



**BAT, BARN OWL &
NESTING BIRD SURVEY**

BARN 3

**[UPPER FARROWING HOUSE]
PENNYLAND FARM**

**YEOFORD
CREDITON
EX1 5EU**


18th December 2023

1 Background

A daytime **bat, barn owl and nesting bird** survey of a range of barns and outbuildings at **Pennyland Farm** was carried out on **3rd April 2023** by Nic Butler (Butler Ecology) for two separate **Class Q planning applications** for conversion of two redundant farm buildings. [N.B. a separate report was prepared for each building. [It is understood the wildlife reports were not submitted for the Class Q applications].

The reports confirmed there were **no over-riding wildlife reasons** for the applications (for **Barn 1** and **Barn 3**) to be refused. Where appropriate, **mitigation measures** were recommended to **minimise the risk of disturbing nesting birds**.

Prior approval was granted in September 2023.

| | |
|--|---|
| <p>Reference No: 23/01158/PNCOU Parish: Colebrooke 17</p> |  |
| <p>TOWN AND COUNTRY PLANNING (GENERAL PERMITTED DEVELOPMENT) (ENGLAND) ORDER 2015 Schedule 2 Part 3</p> <p>CHANGE OF USE APPROVAL OF PRIOR APPROVAL</p> | |
| <p>Name and Address of Applicant Mr Alistair & Mrs Jo Burrow Pennyland Farm Yeoford Credton Devon EX17 5EU</p> | <p>Name and Address of Agent Ms Annie Martin Annie Martin Architect Little Thorne Cheriton Bishop Exeter EX6 6HN</p> |
| <p>Proposal: Prior notification for change of use of an agricultural building to a dwelling under Class Q</p> <p>Location: Pennyland Farm (Barn 3) Yeoford Credton</p> <p>Site Vicinity Grid Ref: 277165/98764</p> <p>MID DEVON HEREBY APPROVES THE PRIOR APPROVAL FOR THE ABOVE DEVELOPMENT</p> <p>Reason for Approval:</p> <p>The proposed prior notification for the change of use of an agricultural building to dwellinghouse under Class Q of the GDPO at Pennyland Farm, Yeoford, is considered to accord with the requirements of Class Q (A) and (B) of the Town and Country Planning (General Permitted Development) Order 2015 (as amended).</p> | |

Following approval to convert the barns to dwellings under Class Q, two applications are now being submitted for demolition and replacement of the barns (Barn 1 and Barn 3).

The two original reports have been updated.

2 Summary

Demolition of the buildings **would result in a loss of nest sites** used by a minimum of 3 species: **blackbirds, sparrows and swallows**, which, without mitigation, would result in a loss of biodiversity on site. The proposed recommendations for the installation of **bird and bat boxes** made in this report would ensure the proposed development achieved a **net-gain in biodiversity**.

Observing the recommendations in this report should be made a **Condition of Planning Consent**. Once the works have been completed, the ecologist should confirm to the planning authority in writing that all the mitigation and enhancement measures have been implemented as recommended.

2.1 Bats

No bats or evidence of the presence of / use by bats were found in the detached building. The building is not suitable for day-roosting or hibernation, and although buildings such as this may be used as a temporary night-time roost, there was no evidence to indicate use. The proposed development **would not cause disturbance to bats** (as defined), **would not result in the loss of or disturbance to any roost locations** and **would not affect the distribution or abundance of local populations**. No commuting routes would be affected. A **Protected Species Bat Mitigation Licence** under the Conservation (Natural Habitats, &c) (Amendments) 2012 Regulations **would not be required**. **Enhancement:** as an opportunity to contribute to **biodiversity enhancement, 2 x bat boxes** should be mounted on the gable ends of the existing farmhouse (the proposed new dwellings will not be highly suitable for the installation of bat boxes).

2.2 Barn owls

There was no evidence of roosting or nesting in the building, which was clearly unsuitable for nesting or roosting. The proposed development **would not disturb barn owls** and **would not result in the loss of barn owl roosting or nesting sites**. The proposed development **would not result in the loss of barn owl foraging habitat**. **No further surveys or mitigation measures** are required.

2.3 Nesting birds

Multiple nests were found in the building (**swallow and blackbird**). Evidence of nesting by **sparrows** was noted in other buildings (to be demolished). Without mitigation there is a risk that the proposed development **could disturb nesting birds if carried out during the nesting season**. Birds are legally protected from disturbance while nesting under the Wildlife and Countryside Act 1981 (as amended) against disturbance during the nesting period - defined as the period from when nest-building commences until nestlings have left – i.e. March to late August. Works must be timed to avoid disturbance – i.e. should be commenced between mid-September and the end of February, on the assumption that once works have started, birds will be discouraged from nesting. Nesting provision should be made, esp. for **sparrows and swallows**, through the installation of **nest boxes / nest cups** (as detailed in this report).

2.4 Reptiles and amphibians

No animals were seen on the site, which does not include any favourable habitat. The proposed demolition of the building and construction of a new dwelling **would not disturb or harm reptiles or amphibians**. **No further surveys or mitigation measures** are required.

2.5 Hedgehogs

No animals were found on site.

Although the landscape around the farm represents favourable / potential habitat, and animals have been recorded locally, the presence of animals in / around this building is highly unlikely. The proposed demolition of the building and construction of a new dwelling **would not disturb** or **harm hedgehogs**.

No further surveys or **mitigation measures** are required.

2.6 Biodiversity

Without mitigation, the proposed development **would result in a loss of biodiversity** (through the loss of **sparrow**, **swallow** and **blackbird** nest sites).

The proposed installation of **6 x sparrow nest boxes** and **3 x swallow nest cups** on **Barn 1**, **6 x house martin nest cups**, **4 x swift nest boxes** and **2 x bat boxes** on the existing farmhouse and **10 x sparrow nest boxes** and **10 x swallow nest cups** in suitable locations around the remaining farm buildings would ensure the proposed development achieved a **net-gain in biodiversity**.

3 Survey aims and methods

The aim of the **daytime survey** was to assess levels of use by bats through the presence of animals and / or their signs (droppings and / or feeding remains), the potential suitability of the buildings for roosting, and the impact of the proposed development (conversion of two redundant farm buildings and demolition of adjacent buildings).

Evidence of barn owls, nesting birds, reptiles and amphibians was also to be noted. The **day-time survey** was carried out on the morning of **3rd April 2023** by Nic Butler of Butler Ecology (NE Bat Licence no. 2015-17505-CLS).

Survey conditions: 8°C, dry, still, 50% cloud

Desk survey

A desk survey was carried out using the ‘Magic’ and Devon County Council’s ‘Environment Viewer’ websites.

Wildlife & Habitats Records Search

Due to the size and nature of the site and the scale of the proposed development, a Records Search from the **Devon Biodiversity Records Centre** was not commissioned.

Survey constraints

None.

4 The site

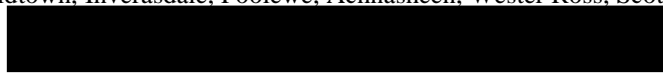
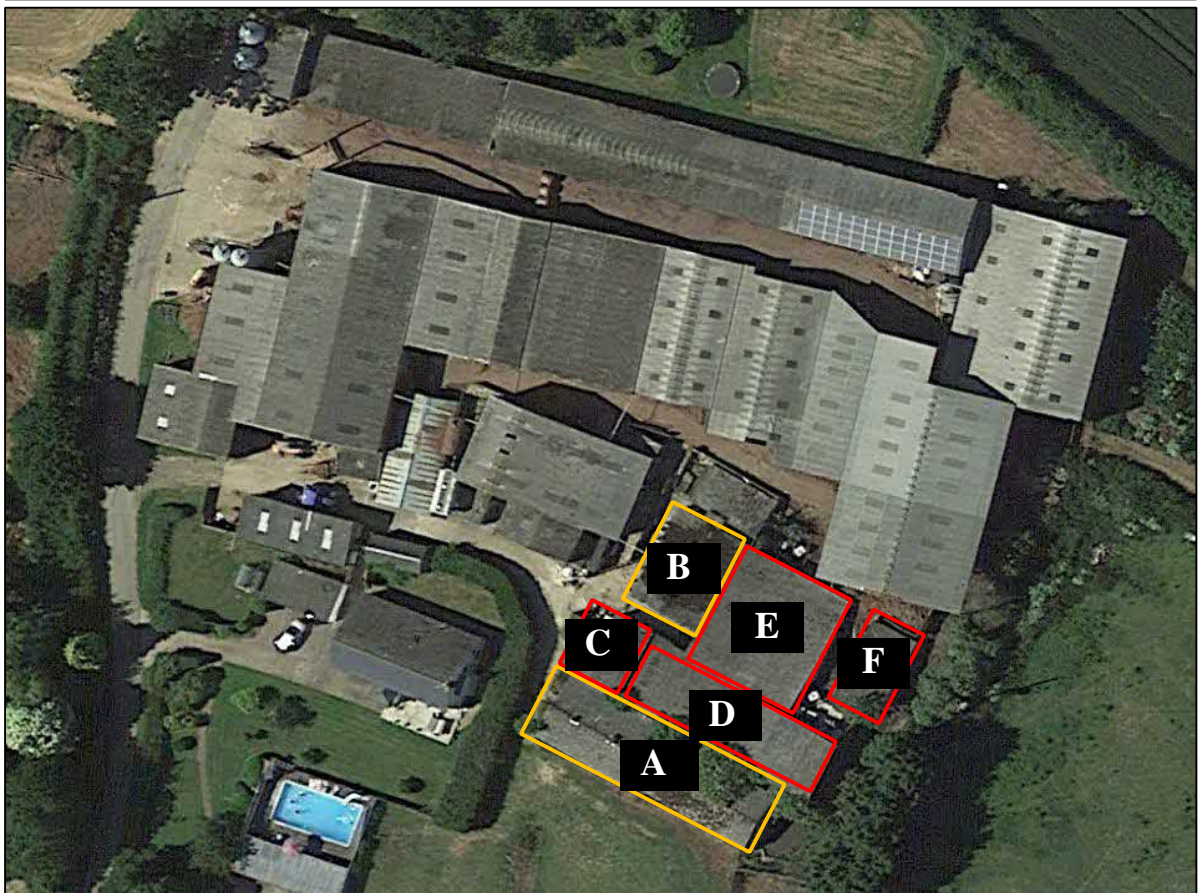
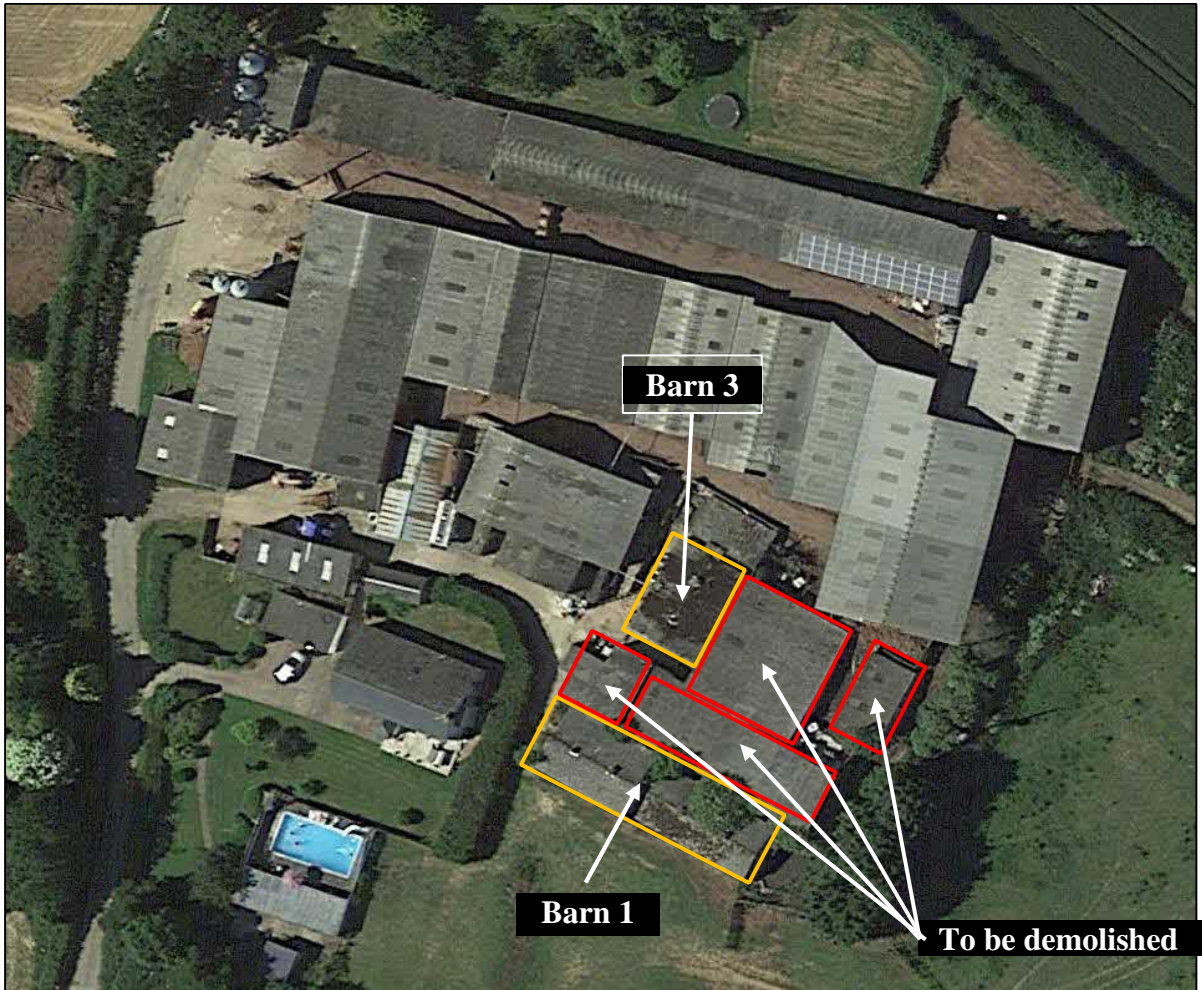
4.1 Location

Pennyland Farm is situated in a rural location just over 1km west of the Mid Devon village of Yeoford and approx. 6kms south-west of the town of Crediton OSGR SX 771 988 at a height of c.80m AMSL.

Google Earth images showing location of site



4.2 Site layout



4.3 Description

4.3.1 Barn 3 / Building B (Upper Farrowing House): *to be demolished and replaced*

Single-storey detached former pig-rearing unit built of plywood over concrete-block foundation walls. Pitched corrugated fibre-cement roof lied with asbestos sheets with no enclosed roof void. Drainage slurry channel beneath floors, covered with metal grid.



4.3.2 Building C: to be demolished

Single-storey concrete-block building with monopitch roof of unlined corrugated asbestos sheets and concrete floors. Kennel at west end with adjoining wood store / machinery store. Corrugated tin sheet wall along part of south side. Open ended at both ends (adjoining building includes stables at east end). Used for housing of sows, gilts & boars until c. 5 years ago.



4.3.3 Building D: to be demolished

Continuation of above building with stables at far / east end. Used for housing of sows, gilts & boars until c. 5 years ago.



4.3.4 Building E: to be demolished

Single-storey concrete-block buildings with monopitch roof of unlined corrugated asbestos sheets and concrete floors. Used for housing of sows, gilts & boars until c. 5 years ago.

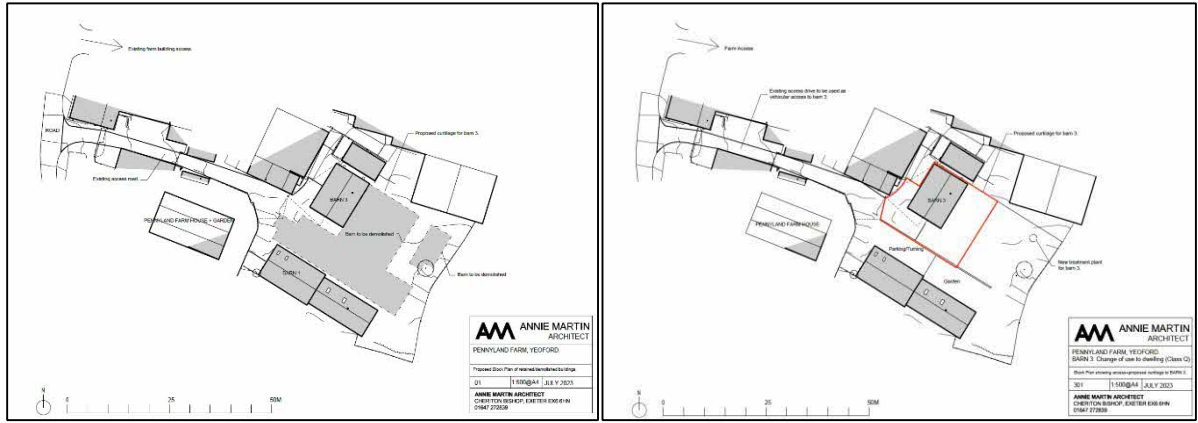


4.3.5 Building F: to be demolished

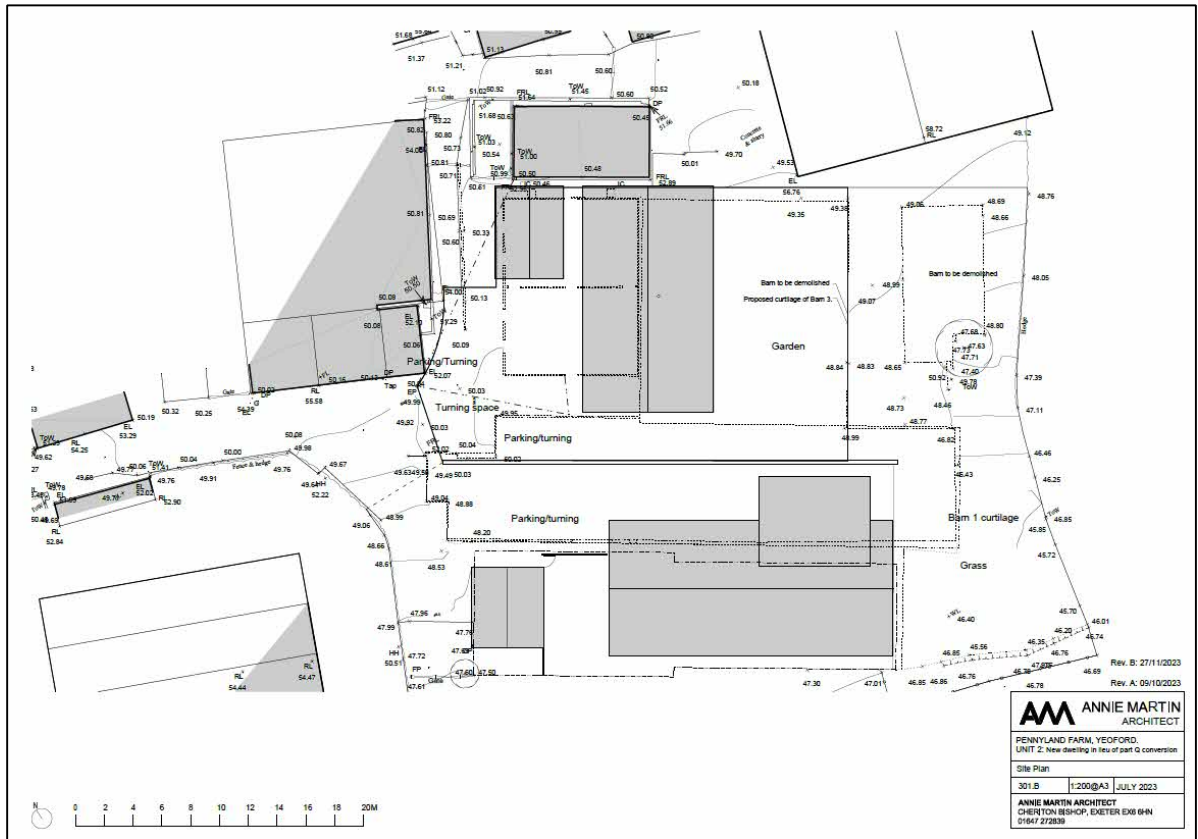
Detached single-storey concrete -block building with monopitch roof of unlined corrugated asbestos sheets and concrete floor. Used for housing of sows, gilts & boars until c. 5 years ago.



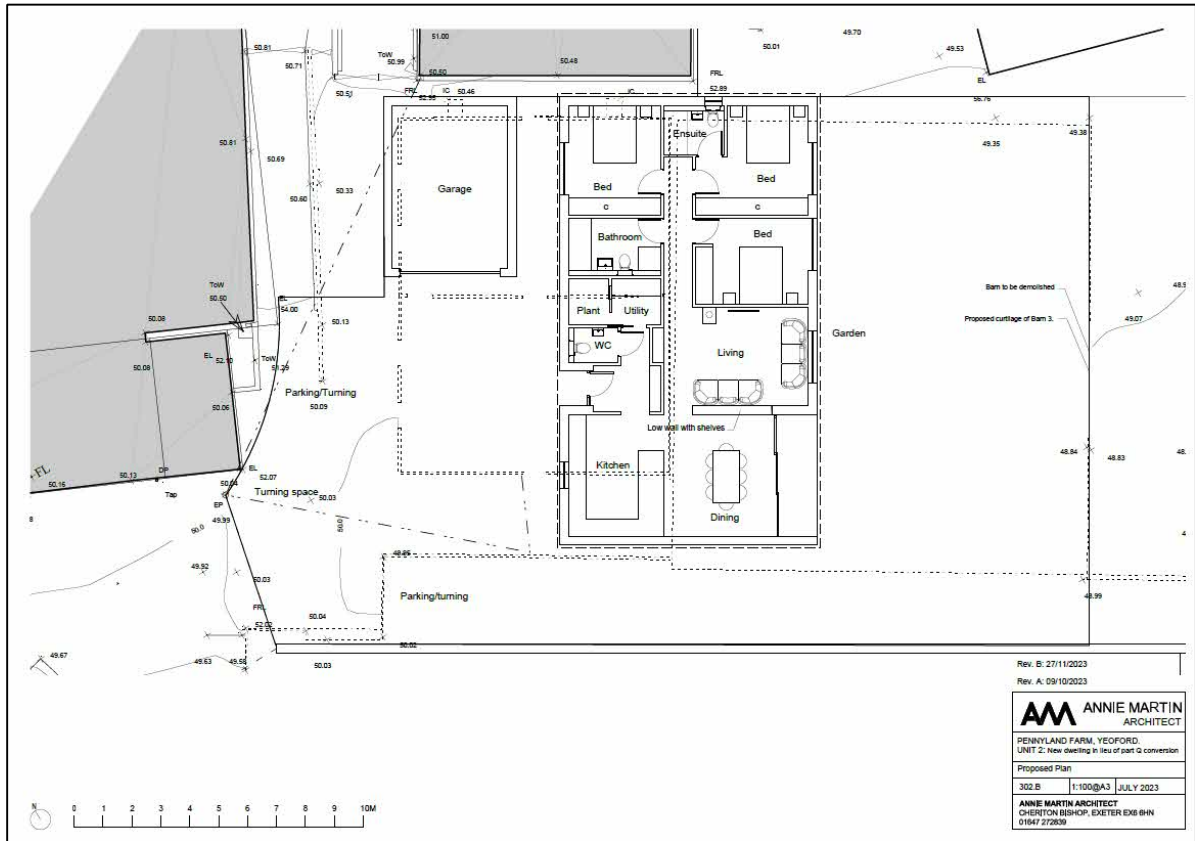
4.4.2 Approved block plans



4.4.3 Proposed site plan



4.4.4 Proposed floor plans



4.4.5 Proposed elevations



5 Wildlife context: bats

The wider landscape around Crediton includes favourable habitat for a wide range of bats, with the river corridors of the Yeo to the south, and the Creedy and Shobrooke to the east; Creedy Park and Shobrooke Park to the north / north-east; and large woodland areas e.g. Whitestone Wood to the south-east (south of Newton St. Cyres) and Oldridge Wood to the south.

Common and **soprano pipistrelles** have been recorded in and around Crediton;

At Shobrooke Park c. 2.5kms to the north-east, **common** and **soprano pipistrelles**, **lesser horseshoe**, **barbastelle** and **Myotis sp.** bats have been recorded.

At Shobrooke Farm c. 4kms to the east, **greater horseshoe** and **serotine** bats have been recorded.

Lesser horseshoe bats are abundant locally, especially along the river valleys and up towards Bickleigh (c. 10kms to the north-east).

An unconfirmed **Brandt's** roost has been recorded to the south-west of the town.

Near Upton Pyne c. 8.5kms to the south-east, surveys in February and June / July 2009 recorded a breeding population of **brown long-eared bats**; a smaller colony of **lesser horseshoes bats**; widely dispersed occupancy by non-breeding **common pipistrelle** and evidence of occasional **serotine bats**.

Google Earth satellite image showing approximate location of sites where Natural England licences have been issued for species including: **common** and **soprano pipistrelle**, **Brandt's**, **brown long-eared**, **lesser** and **greater horseshoe**, **Natterer's** and **whiskered** bats (as an indication of species found in this area).



6 Findings, assessment and recommendations: **Barn 3 (Building B / Upper Farrowing House)**

6.1 Bats

6.1.1 Findings

No **bats** or **signs of bats activity** (such as droppings and / or food fragments – beetle wing cases / moth wings) were found in the redundant farrowing building. There were no enclosed roof voids in the building.



No potential roost locations for crevice-dwelling species (such as pipistrelles) were identified around the outside of the buildings.



6.1.2 Assessment

The redundant farrowing house is not a favourable building for roosting bats.

The proposed demolition and replacement of the building with a dwelling **would not cause disturbance to bats** (as defined), **would not result in the loss of / disturbance to or obstruction of any roosts**, and **would not affect the distribution or abundance of local populations of bats**. No potential commuting routes would be affected.

6.1.3 Recommendations

A **bat licence** under the Conservation (Natural Habitats, &c) (Amendments) 2012 Regulations would **not be required** for the proposed conversion of the redundant farrowing house to a dwelling.

The proposed new dwelling would not be an optimal structure for the installation of bat boxes.

6.2 Barn owls

6.2.1 Findings

No evidence of the presence of / use by barn owls was found in the building.

6.2.2 Assessment

The proposed development **would not disturb barn owls** and **would not result in the loss of a roost or nest site**.

6.2.3 Recommendations

N/A

6.3 Nesting birds

6.3.1 Findings

Three unoccupied nests were noted in the building – **2 x swallow** and **1 x blackbird / thrush**.



Two **swallow nest scars** and an **unidentified grass nest** were noted in the unoccupied pens at the north-east end of the building.



6.3.2 Assessment

Without mitigation, there is a small risk that works associated with the proposed conversion of the redundant pig farrowing unit **could disturb nesting birds**.

Nesting birds are legally protected under the Wildlife and Countryside Act 1981 (as amended) against disturbance during the nesting period - defined as the period from when nest-building commences to the time that nestlings have left – i.e. March to late August.

6.3.3 Recommendations

Potentially disturbing works should be timed to avoid the nesting season – i.e. should be carried out between September and the end of February.

If potentially disturbing works are planned for anytime during the nesting season (March to late August) a **pre-works nesting bird survey** must be carried out immediately beforehand (i.e. within 24 hours) to confirm no nesting is taking place. If nesting is observed, then potentially disturbing works must be delayed until fledglings have left the nest.

Pre-works Nesting Bird Survey Protocol

- Immediately before clearance of potential nesting habitat / locations (i.e. within 24 hours) a careful survey of the trees, shrubs, undergrowth etc. should be undertaken to ensure that there are no nesting birds present. The site should be observed for at least 30 minutes and note taken of whether any birds are nesting or preparing to nest (e.g. carrying nesting materials and/or food for young).
- Birds incubating eggs can be elusive and a more detailed search may be necessary, but care must be taken not to disturb nesting birds. Searches for possible nest sites may be conducted using angled mirrors or similar to avoid flushing birds off hidden nests.
- If no signs of nesting birds are observed then works may start but the site must be constantly monitored during the working period.
- A record of the observations and any results should be made and retained for reference.
- If nesting birds are observed, potentially disturbing works must cease immediately and further advice sought. Active nests should be protected until the young have fledged.

As a **biodiversity enhancement** measure, **6 x sparrow nest boxes** and **3 x swallow nest cups** should be installed in the locations shown on page 23.

The house (to the south-west of the barn) – although not within the planning boundary - offers excellent opportunities for the installation of bird boxes (esp. house martin nest cups and swift nest boxes), which would increase the biodiversity gain on site (see page 24).

6.4 Reptiles and amphibians

6.4.1 Findings

No reptiles or amphibians were found.

6.4.2 Assessment

The building and its immediate environs do not represent favourable habitat.

The proposed development **would not harm reptiles or amphibians**.

6.4.3 Recommendations

N/A

6.5 Hedgehogs

6.5.1 Findings

No evidence of the presence of hedgehogs was found on site, but the landscape around the farm represents favourable / potential habitat, and animals have been recorded locally.



6.5.2 Assessment

Although the potential presence of hedgehogs on the farm has been assumed, the presence of animals in / around the former farrowing shed is highly unlikely.

The proposed development **would not harm hedgehogs**.

6.5.3 Recommendations

N/A

7 Findings, assessment and recommendations

Buildings C, D, E & F (to be demolished)

7.1 Bats

7.1.1 Findings

No **bats** or **signs of bats activity** (such as droppings and / or food fragments – beetle wing cases / moth wings) were found in any of the buildings adjacent to / near Building B [Upper Farrowing House].

No potential roost locations for crevice-dwelling species (such as pipistrelles) were identified around the outside of the buildings.

7.1.2 Assessment

The redundant pig-earing units are not favourable building for roosting bats.

The proposed demolition of the buildings **would not cause disturbance to bats** (as defined), **would not result in the loss of / disturbance to or obstruction of any roosts**, and **would not affect the distribution or abundance of local populations of bats**. No potential commuting routes would be affected.

7.1.3 Recommendations

A **bat licence** under the Conservation (Natural Habitats, &c) (Amendments) 2012 Regulations would **not be required** for the proposed demolition of any of these buildings.

7.2 Barn owls

7.2.1 Findings

No evidence of the presence of / use by barn owls was found in any of the buildings.

7.2.2 Assessment

The proposed demolition of these buildings **would not disturb barn owls** and **would not result in the loss of a roost or nest site**.

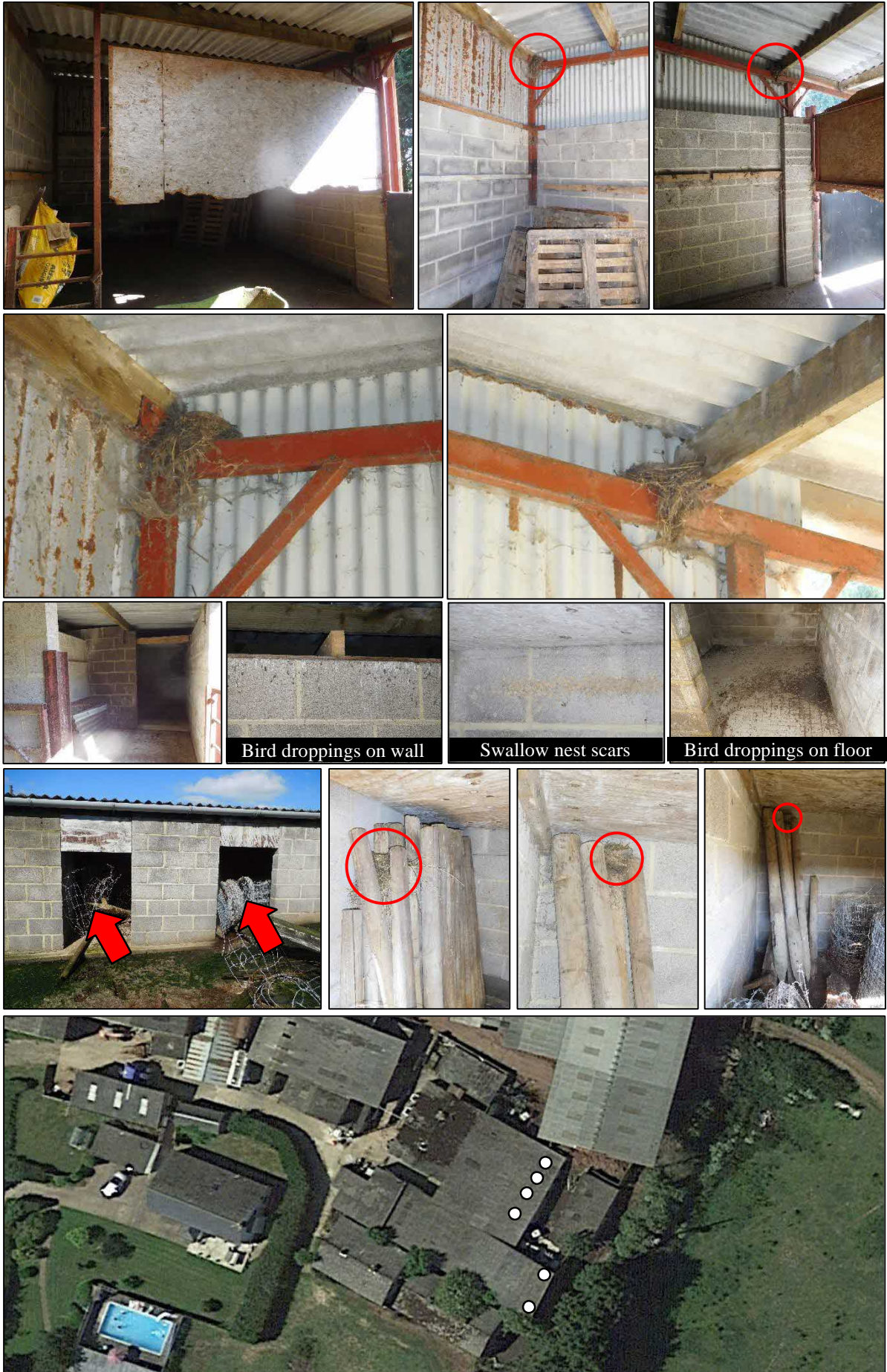
7.2.3 Recommendations

N/A

7.3 Nesting birds

7.3.1 Findings

Evidence of nesting by swallows and blackbirds was found in several of the buildings.



Evidence of nesting by **sparrows** was noted in other buildings on the farm.



The house sparrow is an opportunistic bird of towns and cities, parks, gardens and farmland. They feed on a variety of foods, including buds, grains, nuts and scraps, and will visit bird tables and feeders. They live in colonies and nest in holes or crevices in buildings, among ivy or other bushes, and in nestboxes; they use a variety of materials to make their nests. Both parents will incubate the three to five eggs and raise the young. House sparrows are residents in the UK, but may disperse from their breeding grounds to feed on nearby farmland and grassland in winter. Monitoring suggests a severe decline in the UK population, recently estimated as dropping by 71 % between 1997 and 2008 with substantial declines in both rural and urban populations. Classified in the UK as Red under the Birds of Conservation Concern 4: the Red List for Birds (2015) and a Priority Species under the UK Post-2010 Biodiversity Framework.

7.3.2 Assessment

Without mitigation, there is a risk that demolition of the buildings **could disturb nesting birds** if carried out during the nesting season.

Nesting birds are legally protected under the Wildlife and Countryside Act 1981 (as amended) against disturbance during the nesting period - defined as the period from when nest-building commences to the time that nestlings have left – i.e. March to late August.

Demolition of these buildings **will result in a loss of nesting sites for a minimum of 3 species**: sparrows, swallows and blackbirds.

7.3.3 Recommendations

Demolition of the buildings should be timed to avoid the nesting season – i.e. should be carried out between September and the end of February.

If demolition of the buildings has to take place during the nesting season (March to late August) a **pre-works nesting bird survey** must be carried out immediately beforehand (i.e. within 24 hours) to confirm no nesting is taking place. If nesting is observed, then potentially disturbing works must be delayed until fledglings have left the nest.

Pre-works Nesting Bird Survey Protocol

- Immediately before demolition of the buildings (i.e. within 24 hours) a careful survey should be undertaken to ensure that there are no nesting birds present. The buildings should be observed for at least 30 minutes and note taken of whether any birds are nesting or preparing to nest (e.g. carrying nesting materials and/or food for young). If no signs of nesting are observed then works may start but the site must be constantly monitored during the works. A record of the observations and any results should be made and retained for reference.
- If nesting birds are observed, potentially disturbing works must cease immediately and further advice sought. Active nests should be protected until the young have fledged.

As a **mitigation measure** (to compensate for loss of nest sites), **10 x sparrow nest boxes** and **10 x swallow nest cups** should be installed in suitable locations around the remaining farm buildings.

7.4 Reptiles and amphibians

7.4.1 Findings

No reptiles or amphibians were found, and the buildings and their immediate surroundings do not represent **favourable habitat** for species such as **slow worms**.

7.4.2 Assessment

Demolition of the buildings **would not harm reptiles or amphibians**.

7.4.3 Recommendations

N/A

7.5 Hedgehogs

7.5.1 Findings

No hedgehogs were found, and the buildings and their immediate surroundings do not represent **favourable hedgehog habitat**.

7.5.2 Assessment

Demolition of the buildings **would not harm hedgehogs**.

7.5.3 Recommendations

N/A

8 Biodiversity

8.1 Findings

The biodiversity interest of the site is limited to nesting birds.

8.2 Assessment

Without mitigation, the proposed development (demolition of the Upper Farrowing House and replacement with a new dwelling and demolition of adjacent buildings) **would result in a loss of biodiversity**, through the loss of **sparrow**, **swallow** and **blackbird** nest sites.

The recommended installation of **2 x bat boxes**, **4 x swift nest boxes**, **6 x house martin nest cups**, **16 x sparrow nest boxes** and **13 x swallow nest cups** would ensure the proposed development achieved a **net gain in biodiversity**.

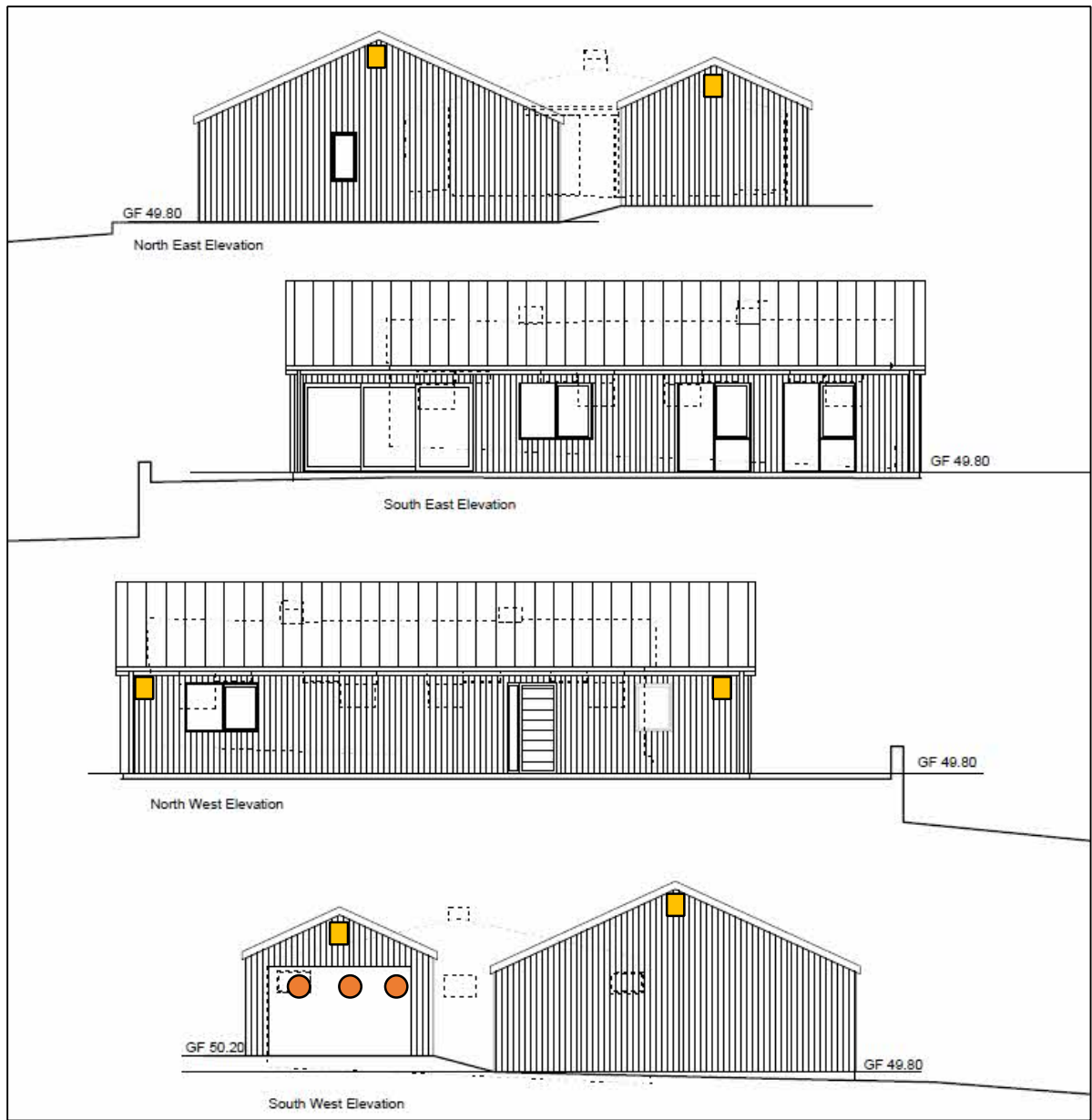
8.3 Recommendations

The recommendations made in this report should be fully implemented to ensure that the proposed development achieves a **net-gain in biodiversity**.

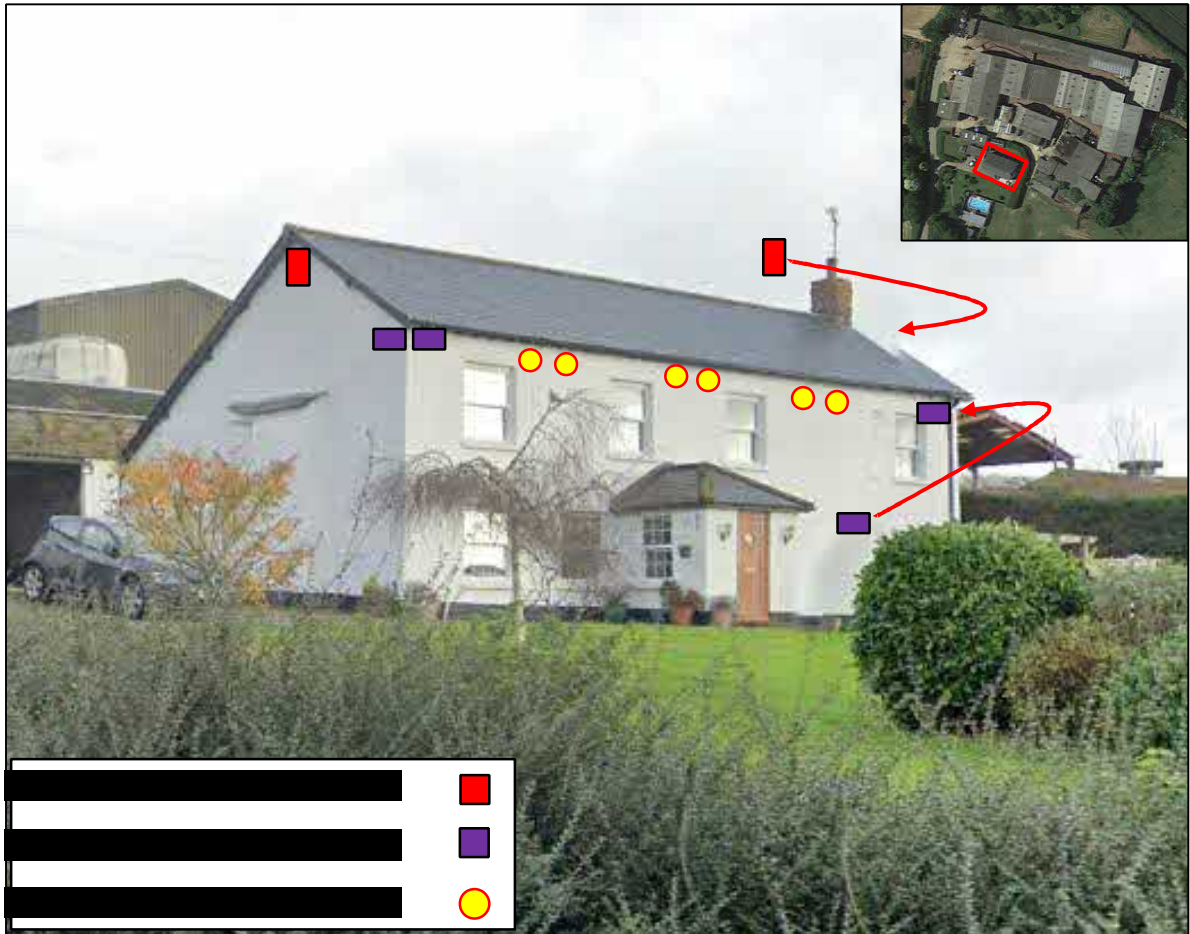
Confirmation should be provided by the ecologist at the completion of development that all mitigation and enhancement measures have been implemented as recommended.

Nic Butler
Butler Ecology
18th December 2023

DIAGRAM SHOWING RECOMMENDED LOCATIONS OF BIRD BOXES on BARN 3



INDICATION OF POSSIBLE LOCATIONS FOR BAT BOXES AND BIRD BOXES ON THE HOUSE



2 x bat boxes - one at each gable end of house

4 x swift nest boxes at south-west and south-east corners of house

6 x house martin nest cups under eaves at front of house

APPENDIX 1: WALL-MOUNTED BAT BOXES

Improved Crevice Bat Box

Available with either a double or treble crevice. Suitable for small crevice-dwelling bats such as common and soprano pipistrelles. All external panels are precision cut from 12mm Exterior Grade FSC plywood, for improved heat insulation. The exterior surfaces are 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. It has an overhanging roof with additional internal insulation for protection from UK weather, and to seal crevices from internal airflow. There are 2 or 3 separate crevices each with different temperature characteristics - internal ceramic heat sinks ensure improved temperature stability in crevices. Improved draught-proofing enhances temperature stability inside box. An improved "bat ladder" at base of box facilitates bats landing and climbing into box. The ladder continues inside box, while textured internal surfaces ensure bats find it easy to move around inside box and hang in crevices. The ladder also acts as "convector heater" for box - when sun shines on ladder, warm air rises into the box, but does not come out when the outside cools. The box is easy and safe to erect box on walls or trees.



Specifications: Exterior quality resin bonded ply, manufactured with surface sunk coated staples to resist rusting, external surfaces treated with water based woodstain, internal ceramic heat sinks.

Double Crevice Bat Box: Size: 33cm Height x 16cm Width x 10cm Depth. Weight: 1.4kg

Treble Crevice Bat Box: Batbox Size: 33cm Height x 16cm Width x 13cm Depth. Weight: 2.0kg

Low Profile WoodStone Bat Box

The Low Profile WoodStone Bat Box has been designed to complement any building and can accommodate up to 15 common pipistrelle bats which are very sociable mammals and prefer to live in colonies. They are manufactured from WoodStone, a breathable and insulating material made from concrete and FSC Certified wood fibres. WoodStone is designed to be robust and hard-wearing, providing a warm and stable temperature for summer bat roosts. There is a landing ramp and rough interior surface to enable easy movement around the box, and the front panel is removable for inspection and cleaning. The box is designed to be attached to the external wall of a building but could also be attached to a tree. The box should be sited at least 3 metres above the ground to encourage bat residence. Dimensions: (H) 440 x (W) 290 x (D) 90 mm Weight: 4.7kg



Improved Roost-Maternity Bat Box

A large 3 crevice box, suitable for larger roosts or maternity groups of small crevice-dwelling bats such as pipistrelles. All external panels precision cut from 12mm Exterior Grade FSC plywood, for improved heat insulation. Exterior surface stained with black water based woodstain for improved thermal input, whilst avoiding any possibility of deterring use by bats due to vapour from the stain. Overhanging roof with additional internal insulation for weather protection, and to seal crevices from internal airflow. 3 separate crevices each with different temperature characteristics. Internal ceramic heat sinks ensure improved temperature stability in crevices. Improved "Bat Ladder" at base of box facilitates bats landing and climbing into box. Ladder continues inside box, while textured internal surfaces ensure bats find it easy to move around inside box and hang in crevices. Ladder acts as "convector heater" for box - when sun shines on ladder, warm air rises into the box, but does not come out when the outside cools. Easy and safe to erect box on walls or trees. Improved draught-proofing enhances temperature stability inside box. Rectangular back plate facilitates fitting boxes side to side to increase colony size. **Specifications:** Exterior quality resin bonded ply, manufactured with surface sunk coated staples to resist rusting, external surfaces treated with water based woodstain, internal ceramic heat sinks. Size: 49cm Height x 26cm Width x 13cm Depth. Weight: 6.6kg



APPENDIX 2: NEST BOX DETAILS

Swallow

Dry spring weather is a disaster for these migrants who need soft mud to make their nests. Swallows will readily adopt these durable boxes that closely resemble the nests they build themselves.

Although Swallows are social birds, the nests should not be placed directly adjacent to one another but at intervals of approximately 1m. This should be positioned inside sheds, stables and barns; ensure there is always access through a window or opening.



CedarPlus OpenFront Wooden Box

35mm opening for wrens / 75mm opening for robins

Some species like wrens, robins and flycatchers won't use nest boxes with holes. They prefer an open-fronted design, hopping into the box after alighting on a nearby branch.

This attractive and robust cedar nest box is made in 19mm thick Canadian cedar wood for excellent insulation and strength, with hand-screwed construction to reduce the risk of warping or splitting. Cedar wood contains natural oils which mean that the box is long lasting and requires zero maintenance - there is no need for painting, varnishing or preservatives.

Supplied with aluminium fixing nail that will not damage the tree and is safe if the tree is ever felled. To maximise chances of occupation, site the box discreetly within a quiet bush or hedge.

Materials: Durable 19mm thick Canadian cedar wood;

Dimensions: 318H x 156W x 175D mm; **Entrance:** 35mm / 75mm



CedarPlus Modern Nest Box

An attractive, natural wooden bird box constructed from cedar for outstanding performance and maximum dependability.

To attract the widest range of small birds, choose the 32mm entrance hole - suitable for great, marsh and coal tits, redstart, nuthatch, pied flycatcher, house sparrow and tree sparrow.

To encourage blue, marsh and coal tits or possibly wrens, choose the 26mm entrance hole. All other species will be excluded by the smaller entrance.

19 and 25mm thickness Canadian cedar for excellent insulation and strength. The natural oils in cedar make this a long-lasting box which weathers attractively. Aluminium fixing nail will not damage tree and is safe when eventually felled. Hinged inspection door with rust-proof catch.

Dimensions 370 x 156 x 175 mm



The **Sparrow Terrace** is the perfect way to provide much-needed nesting places for these endangered birds. The Terrace consists of three separate nest boxes which can be fitted next to each other in versatile ways, allowing these colonial birds to nest near to one another. The boxes have a 32mm entrance hole which is the perfect size for sparrows and are constructed from exterior grade FSC plywood, coated with a non-toxic, water-based preservative making it long-lasting and durable. The fixed roof allows fitting right up to the eaves, which is perfect for these birds, and the slide out floor allows inspection and cleaning whilst improving ventilation and drainage. The boxes can be hung to fit the shape of any building: horizontally or vertically, diagonally to fit gable eaves or A-shaped for a gable apex. The Terrace should be installed at least two to four metres off the ground making sure that there is a clear flight path to the nest. Boxes may also be sited directly under the eaves, but make sure that they are away from areas used by house martins. It is simple to add more compatible sparrow boxes later to suit your expanding colony (see images). Boxes can be put together using the plastic pegs provided. These are used to connect one box to the next and also to block off any holes in the sides. Boxes are fixed to the wall with two screws, one each in the left and right box.

Height: 240mm / Width: 376mm / Depth: 170mm / Weight: 2.2kg



SPARROW NEST BOXES (from NHBS catalogue)

Vivara Pro Woodstone House Sparrow Nest Box

House sparrows (*Passer domesticus*) are sociable opportunists that survive in most UK habitats, from towns and cities to farmland and countryside. Substantial declines in both urban and rural populations (estimated 71% decrease between 1977 and 2008) have led to concerns for this species.

This **House Sparrow Nest Box** is manufactured from WoodStone - a mix of concrete and FSC wood fibres. This material is strong and highly insulating which helps to provide a thermally stable environment within the box. It also protects against damage from predators such as cats, woodpeckers and squirrels. It is available with one or two breeding chambers, which can be particularly suitable for house sparrows as they prefer to nest in colonies.

The House Sparrow Nest Box can be integrated into the masonry of a new house or fixed onto an external wall using strong screws and wall plugs (not included). If possible, it should be positioned near to vegetation and at a minimum of 2m above ground.

Single Chamber: Weight: 7.25kg / Depth 16cm x Height 29cm x Width 21cm

Double Chamber: Weight: 7.5kg / Dimensions: Depth 16cm x Height 29cm x Width 21cm



1SP Schwegler Sparrow Terrace

The Sparrow Terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population of 6 million pairs is half what it was in 1980 and this is thought to be due to habitat destruction and lack of suitable nesting spaces. Sparrows are social birds and like to nest in company. This terrace provides ideal nesting opportunities for three families. Made of Schwegler's revolutionary wood-concrete mix, this terrace is durable, breathable and will last many decades. It may also occasionally attract tits, redstarts and spotted flycatchers.

The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided, or install directly into the wall (see the images tab for illustrations). Cleaning is advisable but not necessary. The front panel can be removed by turning the screw hook. The Sparrow Terrace is available in either Stone or Brown.

Brood chamber dimensions: Height: 16cm / Width: 10.5cm / Depth: 15cm

External dimensions: Height: 24.5cm / Width: 43cm / Depth: 20cm / Weight: 15kg



APPENDIX 3: SLOW WORM *Anguis fragilis*

IDENTIFICATION

Slow-worms are lizards, though they are often mistaken for snakes. Unlike snakes they have eyelids, a flat forked tongue and can shed their tail to escape from a predator.

They have a shiny appearance. Males are a greyish brown and females are brown with dark sides. Some females possess a thin line down the back. Juvenile slow-worms are very thin and are initially around 4cm long. Juveniles have black bellies and gold or silver dorsal sides, sometimes with a stripe running along the length of the body.



DISTRIBUTION

Slow-worms are widespread throughout the British Isles, and are particularly widespread in Devon and are often found in gardens, as well as in hedgerows, tussocky grassland, heathland and woodland which provide an open and varied habitat with uneven ground. They are also frequently found in quarries and urban areas, including road verges, railway embankments and 'wasteland' areas. They spend much of their time hiding below vegetation, under stones or in holes below ground.

HABITS

Unlike other British reptiles, slow-worms rarely bask in the open, instead preferring to hide under logs or in compost heaps. Slow-worms feed on slow-moving prey, particularly small slugs. Like common lizards, female slow-worms incubate their eggs internally and 'give birth' in the late summer. They hibernate underground in the winter.

LEGAL PROTECTION

Slow-worms are protected by law in Great Britain (the Wildlife and Countryside Act 1981) against being deliberately killed, injured or sold / traded in any way. It is necessary to be able to demonstrate that development is undertaken without killing or injuring these species. This can be accomplished by capturing and transferring the animals to a new site or undertaking measures to prevent them gaining access to the development works whilst they are in progress. A person is not guilty of an offence if it was the incidental result of a lawful operation (e.g. under planning permission), and it can be proved that it could not reasonably be avoided.

APPENDIX 4: HEDGEHOG HOUSES *(details taken from NHBS website)*

The **Hogitat Hedgehog Home** is designed to be an attractive natural home and safe retreat for hedgehogs. It features a sturdy, rust-proofed steel frame, a waterproofed roof with an attractive natural finish, and a predator defense tunnel. Specifically designed to blend into the garden setting, the Hogitat has an attractive natural appearance that will comfortably nestle into any garden environment. Siting: choose a quiet position out of the prevailing wind in an area with some nearby cover (areas of the garden with slugs - a natural food source).

Features: principally made of natural materials. Economic yet effective safe retreat for hedgehogs, or small mammals.



The wicker **Igloo Hedgehog Home** is designed to be an attractive home and a safe retreat for hedgehogs. It is constructed using a round painted steel frame with a water-proofed roof which is covered with a brush wood finish. It is designed to blend into the garden.

The igloo is spacious and can accommodate family groups and the entrance tunnel is designed to provide protection from predators such as badgers and dogs. The Igloo Hedgehog Home is predominately designed for shelter but may also be used during hibernation if additional garden waste is provided as cover.

Siting: choose a quiet position out of the prevailing wind in an area with some nearby cover (areas of the garden with slugs - a natural food source).

Dimensions

Height: 22cm / Width: 59cm / Length: 53cm / Weight: 1.5kg

