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Tyrer Ecological Consultants Ltd, Formby Business Centre, 42 Duke Street, Formby, L37 4AT

Dusk Survey Results

May 2020

15-17 Oxford Road
Southport
Merseyside
PR8 2JJ

OS GR: SD 323 160



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Prepared for	Lulworth Developments Ltd
Prepared by	Tyrer Ecological Consultants Ltd

Author	Mr. Joshua Styles	
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1.0 Background and Introduction

1.1 As part of a proposed planning application in relation to 15-17 Oxford Road, Southport, Tyrer Ecological Consultants Ltd were commissioned during 2019 to conduct an inspection and assessment in relation to bats and breeding birds which was undertaken in line with available best-practice guidance on 20th September 2019. The subsequent report was issued with several key recommendations which related to bats, birds and incidental observations (see Appendix I).

1.2 Appendix I concludes the following in respect of bats:

“Inspection of the building contained within the application site revealed a series of potential roost features (PRFs) sited across the building including:

- *Gaps at soffit*
- *Gaps at hanging tiles*
- *Crevices in brickwork*

Whilst no evidence of use was located upon appraisal, given the variety of PRFs, the structure is categorised to possess ‘moderate’ roost suitability in line with Bat Conservation Trust.”

And

“Based upon this categorisation, it is recommended that two dusk/dawn emergence or/and dawn re-entry surveys are conducted in the main active season of bats (May - August) in order to establish if the building is being used by bats and if so identify the species, abundance, roost locations and flight lines following emergence/re-entry.”

1.3 Recommendations for further surveys at this building is in line with standing Bat Conservation Trust guidelines (Collins, 2016) (see Figure 1 below).

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

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

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

Figure 1: Extract from Collins (2016)

1.4 Tyrer Ecological Consultants Ltd was therefore re-commissioned by Lulworth Developments Ltd to undertake the recommended further surveys in relation to bats; both nocturnal surveys were conducted during May 2020. The results, conclusions and consequent recommendations following the surveys are contained within this report.

1.5 This report should be read, understood and presented to authorised parties in accompaniment to the diurnal report (see Appendix I).

- 1.6 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019), measures have been recommended within this report, proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain. These recommendations are in addition to those set out within Appendix I.

2.0 Legislation & Policy

- 2.1 All British bats and their ****roosts** ¹are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

Policy

- 2.2 The National Planning Policy Framework (NPPF) has replaced the Planning Policy Guidelines (PPG's). In relation to wildlife, PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF, in relation to species and habitats, are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development.

Paragraph 175 of the National Policy Planning Framework (as revised in 2019) stipulates:

“if significant harm to biodiversity 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.”

Paragraph 174 states:

“To protect and enhance biodiversity and geodiversity, plans should... promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

- 2.3 The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation:

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.”

- 2.4 This is supported by a guide to good practice entitled 'Planning for Biodiversity and Geological Conservation: Building in Biodiversity' in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments to benefit these species.

2.5 Policy NH2 of Sefton's Planning Policy also states that:-

“6. Development proposals which affect sites of nature conservation importance, Priority Habitats, legally protected species or Priority Species must be supported by an Ecological Appraisal and include details of avoidance, mitigation and / or compensation, and management, where appropriate.”

3.0 Bats in Merseyside

3.1 Use of Buildings by Bats

- a) Summer breeding roost (May-August)
- b) Hibernation roost (October-March)
- c) Transitional or temporary roost (Mainly spring/summer months)

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.

3.2 Up to nine bat species have been regularly recorded in Merseyside, most of which use built structures notably residential properties for roosting. The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Merseyside is reflected throughout the UK.

4.0 Dusk Survey Results

4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:-

“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

Relative to the above the survey protocol has been determined using the collective and long standing experience of Tyrer Ecological Consultants Ltd and knowledge of the specific nature of the site.

Survey Protocol

4.2 The timing of the surveys took place in May thus within the main active period of bats, at a time when maternity colonies have formed / returned to summer roosts and bats are in a highly active and social stage.

- 4.3 In accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), it is specified that:
- “The bat active period is generally considered to be between April and October inclusive”,* though the period of May - August is the optimal, most productive period (see Figure 1).
- 4.4 When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of the Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality and how complex a building is relative to observations.
- 4.5 In this case the building present no problems for dusk observations; if a building is complex, or observations were restricted, or species that are difficult to detect at dusk are suspected then dawn surveys would be conducted. At 15-17 Oxford Road, there are no visual constraints and to date there is no evidence to suggest the presence of such species.
- 4.6 It should also be borne in mind that at dawn, temperatures are usually lower than at dusk as a result bat activity can, in some locations, be less frequent. Additionally, where singular/small numbers of bats are present and there are no survey constraints then dawn surveys are of no more value than dusk surveys; singular bats can and do return to a roost before dawn and as a result a dawn survey would not record them anyway. Dawn surveys are more productive when “back tracking” bat to a roost from foraging grounds.
- Survey protocol should not be determined by parties who are 1) not familiar with the site 2) do not have a sufficient level or experience in relation to the undertaking of dusk/dawn bat surveys.
- 4.7 The number of surveys and surveyors was adequate relative to the roost potential that was identified i.e. ‘Moderate’, and requiring four surveyors to accurately monitor potential roost features (PRF’s) at any one time.
- 4.8 Surveyors were strategically positioned so that all elevations with bat roost potential, as described in the daytime report, could be observed without limitations. The surveys were aided with Anabat electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed using Analook computer software to verify field observations

Dusk Survey Results

4.9 Two dusk emergence surveys were undertaken over the 5th and 19th May 2020 by a combination of five surveyors as per Table 1 below:

Table 1: Surveyor Credentials

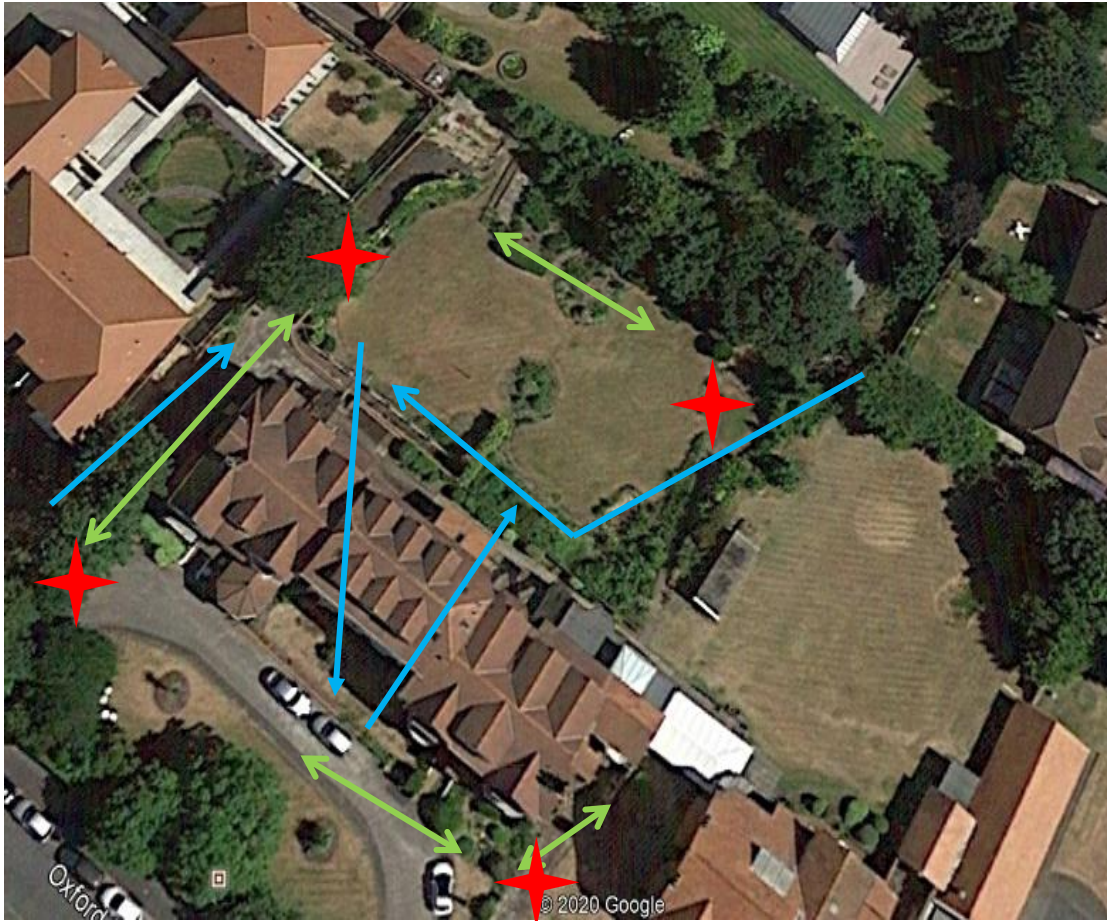
Name	Years of Experience as of May 2020	Description
Mrs. K. Wilding	12	Director of Tyres Ecological Consultants Ltd who holds a Natural England Class 2 License (CLS-14227). Natural Resources Wales License = S086297/1 Barn Owl License – CL294-00276
Mr. S. Irwin	30+	Natural England Class 2 License (CLS-13604). Natural Resources Wales bat licence. (Licence no. 73156:OTH:CSAB:2016)
Mr. J. Styles	5	BSc (Hons.) ACIEEM AMRSB, FISC Level 6 Ecologist and accredited agent on the Class 2 Natural England bat license of Mrs K Wilding (CLS-14227)
Mr. P. Harrison	4	A seasonal ecological consultant with experience of undertaking professional bat surveys
Mr. J. Pearse	4	A seasonal ecological consultant with experience of undertaking professional bat surveys

Table 2: Survey dates, times and weather conditions

Times of Survey	Date	Weather Conditions
Dusk survey 2030 - 2210	5 th May 2020	Sunset: 2050: Dry, light air, 25% cloud cover Start temp: 12 ° C End temp: 11 ° C
Dusk survey 2045 - 2235	19 th May 2020	Sunset: 2113: Dry, calm, 25% cloud cover Start temp: 13 ° C End temp: 13 ° C

Table 3: Dusk Survey Results

Dusk Survey	Time	Activity
05/05/2020	2030-2200	<p>Summary: No emergence for the duration of the survey.</p> <p>2115 hrs: Two common pipistrelle bats commuted onto site from both the south and west, flying south and east respectively</p> <p>2128-2155 hrs: A maximum of three common pipistrelle bats began to forage around shrubbery and trees within the survey site on a constant basis.</p> <p>2133 hrs: Common pipistrelle bat commuted from the north to the south of the site.</p> <p>Foraging activity was frequent throughout much of the survey and comprised a maximum of three common pipistrelle bats.</p>
19/05/2020	2045-2235	<p>Summary: No emergence for the duration of the survey with limited activity.</p> <p>2120 – 2200 Common pipistrelle bat general but frequent foraging around the front and side of the building</p> <p>2135-2142 hrs Common pipistrelle commuted from south-west to north-east</p> <p>2137 – 2201 hrs Common pipistrelle bats (maximum of 2) continues to forage across the western boundary of the site</p> <p>2140 hrs Common pipistrelle commuted over the building from a northerly direction and across the site to the west</p> <p>2149-2202 hrs Common pipistrelle x 1 foraging along tree line to the rear of the garden</p> <p>2153 hrs Noctule, no visual</p> <p>Foraging activity was frequent to constant throughout the majority of the survey after sunset.</p>




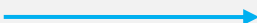

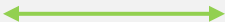
Key			
	Building positions		Commuting activity
	Surveyor positions		Foraging activity

Figure 2: Summary of bat activity during nocturnal surveys

5.0 Dusk Survey Conclusions & Recommendations

- 5.1 From the two 2020 dusk survey results, it can be concluded that whilst using best practice survey methodology, emergence of bats was absent at the surveyed building at 15-17 Oxford Road.
- 5.2 As bats are a highly transient species and can use buildings at any time of the year, it should be noted that if bat(s) is/are, or evidence of use is located during the proposed work (see Figure 2 below) or at any other time, then as a legal requirement the work at the site should immediately cease and a bat ecologist contacted for further advice. If bat(s) or their roost will be affected then a Natural England Mitigation licence will be required to legally continue with the work. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation.

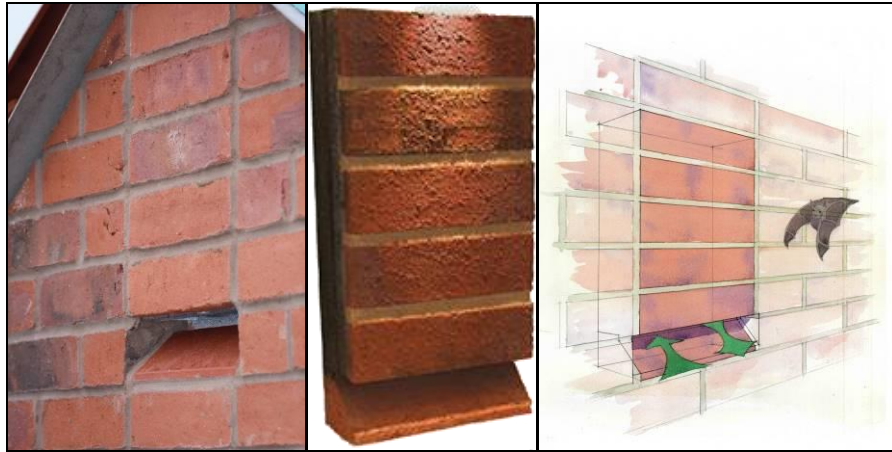


Figure 3: Bat droppings (left) and pipistrelle bat (right)

- 5.3 Notwithstanding bat/s absence it is recommended that provision for bats is incorporated into the new development; subject to site proposals being made available suggestions for this purpose can be provided by the ecologist and will help to meet the LPA criteria in respect to Local Biodiversity Policies. A number of options for enhancement are given below:

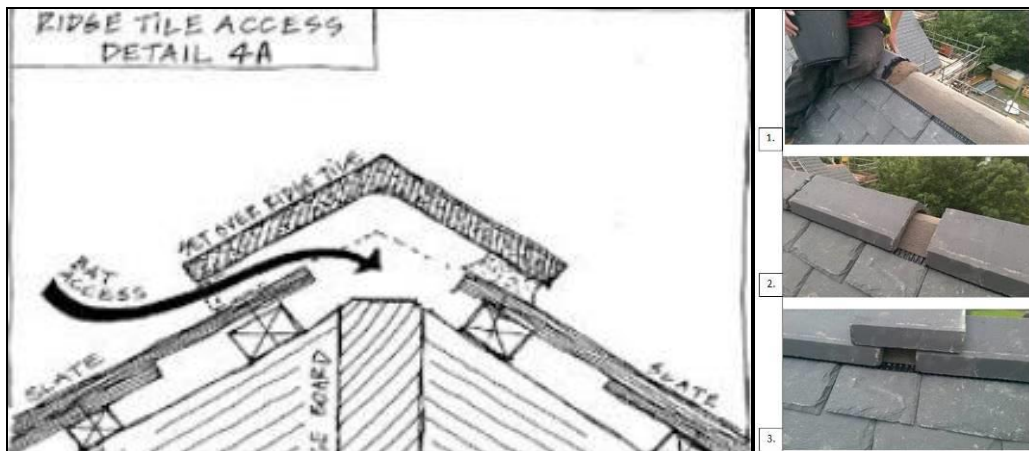
Integrated bat box

The Habitat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



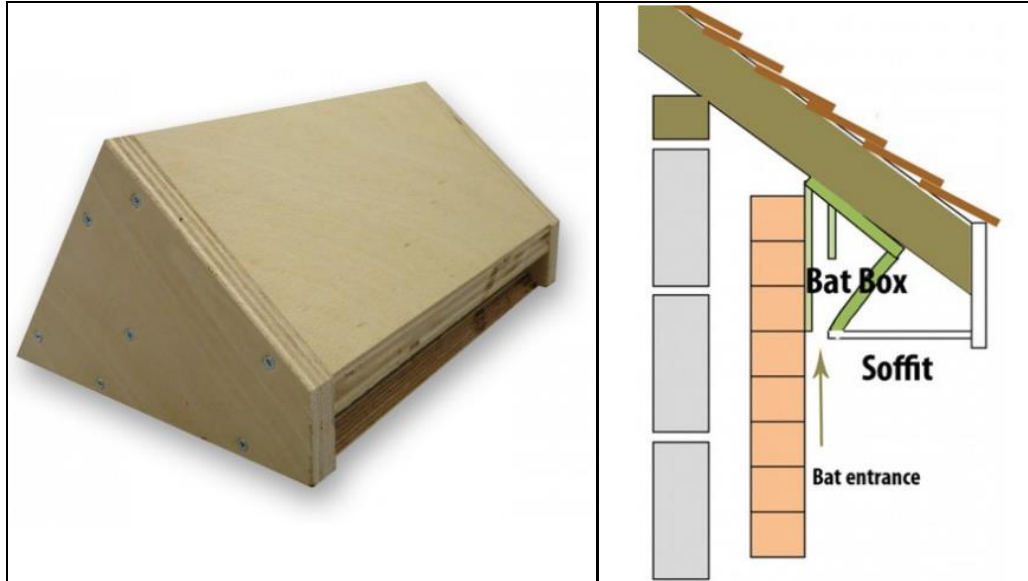
Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.



Soffit access

Where soffits are instated at gable elevations, roost provision may be incorporated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.



6.0 Bibliography

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