

Project

Ecological Enhancement Plan

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Client:

Salisbury NHS Foundation Trust

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Project Manager Disclosure:

The advice which we have prepared and provided is true to the best of our knowledge and utilises information available at the time. The advice has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct.

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Date

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1 Introduction

1.1 Site Location & Surroundings

The application site is located at Salisbury District Hospital, Odstock Road, Salisbury, Wiltshire SP2 8BJ. The application site is on the east boundary of the hospital grounds and consists of a carpark, a grassed area and helipad and a small strip of scrub. Adjacent to site to the east is a small strip of woodland and an agricultural field. The site is centred on Grid Reference SU 15092 27223 and falls under the administrative authority of Wiltshire Council.

1.2 Project Overview

The proposed development is for the construction of a new Diagnostic and Surgical Hub (DASH) building with associated compound, landscaping and carpark. The new DASH building and facilities would be constructed on the area currently occupied by a section of carpark, helipad and surrounding grassed area.

1.3 Ecology Baseline

The Preliminary Ecological Appraisal conducted by enims Ltd. in July 2026 found the application site to possess negligible potential to support roosting bats. There is a low level of foraging and commuting habitat suitable for bats with common pipistrelle (*Pipistrellus pipistrellus*) being the dominant species detected during survey work at the hospital. The application site, particularly the scrub and adjacent woodland area could also support nesting birds, and active nests have been observed in a previous breeding bird survey conducted.

2 Biodiversity Strategy

Based on the current opportunities for protected species on site and the habitats which will be available post-development, the focus of this management plan is enhancements for roosting bats, nesting birds and invertebrates.

2.1 Bats

There are 17 species of bats found in the UK, all of which are protected under national and European legislation. Seven of these species are of principal importance for biodiversity in England under the Natural Environment and Rural Communities (NERC) Act 2006. Wiltshire is recognised as a stronghold for bats and contains important sites for the four rarest species of bat: Bechstein's (*Myotis bechsteinii*), barbastelle (*Barbastella barbastellus*), greater horseshoe (*Rhinolophus ferrumequinum*) and lesser horseshoe (*Rhinolophus hipposideros*).

Factors causing the decline of bat populations include the loss and degradation of foraging habitats, reductions in invertebrate prey populations, disturbance or destruction of commuting routes and the direct destruction or disturbance of roost sites.

Due to the site being within the grounds of an active hospital, the site is relatively well lit and busy at night. The site is predominantly used by common pipistrelle as this species is less sensitive to higher light levels than other species. Therefore, common pipistrelle will be the target of enhancement measures.

2.2 Birds

All birds when nesting are protected under the Wildlife and Countryside Act 1981 (as amended) and many species are listed as species of principal importance under the NERC Act 2006.

Reasons for species population declines include changes in farming practices, increased use of molluscicides and herbicides in gardens, loss of woodland habitat and the renovation and insulating of older buildings.

The design and height of the new building is suited to incorporating nesting opportunities for house sparrow (*Passer domesticus*) and swift (*Apus apus*) which are both on the red list of Birds of Conservation Concern.

2.3 Invertebrates

Many invertebrate species found in the UK are considered species of principal importance under the NERC Act 2006 and some are protected by international legislation, such as Desmoulin's whorl snail (*Vertigo moulinsiana*) and stag beetle (*Lucanus cervus*).

The key drivers of invertebrate declines are habitat loss due to urban growth and intensive agriculture, pollution including pesticides and fertilizer, biological factors such as pathogens and non-native invasive species, and climate change.

Pollinating insects are of particular importance, not just for wildflowers, but are also a vital ecosystem service upon which agriculture depends. In order for pollination to work well, a diverse community of insect pollinators is required. A greater variety of wild pollinating insects will lead to an improvement in the quantity and quality of pollination and, therefore, food production. In the UK, the majority of pollination is carried out by bees (wild solitary bees and bumblebees, as well as domesticated honeybees), flies, butterflies, moths, wasps and beetles.

The installation of insect bricks would provide benefit for solitary bee species. Installation of standing wood piles would benefit invertebrates, such as stag beetles. Stag beetles were observed during the 2026 bat survey work.

3 Ecological Enhancement

The specifications of the ecological enhancement features and their management are set out below. The locations of the ecological enhancement features detailed below are shown in Figures 1 - 5, Appendix A. Examples of the enhancement features detailed below are shown in Figures 6 – 10, Appendix B.

3.1 Roosting Bats

Bat boxes will be incorporated into the walls of the new building to provide a discrete and contained roosting space (see Appendix B).

3.1.1 Specification

Two bat boxes will be installed on the Upper Roof Parapet of the new building to provide roosting opportunities for crevice dwelling species such as common pipistrelle. The boxes installed will be Green&Blue BatBlock Built-In Bat Box (<https://www.wildcare.co.uk/greenblue-batblock.html>), or a similar alternative, built into the exterior wall during construction.

Considerations for the positioning of the bat boxes:

- Favourable aspect; south-facing elevations
- Favourable height; three metres or higher above ground level
- Clear flight path for bats entering and leaving the box
- Minimal disturbance from human activities; away from external lights, windows and busy areas
- Avoiding area where accumulations of droppings may be a nuisance

The boxes will be installed as high as possible on the walls of the Upper Roof Parapet to ensure maximum distance between the ground level and the box entrances.

3.1.2 Management

Built in bat boxes/bricks are constructed of concrete or concrete and wood mixes. They are long-lasting, breathable and maintain a consistent temperature inside for roosting bats.

The bat boxes are designed so that droppings fall out freely, therefore eliminating the need for cleaning out.

Boxes will be visually inspected from a distance for signs of damage or failure.

As all bat species and roosts are protected by law, close inspection of the boxes will only be carried out by a Licenced ecologist. If a box requires further inspection, repairs or replacement, then a Licenced ecologist will check the box is empty prior to such works commencing.

3.2 Nesting Birds

Nesting opportunities for birds will be incorporated into the development design by installation of nest boxes into the walls of the new building (see Appendix B).

3.2.1 Specification

House Sparrow

One Habitat Sparrow Terrace (<https://www.habibat.co.uk/integrated-bird-products399f8204>), or similar alternative, will be built into the Lower Roof Parapet of the new building, to provide safe and secure nesting place for this species. As house sparrow prefer to nest in colonies, a terrace box type provides three nesting chambers together.

The sparrow terrace will be installed on a northern elevation to avoid overheating the nest. The boxes will be installed as high as possible into the top of the wall of the Lower Roof Parapet to ensure maximum distance between the ground level and the box entrances, thus providing a clear flight path for birds.

Swift

Three specialist nest bricks will be grouped together to provide colony nesting space for swifts on the Lower Roof Parapet of the new building. Examples of suitable bricks include Action for Swifts Integrated 'S Brick' - Double Brick Length, Ibstock Eco Habitat Built-In Swift Nest Box and Genesis Built-In Swift Nest Box (<https://www.wildcare.co.uk/wildlife-nest-boxes/bird-boxes/swifts.html>). The three bricks will be positioned close to one another, but with at least a 40cm distance between entrance holes.

The boxes will be installed into a western elevation to avoid overheating the nest. The boxes will be installed as high as possible into the top of the wall of the Lower Roof Parapet to ensure maximum distance between the ground level and the box entrances, thus providing a clear flight path for birds.

3.2.2 Management

Built in nest bricks are made from a concrete material. They are long-lasting, breathable and maintain a thermally stable internal environment.

The boxes are designed to allow the birds to easily remove unwanted materials from the nest.

Boxes will be inspected once a year to identify signs of damage or failure.

Building maintenance works, such as guttering or roof repairs, within 5m of nest boxes/bricks, will not take place during the main bird nesting season March to August inclusive.

3.3 Insects

Insect bricks are designed to provide nesting space for solitary bee species (red mason and leafcutter bees) and other insects will be built into the walls of the new building (see Appendix B). Solitary bees do not swarm and are not aggressive.

Standing wood pile designed to provide an important breeding habitat for invertebrates will be situated in the green space to the east of the building (see Appendix B).

3.3.1 Specification

Two insect bricks will be installed into the walls of the Lower Roof Parapet of the new building. The bricks contain moulded cavities where the bees can lay their eggs. Examples include Green&Blue Bee Brick (<https://www.wildcare.co.uk/greenblue-bee-brick.html>) and Habibat Solitary Bee Box (<https://www.habibat.co.uk/habibat-solitary-bee-box>).

The insect bricks will be attached to the south-facing, sunny aspects of the building, at least 1m high.

One standing wood pile will be installed to the east of the building, in the greenspace adjacent to the tree line. At least ten logs will be used to create the habitat, stood vertically and partially buried to approximately 50cm deep. Above the ground, the logs will be at varied heights. Untreated logs from broadleaved tree species will be used and be at least 10cm in diameter.

3.3.2 Management

The insect bricks constructed from concrete material are durable and long-lasting.

The insect bricks will be inspected once a year for damage or failure. If high levels of pollen mites, fungus or mould are observed, careful cleaning after the new bees have emerged may be beneficial.

Vegetation can be left to grow over the standing log pile as this will retain moisture. The standing log piles will be replenished if required by leaving rotted logs in situ and adding fresh logs adjacent.

4 Monitoring and Outcomes

4.1 Monitoring

In order to ensure this management plan continues to achieve all identified objectives, it has been recommended that ecological and landscape monitoring is completed each year. This is to commence from Year 1, twelve months post-implementation, until Year 5.

Table 1 outlines the proposed monitoring program suitable for the development. Any additional observations of fauna using the site during surveys will also be recorded.

Table 1. Proposed monitoring programme

Biodiversity Feature	Monitoring Activity	Target	Timings
Bat and Bird Boxes Insect Bricks	• External inspection for evidence of use. • Check for obstruction to entrances	All features in use by Year 5	Annually. Once in Summer
Standing Wood Pile	• External inspection for evidence of use. • Check whether additional logs required	All features in use by Year 5	Annually. Once in Summer

On-going monitoring will provide information on the success of the specified management actives from the previous year and will facilitate amendments to this plan. Amendments may be included annually in order to achieve enhanced biodiversity within this site and will work in conjunction with all activities of the project.

4.2 Outcomes

Following implementation of this management plan, there will be suitable habitat for roosting bats, house sparrow, swift, aerial nesting solitary bee species and invertebrates such as stag beetles.

On-going maintenance of the habitats will be the responsibility of the landowner (Salisbury NHS Foundation Trust).

It is considered that all conservation works at this site will have been achieved by Year 5. All maintenance works following this period will continue in accordance with this management plan (including amendments).

5 Management Plan Matrix

The following matrix defines the required management of the ecological features on site, and the areas it relates to. The timings and frequency of each operation are specified, with Year 0 referring to construction works at this site.

Table 2. Management activities and timings for the ecological enhancement features

Management Requirement	Area	Timing	Activity	Specification	Year(s)
Installation of bat boxes	Building – south elevations	Any time	Incorporating bat boxes into building	- Two bat boxes incorporated to the walls of the Upper Roof Parapet. - Installed into the top of walls	Year 0
Installation of bird boxes	Building – north and west elevations	Any time	Incorporating bird box for house sparrow and swift into building	- House sparrow terrace incorporated into walls of the Lower Roof Parapet. - Three swift nest bricks incorporated into walls of the Lower Roof Parapet. As species are colony nester, bricks grouped to provide three nesting chambers - Installed into the top of walls	Year 0
Installation of insect bricks	Building – south elevations	Any time	Incorporating nest bricks for insects into building	- Two insect bricks attached to walls of the Lower Roof Parapet. - Installed into mid-section of walls	Year 0
Installation of insect wood piles	Green space – east of building	Any time	Installing vertical log pile into ground adjacent to building	- One standing log pile buried into the ground - Installed in the green space east of building and adjacent to treeline	Year 1
Maintenance of bat boxes, bird boxes, insect bricks and wood piles	Building and adjacent green space	Summer	Visual observation	- Check for signs of damage or failure - Observation of bat boxes from a distance – Bat Licenced ecologist required for close inspection or disturbance of bat boxes	Annually from Year 1

Appendix A: Plan of Enhancement Features



Figure 1. Location of ecological features: bat boxes (red), sparrow nest terrace (orange), swift nest bricks (purple), insect bricks (yellow) and standing log pile (green).



Figure 2. North elevation showing indicative positioning of sparrow terrace (orange).



Figure 3. East elevation showing indicative positioning of standing log pile (green).

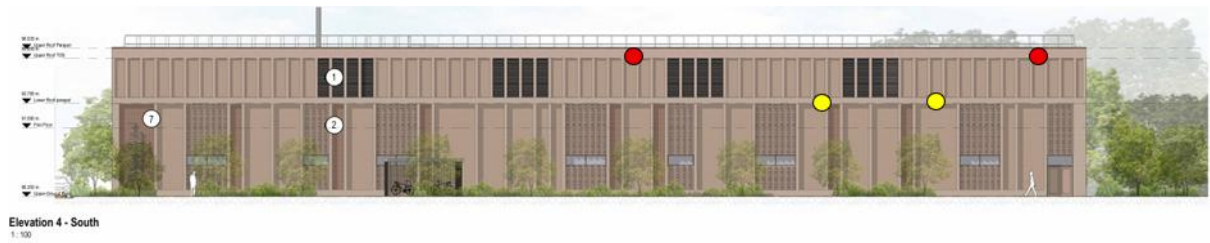


Figure 4. South elevation showing indicative positioning of bat boxes (red) and insect bricks (yellow).



Figure 5. West elevation showing indicative positioning of three swift bricks grouped together (purple).



Appendix B: Ecological Enhancement Examples



Figure 6: Green&Blue BatBlock Built-In Bat Box
(<https://www.wildcare.co.uk/greenblue-batblock.html>)



Figure 7: Habibat Sparrow Terrace
(<https://www.habibat.co.uk/integrated-bird-products399f8204>)



Figure 8: Genesis Built-In Swift Nest Box
(<https://www.wildcare.co.uk/wildlife-nest-boxes/bird-boxes/swifts.html>)



Figure 9: Example showing three swift bricks grouped together
(<https://www.actionforswifts.com/>)



Figure 10: Green&Blue Bee Brick
(<https://www.wildcare.co.uk/greenblue-bee-brick.html>)



Figure 10: Standing wood pile example
(<https://ptes.org/wp-content/uploads/2016/11/Build-a-log-pile-for-stag-beetles.pdf>)