

**David Leach Ecology Ltd.
Environmental Consultants**

**Southmere Farm
The Mallards
Havant
Hampshire**

Wildlife Protection and Habitat Enhancement Scheme

Date: February 2019

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1.0 Executive summary.

- Outline planning permission for a three new dwellings at a site at Southmere Farm was granted in 2018 (Havant Borough Council APP/18/00380).
- David Leach Ecology was commissioned by Knightsgate to produce a Wildlife Protection and Habitat Enhancement Scheme to discharge condition 10 of the planning approval.
- A number of ecological survey were undertake by Arbtech Consulting in 2018 following which a number of recommendations were made including:
 - Erecting a protective fence to maintain a minimum of an 8m buffer between the construction zone and the brook.
 - Carrying out a barn owl survey on the buildings and checking a barn owl box before demolition.
 - Installing features to enhance the site for biodiversity.
- A site visit in January found that all the buildings had been demolished, the area of scrub along the brook bank had been removed and the land had been graded over the whole plot.
- A number of measures will be implemented to enhance the site for wildlife which include installing features for bats, birds and insects on each plot and planning native species of plants and trees along the brook bank.

2.0 Introduction.

2.1 Background.

Client: Knightsgate

Property Surveyed: Land at Southmere Farm
The Mallards
Havant
Hampshire

Date of last survey: 29th January 2019

Date of Report: February 2019

Lead Surveyor: David Leach BSc. (Hon), CBiol. M.S.B., M.C I.E.E.M.
(Natural England WML CL18 & CL21 registered bat worker).

2.2 Aims of the report.

- Panning permission for a three new dwellings at a site Southmere Farm was granted was granted in 2018 (Havant Borough Council APP/18/00380).
- David Leach Ecology was commissioned by Knightsgate to produce a Wildlife Protection and Habitat Enhancement Scheme to discharge condition 10 of the planning approval.

3.0 Mitigation

Evidence of nesting barn swallows and roosting barn owls were found in the buildings during surveys in 2018. A number of species of bats were recorded foraging or commuting around the site during activity surveys on 2018. No other evidence of protected species such as water voles was found on site during the surveys but the brook at the west of the site was highlighted as an important ecological feature than must be protected.

3.1 Brook

- All vegetation apart from a large willow and two small saplings have been removed from the site and the area has been graded which has left a steep bank at the water's edge. The two meters of land from the water's edge will be re-graded making the bank less steep. This will be done by hand or using a long arm digger so as not to encroach too near the water's edge and collapsing the bank.
- A buffer zone of a minimum of 8m between the brook and the construction zone will be created by erecting Herras fencing along the length of the west side of the site.
- A root protection zone will be set up to protect the trees from harm during the construction works.
- There is a danger that the proposed construction could lead to pollution of the waterway. It is important that a Construction Environmental Management Strategy is prepared by the contractors before construction starts detailing how works will be undertaken. The CEMP should detail how contaminants will be kept on site and out of the brook and ensure all surface water is filtered before leaving the site to maintain water quality. This is especially important for contaminants such as silt.
- Environmental pollution prevention guidelines will be followed e.g. machinery and fuel etc. will be stored in areas which can be contained in the event of spillage.
- Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate the brook to prevent disturbance to bats or other wildlife foraging or commuting along the brook. Any lighting will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood will be used to control or restrict the area to be lit and limit "light spillage" on the site. Security lights will be on motion sensors and on for short periods of time only.

4.0 Enhancements.

In accordance with Section 40 of the Natural Environment and Rural Communities Act 2006, paragraph 109 and 118 of the National Planning Policy Framework and in accordance with Policy E7 of the Local Plan' a number of measures will be implemented to enhance the biodiversity on site. These will include:

4.1 Bats

- A mix of bat bricks/tubes/boxes of the designs below will be built into the walls of the houses at a height of at least 3m (see appendix B & C).
- Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate the bat access points or flight paths used by foraging or commuting bats. The light will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood will be used to control or restrict the area to be lit and limit "light spillage" on the site. Security lights will be on motion sensors and on for short periods of time only.

4.2 Birds.

- Two pairs of woodcrete house martin nest cups will be installed under the eaves of the wall of the houses (see appendix B & D).
- Two triple swift boxes (or equivalent swift bricks) will be installed under the eaves of the west wall of the house (see appendix B & D).
- Although barn swallows were known to nest in the buildings on site the design of the buildings on site does not provide suitable, dark and sheltered areas which swallows use to nest in.

4.3 Hedgehogs

- Holes (13cm x 13cm) will be created every 15m in gravel boards at the bottom of the close board fencing around the site to allow hedgehogs to move between the plot and the surrounding area (see appendix F).

4.4 Insects

- A bee brick (see appendix B & E) will be installed on a sunny wall of each of the houses at a height of at least 2m.

4.5 Trees.

- Three alder (*Alnus glutinosa*) trees will be planted near the brook (see appendix B).

4.6 Brook side planting.

- Native plants will be planted along the edge of the brook. A mix of the species below will be planted at a density of one plant every 0.5m
 - *Purple loosestrife (Lythrum salicaria)*
 - *Lesser Spearwort (Ranunculus flammula)*
 - *Marsh Pennywort (Hydrocotyle vulgaris)*
 - *Water Forget-me-not (Myosotis scorpioides)*
 - *Water Mint (Mentha aquatica)*
 - *Marsh-marigold (Caltha palustris)*
 - *Reed Sweet-grass (Glyceria maxima)*
 - *Soft Rush (Juncus effusus)*

A compliance visit will be undertaken by an ecologist before the buildings are occupied who will submit a report to the local planning authority showing photographic evidence that the mitigation and enhancements have been implemented to show compliance with condition 10.

5.0 Appendices

A. Legislation (a brief summary only. Please refer to full text of legislation or policy for full details).

Under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way (CroW) Act 2000, all bats have legal protection. In addition any structure which shows signs of use by bats either currently or in the past, for shelter or protection, is classed as a bat roost and both the roost and any bats using it are protected by law which makes it an offence to:

- Intentionally or recklessly kill or injure or take any bat.
- Intentionally or recklessly damage or destroy any bat roost and to obstruct access to that roost.
- Intentionally or recklessly to disturb any bat using a structure as a roost.

Protection is also afforded to bats under the Conservation (Natural Habitats & c.) Regulations 1994 (the Habitats Regulations) Amended 2007

Addition IV lists all bats

Regulation 39 makes it an offence to:

- Deliberately kill or capture a bat.
- Deliberately disturb a bat.
- Damage or destroy a resting place or breeding site of any bat.

If any proposed development would result in the otherwise illegal acts above, a licence must be obtained from Natural England prior to any work being carried out. A licence will only be granted if there is no satisfactory alternative and the authorised action will not be detrimental to the maintenance of the population of the species concerned.

The Wildlife and Countryside Act 1981 (as amended) also protects all reptiles from killing, injury and sale.

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to damage or destroy the nests of birds of breeding birds (with the exception of certain pest species). The bird nesting season is generally defined as being between mid-February and August inclusive although nesting outside of the period is not unusual if conditions are favorable.

Appendix B. Proposed Site plan showing location of enhancement features.



Bat Box ★

House martin cups ▼

Swift bricks/boxes —

Bee Brick □

Alder Trees ●

Marginal plants —

Plot 1



Bat Box ★

House martin cups ▼

Swift bricks/boxes ■

Bee Brick ▮

Plot 2



Bat Box ★

House martin cups ▼

Swift bricks/boxes ■

Bee Brick ▮

Plot 3.



Bat Box ★

House martin cups ▼

Swift bricks/boxes ■

Bee Brick ▬

Appendix C. Bat Enhancement features.

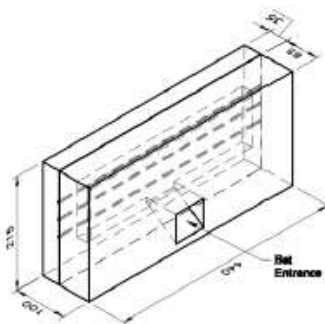
For buildings.



Product Information – Bat Box



- The Forticrete Bat Box has been developed to be used in new build construction or renovation work where there is a requirement to provide a habitat for Pipistrelle bats.
- The box is made of a conventional cast stone front face but is backed with high grade plywood which is sawn and roughened internally to provide a haven for bats.
- The Bat Box is maintenance free due to the bottom entrance.
- The Bat Box illustrated is available from Forticrete's 'Stone in Stock' range although bespoke boxes can be designed and made for any application.



For more information please contact Forticrete at:
caststone@forticrete.com

Telephone: **01909 775000**
Fax: **01909 773549**

You can also visit our website at
www.forticrete.com

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Confidence you can build on



Schwegler 1FR Bat Tube

Schwegler 1FR Bat Tube - This long box can be installed within brick masonry, beneath plasterwork or wood paneling, or incorporated into concrete structures such as factory buildings or bridges. Inside it contains a woodcrete surface, a roughened wood board, and a metal mesh, providing a choice of roosting areas depending on the weather conditions and the bats' habits. This box is maintenance-free as the entrance slit is at the bottom, allowing for self-cleaning. No painting required, but if painting is necessary a natural breathable paint should be used

Woodcrete (75% wood sawdust, concrete and clay)



1WI Schwegler Summer and Winter Bat Box

The Schwegler 1WI Summer and Winter Bat Box is designed for year-round occupation. This means that it is suitable for both the safe hibernation of bats in winter, as well as for roosting, forming of colonies and raising of young during the summer. This box is manufactured with woodcrete together with a special insulating material. Along with the cavity wall design, this results in excellent thermal insulation but with no loss of air permeability. The insulation also prevents the interior from overheating in the summer or if it is placed in a very exposed site.

Suitable for bat species which typically inhabit buildings, such as common pipistrelles, serotine bats and occasionally noctule or Bechstein's bats.

The 1WI is designed to be set into an external wall or incorporated into the masonry and then rendered flush with the surface so that only the entrance is visible. This box does not require any maintenance as the droppings fall out of the entrance.



1WI Schwegler Summer and Winter
Bat Box

Ibstock Bat Bricks



Appendix D. Bird Enhancement features.

Bird features for buildings.

No. 11 Schwegler House Martin Terrace



No. 17A Schwegler Swift Nest Box (Triple Cavity)



Ecosurv



The Ecosurv Swift brick can be customised to match any brickwork. The materials include slate.

URL: <http://www.ecosurv.co.uk/product/bird-box-range>

Ibstock



An attractive brick, designed to encroach minimally on the cavity. It is thus one of the narrowest boxes on the market. The materials are frost resistant.

URL: <http://www.ibstock.com/literature/eco-products/>



CJ Wildlife Woodstone



Built-in Visible Swift box
Number 90058



Built-in Visible Swift box
Number 90059



Built-in hidden Swift box
Number 90060

These nest boxes are made of WoodStone®, a robust, durable mix of cement and wood fibres which offers protection from predators and a more consistent internal temperature.

URL: <http://www.vivara.co.uk/brochure/tip-23> or <http://www.vivara.co.uk/Swallows-and-Swifts>

Appendix E. Insect Enhancement features.

BEE BRICK FOR BUILDINGS

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Bee Brick is increasingly being recognised as a biodiversity enhancement measure by planners and is currently included in planning guidance from both Cornwall and Dorset county councils.

Bee Brick is designed to sit alongside other measures like Swift boxes, Bat boxes and green roofs.

HOW IT WORKS

Each Bee brick contains cavities for solitary bees to lay their eggs. Each cavity goes part way into the brick, which is solid at the back, ensuring bees cannot enter the building. Bees lay their eggs inside the holes and seal the entrance with mud or chewed up vegetation. The offspring emerge the following Spring and begin the cycle again. Solitary bees are not aggressive and do not swarm, and so are safe for householders.

MATERIALS

Green&Blue Bee Bricks are cast in concrete. We use a top grade concrete and this allows us to use 75% waste material from the Cornish China clay industry in our mix, making the concrete as 'green' an option as we can.

IMPLEMENTATION

Bee Bricks should be positioned in a warm sunny spot, on a **southerly facing wall**, with no vegetation in front of the holes. They should be positioned **at least 1m** from the ground with **no upward limit**. More Bee Bricks means more bees so the quantity you choose to use can be driven by your design aesthetic. There must be consideration for bee friendly planting nearby as with no food bees will not use them.

ABOUT SOLITARY BEES

Solitary bees are non aggressive and as such are pet and child-friendly. Solitary bees will not sting you unless you squash them, and even then their stings are not painful. They are a vital part of your local bio-diversity and should be encouraged and cherished, particularly by gardeners as they pollinate fruit crops. Bee populations are in decline and introducing measures now to reverse this is absolutely essential.



Appendix F. Hedgehog Enhancement features.

Hedgehog access panel



David Leach BSc (Hons) CBiol. MSB MCIEEM. David is a professional ecologist with over thirty five years' research and fieldwork experience in many aspects of ecology and for the past ten years in environmental consultancy work.

David is an experienced bat surveyor with competency in activity surveys, bat roost assessments, daytime surveys for bat field signs, assessments of trees as potential bat roosts and the production of reports providing advice on best practice, mitigation and compensation works relating to bats as may be required.

David also has experience in surveying for birds, reptiles, amphibians, Barn Owls and Badgers and also carries out extended Phase 1 habitat surveys, BREEAM and Code for Sustainable Homes assessments.

David holds a Natural England licence to disturb bats for the purposes of science and education or conservation and is a **Registered Consultant for the Bat Low Impact Class Licence**. David has been involved in obtaining many Protected Species Licences to permit development works affecting bats and also closing down badger setts.

Disclaimer.

All reasonable effort has been made to provide accurate information at the time of the survey. However weather conditions and the timing of surveys can affect the results. Some species or signs of that species will only be visible at certain times of the year e.g. the nesting season for birds is usually between March and September. The absence of certain species or signs of use at the time of a survey does not mean that they are not present at other times of the year and does not imply that a species might not use the site at some time in the future.

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