LAND SOUTH OF CLIFTON ROAD, DEDDINGTON, OXFORDSHIRE

ECOLOGICAL ENHANCEMENT STATEMENT (PLANNING CONDITION 11)

On behalf of

BLUE CEDAR HOMES LTD

Final Report

9th October 2023

Prepared by

MALFORD
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1 Introduction

Blue Cedar Homes Ltd has received planning permission from Cherwell District Council to construct a residential housing scheme, comprising five dwellings, on part of a field located to the south of Clifton Road, Deddington, Oxfordshire, OX15 0TH (see Appendix A).

This Ecological Enhancement Statement has been produced in response to a Planning Condition 11, which states:

- *No development shall commence, including any demolition, and any works of site clearance, unless and until a method statement for enhancing the biodiversity on the site have been submitted to and approved in writing by the Local Planning Authority. The development shall not be carried out other than in accordance with the approved details and shall be retained as such thereafter*.

This report therefore provides a framework for installing/creating and appropriate management of habitats and features that enhances biodiversity within the application area and surrounding local area.

2 Aims and Objectives of Ecological Enhancement

The overall aim of ecological enhancement for the site is to establish and/or enhance a range of habitats and features that will potentially allow a wider diversity of wildlife to inhabit and use the application area.

The following key principles developed by Natural England for developing wildlife corridors provide the basis for habitat creation and management:

- Restore and/or create habitat links and stepping stones between different habitat blocks;
- Manage the site to give optimal conditions for key species thereby boosting the effective population size and increasing the likelihood of expansion; and
- Increase the area of small habitat patches by habitat creation or restoration to reduce likelihood of local species extinction.

The main objective of habitat creation and management during the first 3-5 years after construction is to ensure the successful establishment of the different habitats.

Longer-term management objectives deal mainly with maintaining a species and structurally-diverse, robust and maturing habitat mosaic for the benefit of a wide range of wildlife.

The main focus in the early stages of the site management is therefore to establish and to ensure the survival of newly created or restored semi-natural habitats and plants by suppressing/eradicating more vigorous and less desirable (i.e. non-native or invasive species) plant species and encouraging a more diverse and species-rich environment using appropriate management techniques.

3 Habitat Establishment and Management

3.1 Bat roosting boxes

To provide an enhancement for roosting bats, five integrated bat roosting boxes (placed within the fabric of a cavity wall) will be installed on four of the new buildings to provide roosting habitat for crevice-dwelling bat species.

The bat boxes will be installed as close to the roof apex on a southerly, easterly or westerly facing elevation of the buildings (photo shows a bat brick *in situ* on a new house).

No external lighting will be used adjacent to or shine directly at the bat box entrance slots. Clear lines of flight to the bat roost box entrances will be maintained at all times.

The five boxes will be positioned as follows and as shown on the plan in Appendix A:

- Plot 1: 1 x bat box on the southwest facing gable end elevation;
- Plot 2: 1 x bat box on the east facing gable end elevation;
- Plot 3: 1 x bat box on the east facing gable end elevation;
- Plot 4: 1 x bat box on the south facing gable end elevation; and
- Plot 5: 1 x bat box on the west facing gable end elevation.

Boxes will be integrated at the apex of the roof line of all building elevations, which provide sufficient height, ensure the boxes receive warmth, and avoid being positioned near to windows to reduce lighting impacts.

Alternative bat boxes are available, with two suitable boxes shown below (available from www.nhbs.com or www.wildcare.co.uk).

Habibat bat brick

(brick facing or faced with timber)

Ibstock Enclosed Bat Box C

3.2 Swift nesting boxes

To provide an enhancement for nesting birds integrated swift (*Apus apus*) nesting boxes (providing 2 nesting cavities per building), which are placed within the fabric of a cavity wall, will be installed on all five new buildings. Swifts are an Amber list species (species of moderate conservation concern due to declining populations), are known to be in Deddington and provision of permanent nesting locations can help re-address this issue. Swift nest boxes will also be readily used by other bird species such as house sparrow.

The swift boxes will be installed as close to the apex of a gable end wall on a northerly or easterly facing elevation of the buildings.

The swift boxes will be positioned as follows and as shown on the plan in Appendix A:

- Plot 1: 1 x pair of nest boxes on the northwest facing gable end elevation;
- Plot 2: 1 x pair of nest boxes on the north facing gable end elevation;
- Plot 3: 1 x pair of nest boxes the north facing gable end elevation;
- Plot 4: 1 x pair of nest boxes on the north facing gable end elevation; and
- Plot 5: 1 x pair of nest boxes on the east facing gable end elevation.

Swift boxes will be installed at the apex of building elevations, which provide maximum height and avoid direct sunlight.

Alternative swift boxes are available, with two suitable boxes shown below (available from www.nhbs.com or www.wildcareshop.co.uk).

Ibstock built-in single swift nest box

Vivara Pro Cambridge swift box (chamber and entrance brick)

3.3 Species-rich grassland

3.3.1 Habitat establishment

Floristically-rich, grassland will be created on land within an area of communal open space along the western boundary of the proposed development. The species-rich grassland will be established using an appropriate seed mix obtained from a reputable seed house. It is recommended that Emorsgate EM2 (Standard General Purpose Meadow Mixture), or equivalent, be used. To improve the chances of a desired outcome yellow rattle (*Rhinanthus minor*) seed will be added to any seed mix (up to 1g/m^2). Yellow rattle is an annual root-hemi-parasite often present in moderate to low fertility grasslands particularly meadows. It parasitizes the roots of a wide range of meadow plants, especially grasses and legumes, drawing additional supplies of carbohydrates and minerals from these hosts. This action impedes the growth of host plants, and helps to maintain an open sward structure.

The area to support the species-rich grassland will be prepared carefully before seeding, using one of two techniques depending on whether topsoil has already been removed or not.

If topsoil has been removed, then the area will be covered with a thin layer of loamy, nutrient-poor soil. The ground will be harrowed or raked to produce a medium tilth, and then rolled to produce a firm surface.

If the existing grassland remains then the ground will be prepared in late summer by cutting and/or grazing the sward very hard, while creating gaps in the sward (aiming to create 50% bare soil) either by harrowing or by raking. Alternatively grass patches or strips can be sprayed-off using herbicide.

The grassland seed mix will be sown preferably in the autumn (August-September) or alternatively spring (March-April). The seed will be surface sown and can be applied by machine, and must not be covered with additional soil but instead rolled to give good soil/seed contact.

Seeds will be sown at the rate specified by the supplier. A relatively low sowing rate is usual and aims to allow an extended period of establishment so as both fast growing grasses and slower germinating flower seeds can colonise.

3.3.2 Habitat management

Most sown grassland species will be perennial and will be slow to germinate and grow, and will not usually flower in the first growing season. There will often be a flush of annual weeds from the soil in the first growing season, which will be controlled by topping or mowing. A minimum of three cuts will be undertaken in the first year (when the crop exceeds 15cm) with the clippings removed. This regime may also be required in the second year.

Once established the grassland will be managed with an annual hay cut. The grassland will be left un-cut from spring preferably through to early August to give the sown forb species an opportunity to flower and set seed. After flowering a cut will be undertaken to about 50mm sward height. The cut 'hay' will be left *in situ* to dry and shed seed for 3-7 days (depending on prevailing weather).

Cut hay must be collected and removed from the grassland to avoid a build-up of nutrients that would favour more competitive, vigorous and undesirable plants.

Re-growth of the sward will be kept at a height of about 50mm by regular mowing, which should continue until late autumn (e.g. end of October).

Some weed control may need to be implemented when required, which could involve hand pulling of self-set, young woody species as well as the targeted use of herbicide for docks/thistles or other invasive or undesirable species which could appear.

3.4 Hedgerow

3.4.1 Habitat establishment

Mixed native hedgerow will be planted along the southern, western and eastern boundaries of the new development. Species for hedgerow and tree planting are selected to complement hedgerows found locally, and plants will be native and sourced from a reputable nursery. The planting specification, which will provide details of species, numbers and sizes of plants, will be provided in the final landscaping scheme as required under Planning Condition 13.

Hedgerows will be planted as a minimum double-belt hedge, as specified within the landscape architect’s detail and specification.

Planting will take place between November and March. Newly planted areas will be inspected regularly for the first 3-5 years, and any significant gaps or dead plants will be replaced with new specimens.

3.4.2 Habitat management

Shrubs will require annual maintenance after planting that will very likely include:

- Weeding including hand-pulling and herbicide application (May-July) to remove vigorous grasses and ruderal plants.
- Single dose of evenly spread slow-release fertiliser to the base of trees/shrubs during March-April.
- Re-firming of specimens if required after high winds, frost heave or other disturbances.
- Watering as required during the growing season during times of water shortage to avoid stress.

Once established, hedgerows will be managed to create a dense, bushy structure at a height of 2-3m with foliage down to ground level. This will be achieved by an appropriate cutting regime as follows:

- The sides of the hedge managed less intensively than the tops of the hedge. This will allow the sides to thicken-up and to maintain an 'A' shape, which is the best shape possible for wildlife. The cut will not reduce the hedge height lower than 2m, and top level should be varied and uneven.
- Cutting will take place in January or February to avoid bird nesting season, and maximise retention of berries.
- Hedgerow cutting should preferably be staggered, ensuring some hedgerow remains untouched during the growing season, which will vary the structure of the hedgerows and allow some sections to develop berries.
- Leaving some clumps of bramble or suckering growth (i.e. blackthorn) to grow out from the base of hedges creating a scalloped edge and habitat for nesting birds.

3.5 Trees and shrubs

3.5.1 Habitat establishment

Mixed native shrubs and specimen trees will be planted around the development plot. Species for tree and shrub planting will be selected to complement species found locally, and plants will be native and sourced from a reputable nursery. The final suite of tree and shrub species will be presented in the final landscaping scheme as required under Planning Condition 13, which will include, *inter alia*, details of the proposed tree and shrub planting including their species, number, sizes and positions.

Trees that could be included in new planting could include pedunculate oak (*Quercus robur*), field maple (*Acer campestre*), beech (*Fagus sylvatica*), hornbeam (*Carpinus betulus*), wild cherry (*Prunus avium*), small-leaved lime (*Tilia cordata*), whitebeam (*Sorbus aria* agg) and silver birch (*Betula pendula*).

Shrubs could include hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), dogwood (*Cornus sanguineum*), holly (*Ilex aquifolium*), guelder rose (*Viburnum opulus*) and wayfaring-tree (*Viburnum lanthanum*).

Trees and shrubs will be planted in pits 200mm wider in diameter and 200mm deeper than the root spread. Within each pit 200g of slow release fertiliser will be added. All plants are to be thoroughly soaked immediately prior to planting.

Each tree and shrub will have a tree-stake for support, will be mulched, and will be protected from grazing animals using tree guards or protective fencing.

Planting will take place between November and March. Newly planted areas will be inspected regularly for the first 3-5 years, and any significant gaps or dead plants will be replaced with new specimens.

3.5.2 Habitat management

Shrubs and trees will be formatively pruned or trimmed every 5-7 years. Specimen trees will be allowed to mature, and in the long-term some trees could be managed as pollards to add structural diversity.

3.6 Wildlife hibernacula

Four wildlife hibernacula (refugia piles) could be constructed by stacking 1-2m lengths of cut log on top of each other. Openings into the log piles should be maintained at ground level, providing access for wildlife to seek refugia within the interior of the piles. The log piles should be inspected every 5 years and topped-up as required.

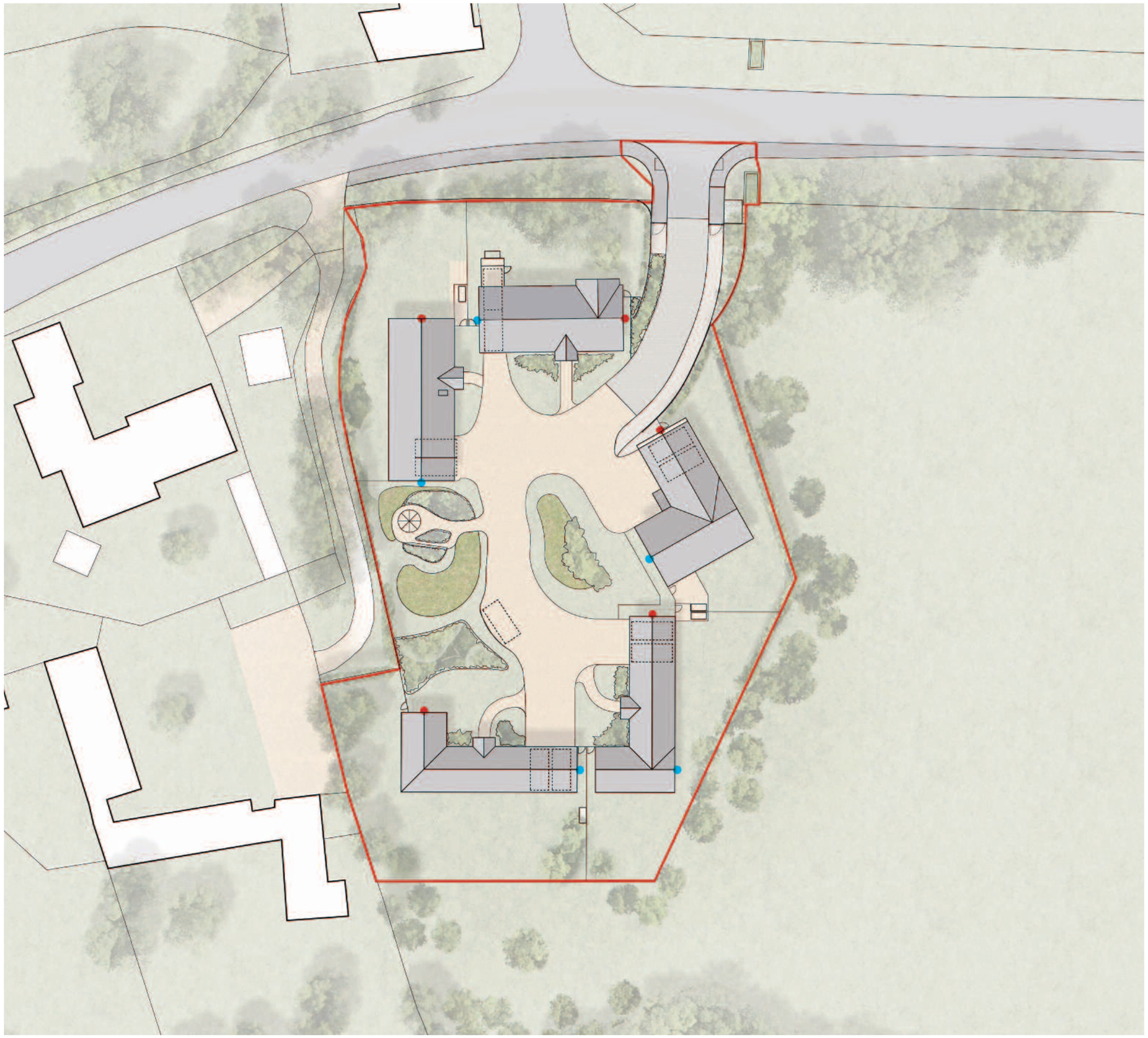
The log piles could be located at the base of boundary hedges or within new shrub/tree planting within the existing rough pasture.

These decaying wood piles provide ideal habitat for saproxylic invertebrates (feed on deadwood), fungi and mosses. The log piles will also provide shelter for a wide variety of wildlife including small mammals and common amphibians.

3.7 Responsibility for implementation

The responsible organisation for implementing habitat creation/establishment and aftercare is the applicant *via* a contractor and/or management company.

Appendix A Bat and Bird Box Locations



Bat box

Swift bricks (Pair)

Project	Stage	Drawing	Scale
4192	3	059B	1:500@A3

Drawn	Checked	Date
IB	MB	July ‘23

Ecology Plan

The Poplars, Land South of Clifton Road
Deddington

bba architects & planners