



Glaven Ecology

**Strange Farm,
Felmingham**

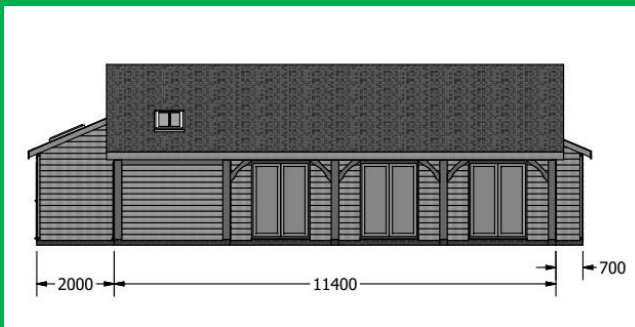
**Biodiversity
Enhancements Strategy**

**Prepared by
Glaven Ecology**

**on behalf of
Mr. D. Baker**

September 2022

Reference: 028-2200-GE-DB



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1 Background

1.1.1 Planning has been approved by North Norfolk District Councils – PF/22/0548 - to allow for removal of existing barn and erection of detached domestic outbuilding to be used as a gym / home office at Strange Farm, Felmingham, North Walsham. NR28 0LT

1.1.2 The planning application was supported by an ecological survey (Glaven Ecology, 2022).

1.1.3 This Biodiversity Enhancement Strategy has been compiled to discharge condition 4 of the planning approval:

The development hereby approved shall be carried out in strict accordance with the recommendations as set out in the Ecological Impact Assessment prepared by Glaven Ecology dated 26th July 2022.

The mitigation and enhancement measures shall include the provision of:

- a) Site clearance and demolition to take place outside of the breeding bird period (March to August inclusive) or following a pre-commencement check by a suitably qualified ecologist,*
- b) Any external lighting to be installed to use Passive Infrared Sensors (PIR), downward facing and no brighter than necessary,*
- c) Installation of at least 3No. bat boxes,*
- d) Installation of at least 3No. bird boxes (including at least one swallow nest cup),*
- e) Installation of at least one nest box suitable for tawny owl.*

The specific details of all of the required mitigation and enhancement measures aforementioned, including dimensions, location and construction methodology together with a scaled plan or drawing illustrating the requirements, shall be submitted to and approved in writing by the local planning authority prior to installation. The mitigation and enhancement measures shall be carried out in accordance with the approved details and thereafter retained in a suitable condition to serve the intended purpose.

2 Enhancements

2.1 Purpose and conservation objectives - Bats

- 2.1.1 The ecology report found that the house did not support roosting bats, although a Precautionary Method of Working has been produced for the demolition of the existing building, which also sets out the mitigation and enhancement for bats.
- 2.1.2 To enhance the sites biodiversity it is recommended that one bat box and two bat tubes be installed in the development.
- 2.1.3 The Integrated Eco Bat Box works well within cladding whilst wall mounted boxes such as the Beaumaris bat box would be suitable.
- 2.1.4 These boxes are suitable for species which are most commonly found roosting in buildings, such as pipistrelle and Natterer's.

2.2 Purpose and conservation objectives - Birds

- 2.2.1 To avoid committing an offence under the Wildlife and Countryside Act 1981 (as amended), site clearance and demolition will take place outside of the bird nesting period (i.e. outside of March to August), or failing that, following confirmation by a suitably qualified ecologist that nesting birds are absent from the habitats to be cleared.
- 2.2.2 Should any active nests be found the works in that area will stop until the chicks have fledged.
- 2.2.3 To enhance the sites biodiversity it is recommended that 3 bird boxes are installed, one of which should be a swallow cup.
- 2.2.4 The Eco Swallow nest cup or similar would be suitable.
- 2.2.5 The [Eco Small Bird Box](#), [Eco Robin box](#) or the [Vivara Open Fronted Box](#) would provide nesting opportunities for a variety of bird species, such as blackbirds, robins, wrens and blue tits/great tits.
- 2.2.6 A tawny owl box was recommended to be installed within a wooded area to the southeast of the development within the curtilage of Strange Farm. The [Eco Tawny Owl Nest Box](#) is suitable.

2.3 Lighting requirements

2.3.1 Exterior lighting will incorporate the following features:

- Light levels will be as low as possible, and the number of fixtures kept to the minimum required, to fulfil the lighting need;
- Lighting will aim to minimise light spillage towards boundary features;
- Lighting should have a maximum of 7.5 to 10 lux;
- LED lights will be installed, using the warm white (or amber) spectrum, with peak wavelengths >550nm (2700 or 3000°K) and no UV component;
- Lighting will be directed to where it is needed, with horizontal spillage towards retained habitats minimised. This can be achieved on the building by restricting the height of the lighting installation and the design of the luminaire;
- Luminaires will have an upward light ratio of 0%, mounted on the horizontal;
- Where appropriate lighting should incorporate Passive Infra-Red (PIR) motion sensors and timers to minimise the lit time, set to the minimum to minimise the duration of disturbance.
- As a matter of last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill;

2.4 Persons Responsible and maintenance

2.4.1 It is the landowner/developer's responsibility (and their contractor as instructed) to install and maintain the agreed enhancements as listed in this report.

2.4.2 Bat boxes can be checked to ensure they remain secure, with cobwebs removed from the outside, but should not otherwise be disturbed.

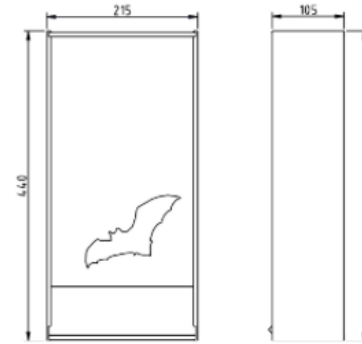
2.4.3 A well-designed nest box will only need one annual clean in the autumn.

2.4.4 It is important not to clean out nest boxes before August as they may still be occupied. Wait until autumn and then remove the contents, scattering them on the ground some way from the box to help prevent parasites re-infesting the nest box. Wear gloves and use a small brush or scraper to remove debris from the corners. Boiling water can be used to kill any parasites remaining in the box, leaving the lid off afterwards until it is fully dry.

2.4.5 Do not wait until the winter to clean out nest boxes as birds may already be roosting in them.

3 Specification of bat boxes

Integrated Eco Bat Box



- The box has an external shell of UV stabilised recycled plastic which provides a weatherproof and long lasting finish. Inside of this is a wooden box made from FSC certified orientated strand board which provides a warm and comfortable roost for the bats.
- Available in either a red or green finish.
- Height: 440mm; Width: 215mm; Depth: 111mm; Weight: 3kg

Beaumaris bat box



- This bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. This means that, not only does the box have excellent insulating properties maintaining a more consistent temperature throughout the year, it also provides excellent protection from predators
- Height: 390mm; Width: 290mm; Depth: 60mm; Weight: 4.4kg

4 Specification of Bird boxes

Eco Small Bird Box:



- This nest box consists of a weatherproof outer shell made from UV stabilised 100% recycled plastic. Inside the outer shell is a wooden nest box to provide the ideal environment for birds to nest in.
- The 25mm hole is primarily suitable for the smallest tit species such as blue tits, coal tits and marsh tits.
- Dimensions: height: 260mm, width: 170mm, weight: 1.1kg

Eco Robin box:



- With a weatherproof outer shell made from UV stabilised 100% recycled plastic which has been precision cut and uses an ingenious system of tabs to hold it together. This further extends the lifespan ensuring that there are no metal fixings that could rust or degrade over time.
- The removable wooden nesting chamber has drainage holes and is constructed from FSC Certified Oriented Strand Board.
- Dimensions: height: 260mm, width: 170mm, Weight: 0.8kg

Vivara Open Fronted Box



- Manufactured from WoodStone which is a mix of concrete and FSC certified wood fibres.
- This robust material safeguards against attacks from predators such as woodpeckers, cats and squirrels, whilst also providing a well-insulated interior with a more consistent internal temperature than an ordinary wooden box.
- Dimensions: height: 240mm, width: 190mm,

Eco Swallow Nest



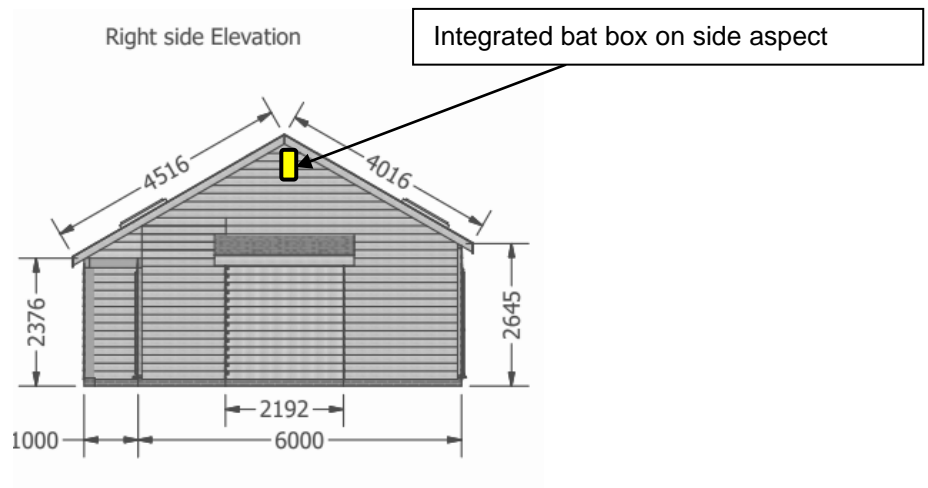
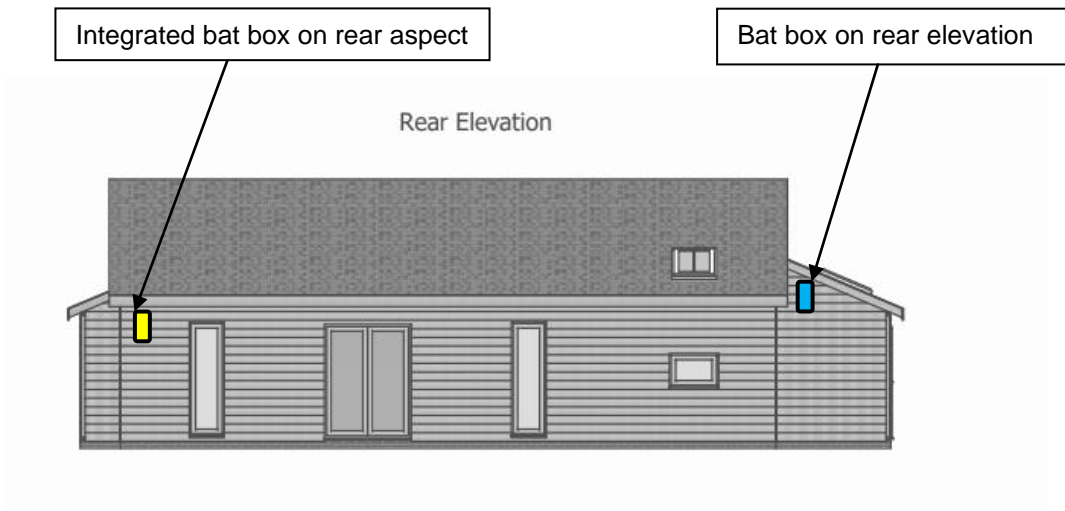
- Swallows will readily adopt these nest cups which are based on the size and shape of natural swallow nests. The nest cup is ideal for placing in a garage, shed, stable or barn.
- The nest cup consists of a moulded resin/concrete bowl with drainage hole, fixed to a 100% recycled plastic backing plate.
- Dimensions: height: 150mm, width: 270mm, weight: 0.9kg

Tawny Owl box



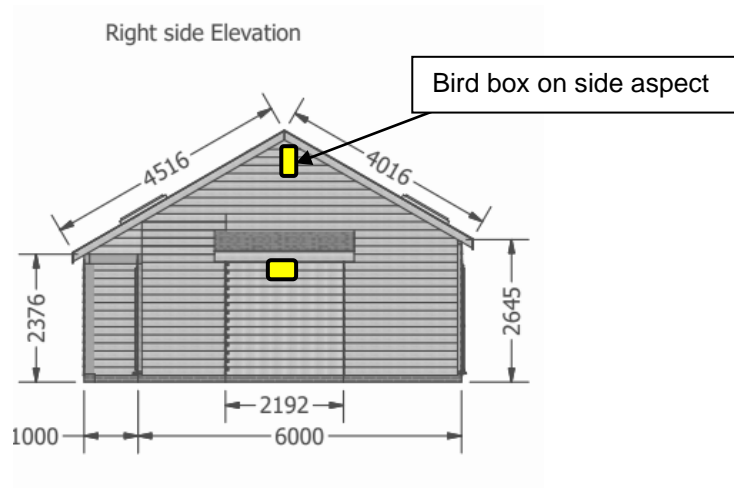
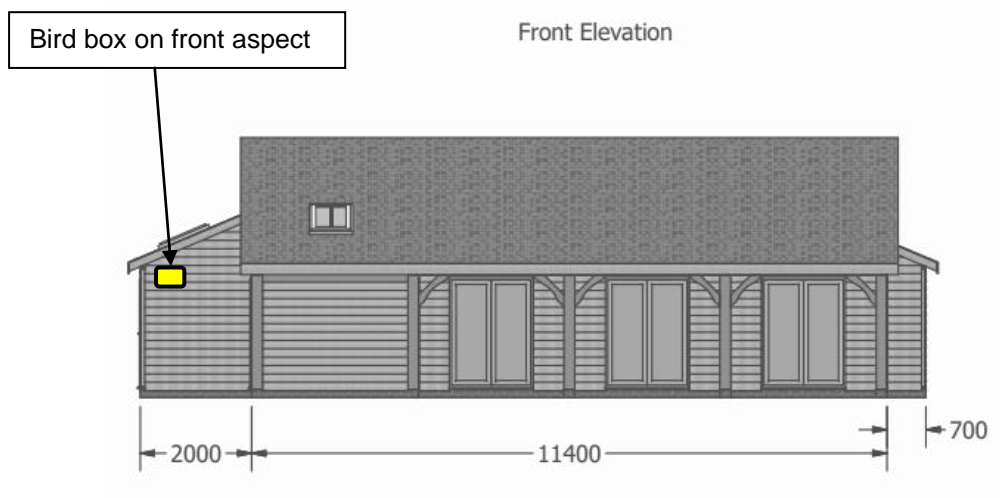
- The Eco Tawny Owl Nest Box provides a comfortable box for a pair of tawny owls to raise a brood. It is constructed from 100% UV stabilised recycled plastic and FSC certified wood.
- The outer shell is assembled using precision cut plastic tabs, which creates a highly robust and weatherproof box with a life expectancy of over 20 years.
- Dimensions: height: 53mm, width: 380mm, weight: 3.7kg

5 Enhancement locations - Bats

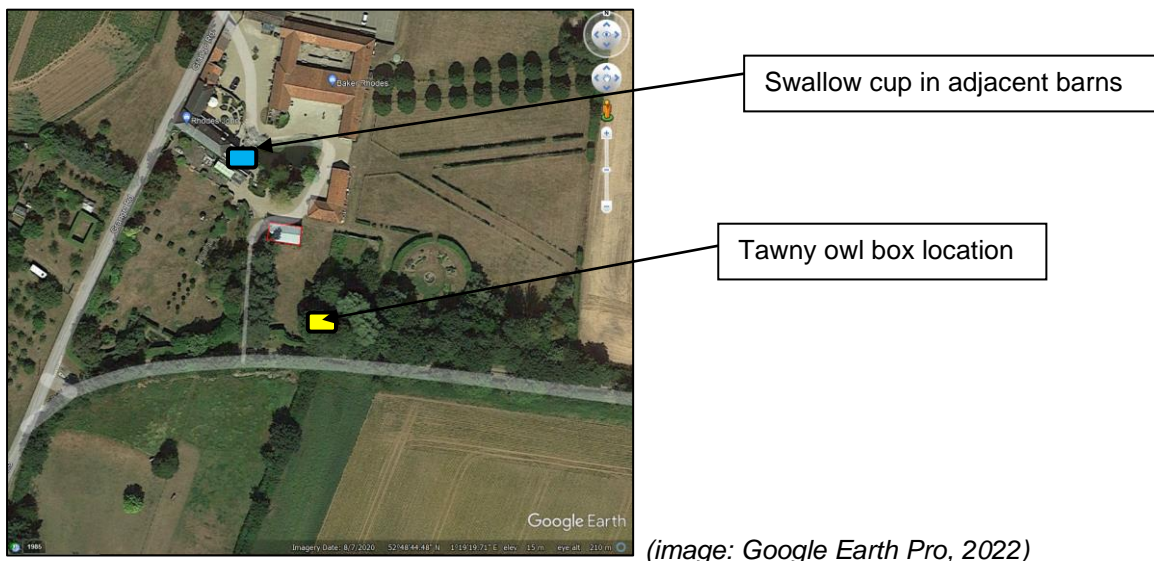


Drawings courtesy of Scott Timber Buildings, 2022

6 Enhancement locations – Birds



Drawings courtesy of Scott Timber Buildings, 2022



(image: Google Earth Pro, 2022)