

Elmsbrook, Bicester  
(Phase 3 and 4)

**Faunal Enhancement Scheme**  
(to address Condition 82 of Planning Permission  
Ref: 10/01780/HYBRID)

November 2017

## Quality Management

<b>Client:</b>	Crest Nicholson Regeneration
<b>Project:</b>	Elmsbrook, Bicester
<b>Report Title:</b>	Faunal Enhancement Scheme
<b>Project Number:</b>	ECO-5192
<b>File Reference:</b>	5192 Faunal Enhancement Scheme vf/TT/LB
<b>Date:</b>	28/11/2017

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# 1 Introduction

1.1 Aspect Ecology has been appointed by Crest Nicholson Regeneration in respect of ecological matters relating to land at Elmsbrook, Bicester. The site, which forms Phase 3 and 4 of the Exemplar Phase of the north-west Bicester Eco Town development, is in receipt of full planning permission for residential development (ref: 10/01780/HYBRID).

1.2 The permission is subject to a number of planning conditions of which this report is concerned with Condition 82, which states:

*“Prior to work commencing of a phase, details of a scheme for the location of bat, bird, owl and invertebrate boxes in each phase of development will be submitted to and approved in writing by the Local Planning Authority. The bat, bird, owl and invertebrate boxes shall be installed in accordance with the approved scheme and prior to the occupation of any building on which they are agreed to be located.”*

1.3 As part of the planning application for the Eco Town development, an outline bat, bird and invertebrate enhancement scheme to be implemented across all four Phases was produced (see Appendix 5192/1). This plan forms the basis of this faunal enhancement scheme for Phases 3 and 4, although some variations are proposed to maximise opportunities for wildlife.

1.4 On this basis, a number of bat, bird, owl and invertebrate boxes will be incorporated into the development relating to Phases 3 and 4, the design, specifications and proposed positions of which, are provided below and on the accompanying plan (Plan 5192/EN1).

## 2 Faunal Enhancements

2.1 The faunal enhancement scheme will comprise the erection of 16 bat boxes, 17 bird boxes and 25 invertebrate boxes / hotels within suitable habitat within the development (as shown on Plan 5192/EN1). In this regard, the bat and bird boxes will be concentrated around the edge of the development in order to be in close proximity to areas of open space and linear features, which provide foraging opportunities and good connectivity to the wider landscape, whilst invertebrate enhancements will be situated within areas of open space particularly in areas of wildflower grassland, which will provide a ready source of pollen and nectar.

### Bats

2.2 A total of 16 bat boxes will be installed throughout the site, which will be affixed to, or incorporated into, external walls, or positioned on trees (as shown on Plan 5192/EN1). These will include three different designs, including those that can be incorporated within the walls of newly built properties such that roosting opportunities are provided for a variety of bat species. The specifications for these bat boxes are provided below:

- **Schwegler 1FR Bat Tube (or similar):** Six bat tubes will be installed on the external walls of buildings, either flush or beneath a rendered surface, allowing for discrete roosting opportunities to be provided. This unit is particularly suited to bats that typically roost in or around buildings;
- **Schwegler 2F Bat Box (or similar):** Five 2F bat boxes (or similar) will be mounted to the external walls of buildings, providing roosting opportunities that are particularly attractive to smaller species of British bats such as Soprano Pipistrelle *Pipistrellus pygmaeus*, which is a UK Priority Species; and
- **Schwegler 1FD Bat Box (or similar):** Five 1FD bat boxes (or similar) will be positioned on trees throughout the development. This box is specifically designed for smaller bats such as Soprano Pipistrelle or Brown Long-eared Bat *Plecotus auritus*.

### Birds

2.3 The scheme submitted as part of the initial planning application for the Eco Town development did not include provision for bird boxes to be incorporated into phases 3 and 4 of the development (see Appendix 5192/1). However, in order to enhance opportunities for birds within Phases 3 and 4, Aspect Ecology propose 17 bird boxes be positioned on external walls and trees within the development area (as shown on Plan 5192/EN1). Specifications for these bird boxes are provided below:

- **Barn Owl Box:** Given the known presence of a Barn Owl roost in the wider surrounds of the site, a single Barn Owl box will be erected on a suitable tree at the north west of the site in order to increase nesting opportunities for this species within the site (if no suitable trees are present in this locality, other locations will be explored). The lightweight and robust design of this box is ideal for providing a long lasting roosting opportunities for this species;
- **Schwegler 1SP Sparrow Terrace (or similar):** Four Sparrow terraces will be incorporated into the development to provide nesting opportunities for this UK Priority Species. The design of this box allows it to be mounted to the external surface of buildings, or incorporated within brickwork;

- **Schwegler No. 16 Swift Box (or similar):** Four Swift boxes will be incorporated into the development to provide nesting opportunities for this declining urban bird species. As with the Sparrow Terrace boxes above, these boxes can be attached to the external surface or built into external walls of buildings;
- **Schwegler 9A House Martin Nests (or similar):** Four House Martin nests will be erected on external walls of newly built houses to provide nesting opportunities for this UK Priority Species. These nests should be erected as high up as possible, preferably at the eaves; and
- **Schwegler 3S Starling Nest Box (or similar):** Four 3S Starling nest boxes (or similar) will be erected on trees throughout the site providing nesting opportunities for this UK Priority Species. The larger opening found on this box is ideal for Starlings, but also allows access for other larger birds, such as an overnight shelter for Lesser Spotted Woodpecker *Dryobates minor*, another UK Priority Species.

### Invertebrates

2.4 A total of 25 invertebrate boxes will be installed throughout the site, comprising 18 insect towers, five insect totems and four insect hotels. These will be positioned south facing on trees throughout the site and within areas of wildflower grassland (as shown on Plan 5192/EN1). Specifications for these units are given below:

- **Vivara Pro Insect Hotel Corsica (or similar):** The multiple floors and variety of shelter types provided by this hotel attracts a range of harmless invertebrates, including solitary bees, butterflies, and beetles. The insect hotels are of a free standing design ideal for positioning within wildflower grasslands, aiding the pollination and consequently the establishment of these habitats. Signage and information boards will be provided in open space areas so as to engage and educate new residents of the importance and value invertebrates provide in a healthy ecosystem.
- **Invertebrate Tower:** The different floors of this tower offer a variety of opportunities for a range of harmless invertebrates. These towers will be positioned on trees throughout the development thereby aiding to increase biodiversity throughout the site.
- **Invertebrate Totem:** The holes of varying sizes present within this pole offer nesting opportunities for a variety of harmless invertebrates such as solitary bees. These will be erected within areas of wildflower grasslands.

## 3 Maintenance

- 3.1 All the items listed above are made from hardy materials, such as woodcrete (a mixture of sawdust clay and concrete), or wood treated with a non-toxic water repellent finish, making for durable long-lasting products. Accordingly, these faunal enhancements should not require any regular management, although monitoring will be carried out by the appointed management company on an annual basis, in conjunction with general site maintenance. Repairs or replacements will be undertaken as required.

## 4 Conclusions

- 4.1 The purpose of this report and the attached plan is to discharge Condition 82 of full planning permission relating to land at Elmsbrook, Bicester (ref: 10/01780/HYBRID).
- 4.2 A variety of nesting and roosting units will be incorporated into the scheme, the specification and location of which are set out in this report. Such features will maximise opportunities for a diverse range of species of bats, birds, and invertebrates within the development, including a number of declining and UK Priority Species.



## **Plan 5192/EN1:**

Ecological Enhancements Plan

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**Maintenance**

Due to the hardy nature of the materials these faunal units are made from, they will require little maintenance. However, monitoring will be carried out on an annual basis, in conjunction with general site maintenance. Repairs and replacements will be undertaken as required.



**Schwegler 1FD and 2F Bat Boxes (or Similar)**



These boxes are suitable for British species such as Common Pipistrelle and Brown Long-eared bat. Made from durable woodcrete, they are long lasting and can be easily mounted to trees with the use of a tree friendly nail.

**Schwegler 1FR Bat Tube (or Similar)**



This box can be installed within brick masonry, beneath plasterwork or wood panelling, or incorporated into concrete structures. These will be incorporated into the new build houses and should be situated as high up as possible, preferably at the eaves.

**Invertebrate Totem:**



Insect totems will be positioned throughout the grassland within central open space. These will provide nesting opportunities for solitary bees and other harmless insects, helping to increase biodiversity.

**Barn Owl Box**



This nest box is suitable for use inside a barn or externally on a tree, wall or post providing an ideal home for Barn Owls. One Barn Owl box will be erected on a mature tree along the northern boundary of the site.

**Schwegler House Sparrow Terrace and Swift Box (or Similar)**



These boxes will be erected on the external walls of new buildings, as high up as possible preferably at the eaves in sheltered, wind free areas.

**Schwegler House Martin Nests and 3S Bird Box (or Similar)**



These cups will be erected on external walls or, in the case of the 3S, affixed to trees. The House Martin Nests should be situated at the eaves preferably in a sheltered, wind free area.

**Invertebrate Boxes:**



Insect hotels and towers (or similar) will be erected on site to increase nesting opportunities for solitary bees and other harmless insects. These should be located within wildflower grassland or on standard trees, in a south facing orientation.

**Key:**

- Site Boundary
- Wider Eco Town Site Boundary

**Faunal Enhancements:**

**Bats**

- 1FR Bat Tube (or similar)
- 1FD Bat Box (or similar)
- 2F Bat Box (or similar)

**Birds**

- House Sparrow Terrace
- Swift Box
- House Martin Nest
- 3S Bird Box (or similar)
- Barn Owl Box

**Invertebrates**

- Invertebrate Hotel
- Invertebrate Tower
- Invertebrate Totem

**Condition 82:**

*“Prior to work commencing of a phase, details of a scheme for the location of bat, bird, owl and invertebrate boxes in each phase of development will be submitted to and approved in writing by the Local Planning Authority. The bat, bird, owl and invertebrate boxes shall be installed in accordance with the approved scheme and prior to the occupation of any building on which they are agreed to be located.”*



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Elmsbrook, Bicester PROJECT

Ecological Enhancements Plan TITLE

5192/EN1 DRAWING NO.

B REV.

November 2017 DATE

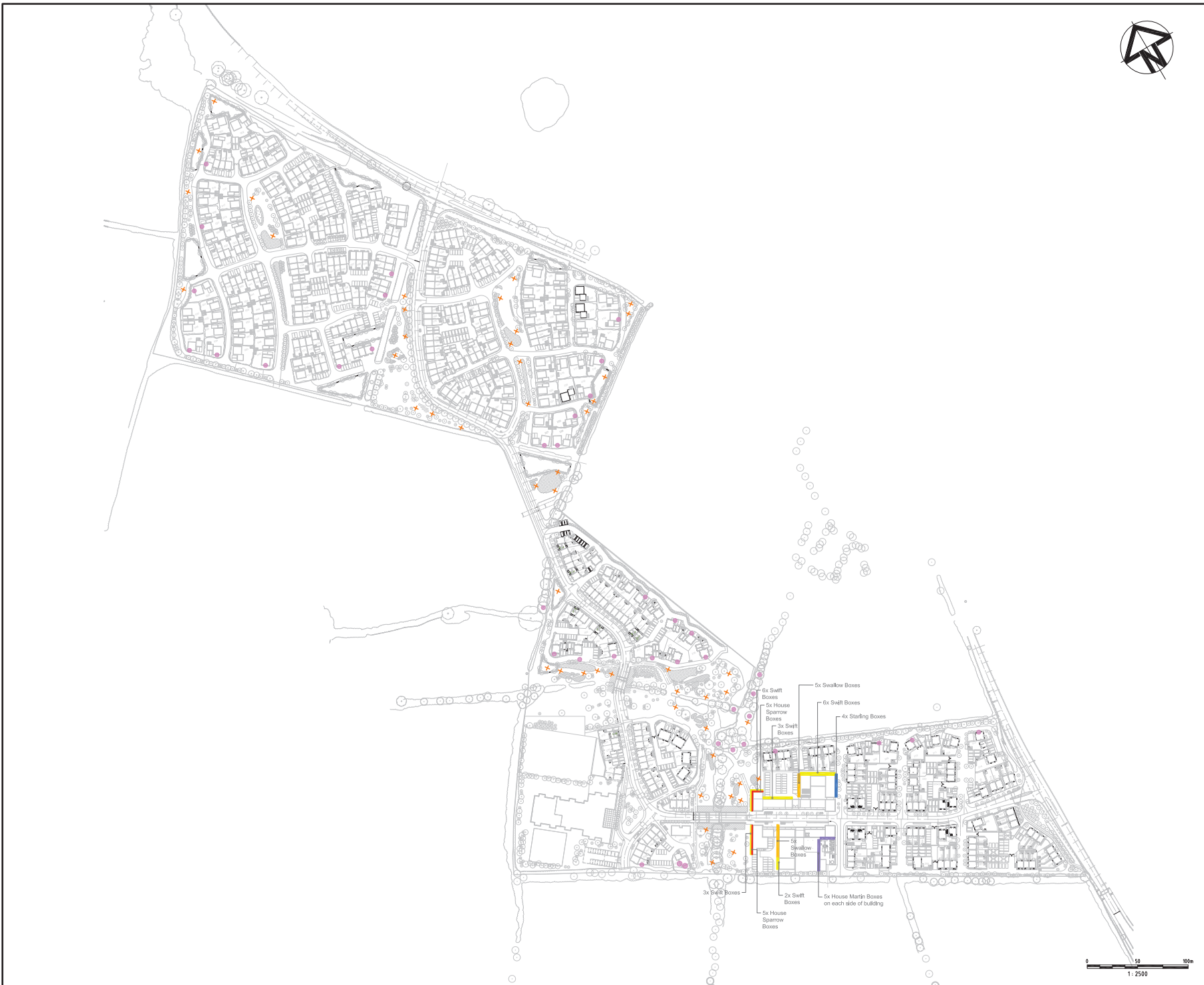




## **Appendix 5192/1:**

Exemplar Site Wide Enhancements Plan

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**Key**

- Invertebrate Boxes  
TOTAL = 50
- House Martin Boxes  
TOTAL = 10
- House Sparrow Boxes  
TOTAL = 10
- Swallow Boxes  
TOTAL = 10
- Swift Boxes  
TOTAL = 20
- Starling Boxes  
TOTAL = 4
- Bat Boxes  
TOTAL = 40

NOTE: 3 barn owl boxes will be installed on the edge of the woodland to the west of the site. 100 bird boxes will be installed across the site in appropriate locations on mature trees and on residential properties once built.  
NOTE: Plan is indicative, exact locations will be determined on site by an ecologist.

	01 DRAFT	11-09-12
Issue	Description	Date
Status	<b>DRAFT</b> NOT TO BE USED FOR CONSTRUCTION	
Scales	1:2500	Current Issue Signatures
Original Size	A2	Author M REDMAN
Height Datum	DATUM	Checker S. WALTERS
Grid	GRID	Approver A.ZORLUTUNA
		Copyright reserved

Filename: UA001881-701-122 BIRD, BAT + INVERTEBRATE ACCOMMODATION.DWG



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Project  

## Bicester Eco Development

Title  

## Bird, bat and invertebrate accommodation

Drawing No.	Project No.	Issue
701-122	UA001881	01

landscape planning • ecology • arboriculture

aspect

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