



Reybridge Farm Sables
Bat Survey & Assessment
For CMS Architects

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Version

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The report, and the information contained in it, is intended to be valid for a maximum of 12 months from the date of the survey, providing no significant alterations to the site have occurred.



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1. Introduction

1.1 Commission

Ellendale Environmental was commissioned by CMS Architects, on behalf of their clients Mr & Mrs Doel, to undertake a bat survey and assessment of a building at Reybridge Farm, Reybridge, Lacock, Wiltshire, SN15 2PE ('the target building'). It is proposed to convert an existing stable block on the site into a residential property ('the proposed works').

A Preliminary Ecological Assessment (PEA) was undertaken in July 2023 and, although no evidence of roosting bats was found, the target building was assessed as providing Low Roost Suitability for bats. A bat activity survey was undertaken in September 2023 and no bats were recorded emerging from the target building and no evidence of roosting bats was found.

This report has been written with cognisance to previous surveys of the target building, namely:

- *EEL639R230516SP Reybridge Farm Stables Preliminary Ecological Assessment (PEA) CIC v1.0* – Ellendale Environmental, July 2023; and
- *EEL639R230918SP Reybridge Farm Stables Bat Survey and Assessment Report CIC v1.0* – Ellendale Environmental, September 2023.

A further activity survey for bats was undertaken in July 2024 following correspondence from Wiltshire Council.

1.2 Site Details

The site is located to the east of Reybridge, a hamlet in the county of Wiltshire, approximately one mile north of Lacock, at OS grid reference ST 92268 69048.



Figure 1: Site location



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1.3 Bat Conservation

British Bats

There are 18 species of bats resident in Britain, 17 of which are known to breed. These are from two families, namely the Rhinolophidae (the two horseshoe bat species) and the 15 species of vesper/evening bats (the Vespertilionidae). All British bats are insectivorous and locate their prey using ultrasonic calls through a biological system known as echolocation. During summer months, female bats form nursery colonies in trees and buildings, where they raise infants. In the winter, males and females hibernate in trees, buildings and underground structures.



Conservation Status of British Bats

The general consensus in Britain and Europe is that virtually all bat species are declining and are vulnerable. Our understanding of population status is poor, as there is very little historical data for most bat species. Certain species, such as the horseshoe bat, are better understood and have well documented contractions in range and population size.

Given this general picture of decline, the UK Government (within the UK Biodiversity Action Plan) has designated eight species of bats as priority species (these being soprano pipistrelle, common pipistrelle (Wales only) greater and lesser horseshoe bats, barbastelle, Bechstein's, noctule and brown long-eared bat). These plans provide an action pathway whereby the maintenance and restoration of former population levels are envisaged.

Legal Status of British Bats

All bats and their roosts in England were originally protected under the Wildlife & Countryside Act 1981. Subsequent amendments to the legislation for England (and Wales) has removed bats from most of the provisions of the Act; however, it remains an offence to:

- Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; and/or
- Intentionally or recklessly obstruct access to any structure or place that a bat uses for shelter or protection.

All British bat species are listed in Annex IV of the EC Habitats Directive and are fully protected through The Conservation (Natural Habitats, &c.) Regulations 1994. All bat species found in England are classed as European protected species. They receive full protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

These regulations make it an offence to:

- Deliberately capture, injure, or kill a bat;
- Harass a bat or group of bats;
- Disturb a bat in a roost (any structure or place it uses for shelter or protection);



- Disturb a bat while it is rearing or otherwise caring for its young
- Obstruct access to a bat roost or otherwise deny an animal use of a roost;
- Disturb a bat in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species; and/or
- Disturb a bat while it is migrating or hibernating.

The legislation, although not strictly affording protection to foraging grounds, does protect bat roost sites. Bat roosts are protected at all times of the year, regardless of whether or not bats are present at the time.

It's also an offence to:

- Damage or destroy a breeding site or resting place of such an animal (whether or not deliberately or recklessly); and/or
- Keep, transport, sell or exchange, or offer for sale or exchange any wild bat (or any part or derivative of one) obtained after 10th June 1994.

Where development is proposed that would result in an offence under the Habitats and Species Regulations, a European Protected Species (EPS) licence needs to be granted by Natural England (NE) to permit an act that would otherwise be unlawful. This provides for a specific derogation from the legislation, to prevent a legal infringement occurring.

To obtain an EPS licence for development it must be demonstrated that the purpose of the act to be licensed is for:

- *"Preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment"* (Regulation 55(2)(e)).

In addition, NE will not grant an EPS licence unless they are satisfied that:

- *"There is no satisfactory alternative"* (Regulation 55(9)(a)); and
- *"The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range"* (Regulation 55(9)(b)).



2. Methodology

2.1 Overview

Survey work undertaken in relation to a proposed development needs to be conducted under a scientific/conservation licence issued by, in this case, NE. The work is normally conducted by an environmental consultant on the behalf of the developer and the consultant will advise on the necessary course of further action with respect to licences, mitigation and compensation measures. A number of recognised survey techniques are available to the consultant, such as:

- Natural England has published guidelines (A.J. Mitchell-Jones [2004], *Bat Mitigation Guidelines*, English Nature. ISBN 1 85716 781 3), which provide generic technical advice on bat mitigation; and
- Hundt L (2012). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 4th Edition, Bat Conservation Trust, London. ISBN-13: 978-1-872745-96-1.

The developer must:

- Demonstrate that adequate surveys have been undertaken to establish the presence or absence of bats, to predict the potential impact on them, their resting sites or breeding roosts;
- If bats or their roosts are discovered, bring proposals forward that will integrate provision for bats into any design that will compensate and mitigate for any impact during development; and
- Provide sufficient survey information that will support a licence application under the Habitats Directive should bats be discovered.

Where bat species are using a site, it will be necessary to mitigate the impacts of the development upon the population(s). These would include measures that remove or reduce any damaging effects on the animals or their roosts. In most cases a package of compensation measures will be required to accommodate any loss of breeding or resting-places, and the timing of works will need to be synchronised with the life-cycles of the effected species.



This collective package of mitigation and compensation measures should allow the conservation status of the animals to be at least maintained by the development. With careful thought, the conservation status may even be enhanced by development. This is usually most easily achieved by early ecological input.

In the case of sites where bats are present, a Development Licence from NE will be required to conduct works affecting bats.

2.2 Bat Survey Licence

The activity survey team was led by Christopher Parsons, Ecologist at Ellendale Environmental. Christopher holds a bat survey licence (Bat Survey Class Licence CL18 (Bat Survey Level 2), Registration number CLS-2019-42561), with respect to the Conservation Regulations 1994. The licence is valid for all counties of England, valid until June 2025. Christopher has over 10 years' professional experience of undertaking ecological surveys and working with bat species across the UK.

2.3 Survey Objectives

On the basis of the brief provided by the client, Ellendale Environmental conducted survey work to fulfil the following needs:

- Obtain baseline information on the habitat features suitable for bat species;
- Determine the presence/likely absence of bat species and any activity at or near the target building; and
- Determine the type, extent and pattern of detected usage.

In practice this was achieved by a physical inspection of the target building, a search for live animals and/or other signs indicating their current or previous presence.

Each surveyor used a mini time-expansion bat detector (Pettersson D 240x) linked to a portable 'Edirol' digital recorder (Edirol R-07HR). In addition, ORDRO 4K Camcorder Video InfraRed Night Vision Cameras and a pair of Nightfox Red HD Infrared Night Vision Goggles were used during the survey, along with a Song Meter SM4BAT-FS multi-spectrum bat detector.

2.4 Field Survey Methodology

1] A physical internal/external site inspection of the target building was undertaken on Thursday 18th July 2024 to search for signs of bats and evidence of them roosting in the building.



Table 1: Survey weather conditions for physical survey

SURVEY DATE	TEMPERATURE (°C)	WIND SPEED (MPH)	CLOUD COVER/PRECIPITATION
18/07/24	25.9	1.0 Avg. 3.1 Max.	40% cloud cover, dry with a light occasional breeze.

All suitable features were assessed externally and internally. A telescopic surveyor's ladder was used to gain access to various points and a CLU-10 searchlight was used to search dark areas. A Visual Optics VO36-10ww Endoscope was utilised to assist inspection of internal spaces.

The physical search included a search for live animals and a search for other signs that give an indication of past or present occupancy. In the case of bats, typical indicators include droppings (which are characteristic and can often be speciated), signs of staining, characteristic odours, and accumulations of prey items.

2] One dusk emergence/activity bat detector survey was undertaken of the target building on Thursday 18th July 2024. The survey commenced 30 minutes before sunset (sunset was at approximately 21:15) and completed 90 minutes after sunset, when all bats will normally be expected to have exited their roost sites.

Weather was not a limiting factor in the activity survey. The conditions are summarised in Table 2.

Table 2: Survey weather conditions for activity survey

SURVEY DATE	TEMPERATURE (°C)	WIND SPEED (MPH)	CLOUD COVER/PRECIPITATION
18/07/24	Start 25.9 End 24.2	1.0 Avg. 3.1 Max.	40% cloud cover, dry with a light occasional breeze.

2.5 Constraints

The surveys were not restricted, and full access was granted to the target building. The surveys were undertaken at an optimal time of year for bat activity and in suitable weather conditions.



Whilst no biological survey can guarantee that all cues and signs of protected or notable species will be recorded, Ellendale Environmental is confident that all key fauna present in the survey area during the survey times were noted.

Although the survey timings are applicable for most of the UK, they vary according to the geographic location of the site. Optimal timing may also vary from year to year depending on the onset of each season. Outdoor surveys are weather-dependent and should be undertaken only in suitable weather conditions.



3. Results

3.1 Physical Bat Survey

The target building is a block-built, single storey stable block with a pitched, tiled roof along the northern boundary of the site. At the time of the survey the building was in use as a stable for horses and on the southern elevation of the building there are stable doors which are usually open and provide access to the internal spaces.

Photograph 1: showing a view of the target building



Externally the walls of the building were noted to be in a good condition with no areas of missing mortar where bats could gain access for roosting. No evidence of bat activity was found on the outer walls of the building during the survey.

The roof of the building is covered with tiles on the southern side and by slate tiles on the northern side. These were noted to be in a good condition at the time of the survey, but a few slightly lifted tiles were found to be present on the northern side of the barn.



Photograph 2: showing a view of the rear (northern) view of the target building



Internally the roof is lined with bitumen felt that was found to be in a good condition.

The building is used for horses and for storage, and is regularly cleaned, meaning that any evidence of bat activity, such as droppings, would be regularly cleared. No evidence of bat activity was found during the survey.



Photograph 3: showing a view inside the target building



3.2 Bat Emergence/ Activity Survey

The emergence/activity survey was conducted in July 2024 during the optimum survey season for bats (which is March to September). The weather conditions were not limiting and were characterised by steady temperatures above 10°C and light winds. Each surveyor was located in a static position to cover all aspects of the target building during the activity survey.

Dusk survey, 18/07/24

No bats were recorded or observed during the survey and no bats were recorded emerging from the target building during the survey.

It was noted that the weather was good at the time of the survey and suitable for bats to be foraging; however, none were recorded.



3.3 Tree

A large tree in the south-west corner of the site has been felled and therefore a survey if this could not be undertaken.



4. Conclusions

4.1 Conclusion

The assessment was not constrained, and full access was gained to the external and internal spaces of the target building for the physical survey.

During a PEA of the site and bat activity survey undertaken in 2023 for the target building, no evidence of roosting bats was found. Due to the structure and location of the building it was assessed as providing Low Roost Suitability; however, no bats were recorded emerging from the building during the dusk survey (in September 2023) and no evidence of bats was found within the building. Soprano pipistrelle bats were recorded flying over the building during the survey; however, overall bat activity was noted to be low at the site.

A further physical survey of the building was undertaken in July 2024 and no evidence of bat activity, such as droppings or feeding remains, was found. A dusk activity/emergence survey was undertaken; however, no bats were recorded during the survey and no bats were recorded or observed emerging from the target building.

The building is therefore not considered to be a bat roost and no further surveys are recommended.

4.2 Main Recommendations

Given the findings of the survey, it is very unlikely that bats are roosting in the target building. It is therefore advised that precautionary working methods are undertaken during the demolition of the building, including:

- Site personnel will be made aware of the potential presence of bats through a toolbox talk;
- If a bat is found, or the presence of bats is suspected, all work must stop immediately, and a licensed bat worker must be contacted for advice;
- Bats must not be handled under any circumstances; and
- An ecologist will assess a potential roost space (if identified/found) and inform NatureScot of the proposed actions to be undertaken.



4.3 Ecological Enhancement Plan

Overall, the site is assessed as providing low suitability to support protected species. The following enhancements will be made to increase biodiversity and provide a net gain following the completion of the development. The enhancements proposed will increase opportunities for local biodiversity and will be implemented at the outset of the works to provide habitat for protected species at an early stage.

4.4 Bat Box

As part of the design and layout, a surface-mounted Beaumaris Woodstone Bat Box will be placed on the western end of the stable building to create roosting opportunities for bat species identified during the survey such as common and soprano pipistrelle bats. The western end of the building is the least disturbed and will provide access to habitats adjacent to the barn including grassland and trees.

This bat box is made entirely from woodstone, a robust material comprising concrete and wood fibres which will not rot, leak, crack or warp. This means that the box has excellent insulating properties maintaining a more consistent temperature throughout the year and provides excellent protection from predators. The Beaumaris box has a single narrow entrance, making it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Brandt's bat and whiskered bat. The box's interior has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight.

The exterior surface of the bat box is stained with black water-based wood stain for improved thermal input, whilst avoiding any possibility of deterring use by bats due to vapour from the stain. This also protects the bat box and ensures it will remain viable for a number of years.

4.5 Nesting Swallows

As part of the design and layout, four swallow nest boxes with concrete canopy will be placed on the northern side of the building to create nesting opportunities for bird species as part of the overall design. The northern side is the least disturbed for this species and has access to foraging habitat such as the grassland adjacent.

These boxes can be wall mounted and have a canopy to reduce the disturbance from the rain and wind as well as predators.

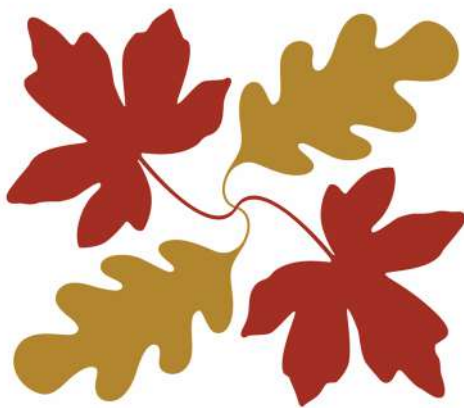
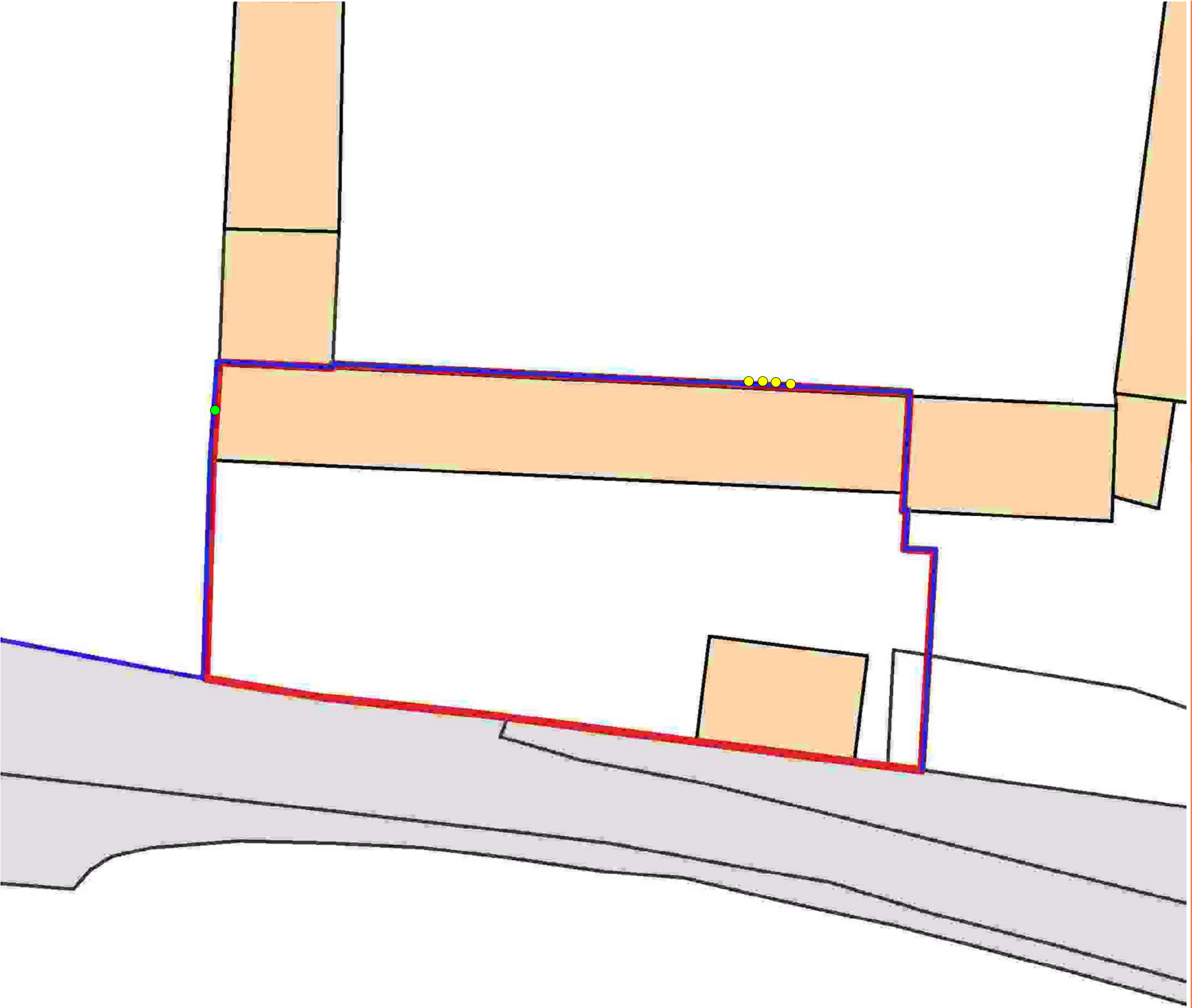


Figure 1: showing a swallow nest box with concrete canopy





Appendix A – Ecological Habitat Enhancements



ELLENDALE
ENVIRONMENTAL

Drawing Title;
Reybridge Farm Stables
Ecological Enhancements Plan

Client;
CMS Architects

Date; 09/08/24	Drawn By; SP
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Project Number; EEL639	Version Number; v1.0
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Ecological Enhancements

- Bat Box
- Swallow Nest Cup