David Leach Ecology Ltd.

Ecological Consultants

Dairy Farm Building

East Grimstead

Wiltshire

Bat Mitigation and Compensation & Enhancement

Date: July 2023

Report compiled by D. V. Leach. M.C.I.E.E.M

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1.0 Background

- Phase 1 and 2 bat surveys in 2018 detected the presence of roosts of the following bat species using the building as day roosts:
  - 2 x Natterer's bats.
  - Up to 3 x brown long-eared bats.
  - Up to 3 x common pipistrelle bats.
- Repeat dusk surveys were carried out in 2023 to update the previous surveys.
  - 2 x common pipistrelle using the building as a day roost.
  - Up to 2 x brown long-eared using the building as a day roost.
- This report was written by David Leach an experienced ecological surveyor who is a Natural England WML CL18 registered bat worker, a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Biologist.
- David Leach is a Registered Consultant under the Bat Mitigation Class Licence - WML-CL21 annexes B, C & D and also holds a Natural Resources Wales bat survey licence.

2.0 Surveys.

Activity Surveys

- Emergence and re-entry activity surveys were conducted following guidelines set out in the BCT Bat Surveys for Professional Ecologists Good Practice Guidelines 3rd edn. Collins. J (2016) and the JNCC Bat Workers' Manual (Mitchell-Jones A. J).
- Surveyors were positioned around the buildings to give full coverage of all aspects of the roof and potential access points.
- Two dusk surveys were undertaken on the property during good weather conditions in May and June 2023 by R. Iacoban, M, Haines and T. Lewis, all experienced surveyors.
- Equipment used during the surveys included using an Elekon Batlogger M detector, SMMini, EMT pro, Baton XD, Canon XA30, and rayTEC VAR2-i8-1 illuminator.
- Two dusk surveys in May and June 2023 found:
  - 2 x common pipistrelle using the building as a day roost.
  - Up to 2 x brown long-eared using the building as a day roost.

3.0 Conclusion.

- The property currently has active bat roosts of two species of bats.
- The proposed works will result in the destruction of or damage/disturbance to a bat roost which is an offence under current legislation. Work to destroy a bat roost or disturb bats can be conducted under a European Protected Species Licence issued by Natural England.
    - All bats and bat roosts are protected by law. It is an offence to
        - Intentionally or recklessly kill or injure or take any bat.
        - Intentionally or recklessly damage or destroy any bat roost and obstruct access to that roost.
        - Intentionally or recklessly disturb any bat using a structure as a roost.
- **As the proposed works will result in the destruction/disturbance of a bat roost a European Protected Species (EPS) Mitigation Licence is required to damage or destroy a bat roost or disturb bats.**
- **EPS licenses can be applied for only after all necessary permissions or listed building consents have been granted.**
- Natural England aim to give a decision within 30 working days once the application has been registered but it may take longer.

3.1 Impact Assessment

Potential Impacts of Development on Bats

Short-term Impacts: Noise, Dust and Vibration During Construction Phase

Potential indirect impacts on bats during the construction phase include noise, dust and vibration disturbance or obstruction of access points due to the possible installation of scaffolding, particularly if it is combined with netting, sheeting or boarding.

Long-term Impacts: Roost Loss and Modification

In the absence of mitigation, the works would lead to the destruction/disturbance of roosting areas and access points used as day roosts by common pipistrelle and brown long-eared bats.

Long-term Impacts: Increased Levels of Lighting

Any artificial lighting used after the development from both external lighting sources and light spill via windows has the potential to disturb bats roosting within the building and have a detrimental effect on bats foraging and commuting through the area if the light spill is not controlled.

Potential impacts to roosts can include:

- Delayed emergence time (Downs et al. 2003), which can impact on the amount of time to hunt for food (greatest insect activity is around dusk); and
- Bats abandoning or even become entombed within the roost (Packman et al. 2015).

Potential impacts of lighting commuting routes or feeding grounds can include:

- Bats abandoning certain feeding areas by creating a barrier to movement along the commuting route (Stone et al. 2013).
- Attracting insects to be attracted to certain types of light (with UV content), providing a feeding advantage for light opportunistic bats (such as the faster flying *Pipistrellus* species), as well as drawing insects from adjacent areas, so that light-sensitive species have fewer insects to feed on, creating a 'vacuum effect'; and
- Reducing juvenile growth rates reducing the chances of survival (Duvergé et al. 2000).

A sensitive lighting strategy must be formulated and incorporated into the architectural plans, as detailed in Section 5.5.

Summary of Impacts and Predicted and Residual Impact of the Works on Bats

The development proposals (without mitigation and compensation) would result in the permanent loss of day roosts of common pipistrelle and brown long eared bats.

Suitable avoidance, mitigation compensation and enhancement measures are described in Section 5.5 to minimise and avoid impacts mentioned above and ensure that residual bat roosting opportunities are broadly equivalent to that currently present. The conservation status of bats is predicted to be maintained or enhanced after completion of the development.

3.2 Legislation.

3.2.1 Bats.

Under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CroW) Act 2000 and under EU law by the Conservation of Habitats and Species Regulations 2010 (commonly referred to as the Habitats Regulations) 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 obstruct access to that roost.
- Intentionally or recklessly 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

Annex 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.

3.3.2 Where a development is proposed within the vicinity (usually 4km) of a Special Area of Conservation (SAC) that has been designated for bats, the developer has an obligation to assess the potential impact of the development on the SAC. Should unacceptable detrimental impacts on the SAC that cannot be offset by appropriate mitigation be likely then it is conceivable that planning permission may not be granted.

3.3.3 Where works will affect a bat roost, a European Protected Species licence is likely to be required to undertake any works lawfully. To inform the licence application, detailed surveys would need to establish the species, type and size of roost to ensure appropriate mitigation measures. Licence applications will only be considered when accompanied by full planning permission.

3.3.4 In determining whether to grant a licence Natural England must apply the requirements of Regulation 535 of the Regulations and in particular the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b).

1) Regulation 53(2) (e) states: a licence can be granted for the purposes of “preserving public health or public safety or other imperative reasons of overriding public including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

2) Regulation 53(9) (a) states: the appropriate authority shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”.

3) Regulation 53(9) (b) states: the appropriate authority shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

4.0. Compensation and Mitigation

4.1. Bats

A1.1 **No work to the building that will affect the bat roost or access points can be carried out until a European protected species licence has been issued and then only in the presence of the licensed ecologist.**

A1.2 **Roofing and demolition works to the roost areas will take place during the months of March to November to avoid the core hibernation period of December to February and to minimise the likelihood of bats being present when works are undertaken.**

A1.3 **The landowner will make the contractors aware of bats and bat roosts in the building and ensure they have read and understood the mitigation plan with respect to not undertaking any work to the roof or roost areas highlighted in the report without a licensed ecologist being present.**

A1.4 Before works to the roost areas start, three suitable bat boxes, one for each species found, (see appendix 3) will be erected on a mature tree or building on site to provide a roost area for bats until the work is completed and to have a safe location to relocate any bats found. These will remain in place for at least 5 years and not be moved unless checked by a licensed bat worker beforehand. If it is found the box has been occupied by bats a protected species licence will be required before the box can be moved.

A1.5 Prior to soft deconstruction works on the roof of the building commencing, a demonstration will be given to all site operatives and contractors to explain bat biology, their responsibilities and the required work methods. The site operatives will be informed that they need to be continually aware of potential bat presence during the work. In addition, all contractors on site will be made aware of their responsibilities under the Wildlife and Countryside Act 1981 (as amended) and will be required to adhere to advice given in this method statement.

A1.6 A pre-works survey of the building will be undertaken by the named ecologist to check for the presence of bats. If any are found they will be moved individually using gloves and cloth bags and relocated to a bat box of the site. Once the building is deemed clear of bats then roof and cladding deconstruction works will proceed using a ‘soft’ approach.

A1.7 The access points and roost areas identified during the surveys will be dismantled by hand under a watching brief by the named ecologist. The external soft strip will only be undertaken in dry, mild conditions to prevent any bats which are discovered from getting cold and wet.

A1.8 If, during the remaining works, the building is found to contain solitary bats, work will be halted until the bat(s) vacate the building or until a licensed bat handler removes the bat(s). Once the area is clear of bats then works will proceed. If any bats are discovered they will be removed by a licensed bat handler using gloves and a cloth bag and relocated to one of the newly erected bat boxes.

A1.9 Builders and contractors are explicitly forbidden from handling bats.

A1.10 In the unlikely event that a sick or injured bat is found it will be carefully placed in a small, ventilated box with a secure lid and with a rough cloth along one side and the bottom. The bat will then be taken to a Local Bat Care worker who will look after it. When the bat is fully recovered, they will arrange for its release at the site when weather conditions are suitable.

A1.11 To compensate for the loss of the bat roosts the following will be provided:

- Four pairs of ridge tile access points on the roof of the new house (see appendix 1 & 3). **A wet ridge must be used as a dry ridge system would be too draughty.**
- Four bat access tiles will be fitted in the roof of the new house (see appendix 1 & 3).
- **Type 1f bitumen felt must be used in all areas where bat compensation features are located. Breathable membranes of any type are unsuitable and will not be licensed by Natural England**

A1.12 Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate bat access points or flight paths around the buildings with bat features or bat boxes which could be used by foraging or commuting bats. A suitable lighting scheme and regime will be in accordance with Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the built environment series, Bat Conservation Trust (London) & Institution of Lighting Professionals (Rugby) (2018)

- Any lights 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 a maximum of 1 minute.
- Lighting units will be of low intensity - up to 15 watts, and red, amber or warm light with a maximum lighting colour temperature of 2700 K.
- White, blue and green light sources including metal halide, mercury and CDO / CPO Ceramic Outdoor Lamps bulbs have a significant effect on bats and will not be used.

A1.13 Roofing works will take place during the months of March - November to avoid the core hibernation period of December to February.

4.4.2 Nesting birds

- Birds’ nests, when occupied or being built, receive legal protection under the Wildlife and Countryside Act 1981 (as amended). It is highly advisable to undertake clearance of potential bird nesting habitat (such as hedges, scrub, trees, suitable outbuildings etc.) outside the bird nesting season, which is generally seen as extending from March to the end of August, although may extend longer depending on local conditions.
- If there is absolutely no alternative to doing the work during this period then a thorough, careful and quiet examination of the affected area must be carried out by a qualified ecologist before clearance starts.
- If occupied nests are present then work must stop in that area, a suitable (approximately 5m) stand-off maintained, and clearance can only recommence once the nest becomes unoccupied of its own accord.

5.0 Enhancement for all wildlife

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

5.1 Bats

- Two Kent bat boxes will be installed in the car port of the house (see Appendix 2 & 3).
- Two gaps (50mm x 20mm) will be created in the cladding of each gable of the car port. **Type 1F bitumen under felt must be used wall behind the cladding. Breathable membrane must not be used as it has been shown to be unsuitable for area where bat are likely to roost** (see Appendix 2 & 3).
- Three pairs of ridge tile access points and two pairs of roof tile/slate access points will be installed on the roof of the car port (see Appendix 2 & 3).
- **Type 1F bitumen under felt must be used wall behind the cladding. Breathable membrane must not be used as it has been shown to be unsuitable for area where bat are likely to roost.**
- Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate bat access points or flight paths around the buildings with bat features or bat boxes which could be used by foraging or commuting bats. A suitable lighting scheme and regime will be in accordance with Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the built environment series, Bat Conservation Trust (London) & Institution of Lighting Professionals (Rugby) (2018)
    - Any lights 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 a maximum of 1 minute.
    - Lighting units will be of low intensity - up to 15 watts, and red, amber or warm light with a maximum lighting colour temperature of 2700 K.
    - White, blue and green light sources including metal halide, mercury and CDO / CPO Ceramic Outdoor Lamps bulbs have a significant effect on bats and will not be used.

5.2 Birds

- A sparrow terrace will be fitted under the eaves on the north west elevation of the house (see Appendix 2 & 3).
- Two pairs of house martin nest cups will be put up under the north east elevation of the house (see Appendix 2 & 3).
- Two swift boxes or swift bricks will be fitted to the south east elevation of the house as high as possible on the wall (see Appendix 2 & 3).
- Three woodcrete barn swallow nest cups will be installed in sheltered area of the car pot of the house (see Appendix 2 & 3).

5.3 Insects.

- Two bee features (see Appendix 2 & 3) will be put up in a sunny but sheltered location on site between 1m and 2.0m above the ground and in an area that will not be obscured by plants.

5.4 Trees, shrubs and flowering plants.

- Native or wildlife friendly trees and plants will be used around the site.
- **Conifers, rhododendrons and cherry or Portuguese laurel are not suitable**.
- Any new hedging to be planted will be a native species mix. A suitable composition would be quickthorn, blackthorn, field maple, common dogwood, hazel, guelder rose, spindle and wild rose. Honeysuckle plants will be added every 25m. The hedge will be planted at the appropriate intervals, with chippings added to keep the weeds down.
- Once it is at a suitable height, it will be trimmed to ensure it bushes out and becomes thick and suitable for birds, insects and other creatures.
- Any new and infill hedging will be of mixed native species to fit in with the existing hedging around the site.
- At least one fruit tree will be planted in the garden.

5.5 Hedgehogs

- Hedgehog friendly gravel boards / holes (13cm x 13cm) will be made in garden fencing between plots and between the plots and adjoining land.

An ecologist will inspect the enhancement features and send a compliance report to the local planning ecologist prior to occupation of the dwellings.

Appendix 1. Location of compensation features (bat access tiles).



Ridge access tile

Roof access tile

Type 1f bitumen underfelt or water proof and breathable wood fibre boards must be used in all areas where bat have access to as breathable membranes are unsafe for bats and so not suitable.

Appendix 2. Enhancement Features.

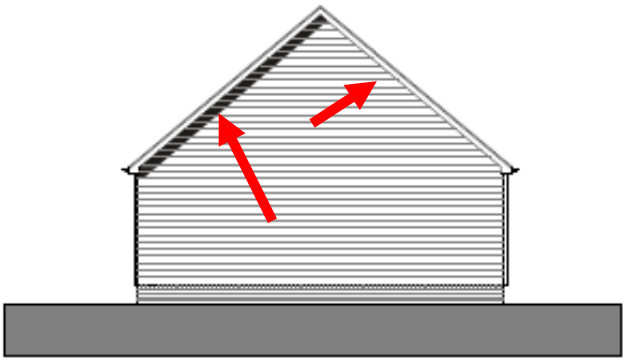


House Martin Terrace

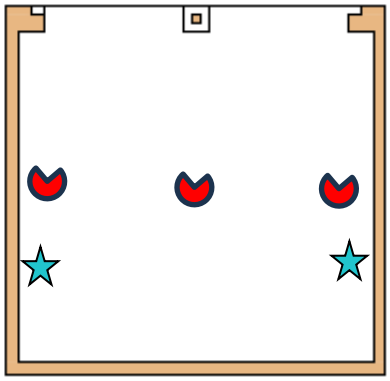
Sparrow Terrace

Swift Boxes/Bricks

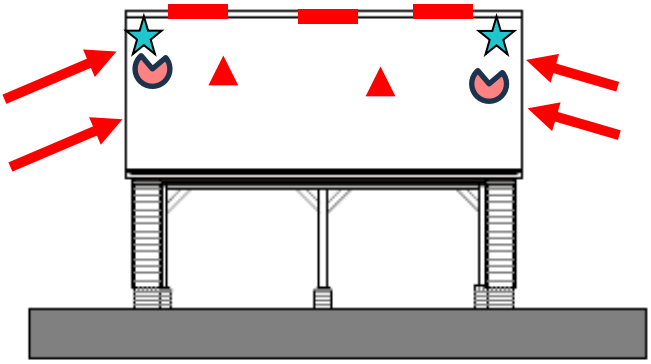
Enhancement for the car port to be built at a later date.



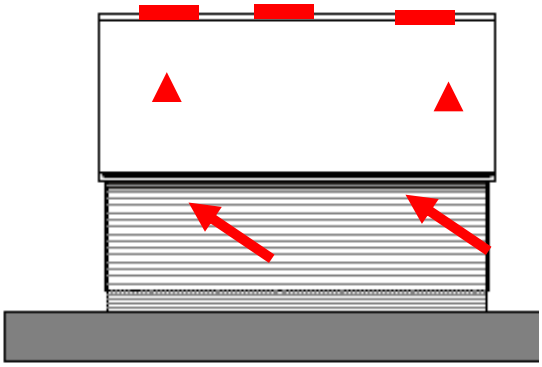
CAR PORT SIDE ELEVATIONS



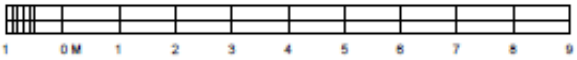
CAR PORT PLAN



CAR PORT ENTRANCE ELEVATION



CAR PORT REAR ELEVATION



Woodcrete swallow nest cups x 2

Kent bat boxes

Gaps created in cladding (15-20mm x 50 mm) with type 1F bitumen felt behind.

Ridge tile access points.

Bat access slates/tiles x 4

Type 1F bitumen under felt or sarking boards must be used under the roof. Breathable membrane will not be used as it has been shown to be unsuitable for areas where bats are likely to roost.

Appendix 3) Design of suitable compensation and enhancement features

Bat boxes.

Bat boxes to be incorporated into the design of the proposed new residential dwellings and / or the surroundings. The links below offer further information, details and examples:

http://www.bats.org.uk/publications_detail.php/1318/bat_box_information_pack

http://www.habibat.co.uk/about-habibat

https://www.nhbs.com/equipment/bat-boxes



Double cavity bat box
https://www.greenwoodsecohabitats.co.uk/shop



Triple cavity bat box
https://www.greenwoodsecohabitats.co.uk/shop



Vincent Pro Bat Box.

Vincent Pro Bat Box
The box features three vertical chambers of different sizes, providing ideal roosting space for a variety of species. Beneath the crevice entrances is a ladder which provides a rough surface for bats to land. Limited cleaning is required for these boxes as the droppings will fall out of the bottom of the chambers. Manufactured from FSC timber with a recycled plastic top. The front and top of the box are black which helps the box to absorb heat. Proven with seven UK species: Barbastelle, Leisler's, common pipistrelle, soprano pipistrelle, brown long-eared, Natterer's and whiskered bat.

* Height: 720mm
* Width: 180mm
* Depth: 235mm
* Weight: 4.1kg



Kent Bat box.



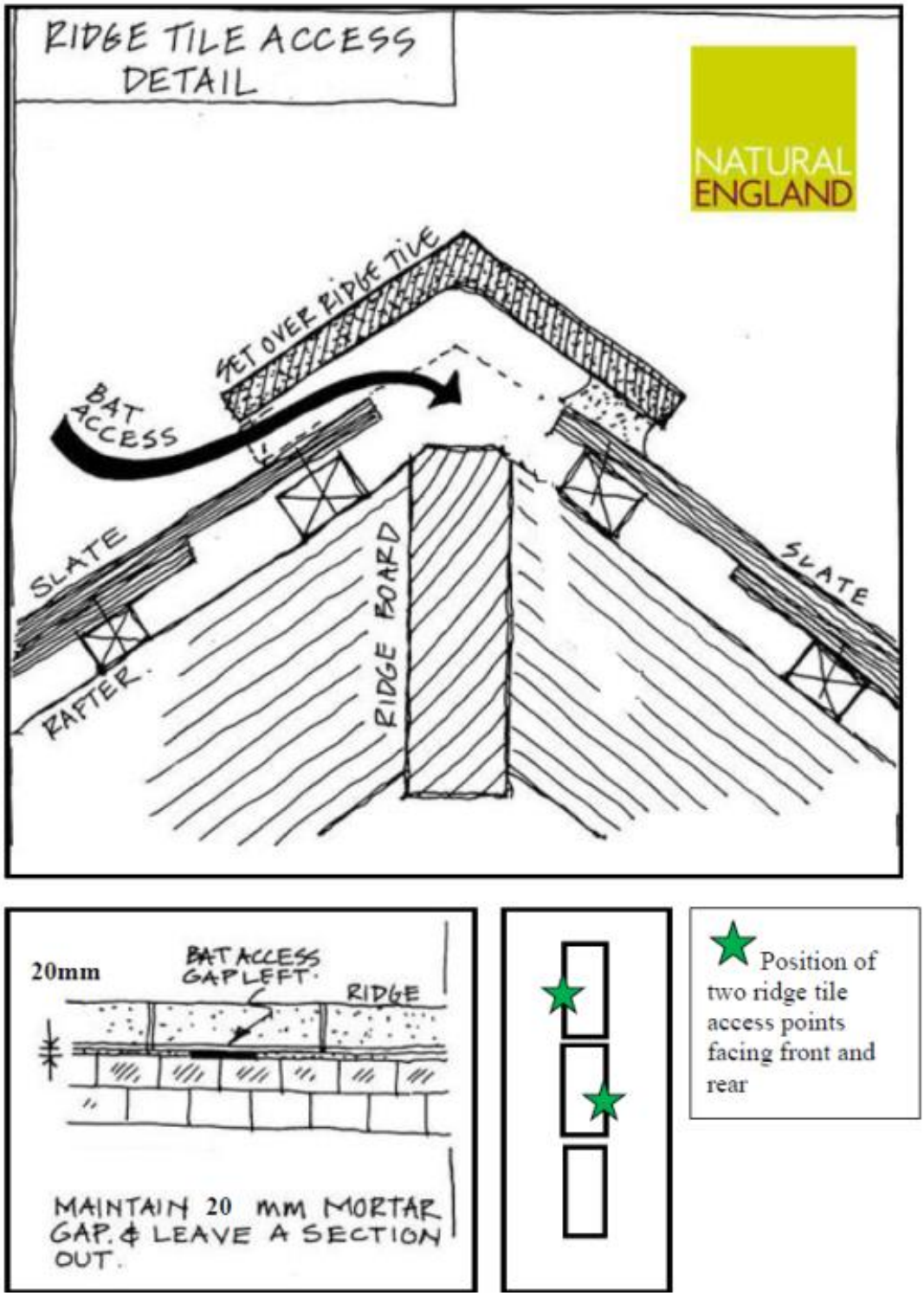
The SSQ Bat Access Slate provides a discreet and un-interrupted path from the roof exterior to the batten cavity/interior of the roof.
Available in a number of slate finishes and sizes, plain le and profile, the Bat Access comprises an exterior vacuum formed weathering cowl to allow bat entry, let into the body of the roof covering. Combined with an inject on moulded underbase unit with a factory.
applied non-slip surface to facilitate easy access for the bat into the roof space.

SSQ Bat Access slate.



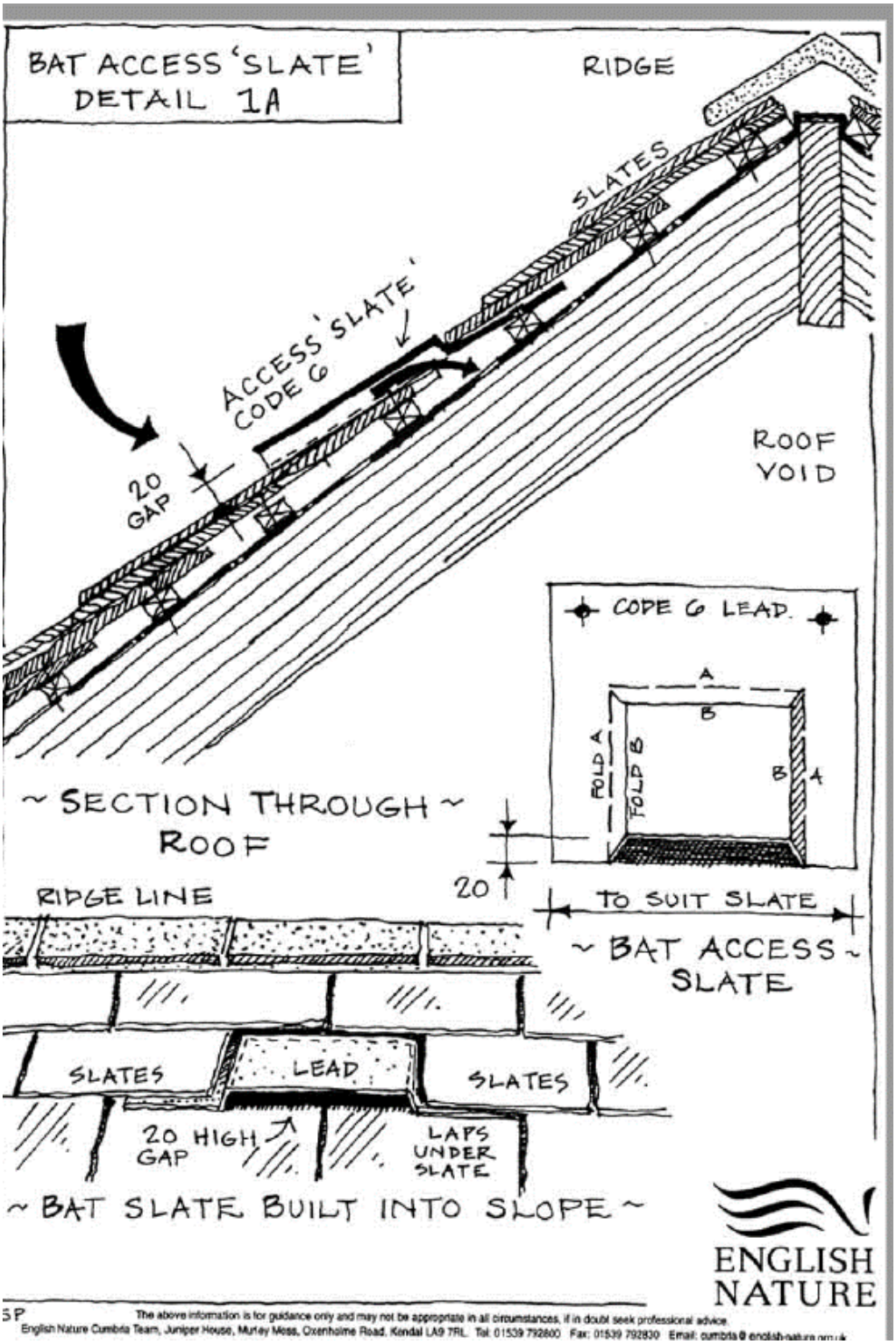
https://www.nhbs.com/bat-access-tile-set?bkfno=187129

Available in 9 colours



Ridge Tile access design.

Type 1f bitumen underfelt or water proof and breathable wood fibre boards must be used in all areas where bat have access to as breathable membranes are unsafe for bats and so not suitable.



Bitumen underfelt or water proof and breathable wood fibre boards must be used in all areas where bat have access to as breathable membranes are unsafe for bats and so not suitable.

Bird Boxes

Bat boxes can be purchased and incorporated into the design of the proposed new residential dwelling and / or the surrounding area.



Swallow Nest

It is increasingly difficult for Swallows and House Martins to find suitable nest-building mud and when they do find it, it is often poor quality. In addition, the walls of buildings are nowadays often very smooth so nests tend to fall down, sometimes with the nestlings inside. In many places, the vibration caused by heavy vehicles shakes the nests loose.

The **Swallow Nest No. 10** consists of a woodcrete nesting bowl which is attached to a wooden panel of formaldehyde-free chipboard. The nest should be placed inside outbuildings such as sheds, barns or stables leaving a distance of at least 6cm between the top of the nest and the ceiling. You should ensure there is always access for the birds through an open window or sky light. Swallows are sociable birds but multiple nests should not be placed at less than 1m intervals. Cleaning of the bowl is recommended, although not absolutely necessary.

For more info:
https://www.nhbs.com/no-10-schwegler-swallow-nest



House martin terrace

Easily fixed under the eaves on the outside walls of buildings, these nest boxes are perfect for house martins to return to year after year. The bowl-shaped nest is made of air-permeable wood-concrete and a backing board made of exterior grade, formaldehyde-free chipboard to prevent warping.

Double nest: House martins are very sociable and will more readily use nests that are arranged in pairs. They can also be installed in groups to form large colonies. The backing board may be painted to match the building.

Siting: Under eaves on the externals walls of buildings. Install on the sheltered side of the building at a minimum height of 2m above the ground.

These nests can be used for years without cleaning. However, if possible it is recommended to inspect them frequently and to clean them when necessary.



House Martin Terrace

This **House Martin Terrace** means you can now provide house martin nesting sites on any external wall regardless of whether it has eaves or not. Made using Schwegler's patented wood-concrete (an exceedingly durable, rot-proof and breathable natural material designed to mimic the properties of natural nest sites and last up to 25 years), this contemporary design is an attractive addition to urban areas.

Ensure the nest is located at least 2 m above the ground. The nest can be installed on any unobstructed facade without an overhanging roof, or alternatively directly under overhanging eaves. Ensure the nest is on the outside of the building (rather than inside the roof) on the sheltered side. Each individual nest can be removed separately for cleaning and inspection.



Schwegler Sparrow Terrace

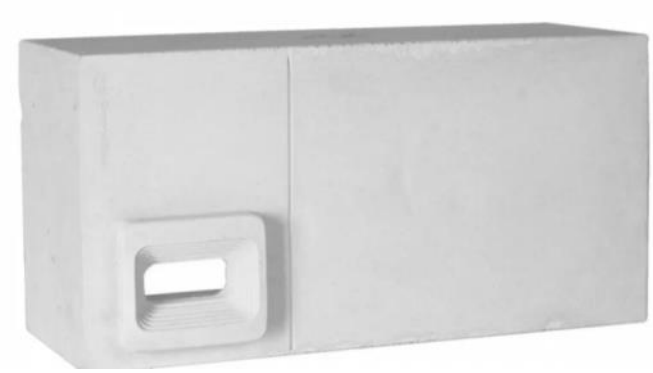
The Sparrow Terrace has been designed to help redress the balance of falling house sparrow numbers. Sparrows are social birds and like to nest in company. This terrace provides ideal nesting opportunities for three families. Made of Schwegler's revolutionary wood-concrete mix, this terrace is durable, 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 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.

For more info: https://www.nhbs.com/1sp-schwegler-sparrow-terrace



Swift Block
Green & Blue

The Swift Block is designed to create nesting space for swifts that can be easily integrated into new builds or wall mounted on existing properties. If integrated, the front of the Swift Block is designed to sit flush with the outside bricks of a build, with the entrance slightly protruding.

The Swift Block features an internal nesting bowl, a small entrance hole to deter larger birds and predators, full instructions cast into the surface for easy fitting, a stylish entrance feature.

Made from cast concrete, meaning that it is long lasting and will not rot or deteriorate like a traditional wooden nest box. The cast concrete is made using up to 75% waste materials from the Cornish China Clay industry and is standard UK block size.

The Swift Block should be positioned at least 5m from ground level avoiding south facing walls, on the side of a building that gets shade during the day, or under an overhang or eaves. It should be mounted away from windows and vents and predator access. Swift Blocks should also be placed in a spot with clear adjacent access, allowing high speed, direct flight entry.

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WoodStone Build-in Swift Nest Box B
CJ Wildlife

The WoodStone Build-in Swift Nest Box B is ideal for building into or mounting on a wall. It is constructed from FSC certified WoodStone meaning that it is long lasting and will not rot or deteriorate like a traditional wooden nest box. The front of the nest box is removable for cleaning or inspection.



WoodStone Build-in Swift Nest Box Deep
Vivara Pro

A lack of suitable nesting sites is thought to be one of the main reasons behind the decline in our swift populations and by installing nest boxes such as this one it will greatly help to support their numbers. This build-in nest box is designed to be integrated into the cavity of a building. It is constructed from long lasting FSC certified WoodStone with a plywood backing. This nest box should be sited at least five metres high, with a clear flight path and avoid south facing sites.

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/

giving nature a home

CJ Wildlife Woodstone



Built-in Visible Swift box
Number 90068



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.vivarapro.com/brochure/#p=23 or http://www.vivarapro.co.uk/Swallows-and-Swifts

Bee Brick for a sheltered and sunny wall.



The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back.

Bee Bricks are made in Cornwall in England using the waste material from the Cornish China clay industry. 75% of the brick is made from recycled materials and concrete, making it both strong and environmentally friendly.

Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used. Lavender, honeysuckle and buddleia are all pollinator-friendly plants.

Available in a choice of four colours: white grey, dark grey, yellow and red.

Bee and Bug Biome



Solitary Beehive



Insect Tower



WoodStone Insect Block



Schwegler Insect Nesting Aid, Wood-concrete



Schwegler Clay and Reed Insect Nest



Schwegler Insect Nesting Aid, Hardwood



Bug Mansion



Schwegler Underground Bumble Bee Box



Schwegler Overground Bumble Bee Box



David Leach BSc (Hons) CBiol. MSB MCIEEM. David is a professional ecologist with over forty years' research and fieldwork experience in many aspects of ecology and for the past fifteen 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 and has been involved in obtaining over 160 Protected Species Licenses to permit development works affecting bats and closing down badger setts.



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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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