

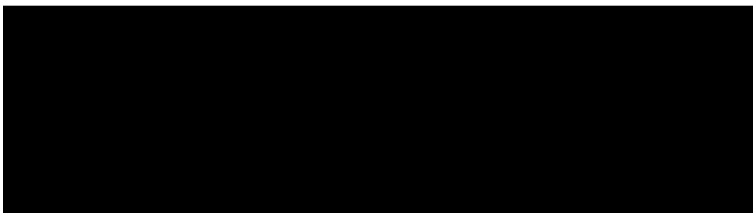
David Leach Ecology Ltd.
Ecological Consultants

Land at Stoneyfield Nursery
Eastergate Lane
Eastergate
West Sussex

Ecological Appraisal (v1).

Date: July 2021

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



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1.0 Executive summary.

- This survey was commissioned to look for protected species and habitats, or potential for protected species, as part of a planning application to build a new dwelling on the site.
- A walkover survey was undertaken in June 2021.
- There are no sites of statutory conservation designation within 1km of the proposed development site that will be significantly affected by the proposed development.
- The site comprised a section of a large field of improved grassland.
- No rare or uncommon plants were found.
- There are no ponds on site.
- No signs of protected species or habitats were found during the survey.
- The proposals are not likely to impact bats or any protected species in the area.
- Any ecological impacts will be at site level only.
- The site will be planted with native or wildlife friendly species of plants and trees.
- Features for bats, birds and insects will be installed on the new dwelling.

2.0 Introduction.

2.1 Background.

Client: c/o Mr. S. Hunting.

Property Surveyed: Stoneyfield Nursery
Eastergate Lane
Eastergate
West Sussex
PO20 3SL

Grid reference: SU 95594 06033

Date of Survey: 8th June 2021

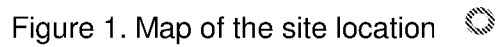
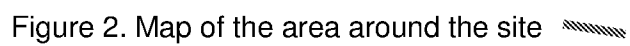
Lead Surveyor: David Leach BSc. (Hon), CBiol. M.S.B., M.C I.E.E.M.
(Natural England WML CL18 & CL21 registered bat worker).

2.2 Aims of the Survey.

- A Preliminary Ecological Survey was undertaken on 8th June 2021 to accompany an application to build a dwelling on the site.
- The survey was commissioned to check for the presence of, or potential for, bats and other protected species or habitats that would be affected by proposals.

2.3 Site Description.

- The 0.1ha survey site comprised of an area of improved grass field to the north-east of Eastergate, a small village in the Arun district of West Sussex, located five miles east of Chichester.
- In the wider landscape, there are areas of pasture, woodland and mixed farmland with associated hedgerows.
- There are a number of residential and agricultural buildings in the area.
- There are no ponds on site. The nearest pond is approximately 200m to the east.



3.0 Methodology

3.1 Desk Study

- A search of the Magic and Sussex Environmental Records Centre (DERC) was used to obtain existing wildlife records from the site and within a 1km radius of the site to determine whether there were any protected species local to the site that would be affected by the proposed works.

3.2 Site Survey

- This consisted of a walkover survey of the application site and land within 50m of the application site boundaries where possible.
- Any habitats identified as having potentially high botanical value will be subject to further botanical surveys, if deemed necessary. The site was inspected for non-native invasive species such as Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*) and Himalayan Balsam (*Impatiens glandulifera*).
- The survey methodology included an assessment of the potential for habitats on or immediately adjacent to the site to support legally protected or conservation-notable species. The location and nature of any signs of the presence of protected species (such as droppings, footprints, burrows, etc.) were documented and mapped accordingly.
- Indicative methods for protected species are outlined below following recognised guidelines: Chartered Institute of Ecology and Environmental Management (CIEEM), Amphibian and Reptile Conservation (ARC), Bat Conservation Trust (BCT) and Joint Nature Conservation Committee (JNCC).

Bats.

The external and internal areas of any building or structure on site were inspected 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). The presence of bats or signs of bats and possible entry points into buildings were looked for.

Extant trees were inspected for potential roosting areas that could support bats. Particular attention was paid to the following:

- Mature trees with ivy covering and/or crevices and peeling bark.

Evidence searched for to indicate usage of bats included:

- Droppings

- Urine staining
- Worn entrances or claw marks around potential access points
- Insect feeding remains
- Oil staining left from bat fur
- Live/dead bats
- All accessible areas of any internal space were carefully inspected for bats (live or dead) or signs of bats such as droppings, urine stains, signs of feeding such as moth wings, etc. Cobwebs which indicate no or infrequent use by bats were also looked for. Equipment available included 3.8m telescopic ladder, Leica 8x42 binoculars, digital camera, head torch and Clulite CB2 high powered torches, See snake inspection camera.
- The bat roosting potential of buildings was assessed according to the scale negligible, low, moderate or high:
- Negligible: This category describes buildings of a simple structure where all structural features can easily be surveyed with a visual inspection or investigated with an endoscope. For example a simple wooden garden shed, a corrugated iron barn or precast concrete modular garage may fit this category.
- Low: This category is used to describe simple structure buildings that have very few potential bat roosting features but all areas cannot be surveyed visually or investigated with an endoscope.
- Moderate: This category is used to describe buildings that have some potential to support roosting bats, but is considered to be less than ideal in some way. Some but not all modern industrial and agricultural buildings may fit this category if they are of a simple structure with single layer walls and unlined roof areas.
- High: This category is used to describe buildings with multiple internal and external structural features suitable for roosting bats. Most brick built dwelling houses and timber or stone barns will be covered by this category. Features that may be used by bats are e.g. loft spaces and other smaller roof voids, gaps between overlapping clay tiles, gaps in-between the tiles or slates and the roofing felt, cavities under ridge tiles, under soffits fascia and barge boards, by the brickwork of chimney stacks, under lead flashing, inside cavities of flat roofs, under wall hanging tiles, behind wooden cladding or other wooden structures, inside cavity walls or other smaller wall cavities, in gaps and cracks of stone walls and inside wooden beam mortise and tenon joints.

- **Confirmed:** This category is used where evidence of bats such as live or dead bats or bat droppings are present, or where there are records of a bat roost in the building within the last 5 years.

Birds.

Any habitat features, for example, scrub, trees and hedgerows which could potentially be used by nesting birds, were surveyed and any nesting activity was noted. The habitat was also assessed regarding its potential for bird activity.

Great Crested Newts.

Ponds within the vicinity of the site were noted and the potential of the land to act as a commuting route, shelter or foraging resource for great crested newts (*Triturus cristatus*) was assessed.

Reptiles.

Habitat features that could be suitable as hibernacula, foraging or basking areas were noted. Extant refugia were lifted and examined for evidence of reptiles, including sloughs (shed skins).

Badgers.

Any area that could be used for foraging or could potentially contain a badger sett was surveyed and any signs noted including:

- Evidence of active or disused setts
- Evidence of potential badger diggings
- Latrines / dung pits
- Evidence of badger foraging ('snuffle holes')
- Footprints
- Badger hairs

Otters and Water Voles.

Any riparian habitat present on-site or immediately adjacent to the site was searched for signs of otters (*Lutra lutra*) and water voles (*Arvicola amphibious*). Signs included:

- Otter spraints or sign heaps
- Water vole latrines and feeding stations
- Evidence of potential holts or burrows
- Footprints

Dormice.

The suitability of the habitat was assessed for dormice (*Muscardinus avellanarius*). Any small mammal feeding signs were checked and assessed, including:

- Examination of hazel nuts
- Evidence of nest building

The survey was carried out 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.

4.0 Results.

4.1 Desk Study

- The following records for protected species in the 1km search area were obtained from Sussex Environmental Records Centre.

Table 1 Sites and habitats

Statutory sites	
None present	
Non -statutory sites	
Non-statutory sites 1 LWS	Ar01 - Fontwell Park Racecourse
Section 41 habitats & other	
Chalk stream	
Lowland fen	
Traditional orchard	
Lowland meadow	
Lowland calcareous grassland	
Deciduous woodland	
Ancient woodland	

Table 2. Protected Species.

Group/species	No of records	Within/adjacent to the site
Bats	0	0
Badgers	0	0
Dormice	8	0
Otters	0	0
Water Voles	1	0
Great crested newts	1	0
Barn Owls	0	0

Table 3. Bat Species.

Bat species	Common name	No. of records	Within/adjacent to site
<i>Barbastella barbastellus</i>	Western Barbastelle	13	0
<i>Eptesicus serotinus</i>	Serotine	4	0
<i>Myotis</i>	Myotis Bat	2	0
<i>Myotis bechsteinii</i>	Bechstein's Bat	1	0
<i>Myotis mystacinus</i>	Whiskered Bat	4	0
<i>Myotis nattereri</i>	Natterer's Bat	5	0
<i>Nyctalus noctula</i>	Noctule Bat	5	0
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	12	0
<i>Pipistrellus</i>	Pipistrelle	4	0
<i>Pipistrellus nathusii</i>	Nathusius's Pipistrelle	1	0
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	2	0
<i>Plecotus auritus</i>	Brown Long-eared Bat	8	0
<i>Plecotus sp</i>	Long-eared Bat	1	0

4.2 Site Survey

Weather for initial survey

Dry and clear at 12:00

The external temperature was 21°C.

4.2.1 Habitat

- The 0.1ha site is an area of improved grass with the perimeters being wooden post and rail fence with stock proof wire on the lower 1m on the lower 1m on the west and east perimeter, a cherry laurel hedge at the north perimeter adjacent to the main road and an electric fence at the south of the site.
- Beyond the west perimeter fence is a section of unmanaged hedge of mixed native species and ornamental species. Species noted in the hedge included, hawthorn, hazel, horse chestnut, yew, sycamore, ash, pine, dogrose, bryony, brambles and nettles.
- Beyond the east perimeter there are two small oak trees, a small sycamore and two small silver birch trees along the drive to the property to the north of the site.
- The site was previously used for grazing sheep and horses and hay but in recent years has been left ungrazed. The area was sprayed with herbicide a few years ago.
- The vegetation is dominated by grasses with occasional hogweed (*Heracleum sphondylium*), meadow buttercup (*Ranunculus acris*), curley dock (*Rumex crispus*), cow parsley (*Anthriscus sylvestris*), red clover (*Trifolium pretense*), dandelion (*Taraxacum officinale*), cut-leaved crane's-bill (*Geranium dissectum*) l. The perimeter ground flora comprised of frequent nettle (*Urtica dioica*), lesser stitchwort (*Stellaria graminea*), sheep sorrel, (*Rumex acetosella*) and creeping thistle (*Cirsium arvense*).
- No rare or uncommon plants or invasive plants were found within or near the site.

4.2.2 Protected fauna.

Bats

- There are no buildings on site.
- There are no trees on site.
- The trees adjacent to the site had no potential roosting features but could be used by foraging and commuting bats.
- The site falls in the Singleton and Cockington Tunnels, Special Areas of Conservation (SAC), designated for a number of species of bats including Barbastelle Barbastella barbastellus and Bechstein's bats *Myotis bechsteinii* both Annex II species

Birds

- There are no features on site which could be used by nesting birds.
- The hedges to the north and west of the site provides suitable nesting habitat.

Reptiles

- The hedge to the north and west of the site provides suitable foraging habitat.
- There is potential for low number of common reptiles such as slow worms to be present around the margins of the site which could forage in the longer grass within the plot.

Badgers

- No badger setts were found on site or nearby. There were no signs of badger activity – e.g. snuffle holes and latrines, seen in areas within or outside of the site.

Dormice

- The site is not linked by hedgerows to any local ancient woodland which may hold populations of dormice.
- There is no suitable habitat for dormice on site and it is very unlikely any dormice will be affected.

Great crested newts

- There are no records of great crested newts or great crested newt ponds within 500m of the site.
- There are no ponds on site. The nearest are two small ponds 100m – 150m to the north-east and south-east.
- The ponds are separated from the site by cultivated field and pastures which would act as a barrier for dispersal onto this site.
- It is unlikely that any great crested newts will be on site, nearby or be affected by the proposed works.

Water voles and otters

- There was no suitable habitat on site or nearby.

5.0 Conclusion.

5.1 Assessment.

- There are no designated sites nearby that will be significantly affected by the proposed development.
- No notable habitats of principal importance are present within or adjacent to the application site. The habitats present on site had value at site level only.
- No rare or uncommon plants were found during the survey.
- No signs of or potential for protected species were found on or adjacent to the site.
- The site has been maintained as semi improved grass for many years. The loss of this habitat it unlikely to affect Barbastelle bats which forage pastoral landscapes with deciduous woodland, wet meadows and water bodies, such as woodland streams and rivers, none of which is present on or near this site.
- No hedges will be affected by the proposals.
- Two small trees will be removed to create access to the site which will be off a driveway to the east of the site through a section of the post and rail fence.
- The proposed ecological impact of the development is likely to be minimal.

5.2 Limitations of the survey.

- A survey of this type only provides a snapshot of what was found at the time of the survey and it is sometimes necessary to carry out a number of surveys to show the presence or absence of bats or other protected species.
- In the unlikely event a protected species is found during the proposed works, work must stop and a licenced consultant or Natural England contacted for advice on how to proceed.
- This survey is valid for 12 months and should be updated if conditions on the site change or if protected species or signs of protected species are found on the site in the future.

5.3 Mitigation.

5.3.1 Bats

- 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. A suitable lighting scheme and regime 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 (Rubgy) (2018) must be approved by the Natural Environment Team. This will include:
 - 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.

5.3.2 Reptiles & amphibians.

- It is recommended the grassland is cut down and maintained at a short (below <5cm) length prior to commencement of works to maintain the un-favourable state of the grassland.

Please note: If the habitat is not maintained in an un-favourable state prior to development works, then a phased vegetation removal regime will have to be employed – see below.

- Where the grass around the site is to be removed it is recommended to perform works in a staged approach (staged vegetation removal). When removing vegetation it is important that areas of grassland vegetation to be removed are strimmed in a directional manner toward habitat that is being retained in connection with other nearby habitat; In this case the remaining hedgerow. This should be performed in a two-stage approach during the active reptile and amphibian season (April – October). This technique will ensure that any rogue transient reptiles have the opportunity to move naturally to nearby habitat and avoid risk of injury. The first stage of vegetation removal is to reduce vegetation to a low sward, not more than 50mm high, and then leave the

ground to rest for one week. The area must then be strimmed to ground level, and left for a further week before site clearance/construction commences. The ground level vegetation within the construction zone must be maintained below 50mm to render it sub-optimal habitat for reptiles throughout the duration of works.

- A 'buffer' area of a minimum of 2m between boundary hedgerows and scrub and the construction zone must be maintained at all times.
- All construction and building materials must be stored on areas of hard standing or on raised pallets or sealed-based containers at least 5m away from suitable reptile habitat to prevent reptile colonisation during works.

5.3.3 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.

5.3.4 Hedgehogs

- Any deep holes or footings must be back-filled overnight or if this isn't possible then earth ramps must be left in the trench to allow hedgehogs and other wildlife to easily climb out. Alternatively any foundation excavations left open at the end of a day will be covered over with plywood and the edges sealed with sand or soil.

5.4 Enhancements.

In accordance with local policies, Section 40 of the Natural Environment and Rural Communities Act 2006 and paragraphs 8, 170 and 175 of the National Planning Policy Framework (2019), measures will be implemented to enhance the biodiversity on site and ensure that there is a net biodiversity gain and no net biodiversity loss in the long term as per Government planning policy.

These will include but not be limited to:

5.4.1 Bats

- An integrated bat box/tube (see appendix E & F) will be incorporated into the new building as high as possible but at least 4m above ground level on the west elevation.
- 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. A suitable lighting scheme and regime 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 (Rubgy) (2018) must be approved by the Natural Environment Team. This will include:
 - 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.

5.4.2 Birds.

- A pair of house martin nest cups will be installed under the eaves on the east elevation (see appendix E & F).
- A swift brick will be built into the apex of the north gable (see appendix E & F).

5.4.3 Insects.

- Two bee bricks will be built into a sunny but sheltered wall of the new house at least 2m above the ground and in an area that will not be obscured by plants (see appendix E & F).

5.4.4 Trees, shrubs and flowering plants.

- Any planting around the site will be of native or wildlife friendly trees and plants.

- **Conifers, rhododendrons and cherry laurel are not suitable.**
- A suitable mix of hedging plants such as Conservation Native Hedge Mix or Garden Hedge mix – no thorns from Perrie Hale Nursery in Devon- could be planted at the south and east perimeters of the site.
- It is recommended that a mix of fruit trees, apple, pear, cherry, plum, damson etc. is planted if on site if possible.

6.0 Appendices

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

Bats

Under section 9 of 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.

All native bat species are also defined as European Protected Species (EPS) through inclusion in Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended); the UK implementation of the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora. 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.

In addition, the following native bats are identified as Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006:

- Barbastelle bat - *Barbastella barbastellus*
- Bechstein's bat - *Myotis bechsteinii*
- Noctule - *Nyctalus noctula*
- Soprano pipistrelle - *Pipistrellus pygmaeus*
- Brown long-eared bat - *Plecotus auritus*
- Greater horseshoe bat - *Rhinolophus ferrumequinum*
- Lesser horseshoe bat - *Rhinolophus hipposideros*

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.

Reptiles

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

Birds

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.

Hedgehogs

Hedgehogs are protected by British law under Schedule 6 of the Wildlife and Countryside Act 1981, making it illegal to kill or capture them using certain methods.

Similar protection exists in Northern Ireland under Schedule 6 & 7 of the Wildlife Order 1985. They are also protected in Britain under the Wild Mammals Protection Act (1996), prohibiting cruelty and mistreatment.

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of species which are of principal importance for conservation in England. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority species under the subsequent country-level biodiversity strategies. Hedgehogs are included as a Priority Species on this list.

B. References

- **Collins, J. (Ed.) 2016. Bat Surveys for Professional Ecologists - Good Practice Guidelines: 3rd edition.** Bat Conservation Trust, London, United Kingdom.
- **English Nature 2004.** *Bat Mitigation Guidelines.*
- **IEEM 2006.** Guidelines for Ecological Impact Assessment in the United Kingdom (version 7 July 2006), Institute of Ecology and Environmental Management [online]. Available: <http://www.ieem.org.uk/ecia/index.html> [accessed February 2011]
- **JNCC 2004.** *Common Standards Monitoring Guidance for Mammals.* Joint Nature Conservation Committee, Peterborough.
- **Mitchell-Jones A. J. & McLeish, 2004.** *Bat Workers' Manual.* Joint Nature Conservation Committee, Peterborough.
- **Natural England and Countryside Council for Wales, 2007.** *Disturbance and protected species: understanding and applying the law in England and Wales. – A view from Natural England and the Countryside Council for Wales.* United Kingdom
- **Stebbing R.E., 1986.** *Which bat is it?* The Mammal Society and the Vincent Wildlife Trust, London.

Appendix C. Photographs



Plate 1. View from the main road to the north west of the site.



Plate 2. View from the main road to the north east of the site.



Plate 3. Area where the access drive will enter the plot.



Plate 4. View across the plot from the south-west corner looking north-east.

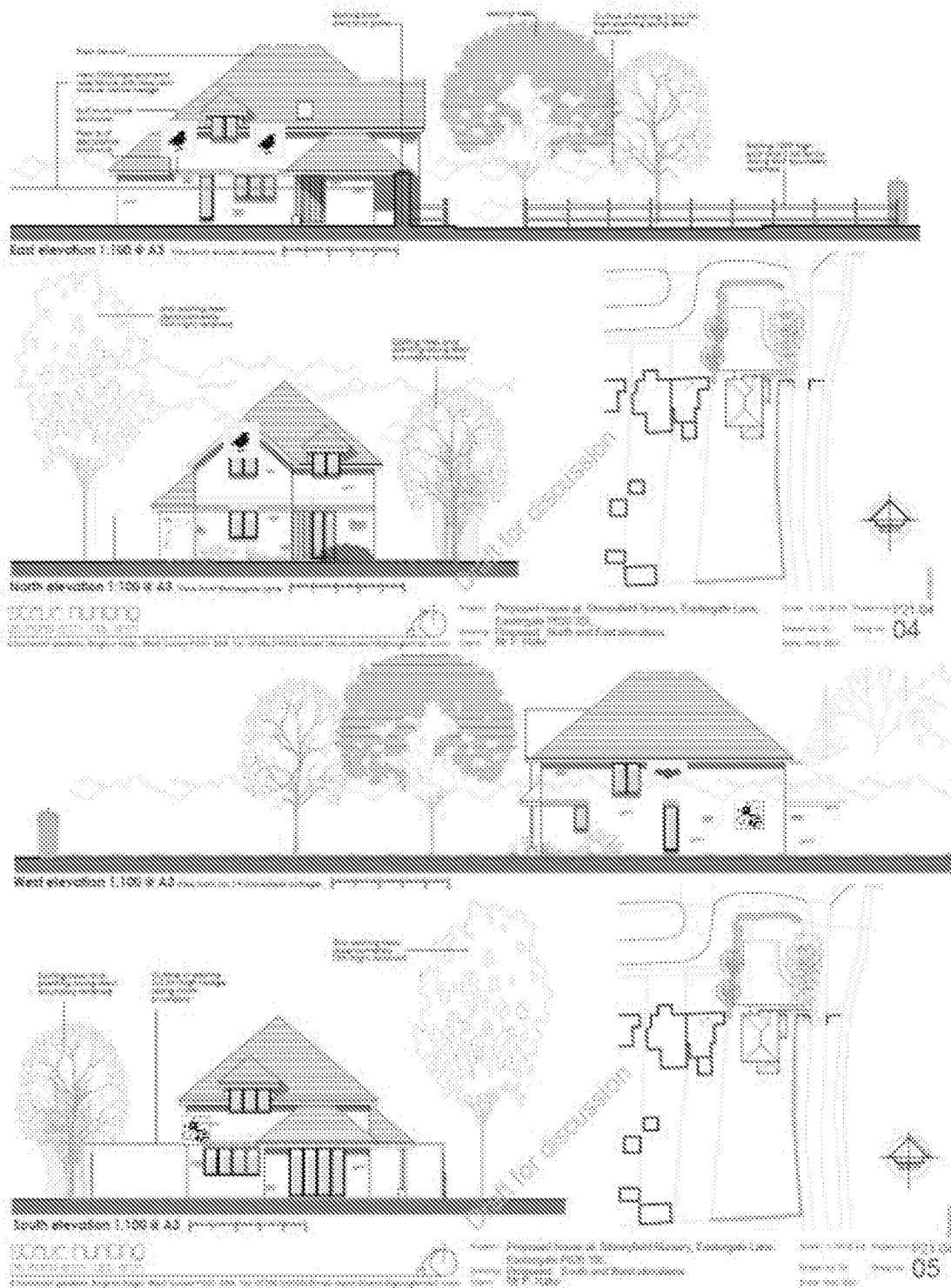


Plate 5. View across the plot from the south-east corner looking north-west.



Plate 6. View of the south perimeter of the site looking south-east.

Appendix E. Proposed elevations and enhancement features



Bat tube



House martin cups



Bee bricks

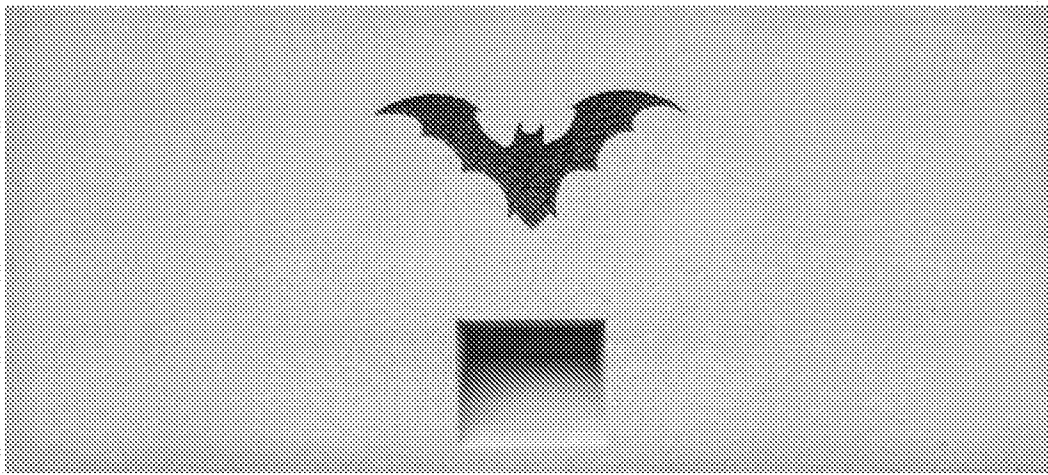


Appendix F. Suitable enhancement features

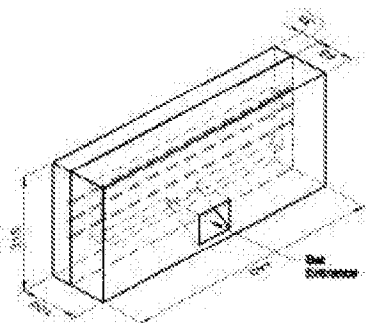
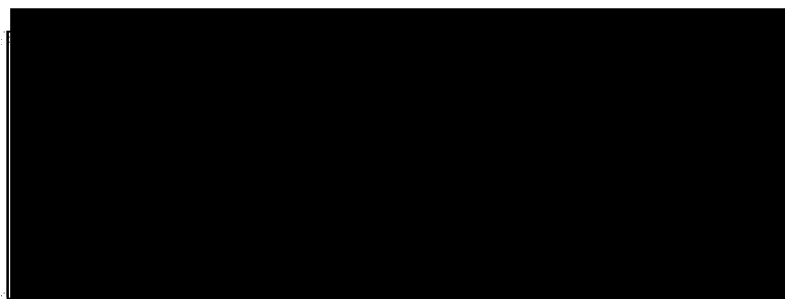
Bat boxes to install into / on to buildings & built structures



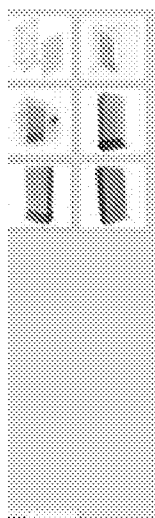
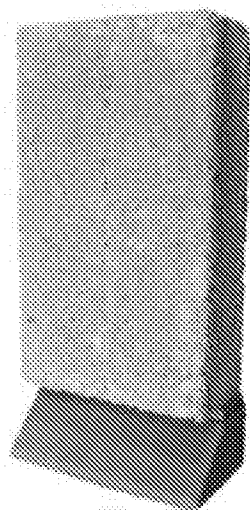
Product Information – Bat Box



- 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.



 **Forticrete stone**
Confidence you can build on



Habibat Bat Box

With the increase in development of new building sites and redevelopment of older buildings, especially in rural areas, availability of roost sites for bat species is becoming more limited. However, bats can be encouraged to remain at old sites or colonise new sites by incorporating artificial roost spaces into the building during the build or renovation process.

The Habibat Bat Box is a large, solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, rendering the box unobtrusive and aesthetically pleasing. The Habibat box is suitable for species which are most commonly found roosting in buildings in the UK, such as Pipistrelle, Natterer's, Whiskered, and Brandt's bats.

This box is made to order with a plain face suitable for rendering over to match the rest of the building, leaving just a small entrance hole exposed. It is available with a choice of three plinth finishes: smooth blue, smooth red, or buff.

Ibstock - Enclosed Bat Box B

Designed specifically for the pipistrelle bat

Available in all brick types

Discrete home for bats

Various sizes

Several roosting zones are created inside the box

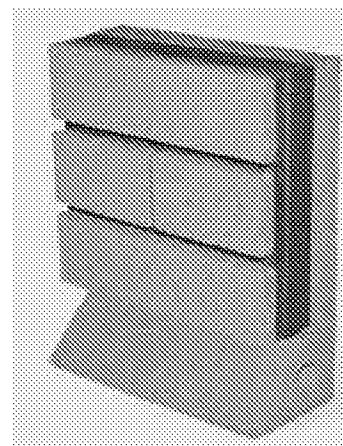
Bats are contained within the bat box itself

Maintenance free with entrance at the base

Ideal for new build & conservation work

215mm x 215mm or 215mm x 290mm

F2 S2 Fully frost resistant



Ibstock - Bat Box with Engraved Motif C

Attractive motive

Available in all brick types

Discrete home for bats

Various sizes

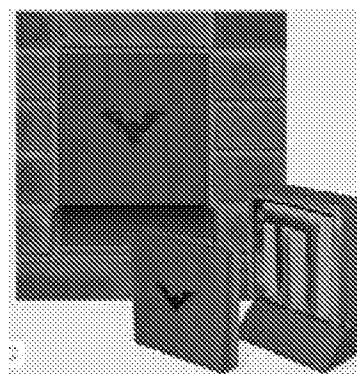
Several roosting zones are created inside the box

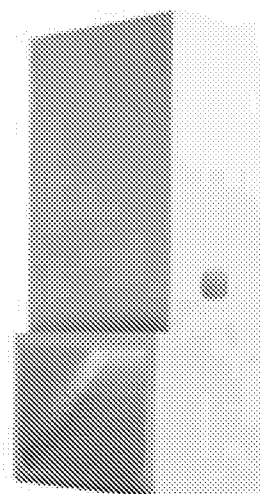
Bats are contained within the bat box itself

Maintenance free with entrance at the base

Ideal for new build & conservation work

215mm x 215mm or 215mm x 290mm





The Green & Blue Bat Block is designed to create roosting space for bats within the framework of new builds, or to be retrofitted within existing properties. Once installed, the front of the Bat Block is designed to sit flush with the outside bricks of a build, with the entrance slightly protruding. Depending on the position installed, the Bat Block can become either a summer maternity roost (South or West facing) or a winter hibernation roost (North facing).

The Bat Block features an internal FSC certified wooden panel, a small entrance space to deter larger birds and predators and a "Bat Ladder" at the base of the box to facilitate bats landing and climbing. The Bat Block can be turned into a colony by knocking out the section on the side and installing Bat Blocks next to each other.

Made from cast concrete using up to 75% waste materials from the Cornish China Clay industry and is standard UK block size.

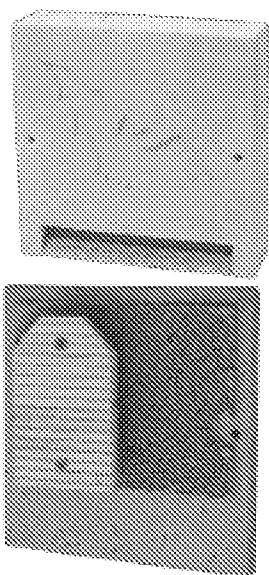
The Bat Block should be positioned at least 4m from ground level, away from artificial light sources and in proximity to vegetation and linear features like hedgerow which bats rely on for navigation and food. If it is on an existing feeding or flight route you are more likely to get occupation. The Bat Block does not require maintenance as the design allows droppings to fall from the entrance.

Specification

Dimensions: 215mm x 440mm x 160mm

Weight: Approx. 15 kg

Materials: Cast Concrete and FSC Certified Wood



The **1FE Bat Access Panel** with the addition of an Optional Back Plate, can be used to create new roosts for bats.

With an overall depth of just 8 cm, it is easily integrated within masonry or insulation. If necessary it can also be attached to the underlying structure using two screws. The light grey material can be over-painted as required using air-permeable exterior wall paint.

Alternatively the 1FE can be set into masonry and rendered so that only the entrance is visible.

1FE Panel with optional back plate:

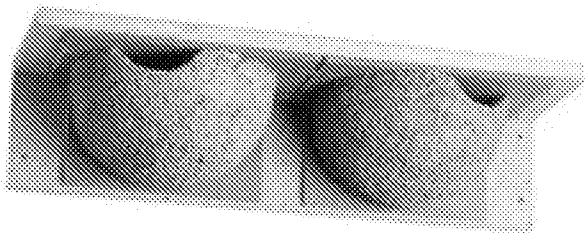
* External dimensions: 30 x 30 x 10cm.



Double cavity bat box

<https://www.greenwoodsecohabitats.co.uk/shop>

Bird Features



House Martin Nests

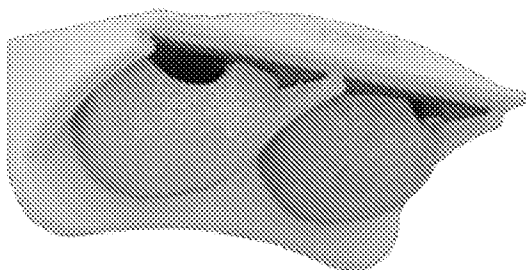
It is increasingly difficult for Swallows and House Martins to find suitable nest-building and mud they do find, if any, is often poor quality. In addition, the walls of buildings are nowadays often very smooth, so as a result, nests tend to fall down, sometimes with the nestlings inside. In many places,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

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 external walls of buildings. Install on the sheltered side of the building at a minimum height of 2m above the ground.

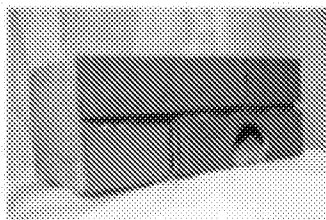
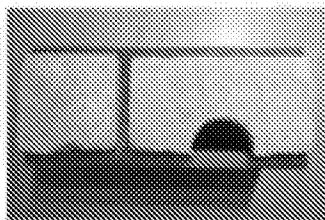
These nests can be used for years without cleaning. However, if possible it is recommended to inspect them frequently and to clean them when necessary.



No. 11 Schwegler House Martin Terrace

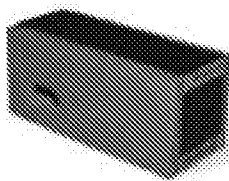
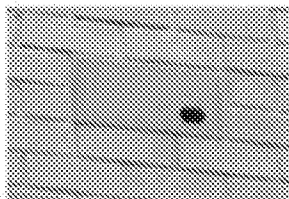
This **House Martin Terrace** means you can now provide house martin nesting sites on any external wall regardless of whether it has eaves or not. Made using Schwegler's patented wood-concrete (an exceedingly durable, rot-proof and breathable natural material designed to mimic the properties of natural 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.



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

URL: <http://www.ecosurv.co.uk/products/brick.asp>



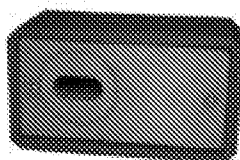
An attractive brick, designed to encroach minimally on the cavity. It is thus one of the narrowest bricks on the market. The materials are frost resistant.

URL: <http://www.ibstock.com/ibstocknewproducts>

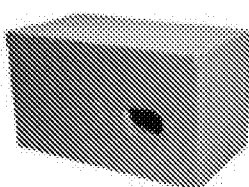


giving nature a home
nature a home

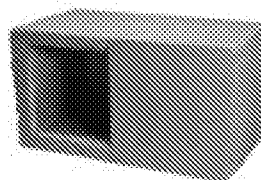
CJ Wildlife Woodstone



Built-in Visible Swift box
Number 90068



Built-in Visible Swift box
Number 90069



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.

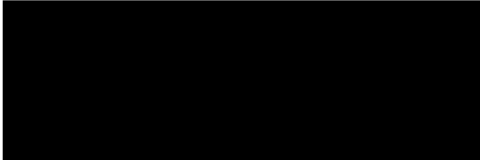
URL: <http://www.vivaxs.co.uk/products/box22> or <http://www.vivaxs.co.uk/boxstone-and-swifts>

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 twelve 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 Natural England and Natural Resources Wales licences 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 over 100 Protected Species Licences to permit development works affecting bats and also closing down badger setts.



David Leach BSc. (Hons), C.Biol., M.S.B., M.C.I.E.E.M.

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.

