



# Well Garden Bradley, Alresford, SO24 9RY

Bat Report

Prepared on behalf of Paul and Melanie Bliss

June 2022

**Well Garden Bradley, Alresford, SO24 9RY**

**Ecology 7963**

**Issue 01**

<b>Prepared by:</b>	Alexandra Phillips ACIEEM	V.01	Jun 2022
<b>Authorised by:</b>	Alex Hannam ACIEEM	V.01	Jun 2022

**Pro Vision Ecology**

The Lodge

Highcroft Road

Winchester

SO22 5GU

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## 1.0 Executive Summary

- 1.1 The Client is proposing to apply for planning permission for alterations to the existing bungalow, including raising the roof. Pro Vision Ecology were commissioned to provide the ecological assessment for this application.
- 1.2 The bungalow recorded on site was assessed in accordance with Bat Conservation Trust (BCT) guidance (Collins, 2016). A low number of droppings were recorded in the roof void. DNA analysis identified the species as common pipistrelle (*Pipistrellus pipistrellus*).
- 1.3 Due to the presence of bat droppings the building has been assessed as a confirmed bat roost and further surveys were undertaken.
- 1.4 A common pipistrelle was observed emerging from western gable of the bungalow during the first survey on 4<sup>th</sup> May 2022. Subsequent surveys did not record any further emergences. Low levels of foraging and commuting activity by common bat species were recorded during all three surveys.
- 1.5 The results of the emergence survey confirm the presence of an occasional day roost within the bungalow at Well Garden. The proposed works (raising the roof) will result in the destruction of this roost and therefore will require a licence from Natural England and a suitable mitigation strategy once planning permission has been obtained.
- 1.6 The final development will include alternative roost locations for common pipistrelles within an integrated bat box on the north western elevation. With this mitigation in place the favourable conservation status of the species will be retained.
- 1.7 The site presents an opportunity to enhance the site with additional roosting opportunities, in compliance with national and local planning policy and suitable enhancements have been proposed.

## 2.0 Introduction

### Background

- 2.1 Pro Vision Ecology were commissioned in March 2022 to carry out a Preliminary Roost Assessment (PRA) and subsequent phase II surveys on the property at Well Garden Bradley, Alresford, SO24 9RY. For site location refer to **Appendix A**.
- 2.2 This report has been prepared to support a forthcoming planning application to be submitted by the client to Test Valley Borough Council. The current proposals for the site are to alter the existing bungalow by raising the roof. Provisional proposed plans are included in **Appendix B**.
- 2.3 This report summarises the findings of the initial preliminary roost assessment and Phase II surveys. The results set out within this report are valid for one year from the issue date.

### Site Description

- 2.4 The application site at Well Garden is located in the rural village of Bradley which is predominantly surrounded by agricultural fields.
- 2.5 The site comprises one main residential property, a summer house and wooden shed. The proposed development will only affect the residential property.

### Brief

- 2.6 To conduct a preliminary roost assessment and subsequent phase II surveys on the main residential property at Well Garden, to inform the client of any ecological implications of their proposals and advise them of mitigation and enhancements.

### Relevant Legislation

- 2.7 Bats are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of The Conservation of Habitats and Species 2017. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence, inter alia, to:
  - deliberately capture, injure or kill any such animal;
  - deliberately disturb any such animal, including in particular any disturbance which is likely:
    - to impair its ability to survive, breed, or rear or nurture their young;
    - to impair its ability to hibernate or migrate;
    - to affect significantly the local distribution or abundance of that species; or
  - damage or destroy a breeding site or resting place of any such animal; or
  - intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or

- intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

2.8 In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat (*Rhinolophus ferrumequinum*);
- Lesser horseshoe bat (*Rhinolophus hipposideros*);
- Bechstein's bat (*Myotis bechsteinii*);
- Barbastelle (*Barbastella barbastellus*);
- Greater mouse-eared bat (*Myotis myotis*).

2.9 In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favourable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

### 3.0 Methodologies

#### Desk Study

- 3.1 A data-gathering exercise was undertaken to obtain records of the presence of bat species post 2005 within two kilometres of the site. These records were provided by Hampshire Bat Group (HBG).

#### Phase I Preliminary Roost Assessment

- 3.2 Bats use features within buildings such as stone crevices or cracks in brickwork, ridge beams, gaps between roofing materials and the main building structure, and any potential access points. An internal and external inspection of the bungalow was conducted by CL20 bat licence holder Alex Hannam ACIEEM (licence numbers available upon request) on 16<sup>th</sup> March 2022. The weather conditions were 8/8 cloud cover, 0/12 wind and an ambient temperature of 10°C. During the survey any evidence of bats such as droppings, urine staining, claw marks, feeding remains or bats themselves were recorded. Dropping samples were collected and sent to Swift Ecology for DNA analysis and species identification. An assessment of the potential of the building to support roosts was then made in line with BCT guidelines (2016) shown in **Table 1** below.

**Table 1:** Assessment of buildings to support roosting bats

Potential	Criteria
Negligible	Negligible features on site likely to be used by bats
Low	Potential features present which may support low numbers of bats irregularly but no suitable features for regular use by large numbers of bats.
Moderate	A building with one or more potential roost features that may be used by bats due to their size, shelter, protection, condition and habitats present. Unlikely to support a roost of high conservation value.
High	A building with one or more potential roost sites that are suitable for use by a large number of bats on a regular basis.

#### *Site constraints*

- 3.3 Bats will often roost in places that are inaccessible to the surveyor, such as under tiles and crevices within structures. During the inspection of the bungalow due regard was paid to the noting of features that have the potential to support crevice dwelling species. Consequently, it is not possible to definitively conclude that bats are absent from these areas.

## Phase II Emergence Surveys

- 3.4 Phase II bat surveys were conducted according to Bat Conservation Trust Best Practice Guidelines (Collins, 2016) and Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys (Bat Conservation Trust 2022). Three emergence surveys were completed on 4<sup>th</sup>, 24<sup>th</sup> May and 07<sup>th</sup> June 2022. Three surveyors were positioned around the building to ensure all elevations impacted by the works were covered. A summary for the conditions of each survey are provided in **Table 2** below.
- 3.5 Surveys were completed by bat licenced ecologist Alex Hannam (licence number available on request) assisted by Andy Quayle, Georgina Jones, and Matthew Norris-Hill.
- 3.6 All surveyors were equipped with Echo Meter Touch 2 Pro detectors. Bat sound analysis was undertaken using Kaleidoscope software to confirm the identity of the species recorded. Two surveyors also used Canon XA11 Cameras with two 96 LED Infra-Red Illuminator flood lights as NVAs (**Figures 1** and **2** shows the coverage of the cameras recording). Cameras were positioned next to the surveyors who watched the building, once it became too dark to see the building the surveyors viewed the building through the camera display. Post survey any emergences or suspected emergences were then reviewed using a computer and VLC media player with the motion detector filter activated to aid footage review. Where necessary footage was slowed down and reviewed frame by frame.

**Table 2:** Phase II Bat Survey Details

Date	Start and end times and time of sunset	Structure reference/location	Equipment used	Weather conditions
04/05/22	Start: 20:16 End: 22:31 Sunset: 21:23	Well Garden	3 x Echo meter Touch 2 Pro 2 x Canon XA11 cameras paired with two 96 LED Infra-Red Illuminator flood lights	Start: 16°C End: 12°C 4/8 cloud cover 2/12 wind Rain 30 minutes prior to survey start.
<b>Comments (to include # of surveyors used for each visit):</b> 3 surveyors undertook this survey.				
24/05/22	Start: 20:45 End: 22:30 Sunset: 21:00	Well Garden	3 x Echo meter Touch 2 Pro 2 x Canon XA11 cameras paired with two 96 LED Infra-Red Illuminator flood lights	Start: 14°C End: 8°C 0/8 cloud sky, 1/12 wind Dry
<b>Comments (to include # of surveyors used for each visit):</b> 3 surveyors undertook this survey.				
07/06/22	Start: 20:45 End: 22:30 Sunset: 21:00	Well Garden	3 x Echo meter Touch 2 Pro 2 x Canon XA11 cameras paired with two 96 LED Infra-Red Illuminator flood lights	Start: 15°C End: 15°C 5/8 cloud cover



				2/12 wind, light drizzle between 22:10 and 22:30
<b>Comments (to include # of surveyors used for each visit):</b> 3 surveyors undertook this survey.				

*Justification for survey approach*

- 3.7 Three dusk surveys were undertaken using NVAs rather than any dawn surveys. This approach follows the *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys* (Bat Conservation Trust 2022). Dusk surveys using NVAs are considered sufficient in this instance as the cameras and IR illuminators provided sufficient coverage of the building to ensure all potential access and egress points were covered. To demonstrate this, screenshots from the camera at the end of each survey have been provided in **Figures 1 and 2 below.**



**Figure 1:** Camera coverage from the northwest corner and **Figure 2:** Camera coverage of the northeast corner.

## 4.0 Results

### Desk Study

- 4.1 The HBG data search returned 32 records between 2003 and 2019, species recorded include:
- Common pipistrelle (*Pipistrellus pipistrellus*)
  - Soprano pipistrelle (*Pipistrellus pygmaeus*)
  - Pipistrelle bat (*Pipistrellus spp.*)
  - Brown long-eared bat (*Plecotus auritus*)
  - Long-eared bat (*Plecotus spp.*)
  - Noctule (*Nyctalis noctula*)
  - Myotis bat (*Myotis spp.*)
  - Serotine (*Eptesicus serotinus*)
- 4.2 The DEFRA run website, MAGIC, was searched for a list of granted European Protected Species Mitigation (EPSM) licences. Three records of granted EPSM's within two kilometres of the site were returned. Two of which were recorded in the village. EPSM number 2015-8314-EPS-MIT was granted for destruction of a resting place for brown long-eared bats and EPSM number 2018-35960-EPS-MIT was granted for the destruction of a resting place for common and soprano pipistrelle bats. The third licence (2016-25574-EPS-MIT) was from a site located approximately 1 kilometre south and was granted for the destruction of a common pipistrelle resting place.
- 4.3 These bat records in the area indicated that bat roosts may be present within the site if suitable roosting locations are present.

### Phase I Preliminary Roost Assessment

#### *External inspection*

- 4.4 The bungalow recorded on site comprises brick elevations with a pitched roof with clay roof and ridge tiles. A conservatory is present on the western elevation of the property (**Figures 3 and 4**). Wooden soffit and fascias were present and were in good condition. The lead flashing was partially lifted around the central chimney stack providing a potential access/egress point.



**Figure 3:** Northern elevation of the property



**Figure 4:** Southern elevation of the property

#### *Internal inspection*

- 4.5 A roof void was present in the northern section of the bungalow which measured approximately 6 metres in width, 2.25 metres in height and 5 metres in length. The roof was lined with bitumen felt which was in good condition and the roof structure was a typical truss design (**Figure 5**).



**Figure 5:** Roof void

- 4.6 Approximately 20 droppings were recorded near the northern gable end with a single bat dropping, recorded in the centre of the void and one dropping recorded at the southern gable end of the roof void.
- 4.7 The bat droppings were sent for DNA analysis and were confirmed as common pipistrelle (**Appendix C**).
- 4.8 Due to the presence of bat droppings the bungalow has been assessed a **confirmed roost**. Further surveys were therefore carried out to characterize the roost.

## Phase II Emergence Surveys

- 4.9 Three dusk emergence surveys were carried out by Pro Vision between May and June 2022. The results of these phase II surveys are summarised below and shown in **Appendix D**.

### *Dusk survey – 4<sup>th</sup> May 2022*

- 4.10 One common pipistrelle was observed emerging from the apex of the north western gable end. This bat then flew southeast over the building (Target Note 1 for the survey, **Appendix D**).
- 4.11 High levels of foraging activity by common and soprano pipistrelles using the surrounding tree lines were recorded throughout the survey, starting at 20:46. Foraging lasted up to 35 minutes continuously. A single barbastelle pass was recorded at 21:16 but was not seen. A single noctule pass was recorded at 21:21.

### *Dusk survey – 24<sup>th</sup> May 2022*

- 4.12 No bats were recorded emerging from the structure during this survey. Low numbers of common pipistrelles were heard but not seen starting from 21:27 until 22:25.

### *Dusk survey – 7<sup>th</sup> July 2022*

- 4.13 No bats were observed emerging from the building during this survey. Low numbers of common pipistrelles were heard not seen, foraging nearby. One brown long-eared bat was recorded commuting unseen, at 22:19.

### *Summary*

- 4.14 These surveys have confirmed a common pipistrelle roost location within the structure, with the main access point at apex of the north western gable. Mitigation measures will be required and are described further in **Section 5.0**.

## 5.0 Requirements and Recommendations

### Measures to Mitigate against the effects of the proposed development

- 5.1 The presence of common pipistrelle droppings within the structure, and emergence of a common pipistrelle from the apex of the north western gable, confirm the presence of an occasional day roost within the bungalow at Well Garden. The proposed works to raise the roof of the structure will result in the destruction of the bat roost.
- 5.2 In order to carry out a lawful operation (e.g. development work which has full planning permission) that may result in an offence under the Habitats Regulations, it is first necessary to obtain a licence from Natural England. EPS Licences will only be granted after Natural England has been satisfied that there are no satisfactory alternatives, that there will not be any adverse impacts on the favourable conservation status of the species and that the development is of overriding public interest. The licence will be applied for following the granting of planning permission and once all relevant wildlife conditions have been discharged.
- 5.3 Natural England stipulate that at least one survey must be from the most recent survey season. If the licence application is delayed, a further survey may be required.
- 5.1 The following mitigation will be included in the licence application and is shown in **Appendix E**.
- A bat box will be positioned on a suitable tree prior to work commencing. This will allow any bats that are found during works to be safely relocated. The box will be retained as an enhancement feature.
  - A replacement bat roost will be provided via an integrated bat box on the north western elevation. Roost locations will be provided in the new roof. Ridge access tiles will provide access to the space beneath the tiles and above the bitumen liner with two provided. Any lighting will be positioned away from the access points.
  - No breathable membranes will be used in roofs where bats are found to be present or can access. Only type 1F bitumen felt will be accepted by Natural England as part of a mitigation licence application.
  - Due to the low conservation status of the roost no timing constraints are required. It is considered unlikely hibernating bats will utilise the site however as a precautionary approach any destructive works undertaken between November and March must be undertaken when the overnight temperatures have been consistently above 8°C for a period of four nights to avoid any disturbance to bats during hibernation.
  - To avoid harm or injury to roosting bats, an ecological watching brief is required during the soft strip of all sensitive areas of the building. Following a detailed tool-box talk to all site contractors, all sensitive areas of Well Garden which may be used by bats will be dismantled by hand, whilst checking for roosting bats under the supervision of a licenced bat worker, until it is no longer suitable for roosting bats. Any tiles which require removal will be carefully lifted vertically and not slid horizontally to avoid harming any bats that may be underneath. If any bats are encountered during the works the licenced bat handler will remove the bat(s) using gloves to the bat boxes on the site. All soft demolition of suitable bat features will be supervised by a licenced

ecologist and if a bat is encountered when the ecologist is not present all works will stop until they have been consulted.

#### *Foraging and Lighting*

- 5.2 The site is situated in a semi-rural area which supports foraging and commuting bats in the landscape. To maintain the roosts in the area the lighting on the site will be sensitive to bats.
- In line with current guidelines the lighting will not exceed 1lux on boundary features and lighting will be hooded or cowled to avoid light spill on these features (ILP, 2018).
  - Lighting within the development will be on a security timer where possible and be LED lighting of a warm white spectrum (<2700 Kelvin) which will feature peak wavelengths higher than 550 nm.
  - Only lighting with an upward light ratio of 0% will be used.
  - All lighting will be directed away from any known roost locations.

#### *Enhancement*

- 5.3 In accordance with the Natural Planning Policy Framework (NPPF, 2019), paragraph 174, development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.
- 5.4 There is potential to enhance the building and surrounding area for bats. The bat box used to relocate any bats found during demolition will be retained in perpetuity to provide additional roosting opportunities.

## 6.0 References and Bibliography

Bat Conservation Trust (2022) *Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys*

Collins, J (Ed) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3<sup>rd</sup> ed.). Bat Conservation Trust, London.

JNCC (2004). *Bat Workers Manual* 3<sup>rd</sup> Edition. JNCC.

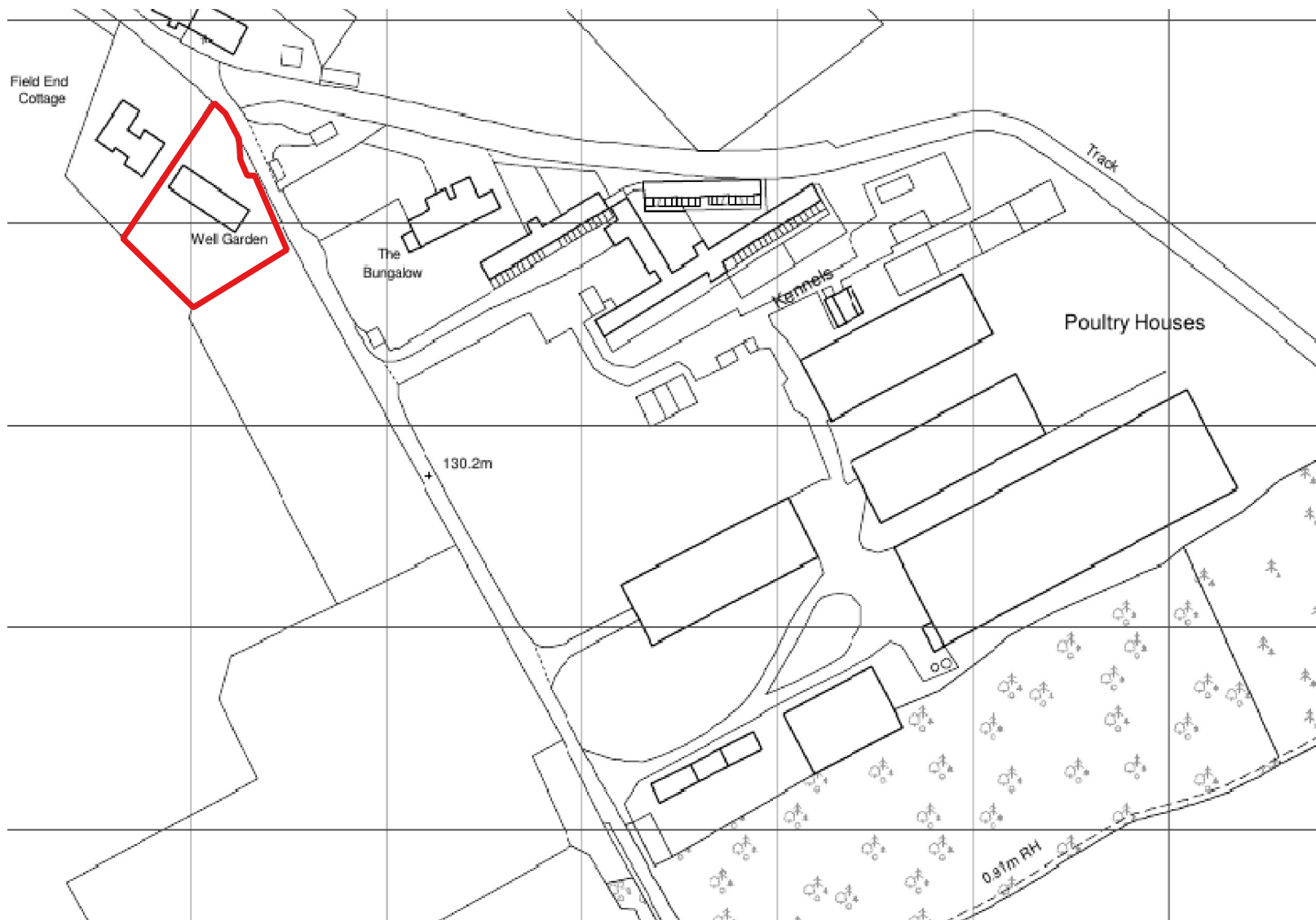
National Planning Policy Framework (2021). *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government, London.

Natural England, 2020, *Bats: surveys and mitigation for development projects* ([www.gov.uk](http://www.gov.uk))

# Appendices

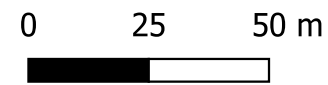


## **Appendix A: Site Location**



**Legend**

 Site Boundary



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CLIENT:  
Paul & Melanie Bliss

PROJECT:  
Well Garden

DRAWING:  
Site Location Plan

DATE:  
24/03/22

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DWG NO: V1  
REV:

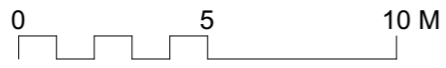


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## **Appendix B: Proposed Plans**



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REV.	DATE	AMENDMENTS	DRAWN	CHECKED

CLIENT:  
**Mr & Mrs Bliss**

PROJECT:  
**Well Garden,  
 Bradley, Nr. Alresford**

DRAWING:  
**As Proposed  
 Site Plan**

DATE:  
**June 2022**

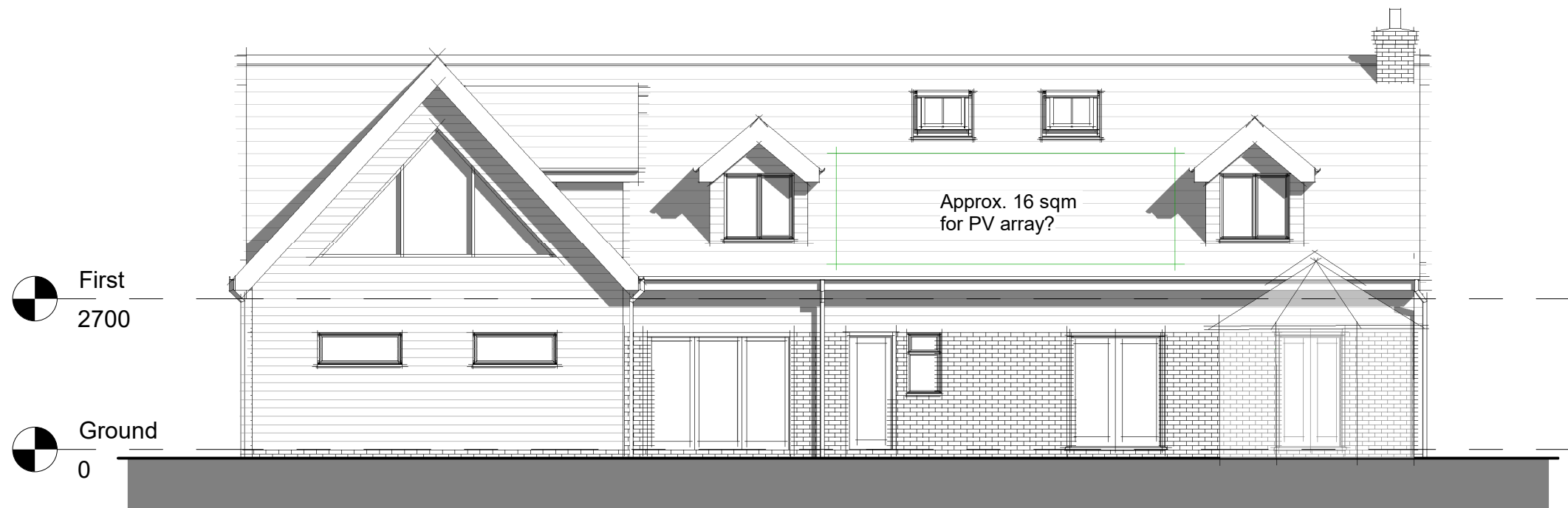
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JOB NO: **51200**

DWG NO: **P1-01**

REV: **#**

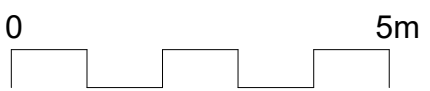


**South-west**  
1 : 100



**North-west**  
1 : 100

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REV	DATE	AMENDMENTS	ISSUED BY

CLIENT:  
**Mr & Mrs Bliss**

PROJECT:  
**Well Garden,  
Bradley, Nr. Alresford**

DRAWING:  
**Proposed  
SW & NW Elevations**

DATE:  
**May 2022**

SCALE: **1 : 100**  
 SIZE: **A3**  
 JOB NO: **51200**  
 DWG NO: **P3-02**  
 REV:

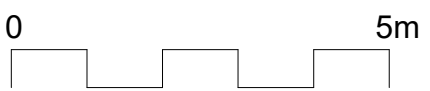


**North-east**  
1 : 100



**South-east**  
1 : 100

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REV	DATE	AMENDMENTS	ISSUED BY

CLIENT:  
**Mr & Mrs Bliss**

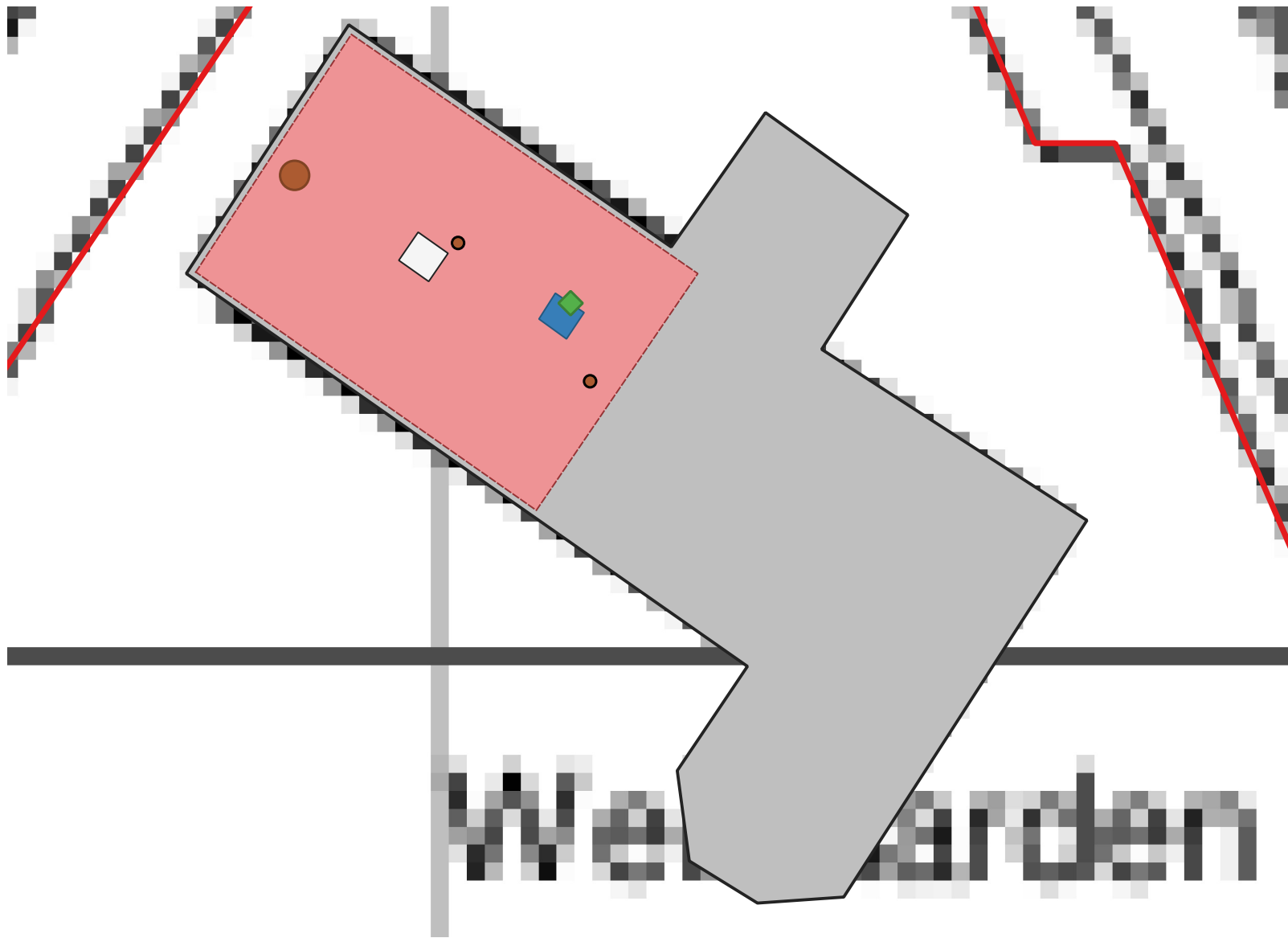
PROJECT:  
**Well Garden,  
Bradley, Nr. Alresford**

DRAWING:  
**Proposed  
NE & SE Elevations**

DATE:  
**May 2022**

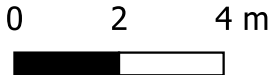
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DWG NO: **P3-01**  
REV:

## **Appendix C: Internal Bat survey results**



### Legend

- Approx. 20 Droppings
- Gap in Lead Flashing
- Single Bat Dropping
- Chimney
- Loft Hatch
- Roof Void
- Property Layout
- Site Boundary



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CLIENT:  
Paul & Melanie Bliss

PROJECT:  
Well Garden

DRAWING:  
Preliminary  
Assessment  
DATE:  
24/03/22

Roost

SCALE: 1:230  
SIZE: A4  
JOB NO: 7963  
DWG NO: V1  
REV:



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## Appendix D: Emergence/Re-entry Bat Survey Results

Dusk 4<sup>th</sup> May 2022



Target Note 1, 4<sup>th</sup> May 2022 – Alex Hannam, Northwest corner of the building – emergence from the apex of the western gable.

Date:	04/05/2022	Surveyors:	Georgina Jones, Alex Hannam, Matthew Norris-Hill	
Target Note	Time	Species	Description	
	20:46	Common pipistrelle	Up to two bats commuting past the house and using the surrounding treelines to forage for 26 minutes - some social and foraging calls	
	20:46	Common pipistrelle	Flew west to east along road adjacent to site	
1	20:47	Common pipistrelle	Emerged from apex of western gable end, then flew south east over building	
	20:48	Common pipistrelle	Flew west to east along road adjacent to site	
	21:09	Unknown	Suspected pipistrelle bat foraging along western elevation (EMT not working at the time)	
	21:10	Common pipistrelle	Foraging above building	
	21:16	Barbastelle	Heard not seen	
	21:21	Noctule	Commuting from the south fields past the house	
	21:25	Common pipistrelle	Low level activity of up to two bats for 35 minutes heard not seen - some social and foraging calls throughout	
	21:25	Common pipistrelle	Up to two bats, foraging intermittently, occasional social calls, mostly heard not seen, occasionally seen foraging over garden to the south of the property for 35 minutes	

Dusk 24<sup>th</sup> May 2022

Date: 24.05.22	Surveyors: Alex Hannam, Andy Quayle and Matthew Norris-Hill		
Target Note	Time	Species	Description
	21:27	Common pipistrelle	Heard not seen, potentially foraging over the hedge in the lane
	21:32	Common pipistrelle	Flew across the back garden, east to west
	21:33	Common pipistrelle	Heard not seen, potentially foraging over the hedge in the lane
	21:35	Common pipistrelle	Heard not seen, potentially foraging over the hedge in the lane
	21:36	Common pipistrelle	Heard not seen
	21:38	Common pipistrelle	Heard not seen
	21:41	Common pipistrelle	Heard not seen, feeding buzzes
	21:53	Common pipistrelle	Heard not seen, commuting
	22:04	Common pipistrelle	Heard not seen, commuting
	22:05	Common pipistrelle	Heard not seen
	22:06	Common pipistrelle	Heard not seen
	22:09	Common pipistrelle	Flew southeast to northwest over the roof
	22:13	Common pipistrelle	Heard not seen, commuting
	22:25	Common pipistrelle	Heard not seen, commuting

Dusk 7<sup>th</sup> June 2022

Date: 07.06.22	Surveyors: Alex Hannam, Georgina Jones, Matthew Norris-Hill		
Target Note	Time	Species	Description
	21:46	Common pipistrelle	Heard not seen, continuous foraging for 6 minutes.
	21:47	Common pipistrelle	Heard not seen
	21:49	Common pipistrelle	Heard not seen
	21:51	Common pipistrelle	Heard not seen
	21:55	Common pipistrelle	Flight around garden
	21:58	Common pipistrelle	Heard not seen behind hedge
	22:11	Common pipistrelle	Heard not seen
	22:12	Common pipistrelle	Heard not seen
	22:13	Common pipistrelle	Heard not seen
	22:14	Common pipistrelle	Low frequency bat
	22:19	Brown long-eared	Circular flight over the wall
	22:26	Common pipistrelle	Heard not seen
	22:30	Common pipistrelle	Heard not seen

Id End cottage



### Legend

- ★ Common pipistrelle emergence point
- ▲ Surveyor
- ▲ Surveyor and camera
- Building
- Site Boundary

0 5 10 m



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CLIENT:  
Paul & Melanie Bliss

PROJECT:  
Well Garden

DRAWING:  
Emergence  
results

DATE:  
13/06/22

survey

SCALE: 1:300  
SIZE: A4  
JOB NO: 7963  
DWG NO: V1  
REV:

 **PRO VISION**

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## Appendix E: Mitigation and Enhancement



### **Bark Rot Hole – BarkBoxes.co.uk**

Creates a crevice against the bark of the tree, mimicking a natural rot hole, with joint to be sealed by clear silicone. Primarily for use by individual roosting bats but may also be used by small birds as a safe roost site. 'Rot hole' provides an opportunity to gather droppings for DNA analysis.



### **Ibstock Enclosed Bat Box 'C'**

Ibstock Enclosed Bat Box 'C' is a solution that can be integrated directly into the brickwork to produce a discrete but attractive home for bats.

#### **Key Features:**

- Several roosting zones
- Discrete
- Maintenance-free
- Red or Buff
- Durable and fully frost resistant
- 215 x 215mm / 215 x 290mm