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Discharge of Planning Conditions 4, 5 and 6 (Planning reference Mar P/2020/0106)

**MILL COTTAGE
MARCHWIEL HALL
WREXHAM
LL13 0SS**

ON BEHALF OF: MR MARK CREIGHTON

DATE: APRIL 2021

**REPORT BY: PAUL ROBERTS.
CHECKED BY MATTHEW WHITEHEAD**

1. Introduction

This document has been produced by P J Ecological Solutions on behalf of Mr Mark Creighton to address any potential ecological related planning conditions in relation to the proposals at Mill Cottage, Marchwiel Hall, Wrexham, LL13 0SS (hereafter referred to as 'the site'). The site is centred on approximate Ordnance Survey Grid Reference SJ 34060 48269.

Planning permission for the change of use from business use to a single dwelling with internal and external refurbishment works, a two-storey extension, a basement extension and the erection of a replacement outbuilding was granted by Wrexham Borough Council on the 15th of October 2020 (planning reference number MAR P/2020/0106).

The aim of this report is to ensure that the ecology on-site which is associated with this development is effectively and sustainably maintained and enhanced both in the short and long term.

During the application process, the County Ecologist has recommended the following is attached as a planning conditions:

4. Prior to commencement of development, the name and contact details of a suitably qualified Ecological Clerk of Works shall be submitted to and approved in writing by the Local Planning Authority.

5. Prior to commencement of development, a long-term monitoring and maintenance plan shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details.

6. No part of the development shall commence until an external bat friendly lighting scheme has been submitted to and approved in writing by the Local Planning Authority. The scheme shall be fully implemented in accordance with the approved details prior to first use / occupation of the development.

To purpose of this report is to fulfil and discharge these planning conditions.

This report should be read in conjunction with relevant documentation and plans which supported and/or formed part of the Planning Application, including the Bat Mitigation Strategy Rev B as carried out by Lawray Architects and dated October 2020 approved as part of this application.

2. Appointed Ecologist for the Bat Mitigation Scheme and an Ecological Clerk of Works.

Paul Roberts from PJ Ecological Solutions (Licence number S088763/1) has been appointed to implement the Bat Mitigation Strategy and act as an Ecological Clerk of Works for the project at Mill Cottage, Marchwiel Hall, Wrexham, LL13 0SS (hereafter referred to as 'the site').

Paul Roberts has been carrying out bat work as a professional consultant since 2011, He has held a Roost Visitor and survey licence in England since 2011 after receiving comprehensive training from the Shropshire Bat Group and has a UCert in Biological Recording. He has attended many short courses relevant to bats; including courses on various types of bat surveys, bat ecology and mitigation techniques. He is competent to provide consultancy for bats according to their criteria and that of the BCT Professional Training Standards (Level 2).

The species applied for here are Common and Soprano pipistrelle, whiskered/brandt's, Brown long eared and Lesser Horseshoe bats. Licences to which Paul has been named as the ecologist and include these species. He has handled all these species' apart from Lesser horseshoe bats during bat-box checks both with the Shropshire Bat Group, on previous development licenses and on training courses, during which he has identified, weighed, measured, and sexed the bats.

He has written county council approved mitigation plans for other residential developments in Wales and England (which have included the above-named species amongst others), and I have worked on EPS licensed projects for myself and other ecological consultancies, dealing with a wide range of other bat species in England and Wales. I am regularly involved with hibernacula surveys at underground sites with the Shropshire and Montgomeryshire Bat Group.

3. Long term monitoring and maintenance plan.

The purpose-built bat loft will be inspected for signs of bats in April and three emergence/re-entry surveys will be undertaken from June to August, with surveyors using bat detectors. This will continue for a period of five years post development. The inspection of the lofts may lead to the disturbance of brown long-eared bats, if present. Furthermore, an inspection of the replacement outbuilding may lead to a disturbance of Lesser horseshoe bats. Results will be sent to Natural Resources Wales through licence returns. This building and the Mill house will also be monitored during the emergence/re-entry surveys.

An assessment of the bat habitats (purpose-built bat loft, crevice opportunities and the outbuilding) provided under the licence must also be made at this time. Should the surveys and habitat assessment indicate that the compensation roosts provided are failing, measures must be taken to remedy this as soon as practically possible. Details of such actions must be included within the licence returns report. This may involve repairs/amendments to access points, management or maintenance of the lighting scheme or repairs to bat features.

Monitoring of the bat boxes installed on the mature trees will comprise a visual check using ladders, torches, endoscope, and binoculars. Any bats present will be disturbed, when opening the boxes and hand taking bats for identification purposes. Checking of the bat boxes will not take place from June to August, when bats will be giving birth and lactating. If the monitoring visits reveal any damage, then bat boxes will be replaced, to be organised and funded by the applicant.

The owners will have sole responsibility for all future maintenance of the bat roosts and bat features and will seek advice from the ecologist as required (for example if repairs or cleaning are needed).

4. Lighting

Purpose of the Lighting Plan for Bats

The purpose of this report and plan is to:

- Set out the dark zones required for the key ecological features for bats.
- Directing lighting away from known or potential roosts.
- Showing the position of the lighting units to which are to be installed.
- State the relevant technical specifications of those lighting units.
- To ensure that there are sufficient dark zones within the site to maintain access by bats to the foraging resources.

Reference documents

Detailed Ecological Assessment

The 'Lighting Design for Bats' plan has been informed by ecological surveys of the site undertaken by Tyrer Ecological Consultants the results of which are included within the report Phase 2 Habitat Survey with Dusk and Dawn Results – Redevelopment of Mill Cottage and Land – Tyrer Ecological Consultants (22nd August 2019) Unpublished.

Proposed building plans submitted by Lawray Architects.

Results from the Surveys undertaken at the site.

The following roosts have been identified on site during surveys carried out in Summer 2019:

Brown long-eared (*Plecotus auritus*): a maternity roost exists at the cottage building and bats have been recorded using northern and southern aspects of the building. Evidence of this species in the form of droppings were located within the loft space.

Soprano pipistrelle (*Pipistrellus pygmaeus*): a satellite roost has been identified at the cottage; bats have been identified using southern and western aspects of the cottage building with droppings identified within the loft space.

Common pipistrelle (*Pipistrellus pipistrellus*): a day roost has been identified. A satellite roost has been found at Mill Cottage, whilst a singular bat was identified to be using the brick-built outbuilding with droppings identified within the loft space.

Lesser horseshoe (*Rhinolophus hipposideros*): a day roost has been identified at the outbuilding to the north-east.

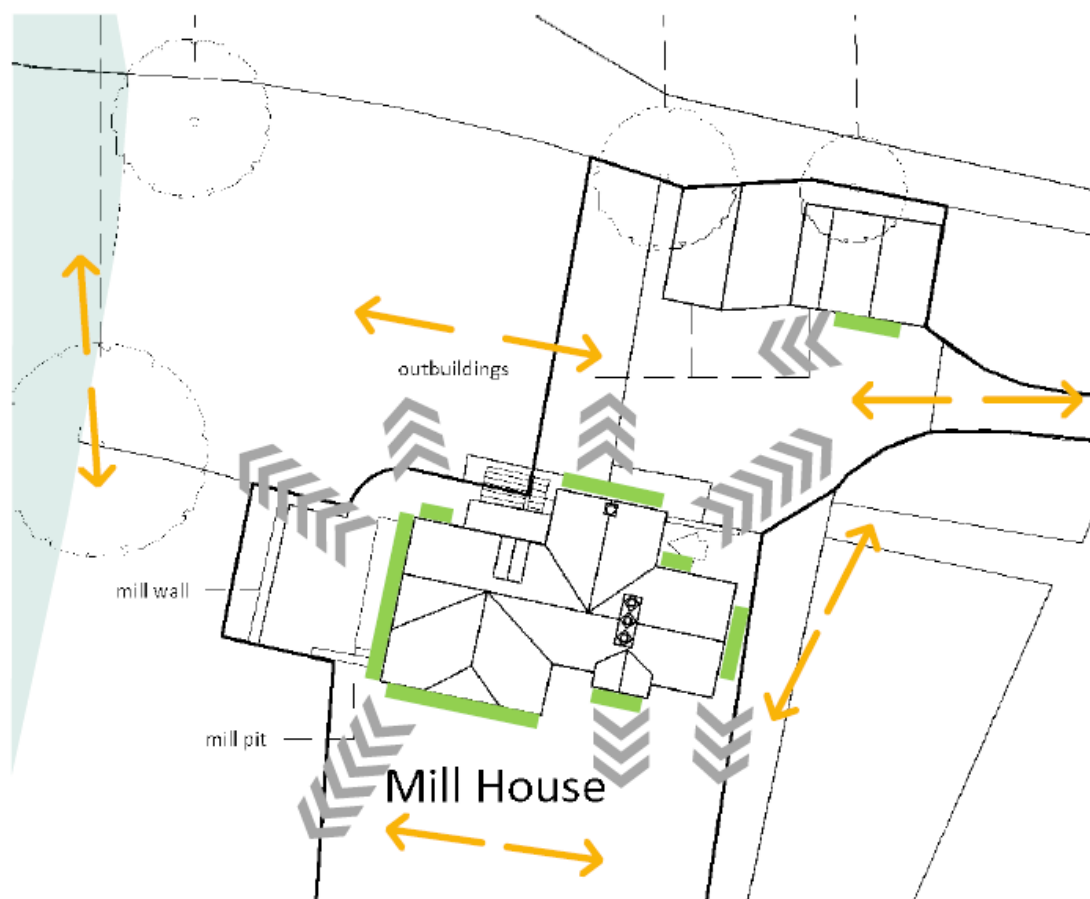
Bat Species	Locations – Emerging/Re-entering (ER) or Foraging/Commuting (FC)	Count
Common pipistrelle bat	ER - West Gable at Eaves	15
Common pipistrelle bat	ER - North Window under Boarding	1
Common pipistrelle bat	ER - South gable at Eaves	12
Common pipistrelle bat	ER - North Verge	1

Common pipistrelle bat	ER - Outbuilding	1
Soprano pipistrelle bat	ER - South Gable at Eaves	14
Soprano pipistrelle bat	ER- Western Elevation at Verge	3
Soprano pipistrelle bat	ER - South East Dormer	2
Daubentons bat	FC - Across Site North to South	1
Brown long eared bats	ER - Northern Elevation at Eaves and Ridge Tile	19
Brown long eared bats	ER - South West Soffit	5
Whiskered/brandt's bat	ER - Western Elevation at Eaves	4
Lesser horseshoe bat	ER - Outbuilding	1

Foraging and commuting activity around the site by bats was recorded. Species recorded were largely common pipistrelle, soprano pipistrelle, brown long eared and daubentons bats.

The foraging and commuting activity was along the tree line and water course and between the buildings.

Bat Locations Map (from 2019 Survey):



Key:

- Point of bat emergence
- Foraging activity
- Commuting activity

In addition to the confirmed roost locations, the survey carried out in 2015 identified that the mill pit contains hibernation roost potential, though no hibernation survey has been carried out to confirm this, therefore mitigation will be put in place to accommodate this potential. The mill pit was found to be climatically cold, dark, and damp, which can suit the hibernation requirements of several bat species. Furthermore, numerous internal crevices exist within the internal brickwork.

Following the findings from the surveys the proposed mitigation is as follows:

Ridge access will be instated at Mill Cottage at least at four localities on the building.

Soffit and barge access shall be re-instated across areas currently used by pipistrelle, whiskered/brandt's and brown long-eared bats and will allow access into existing loft voids at Mill cottage.

A stand-alone roost will be incorporated into the proposals to the east which will entail the development of a separate building at a minimum of 3.5 metres off ground floor level; the interior enclosed space will be to the dimensions 4 metres length by 4 metres width.

Ecological Features associated with site and its surrounds.

The ecological features of importance to bats associated with the site and surrounds are shown in Figures 1 below. The key ecological features are:

- The dwelling
- Outbuilding
- Mill pit
- River
- Newly installed bat boxes
- Woodland surrounding the site.

The aim of the scheme is to ensure that the most important ecological features for bats remain dark/exceptionally low level when external illumination is activated on site.

External Lighting to be installed on site.

Location of lighting

The location of the external lighting unit is indicated on the lighting plans.

Lighting will be installed at low-level only (i.e. no higher than eaves level) and directed downward (i.e. below the horizontal plane). Front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill. Any newly installed lights will ideally be of low intensity (i.e. less than 25 watts), glass glazed and the light source will either be compact fluorescent light sources fitted with appropriate UV filters, low pressure sodium bulbs or warm light LED bulbs. White lighting sources including mercury or metal halide, CPO and CDO (ceramic discharge metal-halide) bulbs which have a significant effect on bats will be avoided.

Specifications of lighting units

The lighting units to be installed are shown in table 1 below.

Lighting unit	No	Location	Illustration
Wall mounted security lantern type light. Installed 1800MM MAX above ground level. With time sensor control set a 2 minute. 10watt dimmable E27 ES bulb	1	To be positioned on the corner of the dwelling on the approach.	
Cowl type fitting Wall lights - Dusk to Dawn Motion Sensor Outdoor Lights Motion sensor to be set at 1 minute timing, Fitted with 9 watts LED bulbs.	3	To be positioned on various points on the building.	

Fortress Bollard Light 0.8m. Louvre design. A warm white spectrum (ideally) <2700 Kelvin should be adopted. Motion sensor to be set at 2-minute timing.	4	Two positioned along the driveway into the property. Two positioned within the parking area.	
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Lighting plan



Lighting

1 x Security light



3 x door lights



4 x bollards



