ccnw

creating living environments

28 Dilworth Lane, Longridge

Bat Survey Report – Version 1

Date: 15 May, 2018

By: Dominic Rigby MCIEEM

Ref: JE 6536a 18

Client: Mr. J Holland

NOTICE

Our ecological reports are published on the understanding that nothing will be omitted, amended or misrepresented by the client or any other interested party. This report and its contents remain the property of Conservation Contracts Northwest Ltd. until payment has been made in full.

The results and any advice contained here is based on the information available during the agreed period of study and within the resources available. All reasonable effort has been taken to ensure that an accurate assessment of the subject is provided at the time of the survey. However, the absence of recorded evidence should not be taken as an absolute guarantee that the site was not being used by a particular species.

Any future readers should note that both the physical state of the site and the relevant environmental legislation may have changed since this report.

Revision Schedule

Version	Date	Prepared by	For Comment	Checked by
1	15/5/18	D Rigby Senior Ecologist		G Lowe CCNW Director

Conservation Contracts Northwest Ltd.
29-31 Lee Lane
Horwich
Bolton
BL6 7AX

Tel: 01204 693500
Fax: 01204 693503
www.ccnw.info

@ccnw1

28 Dilworth Lane, Longridge

Bat Survey Report

Dominic Rigby MCIEEM

Senior Ecologist

Conservation Contracts Northwest Ltd.

15 May, 2018

CONTENTS

List of Tables:

1. Summary

Conservations Contracts Northwest Ltd. (CCNW) were contracted in April 2018 to undertake a preliminary roost survey for bats at 28 Dilworth Lane, Longridge, Lancashire.

The single detached residence and accompanying detached garage were subject to a development planning application and a bat survey had been recommended by planning consultants.

The survey was undertaken following industry-standard guidelines and using the Bat Roost Trigger Index to aid transparency in the process.

The preliminary roost assessment deemed the garage unsuitable for bats, scoring a negligible index. The house, however, was assessed as having a "low" potential, triggering the guidelines requirement for a single dusk emergence-survey.

The survey was undertaken on 8th May 2018, by three surveyors, led by a level-two licenced bat surveyor. No bats were recorded emerging, using or entering the property during that survey.

No further surveys were required. No further licencing or mitigation measures were required. However, the Longridge area lies in a landscape with good potential for bat foraging. Any developer should be mindful of the potential for transient bats and be aware of the legislation, outlined in this Report, that protects bats in the UK.

2. Introduction

2.1 Principal Author

This report was compiled by Dominic Rigby MCIEEM, Senior Ecologist at CCNW. He has over 30 years' professional experience in the ecology sector and holds a current level-two licence to survey for bats in England. He has the knowledge, skills and experience required to survey, disturb, handle or to carry out research works for the bats in a professional capacity, as set out in the CIEEM Technical Guidance Series (CIEEM, 2013).

2.2 Guidelines

The Report follows the CIEEM format and guidelines on Ecological Report Writing (CIEEM 2017) for ecological surveys.

2.3 Client

Mr. J Holland,
8 Salisbury Avenue, Grimsargh PR2 5LF

2.4 Site Location

"Pengarth", 28 Dilworth Lane, Longridge, Preston PR3 3XH,
National Grid reference: SD6093037335
District: South Ribble Borough; County: Lancashire.

The site was a detached, domestic dwelling with accompany detached garage, set in a mature garden. The site curtilage was 0.33ha. The house lay along ribbon development, with housing immediately to the south and west and agricultural, grazing land to the north and east. Map One (p24) shows the planning red-line boundary (map reference 17-2348 EX001).

2.5 Purpose of Report

This report was compiled to enable the client to meet the requirements for a bat survey at the property, as a pre-requisite for gaining planning permission. The planning application concerned a proposed extension at the rear of the property and the demolition of the existing garage. The original planning application was submitted to Ribble Valley Borough Council in February 2018, application number 3/2018/0214. The proposed layout of the extension is presented on Map Two, p25 (map reference 17-2348-PN001).

This Report compiled the results of the preliminary roost assessments for the existing property and garage and as a consequence of the former, a presence/absence dusk survey of the property.

3. Legislation

3.1 Legislation

3.1.1 Bats are listed under Schedule 5 of The Wildlife & Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species Regulations 2017. This legislation, when taken together, results in a level of protection that prohibits the intentional, deliberate or reckless:

- killing, injuring, taking or disturbance of bats;
- damaging, destroying or obstructing any place used by bats for the purposes of breeding, sheltering or protection; and,
- selling and/or advertising for sale a bat or any part thereof.

3.1.2 Seven species of bat are listed as species of principal importance for nature conservation in England in Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the same Act requires that local and regional authorities have regard to the conservation of biodiversity in England, when carrying out their normal functions.

3.2 Policy

Planning policy relevant to the current application on the Ribble Valley Borough Council Planning website stated (Ribble Valley Borough Council, 2018):

Bats are a protected species and as such are a material consideration in planning applications.

We will require an appropriate bat survey to be submitted if your scheme includes works to the roof, eaves, stone faced walls, weather boarding, or vertically hung slate of any of the following:

Domestic dwellings where a two or single storey extension will result in having to break into or disturb the existing roof.

4. Methodology

4.1 Desk Study

4.1.1 The objective of the desk study was to review the existing information available in the public domain concerning species and habitats to identify the following:

- Internationally and nationally designated sites for bats, up to 5 km from the Site using the Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk);
- Local bat records using local searches of reliable, up to date data.
- Aerial photographs and Ordnance Survey (OS) maps were reviewed to identify features of ecological interest surrounding the Site, nearby areas of ecological interest and features connecting these habitats (hedgerows, watercourses, railway lines).

4.2. Field Surveys

4.2.1 Preliminary Roost Assessment – Buildings

4.2.1.1 Bat Roost Trigger Index
The dwelling and garage where inspected and assessed for their potential for bats, following the methodology detailed in Collins (2016). The building and its environmental context were then scored using the Bat Roost Trigger Index: a metric developed by Underhill-Day of Swift Ecology.

- Underhill-Day (2017) describes the bat roost trigger index as an excel-based tool which helps evaluate the suitability of structures and buildings to support summer bat roosts. It can be used in preliminary roost assessments to augment professional judgement. The tool allows numerical comparison of different buildings, and thus helps bat surveyors to maintain a consistent approach to their assessments across a range of structure or building types, characters and ages.
- The index is based on a list of 28 features which reflect: A) the location, habitat and environmental context of the structure or building (8 features); B) exterior features and characteristics of the structure or building (10 features); and C) interior features and characteristics of the structure or building, particularly those comprising, or within, the roof void (10 features).
- Each feature is sub-divided into three or four descriptive categories which summarise the feature 'condition', while indicative descriptions are provided which loosely define each category; these are used as a prompt to assign a numerical score (i.e. 1.0, 0.67, 0.33 or 0.2) to the feature. The index uses indicative descriptions, rather than strict criteria, since the relationships are qualitative and rely on experience and generally accepted associations rather than on known numerical correlations.

- The value at the end of the process is a Trigger Index (TI) score, which the surveyor can use to inform the number of subsequent surveys (see Table One) that may be required, in a transparent way.

TABLE 1: Bat roost trigger index scores, roost suitability class and BCT survey recommendations

TI Score	Roost Suitability Class	BCT Survey Recommendations
> 0.7	HIGH	Three separate survey visits.
0.6 - 0.7	MODERATE	Two separate survey visits.
0.5 - 0.6	LOW	One survey visit.
< 0.5	NEGLIGIBLE	No further surveys required.

4.2.1.2 Building Survey
The Buildings survey was undertaken on 1st May 2018 by Dominic Rigby, a Level 2 Bat Licence holder. The weather was sunny and dry and provided no constraints. Access was granted to all areas and the loft was totally accessible and had optional lighting. A high-powered LED torch and close-focussing binoculars (down to 50cm) were used to aid inspection of both internal and external features. Photographs were taken of keys features.

4.2.2 Dusk Emergence Survey

4.2.2.1 The garage was scoped-out of the survey following the preliminary roost assessment (see 5.2.3).

4.2.2.2 An emergence survey of the house was conducted on 8th May 2018. This was led by Dominic Rigby, supported by two colleagues. One observer was positioned on the opposite side of Dilworth Lane, enabling a full view of the front of the house; the other observers were positioned at posts at the north-east and north-west corners of the rear of the house, respectively. Together this enabled complete coverage of all potential exit sites.

4.2.2.3 The survey started 15 minutes before sunset and finished 95 minutes after sunset. On the night of the survey this was a 2035 start and 2220 finish.

4.2.2.4 A Peersonic RPA3 full spectrum bat detector/recorder and an Echo Meter Touch bat detector were used. Additionally, a Night Vision Scope (Yucon sku #24121NVMT Spartan 2x24) was positioned overlooking the NE corner of the house, where light penetration into the loft had been noted during the preliminary building survey.

4.2.2.5 A Peersonic RPA3 full spectrum bat detector/recorder was positioned in the archway half way down the garden to aid interpretation of bat behaviour/usage of the site from any bat that may emerge from the house.

TABLE 2: Dusk Emergence Times and Conditions

Start Time	Temperature ^{0}C	Humidity (%)
2035	12.1	84
2220	9.8	73

4.3 Limitations and Guidance Deviations

4.3.1 **Desk Study** Biological records can be received from a wide variety of sources and may or may not be comprehensive and accurate. However, if assessed in conjunction with a survey, they can contribute to a robust ecological assessment of a site.

4.3.2 **Bat Roost Trigger Index** This tool is a working prototype which has only been used in general professional consultancy since first published in June 2017. It was however, used in conjunction with the assessor's experienced professional judgement.

5. Results

5.1 Desk Study

5.1.1 Designated Sites

A search on the presence of designated sites revealed there to be no Special Areas of Conservation (SAC) or Sites of Special Scientific Interest (SSSIs) within 5km of the proposed development site which are designated for bats.

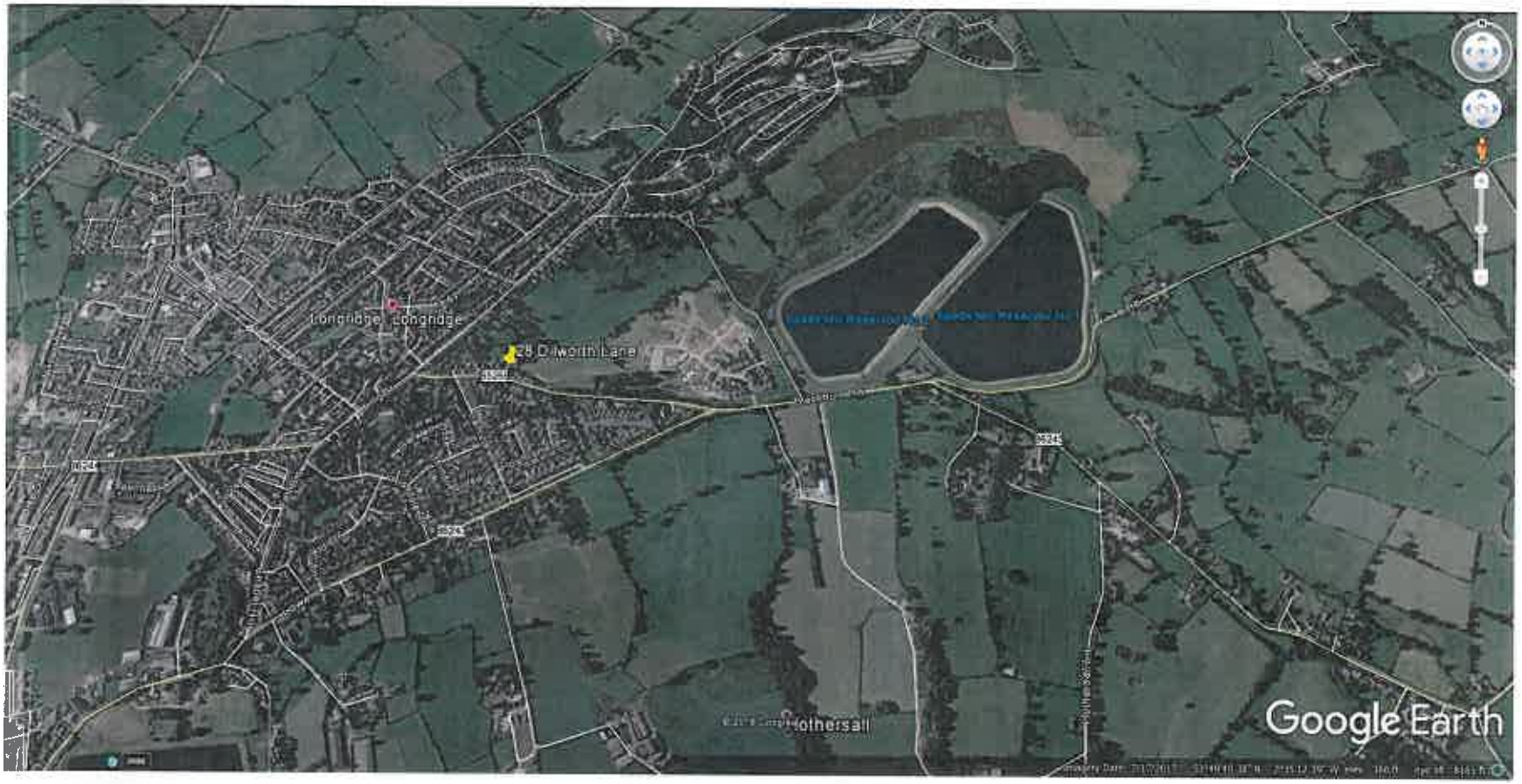
5.1.2 Records Search

Avian Ecology Ltd was commissioned in 2014 by Taylor Wimpey UK Ltd to undertake a bat survey for a medium sized development off Dilworth Lane, just 300m from Number 28, This included extensive data searches, transect surveys and some building surveys (Avian Ecology, 2014).

At least six species of bat were recorded during the surveys: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Brandt's *Myotis brandtii*, Daubenton's *Myotis daubentonii*, Natterer's *Myotis nattereri and Noctule (Nyctalus noctule).*

5.1.3 Aerial Photographs

Photograph One: 28 Dilworth Lane in a landscape context



0m --- Distance --- 3km

The habitat to the east of the site provides good, connected foraging opportunities for bats. The mix of modern and older buildings to the west provided opportunities for roosting for several species.

5.2 Preliminary Roost Assessment

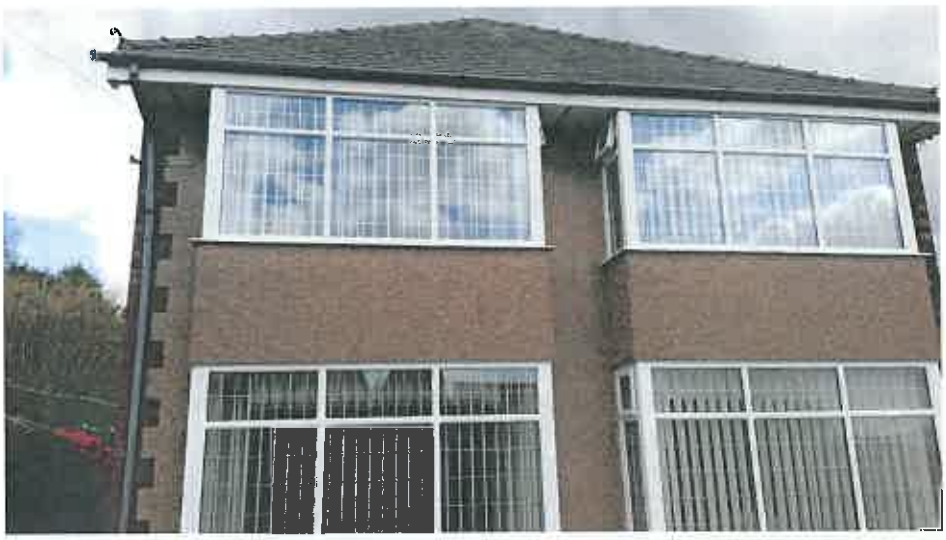
5.2.1 The House

5.2.1.1 External Description

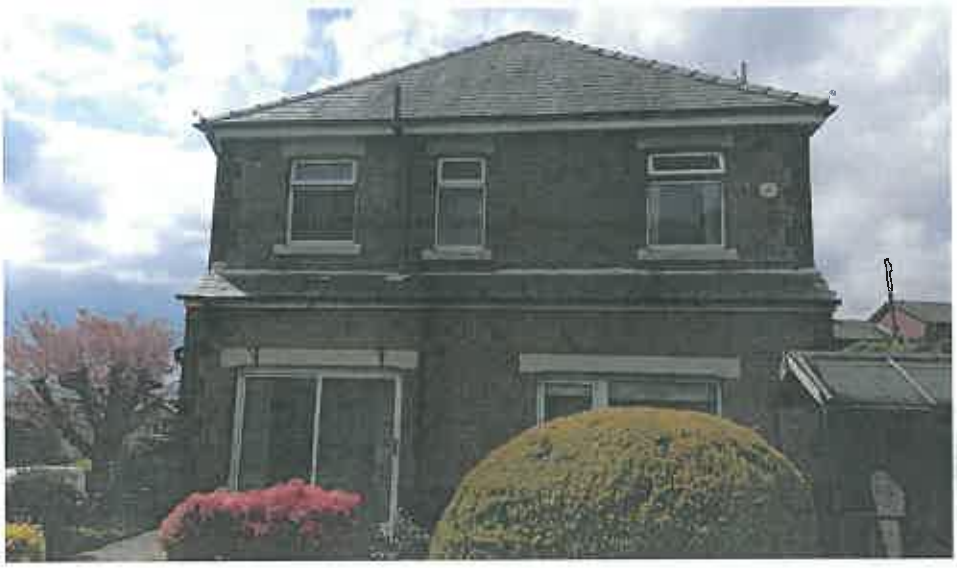
The house is a post-war, brick-built structure with a four-sided hipped roof, with a single slate skin. There was a lean-to along the length of the rear of the house with a pitched roof.

- The pebbledash exterior-wall covering was in good condition. The doors and windows and accompanying lintels were in good condition, sealed and no droppings were present. The slate roof was largely well-sealed and no ridge tiles were lifted or missing, however, there was some light penetration into the loft, with gaps enough for bats to enter.

Photograph Two: Front view of house



Photograph Three: Rear View of house, showing Lean-to

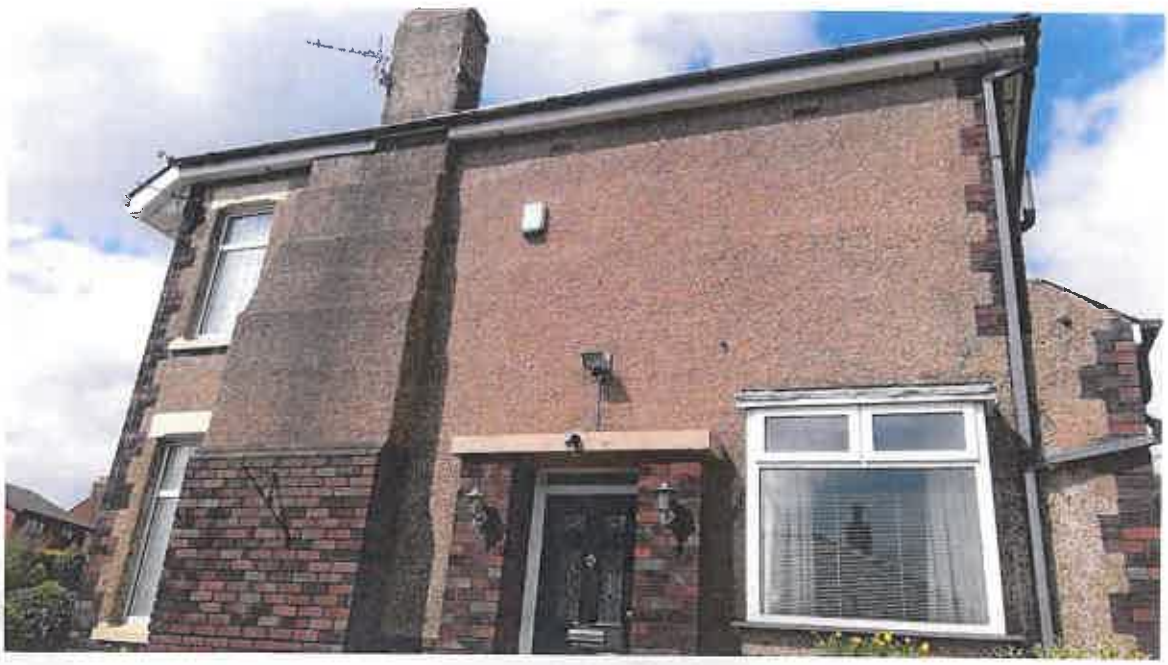


- The facias and soffits were of wood and in good condition.

Photograph Four: The eaves were in good condition

- Pebbledash was sealed around the external chimney breast and the front-door lintel and recess, it was in good condition with no obvious entry-point for crevice-dwelling bats.

Photograph Five: Side View (east), showing door lintel and chimney breast



5.2.1.2 Internal Description

The loft was undisturbed, clear and accessible. There was some light penetration, especially at the front centre and in the NE corner. There was extensive cob-webbing and no signs of droppings. As the roof was single-skin all gaps between slates could be inspected and no bats or bat evidence was found.

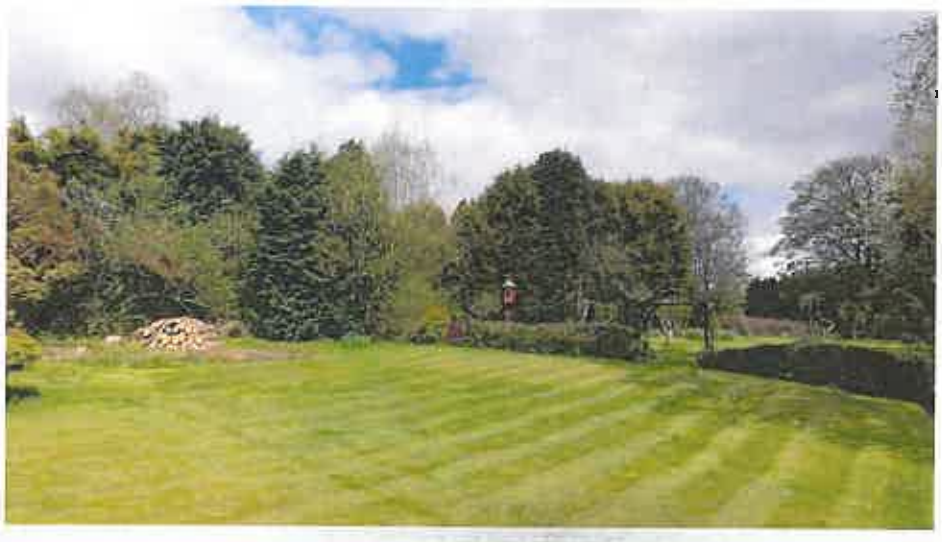
Photograph Six: Single-skinned slate roof and wooden purlin and rafters

Photographs Seven: Internal apex of hipped roof, showing extensive cob-webbing

Photographs Eight: Internal apex of hipped roof, showing wooden hip rafters

5.2.2
The Garden
The garden was not the focus of the survey. However, the quality of habitat in and around the garden affect the desirability of potential roost sites and were part of the Bat Roost Trigger Index metric. The garden contained good quality linear habitats leading from the house into the wider pastoral landscape.

Photograph Nine: The garden, looking NNE, showing a combination of linear and open habitat



5.2.3 The Garage

The garage is a single-leaf concrete structure with an ivy-covered corrugated concrete-asbestos roof. There were windows on the western and eastern sides and a metal up-and-over door at the front. The garage was regularly used as a garden storage area. Ivy covering the roof gappy enough to enable adequate inspection.

Photograph Ten: Western side of garage

Photograph Eleven: Eastern side of garage, with broken window

Photograph Twelve: Internal view of garage

The poor thermal properties of concrete and asbestos, the high light levels enabled by windows and the regular usage from spring to autumn and occasional during winter all contributed to this being a structure of negligible use to bats and as such was scoped out of the need for emergence surveys (see Table Five, p20).

5.3 Bat Roost Trigger Index

5.3.1 The House

TABLE FOUR: Bat Roost Trigger Index: The House

BAT ROOST TRIGGER INDEX (TI): RESULTS			Swift Ecology
Project:	28 Dilworth Lane, Longridge	Evidence:	0
Code:	JE6536 18	Constraints:	0
Date:	1 May 2018	Surveyor:	Dominic Rigby

TRIGGER INDICES	CATEGORY	TI VALUE
A) Location, habitat and environmental context of structure		
T1: General location	Rural	1
T2: Foraging opportunities within 250 m	Moderate	0.67
T3: Foraging opportunities within 5 km	Moderate	0.67
T4: Commuting opportunities	Moderate	0.67
T5: Cover in vicinity of structure	Moderate	0.67
T6: External lighting in vicinity of structure	Low level	0.67
T7: Number and character of nearby buildings	Mixture of old and new	0.67
T8: Structure/building exposure	Low	1
B) Exterior features and characteristics of structure or building		
T9: Structure/building age	Intermediate	0.67
T10: Size of Building	Intermediate size	0.67
T11: Main wall construction material	Modern	0.33
T12: Condition of wall/roof pointing/render	Some gaps, cracks or crevices noted	0.67
T13: Condition of lintel/door frame features	Tightly sealed	0.33
T14: Condition of eaves/soffits/bargeboards	Some gaps or cracks noted	0.67
T15: Condition of weatherboarding/cladding	No boarding present	0.2
T16. Condition of lead flashing	Flashing tightly sealed	0.33
T17: Roofing material	Modern tiling or mixture	0.67
T18: Bat access potential	Several small gaps noted	0.67
C) Interior features and characteristics of structure or building		
T19: Character of roof void/roof space	Typical single void or dark roof space	0.67
T20: Character and condition of roof supports	Tightly sealed modern timbers/supports	0.33
T21: Presence and extent of cobwebbing	Numerous cobwebs in roof space	0.33
T22: Presence and condition of roof lining	Unlined or cavity filled with insulation	0.2
T23: Light levels in roof void/space	Intermediate	0.67
T24: Protection from weather/wind	Intermediate protection	0.67
T25: Temperature regime	Intermediate	0.67
T26: Level of (human, animal) disturbance	Low	1
T27: Flight Space	Good	1
T28: Flying Access (Horseshoe bats)	0	0
TRIGGER INDEX SCORE =	0.57	
BAT ROOST SUITABILITY =	LOW	

5.3 Bat Roost Trigger Index

5.3.2 Garage

TABLE FIVE: Bat Roost Trigger Index: Garage

BAT ROOST TRIGGER INDEX (TI): RESULTS			Swift Ecology
Project:	Garage at 28 Dilworth Lane, Longrid	Evidence:	0
Code:	JE6536 18	Constraints:	0
Date:	1 May 2018	Surveyor:	Dominic Rigby

TRIGGER INDICES	CATEGORY	TI VALUE
A) Location, habitat and environmental context of structure		
T1: General location	Rural	1
T2: Foraging opportunities within 250 m	Moderate	0.67
T3: Foraging opportunities within 5 km	Moderate	0.67
T4: Commuting opportunities	Moderate	0.67
T5: Cover in vicinity of structure	Moderate	0.67
T6: External lighting in vicinity of structure	Low level	0.67
T7: Number and character of nearby buildings	Mixture of old and new	0.67
T8: Structure/building exposure	Low	1
B) Exterior features and characteristics of structure or building		
T9: Structure/building age	Intermediate	0.67
T10: Size of Building	Small size	0.33
T11: Main wall construction material	Modern	0.33
T12: Condition of wall/roof pointing/render	Some gaps, cracks or crevices noted	0.67
T13: Condition of lintel/door frame features	Some gaps,cracks or crevices noted	0.67
T14: Condition of eaves/soffits/bargeboards	Some gaps or cracks noted	0.67
T15: Condition of weatherboarding/cladding	No boarding present	0.2
T16: Condition of lead flashing	Flashing tightly sealed	0.33
T17: Roofing material	Corrugated metal/asbestos/similar	0.33
T18: Bat access potential	Substantial holes or collapsed roof	0.2
C) Interior features and characteristics of structure or building		
T19: Character of roof void/roof space	No void or very limited roof space	0.2
T20: Character and condition of roof supports	No apparent supports or flat roof	0.2
T21: Presence and extent of cobwebbing	Numerous cobwebs in roof space	0.33
T22: Presence and condition of roof lining	Unlined or cavity filled with insulation	0.2
T23: Light levels in roof void/space	Light	0.33
T24: Protection from weather/wind	Intermediate protection	0.67
T25: Temperature regime	Cold, north-facing or too hot	0.33
T26: Level of (human, animal) disturbance	Moderate	0.67
T27: Flight Space	Good	1
T28: Flying Access (Horseshoe bats)	0	0
TRIGGER INDEX SCORE =	0.47	
BAT ROOST SUITABILITY =	NEGLIGIBLE	

5.4 Emergence Survey

5.4.1 No bats were recording emerging from, using or entering the property during the 110-minute survey.

5.4.2 In the garden, common pipistrelle (14), soprano pipistrelle (1) and noctule (1) passes were recorded during the emergence survey from a passive detector located in the archway midway down the garden. None of these had emerged from the buildings at Number 28.

6. Discussion and Analysis

6.1 The House

The single-skinned roof, well-sealed windows, door frames and roof make this property of low potential for roosting bats. However, the garden and surrounding landscape are of high potential and raised the trigger score to a threshold where a single survey was recommended. No bats where recorded during this survey and thus no further surveys where required. The likelihood of bats using this property is low.

6.2 Garage

The nature of the construction materials and the light levels within the garage led to the structure having negligible potential for bats. The ivy growing on the garage roof (see Photograph Ten) was open in structure and was unlikely to provide suitable cover for bats. No further surveys were required.

7. Recommendations

No further surveys are required. The structures to be modified or demolished during the development are of low or negligible suitability for bats.

However, given the wider landscape context the developer should be mindful of the possible presence of transient bats and their protection in law. Should any bats be found during the development phase work must cease and a licensed ecologist contacted immediately, so that the correct licensing and mitigation measures be put into place.

8. References

All documents referred to in the text should be listed and appropriately referenced

AVIAN ECOLOGY (2014) *Bat Survey Report. Dilworth Lane, Longridge.* Avian Ecology Limited, Warrington.

CIEEM (2017) *Guidelines on Ecological Report Writing. 2nd edition.* Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2013) *Competencies for Species Survey: Bats. Technical Guidance Series.* Chartered Institute of Ecology and Environmental Management, Winchester.

COLLINS J (ed.) (2016) *Bat Surveys for Professional Ecologists. (3rd edition).* The Bat Conservation Trust, London.

DIETZ C AND KIEFER A (2016) *Bats of Britain and Europe.* Bloomsbury, London.

Gov.uk. (2015). *Bats: surveys and mitigation for development projects - GOV.UK.* [online] Available at: https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects [Accessed 8/5/2018].

MITCHELL-JONES AJ AND MCLEISH AP (2004) *Bat Workers' Manual. (3rd edition).* JNCC, Peterborough.

Ribble Valley Borough Council (2018) *Protected Species: Bats – Ribble Valley Borough Council* [online] Available at: https://www.ribblevalley.gov.uk/info/200365/trees_and_countryside/1420/protected_species [Accessed 8/5/2018].

RUSS JM (2012) *British Bat Calls: A Guide to Species Identification.* Pelagic Publishing, Exeter.

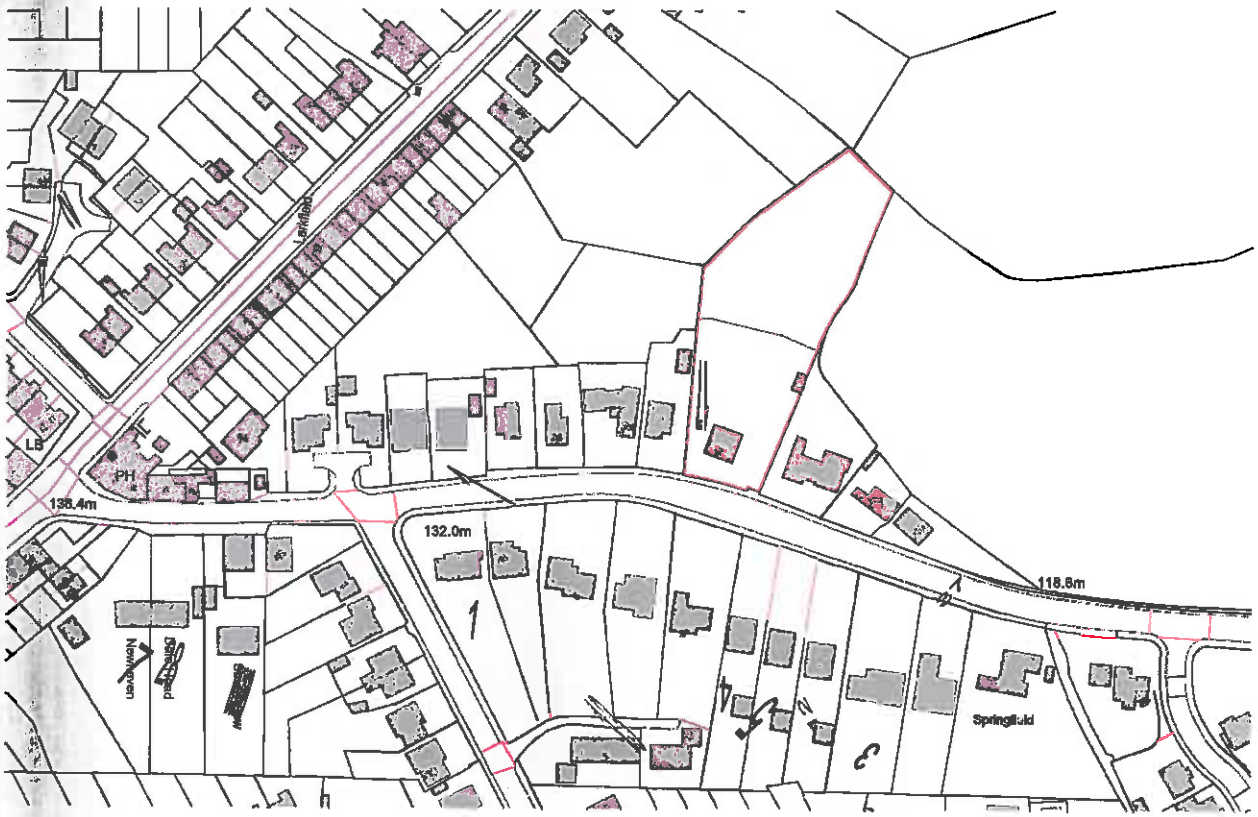
UNDERHILL-DAY N (2017) The Bat Roost Trigger Index – A New Systematic Approach to Facilitate Preliminary Bat Roost Assessments. **In Practice** *96*, 37-42.

APPENDICES

Map One: Planning red-line Boundary

Map Two: Proposed Development Layout

Map One: Red-line Planning Boundary



Site area = 0.33 hectares (0.80 acres)

Site boundary

Ordnance Survey [illegible] Copyright 2018.
All rights reserved. Licence number 100022432.

rev | description | date | drawn | check

0 1 2 5 7.5m

client

Mr. & Mrs. Holland

project

28 Dilworth Lane
Longridge

drawing

Existing Site Location Plan

site name		dated 23-Jan-18
drawing reference	rev	scale
17-2348-EX001	-	1:1250 @ A3
issue status		original by RJE
Existing		checked by NJM

The copyright of this drawing is held by Croft Goode Limited, and no reproduction is allowed without prior permission. This drawing must be checked and verified by the contractor prior to work commencing on site. Liability shall be taken for any deviations in this drawing unless, prior to commencing, this drawing and all its dimensions have been re-checked and verified. All drawings issued prior to being checked to be treated as draft. Do not scale.

croft goode architects

Croft Goode Architects, Office 4, The Crossroads Business Park, Freckleton Street, Kirkham, Lancashire, PR4 2SH
t: 01772 686 030
f: 01772 686 020
email@croftgoode.co.uk

Map Two: Proposed Development Layout