



Preliminary Roost Assessment

Fron Esgyn, Pleasant View, Froncysyllte, Wrexham, LL20 7SF

Russell Roberts

Status	Issue	Name	Date
Draft	1	Jessica Sibley BSc (Hons) MSc, Graduate Ecologist	17/02/2023
Reviewed	1.1	Mel Reid BSc (Hons) MRes MRSB, Senior Consultant	17/02/2023
Final	2	Jessica Sibley BSc (Hons) MSc, Graduate Ecologist	20/02/2023

Arbtech Consultant's Contact Details:

Jessica Sibley
Graduate Ecologist
Tel: 07512307230 Email: jessicasibley@arbtech.co.uk
<https://arbtech.co.uk>

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Russell Roberts to undertake a Preliminary Roost Assessment (PRA) at Fron Esgyn, Pleasant View, Froncysyllte, Wrexham, LL20 7SF (hereafter referred to as “the site”). The survey was required to inform a planning application for the conversion of an outbuilding into a dwelling (hereafter referred to as “the proposed development”).

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 4 of this report.

Feature	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>
<u>Roosting bats (B1)</u>	The proposed development will not affect any of the features that could be used by roosting bats which were noted on the building during the survey (as the roof will not be directly impacted) and therefore no impacts to bat roosts are anticipated. However, the proposed development could result in disturbance to any bats present in the building at the time of the works due to noise, vibration or lighting.	Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further bat surveys are considered to be disproportionate. It is anticipated that any risk to bats can be reduced to an acceptably low level through the implementation of a precautionary working method during and post-development. This is detailed in Table 4 of this report. The precautionary working method is suitable for internal works only. If any works are required of the roof structure in any capacity, then Bat Emergence Re-entry Surveys (BERS) will be required and a license from Natural England will need to be obtained.
<u>Foraging and commuting bats</u>	The proposed development may include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which is detailed in Table 4 of this report.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Russell Roberts to undertake a Preliminary Roost Assessment (PRA) at Fron Esgyn, Pleasant View, Froncysyllte, Wrexham, LL20 7SF (hereafter referred to as “the site”). The survey was required to inform a planning application for the conversion of an outbuilding into a dwelling (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the “Bat Surveys for Professional Ecologists —Good Practice Guidelines” publication (Collins, 2016).

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Context

The site is located at National Grid Reference SJ 26857 41113 and has an area of approximately 0.1ha comprising a residential property, garage and private garden. It is surrounded by broadleaved woodland and residential areas with the River Dee to the north of the site.

A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection of built structures and a ground level assessment of trees where possible, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site’s bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of the magic.gov.uk database for statutory designated sites with bat qualifying interests. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken by Jessica Sibley BSc (Hons) MSc (Accredited Agent on Natural Resources Wales Bat Licence Number: S091515/1) on 07/02/2023.

The PRA focussed on one built structure which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the building for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the building was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

The survey was undertaken in summer when foliage was present on the trees and this obscured visibility in places.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below.

3.2 Designated Sites

Details of any statutory designated sites with bat qualifying interests within a 2km radius of the site, including their reasons for notification, are provided in Table 2 below.

Table 2: Statutory designated sites with bat qualifying interests within 2km radius of the site

Designated site name	Distance from site (approx.)	Reasons for notification from Natural Resources Wales
Castell y Waun a'i Barcdir / Chirk Castle and Parkland (Site of Special Scientific Interest) (SSSI)	1.8km south	Presence of lesser horseshoe bat <i>Rhinolophus hipposideros</i> .

3.3 Landscape

A review of aerial photographs (Google Earth) the magic.gov.uk database and OS maps has been undertaken. Collated together, the value of the landscape for bats is described below:

The site is in a rural area of north-east Wales. The close vicinity landscape is a small village/residential area, surrounded by woodland, with large arable fields in the wider vicinity. The surrounding woodland is broadleaved woodland. No ancient woodland, priority deciduous woodland, or priority traditional orchards are located within a 2km radius of the site. However, the surrounding woodland is likely suitable for local bats, foraging and commuting. The River Dee lies 100m north of the site which could provide abundant insect foraging for local bats.

3.4 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 3.

Table 3: Weather conditions during the survey

Date: 07/02/2023	
Temperature	3°C
Humidity	94%
Cloud Cover	5%
Wind	3mph
Rain	None

B1 – western elevation (pictured below).

B1 is a detached one-storey pebble-dash rendered breeze block built building with a pitched and gabled roof clad in artificial slate tiles.

There is one section of missing mortar on this elevation, which is pictured below, which could allow the entry of crevice-dwelling species (i.e., pipistrelles), into B1.



B1 – western elevation



B1 – western elevation – missing mortar

B1 – northern elevation (pictured below).

The roof tiles look to generally be in very good condition, with no raised tiles under which bats could use to enter B1 and roost.

The windows around B1 are UPVC/wooden framed and appear to be in excellent condition with no suitable bat roosting sites.

There are UPVC/wooden soffits around B1 which look to be intact and have no evidence of damage which could allow bats to enter B1 through the soffits (pictured below). Furthermore, the bargeboards are closely attached to the soffits with no obvious gaps which would allow bats to enter B1.

The breezeblocks around B1 are rendered with pebbledash. This is intact and there are no cracks/crevices in the rendering which would allow bats to enter B1 through the supporting walls (pictured below).

The exposed breezeblocks also appear to be in very good condition with no obvious gaps or crevices to allow bats to enter B1, through the supporting walls.



B1 – northern elevation



B1 – northern elevation – intact soffits/barge boards



B1 – northern elevation – breezeblocks and pebbledash intact

B1 – eastern elevation (pictured below)

There are no chimneys on B1.

There is one section of missing mortar on this elevation (pictured below), which could allow crevice-dwelling species to access the roof space of B1.

The supporting walls and rendering are without cracks or crevices, and the bargeboards and soffits are intact on this elevation. No other features were identified on this elevation of B1.



B1 – eastern elevation



B1 – eastern elevation – missing mortar

B1 – southern elevation (pictured below).

On the southern elevation, the building is on a slope and vegetation obscures visibility from the best vantage point, however, it is likely the roof tiles are in a similar condition to the other elevations (i.e., flat and without gaps).

The rendering and soffits on this elevation were in a similar good condition to the other elevations of B1 with not sites suitable for roosting bats.



B1 – southern elevation

B1 – interior (pictured below).

There is one loft space within the main roof void of B1. The roof structure is built from modern timber beams including the ridge beam. The roof is lined with breathable membrane which is in good condition with no gaps or tears. The floor of the loft space is centrally lined with boards and lined with mineral wool insulation on the periphery of the boards. There are few cobwebs around the main ridge beam, however B1 does not look to have any suitable access points for void dwelling species (i.e., brown long-eared).

No daylight enters the loft space which indicates it is mostly well-sealed.

	
B1 - interior	B1 – interior – beams and roof lining
B1 - evidence of bats There were approximately fourteen droppings sampled from the western elevation of B1 under the main ridge beam. These droppings were caught in cobwebs and under the ridge beam. The size, shape and colour of the droppings indicate that they were deposited by a crevice dwelling species such as a pipistrelle bat and are assessed to have been historically deposited. A sample of the bat droppings was retained for DNA analysis.	
B1 - breeding birds and other incidental observations There was no evidence of nesting birds located internally or externally on the survey building.	
Bat foraging and commuting habitat The site is located within a rural part of Wales and there is continuous woodland in the nearby vicinity of the site and adjacent to the site. This habitat is likely used by local bat for foraging and commuting. Furthermore, the site lies within 100m of the River Dee which is likely used by local foraging and commuting bats.	

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Bats

Bats are protected under the Wildlife and Countryside Act and the Conservation of Habitats and Species Regulations 2017 (amended by the Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019).

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommend additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform an EPSL application to Natural Resources Wales. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey.

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommend additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence or likely absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey. If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSL application to Natural Resources Wales.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted for further advice.

Birds

Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 4 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise the conversion of an outbuilding into a dwelling.

Table 4: Evaluation of the site for bats and any other ecological constraints

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under PPW (2021)</i>
Roosting bats (B1)	B1 has a confirmed roost, as identified by bat droppings that were found under the main ridge beam to the west of B1. It is likely to be a pipistrelle roost based on the size and shape of the droppings. There were two features identified on B1 which were missing mortar along the roof lining. These features suit crevice-dwelling species (e.g., pipistrelle) which could access the roof lining through these features. Lesser horseshoe bats were identified in the desk study to be in the local SSSI, however, this roost is likely to be a pipistrelle roost, as the features suit crevice-dwelling species.	The proposed development will not affect any of the features that could be used by roosting bats which were noted on the building during the survey (as the roof will not be directly impacted) and therefore no impacts to bat roosts are anticipated. However, the proposed development could result in disturbance to any bats present in the building at the time of the works due to noise, vibration or lighting.	Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further bat surveys are considered to be disproportionate. It is anticipated that any risk to bats can be reduced to an acceptably low level through the implementation of a precautionary working method during and post-development. This will include the following measures: • Works will be scheduled during the winter months (November to March) when bats are least likely to be present, insofar as is possible. • A toolbox talk will be given to contractors to make them aware of the possible presence of bats on the site. • An inspection of the potential roost features identified in this report will be undertaken prior to works commencing. • Scaffolding will be avoided or should be no higher than the eaves and should not obstruct any roost features. • The works should be restricted to hand tools insofar as possible to minimise noise and vibration disturbance. The precautionary working method is suitable for internal works only. If any works are required of the roof structure in any capacity, then Bat Emergence Re-entry Surveys (BERS) will be required and a license from Natural England will need to be obtained.	The installation of a minimum of two bat boxes on retained buildings will provide additional roosting habitat for bats e.g. Integrated Eco Bat Box Habibat Bat Box Beumaris Bat Box Vivara Pro Woodstone Bat Box Or a similar alternative brand. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.
Foraging and commuting bats	The adjacent/local woodland could be used by local bat populations for foraging and	The proposed development may include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:	The following habitat creation and enhancement opportunities could be incorporated into the

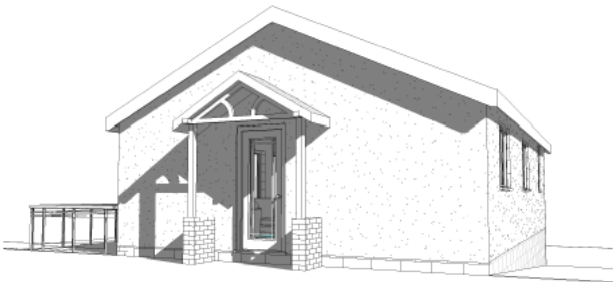
	commuting. These could also be used by bats dispersing from nearby roosts outside of the site.		• Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.	proposed development which would be beneficial for foraging bats: • Planting of native tree, shrub and hedgerows to increase foraging opportunities.
Nesting birds (B1)	The building offers no opportunities for nesting birds.	None.	None.	The installation of a minimum of two bird boxes on retained buildings will provide additional nesting habitat for birds e.g. Vivara Pro WoodStone Swift Nest Box (Buildings) House Sparrow Terrace FSC Nest Box (Buildings)

				Woodstone Nest Box (buildings or trees) Or a similar alternative brand. General purpose bird boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight.
Other ecological constraints	None identified.	N/A	N/A	N/A

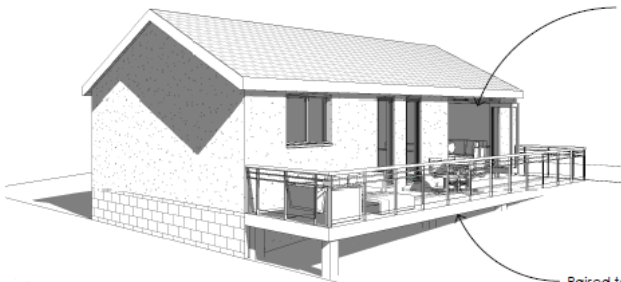
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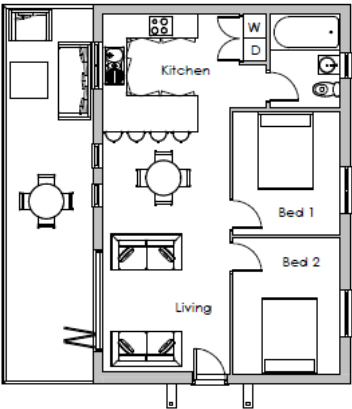
Appendix 1: Proposed Development Plan



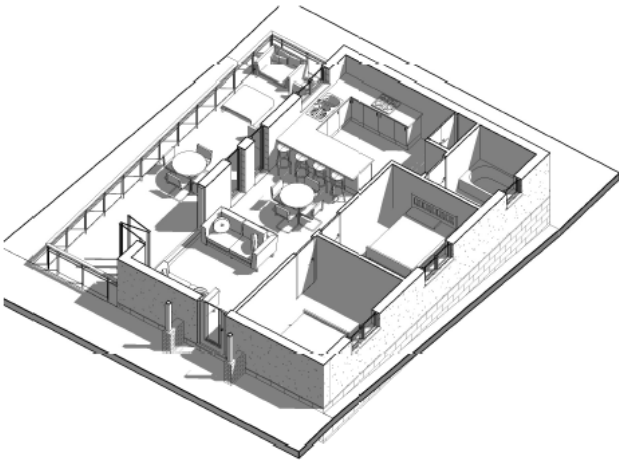
3D View 1



3D View 2



Ground Floor
1 : 100



Internal 3D

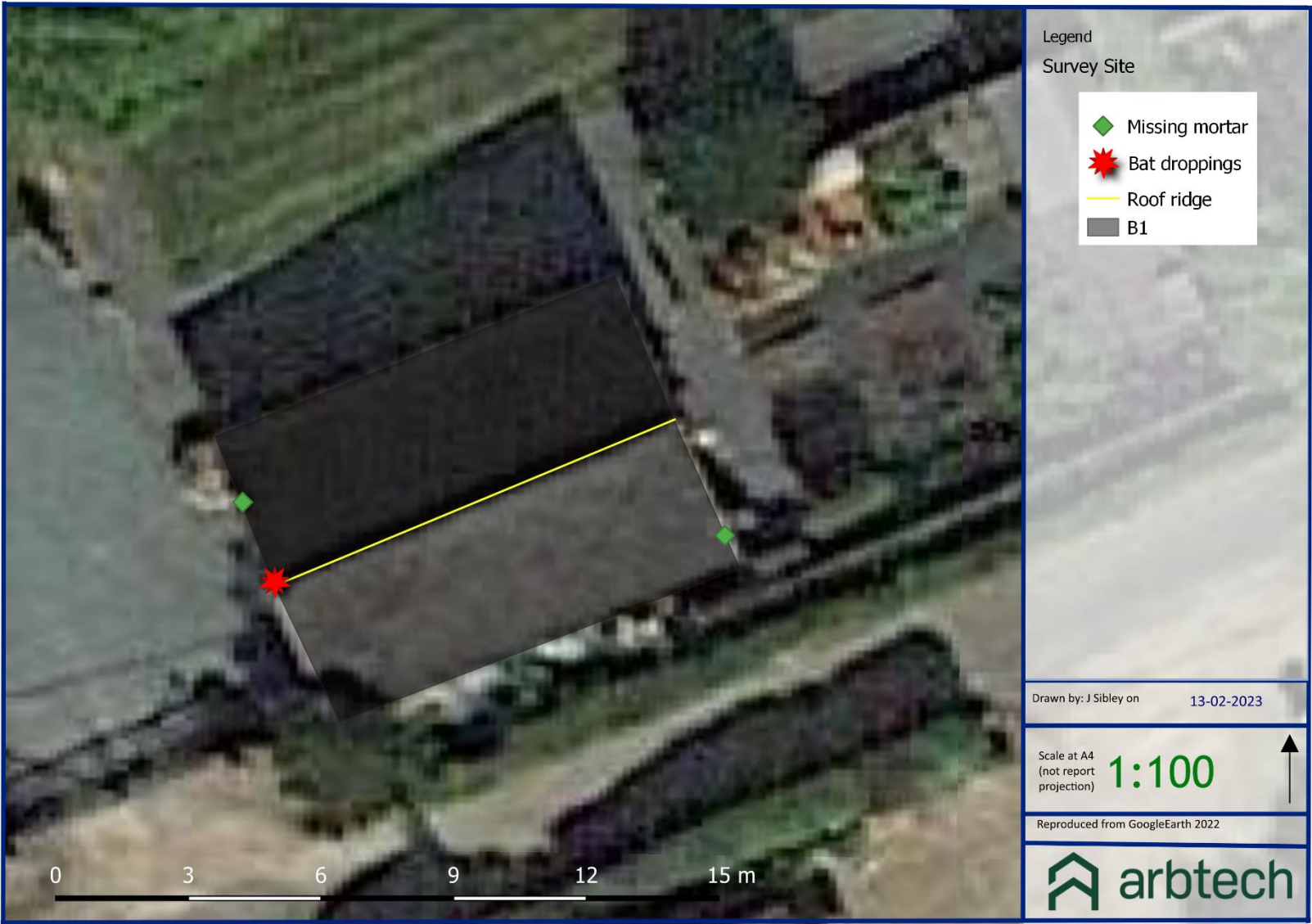
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CLIENT Mr R Roberts		
ADDRESS Fron Esgyn		
PHASE Scheme Proposals		
TITLE Option 6		
SCALE OF ALL	DATE	REVISION
1 : 100	07.07.2022	CO
1269	SP06	A

Appendix 2: Site Location Plan



Appendix 3: Bat Survey Plan



Appendix 4: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the *Wildlife and Countryside Act 1981* (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (WALES)

Environment (Wales) Act 2016 and the Biodiversity Duty

The Environment (Wales) Act 2016 introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience. This new duty replaces the biodiversity duty in the Natural Environment and Rural Communities Act 2006 (referred to as the NERC Act). Part 1 of the Act deals with Sustainable management of natural resources including Biodiversity and Resilience of Ecosystems Duty. The Environment Act enhances the current NERC Act duty to require all public authorities, when carrying out their functions in Wales, to seek to “maintain and enhance biodiversity” where it is within the proper exercise of their functions. In doing so, public authorities must also seek to “promote the resilience of ecosystems”. As under the NERC

Act the new duty will apply to a range of public authorities such as the Welsh Ministers, local authorities, public bodies and statutory undertakers. This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long-term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.

Planning Policy Wales (2021)

Paragraph 6.4.3 of the document refers to Biodiversity and Ecological Networks and states:

The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems. Information contained in SoNaRR, Area Statements and species records from Local Environmental Record Centres should be taken into account. Development plan strategies, policies and development proposals must consider the need to:

- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
- ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
- ensure statutorily and non-statutorily designated sites are properly protected and managed;
- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and
- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)

Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. Planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:

- a) Diversity between and within ecosystems;
- b) The connections between and within ecosystems;
- c) The scale of ecosystems;
- d) The condition of ecosystems (including their structure and functioning); and
- e) The adaptability of ecosystems.

In fulfilling this duty, planning authorities must have regard to:

- a) The list of habitats of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;

- b) The State of Natural Resources Report (SoNaRR), published by NRW; and
- c) Any Area Statement that covers all or part of the area in which the authority exercises its functions.

Planning Authorities should also refer to up to date ecological survey information (where appropriate).

A proactive approach towards facilitating the delivery of biodiversity and resilience outcomes should be taken by all those participating in the planning process. In particular, planning authorities should demonstrate that they have sought to fulfil the duties and requirements of Section 6 of the Environment Act by taking all reasonable steps to maintain and enhance biodiversity in the exercise of their functions.

The broad framework for implementing the duty and building resilience through the planning system includes addressing:

- Diversity: to ensure mechanisms are in place to minimise further loss and that circumstances allow for species' populations to expand and recolonise their natural range (former range) or adapt to future change. This means development should provide a net benefit for biodiversity, and at the very least, with no significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity;
- Extent: to ensure mechanisms allow for the maintenance of existing assets and networks and promote the restoration of damaged, modified or potential habitat and the creation of new habitat. This means that planning choices should incorporate measures which seek the creation and restoration of green networks and linkages between habitats and maintaining and enhancing other green infrastructure features and networks;
- Condition: Ecosystems need to be in a healthy condition to function effectively, to deliver a range of important ecosystem services. Planning decisions should not compromise the condition of ecosystems. By taking an integrated approach to development, for example, which considers both direct and wider impacts and benefits it should be possible to make a positive contribution. Planning for the long term management of retained habitats is key to maintaining condition through for example, the use of planning obligations;
- Connectivity: to take opportunities to develop functional habitat and ecological networks within and between ecosystems and across landscapes, building on existing connectivity and quality and encouraging habitat creation, restoration and appropriate management. The opportunities could include enlarging habitat areas, developing buffers around designated sites or other biodiversity assets or corridors, including transport and river corridors, and the creation of 'stepping stones' which will strengthen the ability of habitats and ecological networks to adapt to change, including climate change; and
- Adaptability to change: primarily in the form of climate change, for both species (diversity) and ecosystems requires action to protect the extent, condition and connectivity of habitats, features and ecological networks. Development plans, planning proposals and applications which build on protecting designated sites and securing and enhancing green infrastructure will be key ways of addressing the attributes of ecosystems resilience identified in the Environment Act as well as facilitating social and economic resilience aspirations of the Well-being of Future Generations Act.

Good Practice Guide GPG 3 (October 2015) NRW Approach to Bats and Planning

As explained in Planning Policy Wales (Chapter 5 - Conserving and Improving Natural Heritage and the Coast), the presence of a European protected species is a material consideration for a development proposal that would be likely to result in disturbance or harm to the species or its breeding sites or resting places. Planning Policy Wales also explains that planning authorities should seek the advice of Natural Resources Wales for all planning applications likely to result in disturbance or harm to bats and should always consult them before granting permission. Local Planning Authorities address this by screening applications to identify when there is a reasonable likelihood that bats may be present and, therefore, when to require a bat survey and report that will confirm if bats are present and if they likely to be disturbed or harmed by the proposal. The overall requirement on Local Planning Authorities, Natural Resources Wales and developers is to avoid harm or disturbance to bats and their breeding sites and resting places, unless Natural Resources Wales has given a licence to allow the harm or disturbance. Natural Resources Wales may only give a licence if the requirements for derogation are met, including that disturbance or harm to individual bats (or to their breeding sites and resting places) would not be detrimental to the maintenance of the population.

LOCAL PLANNING POLICY***Wrexham Unitary Development Plan 1996-2011 (February 2005)***

The [Wrexham Unitary Development Plan 1996-2011] can be viewed here: [<https://www.wrexham.gov.uk/service/development-plans-and-other-planning-policy/wrexham-unitary-development-plan>]

The following planning policies have implications for developers in relation to bats:

- [Policy EC6 – Biodiversity and Conservation] – [Sites of biodiversity interest in the County Borough require protection by virtue of their special and exceptional flora, fauna, geological and physiographical features. These sensitive nature conservation sites are often subject to pressures for change and can be affected or even destroyed by operations which are harmful to a protected site, such as changes in farming techniques, which may not be subject to planning control. The continuous survey and assessment of nature conservation sites could bring statutory protection for other hitherto unscheduled sites. This policy applies to, in order of importance: nature conservation sites of international importance comprising Special Protection Areas, Special Areas of Conservation, and Ramsar Sites; nationally important Sites of Special Scientific Interest; regionally important Geological Sites; locally important Wildlife Sites; and other protected species and their habitats.]

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural Resources Wales will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

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

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

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

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.