

**Carlisle House
118 Oxford Road
Reading
Berkshire
RG1 7NG**

Winter Hibernation Bat Survey

Report prepared by Conor Watson; reviewed by John Wenman MCIEEM
Ref: R3382/a

April 2023



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1 EXECUTIVE SUMMARY

- 1.1.1** John Wenman Ecological Consultancy LLP was commissioned by Turner Property to undertake a Winter Hibernation Bat Survey at Carlisle House, 118 Oxford Road in Reading, Berkshire. The Survey was commissioned to accompany a Full Planning and Listed Building Consent Application submitted to Reading Borough Council seeking consent for comprehensive refurbishment and expansion of accommodation from four dwelling flats to six dwelling flats.
- 1.1.2** The survey was commissioned following a Preliminary Bat Roost Assessment (PRA) undertaken on the 5th October 2021 that identified the lower ground floor rooms as potentially suitable for hibernating bats.
- 1.1.3** A desktop study was conducted that included a Thames Valley Environmental Records Centre (TVERC) data search. Detailed inspections of the rooms were undertaken on the 3rd January, 2nd February and 22nd February 2023; a static AnaBat Express bat detector was deployed alongside a ThermaData logger on the 3rd January and data was collected for 12 consecutive nights.
- 1.1.4** No signs of bat occupation were identified during the detailed inspections but the static bat detector gathered six bat call recordings on two separate nights. The environmental conditions in the lower ground floor rooms were largely stable.
- 1.1.5** The bat calls were considered most likely to be brown long-eared bat Type D social calls thought to form some function relating to mating so could signify a male attempting to advertise his presence to any passing female bats. No bats were identified during the detailed inspections so it is considered likely that the social calls belong to a brown long-eared bat hibernating/roosting elsewhere, albeit nearby.
- 1.1.6** The survey findings did not show the presence of a bat hibernation roost and therefore the proposals are considered unlikely to result in the destruction of a bat roost or lead to the disturbance of roosting bats. As such, a European Protected Species (EPS) mitigation licence would not be required to allow these works to go ahead lawfully.
- 1.1.7** The proposed refurbishment will make the lower ground floor rooms unsuitable for bats that may be hibernating nearby, therefore the recess B-03 (refer to **Appendix 2**) is to be retained and enhanced for hibernating bats.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was commissioned by Turner Property to undertake a Winter Hibernation Bat Survey at Carlisle House, 118 Oxford Road in Reading, Berkshire.

2.1.2 The Winter Hibernation Bat Survey was commissioned to accompany a Full Planning and Listed Building Consent Application submitted to Reading Borough Council seeking consent for comprehensive refurbishment and expansion of accommodation from four dwelling flats to six dwelling flats (Planning Application Number: 220486). These development proposals involve the refurbishment of the existing lower ground floor rooms.

2.1.3 The Winter Hibernation Bat Survey was commissioned following a Preliminary Bat Roost Assessment (PRA) undertaken on the 5th October 2021 that identified the lower ground floor rooms as potentially suitable for hibernating bats; the PRA is documented in a Preliminary Ecological Appraisal report by John Wenman Ecological Consultancy LLP (Report Reference: R2694).

2.1.4 The aim of the Winter Hibernation Bat Survey was to determine the presence of hibernating bats in the lower ground floor rooms. This report presents the findings of the Winter Hibernation Bat Survey and recommends any necessary mitigation, compensation and/or enhancement proposals.

2.2 Legislative Background

2.2.1 All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations') (as amended). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
- Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or

abundance of the species; and

- Deliberately kill, injure or take any bat.

2.2.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species (EPS) mitigation licence that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. An EPS mitigation licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation;
- **Regulation 55(9)(b)** - the derogation "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range"; and
- **Regulation 55(2)(e)** - the derogation is for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment".

2.2.3 Local authorities have a statutory duty under Regulation 7(3e) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. They must therefore consider and determine whether these three tests are likely to be satisfied by applications where survey findings show that an EPS mitigation licence is necessary before granting planning permission.

2.2.4 EPS mitigation licence application can be submitted once all the necessary planning consents have been granted. Natural England aims to issue a decision on EPS mitigation licence applications within 30 working days of submission.

2.2.5 Licensable projects affecting small numbers of seven commonly occurring species occupying roosts of low conservation importance may fall under the remit of the ('Low Impact') Bat Mitigation Class Licence WML-CL21 (BMCL). The BMCL permits 'Registered Consultants' or accredited agents appointed by them to carry licensable operations on site on behalf of clients following registration of sites with Natural England at least 15 working days before the work days before the work is due to start.

2.2.6 Survey data supporting EPS mitigation licence applications or the registration of the site under the BMCL must be up to date i.e. have been conducted within the current

or most recent optimal survey season i.e. May to August. Therefore, if surveys show bats are present and licensable work is delayed until during or after the next survey season, updated surveys will be required to support an application or site registration.

2.3 Site Location and Context

2.3.1 Carlisle House is situated at 118 Oxford Road next to the Holy Trinity Church in Reading, Berkshire (OS grid reference: SU 70793 73451).

2.3.2 The property is in an urban setting to the west of Reading town centre. The River Kennet is approximately 760m to the southeast of the property and the River is just over 1km to the northeast. Both rivers act as important commuting and foraging corridors for bats roosting in the urban surroundings.

3 SURVEY METHODOLOGY

3.1 Desk Study

3.1.1 A desktop study was conducted by senior ecologist Conor Watson that utilised data from the local environmental records centre and online resources such as the Multi-Agency Geographical Information Centre (MAGIC) website.

3.1.2 The Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of any pre-existing records of protected species, including bats, held by them for Carlisle House and land within a 1km radius. The MAGIC website was examined for granted European Protected Species (EPS) licence applications within a 1km radius of the property.

3.2 Winter Hibernation Bat Survey

3.2.1 Detailed inspections of the lower ground floor rooms at Carlisle House were undertaken on the 3rd January, 2nd February and 22nd February 2023 by John Wenman registered under Natural England Bat Survey Class Licence CL18 (Registration Number: 2016-23859-CLS-CLS), Conor Watson registered under Natural England Bat Survey Class Licence CL17 (Registration Number: 2020-44817-CLS-CLS) and assistant ecologist Jake Morgan.

3.2.2 The survey visits comprised close and systematic inspection of all cracks, crevices and voids for hibernating bats using torches a high power (1 million candle power) torch and a Ridgid Seesnake CA100 endoscope and a ladder following standard survey guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell-Jones & McLeish 2004). Each survey visit was carried out as efficiently as possible by two surveyors to limit the increase in levels of noise, light and heat and minimise any potential disturbance.

3.2.3 Most hibernating bat species crawl deep into crevices and can be difficult to find. Signs of bat occupation at a hibernate site may include:

- Bat droppings around cracks and crevices or directly beneath;
- Oil staining around cracks and crevices; and
- Bats (live or dead).

3.2.4 Underground sites, such as basements, can provide the specific microclimatic conditions that bats favour during hibernation in the winter. Bats, with exception of

free-hanging horseshoe bats, will typically occupy cracks, crevices and voids during hibernation.

- 3.2.5** A static AnaBat Express bat detector was deployed alongside a ThermaData logger in room B-12 (refer to existing lower ground floor plan in **Appendix 1**) on the 3rd January and data was collected for 12 consecutive nights. The bat call recordings were subsequently analysed using AnalookW computer software.

3.3 Survey Constraints

- 3.3.1** There were no significant constraints because full access was available to the lower ground floor rooms at Carlisle House.
- 3.3.2** It should be noted that Winter Hibernation Surveys are not always fully conclusive in terms of the actual numbers of bats occupying sites because some voids reach a depth that cannot be visually inspected in their entirety.

4 SURVEY FINDINGS

4.1 Desk Study

- 4.1.1** The search of the TVERC database revealed no bat records for Carlisle House specifically but held recent records (i.e. fewer than ten years old) within the 1km search radius. There are recent records of at least six bat species, including common pipistrelle (*Pipistrellus pipistrellus*), long-eared bat (*Plecotus* sp.), noctule (*Nyctalus noctula*), serotine (*Eptesicus serotinus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and a *Myotis* species. The closest known roost is approximately 680m away at Castle Crescent where two pipistrelle bats (*Pipistrellus* sp.) were recorded emerging by an ecological consultant. The nearest injured bat record is a soprano pipistrelle (*P. pygmaeus*) found approximately 400m away on Oxford Road.
- 4.1.2** The MAGIC website had a granted EPS licence application approximately 750m south of Carlisle House for the damage of a common pipistrelle (*P. pipistrellus*) resting place (Case Reference: 2017-32379-EPS-MIT). The next closest granted EPS licence application is just over 1km to the northeast for Daubenton's bat (*Myotis daubentonii*) (Case Reference: 2017-28045-EPS-MIT).

4.2 Winter Hibernation Bat Survey

Detailed Inspection – 3rd January 2023

- 4.2.1** No signs of bat occupation were identified during a detailed and systematic inspection of the lower ground floor rooms.

Detailed Inspection – 2nd February 2023

- 4.2.2** No signs of bat occupation were identified during a detailed and systematic inspection of the lower ground floor rooms.

Detailed Inspection – 22nd February 2023

- 4.2.3** No signs of bat occupation were identified during a detailed and systematic inspection of the lower ground floor rooms.

Static Detector

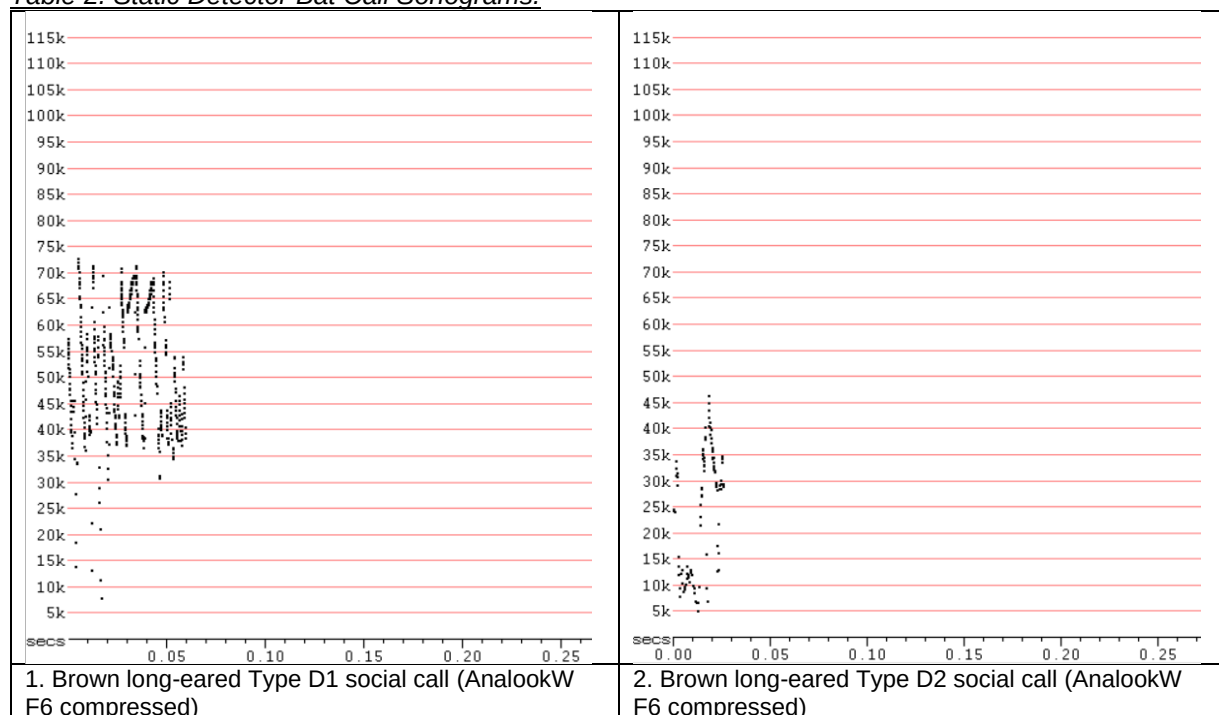
- 4.2.4** The static AnaBat Express bat detector deployed in room B-12 (refer to existing lower ground floor plan in **Appendix 1**) gathered six bat call recordings on two separate nights; the ThermaData logger monitoring humidity and temperature is detailed to provide environmental context (see **Table 1** below).

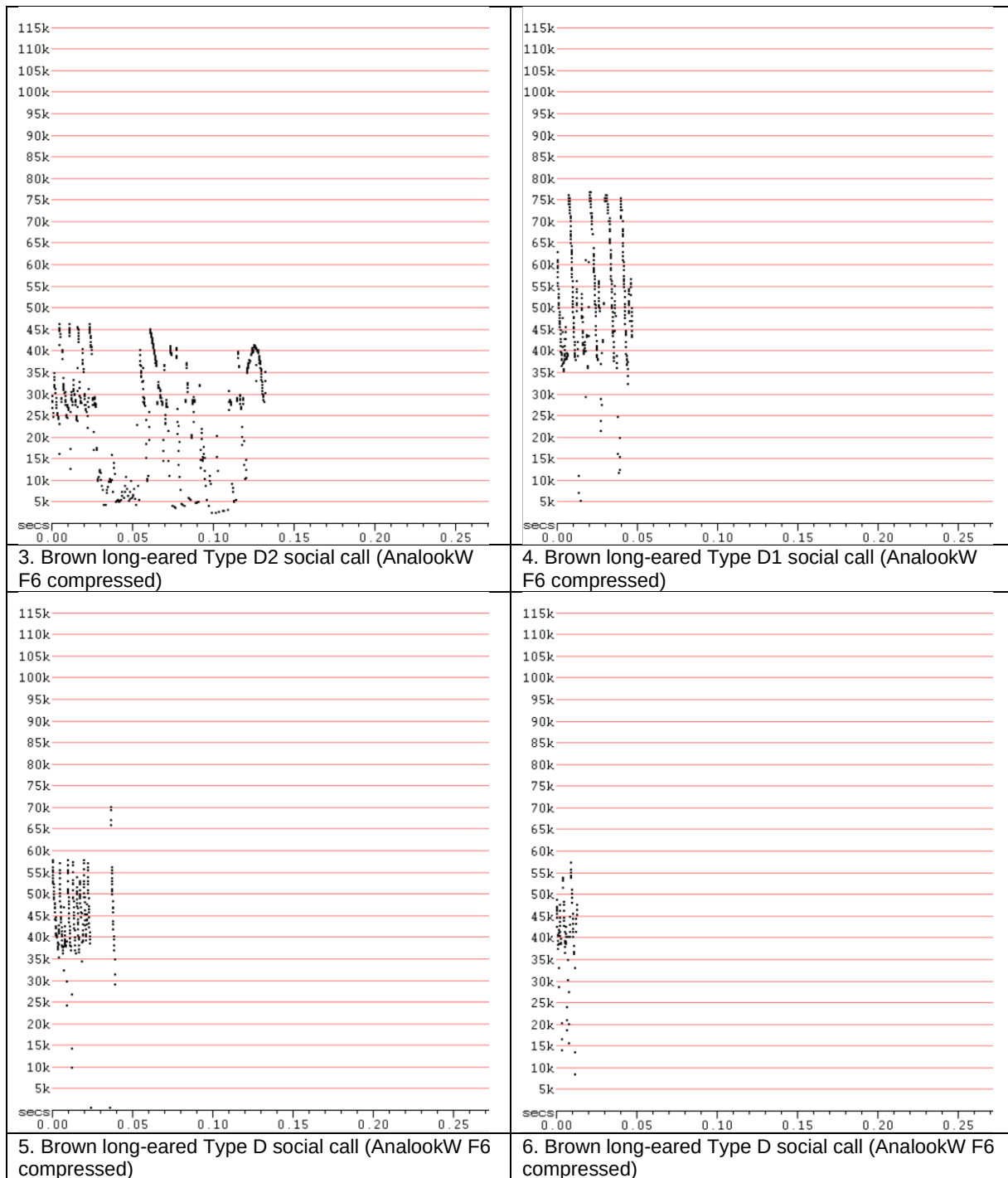
Table 1. Static Detector Bat Call Recordings Data.

Sonogram Reference	Date	Time	Humidity (%RH)	Temperature (°C)
1	06/01/2023	20:42	93.2	9.6
2	06/01/2023	22:06	93.3	9.7
3	06/01/2023	22:06	93.3	9.7
4	06/01/2023	22:38	93.4	9.7
5	07/01/2023	01:10	93.6	9.8
6	11/01/2023	05:00	93.0	9.1

- 4.2.5** The static AnaBat Express bat detector bat call recordings were analysed in AnalookW and considered most likely to be brown long-eared (*Plecotus auritus*) Type D social calls (see **Table 2** below).

Table 2. Static Detector Bat Call Sonograms.





4.2.6 The environmental conditions in the lower ground floor rooms were largely stable but were influenced by fluctuations in the weather. The humidity levels rarely dropped below 75%RH and were consistently between 80 to 95%RH; the air temperature ranged from 2.3 to 9.9°C.

5 DISCUSSION AND RECOMMENDATIONS

5.1 Assessment of Winter Hibernation Potential

- 5.1.1** The static AnaBat Express bat detector recordings were considered most likely to be brown long-eared bat (*Plecotus auritus*) Type D social calls. The Type D1 & D2 social calls analysed are thought to form some function relating to mating so could signify a male attempting to advertise his presence to any passing female bats (Middleton, Froud & French 2014). No bats or evidence of bats was found in the lower ground floor rooms during the detailed inspections so it is considered likely that the social calls belong to a brown long-eared bat (*P. auritus*) entering the room during a period of milder weather – temperatures of 9°C were recorded in the rooms during the recordings – but hibernating/roosting elsewhere, albeit nearby.

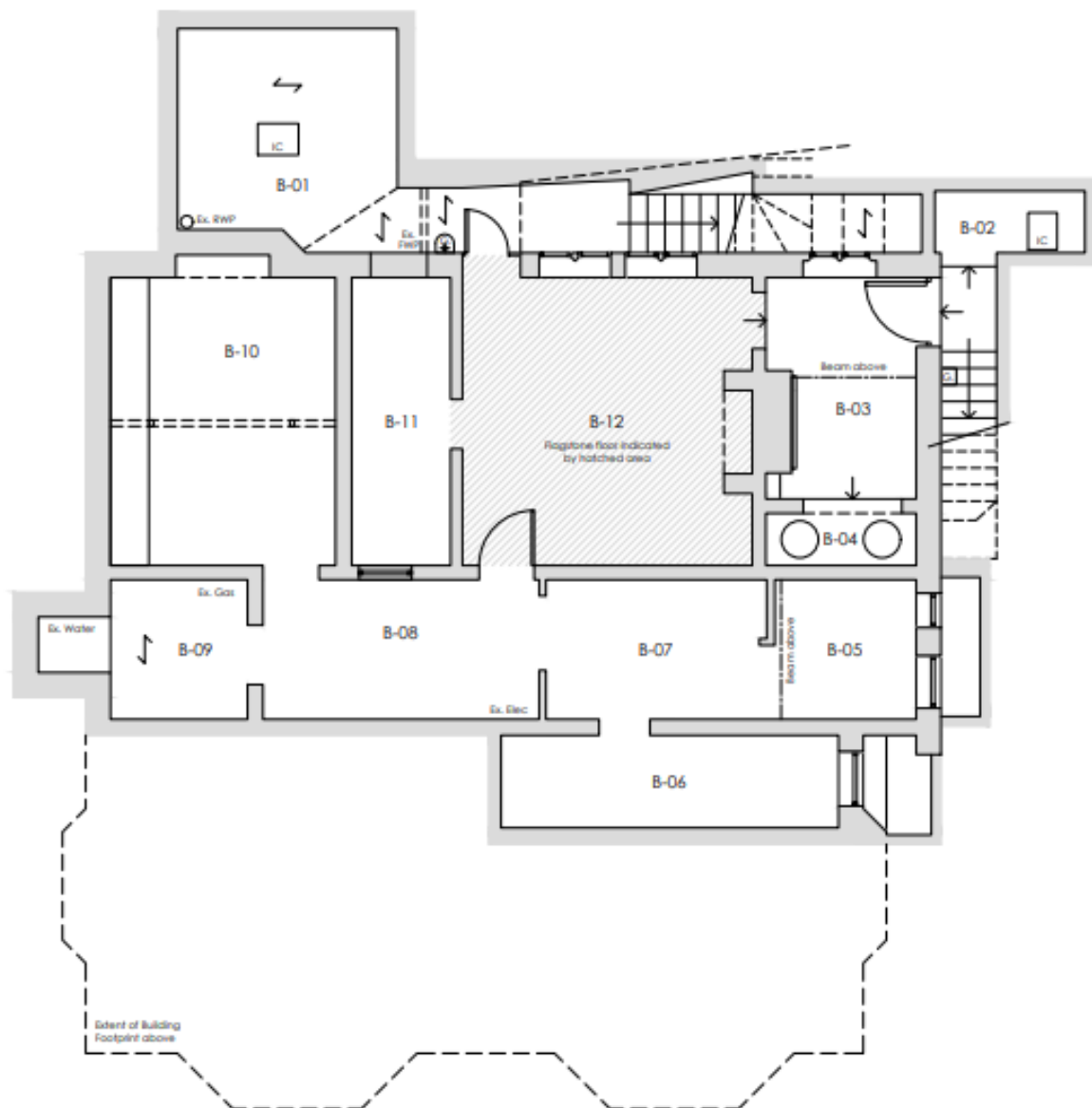
5.2 Impact of Proposals and Recommendations

- 5.2.1** The planning proposals involve the refurbishment of the existing lower ground floor rooms (refer to proposed lower ground floor plan in **Appendix 2**). The survey did not show the presence of a bat hibernation roost and therefore the proposals are considered unlikely to result in the destruction of a bat roost or lead to the disturbance of roosting bats. As such, a European Protected Species (EPS) mitigation licence would not be required to allow these works to go ahead lawfully.
- 5.2.2** The proposed refurbishment will make the lower ground floor rooms unsuitable for bats, such as the brown long-eared (*P. auritus*), recorded and considered to be hibernating/roosting nearby. The recess B-03 (refer to proposed lower ground floor plan in **Appendix 2**) is to be retained and enhanced for hibernating bats. The recess will be made secure by installing a door/gate that maintains bat access but limits human disturbance. Two woodcrete bat boxes, such as the Vivara Pro Beaumaris Woodstone Bat Box (or a functional equivalent), will be fixed to the walls inside to provide crevices for hibernating bats. An information sign could be attached to the new door/gate describing bat hibernation and the law protecting bats and their roosts.

6 REFERENCES

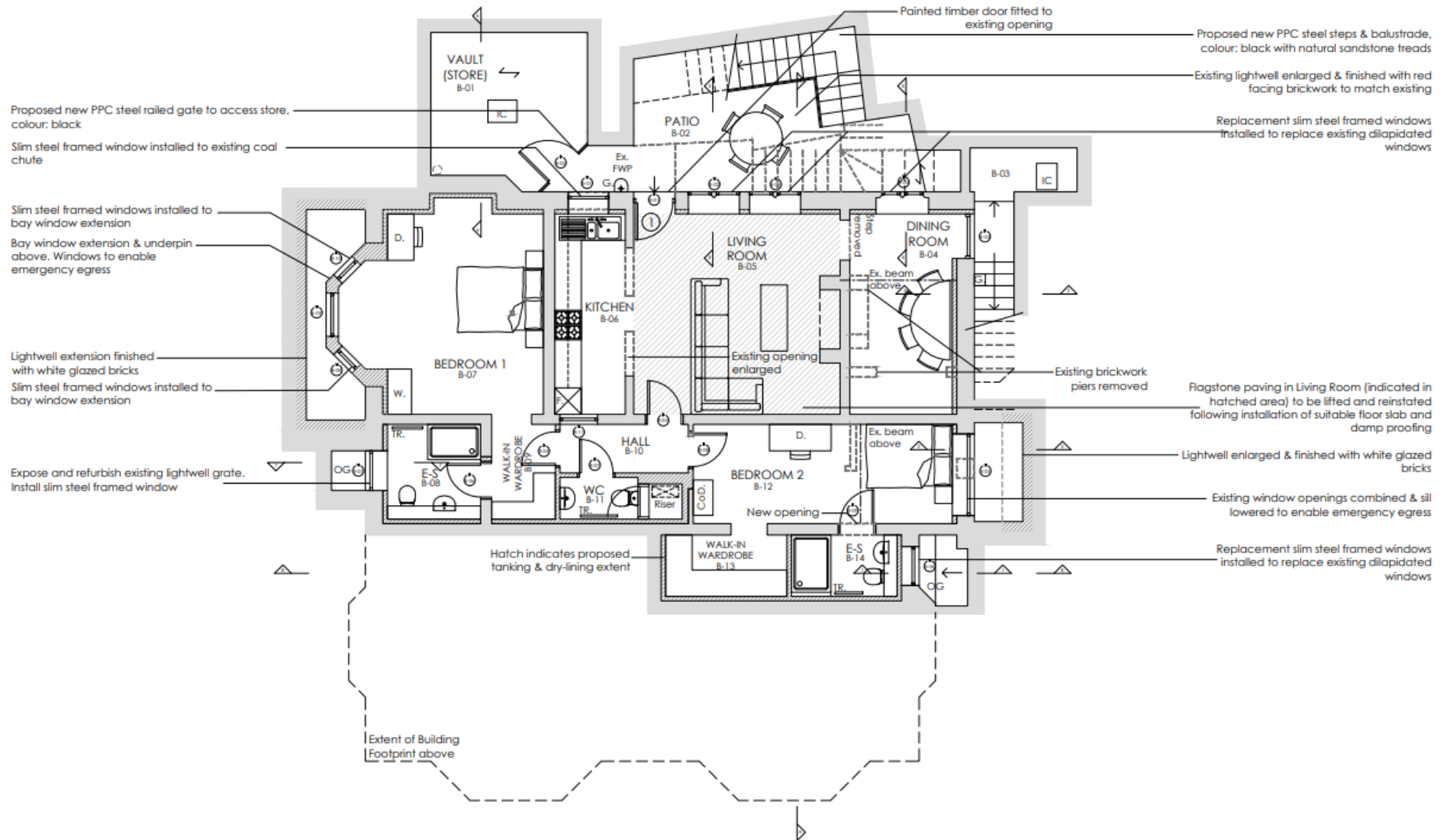
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APPENDIX 1 – EXISTING LOWER GROUND FLOOR PLAN



EXISTING LOWER GROUND FLOOR PLAN 1:100

APPENDIX 2 – PROPOSED LOWER GROUND FLOOR PLAN



PROPOSED LOWER GROUND FLOOR PLAN 1:100

John Wenman Ecological Consultancy
25/04/2023