Stone Farm Barns
Leighterton
Gloucestershire

Bat Survey Report

October 2023

Client Name:	**Kathie Thomas**
Reference:	**22_562**
Issue:	**1-0**
Date:	**26 October 2023**
Prepared by:	**Tim Smith (NE Bat Licence No. 2015-10870-CLS-CLS)**
Position:	**Managing Director and Principal Ecologist**

CIEEM REGISTERED PRACTICE 2022-2023

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Version Control

Version	Changes Made	Changes Made By	Date
1-0	Issued to Client	Tim Smith	26 Oct 2023

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Figures

Tables

Executive Summary

S1. In July 2023 Five Valleys Ecology was commissioned by Kathie Thomas to undertake a Preliminary Roost Assessment of the single-storey outbuilding at Stone Farm Barns, 8 Farm Lane, Leighterton, Gloucestershire GL8 8US centred at Ordnance Survey grid reference ST 8229191084 (What3Words address \\\fooling.patching.masks).

S2. A planning application is proposed for conversion of the outbuilding and construction of a separate garage.

S3. Following the Preliminary Roost Assessment (Report Ref. 23_558) Five Valleys Ecology was commissioned by the Client to undertake dusk emergence/dawn re-entry bat surveys. The survey work undertaken comprised of one dusk emergence survey and one dawn re-entry survey of the outbuilding. This Bat Survey Report details the findings of this survey work undertaken at the Site.

S4. No bats were recorded by any of the surveyors emerging from the outbuilding during the dusk emergence survey or dawn re-entry survey. In summary, no roosting bats were recorded during the surveys and the minimum number of survey visits have been undertaken to give confidence in a negative result based on published guidance on survey method and effort. No impacts to roosting bats are therefore anticipated and there is no constraint to the proposed development in relation to these fauna.

S5. Commuting/foraging activity was recorded for four bat species during the dusk emergence/dawn re-entry surveys; predominantly for Common Pipistrelle with lower activity recorded for Noctule, Myotid bat *Myotis* sp. and Serotine during the survey.

S6. Some mostly common bat species do use the site for occasional foraging and/or commuting. No additional external lighting is proposed and therefore will not result in any increase in ambient light levels during the hours of darkness. Additionally, no permanent loss of semi-natural habitat is proposed. In summary, no significant impacts to commuting and/or foraging bats are anticipated as a result of the proposed development.

S7. A mitigation and enhancement strategy containing a number of precautionary measures has been proposed. Provided the mitigation and enhancement strategy is implemented, it is concluded that the proposal should not result in adverse impacts to bats (or nesting birds). The proposal could provide some proportionate biodiversity enhancement, and as such would be in accordance with legislative requirements and planning policy.

1. Introduction

1.1 In July 2023 Five Valleys Ecology was commissioned by Kathie Thomas (hereafter referred to as the Client) to undertake a Preliminary Roost Assessment of the single-storey outbuilding at Stone Farm Barns, 8 Farm Lane, Leighterton, Gloucestershire GL8 8US (hereafter referred to as the 'Site') centred at Ordnance Survey grid reference ST 8229191084 (What3Words address \\\fooling.patching.masks).

1.2 A planning application is proposed for conversion of the outbuilding and construction of a separate garage.

1.3 Following the Preliminary Roost Assessment (Report Ref. 23_558) Five Valleys Ecology was commissioned by the Client to undertake dusk emergence/dawn re-entry bat surveys. The survey work undertaken comprised of one dusk emergence survey and one dawn re-entry survey of the outbuilding. This Bat Survey Report details the findings of this survey work undertaken at the Site.

Objectives

1.4 The purpose of this study is to:

- Undertake relevant field surveys and evaluate bat usage at the Site;
- Identify any protected or notable species issues that may exist in relation to bats (and birds) which could influence the proposed works at the Site;
- Assess possible ecological constraints to development and make preliminary recommendations for mitigation and enhancement opportunities, and
- Provide information to inform the subsequent design of a detailed mitigation and licensing strategy (if required).

2. Methodology

Background Data Searches

2.1 A background data search of bat records within the last ten years held by GCER was undertaken within a 2.0km search area centred on the Site.

Field Surveys

Dusk Emergence/Dawn Re-entry Surveys

2.2 The scope of field survey work comprised of one dusk emergence survey and one dawn re-entry survey. The surveys were undertaken in accordance with published best practice guidance[1] by a team comprised as follows:

- Tim Smith (TS) Lead Ecologist (NE Bat Class Licence No. 2015-10870-CLS-CLS);
- Helen Ryan (HR) Surveyor; and
- Adam Davis (AD) Surveyor.

2.3 The survey date, survey type/reference, survey position reference, surveyor, sunset/sunrise time, temperature and weather conditions are presented in Table 1.

2.4 The position of the surveyors during the surveys is shown in Fig.1 below (see Table 1 for Survey Position Refs.). Two surveyors were used during the surveys in order to ensure adequate coverage of all aspects of the building that Potential Roosting Features (PRF's) were recorded in the Preliminary Roost Assessment.

2.5 No PRF's were recorded on the north gable end or south gable end of the building. The crack in the south gable end wall recorded during the Preliminary Roost Assessment is considered unlikely to provide ecological functionality as a bat roost due to its limited width and depth. Regardless, the gable end walls will not be directly impacted by the proposed development and will be retained in their current condition post-development.

2.6 The Dusk emergence survey commenced 15 minutes before sunset and finished one and a half hours after sunset. The dawn-re-entry survey commenced one and a half hours before sunrise and finished 15 minutes after sunrise. Bat detectors that were used included an Echo Meter Touch 2 Pro and Echo Meter Touch Original (black) and a Batbox Duet with Roland R-05 digital recorder.

2.7 Surveyors recorded the first bat of each species seen and/or heard was recorded together with any important occurrences (such as a bat emerging or returning to a roost), and generalizations of activity, rather than recording every single pass. This ensured that each surveyor's primary focus remained on the building and detecting any emerging/re-entering bats throughout the surveys.

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

Table 1: **Survey Date, Survey Type, Survey Position Reference, Surveyor Reference, Sunset/Sunrise Time, Temperature and Weather Conditions**

Date	Survey Type	Survey Position Ref.	Surveyor Ref.	Sunset/ Sunrise (Hrs)	Temp. (ºC) at Sunset/Sunrise	Weather Conditions
25/07/23	Dusk Emergence	A B	TS AD	21:08	14ºC	Dry, part cloudy, gentle breeze
29/08/23	Dawn Re-entry	A B	TS HR	06:16	12ºC	Dry, part cloudy, light breeze

Figure 1: **Position of the Surveyors during the Surveys** Imagery © 2023 Google, Imagery © 2023 CNES / Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Landsat / Copernicus, Maxar Technologies, Map Data © 2023

Data Analysis

2.8 All bat calls recorded by the surveyors were in full spectrum and .mp3. All calls were analysed using Echo Meter, Kaleidoscope, WaveSurfer and/or BatSound analysis software, as appropriate.

Survey Constraints and Limitations

2.9 The surveys were conducted in optimum weather conditions during the optimum survey period and in accordance with published guidance[1]. In summary there are not considered to be any survey constraints or limitations.

3. Legislation and Planning Policy

Bats

3.1 All British bats are protected under both UK law; Wildlife and Countryside Act 1981 (WCA) (as amended), and European law (The Habitats Directive); which is transposed into law in England and Wales by The Conservation of Habitats and Species Regulations 2017 ('Habitats Regulations').

3.2 Schedule 5 of the WCA affords protection against:

- Intentional or reckless disturbance of bats or obstruction of any structure or place used for shelter or protection; and
- Selling, offering or exposing for sale (alive or dead, including parts or derivatives).

3.3 Schedule 6 states that bats cannot be killed or taken by certain methods, such as traps and nets, poisons, automatic weapons, electrical devices, smoke/gases etc.

3.4 All British species of bat are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 as a European Protected Species (EPS) of animal. Regulation 41 (1) of the Regulations makes it an offence to:

- Deliberately capture, injure an EPS;
- Deliberately disturb an EPS;
- Deliberately take or destroy the eggs of an EPS; or
- Damage or destroy a breeding site or resting place of an EPS.

3.5 Some rare bat species, namely Greater Horseshoe Bat *Rhinolophus ferrumequinum*, Lesser Horseshoe Bat *Rhinolophus hipposideros*, Barbastelle *Barbastellus barbastellus* and Bechstein's *Myotis bechsteinii*, are afforded greater protection under European legislation, being listed under Annex II of the EC Habitats Directive which lists species whose conservation requires the designation of Special Areas of Conservation (SACs).

Brexit Changes to the Habitats regulations

3.6 The UK exited the European Union (EU) on 31 January 2020 and entered a transition period until the end of 2020. For England, amendments to the Habitats Regulations are largely limited to 'operability changes' that will ensure the regulations continue to have the same working effect after the transition period. Most of these changes involved transferring functions from the European Commission (EU) to the appropriate authorities in England and Wales. All other processes or terms in the Habitats Regulations remain unchanged and existing guidance is still relevant[2].

[2] https://cieem.net/brexit-changes-to-the-habitats-regulations/

3.7 Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK no longer form part of the EU's Natura 2000 ecological network. The Habitats Regulations have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:

- Existing SACs and SPAs
- New SACs and SPAs designated under these Regulations

3.8 Any references to Natura 2000 in the Habitats Regulations and in guidance now refers to the revised national site network[2].

Birds

3.9 All wild birds are protected under The WCA 1981 (as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is in use or being built; and
- Take or destroy the egg of any wild bird.

3.10 Certain rare breeding birds are listed on Schedule 1 of The WCA 1981 (as amended). Under this legislation they are afforded the same protection as other wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

Planning Policy

National Planning Policy

3.11 The relevant adopted policy at the national level is set out in the National Planning Policy Framework (NPPF)[3] which sets out the Government's planning policies for England and how these are expected to be applied.

3.12 The NPPF replaced Planning Policy Statement 9 (PPS9) Biodiversity and Geological Conservation (2005), however, the accompanying guidance, ODPM Circular 06/2005 Biodiversity and Geological Conservation[4], currently remains extant (see paragraph 3.15 below).

3.13 Paragraphs 179 to 182 of the NPPF[3] set out the key principles of ensuring that the potential impacts of planning decisions on biodiversity are fully considered. These include:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; and
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1182995/NPPF_Sept_23.pdf
[4] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf

3.14 The NPPF states that when determining planning applications, local planning authorities should apply the following principles:

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.
- The NPPF provides guidance as to the protection of statutorily designated sites, including international sites, National Nature Reserves (NNRs) and SSSIs, as well as non-statutory regional and local sites. The NPPF also addresses development and wildlife issues outside these sites and seeks to ensure that planning policies minimise any adverse effects on wildlife.

3.15 Paragraphs 98 and 99 of ODPM Circular 06/2005 Biodiversity and Geological Conservation[4] state:

- The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat; and
- It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.

Local Planning Policy

3.16 Cotswold District Local Plan 2011 – 2031 was adopted in August 2018[5]. Relevant policies in the Cotswold District Local Plan are summarised below.

- Policy EN7 'Trees, Hedgerows and Woodlands':
  - Development will not be permitted that fails to conserve and enhance veteran trees together with trees, woodlands and/or hedgerows of high landscape, amenity, ecological or historical value;
- Policy EN8 'Biodiversity and Geodiversity: Features, Habitat and Species':
  - Development will be permitted that conserves and enhances biodiversity, providing net gains where possible, reverses habitat fragmentation and promotes creation, restoration and beneficial management of ecological networks, habitat and features, particularly in areas subject to landscape-scale biodiversity initiatives. Developer contributions may be sought in this regard;
  - Proposals that would result in the loss or deterioration of irreplaceable habitats and resources, or which are likely to have an adverse effect on internationally protected species, will not be permitted. Development with a detrimental impact on other protected species and species and habitats 'of principal importance for the purpose of conserving biodiversity'[6] will not be permitted unless adequate provision can be made to ensure the conservation of the species or habitat;
- Policy EN9 'Biodiversity and Geodiversity: Designated Sites':
  - International Sites - Internationally designated wildlife sites will be safeguarded from development that could cause a significant effect that would adversely affect their integrity;
  - National Sites - Development that is likely to have an adverse effect upon a nationally designated nature conservation site will not be permitted unless the benefits of development at the site clearly outweigh the impact development is likely to have both on (a) its special features and (b) the national network of Sites of Special Scientific Interest. Where a proposal is permitted appropriate mitigation or compensation will be required; and
  - Local Sites - Development proposals that are likely to cause significant harm to locally identified wildlife sites (Key Wildlife Sites) and Local Nature Reserves, where such harm cannot be satisfactorily mitigated or adequately compensated for, will not be permitted unless it can be demonstrated that the benefits of the proposal clearly outweigh the impact of the development on the nature conservation value of the site.

[5] https://www.cotswold.gov.uk/media/k2kjvq3b/cotswold-district-local-plan-2011-2031-adopted-3-august-2018-web-version.pdf
[6] (NERC) Act 2006

Biodiversity Action Plans and Species of Principal Importance

3.17 Following The Convention on Biological Diversity in (1992), the UK Biodiversity Action Plan (UK BAP)[7] was published. The aims and objectives of the plan were to preserve and enhance the biological diversity of the UK through implementation of Habitat Action Plans (HAPs) and Species Action Plans (SAPs) for habitats and species that are priorities for conservation in the UK. This has cascaded down for inclusion on a number of Local Biodiversity Action Plans (LBAPs).

3.18 At the Nagoya UN Biodiversity Summit in October 2010, a new 'Strategic Plan' to drive action on biodiversity under the Convention on Biological Diversity was agreed, providing a new global vision and direction for biodiversity policy. From this, England has revised its biodiversity strategy, publishing priorities under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which lists Habitats of Principle Importance (HoPIs) and Species of Principle Importance (SoPIs) for the purpose of conserving biodiversity.

3.19 With regard to HoPIs and SoPIs listed under Section 41 of the NERC Act 2006 Local Planning Authorities (LPA's) 'must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. The list of HoPI and SoPI in England includes 56 habitats and 943 species first identified as priority habitats and species in the UK BAP[6]. Where relevant SoPIs (and/or HoPIs) will be referenced in the report.

[7] http://jncc.defra.gov.uk/page-5705

4. Results

Site Description and Context

4.1 This is a semi-rural site located on the western edge of the village of Leighterton approximately 7km southwest of Tetbury in Gloucestershire (Fig. 1 and Fig 2). The Site is comprised predominantly of Buildings and Hardstanding and Grassland. Other habitat in the immediate vicinity includes further Buildings and Hardstanding comprised of the surrounding residential dwellings, Grassland and Scattered Trees.

4.2 Based on inspection of online mapping and aerial imagery the wider vicinity of the Site is dominated by Arable, occasional Hedgerows and Scattered Trees. Six separate blocks of ancient woodlands occur within a 2km radius of the Site[8], the nearest of which is The Box Wood which is located 1.3km north of the Site, however, woodland cover is relatively low within this search area. The nearest Running Water and Standing Water is at Ozleworth Bottom located approximately 2.0km west of the Site.

4.3 NE recognises 120 bio-geographic zones termed 'Natural Character Areas', which are defined by geology, landscape character and habitats. The Site lies within the Cotswolds Natural Character Area No. 107[9].

4.4 The natural character of the Cotswolds is largely a combination of geology, farming and woodland (with scrub forming a mosaic with woodland and pasture along the scarp). The pattern of cropped land in a mosaic with grassland, woodland and boundary features. Woodland is concentrated and defines the scarp slope.

4.5 Approximately 4% of the land cover across the Cotswolds supports semi-natural woodland. Small isolated farm woods and shelter belts characterise the dip slope. Larger estate woodland feature in some areas. The Natural Area supports a nationally significant resource of unimproved limestone grassland.

4.6 This NCA is a diverse landscape important for Greater Horseshoe Bat (SoPI) and Lesser Horseshoe Bat (SoPI). Grasslands of high nature conservation interest remain on the wetter valley bottoms and dry downland slopes.

Data Search

4.7 GCER did not return any bat records within the 2.0km search radius of the Site.

Dusk Emergence/Dawn Re-entry Surveys

4.8 The raw data from the dusk emergence/dawn re-entry surveys can be found in Appendix 2. During the dusk emergence/dawn re-entry surveys no bats were recorded by either of the surveyors emerging or re-entering the building.

[8] https://magic.defra.gov.uk/MagicMap.aspx
[9] http://publications.naturalengland.org.uk/file/4868690241650688

4.9 Commuting/foraging activity was recorded for four bat species during the dusk emergence/dawn re-entry surveys; predominantly for Common Pipistrelle with lower activity recorded for Noctule (SoPI), Myotid bat *Myotis* sp. and Serotine during the survey.

5. Impact Assessment

Potential Impacts - Roosts

S8. In summary, no roosting bats were recorded during the surveys and the minimum number of survey visits have been undertaken to give confidence in a negative result based on published guidance on survey method and effort[1]. No impacts to roosting bats are therefore anticipated and there is no constraint to the proposed development in relation to these fauna.

Potential Impacts - Foraging and Commuting Habitat

5.1 Some mostly common bat species do use the site for occasional foraging and/or commuting. No additional external lighting is proposed and therefore no increase in ambient light levels from external lighting during the hours of darkness is predicted. Additionally, no loss of semi-natural habitat will occur as a result of the proposed development.

5.2 In summary, no significant impacts to commuting and/or foraging bats are anticipated as a result of the proposed development.

6. Mitigation and Enhancement Strategy

Mitigation - Bats

6.1 The following precautionary measures will be required:

- All Contractors will be made aware of bats prior to any works by the Client;
- Roof tiles, soffits and fascia's will be carefully removed by hand;
- In the unlikely event that bats or signs of bats such as the presence of droppings are encountered during construction, all work will stop immediately and a suitably qualified, experienced and licenced ecologist and/or NE contacted for advice;
- The use of lighting at night during the construction phase will be avoided; and
- Dust will be kept to a minimum during the works

Mitigation - Birds

6.2 All nesting birds are protected under the WCA 1981 (as amended) whilst the nest is being built or in use. Certain species are afforded additional protection from disturbance by being included in Schedule 1 of the Act.

6.3 The building has some limited potential to support nesting birds in the exterior fabric of the building (the proposed works are predominantly within the internal fabric of the building). If the proposed works commence during the bird breeding season (March to August inclusive); in the unlikely event that nesting birds are found to be using the building an appropriately qualified and experienced ecologist will be contacted immediately for advice. A buffer would need to be set up and left around the nest until the nest was no longer used.

Biodiversity Enhancement - Bats and/or Birds

6.4 To provide some further proportionate biodiversity enhancement in accordance with planning policy the following will be provided:

- One (no.) nest box suitable for House Sparrow *Passer domesticus* (SoPI) such as the Vivara Pro WoodStone House Sparrow Nest Box[10]) or similar will be mounted as high as possible out of direct sunlight on a northerly elevation of the outbuilding or proposed garage close to areas of soft landscaping such as shrub planting and grassed areas.

6.5 Provision of the Sparrow nest box will provide long-term optimum roosting and nesting opportunities for these fauna and will be sited according to the specification above as advised by a qualified ecologist and/or any recommendations given by the manufacturer, as appropriate.

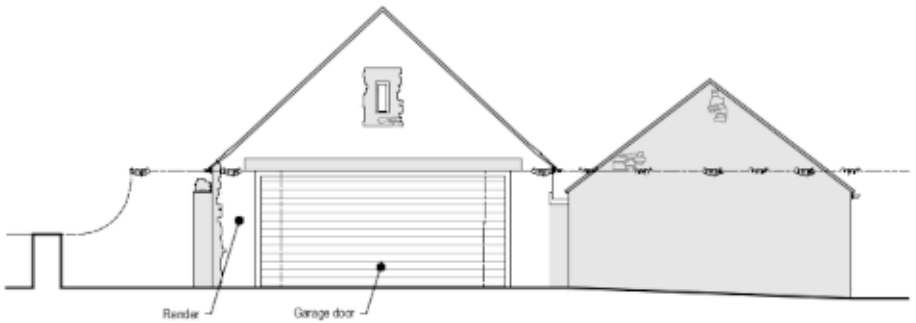
[10] https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box

7. Conclusions

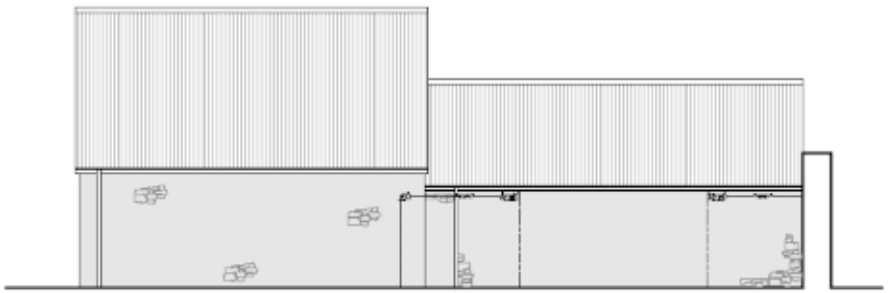
7.1 Provided the Mitigation and Enhancement Strategy is implemented, it is concluded that the proposal should not result in adverse impacts to bats (or birds). The proposal could also provide some proportionate biodiversity enhancement, and as such, would be in accordance with legislative requirements and planning policy.

Appendix 1 Proposed Development

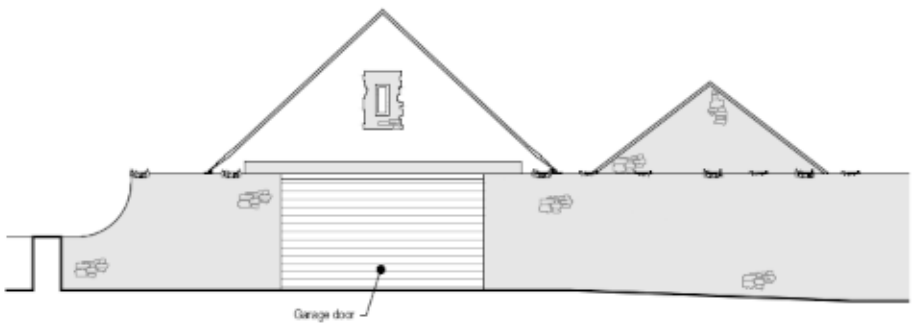
Key



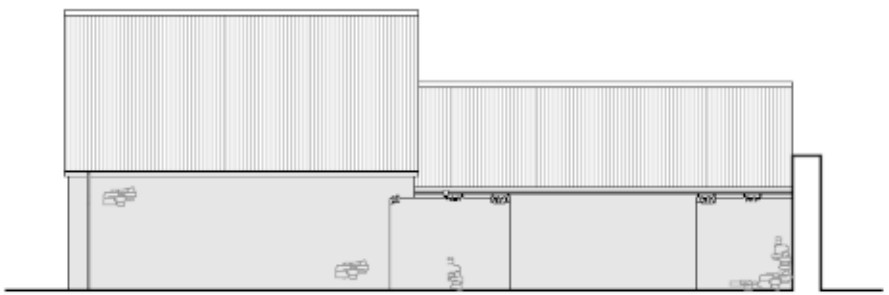
1 Proposed South East Elevation



2 Proposed North East Elevation



3 South East Elevation with Wall



4 North East Elevation with Wall

Rev	Chk	Date	Amendment
P02	DM	30.08.2023	Revised Layout
P01	DG	26.07.2023	For Review

Stage	Status Code	Status Description
3	S4	Suitable for Stage Approval

View Architects
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Project
Stone Farm Barns

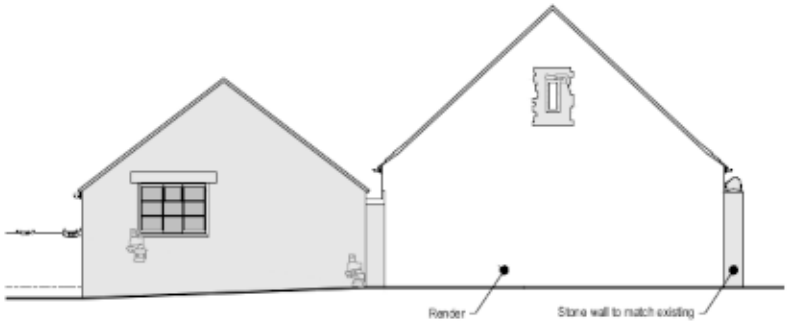
Document Title
Proposed Elevations

Date	Scale		View Reference
25.07.2023	1:100	(A3)	2318

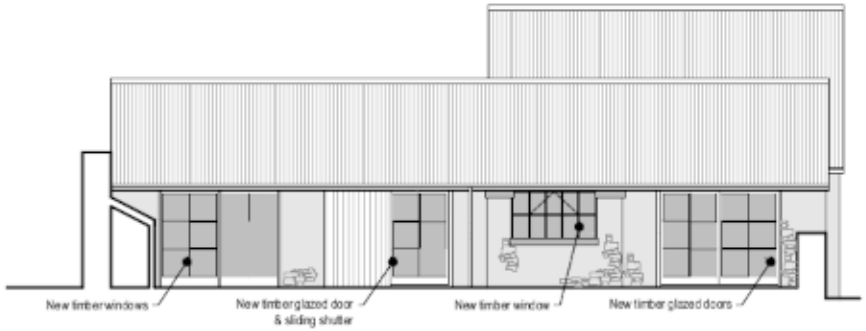
Document Reference	Revision
2318-VAL-XX-XX-DR-A-1911	P02

0 1 5 10
SCALE IN METRES

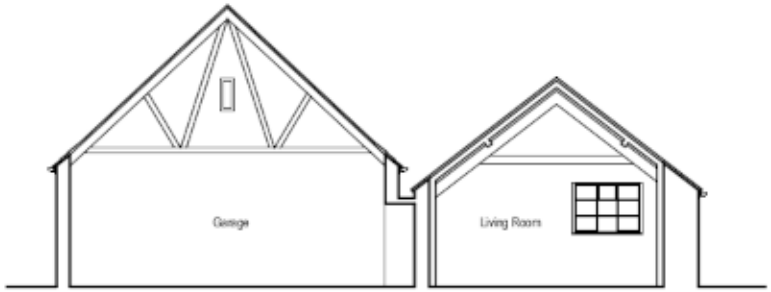
Key



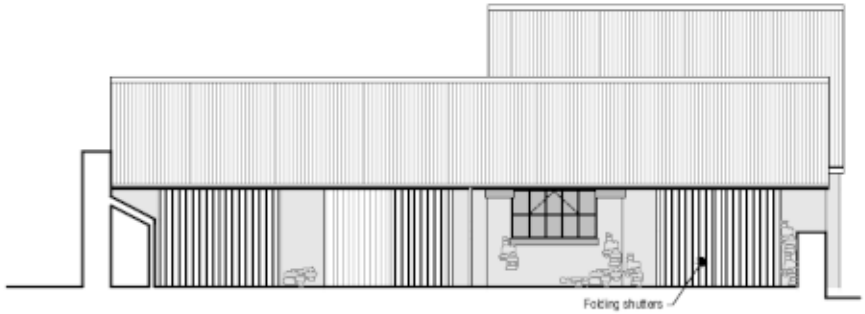
3 Proposed North West Elevation



4 Proposed South West Elevation | Shutters Open



A Proposed Section A



5 Proposed South West Elevation | Shutters Closed

Stage	Status Code	Status Description
3	S4	Suitable for Stage Approval

View Architects

Project
Stone Farm Barns

Document Title
Proposed Sections and Elevations

Date	Scale		View Reference
25.07.2023	1:100	(A3)	2318

Document Reference	Revision
2318-VAL-XX-XX-DR-A-1912	P02

0 1 5 10
SCALE IN METRES

Appendix 2 Emergence Survey Raw Data

BAT EMERGENCE/RE-ENTRY SURVEY FORM

Project: Stone Farm Barns, Leighterton, Glos		Date: 25.07.23
Survey: Dusk 1	Building/Position: Position A	Surveyor: Tim Smith
Sunset/Sunrise time: 21:08hrs	Start time: 20:53hrs	End time: 22:38hrs
Temp at start: 14c	Temp at end: 12c	Equip. used: Echo Meter Touch Original (Black)
Weather at start: Dry, part cloudy, gentle breeze	Weather at end: Same as start	
No emerging bats recorded. Commuting/foraging activity recorded for Common Pipistrelle, Noctule and Serotine		

DIAGRAM TO SHOW:
- BUILT STRUCTURES
- FLIGHT LINES WITH BAT SP. AND TIME ON FORM BELOW
- EMERGENCE/SWARMING LOCATIONS

Track No.	Real Time	Time on Recorder	Bat Species (and number)	Activity (emerging, pass, foraging, "socializing", swarming)
	21:40:52		Noctule	Overhead, commuting W
	21:53:52		Noctule	Overhead, commuting W
	22:05:50		Serotine	Pass, not seen
	22:12:26 to 22:18:15		Common Pipistrelle x1-2	Four triggers throughout period, bats observed in garden to N of surveyor

BAT EMERGENCE/RE-ENTRY SURVEY FORM

Project: Stone Farm Barns, Leighterton, Glos		Date: 25.07.23
Survey: Dusk 1	Building/Position: Position B	Surveyor: Adam Davis
Sunset/Sunrise time: 21:08hrs	Start time: 20:53hrs	End time: 22:38hrs
Temp at start: 14c	Temp at end: 12c	Equip. used: BatBox Duet and Roland R-05 digital recorder
Weather at start: Dry, part cloudy, gentle breeze	Weather at end: Same as start	
No emerging bats recorded. Occasional commuting/foraging activity recorded for Common Pipistrelle and Noctule		

DIAGRAM TO SHOW:
- BUILT STRUCTURES
- FLIGHT LINES WITH BAT SP. AND TIME ON FORM BELOW
- EMERGENCE/SWARMING LOCATIONS

Track No.	Real Time	Time on Recorder	Bat Species (and number)	Activity (emerging, pass, foraging, "socializing", swarming)
08	21:31	00:20	Common Pipistrelle	Brief pass, not seen
09	21:41	05:00	Noctule	Pass overhead
12	21:54	02:20	Common Pipistrelle	Pass, not seen

BAT EMERGENCE/RE-ENTRY SURVEY FORM

Project: Stone Farm Barns, Leighterton, Glos		Date: 29.08.23
Survey: Dawn	Building/Position: Position A	Surveyor: Tim Smith
Sunset/Sunrise time: 06:14hrs	Start time: 04:44hrs	End time: 06:29hrs
Temp at start: 12c	Temp at end: 12c	Equip. used: Echo Meter Touch 2 Pro
Weather at start: Dry, part cloudy, light breeze	Weather at end: Same as start	
No re-entering bats recorded. Commuting/foraging recorded predominantly for Common Pipistrelle with a small number of passes by Myotis sp. and Noctule.		

DIAGRAM TO SHOW:
- BUILT STRUCTURES
- FLIGHT LINES WITH BAT SP. AND TIME ON FORM BELOW
- EMERGENCE/SWARMING LOCATIONS

Track No.	Real Time	Time on Recorder	Bat Species (and number)	Activity (emerging, pass, foraging, "socializing", swarming)
	05:01:47 to 05:56:39		Common Pipistrelle	1 – 2 bats foraging near N gable end of barn 05:40hrs to 06:00hrs. Some further passes in the garden to N of surveyor, otherwise not seen
	05:14:13: 05:25:01		Myotis sp.	Three passes throughout period, not seen
	05:27:57		Noctule	Pass, not seen
	05:37:46		Noctule	Pass, not seen

BAT EMERGENCE/RE-ENTRY SURVEY FORM

Project: Stone Farm Barns, Leighterton, Glos		Date: 29.08.23
Survey: Dawn	Building/Position: Position B	Surveyor: Helen Ryan
Sunset/Sunrise time: 06:14hrs	Start time: 04:44hrs	End time: 06:29hrs
Temp at start: 12c	Temp at end: 12c	Equip. used: Echo Meter Touch Original (Black)
Weather at start: Dry, part cloudy, light breeze	Weather at end: Same as start	
No re-entering bats recorded. Commuting/foraging recorded predominantly for Common Pipistrelle with a single passes by Myotis sp. and Noctule.		

DIAGRAM TO SHOW:
- BUILT STRUCTURES
- FLIGHT LINES WITH BAT SP. AND TIME ON FORM BELOW
- EMERGENCE/SWARMING LOCATIONS

Track No.	Real Time	Time on Recorder	Bat Species (and number)	Activity (emerging, pass, foraging, "socializing", swarming)
	04:49:21 to 05:56:56		Common Pipistrelle	Occasional passes throughout period, not seen
	05:14:15		Myotis sp.	Pass, not seen
	05:27:58		Noctule	Pass, not seen