greenwillows associates ltd

Green Willows Farm, First Turf Fen Drove, Warboys, Cambs PE28 2TZ
[redacted]

Ecological Surveys • Habitat Management • Arboricultural Surveys • Vegetation Clearance

Biodiversity Method Statement (BMS)

Manor Farm, Chesterton
[NGR: TL 11729 95842]

Project Manager: [redacted] **BSc (Hons) MSc**
Prepared by: [redacted] **BSc (Hons) MSc**

On behalf of: Campbell McCrae Ltd

October 2024

Registered in England & Wales 5153730 Greenwillows Associates Ltd VAT Registration No: 8345691 07

Registered Office: Green Willows Farm, First Turf Fen Drove, Warboys, Cambs, PE28 2TZ

DOCUMENT CONTROL SHEET

Document Reference: GWA_Manor Farm, Chesterton_BMS_20241022_001					
Version	**Purpose of Issue**	**Author(s)**	**Reviewed**	**Approved**	**Date**
001	Biodiversity Method Statement	[redacted] BSc (Hons) MSc	[redacted] BSc (Hons) MSc MCIEEM	[redacted] BSc (Hons) MSc MCIEEM	22/10/2024

Contents

1.0 Introduction 4

2.0 Aims and Objectives 7

3.0 Mitigation and Enhancement Measures 8

4.0 Landscape Planting Management and Enhancement 13

5.0 Implementation and Ongoing Management 15

6.0 Conclusions 17

7.0 References 18

8.0 Appendices 19

Tables

Table One: Recommended Species for Amenity Planting

Table Two: Installation and Management Schedule

Appendices

Appendix One: Site Location Plan and Access Route

Appendix Two: Biodiversity Enhancement Features

Appendix Three: Examples of Mitigation/Enhancement Features

1.0 Introduction

1.1. Purpose of Report

Greenwillows Associates Ltd. has been commissioned to provide a Biodiversity Method Statement (BMS), to comply with Condition 7 of the planning permission (24/00617/FUL) pertaining to a new development at Manor Farm, Great North Road, Chesterton [NGR: TL 11729 95842]. The area pertaining to the development proposals is referred to as the 'site'. Anything beyond the site boundary, but within the same land ownership, is referred to as 'the wider site'.

The purpose of the BMS is to provide a detailed enhancement and management programme for the site. The BMS will provide mitigation and enhancement for legally protected and priority species of flora and fauna.

1.2. Development Proposals

Planning permission was granted by Huntingdonshire District Council on 24th May 2024 for the proposed: 'Demolition of existing farmhouse and outbuilding and erection of two dwellings with associated parking, access and amenity space'.

Ecological reports previously submitted include:

- Preliminary Ecological Appraisal Report – Greenwillows Associates (May 2022).
- Letter Report – Greenwillows Associates (September 2022).
- Ecological Impact Assessment – Greenwillows Associates (September 2022).
- Updated Ecological Impact Assessment – Greenwillows Associates (July 2023).

This report should be read in conjunction with the findings of the above reports and the recommendations set out in the above reports still stand.

1.3. Condition 7

No development above slab level shall take place until a Biodiversity Method Statement which provides details of how the recommendations contained in the Ecological Impact Assessment - V002 by Greenwillows Associates Ltd (received by the Local Planning Authority on 27th March 2024) will be carried out has been submitted to and approved in writing by the Local Planning Authority. The details shall include but not be limited to; specification, location, timing, an implementation programme, maintenance, and monitoring. The development shall be carried out in accordance with the approved details.

Reason: To ensure the conservation and enhancement of on-site biodiversity in accordance with Policy LP30 of the Huntingdonshire Local Plan to 2036.

1.4. The Local Plan for Huntingdonshire (Huntingdonshire's Local Plan to 2036, 2019) states:

Policy LP30 – Biodiversity and Geodiversity:

"A proposal will be required to demonstrate that all potential adverse impacts on biodiversity and geodiversity have been investigated.

A proposal that is likely to have an impact, either direct or indirect, on biodiversity or geodiversity will need to be accompanied by an appropriate appraisal, such as a Preliminary Ecological Appraisal, identifying all individual and cumulative potential impacts on biodiversity and geodiversity. Any further research that is identified as necessary by this appraisal will need to have been carried out and submitted with the proposal.

All possible efforts must be taken to avoid adverse impacts. If it is demonstrated that adverse impacts are unavoidable, they must be minimised as far as possible and then mitigated. Only where this process of avoidance, minimisation and then mitigation is insufficient to fully address adverse impacts will consideration be given to compensation measures. Following this process a proposal will only be supported subject to a hierarchy where:

- a site of international importance, being a Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar site would be affected there has to be exceptional overriding reasons of human health, public safety or environmental benefit;
- a site of national importance, such as a Site of Special Scientific Interest (SSSI) or National Nature Reserve (NNR) would be affected there has to be exceptional circumstances where the need for, and the benefits of, the proposal significantly outweigh both the potential impacts on the features of the site that make it of national importance and any broader impacts on the national network of such sites;
- a protected species, a priority habitat or species, a site of local or regional importance, the achievement of water body good ecological potential, or the biodiversity value of the proposed development site as part of the wider network would be affected, the need for and the benefits of the proposal must clearly outweigh the assessed impacts.

A proposal will not be supported if potential impacts would lead to the deterioration of water body ecological status/ potential.

A proposal will ensure no net loss in biodiversity and provide a net gain where possible, through the planned retention, enhancement and creation of habitats and wildlife features, appropriate to the scale, type and location of development. Large scale development proposals should provide an audit of losses and gains in biodiversity produced according to a recognised methodology. In seeking to provide net gains for biodiversity reference should be had to the Natural Cambridgeshire publication 'Developing with Nature Toolkit' and the proposal should prioritise measures that:

- complement or enhance existing features of biodiversity value within the design and layout of development;
- provide new biodiversity features within the development;
- help reverse the decline of species;
- assist in achieving local targets for priority habitats and species including those set out in Habitat Action Plans;
- improve public access to nature;
- ensure the effective management of biodiversity or geological features;

- contribute to the provision of multi-functional green infrastructure to enhance ecological networks and the Green Infrastructure Priority Areas
- contribute towards the achievement of good ecological status in water bodies (or not compromise achievement of good ecological potential) in accordance with the Anglian River Basin Management Plan (RBMP) and accompanying catchment action plans; or
- will help species adapt to climate change."

1.5. Purpose of Plan and Scope

The purpose of the BMS is to provide enhancement and protection to flora and fauna protected by legislation that could be adversely affected by the development, and to ensure that the requirements of Planning Condition 7 are satisfied.

The BMS sets out how the nature conservation value will be safeguarded and how habitats will be enhanced and maintained. It covers the following:

- Aims and Objectives;
- Mitigation and Enhancement Measures
- Landscape Planting, Management and Enhancement, and;
- Implementation and Ongoing Management.

2.0 Aims and Objectives

2.1 Overview

The primary objective of the BMS is to provide protection measures and enhancement features to serve as resting, shelter, foraging and commuting habitat for a range of species.

The principal aims are as follows:

- To provide enhanced habitat for locally important species (including legally protected, priority and local BAP species).
- Positively comply with local, regional, and national wildlife policy.

The specific objectives are as follows:

- To ensure protected species utilising the site are not negatively impacted by the proposed works.
- To provide guidance on suitable lighting schemes in relation to protected species;
- Encourage populations of notable and protected species including bats, birds, reptiles, amphibians and invertebrates that may encounter the site through provision of biodiversity enhancement features; and
- To allow the LPA to discharge its duties under Section 40 of the NERC Act 2006 and to accord with Policy LP30 – Biodiversity and Geodiversity of the Huntingdonshire's Local Plan to 2036, (2019).

These objectives will be met by completing the Mitigation and Enhancement Measures detailed in Section Three.

3.0 Mitigation and Enhancement Measures

3.1 Bats

3.1.1 Timing of Building/Demolition Works

All building/demolition works should be undertaken outside of the bat hibernation period (November - March inclusive).

If bats are encountered at any stage during the development all works must stop immediately, additional recommendations will be made and an appropriate license sought from Natural England prior to the works continuing.

3.1.2 Precautionary Check for Roosting Bats

The cellar of Structure 3 will be subject to a precautionary check for roosting bats by a licensed bat ecologist prior to building/demolition works. This will comprise a detailed physical inspection of all Potential Roost Features (PRFs) for the presence or evidence of roosting bats.

3.1.3 Potential Roost Feature (PRF) Inspection and Supervised Soft-Strip

PRFs 1-6 recorded within Structure 2 will need to be checked by a licensed bat ecologist prior to building/demolition works.

The roof of Structure 3 will be subject to a soft-strip prior to building/demolition works. This will comprise the roof tiles being removed by hand under the supervision of a licensed ecologist.

3.1.4 Retention of Dark Corridor around Site Boundary

The hedgerows and trees adjacent to the site boundary/within the wider site are suitable to support foraging/commuting bats and there is also connectivity to other suitable habitat in the wider landscape.

Indirect impacts arising from increased lighting of the site (both during and post-construction phase) may reduce the suitability of the area for foraging/commuting purposes through the displacement of such behaviours.

All lighting proposed for the development, both during construction and post completion, will be installed in accordance with Bat Conservation Trust and ILP (Institute of Lighting Professionals) - Guidance Note 08/23: Bats and Artificial Lighting At Night.

Potential lighting impacts associated with the proposed development (both during and post-construction) will be minimised by using warm white light sources (2700Kelvin or lower) to reduce blue light component.

Lighting types to be avoided include any blue-white light sources, metal halide, compact fluorescent sources and any form of up-lighting, which lights above the horizontal plane illuminating foraging habitat.

The use of bollard or low-level downward-directional luminaires will not be used. Only if all

other options have been explored, accessories such as baffles, hoods and louvres can be used to reduce light spill onto sensitive habitats in the wider site, and direct light to where it is needed; however, this should not be solely relied upon.

If external security lighting is required, this must utilise motion sensors and be set to as short a possible a time as the risk assessment will allow. For most general residential purposes, a 1- or 2-minute timer is likely to be appropriate.

It is recommended that a lux contour lighting plan is produced to demonstrate the lux levels across the site post development. The lighting plan will be discussed in detail with an experienced ecologist prior to it being finalised, to ensure the bats are not negatively impacted by the lighting associated with the development.

3.1.5 Provision of Bat Roost Boxes

Two integrated bat roost boxes will be incorporated in the development as enhancement features providing suitable roost sites for a range of crevice-dwelling bat species. Integrated bat boxes are typically available in several brick types and offer the advantages of fully containing bats within the box (as opposed to allowing bats to roost within the cavity of the building) with no maintenance requirement as bat droppings fall out the bottom entrance.

Integrated boxes will be placed at a height between 3m to 6m from the ground on a south-to- south-westerly elevation. All lighting will be angled away to avoid direct illumination of the box and any nearby tree branches (if present) will be removed to maintain a clear flight path to and from the box. If any close inspection of the box, or any repair, is required, this will be undertaken only by a suitably licensed person. The box will otherwise be undisturbed.

Details of the box locations are provided in Appendix Two and examples of suitable box designs are provided in Appendix Three. Please note that, due to current difficulties with the supply chain, the exact models which will be installed cannot be guaranteed at this time.

3.2 General Birds

3.2.1 Timing of Clearance Works

Habitat considered suitable to support nesting birds that will be removed to enable the development will be cleared outside the bird nesting season (mid-February to September inclusive) or, if this should prove impracticable, clearance will be preceded by a check for active nests, undertaken by a suitably experienced ecologist. Any active nests would be cordoned off and retained undisturbed until the nest(s) cease to be in active use.

Demolition of the onsite structures should also be undertaken outside of the bird nesting season, or the above checks will be required.

3.2.2 Provision of Bird Nesting Boxes

To enhance the site for a range of species, the following bird nesting boxes will be provided across the site and wider site:

- Two 26mm entrance hole nest boxes (non-integrated)
- Two 32mm entrance hole nest boxes (non-integrated)
- Two Type 24 brick nest boxes (integrated)
- Two Sparrow terrace boxes (can be integrated or non-integrated)
- Two swallow nest bowls (non-integrated)

Nest boxes will be installed at a height of 2m or above, facing between north and east. All boxes will be located such that there is a clear flight path to them. They will also be situated in a location where they cannot be accessed by domestic animals or easily interfered with by humans.

Details of the box locations are provided in Appendix Two and examples of suitable box designs are provided in Appendix Three. As with the bat boxes, due to current difficulties with the supply chain the exact models which will be installed cannot be guaranteed at this time. However, all boxes will be constructed of woodcrete or similarly durable material.

3.3 Barn Owl

3.3.1 Precautionary Check

Structure 2 will be subject to a precautionary check for nesting barn owls prior to any building/demolition works.

3.3.2 Provision of Barn Owl Nest Boxes

As evidence of barn owl was recorded within Structure 2, two barn owl boxes will be installed within the wider site as mitigation/enhancement. The barn owl boxes will be installed on a mature tree/post at least 3m from the ground with the box hole facing northwards. It is recommended to place bark and coarse wood shavings in the base of the box during installation to encourage birds to use the box.

Details of the box locations are provided in Appendix Two and an example of a suitable box design is provided in Appendix Three.

3.4 Badger

Any open excavations created during the works should be covered or fenced off each night to prevent badgers from entering and becoming trapped/injured. Alternatively, ramps with suitable grip may be installed to allow individuals to escape freely.

If any suspected badger setts or mammal burrows are recorded within the site prior to or during the works, all works must stop immediately, and an ecologist contacted for further advice.

3.5 Reptiles and Amphibians

3.5.1 Timing of Clearance Works

Areas/features within the site that are suitable to support resting/sheltering reptiles and amphibians (brash and wood piles, debris/miscellaneous items and rockery) should be

removed outside of the winter months (October–March inclusive, dependent on temperatures) when individuals may be in brumation.

3.5.2 Supervision of Clearance/Drainage Works

Clearance of the onsite vegetation considered suitable to support reptiles and amphibians (including grassland, tall herbs, scrub and ornamental shrubs) should be avoided, where possible. Where this is not practicable, clearance will be undertaken sensitively under the supervision of an ecologist.

Dense vegetation (grassland, scrub, ornamental shrubs) will be high cut first to 20cm using hand tools and working linearly from one end to the other, to give any potential animals a chance to escape and find alternative shelter.

Areas considered suitable to support resting/sheltering individuals will also be subject to a finger-tip search by an ecologist prior to any clearance works.

During all works, personnel onsite will remain vigilant to the presence of reptiles/amphibians and if any are encountered, they will be moved carefully by hand and placed within the wider site in an area of suitable habitat.

As a toad and smooth newt were recorded within the flooded cellar of the Structure 3, if water is still present in the cellar at the time of the works and requires draining, then this operation will also be undertaken under ecological supervision.

If a great crested newt is encountered at any point during the works, all works will stop immediately, and an ecologist consulted.

3.5.3 Provision of Hibernaculum

Materials arising from the clearance of the rockery and the brash/wood/debris piles should be repurposed to create a hibernaculum within the wider site as enhancement. Details of the suggested location for the hibernaculum is provided in Appendix Two and the construction details are provided in Appendix Three.

3.6 Hedgehog

3.6.1 Timing of Clearance Works

Clearance of onsite vegetation considered suitable to support hedgehogs (including ruderal vegetation, scrub, brash and wood piles) should be avoided, where possible. Where this is not practicable, compensatory planting will be provided, details of which are provided in Appendix Three.

Clearance of suitable hedgehog habitat will also be carried out by hand avoiding October/November - March/April, temperature dependant, when hedgehogs may be hibernating.

3.6.2 Provisions for Hedgehogs during Construction

Any open excavations created during the works should be covered or fenced off each night

to prevent access to hedgehogs. If this is not practicable, then ramps with suitable grip should be placed in each excavation nightly, to allow individuals to escape.

3.6.3 Provision for Hedgehog Movement

It is proposed that post and rail paddock fencing will be installed across the site, this, combined with hedgerows in the wider site and compensatory planting will allow hedgehogs to move freely through the site.

3.7 Invertebrates

As the degrading mortar within the onsite buildings was suitable for use by nesting bees, four integrated bee bricks will be installed across the site. The bee bricks will be integrated within the walls of the new dwellings and installed at least 1m above ground level on the south-facing elevations.

Details of the bee brick locations are provided in Appendix Two and an example of a suitable brick design is provided in Appendix Three.

During construction of the new dwellings, if practical, a soft mortar should also be used to allow bees to colonise the new structures by excavating small holes to use for nesting purposes.

3.8 Installation

Plans illustrating the locations of the biodiversity enhancement features to be installed within the wider site have been included within Appendix Two. However, it should be noted that Plan 3 which illustrates the locations of the non-integrated bird boxes, barn owl boxes and hibernaculum is a guide only. It is recommended that an ecologist is present during the installation of these features to ensure the location of each is optimal based on the habitat present within the wider site.

4.0 Landscape Planting Management and Enhancement

4.1 Wildlife-Friendly Planting

Wildlife-friendly amenity planting will be established across the site, providing an additional pollen and nectar source for a range of insect species, thus also benefitting insectivorous mammals and birds. The planting will also create suitable resting/sheltering and foraging/commuting habitat for hedgehogs, reptiles and amphibians.

Management and maintenance will include watering during periods of drought, pruning, weeding and replacement of any dead/dying plants.

Table One: Recommended Species for Amenity Planting[1]

Wildlife-Friendly Planting Suggestions	
Bedding Plants	
Nottingham catchfly	*Silene nutans*
Night-scented catchfly	*S. noctiflora*
Bladder campion	*S. vulgaris*
Night-scented stock	*Matthiola bicornis*
Sweet rocket	*Hesperis natronalis*
Evening primrose	*Oenothera biennis*
Tobacco plant	*Nicotiana affinis*
Cherry pie	*Heliotropium arborescens*
Soapwort	*Saponaria officinalis*
Climbers	
European honeysuckle	*Lonicera caprifolium*
Italian honeysuckle	*L. etrusca superba*
Japanese honeysuckle	*L. japonica halliana*
Honeysuckle (native)	*L. periclymenum.*
White jasmine	*Jasminium officinale*
Dog rose	*Rosa canina*
Sweetbriar	*R. rubiginosa*
Field rose	*R. arvensis*
Ivy	*Hedera helix*
Bramble	*- many species*
Large trees, small trees and shrubs	
Oak	*Quercus robur & Q. petrea*
Ash	*Fraxinus excelsior*
Silver birch	*Betula pendula*
Field maple	*Acer campestre*
Hawthorn	*Crataegus monogyna*
Alder	*Alnus glutinosa*
Goat willow	*Salix caprea*
Guelder rose	*Viburnum opulus*
Hazel	*Corylus avellana*

[1] See also RHS Plants for Pollinators at www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators

Wildlife-Friendly Planting Suggestions	
Blackthorn	*Prunus spinosa*
Elder	*Sambucus nigra*
Rock plants for walls	
Ivy-leaved toadflax	*Cymbana muralis*
Wall pennywort	*Umbilicus rupestris*
Stonecrop	*Sedum acre*

5.0 Implementation and Ongoing Management

Table Two below sets out an implementation schedule for the timing of management prescriptions in relation to the construction period (prior/during and post).

Table Two: Installation and Management Schedule

Feature	Management/Maintenance Instructions	Timing
Bats		
Ecological Supervision	PRFs associated with Structure 2 will be checked by a licensed ecologist prior to building/demolition works, outside of the bat hibernation period (November - March inclusive). The roof of Structure 3 will be subject to a soft-strip (tiles removed by hand) under ecological supervision, outside of outside of the bat hibernation period (November - March inclusive). The cellar of Structure 3 will be checked for the presence of roosting bats prior to building/demolition works.	Pre/during construction phase.
Lighting	Any additional/replacement lighting after works are completed will comply with the requirements set out in Section 3.1.4 and avoid being placed near/illuminating trees, hedgerows, or bat/bird boxes (structures/trees).	Ongoing.
Bat Box Installation	Following installation, the bottom entrance means that no physical maintenance is required as droppings will simply fall out the bottom. The boxes will need to be checked annually from ground level and replaced like-for-like if box is damaged.	Installation: During construction phase. Maintenance: No cleaning required. Box inspected annually and replaced if damaged.
General Birds & Barn Owl		
Bird Box Installation	Nest boxes for general birds - can be maintained annually if desired by removing old nests/nesting materials in autumn or winter (September – early February) once birds have stopped using them. Nest boxes for barn owls – only clean out between November and January to avoid disturbing breeding barn owls (offence under UK legislation). If occupied by jackdaws/other birds boxes to be cleaned out annually. If occupied by barn owls boxes to be cleaned out every 2 or 3 years preferably in dry,	Installation: During construction phase. Maintenance of boxes for general birds: Annually between September and early February, if desired. Maintenance of boxes for barn owls: Annually between

Feature	Management/Maintenance Instructions	Timing
	calm weather. All nest boxes will need to be checked annually from ground level and replaced like-for-like if box is damaged.	November and January if not occupied by barn owls. Or every 2 or 3 years if occupied by barn owls during dry, calm weather.
Badger & Hedgehog		
Covering of Open Excavations	Any excavations created will be covered or fenced off each night to prevent wildlife from entering and becoming trapped/injured, or a ramp provided.	Each night during construction phase.
Hedgehog		
Sensitive Clearance	Clearance of suitable habitat will be carried out by hand avoiding October/November - March/April, temperature dependant, when hedgehogs may be hibernating.	During construction phase.
Hedgehog Access	Access opportunities will be provided through the installation of post and rail fencing.	During construction phase and ongoing.
Reptiles and Amphibians		
Ecological Supervision	Clearance of suitable habitat and drainage of cellar in Structure 3 (if required) to be supervised by an ecologist. To be carried out by hand outside of the winter months (October–March inclusive, dependent on temperatures).	Pre-construction.
Hibernaculum Creation	Materials from rockery and wood/brash debris piles to be repurposed to create a hibernaculum.	During construction phase.
Invertebrates		
Provision of Bee Bricks	No specific management or maintenance required. If desired bee bricks can be cleaned out annually in October using a pipe cleaner or cotton swab. Bricks will need to be checked annually from ground level and replaced like-for-like if damaged.	Installation: during construction phase. Maintenance: No cleaning required. Bricks inspected annually and replaced if damaged.
Wildlife-Friendly Planting		
Soft Planting	Management and maintenance will include watering during periods of drought, pruning, weeding and replacement of any dead/dying plants.	As and when required.

6.0 Conclusions

Measures are set out to mitigate any adverse effects on biodiversity potentially arising from the development. Further measures are identified to provide biodiversity enhancement within the site, in the form of bat, bird, bee box/brick provisions, reptile and amphibian hibernaculum and wildlife-friendly planting. It is considered that these measures will provide an enhancement for biodiversity within the site and that they are proportionate to the scale of the development.

7.0 References

Bat Conservation Trust and Institute for Lighting Professional (2023) Guidance Note 08/23: Bats and Artificial Lighting at Night. BCT London.

British Standards Institute (BSI) (2013). BS42020 - Biodiversity Code of Practice for Planning and Development. BSI, London.

Huntingdonshire District Council, (2019). Huntingdonshire's Local Plan (2019).

Greenwillows Associates Ltd., (2022). Preliminary Ecological Appraisal Report. Manor Farm, Chesterton.

Greenwillows Associates Ltd., (2022). Letter Report. Manor Farm, Chesterton.

Greenwillows Associates Ltd., (2022). Ecological Impact Assessment. Manor Farm, Chesterton.

Greenwillows Associates Ltd., (2023). Updated Ecological Impact Assessment. Manor Farm, Chesterton.

8.0 Appendices

Appendix One: Site Location Plan and Access Route

Appendix Two: Biodiversity Enhancement Features

Appendix Three: Examples of Mitigation/Enhancement Features

Appendix One: Site Location Plan and Access Route



Internal Reference: J767

Appendix Two: Biodiversity Enhancement Features (Plan 1 of 3)



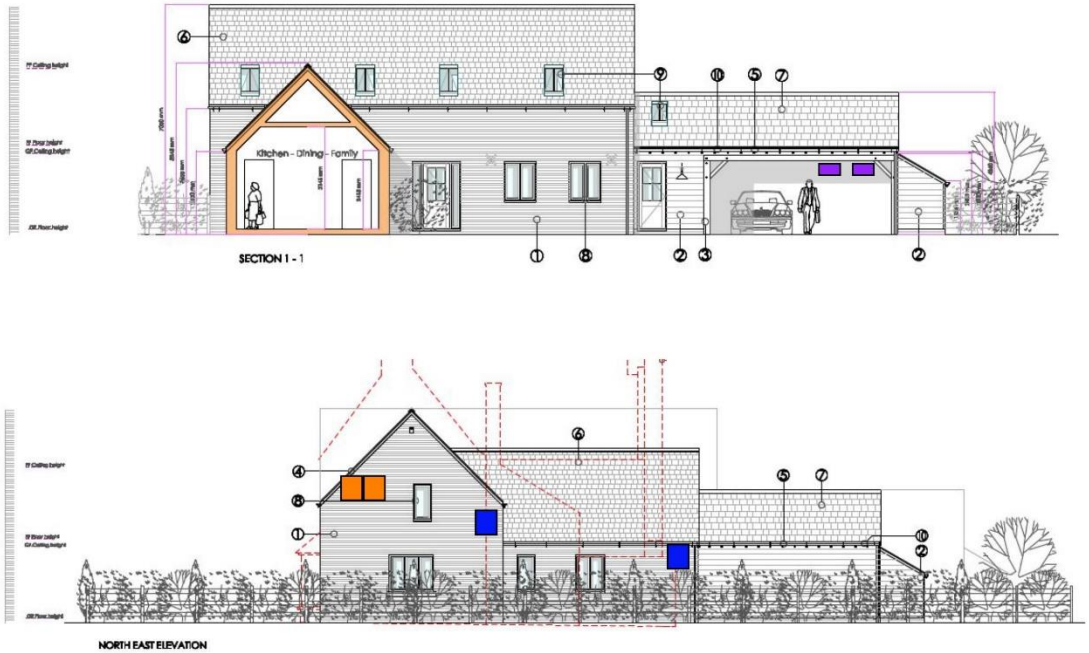
Key

- Bat Box
- Bee Brick

greenwillows associates ltd

Manor Farm, Chesterton
Biodiversity Enhancement Features
(Plan 1 of 3)
October 2024
V:001

Appendix Two: Biodiversity Enhancement Features (Plan 2 of 3)



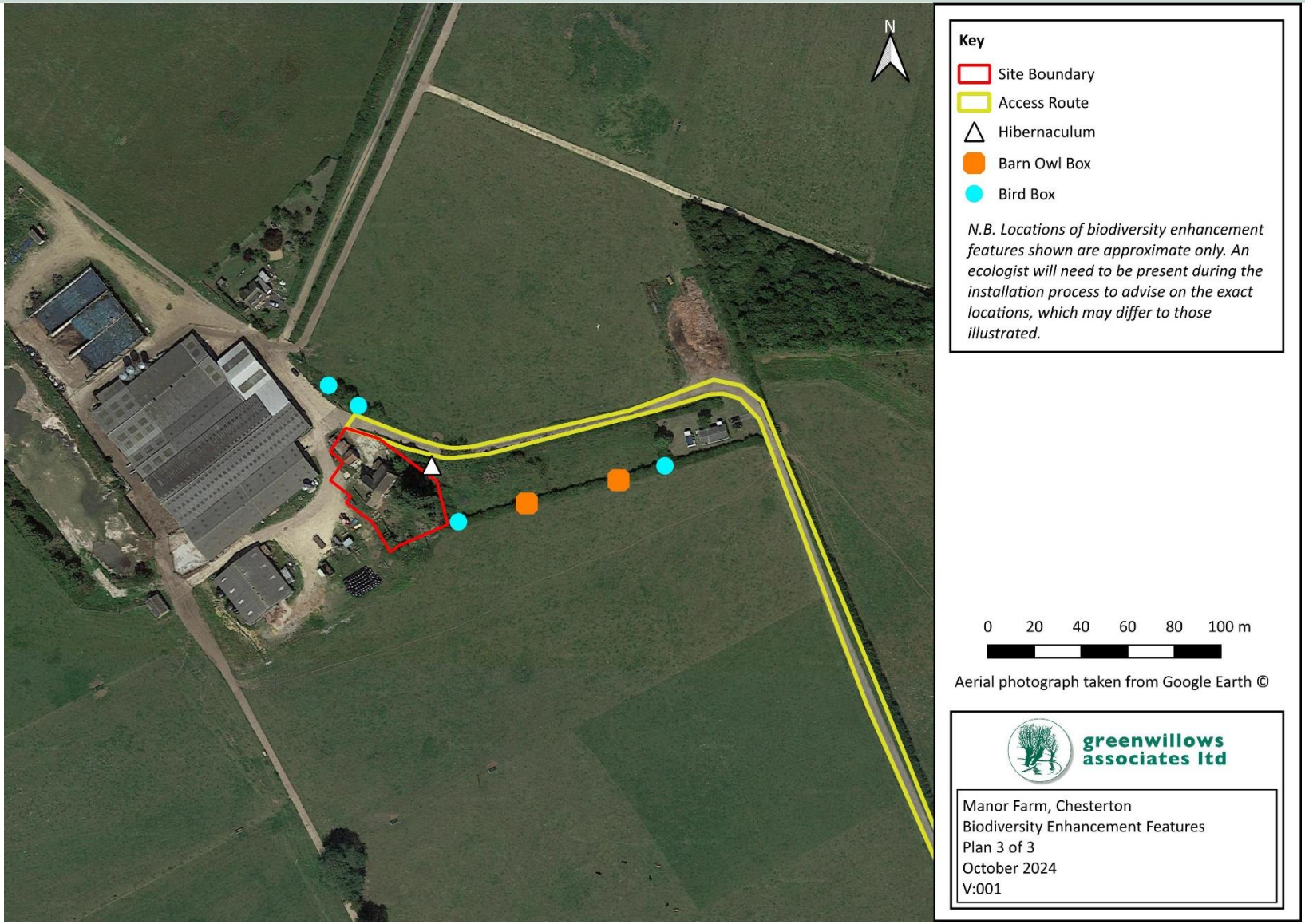
Key

- Swallow Nest Bowl
- Sparrow Terrace
- Brick Nest Box

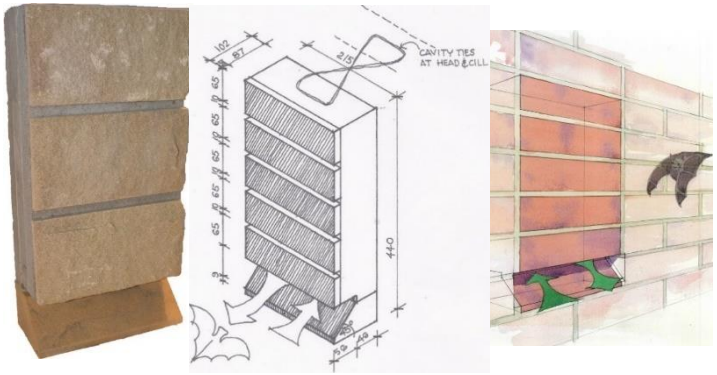
greenwillows associates ltd

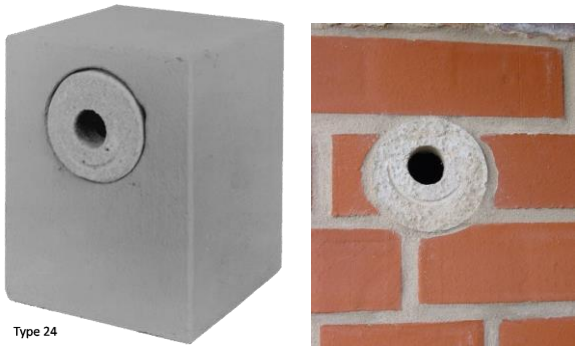
Manor Farm, Chesterton
Biodiversity Enhancement Features
(Plan 2 of 3)
October 2024
V:001

Appendix Two: Biodiversity Enhancement Features (Plan 3 of 3)

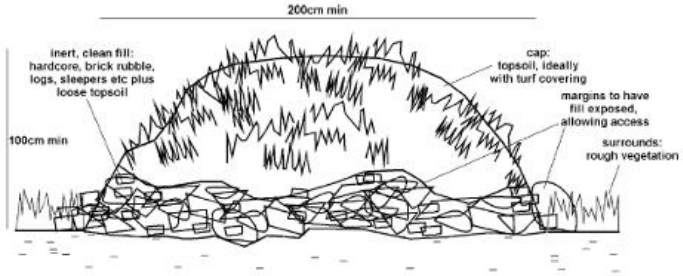


Appendix Three: Examples of Mitigation/Enhancement Features

Target Species	Specific Mitigation/Enhancement Examples	Recommendations for Installation	Quantities and Location Details
Bats	 *Ibstock Enclosed Bat Box 'C'*  *Habibat Bat Box – Custom Stone Facing*	<u>Integrated</u> Boxes should be placed in a <u>south-to-south-westerly</u> orientation at a height of 3-6m above ground level, with all lighting angled away to avoid direct illumination of the box. An unrestricted flight path to and from the box should be provided, so avoid placing the boxes close to any overhanging materials.	**2**

General Birds	 *Schwegler 1B 26 and 32mm Nest Boxes*	<u>Non-integrated</u> Non-integrated boxes can be installed on trees or posts close to dense vegetation e.g., hedgerow or line of trees. Boxes will be installed at a height of 2m or above, facing between <u>north and east</u>, with all lighting angled away to avoid direct illumination of the box. Branches (if present) will need to be cleared to provide an unrestricted flight path to and from the box.	**2x 26mm hole** **2x 32mm hole, within wider site**
General Birds	 *Schwegler Type 24 Brick Nest Boxes*	<u>Integrated</u> Integrated boxes are designed to be built into a brick wall and can be rendered over, if required. Boxes will be installed at a height of 2m or above, facing between <u>north and east</u>, with all lighting angled away to avoid direct illumination of the box. An unrestricted flight path to and from the box should be provided, so avoid placing the boxes close to any overhanging materials.	**2**

Sparrows	 *Schwegler 1SP Sparrow Terrace*	<u>Integrated OR Non-integrated</u> Sparrow terraces will be installed at eave level (2m or above), facing between <u>north and east</u>, with all lighting angled away to avoid direct illumination of the box. The terraces can either be fixed onto the surface of a suitable wall or incorporated into the wall. These terraces will be installed in a pair side by side as sparrows are a communal nesting species.	**2, on the same structure, side by side**
Swallows	  *Schwegler 10B Swallow Nest Bowl & Dropping Board*	<u>Inside Carport</u> Swallow nest bowls can be fixed onto the surface of a suitable internal wall and will be installed at a height of 2m or above. The distance from the top of the bowl and the ceiling should be a minimum of 6cm. This nest bowl will be placed *inside* a carport. The bowls should be placed a minimum of 1m apart. To minimise droppings falling onto items stored inside the carport, dropping boards can be installed below the nest bowls.	**2, inside carport**

Barn Owl	 *Barn Owl Nest Box*	<u>Non-integrated</u> Barn owl boxes will be installed on a mature tree/post at least 3m from ground level with the box hole <u>facing northwards.</u> It is recommended to place bark and coarse wood shavings in the base of the box during installation to encourage birds to use the box.	**2, on separate mature trees or wooden posts, within wider site**
Reptiles and Amphibians	 *Example Hibernaculum*	The hibernaculum should be created using any suitable materials already in the site as well as any waste material created during vegetation clearance. The hibernaculum should be created following the specifications within the example illustration.	**1, within wider site**

Invertebrates	 *'Green and Blue' Bee Brick*	<u>Integrated</u> Bee bricks will be integrated within the walls of the new dwellings and should be installed at least 1m above the ground on the <u>south-facing</u> elevations. Red bee bricks are recommended but other colours are available.	**4**