



Biodiversity Enhancement Plan

**Motts Hall, Eisenham**

For

**Mr David Mason**

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September 2023

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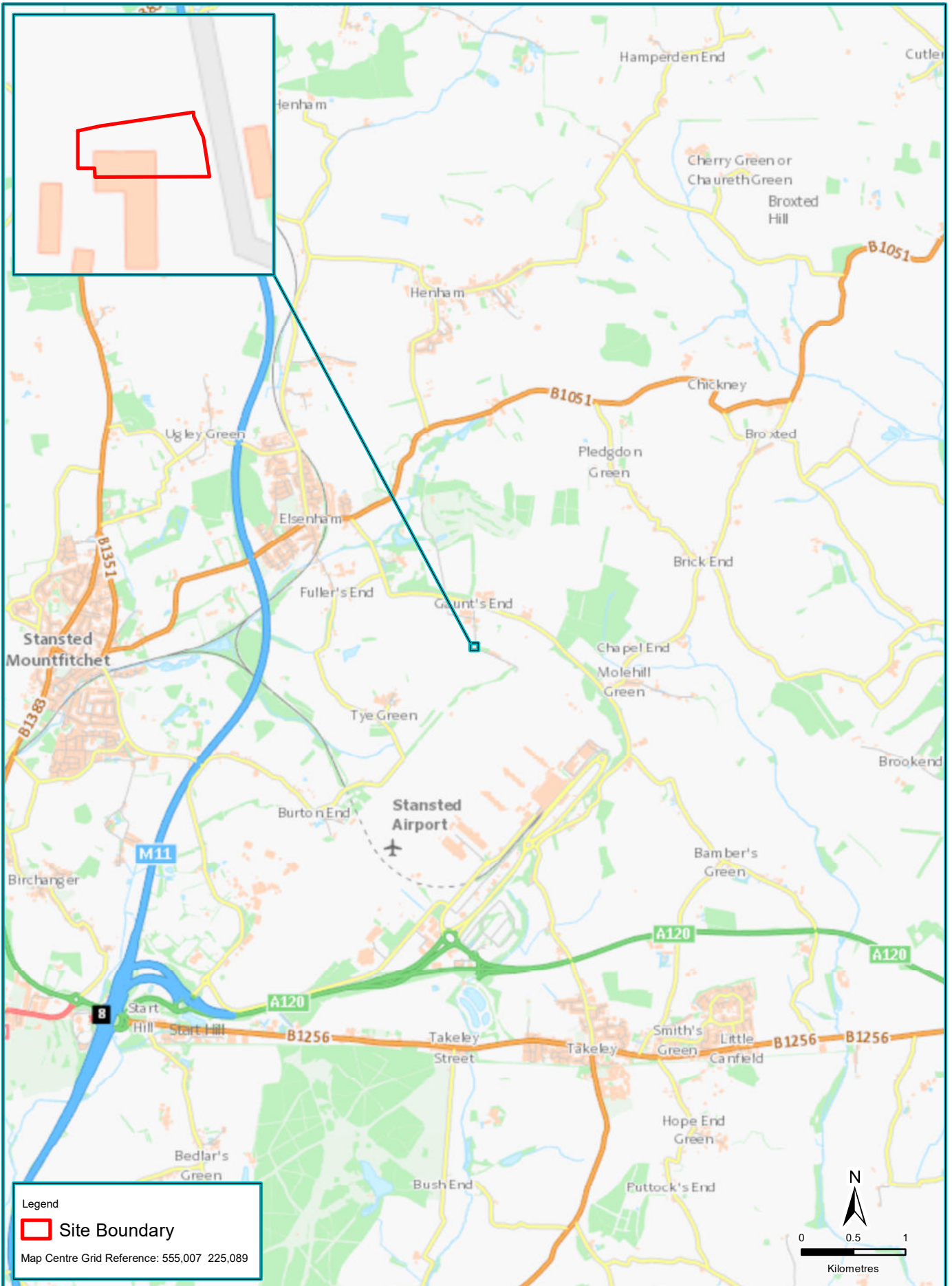
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Client	Mr David Mason	Drawing Ref	MAS001-001/403342/1		
Figure Number	1	Scale at A4	1:50,000		
Figure Title	Site Location	Drawn	KC	Checked	JB
		Date	08/09/2023	Date	08/09/2023

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Legend

Indicative Locations of Ecological Features

- Tree
- Bat Box
- Bird Box
- Hedgehog House
- Insect House
- Building
- Hardstanding
- Shed
- Recolonising Ground
- Amenity Planting
- Unmanaged Amenity Grassland
- Site Boundary

Map Centre Grid Reference: 55.007 225.089

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Drawing Ref

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Drawn

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JB

Date

08/09/2023

Date

08/09/2023

Client

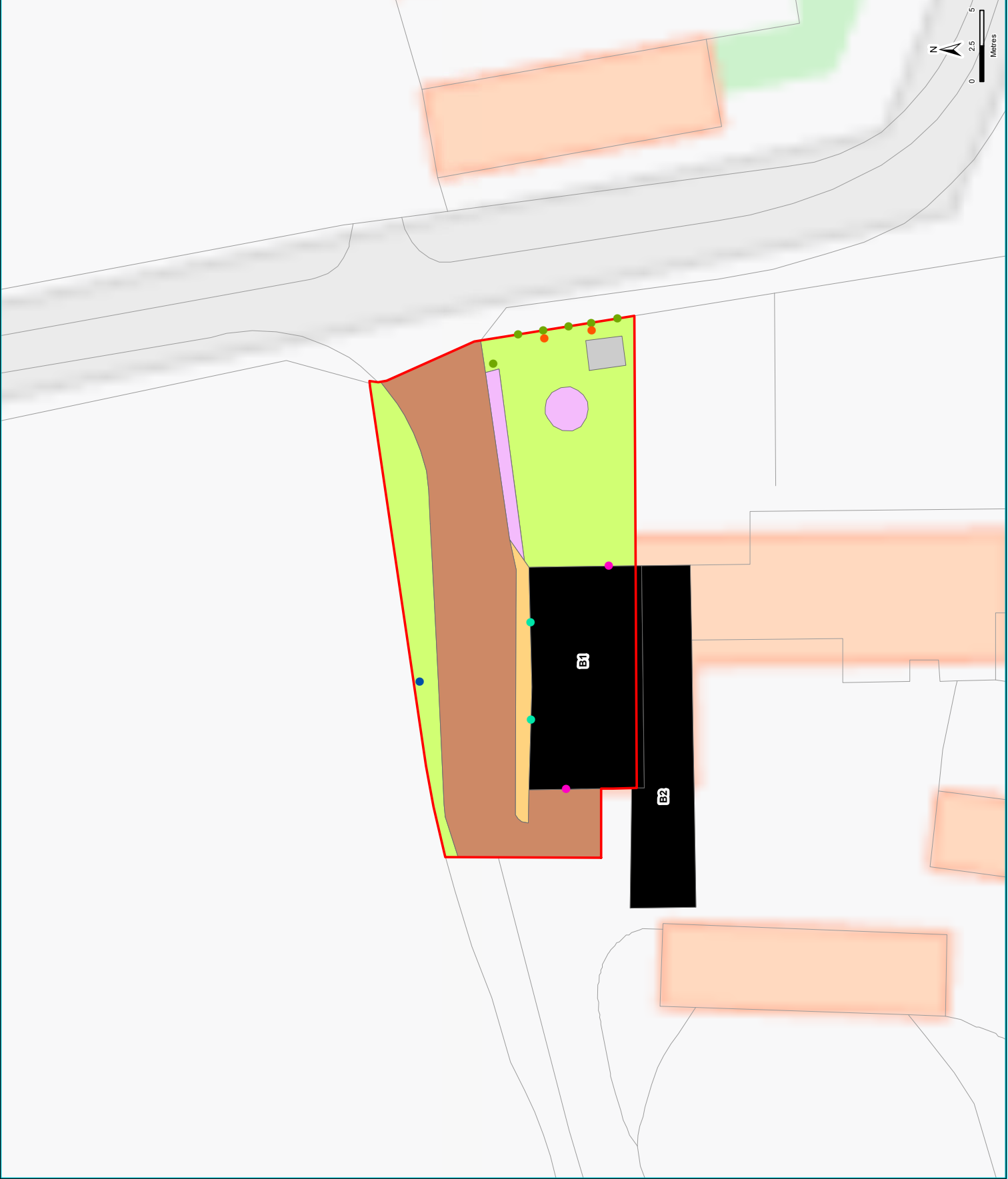
Mr David Mason

Figure Number

2

Figure Title

Biodiversity Enhancement Features



## 1. Introduction

### 1.1 Development Background

- 1.1.1** Mr David Mason proposes to convert an existing barn to form one dwelling at Motts Hall, Green Street, Elsenham, CM22 6DS (grid reference: TL 55002 25065). This proposal is hereafter referred to as “the development”. The area affected by the development is hereafter referred to as “the site”. The location of the site is shown on Figure 1.
- 1.1.2** Planning permission for the development has been granted by Uttlesford District Council, subject to conditions (application number: UTT/20/0720/FUL). Planning condition 3 for the development states that ‘*Prior to slab level, a Biodiversity Enhancement Strategy for Protected and Priority species shall be submitted to and approved in writing by the local planning authority ... to enhance Protected and Priority Species/habitats and allow the LPA to discharge its duties under the s40 of the NERC Act 2006 (Priority habitats & species) in accordance with ULP (adopted 2005) policy GEN 7*’. This Strategy forms the scope of this Biodiversity Enhancement Plan (BEP).

### 1.2 Ecology Background

- 1.2.1** Bat surveys were carried out in 2018 and 2019 by Babec Ecological Consultants Ltd, whereby internal and external inspections of buildings were undertaken to determine the potential of the site to support roosting bats (Babec Ecological Consultants Ltd, 2018). No evidence of roosting bats was found, however due to the Potential Roosting Features (PRFs) recorded, the barn building (B1 on Figure 2) was assessed as having moderate potential to support roosting bats.
- 1.2.2** A further external building inspection and two emergence/re-entry activity surveys were carried out by Ecology Solutions Ltd in 2019, and a report and mitigation strategy was produced (Ecology Solutions Ltd, 2019). No bats were recorded roosting in the buildings surveyed, however four bat species were recorded incidentally using the site for commuting and foraging during the surveys; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), barbastelle (*Barbastella barbastellus*) and brown long-eared bat (*Plecotus auritus*).
- 1.2.3** An environmental DNA (eDNA) survey for great crested newt (GCN) was conducted at a pond close to the site (grid reference: TL 549 250) by Essex Ecology Services Ltd in April 2020 (Essex Ecology Services Ltd, 2020). The eDNA survey returned a positive result, indicating that GCN were present in the pond. Essex Ecology Services Ltd assessed the terrestrial habitat around within the development footprint (i.e. the barn itself and immediately adjacent habitats that would be impacted during the works) and found that these were unsuitable for GCN. It was therefore concluded that no GCN habitat would be damaged and the species was unlikely to be affected by the development. No licensing for GCN was necessary, however a precautionary check prior to the commencement of development was recommended.

### 1.3 The Brief and Objectives

- 1.3.1** Mr David Mason commissioned Thomson Environmental Consultants on 20<sup>th</sup> August 2023 to produce a BEP to discharge planning condition 3 for the site. The brief was to produce a BEP which contains the following:

- The purpose and conservation objectives for the proposed enhancement measures;
- Detailed designs to achieve stated objectives;
- The locations of proposed enhancement measures by appropriate maps and plans;
- The persons responsible for implementing the enhancement measures; and
- The initial aftercare and long-term maintenance (where relevant).

**1.3.2** This BEP is based on the development design and layout detailed on the following drawings, as provided via email by M D Howlett Associates Ltd on 24<sup>th</sup> August 2023:

- 1:500 Proposed Block Plan (drawing no. 1233/5/f);
- 1:100 Barn as Existing (drawing no. 12333/b); and
- 1:100 Barn as Proposed (drawing no. 1233/10).



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## 2. Biodiversity Enhancement Measures

### 2.1 Summary

2.1.1 The following enhancements will be incorporated into the development to benefit protected and priority species:

- Two bat boxes, integrated into the barn building;
- Two bird boxes, integrated into the barn building;
- Two insect houses, attached to mature trees along the road adjacent to the site; and
- One hedgehog (*Erinaceus europaeus*) house, to be placed at the base of a hedgerow adjacent to connected habitat to the north of the site.

#### *Responsible Person*

2.1.2 Mr David Mason will be responsible for the implementation and maintenance of the biodiversity enhancement measures detailed within this BEP. The maintenance and monitoring measures detailed within this section will be implemented for a minimum period of five years following the completion of the development.

### 2.2 Bat Boxes

#### *Objective and Rationale*

2.2.1 Two bat boxes will be installed as part of the development. The objective of the bat boxes is to provide additional roosting opportunities for bats within the development design.

2.2.2 All British bat species and their roosts are protected from offences including killing, injury and disturbance under the Conservation of Habitats and Species Regulations 2017, as amended, and are afforded some protection under the Wildlife and Countryside Act 1981, as amended. A number of UK bat species are also listed as Species of Principal Importance (SPIs) in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, including soprano pipistrelle, brown long-eared bat and barbastelle, which have been recorded on site incidentally. This places a duty on all government departments to have regard for the conservation of these species.

2.2.3 Policy GEN7 Nature Conservation of the Uttlesford Local Plan (Uttlesford District Council, 2005) states that “*Where the site includes protected species or habitats suitable for protected species, a nature conservation survey will be required. Measures to mitigate and/or compensate for the potential impacts of development, secured by planning obligation or condition, will be required. The enhancement of biodiversity through the creation of appropriate new habitats will be sought*”. The integration of bat boxes into the development will create new roosting opportunities for bats on site, contributing to their local conservation in line with this policy.

### *Installation*

- 2.2.4 Two bat boxes will be integrated into the barn building, with one on each of the east and west aspects (see Figure 2).
- 2.2.5 Bat boxes such as the 1FR Schwegler Bat Tube, Schwegler Type 27 Brick Box or similar will be installed, as these boxes provide roosting opportunities for species recorded on site during the previous bat surveys, such as common pipistrelle and soprano pipistrelle.
- 2.2.6 The boxes will be installed between 4m and 6m above ground level, away from artificial light sources in an open, sunny position.

### *Maintenance and Monitoring*

- 2.2.7 Bat boxes will not require any maintenance other than replacement or repair if damaged. Roosting bats are protected from disturbance under UK legislation, therefore if any of the boxes need to be removed, this must be done by a licensed bat worker if there is a possibility of bats being present.
- 2.2.8 In addition to installing bat boxes, it would be useful for nature conservation purposes to monitor the boxes to know whether they are being used by bats, at what time of year and by which species. Any monitoring of boxes must be undertaken by a licensed bat worker. A local wildlife group could be contacted to undertake bat box monitoring at the site.
- 2.2.9 A summary of the management of the bat boxes is provided in Table 1 below.

**Table 1 Summary of the management of bat boxes**

Ecological Feature	Bat Boxes
Objective	To maintain bat boxes in good condition across the site and provide roosting opportunities for bat species.
Maintenance	None required.
Monitoring	Visual check of the boxes from ground level for damage between November and March.
Remedial Action	Repair or replacement of any damaged boxes. Repairs or replacement to be conducted by a licensed bat ecologist.

## **2.3 Bird Boxes**

### *Objective and Rationale*

- 2.3.1 Nest boxes for birds will be installed as part of the development. The objective of the bird boxes is to provide additional nesting habitat for birds within the development design.

**2.3.2** All birds, eggs and nests are protected from damage and destruction under the Wildlife and Countryside Act 1981, as amended. A number of bird species are also SPIs in England under Section 41 of the NERC Act 2006, including house sparrow and spotted flycatcher. House sparrow, spotted flycatcher and swift are also listed on the Birds of Conservation Concern Red List (Stanbury *et al.*, 2021) due to declines in their populations. Integration of bird boxes into the development will create new nesting opportunities for birds on site, contributing to the conservation of local populations in line with Policy GEN7 of the Uttlesford Local Plan (see Paragraph 2.2.3).

#### *Installation*

**2.3.3** Two nest boxes will be integrated into the barn building on the building's northern aspect (see Figure 2).

**2.3.4** Box types used to be suitable for species likely to be present on or near the site. Suggested boxes include the 1SP Schwegler Sparrow Terrace, designed for house sparrow (*Passer domesticus*), but also with potential to attract species such as swift (*Apus apus*) and spotted flycatcher (*Muscicapa striata*).

**2.3.5** Bird boxes will be installed at least 3m from the ground, high enough to ensure human interference and potential predation is minimised, yet low enough to reduce exposure to adverse weather conditions, particularly strong winds.

#### *Maintenance and Monitoring*

**2.3.6** All bird boxes will be cleaned out once a year where possible, outside of the breeding bird season (i.e. between the months of September to February, inclusive). Any old nests should be removed entirely, and the box should preferably be cleaned with boiling water. Any damaged boxes will be repaired or replaced as necessary.

**2.3.7** If a bird box remains unused for three consecutive years, it may be located in an unsuitable position. If this occurs, an additional box should be installed in a new suitable location, in consultation with an ecologist, in order to encourage birds to utilise the site for breeding.

**2.3.8** Monitoring of the bird boxes for the presence of nests in the spring and summer (without causing disturbance) is a worthwhile exercise and nest records may be sent to the British Trust for Ornithology.

**2.3.9** A summary of the management of the bird boxes is provided in Table 2 below.

**Table 2 Summary of the management of bird boxes**

Ecological Feature	Bird Boxes
Objective	To maintain bird boxes in good condition across the site and provide additional nesting habitat for bird species.
Maintenance	Clean out the bird boxes during winter months.

Ecological Feature	Bird Boxes
Monitoring	Check the bird boxes for damage during winter months.
Remedial Action	Replace any damaged boxes during winter months.

## 2.4 Insect Boxes

### *Objective and Rationale*

- 2.4.1** Insect boxes for terrestrial invertebrates will be installed as part of the development. The objective of the insect boxes is to provide additional habitat for invertebrates on the site.
- 2.4.2** Many invertebrate species have declined in the UK in recent decades. The 2019 State of Nature Report (Hayhow *et al.*, 2019) showed significant declines in butterfly, moth, bee and hoverfly species since 1970, which is largely due to the degradation and loss of invertebrate habitats. The addition of insect boxes on the site will create new refuge opportunities for a variety of terrestrial invertebrates, contributing to the conservation of local populations in line with Policy GEN7 of the Uttlesford Local Plan (see Paragraph 2.2.3).

### *Installation*

- 2.4.3** Two insect boxes will be installed in suitable locations on trees alongside the road to the east of the site (see Figure 2). Boxes such as the National Trust Insect Tower, or similar, which provide refuge for a variety of insect species, will be installed on tree trunks that do not experience direct rainfall. These features will increase the habitat availability for terrestrial invertebrates on site such as mason bees, butterflies, ladybirds and lacewings. All purchases will be from sustainable sources and be FSC accredited.

### *Maintenance and Monitoring*

- 2.4.4** No specific maintenance or monitoring is required. However, the insect boxes should be replaced if they become damaged or lost.
- 2.4.5** A summary of the management of the insect boxes is provided in Table 3 below.

**Table 3 Summary of the management of insect boxes**

Ecological Feature	Insect Boxes
Objective	To maintain insect boxes in good condition across the site and provide additional habitat for terrestrial invertebrate species.
Maintenance	None required.

Ecological Feature	Insect Boxes
Monitoring	Check the insect boxes for damage during spring, after eggs hatch.
Remedial Action	Replace any damaged boxes in spring, after eggs hatch.

## 2.5 Hedgehog House

### *Objective and Rationale*

- 2.5.1** A hedgehog house will be installed as part of the development. The objective of the hedgehog house is to provide additional habitat for hedgehogs within the development design.
- 2.5.2** European hedgehog receive some protection under the Wild Mammals (Protection) Act 1996, making it an offence to intentionally cause these species unnecessary suffering by certain methods. The hedgehog is a SPI in England under Section 41 on the NERC Act 2006, and the species has declined by 30-75% in different rural areas of the UK since the year 2000 (Wembridge *et al.*, 2022). The installation of a hedgehog house to provide improved habitat opportunities for the species on site will contribute to the conservation of local populations in line with Policy GEN7 of the Uttlesford Local Plan (see Paragraph 2.2.3).

### *Installation*

- 2.5.3** The hedgehog house will be installed at the base of the hedgerow that runs alongside unmanaged grassland at the north of the site (see Figure 2). The hedgehog house will be installed within the hedgerow understorey to minimise the disturbance. A design such as the RSPB Classic Hedgehog House, or similar, will be installed and the hedgehog house will be made from sustainable sources and be FSC accredited.

### *Maintenance and Monitoring*

- 2.5.4** No specific maintenance or monitoring is required. However, the hedgehog house should be replaced if it becomes damaged or lost.
- 2.5.5** A summary of the management of the hedgehog house is provided in Table 4 below.

**Table 4 Summary of the management of the hedgehog house**

Ecological Feature	Hedgehog House
Objective	To maintain the hedgehog house in good condition and provide additional habitat opportunities for hedgehog.
Maintenance	None required.

Ecological Feature	Hedgehog House
Monitoring	Check the hedgehog house for damage during summer months.
Remedial Action	Replace the hedgehog house during summer months if damaged.

### 3. References

Babec Ecological Consultants Ltd (2018) Building inspection for bats - Motts Hall Barn, Green Street, Elsenham. Report ref.: MDH101/R001V1

Ecology Solutions Ltd (2019) Bat Survey Report and Mitigation Strategy - Mott's Hall Barn, Green Street, Elsenham. Report ref.: 8141.BatReport.vf

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