

Biodiversity Compensation and Enhancement Strategy

PROPOSED NEW DWELLING Bennetts Farm, Ashfield Road, Elmswell, Suffolk

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1 INTRODUCTION

Full planning permission (Ref. DC/20/01999) was granted (dated 21/07/2020) for the demolition of the existing structures and the erection of one single-storey dwellinghouse at Land North of Dagwood Farm, Ashfield Road, Elmswell, Bury St Edmunds, Suffolk, IP30 9HJ. The plans were non-materially amended and subsequently approved (dated 15/05/23) under a variation of conditions (Variation of Condition 2 - Approved Plans and Documents) application (Ref. DC/23/01407).

Amongst the conditions associated with the granting of planning permission, three conditions (conditions 6, 7 and 8) relate to ecology.

6. ACTION REQUIRED IN ACCORDANCE WITH ECOLOGICAL RECOMMENDATIONS

The development hereby approved shall be carried out in accordance with the Ecological mitigation and enhancement measures, as detailed in the Ecology Report (MHE Consulting, January 2020) as submitted with the planning application. The required measures may include the appointment of an appropriately competent person e.g., an ecological clerk of works (ECoW) to provide on-site ecological expertise during construction. The appointed person shall undertake all activities, and works shall be carried out, in accordance with the approved details.

Reason: To conserve Protected and Priority species and allow the Local Planning Authority to discharge its duties under the UK Habitats Regulations, the Wildlife & Countryside Act 1981 as amended and s40 of the NERC Act 2006 (Priority habitats & species).

7. ACTION REQUIRED PRIOR TO OCCUPATION: BIODIVERSITY ENHANCEMENT STRATEGY

The use shall not commence until a Biodiversity Enhancement Strategy for Protected and Priority Species has been submitted to, and approved in writing by, the Local Planning Authority. The proposed Strategy shall include the following: a) Purpose and conservation objectives for the proposed enhancement measures; b) detailed designs to achieve stated objectives; c) locations of proposed enhancement measures by appropriate maps and plans; d) persons responsible for implementing the enhancement measures; e) details of initial aftercare and long-term maintenance (where relevant). The works shall be implemented in accordance with the approved details and timetable and shall be retained in that manner thereafter.

Reason: To enhance Protected and Priority Species/habitats and allow the Local Planning Authority to discharge its duties under the s40 of the NERC Act 2006 (Priority habitats & species).

8. ACTION REQUIRED IN ACCORDANCE WITH SPECIFIED TIMETABLE: ECOLOGY - WILDLIFE SENSITIVE LIGHTING DESIGN SCHEME

No external lighting, or other means of outside illumination, shall be installed or operated on the site until a lighting design scheme for biodiversity has been submitted to and approved in writing by the Local Planning Authority. The scheme shall identify those features on site that are particularly sensitive for bats and that are likely to cause disturbance along important routes used for foraging; and show how and where external lighting will be installed so that it can be clearly demonstrated that areas to be lit will not disturb or prevent bats using their territory. Any external lighting shall be installed in accordance with the approved specifications and locations set out in the scheme and no other external lighting shall be installed without the prior written approval of the Local Planning Authority.

Reason: To allow the Local Planning Authority to discharge its duties under the UK Habitats Regulations 2017, the Wildlife & Countryside Act 1981 as amended and s40 of the NERC Act 2006 (Priority habitats & species).

2 SCOPE

This document outlines the details and locations of compensation (covered by condition 6 in part) and enhancement measures to be implemented. It has been prepared to enable the discharge of Condition 7 and

is based on the baseline ecological assessment for the scheme¹ and the most recent drawings by CIC and English Brothers Architects and PJT Design Ltd, and where relevant refers to and relies upon the implementation of recommended measures within additional supporting documents prepared to discharge other ecology related planning conditions or ensure legal compliance. It should be revised and amended in response to any deviations or revisions to the site and landscape proposals.

3 BIODIVERSITY INTERESTS

Habitats present on-site and immediately adjacent with biodiversity value include areas of grassland and ruderal vegetation, discrete areas of scrub, hedgerows, scattered broadleaved trees and a pond (located c. 50m north of the site). These habitats offer value for nesting birds, foraging and commuting bats, small mammals (e.g., hedgehogs), amphibians and invertebrates.

4 PURPOSE AND CONSERVATION OBJECTIVES

The purpose of this document is to outline measures to provide compensation (Figure 2) and biodiversity enhancements (Figure 3). Residual effects requiring compensation include the loss of hedgerow, grassland and scrub habitat on site and the associated loss of bat foraging, bird nesting, and hedgehog foraging, refuge, and overwintering habitats.

4.1 Compensatory measures

- New native hedgerows planted along the northern, western, and part of the southern site boundaries will offset any loss of existing hedgerows (e.g., for access and visibility requirements).
- A native species-rich wildflower lawn will be sown in the rear garden to offset loss of grassland on site.
- x3 small passerine nest boxes (Appendix A1) will be erected on suitable trees retained on site.
- A hedgehog refuge/shelter will be created adjacent to an existing hedgerow to compensate for the loss of potential hedgehog overwintering habitat.

4.2 Biodiversity enhancement measures

- A sparrow terrace and an apex starling nest box (Appendix A1) will be erected on the new dwelling (east and/or north elevations).
- Four swift nest bricks² (e.g., Schwegler 1A lightweight swift box) will be installed within the walls just under the eaves of the dwelling on the east elevation. As timber cladding is proposed the boxes must be installed so a hole can be cut in the cladding so the entrance hole of the box sits flush or slightly proud of the cladding. Homeowners should be supplied with material and guidance on how to attract an initial colony³.
- Two tree mounted bat boxes (Appendix A2) to be installed on mature boundary trees and one bat box to be integrated into the walls of the new dwelling (south elevation).

5 DETAILED DESIGNS, RESPONSIBILITIES AND MAINTENANCE

Detailed guidance to inform enhancement measures are provided in the text below and summarised in Table A2. Timely and effective implementation is the responsibility of the applicant and their contractor(s) unless specified otherwise.

5.1 Compensatory measures

New native hedgerows

a) Planting

New species-rich native hedgerows will be established along the northern and western boundaries and part of the southern boundary to offset any loss of existing hedgerows (e.g., for visibility and access requirements) as well as for amenity and landscape requirements.

¹ MHE Consulting Ltd (2020). Ecology Report - PROPOSED NEW DWELLING - Bennetts Farm, Ashfield Road, Elmswell, Suffolk - January 2020

² https://swift-conservation.org/Leaflet%204%20-%20Swift%20Nest%20Bricks%20-%20installation%20%26%20suppliers-small.pdf

³ https://swift-conservation.org/2014-06-21%20swiftcallsinstructions.pdf

The new hedgerows will contain a minimum of 6 species (see Table A1). Planting should take place during Autumn with groups of 3-5 conspecifics planted together. Rotovate or otherwise create bare ground and plant two rows (30-50cm apart) of 40-60cm high 'whips' along hedgerow every 30cm in biodegradable guard tubes with support (e.g., canes).

Common name	Scientific name	Percentage
Common hawthorn	Crataegus monogyna	30 %
Hornbeam	Carpinus betulus	7.5 %
Beech	Fagus sylvatica	7.5 %
Field maple	Acer campestre	10 %
Common dogwood	Cornus sanguinea	10 %
Holly	llex aquifolium	7.5 %
Hazel	Corylus avellana	5 %
Guelder rose	Viburnum opulus	7.5 %
Crab apple	Malus syvestris	5 %
Spindle	Euonymus europaea	5 %
Sapporo 'Autumn Gold' Elm*	U. davidiana var. japonica × U. pumila	5 %

Table A1 Hedgerow planting species and composition

* A non-native hybrid cultivar of elm known to be resistant to Dutch Elm Disease and to support native elm-dependent invertebrates such as white letter hairstreak (*Satyrium w-album*) (Butterfly Conservation, 2012⁴).

b) Aftercare and management

After planting, hedgerow plants and trees must be watered-in to maximise their chances of survival and watered during prolonged dry periods in the first year. Adjacent ground should also be mown regularly during the first year to remove 'weeds' and reduce competition for sunlight and moisture. Any plants that die during the first 5 years should be replaced on a like-for-like basis.

The hedgerows should be allowed to grow thick and tall, with the aim of creating an unbroken refuge and commuting route for wildlife including bats and hedgehogs. A sympathetic cutting regime⁵ (e.g., incremental cuts) can substantially alter the condition of the hedges and increase their value as a wildlife habitat. They may be trimmed where they encroach on the garden or adjacent land, though this must be done outside nesting bird season (March to August inclusive).

Flowering lawn

a) Installation

A native, wildflower lawn mixture will be sown⁶ or turfed⁷ in the rear garden (west of dwelling) to provide botanical diversity and foraging opportunities for pollinators and other invertebrates. The wildflower lawn can be managed like a traditional lawn (i.e., regular mowing) but will maintain a high species diversity and provide sources of nectar.

The wildflower lawn mix must be sown and cultivated according to supplier guidance. This is likely to include sowing during spring and removing any weeds (if desired) before seeding in the first year. Sowing during the spring is generally the best time or in the early summer when a period of rainfall is forecast over several days. The lawn may require periodic watering to aid its establishment.

⁴ Butterfly Conservation (2012). Disease-resistant elm cultivars. Butterfly Conservation trials report, 2nd revision.

⁵ <u>https://hedgelink.org.uk/guidance/hedgerow-management-advice/</u>

⁶ <u>https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/flowering-lawn-mixture/</u>

⁷ <u>https://www.wildflowerlawnsandmeadows.com/wild-flower-turf/extra-floristic-low-flowering-lawn-turf-with-wild-orchid-seed/</u> or <u>https://www.turfonline.co.uk/product/species-rich-lawn-turf/</u>

b) Management and aftercare

Maintenance should follow supplier guidance with arisings collected and composted. Once established, little care will be required in the first year and limited ongoing specialist care needed long-term; the wildflower lawn can be mown in the same fashion as a traditional lawn.

Bird boxes

a) Installation

Artificial nest boxes (x3 open-fronted boxes, see Appendix A1) for small passerines such as robin (*Erithacus rubecula*) and wren (*Troglodytes troglodytes*) will be erected on retained trees and the new dwelling in the locations shown on Figure 2. The boxes will be erected at 3m high to reduce the risk of cat predation.

b) Management and aftercare

The nest boxes should be inspected for damage on an annual basis. Annual/biannual cleaning can also be undertaken (e.g., removal of old nesting materials and unhatched eggs) in October and November, when there no chance of disturbing the previous occupants. This will reduce build-up of parasites (e.g., mites etc.) within the nest box.

Any nest boxes that fall to the ground and are too damaged to be re-erected should be replaced.

Hedgehog refuge habitat

a) Installation

The loss of potential hedgehog refuge and overwintering habitat will be compensated for by building (e.g., using logs and brash with leaves) and placing a hedgehog house⁸ within the log/brash pile which will be placed in a quiet, shady and sheltered part of the site⁹ with longer grassland allowed to grow around it (Figure 2).

b) Aftercare and management

The hedgehog house entrance should be positioned to face south/southwest and should remain clear of obstruction. If the hedgehog house has been constructed from timber **it should be treated with water-based preservative only on the outside (not creosote or paint etc.).** Hedgehog houses can be cleaned out annually, though this is not always necessary. If the box is cleaned-out it should be done in late March/early April to avoid overwintering hedgehogs. **DO NOT CLEAN IF A HEDGEHOG IS IN RESIDENCE** - to check this – place a small, light obstruction in the entrance to see whether it is pushed away overnight; if it wasn't moved then this is an indication that the hedgehog may no longer be in residence.

5.2 Enhancement measures

The following enhancement measures should be implemented as part of site landscaping to be consistent with planning policy and to ensure the development delivers a biodiversity net gain.

Sparrow terrace and apex starling nest box

a) Installation

A sparrow terrace and an apex starling box (Appendix A1) will be mounted on the walls of the new dwelling in the locations shown on Figure 3. The boxes should preferably be installed at a minimum of 3m high reduce the risk of cat predation (the building eaves height will determine final located of the boxes).

b) Aftercare and management

Generally, the sparrow terrace box should require no maintenance with the birds cleaning the boxes as necessary. Birds and their nests (including any eggs or young in the nest) are legally protected from disturbance and damage during the breeding season and the old nests can be removed along with droppings outside of the bird breeding season.

⁸ https://www.nestbox.co.uk/products/eco-hedgehog-nest-box

⁹ <u>https://www.britishhedgehogs.org.uk/hedgehog-homes/</u>

The starling nest box should be inspected for damage on an annual basis. Annual/biannual cleaning can also be undertaken (e.g., removal of old nesting materials and unhatched eggs) in October and November, when there no chance of disturbing the previous occupants. This will reduce build-up of parasites (e.g., mites etc.) within the nest box.

Any nest boxes that fall to the ground and are too damaged to be re-erected should be replaced.

Swift nest boxes

a) Installation

Four integrated swift nest boxes (e.g., woodstone¹⁰) will be mounted on the east elevation of the building (Figure 3) under the eaves (>4m from the ground), with a clear flight path to the entrance (exact locations must be agreed with a suitably experienced ecologist). Speaker systems¹¹,¹² must be installed in one of the boxes as per recommended guidance and additional guidance and materials provided to homeowners to encourage the attraction of birds once the property is occupied.

b) Aftercare and management

The nest boxes should be inspected for damage on an annual basis. Annual/biannual cleaning can also be undertaken (e.g., removal of old nesting materials and unhatched eggs) in October and November, when there no chance of disturbing the previous occupants. This will reduce build-up of parasites (e.g., mites etc.) within the nest box. Any nest boxes that fall to the ground and are too damaged to be re-erected should be replaced.

Bat boxes

a) Installation

Two bat boxes (x1 Vincent Pro and x1 Kent Bat Box) (see Appendix A2) will be erected on mature horse chestnut trees in the northeast corner of the application site, with a single bat box integrated into the wall¹³ on the south elevation of the new dwelling, just under the eaves, (the access slot will be cut into the cladding for a discrete look) (Figure 3).

Boxes will be installed in a clear and sunny location (e.g., 6-8 hours of direct sunlight, or in a location where it receives the morning sun if this is not possible) with the entrance clear of obstructions to prevent a cluttered flight path discouraging bats from roosting within the box.

The boxes will be erected by a suitably experience ecologist to minimise predation risks and maximise favourability for use.

b) Aftercare and management

To increase the longevity of tree-mounted wooden boxes, some organic stain or linseed oil could be applied to areas of bare wood. The bat boxes should be inspected for any sign of damage on an annual basis. The Bat Boxes are self-cleaning and are less likely to be used by small passerines such as wren or blue tits (*Parus caeruleus*) but should be cleared of any nest debris that may have appeared on an annual basis (e.g., October to February).

The best time to clean most bat boxes (those suitable for summer roosts) is during the autumn or winter. The eco Kent bat boxes can be inspected from the ground to see if any bats are present. Occupied bat boxes must be left, as bat roosts must only be disturbed by licenced bat ecologists.

¹⁰ https://www.wildcare.co.uk/schwegler-1a-lightweight-swift-10635.html

¹¹ https://www.swift-conservation.org/Nestboxes%26Attraction.htm

¹² https://www.swift-conservation.org/2016-08-23%20EquipmentListforusingtheMP3versionoftheSwiftCalls.pdf

¹³ <u>https://www.nhbs.com/build-in-woodstone-bat-box-uk-brick-size?bkfno=256321</u>

Bat boxes can be cleaned when not occupied by bats or nesting birds. They should be checked for any damage at this time, as this may reduce their chances of being used. The most likely damage will be broken seams around the roof resulting from constant heating and cooling during the day warping the wood slightly. A silicone waterproof sealant should be used to repair this. Any bat boxes that fall to the ground and are too damaged to be re-erected should be replaced.

A separate Wildlife Lighting Strategy (required to allow the discharge of planning condition 6) will ensure that bats boxes are installed in "dark zones", where they are unlikely to be affected by light pollution.

6 TIMETABLE

Indicative timing, relative to the build programme, are outlined in Table A2 below:

Table A2 Indicative timing of installations

Action	Timing
Wildflower lawn	Established within first full growing season after
	construction works commence
Hedgerows	As above
Hedgehog refuge/nesting habitat creation	Prior to first occupation
Erection of Bat boxes	Prior to first occupation
Erection Bird boxes	Prior to first occupation
Management of habitat features	From completion/installation and thereafter

7 INDIVIDUAL RESPONSIBILITIES AND COMMUNICATION

It is the responsibility of the applicant and their principal contractor to ensure the measures identified are implemented, and that ecologist input and any management agreements are secured as required. The applicant is responsible for organising and covering all reasonable costs associated with measures identified in this document, including sub-contractor time and materials.

MHE Consulting Ltd (01986 788791) can provide any ecologist input required (e.g., agreeing bat and bird box erection).

Figures







Appendices

Appendix A1 Bird boxes





Appendix A2 Bat boxes







