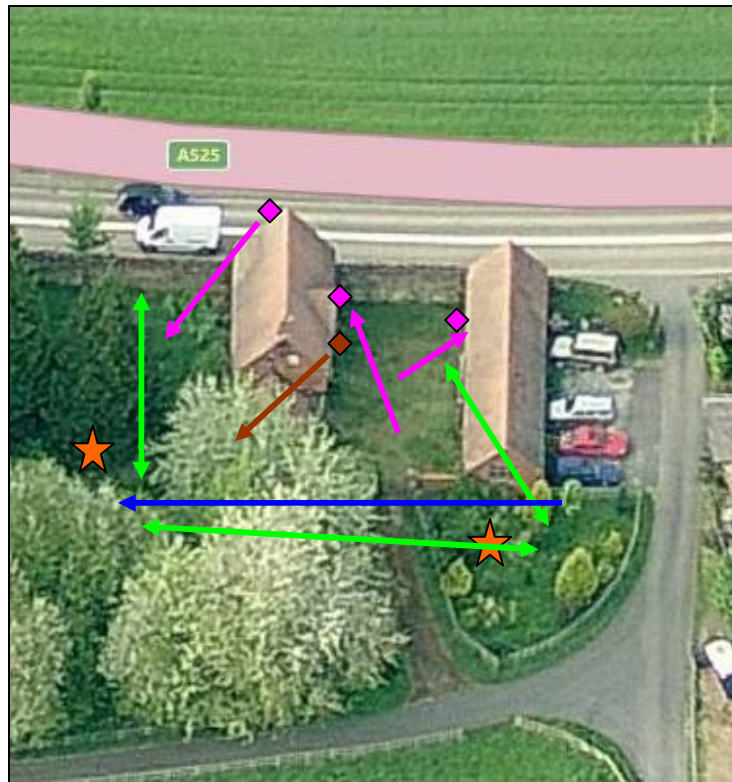
- 9.1 Relative to the nature and condition of the building it has been classified as offering moderate potential; the survey effort was proportionate to that classification and surveyors were located where bat roost potential was considered to be highest and most productive.
- 9.2 The dusk emergence observations were undertaken on the 27th June and 14th July 2017 by a combination of surveyors: Mr. S. Irwin – a highly experienced (over 30 years) surveyor and holder of Natural Resources Wales bat licence (51880:OTH:CSAB:2014), Mrs K Wilding a highly experienced surveyor and a accredited agent on the Natural Resources Wales bat license held by Mr Irwin.
- 9.3 Surveyors were located in positions where unrestricted views of the identified roost potential were achievable, decided by the lead surveyor Mr S. Irwin. The surveys were aided with Anabat electronic detectors to locate and record the high frequency calls that are emitted by bats. Echolocation calls were then analysed with computer software to verify field observations. In addition Anabat detector was located on the fence post adjacent to woodland just outside the west boundary to record any bat activity in this location. Prior to the dusk and dawn surveys the buildings were investigated for the presence of fresh or additional bat droppings that may have been deposited since the daytime survey.

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Times of Survey	Date	Weather Conditions
Dusk survey 2120 - 2300	27 th June 2017	Sunset: 2046: dry, light breeze, 100% cloud cover Start temp: 16°C End temp: 14°C
Dawn survey 0330 - 0500	14 th July 2017	Sunrise: : 0500: dry, light breeze, 100% cloud cover Start temp: 12°C End temp: 11°C

Survey	Date	Results
Dusk survey	27 th June 2017	Summary: Emergence of two bats from Building 1 during observation period from two separate emergence points. These were in the form of one Brown Long-Eared and one Common Pipistrelle bat. 2139 hrs: Common Pipistrelle bat emerged from Building 1 to the north-western elevation and proceeded to commute off site immediately in a south-westerly direction. 2140-2220 hrs: Common Pipistrelle consistent foraging to all aspects of the site. Noctule bat commuting over the site 2210 hrs: Brown Long-Eared bat emergence at eaves level at Building 1 on the east elevation - proceeded to commute off site in a south- westerly direction. Three Noctule passes over the site
Dawn survey	14 th July 2017	Summary: Swarming of two Common Pipistrelle bats followed by re-entry into Buildings 1 & 2 at the east & west elevations respectively during the observation period 0359 - 0404 hrs: Common Pipistrelle commuted onto site to the west. 0431 hrs: Common Pipistrelle bat re-entry at Building1 0439 hrs: Common Pipistrelle bat re-entry at Building 2.

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Key	
	Surveyor locations
	Common Pipistrelle bat emergence/entry
	Brown Long Eared emergence
	Foraging activity
	Commuting activity

During the pre-dusk/dawn surveys no evidence was found that would suggest an increase in or the presence of fresh bat droppings since the daytime survey.

10.0 Dusk Conclusions

- 10.1 From the 2017 dusk survey results it can be concluded that the buildings at Plas Power House Farm are being used as a roost by small numbers of Common Pipistrelle and Brown Long-Eared bats. (Appendix 1) No further evidence or activity was recorded that would indicate regular use of the buildings by any other bat species. The presence and destruction of a bat roost will need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation.

In order that the LPA can implement its obligations under the Habitat & Species Regulations 2010 (as amended) appropriate and proportionate mitigation will need to accompany the planning application which will demonstrate that the “*favourable conservation*” of the species concerned can be maintained.

- 10.2 From the evidence gained during the dusk observations, the use of the building by bats is considered to be low level and mitigation should proportionate to that use but additional opportunities for bats can be provided as enhancement.
- 10.3 Local Planning Authorities in accordance with the obligations placed upon them by way of their duties under the Conservation of Habitats & Species Regulations 2010 (as amended) have to take into consideration the presence of a European Protected species before determination of an application where it/they have been identified.
- 10.4 The LPA need to consider any mitigation in relation to the potential success of a Natural Resources Wales Development licence application and/or if in their opinion the mitigation is considered as being appropriate or if it is over and above what is required; if they determine that the mitigation is appropriate then a Planning Condition should be attached requiring the mitigation to be installed. If the LPA consider that the mitigation is over what is necessary but require “enhancement” as part of Local Biodiversity Policies this should be included in the terms Consent. The acting bat ecologist deems the mitigation as appropriate and not over and above what is required.
- 10.5 Notwithstanding that Planning Consent is granted it does not absolve the applicant, site owner, developer or any other party involved with the work from ensuring that an application is made for a Natural Resources Wales Development licence to legally undertake work that will affect bat(s) or their roost/place of shelter. If work is undertaken without a licence and bat/s or their roost/s is/are affected then a breach of current wildlife legislation will occur for which penalties are high.
- 10.6 Under Regulation 53(1) and 56(3) (a) of the Conservation of Habitats & Species Regulations 2010,(as amended) a licence is required prior to disturbing bats or destroying any place that is used by bats as a breeding site or resting place. The licence is issued by the EPS Licensing Team of Natural Resources Wales.

11.0 Impact

- 11.1 Without the implementation of mitigation, short term impacts by the proposed works at Plas Power will result in the loss of a place used as a day roost by small numbers of Common Pipistrelle and Brown Long Eared bat. The work will be undertaken when bat(s) may be less likely to be present, therefore, possible direct harm can be reduced. If an ecologist was not present during any dismantling of the roost areas then contractors may not be fully conversant with the type of places that bats can crawl into; without mitigation the impact on bats at a local scale would be low and absent at County or Region level
- 11.2 Without the implementation of mitigation the proposed works at Plas Power will result in long term impact due to the loss of a place used as a day roost by small numbers of Common Pipistrelle and Brown Long Eared bat. The impact would be low at site level but absent at County or Region level.
- 11.3 Long term or any other impact upon the immediate foraging or commuting habitat is absent as it is currently sparse, the young trees that are present in the south west corner of the plot will be retained and not be affected by the proposed works. Thus, it is clear that isolation/fragmentation will not happen as a result of the proposed conversion. Therefore, an adverse impact at any scale on populations in relation to habitat loss/fragmentation is considered to be absent.

12.0 Delivery Information – Mitigation, compensation and monitoring

1. The proposals for the site show that timber cladding will be installed on three elevations; the gaps behind and between timber cladding is a feature that is often used by crevice dwelling bats, however Brown Long Eared bats will also use crevice situations outside of loft spaces. Therefore mitigation will be installed within the timber cladding at the three elevations as shown in Figures 2-6. Figure 7 shows timber cladding example.
2. Prior to the work commencing and an EPSML licence is in place; contractors who are employed to carry out the work will be inducted by a licensed bat ecologist to make them aware of the possible presence of bats, their legal protection and of working practices to avoid harming bats. A copy of the licence, Method Statement will remain available on site at all times.
3. Due to the number of potential ingress points exclusion would not be viable or successful therefore before conversion work commences a precautionary approach will be adopted which will involve endoscope & torchlight inspections to confirm bat presence/absence by the ecologist. If bat absence/presence is apparent during the inspection further precautionary measures will take place by way of the careful dismantling of places that are currently or could be used by bats in any part of the buildings under the supervision of the bat ecologist.
4. Where work is conducted when bats are within their active season and are encountered it/they will be hand captured by the ecologist, who will be wearing appropriate gloves, bat/s will be handled to an absolute minimum and immediately placed into a small animal box that is secure and of a type that is used by bat carers/handlers to retrieve and transport bats.

5. Within the box a soft cloth will be provided for bat(s) to shelter and it/they will be immediately transferred into a receptor 2f bat box that will have previously been erected on the nearby tree to the west of the building where foraging activity was identified. Once it has been established, by the ecologist that bat(s) are absent the work will continue to completion. If bats are unexpectedly found outside of ecologist supervision time then the work will immediately cease and the ecologist contacted for further advice; contractors are to be informed that they should not handle bats or encourage it/them to move. The procedure for safely moving bats as previously described will then take place by the ecologist.
6. Whilst the work will commence when bats are less likely to be present i.e. over the hibernation season there is always a possibility that bat/s can be unexpectedly found. Should hibernating bat/s be located and are not in danger of being harmed it/they will be left in situ & two weekly checks made, by the bat ecologist; if the bat/s have moved to an alternative location, which during the hibernation season they often do, the crevice will be sealed. If the bat/s has/have not moved it/they will be left in situ until such time it/they vacate naturally; if however it is evident that bat/s will be in imminent danger it/they will be hand captured by the ecologist and who will be wearing appropriate gloves, transferred into a secure small animal plastic container with a soft cloth inside to provide shelter for the bat/s and immediately re-located into a 1 FS bat box that will be erected on the nearby remnant tree trunk to the west of the building the 1FS bat box is more suited to hibernation due its greater insulation properties.
7. Following the completion of work bat box/es, subject to bat absence will be removed as the remnant tree is likely to be removed at some future time; if in the event that bat/s is/are absent the box/es will remain until such time an inspection by the bat ecologist confirms absence.
8. Licensed activities will only take place during dry weather; if bat(s) is/are found and it/they are in poor condition or injured it/they will be taken into temporary care by the bat ecologist and when fit and healthy subsequently released at the site during favourable weather conditions. If bats are unexpectedly found outside of supervision, then the work will immediately cease and the ecologist contacted for further advice; contractors are to be informed that they should not handle bats or encourage it/them to move.
9. If at anytime prior to or during the work evidence is found that would suggest regular use of the buildings by any other species or number of bats for which a licence has been granted the bat ecologist will make an appraisal and inform the licensee of any additional survey work that may be required.

13.0 New Roost Creation

1. At the south, east and west elevations timber cladding is to be installed, which will provide variable temperatures that will favour typical bat requirements; it is understood that no membranes will be used behind the cladding. However, if this situation should change then a breathable membrane will not be used as these materials have been shown to cause entanglement problems for bats as their fine claws can fray the material; a Bitumen 1F typed underfelt would be used.

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2. 20mm vertical battens will be fixed to the block work, which will have a coarse surface to allow bats to cling to; the cladding will be fixed to the battens with one of two options which ever is more preferable to the site owner, which ever option is selected the bat ecologist will supervise the implementation.
3. **Option1:** Cladding to be permanently wedged open to create 15-20 mm gap x 300 mm long (Figure 2: Indicative illustration)



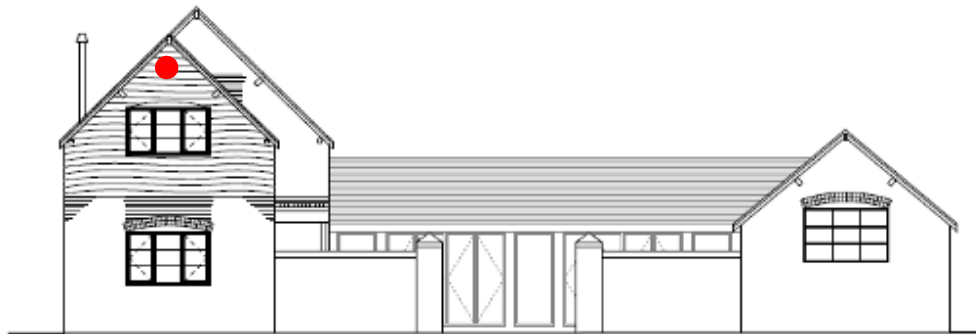
Figure 2: Option 1 (Indicative)

4. **Option 2:** 15-20 mm x 75 mm long gaps created in several locations (Figure 3: Indicative illustration)

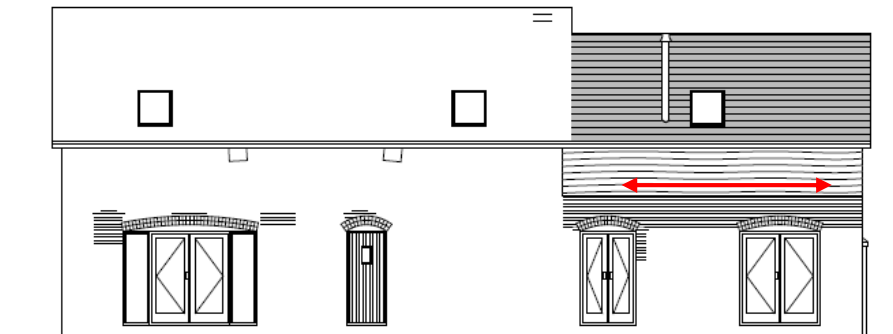


Figure 3:

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Front elevation - South



Side elevation west



Side elevation east

Figures 4-6: Location of mitigation



Figure 7: Timber cladding example

Mechanisms for ensuring delivery of mitigation and compensation measures

The roost provision will be permanent, dedicated for bats, located in area that offers immediate access to foraging/commuting habitat (as currently), and away from excess lighting. The site owner will be responsible in ensuring that the mitigation is incorporated as contained within this report and a subsequent EPSML application. The bat ecologist will undertake site visit/s during and post development to ensure licence compliance.

Post-development site safeguard

As the cladding will be affixed at elevated positions and in locations that are not regularly accessed disturbance is significantly reduced; management requirements are considered to be predominately absent for the new roosts. The site owner clearly has a vested interest to maintain the building and in doing so the roosts will be protected.

Lighting will not be directed at or close to the roost areas nor will it affect nearby foraging places or flight lines as identified during the dusk surveys.

If maintenance is required at or near to any roost location then the owners will be responsible for maintaining access for bats and all associated features; however, if maintenance is required at or close to the roost then the owners of the building will seek advice from a bat consultant before undertaking such work.

Timetable of works

Work will commence at Building 2 (Figure 1) where bat roost potential is less and continue with the link section to Building 1, during this time cladding and roost provision will be installed on the east elevation. (Figures 4-6) Following the external construction of the above the work will commence at Building 1 (Figure 1) during which time cladding and roost provision will be installed. Work at Building 1, at which bat roost potential is greater would then be undertaken at a time when bats are nearing the end of their hibernation season.

Anticipated timings:

Building 1 & link section: External work November 2017 – February 2018
Building 2: External work March- June 2018

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Appendix I – Site Photographs



Front & rear aspects of B1 proposed for conversion



BLE dusk emergence



Common Pipistrelle dawn re-entry



B2 from courtyard – potential identified at roof verge and under the eaves



Common Pipistrelle dawn re-entry

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B1 & B2 from access track



B2 from Ruthin Road

 Common Pipistrelle emergence

APPENDIX II – Provision for Nesting Birds

Swallow Mitigation

Work that will destroy active swallow's nest/s should not be undertaken during their breeding season May – September and to maintain nesting opportunities for this species one of the following actions should be implemented:-

1. Ensure access into an alternative building; for example, a log store could be constructed as part of the development - it should contain beams or ledges to allow nest building, if beam/ledges are absent then fix artificial nests x 2.
2. Alternatively if this can not be achieved, an open type shed (pitched or flat) as shown below will need to be provided.

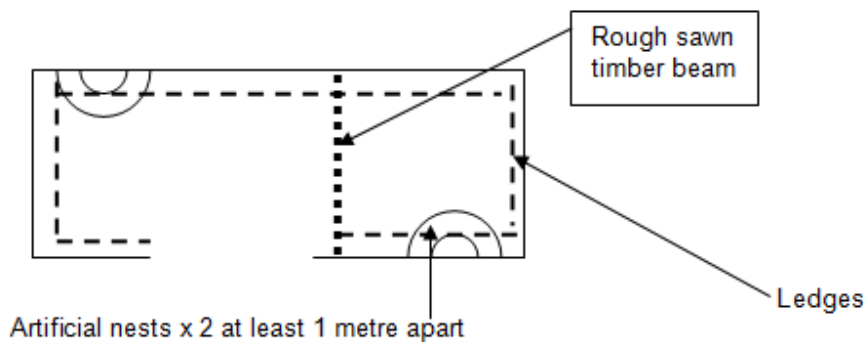


Indicative open log store with rough sawn beam fixed to rear wall; such timber structures can be effectively fixed to the rear of garages.

Log store approximate dimensions: 2 m wide x 2.2 m high x 1.5 m deep.

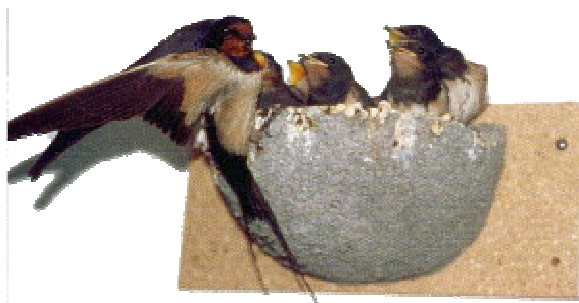


Dimensions 8' x 8' x 6'



It is increasingly difficult for Swallows to find suitable nest-building mud, in addition, the walls of buildings are nowadays often very smooth so nests tend to fall down, the Swallow Nest consists of a woodcrete nesting bowl which is attached to a wooden panel it should be placed inside outbuildings such as sheds, barns or stables leaving a distance of at least 6cm between the top of the nest and the ceiling. You should ensure there is always access for the birds through an open window or sky-light. Swallows are sociable birds but multiple nests should not be placed at less than 1m intervals.

Schwegler boxes have the highest occupation rates of all nest boxes and are carefully designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting.



Blue Tit



32mm entrance hole to attract Blue Tit
<http://www.nhbs.com/equipment/bird-boxes>