PURE ECOLOGY

Canon Frome Court

Herefordshire HR8 2TD

Ecological Assessment

February 2021

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	Signed	**Name**	**Position**	**Date**
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Executive Summary

Canon Frome Court is owned by the Windflower Housing Association. It is a Grade 2 listed country house with associated outbuildings and land that is run as an organic cooperative farming community. The grounds of the country house include a large pond, which is a non-statutory designated wildlife site in Herefordshire (known as Pond at Canon Frome Court Special Wildlife Site). Windflower Housing Association are applying for planning permission for additional residential accommodation, with proposals to convert the following outbuildings to new dwellings:

- The Dairy Stores - conversion of a contiguous group of outbuildings to a single-storey two-bedroom dwelling.
- The Workshops – accommodation for two two-bed dwellings.

Improvements to the existing Storage Units adjacent to the Workshops are also being provided for a new joinery workshop and apple store.

The cellars of the Grade II listed country house support lesser horseshoe bats (*Rhinolophus hipposideros*). It is significant lesser horseshoe bat roost that is used throughout the year, with an estimated 85 bats breeding in summer (August) 2020 and a hibernation count of 89 bats in January 2021. The bat roost is evaluated as being of County Importance.

Baseline information for this ecological assessment has been gathered through desk study and field surveys in 2020 and 2021. An appraisal for protected species of all buildings within the application site was undertaken in June 2020 and two dusk surveys of the Dairy Stores and Workshops buildings were undertaken in August and September 2020. Lesser horseshoe bat activity surveys were also undertaken between August and October 2020 to record bat flight line routes from the cellar roost.

The Dairy Stores are in close proximity to the lesser horseshoe bat roost entrances from the cellar of the country house. This places the buildings within the bat roost flight path corridor. The majority of the lesser horseshoe bats exiting the roost follow a northerly route towards the Pond at Canon Frome Court SWS, which is approximately 50m from the roost. The lesser horseshoe bats navigate around the buildings, and whilst the proposed scheme does not significantly alter the building layout, the change to residential use will introduce new lighting. The bat roost is however within the existing residential curtilage of the property and bats are habituated to the domestic surroundings. A mitigation plan to protect the lesser horseshoe bat roost flight lines has been developed for the Dairy Stores. The key principal of the mitigation strategy is to protect dark flight areas and avoid disturbance by providing screening from landscape planting, fitting low light emittance glazed windows to reduce light spill from internal sources and modifying existing external lamps by replacing a floodlight with more environmentally sensitive lighting.

The Dairy Stores and Workshop buildings themselves have limited opportunities for roosting bats, but the dusk surveys recorded a common pipistrelle (*Pipistrellus pipistrellus)* day roost in the Workshop buildings. This low conservation significance roost will be mitigated by a bat box scheme and a Natural England Bat Mitigation Licence will be required for the development.

There are no predicted impacts on the Pond at Canon Frome Court SWS, or other non-statutory or statutory designated wildlife sites in the local area.

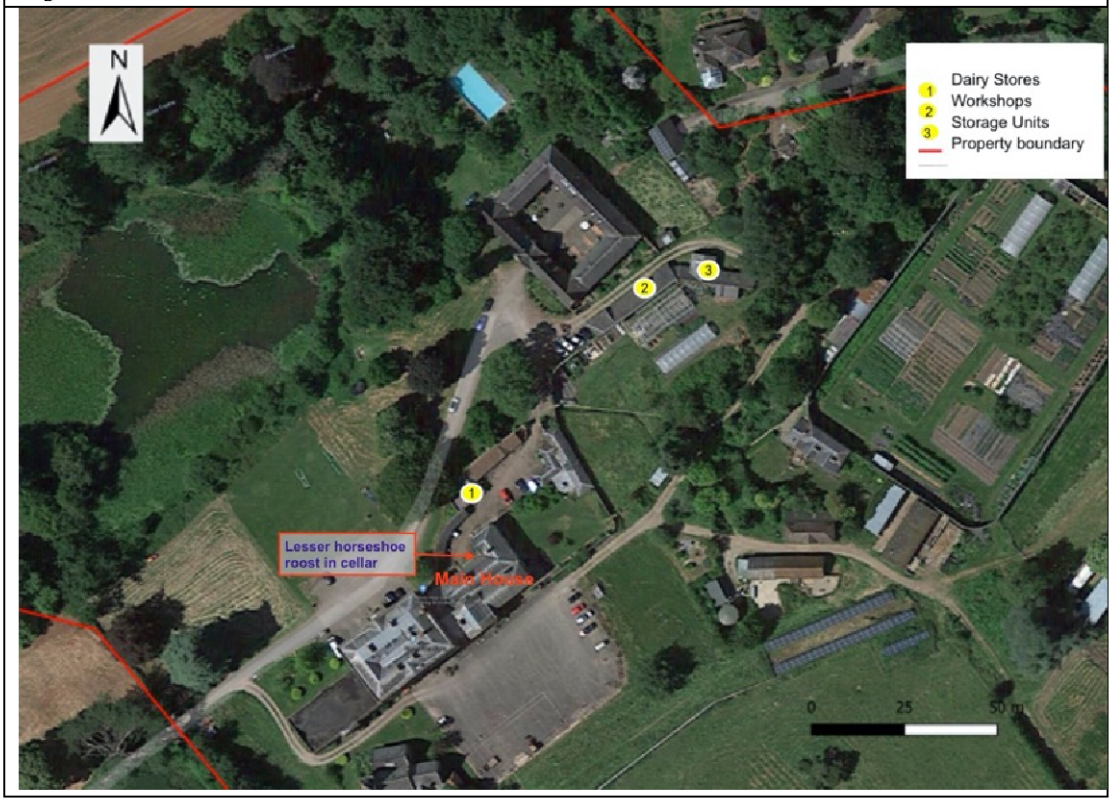
1 Introduction

1.1 Site Description

Canon Frome Court is a Grade II listed country house dating from 1786, but much extended through the 19th and 20th centuries. As well as the house, Canon Frome Court includes a Grade II listed church, numerous outbuildings and associated agricultural land. The building, its land and outbuildings are run as a cooperative farming community. Cellars below the Grade II listed country house (hereafter referred to as the 'main house') support lesser horseshoe bats (*Rhinolophus hipposideros*), with the roost occupied throughout the year supporting a maternity colony in summer and used for hibernation during winter. Records of the roost held by Herefordshire Biological Records Centre (HBRC) date back to 1986, and showed a peak count of 88 bats recorded in 2007.

The project areas for this report (referred to as 'the Sites') are two groups of outbuildings known as the 'Dairy Stores' and 'Workshops' that will be converted to residential use. There is also a proposal to improve the Storage Units adjacent to the Workshops by installing new concrete slab floors and internal blockwork walls to 2m high. The project area layout is shown on Figure 1. The lesser horseshoe bat roost in the main house cellars is adjacent to the Dairy Stores.

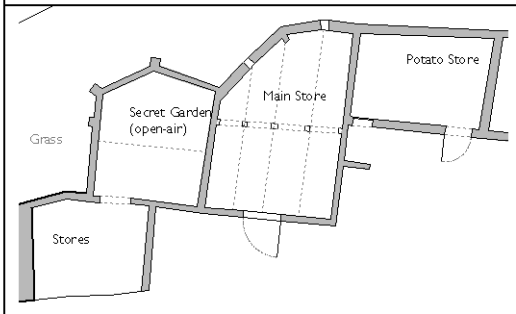
Figure 1. Site Locations within Canon Frome Court



The Dairy Stores

The Dairy Stores are a set of storage buildings with brick walls and slate/ concrete tiled roofs. There are three distinct areas referred to as the as the 'Secret Garden', the 'Main Store' and 'Potato Store', as shown on Figure 2. The Main Store is the largest of the rooms and is used to store tools and various farm resources, such as fencing posts. Internally it has a partially timber-lined roof with wood support structure and exposed brick walls. The Secret Garden is an enclosed yard with concrete floor that is partially covered by a timber framed structure with corrugated plastic roof. The Potato Store is also brick walled with a wooden framed ply-board roof.

Figure 2. Survey Drawing of Dairy Stores



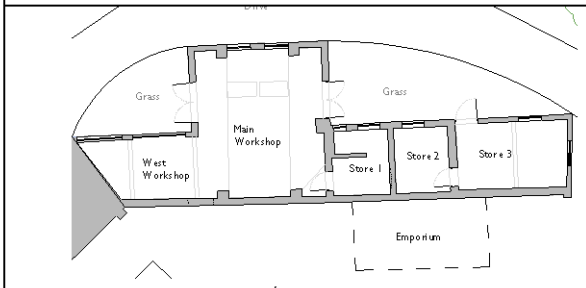
Taken from drawing 2628/110 by Caroe & Partners Architects

Plate 1. Diary Stores Frontage

Workshops

The Workshops building is a brick walled roughly 'L' shaped single-storey building with a mono-pitched slate-tiled roof above the storerooms and a pitched roof above the workshop. It has several wooden framed windows and wooden doors. To the rear there is a lean-to type structure, known as the Emporium, with wooden ship-lap walls and a bitumen felt type roof. Internally, the Workshop is divided up into several distinct compartments including three storerooms and one large and open workshop area. Inside, the roof has a partially exposed wooden framed structure, plastered walls and a solid concrete floor. There is no accessible roof void and the internal walls are generally in good condition. The building is still in use as a workshop and food-store area.

Figure 3. Survey Drawing of the Workshop



Taken from drawing 2628/110 by Caroe & Partners Architects

Plate 2. North Elevation of Workshop

Storage Units

The Storage Units are an open fronted brick building, with a slate lean-to roof that has a plastic membrane lining. The building has a timber sub-frame and there are four bays used for the storage of equipment and wood plus a workshop, separated from the stores by a three-quarter height timber partition wall. There is natural light throughout the stores from the open front and roof lights.

Figure 4. Survey Drawing of the Storage Units

Taken from drawing PL 4001 by Arbor Architects

Plate 3. Front of the Storage Units from the Workshop End

1.2 Proposed Scheme

A planning application for additional residential accommodation at Canon Frome Court will convert the following outbuildings to new dwellings:

- The Dairy Stores - conversion of the contiguous group of outbuildings to a single-storey two-bedroom dwelling.
- The Workshops – accommodation for two two-bed dwellings.

Improvements to the existing Storage Units adjacent to the Workshops are being provided for a new joinery workshop and apple store.

The design proposals are provided in Appendix 1.

1.3 Scope of the Study

This report provides an ecological impact assessment of the development proposals at Canon Frome Court. Details are given of the survey methodologies used to gather baseline information and the relevant legislation and policies that have guided the assessment. The objectives of the study are:

- Provide an appropriate ecological baseline to evaluate the nature conservation interest of the Sites and identify features of ecological importance;
- Assess the impacts of development against the ecological baseline and any effects on important ecological features (including habitats, species and ecosystem functions and processes);

- Incorporate mitigation and compensation measures within the development to avoid, reduce and counter negative ecological impacts and their effects on wildlife, and ecological enhancement to deliver biodiversity gain through the planning system.

2 Methodology

2.1 Desk Study

A data search was commissioned from HBRC in June 2020 to obtain details of non-statutory designated sites for nature conservation, and records of protected species within a 2km radius of Canon Frome Court.

The Multi-Agency Geographic Information for the Countryside (www.magic.gov.uk) was used to obtain information regarding statutory designated sites. Online mapping and aerial photograph resources such as GoogleEarth and Bing Maps (www.bingmaps.com) were also consulted for contextual information.

2.2 Building Inspections

A detailed inspection of the Dairy Stores and Workshops was undertaken on the 15th June 2020 to look for evidence of bats and to assess the potential of the buildings to provide shelter for bats. The survey also considered the presence of nesting birds in the buildings. The inspection was carried out according to best practice guidelines published by the Bat Conservation Trust (Collins, 2016). This involves a systematic internal and external inspection to investigate:

- The presence of roosting bats or evidence of use, including bat droppings, feeding remains, scratch marks, urine staining or the remains of dead bats;
- Building features bats could potentially use for roosting, such as enclosed roof spaces, gaps between the roof and walls, crevices in walls and cracks or gaps around windows and door frames.

A powerful Clulite torch with a 500m spot beam and close-focusing binoculars were used to examine the exterior of the buildings and a ladder was used for access to the some of the accessible areas of the walls and roof where close inspection was necessary.

A roost count of the lesser horseshoe bat roost in the cellars of the main house was undertaken on the 13th August 2020 and 15th January 2021 to monitor the number of bats in the summer maternity colony and winter hibernation roost.

A building inspection of the Storage Units was undertaken on the 21st January 2021.

2.3 Dusk Building Surveys

Two dusk emergence surveys were undertaken to determine the presence or likely absence of crevice roosting bats in the Workshops and Dairy Stores, which had low bat roost potential. Two surveyors were positioned on either side of the buildings as shown on Figures 5a and 5b to provide visual coverage of the building elevations and potential bat access points in the roofs.

The timing and weather conditions during the surveys are given in Table 1 below. Surveyors were equipped with Elekon BatloggerM and Wildlife Acoustic Echometer Touch bat detectors that record bat echolocation calls in full spectrum output. The recorded bat calls can be analysed with Kaleidoscope and BatExplorer software to aide species identification.

Table 1. Timings and Weather Conditions for Dusk Bat Activity Surveys of Workshops and Dairy Stores

Date (2020)	**Survey Period (hrs)**	**Sunset (hrs)**	**Weather**
22 August	20:10-21:30	20:17	Partly cloudy (60% cloud) 17°C Wind BF 2 Dry
21 September	19:00-20:45	19:10	Mostly clear (10% cloud) 15°C Wind BF 1 Dry
BF – Beaufort Scale			

Figure 5a. Surveyor Positions (S1 & S2) for Dusk Surveys on the Dairy

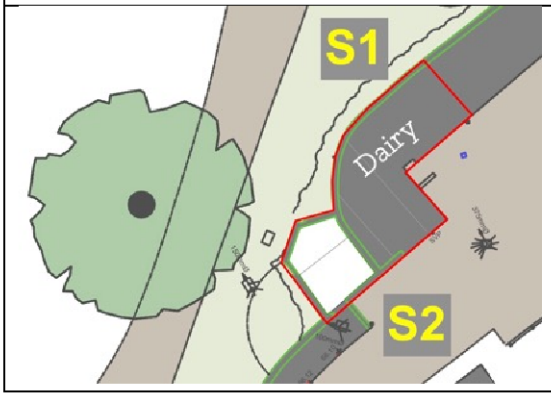
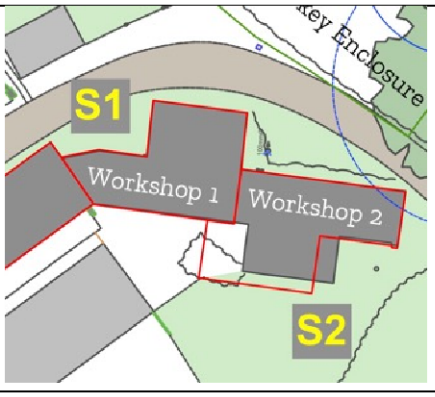


Figure 5b. Surveyor Positions (S1 & S2) for Dusk Surveys on the Workshop



2.4 Lesser Horseshoe Bat Roost Flight Line Surveys

To identify the most important flight lines lesser horseshoe bats take from the roost in the cellar of the main house a team of seven surveyors (ref. S1-S7) equipped with

frequency division or real-time bat detectors were positioned around the Dairy Stores as shown on Figure 6, to monitor bat roost flight lines. The surveyors were positioned to record the following information:

S1 & S2 Roost count to determine how many bats emerged from the two cellar entrances and the direction of movement of bats when leaving the building.

S3 Record bat flight lines through the Secret Garden

S4 Count the number of bats that flew east through the tarmac yard between the main house and Dairy Stores (to the driveway entrance).

S5 Count of bats flying over the Dairy Stores building and using the canopy cover of the mulberry tree.

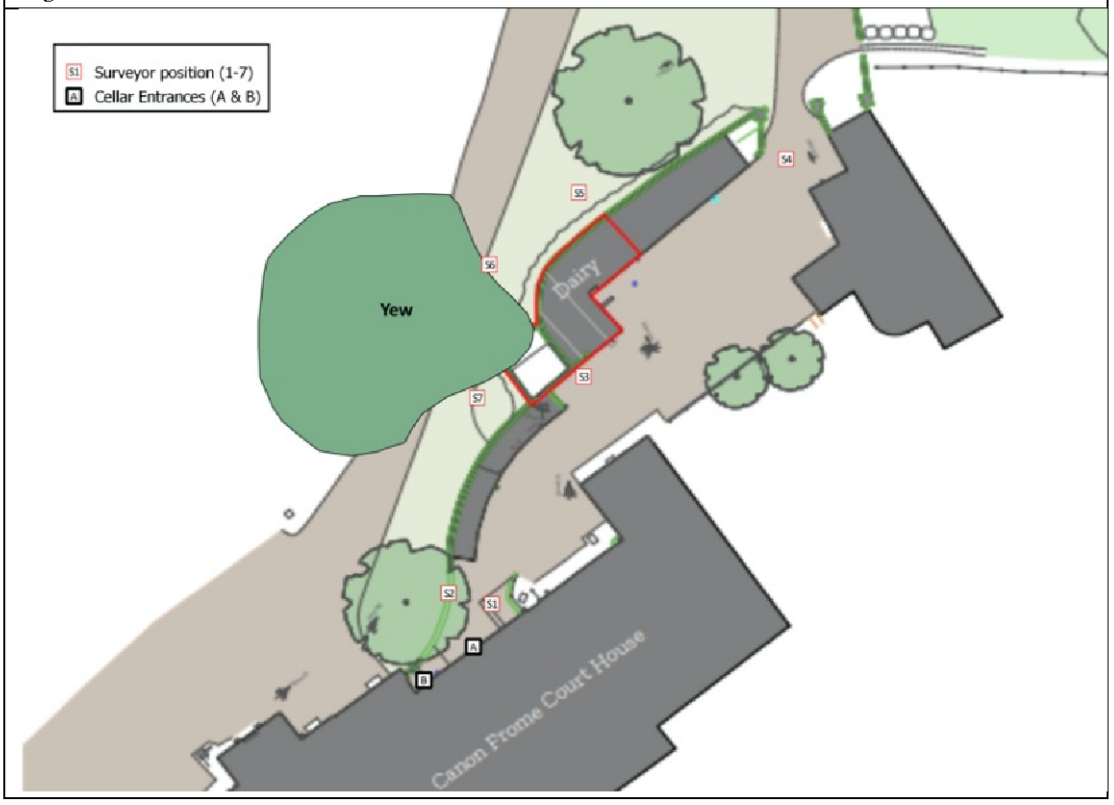
S6 & S7 Count of bats flying over the wall and using the canopy cover of the yew tree.

Surveyors recorded observations of lesser horseshoe bat flight behaviour. Bats in flight were identified from echolocation calls around 108kHz and their direction of travel was logged as a 'bat pass'. A tally of lesser horseshoe bat passes was recorded in ten-minute intervals from sunset for the survey period to show the general temporal variation in flight line patterns of movement.

Table 2. Bat Flight Line Survey Details

Date (2020)	**Survey Period (hrs)**	**Sunset (hrs)**	**Weather**
21 August	20:10-21:30	20:18	Partly cloudy (40% cloud) 17°C Wind BF 1 Dry
20 September	19:00-20:30	19:12	Cloudy (60% cloud) 15°C Wind BF 1 Dry
16 October	18:00-19:20	18:09	Partly cloudy (40% cloud) 13°C Wind BF 2 Dry
BF – Beaufort Scale			

Figure 6. Surveyor Positions for Lesser Horseshoe Bat Roost Flight Line Monitoring



2.5 Personnel

Mr. Anton Kattan MSc MCIEEM was the lead surveyor for the bat surveys and undertook the dusk building surveys with assistance from Mr. Dominic Hill Student CIEEM. Mr Kattan holds a bat survey licence level 2 Class CL18 from Natural England (ref. 2015-12201-CLS-CLS) and has 20 years professional experience as a consultant ecologist. Bat flight line surveys were undertaken with the assistance of five volunteers from Canon Frome Court.

2.6 Study Limitations

There were no significant study constraints. The lesser horseshoe bat flight line surveys were undertaken with assistance from volunteers in order to provide as much visual coverage as possible during the roost emergence. Volunteers were given a briefing by Mr. Anton Kattan or Mr. Dominic Hill, with instruction on recording lesser horseshoe bat passes. All surveyors could competently use the bat detectors and identify lesser horseshoe bats from echolocation calls.

3 Results

3.1 Designated Sites

3.1.1 Statutory Designated Sites

There are no statutory designated sites within a 2km radius of Canon Frome Court.

River Lugg Site of Special Scientific Interest (SSSI) is approximately 9.6km southwest of Canon Frome Court. Although the River Lugg is not in close proximity to Canon Frome Court, the River Frome is a tributary of the river and is less than 0.1km from the Sites. Furthermore, the River Lugg is a component part of the River Wye Special Area of Conservation (SAC). The River Wye SAC is designated due to its importance for otter, several fish species (grayling, salmon, bullhead, lamprey and shad), freshwater pearl mussel and white-clawed crayfish and Annex 1 habitats of primary importance are *"Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation"*.

3.1.2 Non-statutory Designated Sites

There are seven non-statutory Local Wildlife Sites (known as either Special Wildlife Sites (SWS) or Sites of Importance for Nature Conservation (SINC) in Herefordshire). These are listed in Table 3 and shown on the HBRC map in Appendix 2.

Table 3: Non-Statutory Wildlife Sites within 2km of Canon Frome Court

Site Code*	**Name**	**Description**	**Proximity**
SO64/11	Pond at Canon Frome Court	Pond with nesting birds	50m NW of the Workshop
SO65/10	River Frome	Riparian habitat and associated species	100m N of the Workshop
SO64/14	Woodland near Millend Cottage	Woodland with nightingales	150m NE of the Workshop
SO64/13	Old canal at Ashperton	Canal habitat and species	0.9km S of Workshop
SO64/16	Meephill Coppice and Childer Wood	Ancient Woodland	1km E of Dairy Store
SO64/15	Hansnett Wood	Ancient Woodland	1.5km SE of Dairy Store
SO64/10	Blackway Coppice	Ancient Woodland	1.65km N of the Workshop
*Reference given on the HBRC map in Appendix 2.			

3.2 Building Appraisal

3.2.1 Overview

There are three locations for the Sites at Canon Frome Court, as shown on Figure 1 in Section 1.1. The Dairy Stores and Workshops are existing estate buildings that will be converted to residential use. As such, the ecological assessment of these buildings is primarily concerned with protected species that are associated with buildings, namely bats at nesting birds. In addition to the proposed residential development, building improvements are being made to the Storage Units adjacent to the Workshop.

3.2.2 The Dairy Stores

The Dairy Stores are comprised of several interconnected buildings that are now used for storage. The building layout shown on Figure 2 (Section 1.1) includes an area known as the 'Secret Garden', a wall courtyard with partial roof cover. The stores have a similar construction, with brick walls and a wood framed slate tiled roof.

Exterior

Main Store

The walls and roof are generally in good condition with few obvious crevices, gaps or other features available to roosting bats.

The pitched slate roof of the main store is generally tightly fitted and complete, and therefore has limited opportunities for roosting bats and nesting birds.

Stores

The stores are open-fronted with a rear door that leads through to the Secret Garden. When shut, this door is sealed other than a gap at the base.

The roof of the stores are slate covered and in relatively good condition apart from occasional lifted tiles and small areas of lifted lead flashing along the ridge in some areas, as shown in the photograph. This offers limited opportunities for roosting bats. The gaps appear to be narrow, and crevices are small and therefore unsuitable for communal bat roosts.

Potato Store

The potato store is a small building with a sloped (single aspect) roof that has a Spanish style clay tiled cover. The roof cover is in relatively good condition, and whilst there are gaps at the eaves because of the tile design the tiles themselves are tightly fitted with limited potential for roosting bats or nesting birds.

Interior

Main Store

The main store is a wooden framed building. The roof is partially lined with fleece insulation and wooden sarking. The building is open fronted with a small open rear window.

No signs of bats were found, but there are crevices in the roof. The absence of bat droppings indicates there is no significant bat roost activity within the interior. No evidence of nesting birds was recorded.

Potato Store

This room is a sealed food storage area and there are no entry points from the outside for bats or birds.

Secret Garden

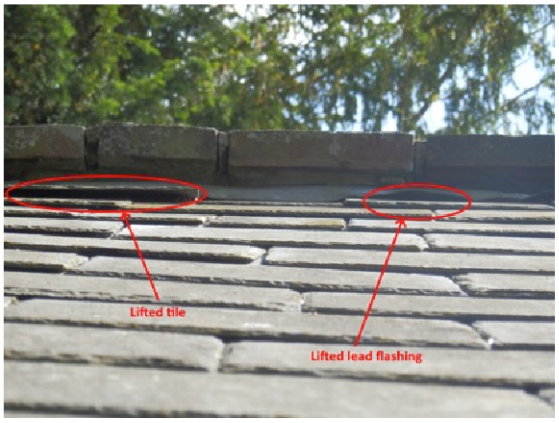
This is a yard partially covered by a plastic roof. No evidence of bats was found. The space is exposed, and lacks any crevices that could be utilized by bats therefore has negligible potential to support roosting bats.

3.2.3 The Workshops

The building layout is shown on Figure 3 (Section 1.1). The Workshop has a north and east gable, forming a roughly 'L' shape plan. The west workshop adjoins the Storage Units, which are along an access track that leads from the main house.

Exterior

The exterior of the building is generally in good condition. The brick walls and wooden window frames are well sealed and there are no crevices for bats or birds to exploit.



The slate-covered roof is also generally in good condition, but there are several raised tiles and areas of lifted lead flashing, particularly along the top of the roof, which could not be closely inspected.

North gable

There are gaps under the eaves of the gable of the main workshop area which are over 1.5cm wide and at least 10cm deep. These were closely inspected and no signs of bats were found.

There is also a gap under the barge boarding on the north side of the workshop which is over 1.5cm wide and runs the entire length. This was also closely inspected and no evidence of bats was discovered.

East Gable

There is a gap in the weatherboarding on the northeastern corner which forms a sizeable cavity.

There is also a gap beneath the roof tiles at the top of the wall, which is several centimeters wide and forms a deep cavity.

Both areas were inspected with a torch and no evidence of bats or nesting birds was found.

South side and emporium

The 'emporium' is a lean-to structure on the southern side of the workshops. It is a timber shed with shiplap panels and new bitumen felt roof.

The building is generally unsuitable for protected species. There is no evidence of nesting birds and there are no crevice features for roosting bats. Furthermore, there are no bat droppings within the building interior.

Interior

Workshops

The main and west workshops have plastered walls and ceiling and a concrete floor. The roof frame is a partially exposed. There is small inaccessible roof cavity, which is insulted with fiberglass. There are no obvious gaps, crevices or holes in the fabric of the building, and it is generally in good condition.

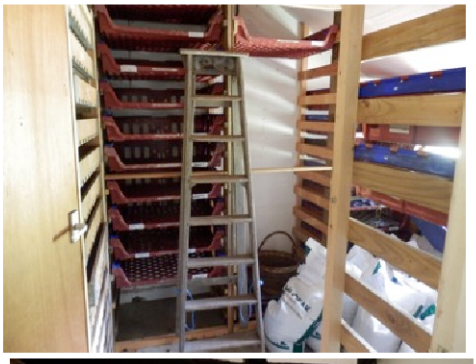
Store 1

Store 1 is similarly well maintained and does there are no gaps or crevices in the building fabric.

There is no evidence of nesting birds or roosting bats. Furthermore, there are no obvious roost access points to the inside of the workshop or store (windows are closed at night).

Stores 2 and 3

Both Store 2 (adjacent photo) and Store 3 (photo below) have plaster-boarded walls and ceiling and concrete floors. The fabric of the building is in good condition and there are no cavities, gaps or other features which may be utilized by birds or bats. Furthermore, no field signs of birds or bats was discovered.



There is no bat roosting potential in either Store 2 or 3. Both are food stores and so are very well sealed from the outside.

3.2.4 Storage Units

The Storage Units are an open fronted structure fronting onto a track. The building layout is shown on Figure 4 (Section 1.1) and there is a workshop at one end and garden store at the other, and the central bays are used as a woodstore.

Exterior

The slate lean-to roof is against a large garden wall and the structure has a timber sub-frame. The roof is in good condition with tightly fitted slates.

There are no opportunities on the building exterior for bats to roost.

Interior

The roof is lined with a plastic membrane. There is natural light throughout the stores because of the open front and roof lights, and there are no enclosed voids or rooms in the building. There was no significant evidence of use by lesser horseshoe bats.

3.3 Bats

3.3.1 HBRC Desk Study

Lesser Horseshoe Bat Roost in the Main House Cellar

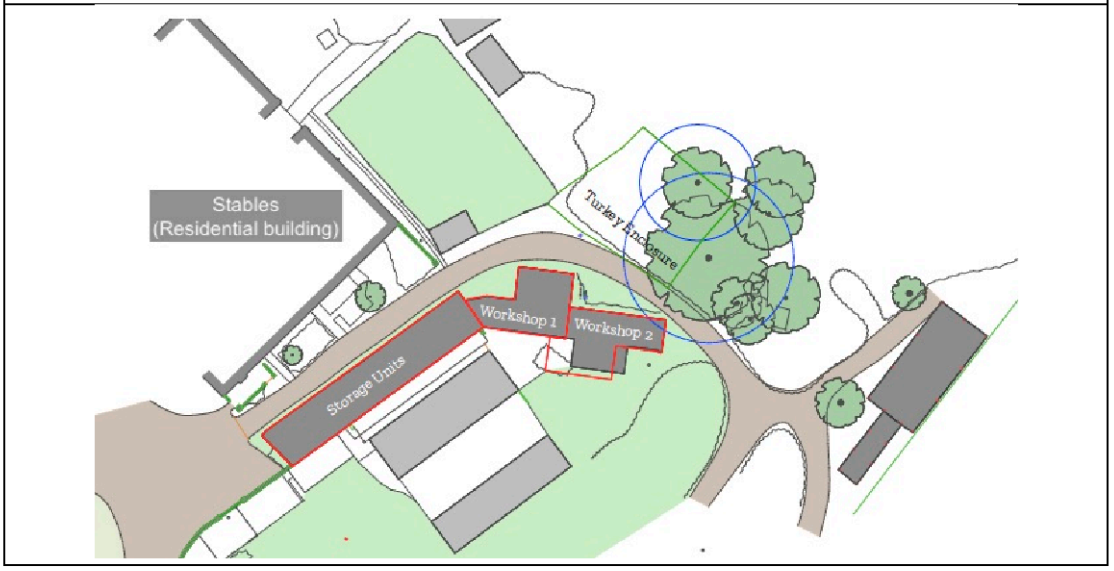
The cellar of the main house (shown on Figure 1 in Section 1.1) supports an important lesser horseshoe roost, with a peak of 88 bats recorded in 2007. The roost is a maternity roost in summer (when peak counts occur), but is used throughout the year and is an important hibernation site with reports of up to 50 bats in winter and regular winter counts of around 20 bats (*pers. comm.* Dave Smith, Herefordshire Bat Group). There is also a report of one greater horseshoe bat (*Rhinolophus ferrumequinnum*) being present and low numbers of brown long-eared bats (*Plecotus auritus*).

The cellar doorways and roost entrances under the main house are directly opposite the Dairy Stores. The Dairy Stores are less than ten metres from the lesser horseshoe bat roost entrance.

Common Pipistrelle Bat Roost in Stables

HBRC holds records of a communal common pipistrelle roost (*Pipistrellus pipistrellus*) at Canon Frome Court since 2004, with a peak count of 88 bats in 2007. The most recent record of common pipistrelle bats at Canon Frome Court is a low count of two bats roosting in 2017. Dave Smith of Herefordshire Bat Group confirmed the records relate to a maternity roost in the Stables Block, a large building converted to residential dwellings. The stables are on the opposite side of the track to the Storage Units as shown on Figure 7, although the proximity of the common pipistrelle roost to the Sites is not known.

Figure 7. Plan showing the location of the Stables (a Residential Building)



3.4 Bat Roost Assessment

The Dairy Stores and Workshops were assessed as having low suitability for roosting bats, and no evidence of significant use by lesser horseshoe bats was found. The Storage Units have negligible bat roost potential because there are no crevice roost features within the building fabric and no dark or enclosed internal areas. The roost potential is described in the building descriptions given in Section 3.2.

Bat roost potential in the Dairy Stores and Workshop was predominantly associated with small external crevice features that could provide shelter for low numbers of bats. The subsequent dusk bat activity surveys recorded two common pipistrelle bats roosting on the exterior of the Workshops.

Dairy Stores	Gaps under the slates and at the eaves of the Dairy Stores have low bat roost potential, but no bats were seen to emerge from these building features during the dusk surveys on the 22nd August and 21st September 2020. **No bat roosts recorded in the Dairy Stores**
Workshops	Low potential roost features on the Workshop are associated with lifted tiles and gaps at the gables and at the edge of the roof. Two common pipistrelle bats emerged from behind a hanging tile on the east side of the Workshop 1 building during the dusk survey on the 21st September. No bats emerged during the survey on the 22nd August. The roost location is shown on Figure 9. *Figure 9. Roost Feature is Circled on the Photo of the Workshop and an Arrow Indicates its Location on the Drawing*  **The Workshop supports a common pipistrelle day roost that is intermittently occupied during summer by two bats.**
Storage Units	The storage units have negligible bat roost potential. There are no significant crevice roost features within the building fabric or enclosed spaces/voids for bats to shelter. The building interior space is exposed and well lit by natural light. There are no field signs of roosting bats within the Storage Units. **The Storage Units have negligible bat roost potential.**

3.5 Lesser Horseshoe Bat Roost in the Main House Cellar

3.5.1 Roost Count

The count of lesser horseshoe bats in the cellar of the main house to monitor the roost over the study period for this report is provided in Table 4.

Table 4. Roost Count in Cellar of the Main House

Date	Count	Bat Species	Description
13/08/20	85	Lesser horseshoe	Bats were active, and some bats were in flight
	1	Daubenton's (*Myotis daubentonii*)	Day roosting bat in a crevice
15/01/21	89	Lesser horseshoe	Hibernating bats
	1	Brown long-eared bat	Hibernating bat

3.5.2 Lesser Horseshoe Flight Lines

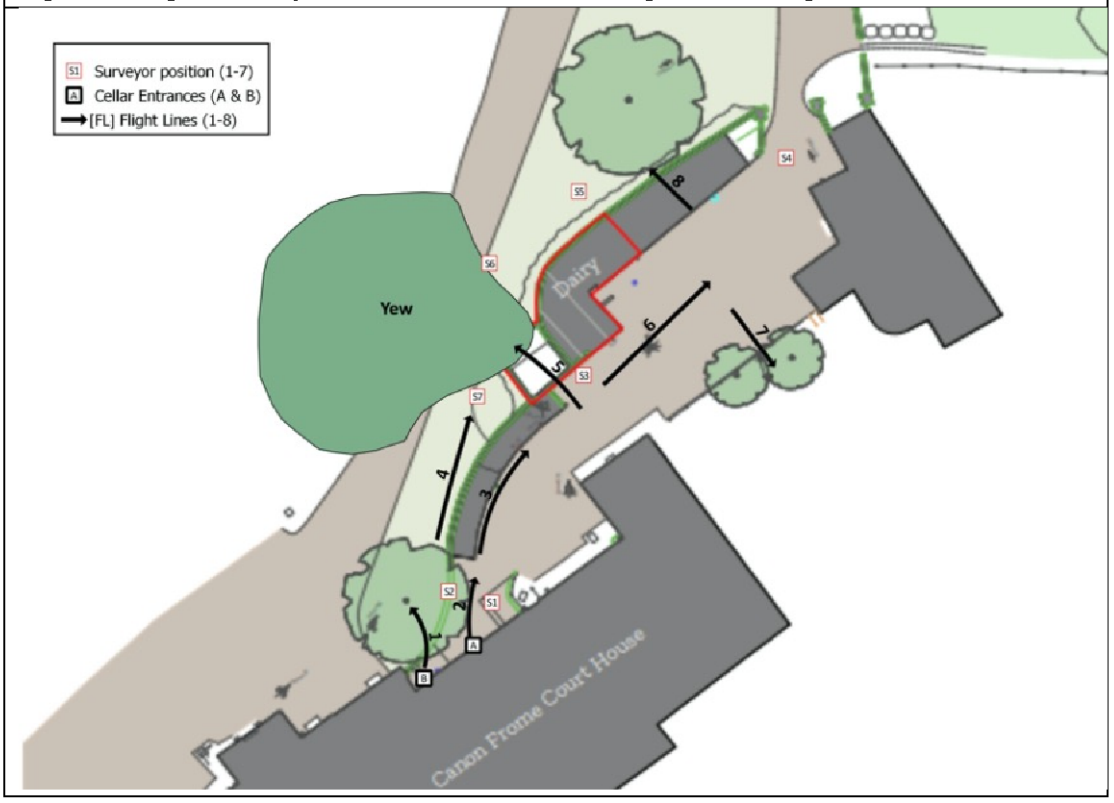
The study of lesser horseshoe flight lines from the cellar roost in the main house identified eight flight paths around the Dairy Stores, as shown on Figure 8. The general direction of travel from the cellar roost entrances is north-west towards 'Pond at Canon Frome Court' SWS and the majority of the bats are using the shelter of the tree canopy of the large yew, which in on the verge of the driveway. Most lesser horseshoe bats emerged from cellar entrance A and high numbers of bats were recorded on Flight Lines (FL) 1-5, which connect between the roost and large yew tree, to the north. Low numbers of bats flew through the court yard (FL 6), but the majority of the lesser horseshoe colony appears to be travelling towards foraging areas to the north. The results of the flight line surveys are detailed in Table 5. The door to the Secret Garden in the Dairy Stores was closed during the August and October surveys and open in September. This influenced the lesser horseshoe flight patterns on FL 5 and flight the behaviour recorded at surveyor position S3.

Table 5. Lesser Horseshoe Bat Flight Line Surveys

Surveyor Position	Date (2020)		
	21 August	20 September	16 October
S1	87 bats out of cellar entrance A, of which: • 22 followed FL 1 • 65 followed FL 2	93 bats out of cellar entrance A, of which: • 60 followed FL 1 • 33 followed FL 2	83 bats out of cellar entrance A, of which: • 24 followed FL 1 • 59 followed FL 2
S2	No bats out of cellar entrance B, but 18 bats 'light sampling' near in the doorway.	3 bats emerged from cellar entrance B and took FL 1	1 bat emerged from cellar entrance B

S3	Approximately 70 bats using the area of FL 3, which included: • return flights towards roost entrance. • 14 bats continuing to FL 6 • 1 bat flew under the closed door to secret garden (FL 5)	40 bats passing this point, of which: • 31 flew through the open door to secret garden (FL 5). • 9 flew through the courtyard (FL 6)	26 bats passing this point, of which: • 14 flew over the roof of the stores (FL 5) • 12 returned towards the cellar roof entrance, some of which were seen over the roof of the stores flying towards the yew tree canopy
S4	1 bat recorded in courtyard 2 bats recorded on driveway	10 bats recorded at this location, which included: • return flights back towards roost. • 2 bats followed FL 7 • 1 bat followed FL 8	No bats recorded from this location
S5	13 bats taking return flights along the wall	1 bat recorded passing this point	No bats recorded at this location
S6	34 bats recorded moving north-east under yew tree, of which approximately: • 23 were from FL 4 (along wall) • 11 were from FL 5 (over store roof)	43 bats passed this point and headed north-east under yew tree	7 bats passed this point and headed north-east under yew tree
S7	28 bats followed FL 4 and headed north-east under yew tree	60 bats passed this point	33 bats at this point from FL 4
Abbreviations FL Flight lines (shown on Figure 8) S1-7 Surveyor positions (shown on Figure 8)			

Figure 8. Flight Paths of Lesser Horseshoe Bat During Roost Emergence



3.6 Breeding Birds

There is no evidence of nesting birds on the Dairy Stores, Workshops or Storage Unit buildings. Gaps and holes in the fabric of the buildings do however provide opportunities for species that nest in buildings.

4 Assessment

4.1 Overview

The following Assessment section identifies potential impacts of the development proposals on the nature conservation interest of Canon Frome Court. It provides details of the relevant legislation context of important ecological features and assesses the consequent effects on important ecological receptors. Further details of the legislation and policy that have guided this study are provided in Appendix 3.

4.2 Statutory Designated Sites

Under the European Union (Withdrawal) Act 2018, EU-derived domestic legislation, such as existing environmental regulations that implement EU Directives, and Direct EU legislation (such as The Conservation of Habitats and Species Regulations 2017) which were in force immediately prior to the end of the transition period continue to form part of UK domestic law.

Special Areas of Conservation (SAC) are designated under The Conservation of Habitats and Species Regulations 2017. The regulations provide for the designation and protection of European Sites, the protection of European protected species and the adaptation of planning and other controls for the protection of European Sites.

SSSI are notified and protected under the Wildlife and Countryside Act 1981 (as amended). These sites are notified for nature conservation purposes as they support the best examples of the UK's habitats, flora and/ or fauna.

Whilst there are no statutory designated sites within 2km of Canon From Court, the River Frome that lies c. 100m north of the Workshops is a tributary of the River Lugg SSSI, a component of the River Wye SAC. The local authority are required under terms of the Conservation of Habitats and Species Regulations 2017 to carry out a 'Habitats Regulations Assessment', for plans and projects that could potentially affect a European site. They will therefore require that sufficient information is provided on how any foul and surface water resulting from the proposed development will be managed, to allow them to inform their assessment. Provided that this information is provided in sufficient detail to allow the local authority to be satisfied that it meets the necessary standards for avoidance of pollution of the watercourse it is considered unlikely that the special interest features of the River Wye SSSI/SAC would be adversely affected by the proposed development.

4.3 Non-Statutory Designated Sites

Special Wildlife Sites (SWS) do not receive legal protection, but as identified areas of nature conservation value within the county they are recognised in both local and national planning policy.

There are three locally designated sites within 150m of the Canon Frome Sites, the closest being 'Pond at Canon Frome Court SWS', which lies c.50m from the Workshops.

Given the small-scale and localized nature of the development, negative ecological impacts on designated sites are considered unlikely, particularly given that the proposed development will not alter the environmental context of Canon Frome Court.

4.4 Bats

4.4.1 Bat Roosts

Bats are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and under The Conservation of Habitats and Species Regulations 2017. All species of bat are present on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and are subject to the provisions of Regulation 41 of those Regulations. Taken together, these protect bats

from disturbance, injury or killing and make it an offence to damage, destroy or obstruct a breeding site or resting place they use.

The Workshops supports a day roost that was occupied by two common pipistrelle bats in September. The day roost is used intermittently during summer, and was unoccupied during the August survey. Opportunities for bats to shelter are limited to a few gaps in the building fabric. The neighbouring Stables building (converted to a residential dwelling) supports a colony roost of common pipistrelle bats, and the day roost in the Workshops is likely to be individuals associated with this population.

The significance of the bat roost recorded at the Workshops has been classified in accordance with the site assessment recommended in the Bat Mitigation Guidelines (Mitchell-Jones, 2004), which provides guidance on proportional mitigation requirements based on the conservation significance of roosts.

The Workshops building is evaluated as being of low conservation significance because it supports a day roost for a common pipistrelle bats, which is a species that is common and widespread in Herefordshire and throughout the UK.

Renovation of the Workshops to convert the building for residential use will destroy one common pipistrelle day roost. This will result in the permanent loss of a day roost that is used intermittently during summer. There is also a risk that a bat/s could be killed or injured if it is present during the building works. Without mitigation the following negative impacts could occur:

- Short Term Impact: Killing or injury of two common pipistrelle bats.
- Long Term Impact: Loss of one day roost.

The bat roost is considered to be important for individual common pipistrelle bats, but not significant for the conservation of local bat populations (such as the colony roost in the neighbouring Stables), or relevant for maintaining the current distribution of this species in its natural range. The proposed development is therefore not predicted to have an impact on the favourable conservation status of the species.

Whilst the proposed development is not predicted to be detrimental to the conservation status of the bat species roosting at the site, there is a risk of disturbing animals that are sheltering, and a known roost will be destroyed. It is therefore considered necessary for the development to be licensed in order to meet the legal requirements that protect bats.

On this basis of the evidence gathered through this study it is recommended that a Natural England 'Bat Mitigation Licence' is obtained under the provisions of The Conservation of Habitats and Species Regulations 2017 as it is considered that the proposed development would result in an offence under Regulation 41 of the legislation.

The bat roost in the Workshop meets the criteria of Natural England's Bat Mitigation Class Licence (CL21) because the roost is of low conservation significance and supports low numbers of bats (of the species covered by the class licence). Natural England's Bat Mitigation Class Licence is a streamlined licensing process which allows a [qualified] 'Registered Consultant' to register the Site with Natural England. Pure Ecology employs Natural England Registered Consultants, but alternatively an individual development licence from Natural England can be obtained by the applicant under the provisions of The Conservation of Habitats and Species Regulations 2017 (as described in Appendix 3) for operations that would result in an offence under Regulation 41 of the legislation.

4.4.2 Lesser Horseshoe Bat Flight Lines

The proximity of the Dairy Stores to the cellar entrances of the lesser horseshoe roost places the Site within the roost exit flight path. The majority of the lesser horseshoe bats exiting the roost follow a northerly route towards the Pond at Canon Frome Court SWS. This primary flight corridor is shown on Figure 9.

A high proportion of the lesser horseshoe bats take flight lines to the west of the Dairy Stores, with bats using the shelter of the curtilage wall (around the yard) to navigate within a dark corridor. The extensive canopy of the large yew tree is probably the most significant influence within the immediate landscape determining roost flight lines because it creates the dark, sheltered conditions lesser horseshoe bats favour.

It is evident from the study that other localized influences affect lesser horseshoe bat flight lines, including:

- Door to the secret garden – when this door is open, bats are more likely to use the shelter of the Stores (shown on Plate 1 in Section 1.1) because they are able to fly through the secret garden.
- Floodlight – a floodlight with PIR sensor on the side of the main house (shown on Figure 9) is a deterrent to bats when triggered.

Figure 9. Primary Roost Flight Corridor for Lesser Horseshoe Bats

Change of use of the Dairy Stores to a residential dwelling will increase human activity within the yard outside the lesser horseshoe roost. Whilst the provision of a two-bed accommodate at the Site is a modest increase it does present the risk of increased ambient lighting caused by light spill from the new dwelling.

Without mitigation, this could cause disruption to lesser horseshoe bat flight lines. Whilst the surveys in 2020 demonstrate the bats can adapt to modest, localized environmental changes that occur due to the proximity of the bat roost to residential properties, light spill over the cellar entrances could sever connectivity between the roost and feeding areas.

The Dairy Stores are currently used as outbuildings, and although there are urban influences such as light spill from windows and the floodlight light on the main house, they are localized within the site context and bats are habituated to this environment. There are no proposals for external lighting, but the residential dwelling could cause an increase in light levels due to spill from windows.

Impacts on the lesser horseshoe roost associated with the internal lighting for the Dairy Stores can be alleviated through an appropriate scheme design. The design proposals for the Dairy have been ecologically informed by the findings of the lesser horseshoe flight line surveys. These considerations have shaped scheme design to ensure that features of ecological importance for the bats are protected where possible. This has primarily been achieved though control of lighting by building layout (notably, orientation of windows), restriction on external lamps and landscape planting for screening.

5 Mitigation Strategy

5.1 Overview

Canon Frome Court is an existing residential community and the inherent nature conservation interest that is associated with current land use and management practices will not be significantly altered. The design proposals for new dwellings have been ecologically informed and developed to alleviate impacts on key ecological receptors, notably those associated with the lesser horseshoe roost in the cellars of the main house. This section sets out proposed avoidance, mitigation and enhancement measures to protect features of ecological importance and support compliance with applicable nature conservation legislation and planning policy as part of the proposed planning application. The key mitigation measures are:

1. The configuration of windows and roof lights has been modified where possible to avoid bat flight paths and two windows on the northwest elevation of the Dairy Stores that are closest to the primary lesser horseshoe bat flight corridor (shown on Figure 9) will be fitted with low light emittance glazing.
2. Landscape planting to support existing bat flight line features, and mitigate impacts associated with light spill from internal sources of artificial light in the Dairy Stores.
3. Modify an existing floodlight on the main house to reduce the existing external lighting in the courtyard and improve the environmental conditions for lesser horseshoe bats close to the cellar roost entrances.
4. Bat box scheme to compensate the loss of small crevice roost features and mitigate the impact on the common pipistrelle day roost in the Workshops building.

The aim of the lighting management strategy is to maintain or reduce existing external light levels within the courtyard and control light spill to less than 0.5 lux within the primary lesser horseshoe bat flight corridor to the northeast of the Dairy Stores. A lighting plan or report from a lighting consultant will be submitted to the local authority for approval with details of a lighting management scheme for the Dairy Stores.

A Natural England 'Bat Mitigation Licence' will be required prior to renovations to the Workshops building (as discussed in Section 4.4.1). A requirement of the licence will be to undertake the work in accordance with a method statement (prepared as part of the licence application), which will include ecological supervision of repairs to the exterior of the building.

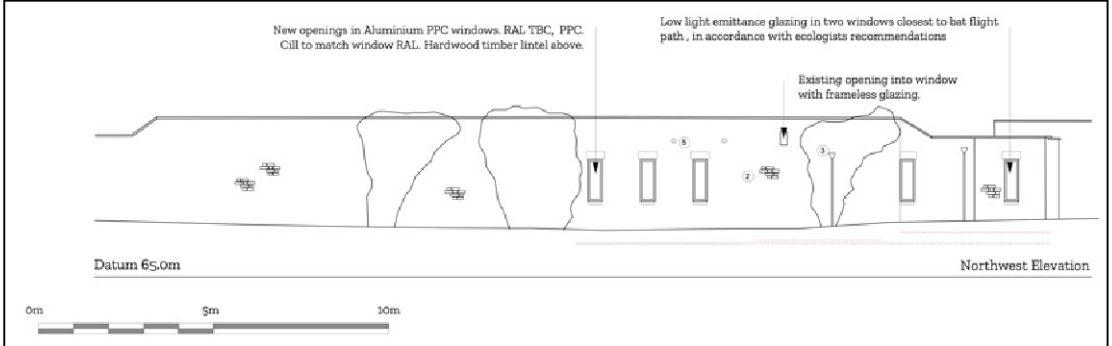
5.2 Reduced Light Spill from Internal Lighting in the Dairy Stores

The requirement for natural light within the proposed Dairy Stores dwelling was reviewed with the scheme architects (Arbor Architects Ltd.) and the construction of windows and roof lights has been modified where possible to avoid disruption to the

lesser horseshoe bat flight paths. The two windows on the northwest elevation of the Dairy Stores that are closest to the primary lesser horseshoe bat flight corridor (shown on Figure 9) will be fitted with low light emittance glazing (see Figure 10).

A lighting plan or report from a lighting consultant submitted to the local authority for approval will provide details of transmission glazing treatments and/or products selected for the windows shown on Figure 10 that will be fitted with low light emittance glazing. The light plan will provide an evidenced baseline (of existing light levels) for the Dairy Stores and predicted lux level in the primary lesser horseshoe bat flight corridor for future monitoring. Details of a three-year monitoring plan with contingency measures that can be adopted to rectify issues will be included in the lighting plan.

Figure 10. The Dairy Stores Windows to be Fitted with Low Light Emittance Glazing

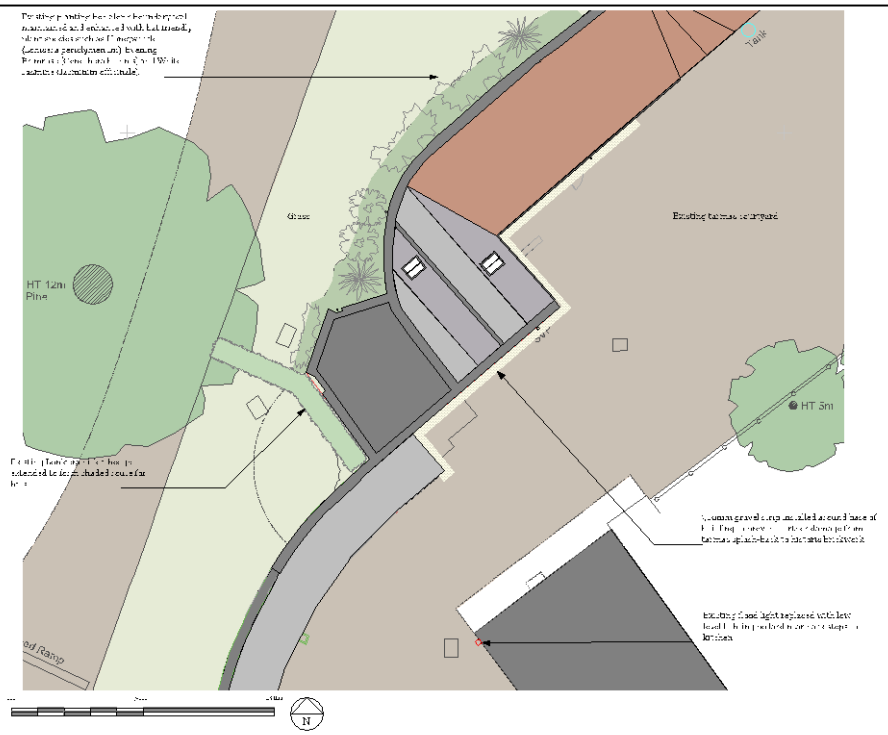


Excerpt from Drawing No. PL3005 by Arbor Architects Ltd.

5.3 Landscaping for Bat Flight lines

In conjunction with measures to reduce light from internal sources in the Dairy Stores (Section 5.2) new hedge planting will provide a physical screen to light spill. To protect the primary lesser horseshoe bat flight corridor, the existing Box Honeysuckle (*Lonicera nitida)* hedge on the northwest elevation of the Dairy Stores will be extended to the driveway, as shown on Figure 11. Box Honeysuckle is an evergreen shrub and will create a screen between the window and bat flight areas. Published research on experimental studies on lesser horseshoe bat commuting behaviour found bats rapidly adapted to the presence of lights by switching their flight paths to the dark side of a hedgerow, enabling the bats to reach foraging sites without restriction (Zeale et al. 2018). The new hedge planting will provide a feature within the primary lesser horseshoe bat flight corridor to allow bats to navigate past the Dairy Stores.

Figure 11. Hedge Planting for Lesser Horseshoe Bat Flight Lines



Copy of Drawing No. PL3007 by Arbor Architects Ltd.

5.4 Modifications to Existing External Lighting

It is recommended that an external light on the main house that is close to the lesser horseshoe cellar roost entrances is replaced with an environmentally sensitive lamp. The position of the existing lamp is shown as a floodlight on Figure 9 (Section 4.4.2) and Figure 11, and when triggered by the PIR it illuminates the primary lesser horseshoe bat flight corridor at the cellar entrance.

The key principals for choosing a suitable type of lamp are:

- Avoid blue-white short wavelength lights: these have a significant negative impact on the insect prey of bats. Use alternatives such as warm-white (long wavelength) lights as this will reduce the impact on insects and therefore bats.
- Avoid lights with high UV content: (e.g. metal halide or mercury light sources), or reduce/completely remove the UV content of the light. Use UV filters or glass housings on lamps which filter out a lot of the UV content.

Selecting an appropriate lamp unit that is designed to be environmentally friendly will minimize light spill, but further controls can be imposed by installing directional accessories such as baffles, hoods and louvres on lamps to direct light away from ecologically sensitive areas.

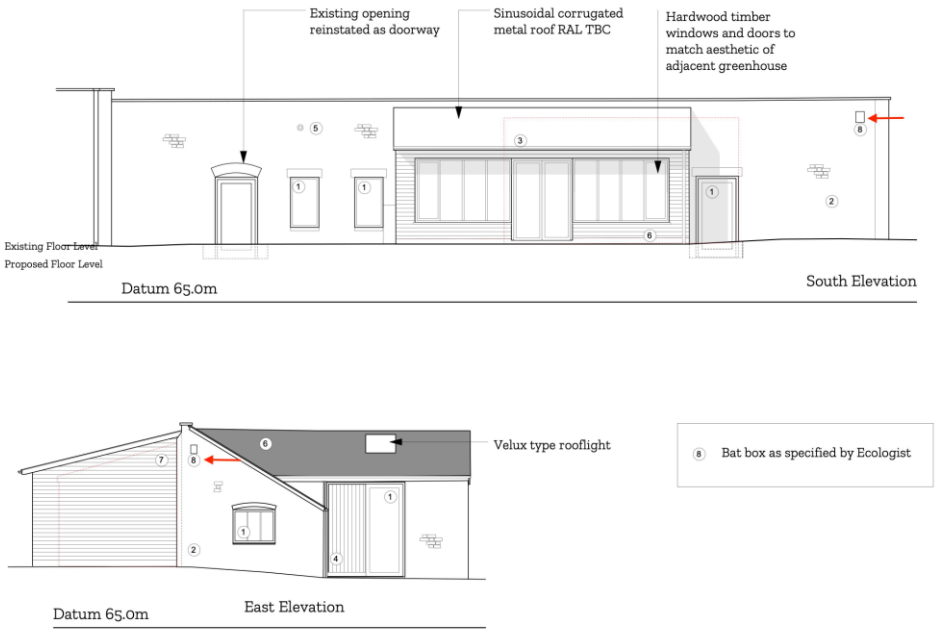
LED (Light Emitting Diode) units are an effective way to direct the light into small target areas and are recommended for lighting pedestrian access to the main house. Composite LEDs can be switched off to reduce/direct the light beam to specific areas.

The specification and details of the replacement external lamp can be submitted as part of the lighting plan.

5.5 Bat Boxes at the Workshop Site

Compensatory bat roost features that will accommodate a day roost for crevice dwelling bat species such as common pipistrelle bats will be installed in the Workshop with provision of two bat boxes integrated on the walls. The bat boxes will be installed on the south and east aspect to provide varied roost temperature regimes, with warmer roosting conditions on the southern elevation, which benefits from greater insolation. The proposed bat box scheme is shown on Figure 12. A crevice roost box such as a Schwegler 1FF is suitable for installation on the walls of the Workshop building.

Figure 12. Bat Box Proposals for the Workshops Building



Annotated on drawing PL2005 by Arbor Architects Ltd

6 References

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

Institution of Lighting Professionals 2018. *Bats and artificial lighting in the UK: Bats and the Built Environment series* (Guidance Note 08/18).

Stone, E. L., Jones, G., & Harris, S. (2009). *Street lighting disturbs commuting bats.* Current Biology, 19, 1123–1127

Stone, E. L., Jones, G., & Harris, S. (2012). *Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats.* Global Change Biology, 18, 2458–2465.

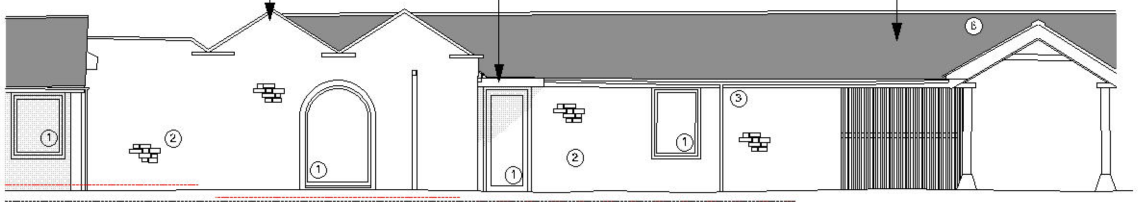
Zeale M.R., Stone E.L., Zeale E., Browne W.J., Harris S., Jones G. (2018). *Experimentally manipulating light spectra reveals the importance of dark corridors for commuting bats*. Glob. Chang. Biol., 24 (12) (2018), pp. 5909-5918

Appendix 1. Proposed Scheme

Coping stones repaired and reset where neccessary

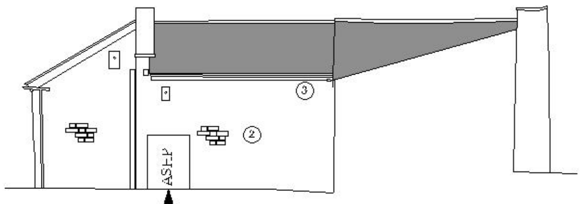
Canopy above entrance door in widened opening

Roof relaid with existing tiles and reclaimed replacement to match existing



Datum 65.0m

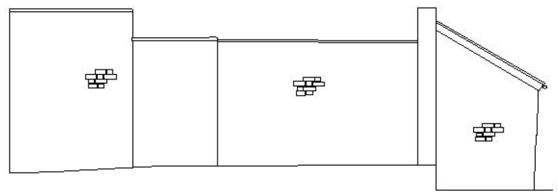
Southeast Elevation



Datum 65.0m

Northeast Elevation

ASHP with enclosure



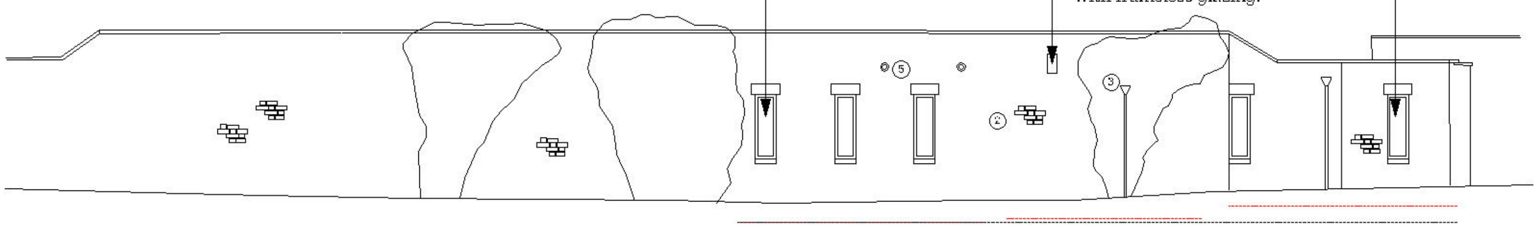
Datum 65.0m

Southwest Eleavtion

New openings in Aluminium PPC windows. RAL TBC, PPC. Cill to match window RAL. Hardwood timber lintel above.

Low light emittance glazing in two windows closest to bat flight path , in accordance with ecologists recommendations

Existing opening into window with frameless glazing.



Datum 65.0m

Northwest Elevation

0m 5m 10m

1. All window / door openings detailed in Aluminium PPC window / door RAL TBC
2. Brickwork repointed with lime mortar. Blown brickwork replaced with reclaimed brick to match existing
3. Rainwater goods in galvanised finish
4. Vertical timber hit and miss cladding in larch / douglas fir
5. Circular stainless steel grille for MVHR intake/exhaust
6. Roof relaid with existing tiles and reclaimed replacement to match existing

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DESIGNERS HAZARD IDENTIFICATION:

Key:

Line of proposed FFL

Line of existing FFL

Revisions

Revision No.	Date	Description	Drawn	Checked

PLANNING

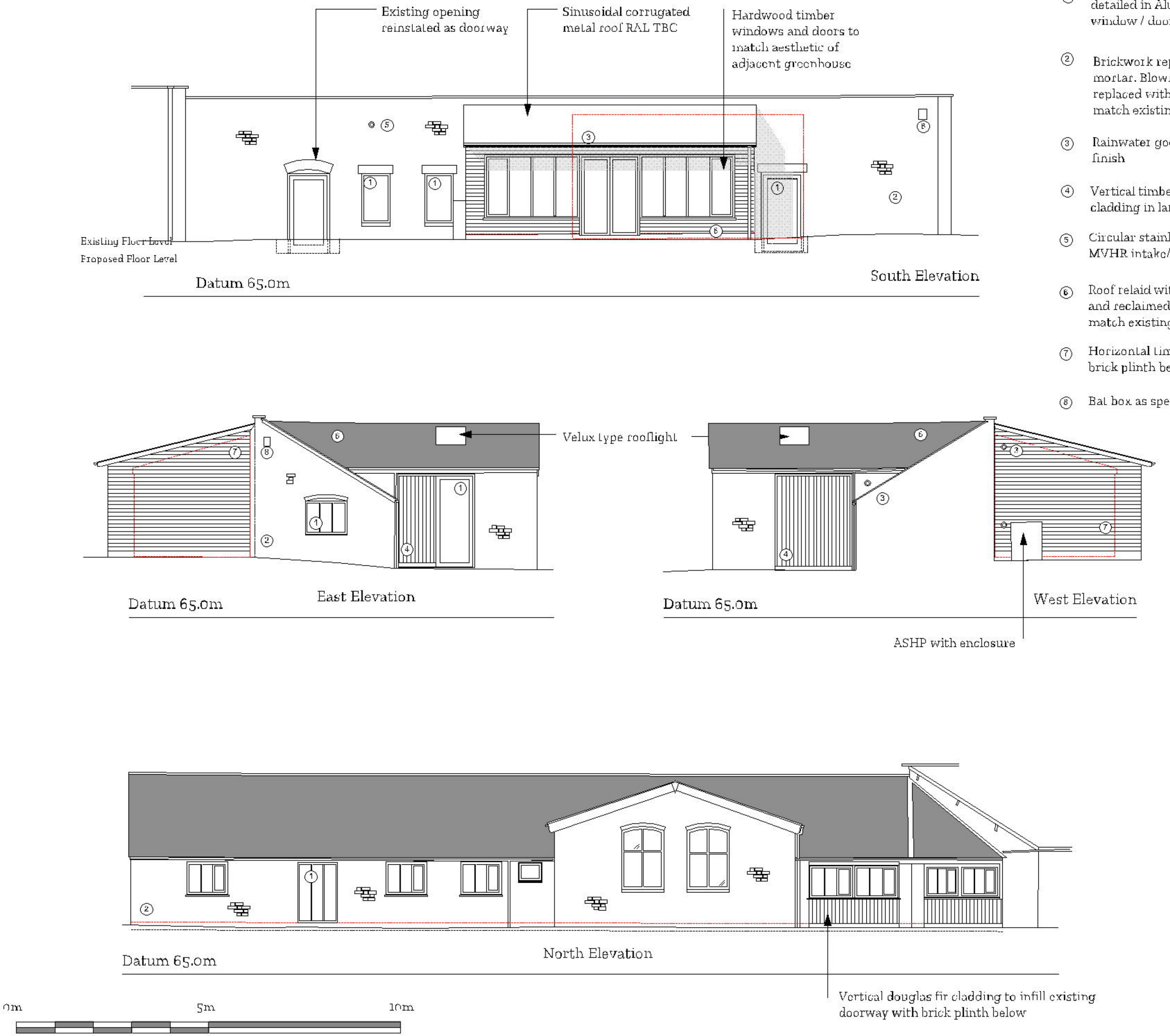
Client: Windflower Housing Association

Project: Canon Frome Court Housing

Drawing Title: **Proposed Elevations - Dairy**

Scale:	Date:	Drawn:	Checked:
1:100 @ A3	28.01.21	EDS	MH

Project No:	Drawing No:	
1017	PL 3005	-



1. All window / door openings detailed in Aluminium PPC window / door RAL TBC
2. Brickwork repointed with lime mortar. Blown brickwork replaced with reclaimed brick to match existing
3. Rainwater goods in galvanised finish
4. Vertical timber hit and miss cladding in larch / douglas fir
5. Circular stainless steel grille for MVHR intake/exhaust
6. Roof relaid with existing tiles and reclaimed replacement to match existing
7. Horizontal timber cladding with brick plinth below
8. Bat box as specified by Ecologist

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Revisions

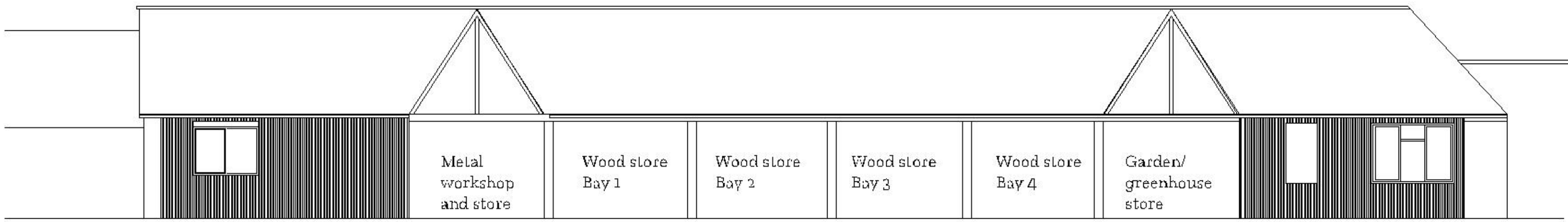
Revision No:	Date:	Description:	Drawn:	Checked:

PLANNING

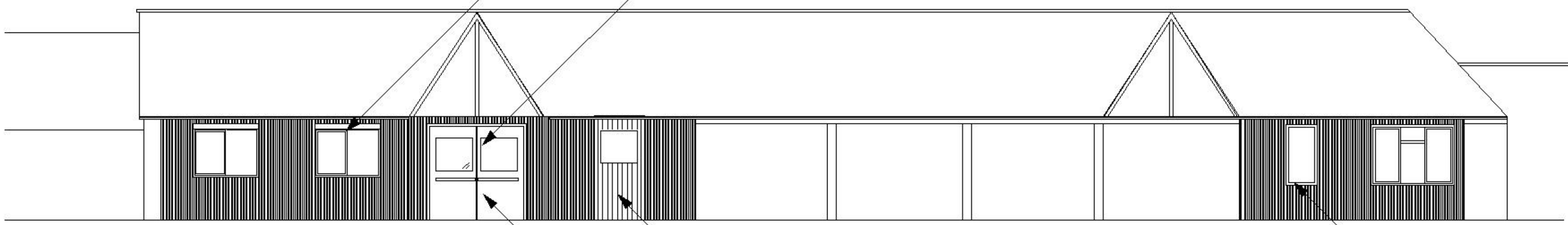
Client:	Windflower Housing Association
Project:	Canon Frome Court Housing
Drawing Title:	**Proposed Elevations - Workshop**

Scale:	Date:	Drawn:	Checked:
1:100 @ A3	25.02.21	EDS	MH

Project No:	Drawing No:	
1017	**PL 2005**	-



Existing Northwest Elevation



Proposed Northwest Elevation

0m 5m 10m

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Revisions

Revision No	Date	Description	Drawn	Checked

PLANNING

Client: Wildflower Housing Association

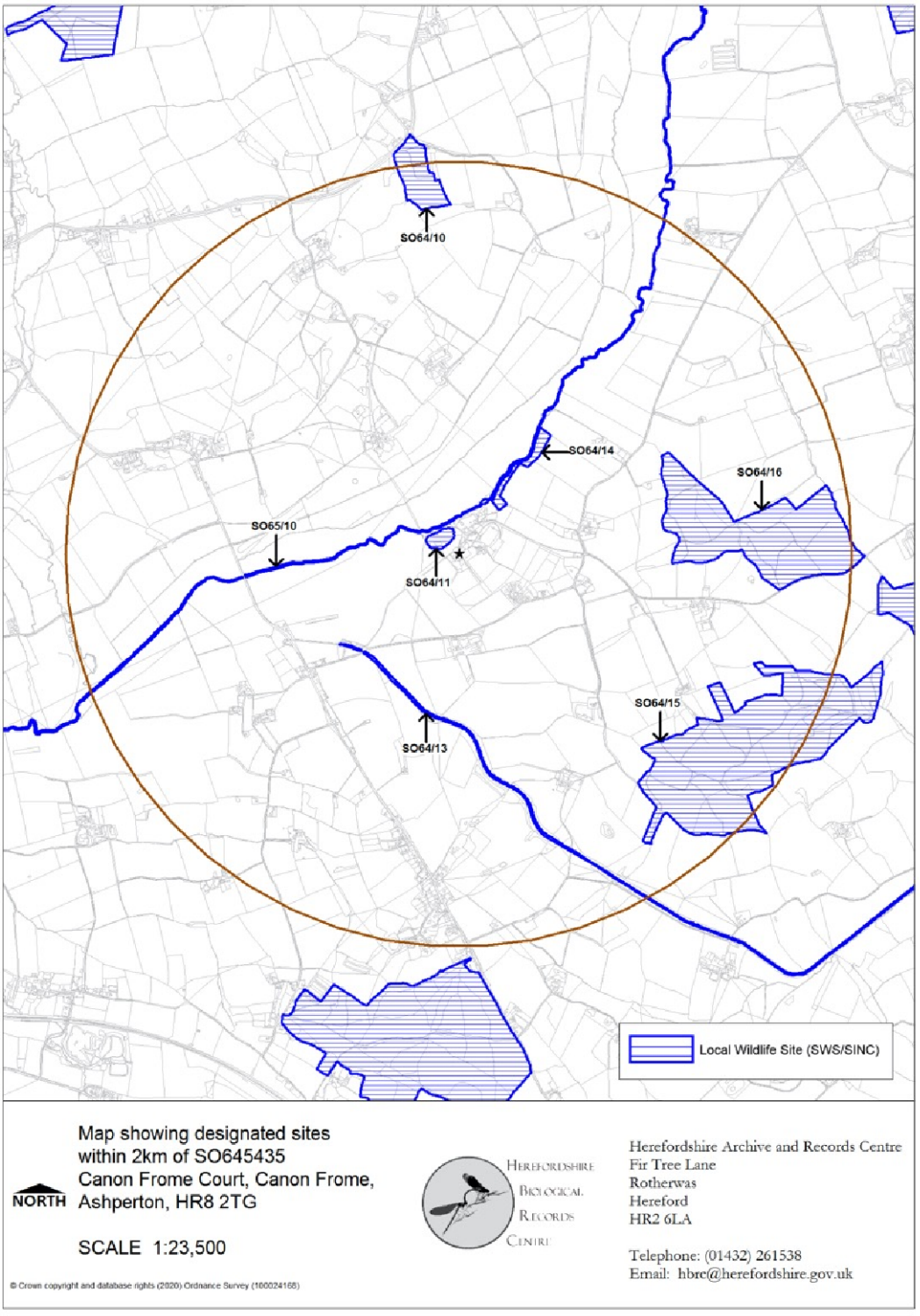
Project: Canon Frome Court Housing

Drawing Title:
Elevations - Storage Unit

Scale:	Date:	Drawn:	Checked:
1:100 @ A3	28.01.21	EDS	MH

Project No:	Drawing No:	
1017	PL 4003	-

Appendix 2. Non-statutory Wildlife Sites Map



Appendix 3. Legislation and Planning Policy

Conservation of Habitats and Species Regulations 2017

In relation to wildlife and nature conservation, two key Directives have been adopted by the European Community. These are (i) Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds ("The Birds Directive" formerly 79/409/EEC); and (ii) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ("The Habitats Directive"). These Directives provide for the protection of animal and plant species of European importance and the habitats which support them, particularly through the establishment of a network of protected sites.

The Habitats Directive is transposed into domestic law through the Conservation of Habitats and Species Regulations 2017. These regulations consolidate the many changes that have been made to the domestic law over the years since the predecessor regulations made in 1994. The regulations provide for the designation and protection of European Sites, the protection of European protected species and the adaptation of planning and other controls for the protection of European Sites. Under the European Union (Withdrawal) Act 2018, EU-derived domestic legislation, such as existing environmental regulations that implement EU Directives, and Direct EU legislation (such as The Conservation of Habitats and Species Regulations 2017) which were in force immediately prior to the end of the transition period continue to form part of UK domestic law.

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) (WCA) consolidated and amended existing national legislation to implement the Convention of the Conservation of European Wildlife and Natural Habitats (The Bern Convention) and the Birds Directive. There have been various amendments since the original enactment.

Schedules 1 and 5 of the Act identify species of bird and other animal in relation to which the Act makes killing, injury, taking and disturbance an offence while Schedule 8 to the Act lists species of plant in relation to which the Act makes it an offence to intentionally pick, uproot or destroy.

Bat Mitigation Licensing

Bats are sensitive to activities associated with development and the restoration of buildings. The availability of suitable roost sites is considered to be a key factor in the conservation of bats and as a consequence all species of bat and their roost sites are protected in the UK. The key pieces of legislation are the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and The Conservation of Habitats and Species Regulations 2017.

Bats are legally protected from harm and it is an offence to deliberately or intentionally kill or injure a bat. It is also prohibited to incidentally or deliberately capture, kill, disturb or take bats, or damage or destroy a breeding site or resting place - irrespective of whether it (the roost) is occupied.

Taken together, the Act and Regulations make it illegal to:
h) Deliberately capture or intentionally take a bat;
i) Deliberately or intentionally kill or injure a bat;
j) To be in possession or control of any live or dead bat or any part of, or anything derived from a bat;
k) Damage or destroy a breeding site or resting place of a bat;
l) Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection;
m) Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
n) Deliberately disturb bats, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.

A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to re-use the same roost sites, current legal opinion is that a bat roost is protected whether or not the bats are present at the time.

Although the law provides strict protection to bats, it also allows this protection to be set aside (derogated) under Regulation 55 of the Conservation of Habitats and Species Regulations 2017 through the issuing of licences for the purpose of preserving public health, or public safety, or other imperative reasons of overriding public interest (IROPI) including those of a social or economic nature and beneficial consequences of primary importance for the environment. Schemes with planning permission usually fulfil the requirements of IROPI. Natural England (NE) currently determine these licences in England and an application to NE can be made once the necessary planning and building consents have been obtained.

As discussed, where a lawful operation is required to be carried out, but which is likely to result in one of the above offences, a licence may be obtained from NE to allow the operation to proceed. However, in accordance with the requirements of the Conservation of Habitats and Species Regulations 2017 a licence can only be issued where the following requirements are satisfied:
a) that there is no satisfactory alternative; and

b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favorable conservation status in their natural range.

Natural England Bat Mitigation Class Licence

In 2015 Natural England launched a new class licence (WML - CL21), which provides a streamlined process to the European Protected Species (EPS) licence. The Bat Mitigation Class Licence (BMCL) permits work that has a low impact on certain bat species and certain roost types, but which still needed to be licenced in order to meet legal requirements. Specifically, the criteria for using the low impact class licence are is set out below.

Bat species

The BMCL can be used for sites where the following species are roosting:

- Common pipistrelle (*Pipistrellus pipistrellus*)
- Soprano pipistrelle(*Pipistrellus pygmaeus*)
- Brown long - eared (*Plecotus auritus*)
- Whiskered (*Myotis mystacinus*)
- Brandt's (*Myotis brandtii*)
- Daubenton's (*Myotis daubentonii*)
- Natterer's (*Myotis nattereri*)
- Serotine (*Eptesicus serotinus*)*
- Lesser horseshoe (*Rhinolophus hipposideros*)**

* only certain regions (**excludes** Herefordshire)
** only in southwest England (including Herefordshire)

Assemblage of Bats

Sites that support a maximum of three of the bat species listed above can be registered for the class licence. Sites with a more diverse assemblage of bat roosts must apply for an individual European Protected Species (EPS) licence.

Number of Bats

Sites that support individuals or small numbers (in total) of the bat species listed above can register for the BMCL. If more than one bat species will be affected, it is the total number of bats which must be considered. The conservation status of bats varies across regions, and must be considered by the ecologist when determining what constitutes 'small numbers'.

Roost Type

The BMCL applies to roosts of low conservation significance, and is regulated to cover the following types of roosts in buildings:

- Feeding roosts (excluding lesser horseshoe bats)
- Night roosts (excluding lesser horseshoe bats)
- Day roosts
- Transitional roosts / occasional roosts

Sites with roosts of higher conservation significance such as maternity roosts, hibernation sites or swarming sites do not qualify.

Number of Roosts
The BMCL is applicable to sites that support no more than three roosts in total (across all structures).

Impacts
Natural England's BMCL permits activities resulting in the disturbance and/or capture of certain bat species (listed above) and/or the damage or destruction of roosts of low conservation significance.

Natural England's BMCL is held by Registered Ecological Consultants and sites must be registered with, and approved by Natural England before any licensable work can commence. The ecological consultant must apply to Natural England's Sustainable Development Wildlife Licensing to register the site with at least 3 weeks (15 working days) notice and no more than 12 weeks before commencement of any licensable activities.

The Natural Environment and Rural Communities Act 2006

The Natural Environmental and Rural Communities Act 2006 (NERC) introduced changes intended to benefit rural communities and the environment. Section 40 of the Act creates a duty on public bodies to have due regard for habitats and species of principal importance for biodiversity in England when exercising their duties; Section 41 requires the Secretary of State to maintain a list of such habitats and species. This is important in the context of planning decisions as the National Planning Policy Framework (paragraph 117) affords planning policy protection to the habitats of species listed by virtue of Section 41.

The Hedgerow Regulations 1997

These regulations, enforced under the Environment Act 1995, restrict the removal of hedgerows, or parts of hedgerows which are over 20m in length. In this case, removal includes digging up and replanting elsewhere, as well as removing from the land completely or destroying in the course of other actions.

This legislation only applies to country hedgerows, which includes hedge next to common land, Nature Reserve, Site of Special Scientific Interest (SSSIs) or land used

for agriculture, forestry, or land used for the breeding/keeping of horses, ponies or donkeys. Domestic (e.g.garden) hedges are excluded from this legislation.

To be included in the regulation, a hedgerow must be over 20m long, but gaps of less than 20m do not count as gaps, therefore a 15m hedge plus 10m gap plus 15m hedge technically is classed as a 40m hedgerow.

To be defined as important, a hedgerow must be at least thirty years old, and must fulfil one of a number of criteria set out in the legislation. For example, one criterion is that the hedge is next to a public footpath, and contains a certain number of different species. Another is concerned with habitats of rare or protected birds and animals. Other criteria relate to the existence of a hedge as an ancient (pre 1850) border or boundary.

The UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework succeeds the UK Biodiversity Action Plan (BAP) and 'Conserving Biodiversity - the UK Approach'. The Framework continues the conservation work initiated by the UK BAP following the establishment of the Convention on Biological Diversity in 1992. The purpose of the Biodiversity Framework is to set a broad enabling structure for conservation action across the UK until 2020, in summary:

- To set out a shared vision and priorities for UK-scale activities, in a framework jointly owned by the four countries, and to which their own strategies will contribute.
- To identify priority work at a UK level which will be needed to help deliver biodiversity targets and the EU Biodiversity Strategy.
- To facilitate the aggregation and collation of information on activity and outcomes across all countries of the UK, where the four countries agree this will bring benefits compared to individual country work.
- To streamline governance arrangements for UK-scale activity.

Many of the tools developed under UK BAP remain of use, for example, background information about the lists of priority habitats and species and the plans for the priority species and habitats agreed under UK BAP still form the basis of the Framework.

Local Policy

The Herefordshire Local Plan Core Strategy (adopted 2015) includes the following policy of particular relevance to ecology.

Policy LD2 – Biodiversity and geodiversity

Development proposals should conserve, restore and enhance the biodiversity and geodiversity assets of Herefordshire, through the:

1. retention and protection of nature conservation sites and habitats, and important species in accordance with their status as follows :

a) Development that is likely to harm sites and species of European Importance will not be permitted;

b) Development that would be liable to harm Sites of Special Scientific Interest or nationally protected species will only be permitted if the conservation status of their habitat or important physical features can be protected by conditions or other material considerations are sufficient to outweigh nature conservation considerations;

c) Development that would be liable to harm the nature conservation value of site or species of local nature conservation interest will only be permitted if the importance of the development outweighs the local value of the site, habitat or physical feature that supports important species.

d) Development that will potentially reduce the coherence and effectiveness of the ecological network of sites will only be permitted where adequate compensatory measures are brought forward.

2. restoration and enhancement of existing biodiversity and geodiversity features on site and connectivity to wider ecological networks; and

3. creation of new biodiversity features and wildlife habitats. Where appropriate the council will work with developers to agree a management strategy to ensure the protection of, and prevention of adverse impacts on, biodiversity and geodiversity features.