



Home Farm House, Newbury Hill, Penton Mewsey, SP11 0RW

Bat Report

Prepared on behalf of Mr and Mrs Gibbs

June 2022

Town Planning | Architecture | Urban Design | Ecology

PV PROJECTS LTD t/a PRO VISION - UK Registered Office - The Lodge, Highcroft Road, Winchester, SO22 5GU | Reg No. 03296321

Winchester: 01962 677044 | Newbury: 01635 40184 | www.pro-vision.co.uk

Home Farm House, Newbury Hill

Ecology 7946

Issue 01

Prepared by:	Alexandra Phillips ACIEEM	V.01	June 2022
Authorised by:	Louisa Jones MCIEEM	V.01	June 2022

Pro Vision Ecology

The Lodge
Highcroft Road
Winchester
Hants, SO22 5GU

COPYRIGHT: The contents of this document must not be copied or reproduced in whole or in part without the prior written consent of Pro Vision Ecology.

Contents

	Page
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION.....	2
BACKGROUND	2
BRIEF.....	2
RELEVANT LEGISLATION	2
3.0 METHODOLOGIES	4
DESK STUDY.....	4
PHASE I PRELIMINARY ROOST ASSESSMENT	4
PHASE II EMERGENCE/RE-ENTRY SURVEYS	5
4.0 RESULTS AND ANALYSIS	7
DESK STUDY.....	7
PHASE I PRELIMINARY ROOST ASSESSMENT	7
PHASE II EMERGENCE/RE-ENTRY SURVEYS	7
5.0 REQUIREMENTS AND RECOMMENDATIONS	9
MEASURES TO MITIGATE AGAINST THE EFFECTS OF THE PROPOSED DEVELOPMENT	9
6.0 REFERENCES AND BIBLIOGRAPHY	11

Appendices

- Appendix A: Site Location
- Appendix B: Proposed Plans
- Appendix C: Internal Bat Survey Results
- Appendix D: Phase II Emergence Survey Results
- Appendix E: Mitigation and Enhancement

1.0 Executive Summary

- 1.1 The Client is proposing to apply for planning permission for a single storey rear extension, loft conversion and addition of dormer windows. A preliminary roost assessment was carried out by Ecological Surveys Ltd in February 2022. Bat droppings were recorded within the loft void at Home Farm House which was classed as a **confirmed roost**.
- 1.2 Pro Vision Ecology were commissioned to provide Phase II emergence/re-entry surveys to classify the roost and identify the species using the loft void in the cottage at Home Farm House.
- 1.3 Three emergence/re-entry surveys were completed on 5th and 24th May, and 14th June 2022 respectively. During the dusk survey conducted on the 5th May one common pipistrelle was recorded emerging from the fascia board on the western elevation of the building.
- 1.4 Subsequent surveys recorded no further emergences or re-entries in the cottage at Home Farm House, though swarming and re-entry behaviour by numerous bats were observed in the nearby properties during the dawn survey on 14th June.
- 1.5 The building is therefore classed as an occasional day roost for common pipistrelles. Once planning permission has been granted, an EPS licence will be required from Natural England. Further mitigation measures including an integrated bat box and standalone bat box will be required.
- 1.6 The building is located in a rural area which provides potential commuting and foraging areas for local bats. A sensitive lighting design is required, and further details are provided in **Section 5.0**.

2.0 Introduction

Background

- 2.1 Pro Vision Ecology were commissioned in April 2022 to carry out three emergence/re-entry surveys at Home Farm House, Newbury Hill, Pewton Mewsey, Hampshire. These followed on from a preliminary roost assessment carried out by Ecological Surveys Ltd which found evidence of bats within the residential building and confirmed it as a roost.
- 2.2 For the site location refer to **Appendix A**. This report will contribute to a forthcoming planning application to be submitted by the Client to Test Valley Borough Council for planning consent to carry out works to the building.
- 2.3 The current proposals for the site at Home Farm House are for a single storey rear extension, loft conversion and addition of dormer windows. Proposed plans are included in **Appendix B**.
- 2.4 This report summarises the findings of the initial phase I bat survey and subsequent phase II emergence survey.

Brief

- 2.5 To conduct three emergence/re-entry surveys of the residential building at Home Farm House and to inform the Client of any ecological implications of their proposals and advise them of mitigation and enhancements.

Relevant Legislation

- 2.6 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 (Amendment) (EU Exit) Regulations 2019. 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.
- 2.7 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*).

2.8 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 by Pro Vision to obtain records of the presence of bat species post 2005 within two kilometres of the site. The Defra run website Magic was used to establish the presence of granted licence applications within two kilometres of the site.

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 building was undertaken Ecological Surveys Ltd on 3rd February 2022. During the survey any evidence of bats such as droppings, urine staining, claw marks, feeding remains or bats themselves were recorded. The interior spaces were checked for light ingress and access points for bats. 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 building on site for bats, 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.
- 3.4 Furthermore access to the full extent of the interior of the residential structure was not possible at the time of the survey carried out by Ecological Surveys Ltd, thus potential for roosting features may exist and be hidden.

Phase II Emergence/Re-entry Surveys

- 3.5 Phase II bat surveys were conducted by Pro Vision 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).
- 3.6 Three emergence/re-entry surveys were completed on 5th and 24th May, and 14th June 2022 respectively. Surveyors were positioned around the building to ensure all elevations impacted by the works were covered.
- 3.7 Surveys were completed by bat licenced ecologists Louisa Jones assisted by David Casson, Georgina Jones, and Matthew Norris-Hill. A summary for the conditions of each survey is provided in **Table 2** below.
- 3.8 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** show 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
05.05.22	Start: 20:15 End: 22:05 Sunset: 20:31	Home Farm House cottage	3 x Echo meter Touch 2 Pro 1 x Anabat Walkabout 2 x Canon XA11 cameras paired with two 96 LED Infra-Red Illuminator flood lights	Start: 16°C End: 13°C 1/8 cloud cover 1/12 wind Dry
Comments (to include # of surveyors used for each visit): 3 surveyors undertook this survey.				
24.05.22	Start: 20:47 End: 22:32 Sunset: 21:02	Home Farm House cottage	3 x Echo meter Touch 2 Pro i x Canon XA11 cameras paired with two 96 LED Infra-Red Illuminator flood lights	Start: 13°C End: 10°C 1/8 cloud cover 0/12 wind Dry
Comments (to include # of surveyors used for each visit): 3 surveyors undertook this survey.				
14.05.22	Start: End: Sunrise:	Home Farm House cottage	2 x Echo meter Touch 2 Pro 1 x Anabat Walkabout	Start: 13°C End: 10°C 1/8 cloud cover

			2 x Canon XA11 cameras paired with two 96 LED Infra-Red Illuminator flood lights	0/12 wind Dry
--	--	--	--	------------------

Comments (to include # of surveyors used for each visit): 3 surveyors undertook this survey.



Figure 1: Screenshot for camera at southwestern corner



Figure 2: Screenshot for camera at northern elevation



Figure 3: Screenshot for camera at southeast corner

4.0 Results and Analysis

Desk Study

- 4.1 The DEFRA run website, MAGIC, was searched for a list of granted European Protected Species (EPS) licences. Two licences for roost works for brown long-eared (*Plecotus auritus*), and serotines (*Eptesicus serotinus*) were present within two kilometres. Neither of these licences included the destruction of a maternity roost.
- 4.2 These bat records in the area indicate that bat roosts may be present within the site if suitable roosting locations are present.

Phase I Preliminary Roost Assessment

External

- 4.3 The residential building at Home Farm House is a two-storey thatched cottage with brick elevations. The front of the building is south-facing while the rear faces north. The thatched roof is half-hipped with four brick chimneys emerging from the central ridge.
- 4.4 Wooden, single-glazed windows are present on the ground floor. To the rear of the building (northern elevation) the thatch extends over the first floor and three dormer windows. The northern elevation is also partially faced with flint.

Internal

- 4.5 The majority of the loft space and upper storey were accessible at the time of the survey by ESL Ltd. The upper storey of the house has plastered walls and ceiling with some of the beams exposed and painted over. Dormer windows into the hatch provide ample day light within this space. The floor in the upper storey has been only partially boarded, thus sections of the floor include exposed beams and fibre insulation.
- 4.6 The loft void has wooden rafters, wooden collar beams and a wooden ridge beam. No lining is present between the beams and the thatch. The elevations within the loft are bare brick. The loft floor has been boarded.
- 4.7 Evidence of bats, in the form of scattered droppings on the fibre insulation, was present within the void of the building.

Phase II Emergence/Re-entry Surveys

- 4.8 Three emergence/re-entry surveys were conducted on the residential building at Home Farm House, the results are provided in **Appendix D** and summarised below.

5th May Dusk Emergence

- 4.9 One common pipistrelle (*Pipistrellus pipistrellus*) was recorded emerging from the fascia board on the western elevation of the building at 20:59. Low levels of foraging activity by common and soprano pipistrelles were recorded, starting at 20:58 and continuing at irregular intervals during the survey until 21:59.
- 4.10 Two commuting pipistrelles were observed flying westwards over the building at 21:16. A Myotis bat was observed at 21:10 commuting east to west along the road. A noctule was heard not seen at 21:37, making a single pass and therefore possibly commuting over the site. Similarly a serotine was heard not seen making two passes, at 21:40 and at 21:44 respectively.

24th May Dusk Emergence

- 4.11 No bats were recorded emerging from the building during this survey. Moderate levels of foraging activity by common and soprano pipistrelles were observed starting from 21:46 until 22:31. This activity was concentrated along the eastern elevation of the building, with pipistrelles foraging from north to south and vice versa, along the road.
- 4.12 Pipistrelle bats of both species were observed commuting from west to east along the house at the beginning of the survey and a common pipistrelle was observed commuting southwards at 22:25. A noctule was observed commuting high above the house, flying in south to north-west at 21:34.

14th June Dawn Re-entry

- 4.13 No bats were observed re-entering the cottage at Home Farm House during this survey. Continuous foraging activity by common and soprano pipistrelles was recorded throughout the survey, particularly along Newbury Hill to the front of the house.
- 4.14 Swarming behaviours and re-entries by common and soprano pipistrelles were observed on the neighbouring buildings with a peak count of five bats observed. Roosts were observed in the building opposite the road and to the southwest.
- 4.15 One long-eared bat was recorded flying around the cottage and one on the opposite side of the road at 03:37. A further long-eared was heard but not seen at 03:59.

Summary

- 4.16 One common pipistrelle was recorded emerging from the cottage at Home Farm House. Given the small number of non-breeding bats observed the cottage is therefore classed as a **confirmed roost** and as an occasional day roost for common pipistrelles. Further recommendations have been provided in **Section 5.0** in regards to the required mitigation.

5.0 Requirements and Recommendations

Measures to Mitigate against the effects of the proposed development

- 5.1 The current proposals for the site at Home Farm House are for a single storey rear extension, loft conversion and addition of dormer windows which will cause the loss of the bat roost present within the loft void confirmed by the preliminary roost assessment. Additionally the construction work will cause a disturbance to the common pipistrelle occasional day roost confirmed by phase II surveys at the property.
- 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. An application for an EPS licence can be submitted once planning permission has been granted.
- 5.3 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.
- 5.4 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.
- 5.5 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.
 - The proposed plans include the retention of part of the loft void (the area not accessible during the preliminary roost assessment) which also includes all potential access points at the western gable end. A replacement bat roost will be provided via an integrated bat tile on the roof of the new extension.
 - 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 Home Farm House 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. The loft void will be fully inspected by the licenced ecologist to check for the presence of bats, any bats

will be moved with the aid of a hand net. Any thatch 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

- 5.6 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

- 5.7 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.
- 5.8 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

CIEEM (2013). *Technical Guidance Series: Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management [online]. https://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf

CIEEM (2016). *Guidelines for Ecological Impact Assessment in the UK and Ireland* (2nd ed.), Chartered Institute of Ecology and Environmental Management. [Accessed online] https://www.cieem.net/data/files/Website_Downloads/Guidelines_for_Ecological_Impact_Assessment_2015.pdf

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

Ecological Surveys Ltd (2022) Preliminary Roost and Nest Assessment Home Farm House

JNCC (2004). *Nat Workers Manual* 3rd Edition. JNCC.

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


Natural England (2016). *EPS Mitigation Licensing: Latest Developments* [Accessed Online] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/507477/eps-newsletter-march-2016.pdf

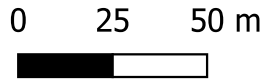
Appendices

Appendix A: Site Location



Legend

 Red Line Boundary



© The copyright of this drawing remains with Pro Vision and may not be reproduced in any form without prior written consent. Only scale from this drawing for the purposes of determining a planning application. Do not scale from this drawing for construction purposes. Any discrepancies between this and any other consultant's drawings should be reported to the Architect immediately. The contractor must check all dimensions before commencing work on site and all discrepancies reported to the Architect. No deviation from this drawing will be permitted without the prior consent of the Architect.

Ordnance Survey © Crown Copyright 2022. All rights reserved. Licence number 100022432



CLIENT:
Mr and Mrs Gibbs

PROJECT:
Home Farm House

DRAWING:
Site Location

DATE:
20/06/2022

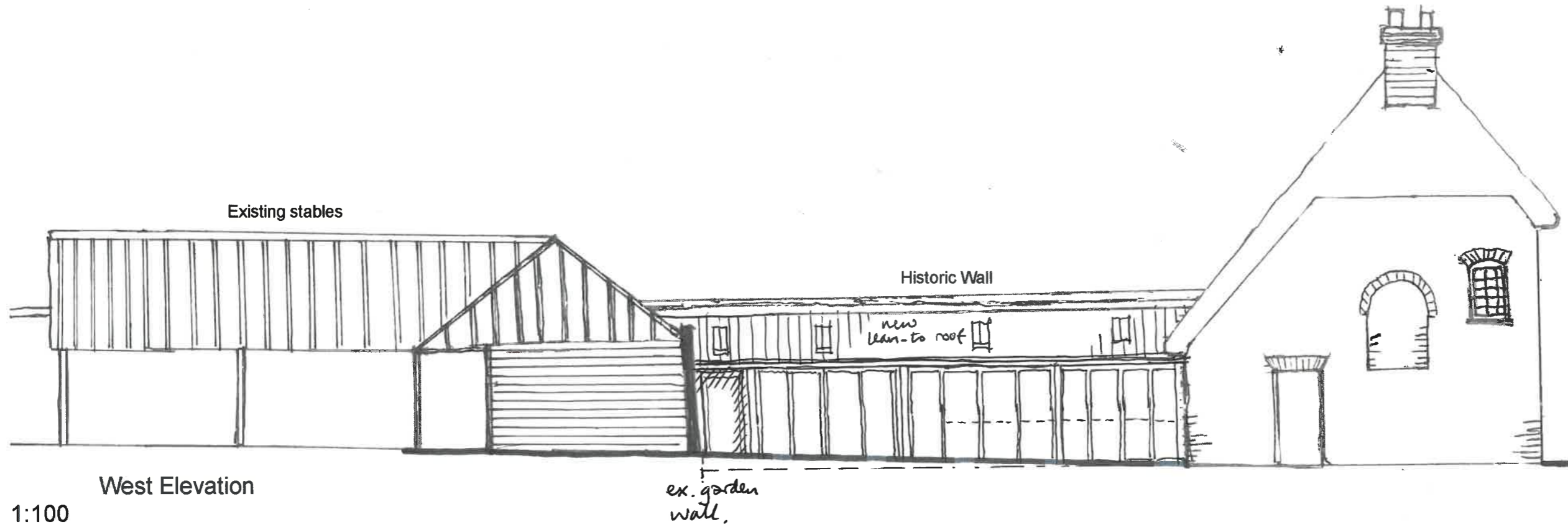
SCALE:1:3800
SIZE:A4
JOB NO: 7946
DWG NO: V1
REV:



PRO VISION
PLANNING | ARCHITECTURE | URBAN DESIGN

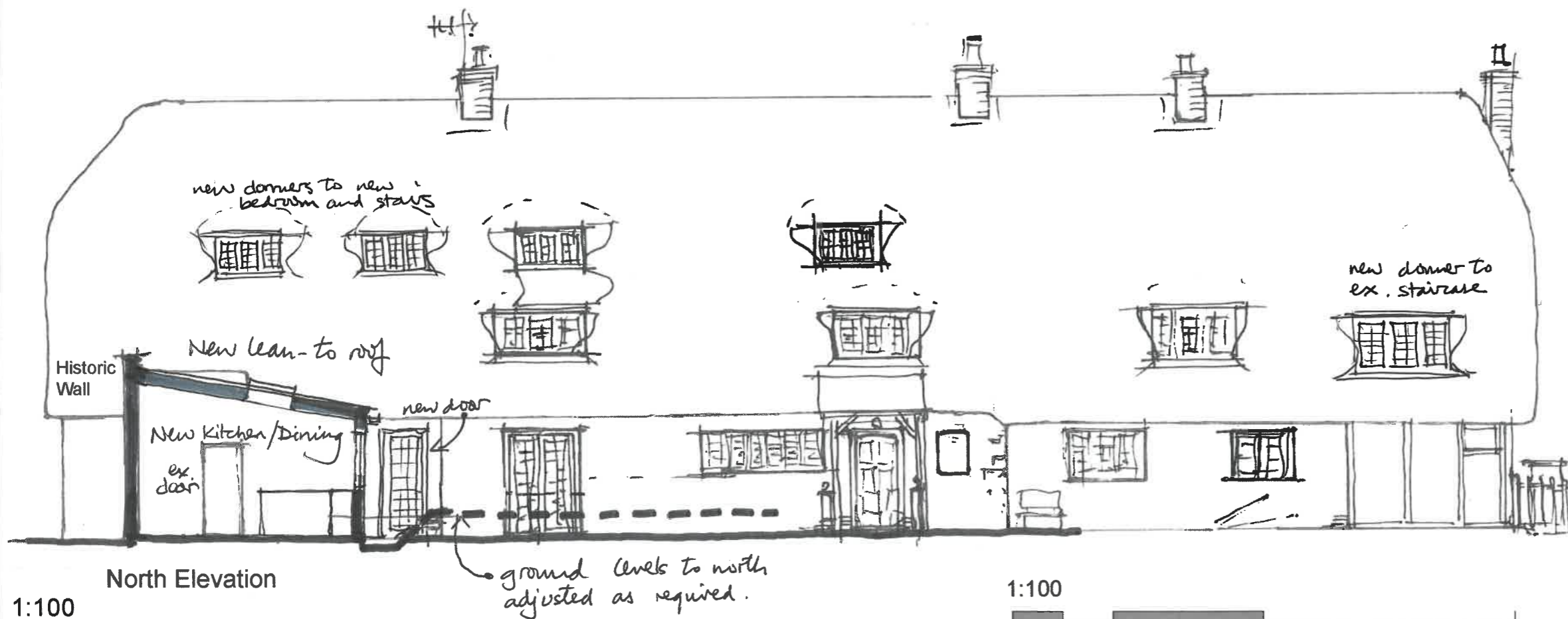
www.pro-vision.co.uk

Appendix B: Proposed Elevations



West Elevation

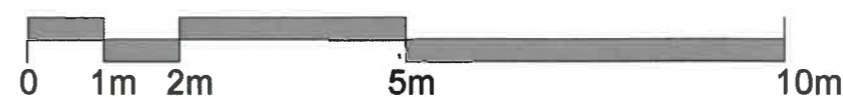
1:100



North Elevation

1:100

1:100



by checked

PRELIMINARY



8 Upper High St, Winchester SO23 8UT
01962 820255
winchester@s4architects.co.uk
www.studiofourarchitects.com

client Jemma Fisher and Brian Gibbs

project Home Farm House, Penton Mewsey

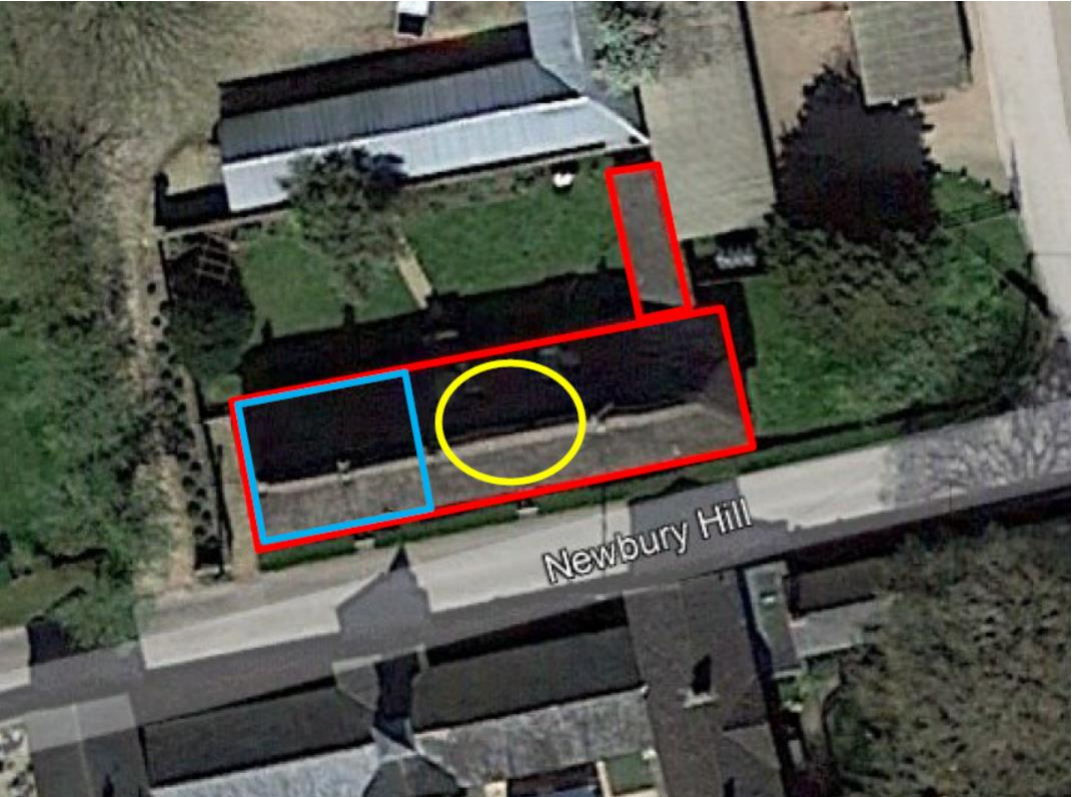
title Proposed Elevations
OPTION FOUR

date	scale	paper	drawn	checked
Dec. 21	1:100	A3	MB	-




job no.	dwg no.	revision
41134	SK.04.3	-

file Feasibility Set REV A

Appendix C: Internal Bat survey results



Locations are approx. and not to scale.

Structure proposed for development	
Location of bat evidence	
Inaccessible loft void	

Reproduced from Ecological Surveys Ltd (2022)

Appendix D: Phase II Emergence Survey Results

5th May Dusk Emergence



Louisa Jones, Southwest corner of the building – 5th May Dusk Common pipistrelle emergence at 20:59

Surveyors:	Louisa Jones, Matthew Norris-Hill, Georgina Jones	
Time	Species	Description
20:57	Soprano pipistrelle	Appeared around vegetation, possible emergence
20:58	Pipistrelle bat	Flew east to west along the road
20:59	Common pipistrelle	Emergence from the fascia board on the western gable end
20:59	Common pipistrelle	Flew east to west along the road
20:59	Soprano pipistrelle	Foraging up and down road
21:01	Soprano pipistrelle	Foraging at the northeast end of the house
21:03	Soprano pipistrelle	Heard not seen
21:07	Soprano pipistrelle	Foraging at the northeast end of the house then westwards down the road for two minutes
21:10	Myotis spp	Flew east to west along the road
21:10	Soprano pipistrelle	Foraging
21:13	Common pipistrelle	Flew east to west along the road foraging
21:14	Soprano pipistrelle	Heard not seen
21:15	Common pipistrelle	Heard not seen
21:16	Soprano pipistrelle	a common and soprano pip flying together high over the house heading west
21:16	Common pipistrelle	a common and soprano pip flying together high over the house heading west
21:18	Soprano pipistrelle	Foraging
21:19	Soprano pipistrelle	Foraging and social calls
21:23	Long-eared bat	Flew north to south past western gable end

21:23	Soprano pipistrelle	Foraging
21:26	Noctule	Heard not seen
21:28	Common pipistrelle	Flew along the road east to west
21:30	Serotine	Flew above the house east to west
21:31	Common pipistrelle	Heard not seen
21:32	Soprano pipistrelle	Heard not seen
21:36	Common pipistrelle	Flew east to west along the road
21:37	Noctule	Heard not seen
21:40	Serotine	Heard not seen
21:41	Common pipistrelle	Heard not seen
21:43	Serotine	Heard not seen
21:44	Serotine	Heard not seen
21:46	Soprano pipistrelle	Heard not seen
21:47	Soprano pipistrelle	Heard not seen
21:47	Common pipistrelle	Heard not seen
21:49	Soprano pipistrelle	Heard not seen
21:54	Soprano pipistrelle	Heard not seen
21:55	Common pipistrelle	Heard not seen
21:57	Common pipistrelle	Heard not seen
21:57	Soprano pipistrelle	Heard not seen
21:59	Common pipistrelle	Heard not seen

24th May Dusk Emergence

Surveyors:	Louisa Jones, Georgina Jones and David Casson	
Time	Species	Description
21:23	Soprano pipistrelle	Heard not seen
21:26	Soprano pipistrelle	Foraging up and down road
21:28	Soprano pipistrelle	Foraging north then south along east elevation
21:30	Soprano pipistrelle	Foraging north then south along east elevation
21:34	Noctule	Flew west to east over the house
21:34	Soprano pipistrelle	Foraging north then south, multiple passes
21:34	Noctule	Commuting south to northwest.
21:39	Soprano pipistrelle	Foraging north then south, multiple passes
21:43	Soprano pipistrelle	Foraging north then south, multiple passes
21:45	Common pipistrelle	Heard not seen
21:47	Soprano pipistrelle	Heard not seen
21:49	Soprano pipistrelle	Heard not seen
21:50	Common pipistrelle	Flew west to east along the road
21:50	Common pipistrelle	Commuting east
21:51	Soprano pipistrelle	Foraging east up road then north then south

21:53	Soprano pipistrelle	Foraging north then south
21:58	Soprano pipistrelle	Foraging east up road then north then south
22:02	Soprano pipistrelle	Heard not seen, faint and brief
22:03	Soprano pipistrelle	Foraging along the road
22:05	Soprano pipistrelle	Commuting east
22:06	Serotine	Heard not seen
22:08	Soprano pipistrelle	Commuting west
22:09	Soprano pipistrelle	Heard not seen
22:12	Common pipistrelle	Heard not seen
22:14	Soprano pipistrelle	Heard not seen
22:15	Soprano pipistrelle	Heard not seen
22:16	Soprano pipistrelle	Heard not seen
22:20	Common pipistrelle	Heard not seen
22:24	Common pipistrelle	Flew east to west along the road
22:24	Soprano pipistrelle	Heard not seen, social calls
22:25	Soprano pipistrelle	Looped around the pylon and flew south
22:25	Soprano pipistrelle	Heard not seen
22:26	Soprano pipistrelle	Heard not seen
22:30	Soprano pipistrelle	Heard not seen
22:31	Soprano pipistrelle	Heard not seen

14th June Dawn Re-entry Survey

Surveyors:	Louisa Jones, Matthew Norris-Hill, Georgina Jones	
Time	Species	Description
03:34:00	Common pipistrelle	Heard not seen
03:34:00	Soprano pipistrelle	Heard not seen
03:37:00	Long-eared bat	Flying around the building and the one on the opposite side of the road
03:41:00	Soprano pipistrelle	Possibly more than 1 bat. Foraging by the tree on drive, flew along the road
03:41:00	Common pipistrelle	Possibly more than 1 bat. Foraging by the tree on drive, flew along the road
03:45:00	Soprano pipistrelle	Re-entry behaviour on building on opposite side of the road
03:50:00	Common pipistrelle	Heard not seen
03:54:00	Soprano pipistrelle	Heard not seen
03:55:00	Soprano pipistrelle	Flew along the road
03:56:00	Soprano pipistrelle	Flew along the road east to west
03:59:00	Soprano pipistrelle	3-5 bats swarming around the building to the southwest of the cottage
03:59:00	Brown long-eared	Heard not seen

04:02:00	Soprano pipistrelle	Flew past the southern elevation of the house, round the cottage, west to north
04:07:00	Soprano pipistrelle	Still swarming by the adjacent building
04:10:00	Unknown	Seen not heard, circular flight along the front of the building
04:13:00	Soprano pipistrelle	Still swarming by the adjacent building
04:15:00	Soprano pipistrelle	Neighbouring bats all re-entered
04:16:00	Soprano pipistrelle	1 or 2 bats flying over the road and swarming around other building
04:24:00	Soprano pipistrelle	1 or 2 bats flying over the road and swarming around other building

Appendix E: Mitigation and Enhancement

