

Ecological Impact Assessment

Bramling Court Farm

Bramling

Canterbury

Kent, CT3 1NA

Date: December 2023

Revision: Original

1 Summary

Site	Bramling Court Farm, Bramling, Canterbury, Kent, CT3 1NA
Central OS Grid Reference	TR 22702 56586
Report Commissioned by	Taylor Hare Architects
Report Purpose	To inform a full Planning Application.
Authors	Chelsea Evans BSc (Hons), Ecologist Toby Munn, Senior Field Ecologist
Reviewed & Approved by	Claire Munn BSc (Hons) MSc MCIEEM, Associate Director (Ecology)

EclA Summary	Description	Dates / Details
Surveys / Assessments Conducted	Preliminary Ecological Appraisal	Extended Phase 1 survey: 25.07.2023 Web-based desk-study: 03.08.2023 Detailed desk-study: 12.06.2022
	Preliminary Roost Assessment for bats	Buildings: 21.06.2023
	Bat roost emergence surveys	Building B1: 12.07.2023, 03.08.2023 and 17.08.2023 Building B2: 10.07.2023, 31.07.2023 and 17.08.2023 Building B9: 10.07.2023 and 31.07.2023 Building B3: 12.07.2023 Building B4: 12.07.2023 Building B8: 10.07.2023
Key Impacts and Avoidance / Mitigation Proposed	Statutory sites: Stodmarsh (Ramsar, SPA and SAC)	Nitrogen and phosphorus neutrality assessment and additional mitigation measures are required under Regulation 63 of the Conservation of Habitats and Species Regulations 2017.
	Reptiles	The grassland within the site boundary will continue to be regularly maintained to prevent favourable reptile conditions.
	Birds	Demolition and works to reconfigure buildings will take place outside of the nesting bird season of March - August (inclusive), taking bat mitigation into account. House martin nest provisions currently present in Building B2 will be retained or replaced.
	Barn owl	A pre-commencement check is required to ensure that barn owl have not started breeding within Building B2.

EcIA Summary	Description	Dates / Details
	Bats (roosting)	<p>One day roost (Roost 1) for a single male or non-breeding female common pipistrelle is present within Building B1.</p> <p>Two day roosts (Roosts 2 and 3) each for a for a single male or non-breeding female common pipistrelle and one day roost (Roost 4) for a maximum count of three common pipistrelles are located within Building B2.</p> <p>A likely day or night roost (Roost 5) used occasionally by a small number of brown long-eared bats is present within Building B2</p> <p>A derogation licence from Natural England will be required prior to any impacts to these roosts.</p>
	Bats (foraging and commuting)	A sensitive lighting strategy will be designed and implemented.
	Site measures	Trenches will be covered or planked escape routes provided to allow any animals that fall in to escape.
Enhancements	To increase the ecological value of the site.	A native hedgerow will be planted along the access track and along the southern application boundary, 12 native trees of local provenance and low-level nectar and pollen rich planting will be incorporated into the landscape design, swathes of infrequently cut grass will be created and wildlife boxes for invertebrates, birds and hedgehogs will be installed.
Conclusion	The development can proceed with no significant impact to habitats and protected / notable species following the implementation of the avoidance and mitigation measures above. There is also the opportunity to enhance the development for local wildlife in the long-term by implementing the enhancement measures.	

Contents

1	Summary.....	1
2	Introduction.....	5
2.1	Background.....	5
2.2	Site Location and Description.....	5
2.3	Development Proposal.....	5
2.4	Assessor and Reviewer Experience.....	5
2.5	Scope of Assessment.....	6
2.6	Objectives.....	6
3	Methodology.....	8
3.1	Scope of the Assessment.....	8
3.2	Desk Study.....	8
3.3	Field Survey.....	8
3.4	Evaluation.....	9
3.5	Limitations and Assumptions.....	10
4	Baseline Ecological Conditions.....	13
4.1	Designated Sites.....	13
4.2	Habitats.....	15
4.3	Protected and Notable Species.....	18
4.4	Summary of Baseline Ecological Conditions.....	35
5	Assessment of Effects and Mitigation Measures.....	36
5.1	Statutory sites: Stodmarsh (Ramsar, SPA and SAC).....	36
5.2	Reptiles.....	37
5.3	Birds (non-Schedule 1).....	37
5.4	Barn owl.....	38
5.5	Bats (roosting in Buildings).....	39
5.6	Bats (foraging and commuting).....	42
5.7	Summary of Effects and Avoidance and Mitigation Measures.....	43
5.8	Cumulative Effects.....	44
6	Enhancements.....	45
7	Conclusions.....	46
8	References.....	47

Appendix 1 Legislation and Planning Policy

Appendix 2 UK Habitat Map

Appendix 3 Species Assessment Methodology

Appendix 4 Bat Dropping DNA Results

Appendix 5 Bat Roost Survey Results

Appendix 6 Evaluating Bats in the Wider Ecological Context

Appendix 7 Bat Mitigation Plan

Appendix 8 Bird Mitigation

Appendix 9 Wildlife Friendly Planting

2 Introduction

2.1 Background

David Archer Associates was commissioned by Taylor Hare Architects to undertake an Ecological Impact Assessment (EclA) at Bramling Court Farm, Bramling, Canterbury, Kent, CT3 1NA, herein referred to as 'the site'. This report will support a planning application to create five holiday lets and associated soft and hard landscaping.

2.2 Site Location and Description

The site is located within the village of Bramling at central Ordnance Survey Grid Reference TR 22702 56586 (**Figure 2.1**). The site totals c. 0.5ha, comprising buildings, other neutral grassland, developed land (sealed surface) and introduced shrub. There are no trees within the site, although scattered trees are present immediately off-site adjacent to the access track in the west.

The site is situated within the village of Bramling and surrounded to the north, east and south by further parts of Bramling Court Farm, including the farmhouse, barns and horse-grazed other neutral grassland. Bramling Road lies to the west. The wider area comprises rural settlement, agricultural land, hedgerows, pockets of deciduous woodland and Stodmarsh SPA, SAC, SSSI and Ramsar site.

2.3 Development Proposal

The proposed development includes five holiday lets, a swim spa and shared amenity space (**Figure 2.2**). This requires partial removal of the other neutral grassland, introduced shrub and the following buildings: static caravan (Building B6), car port (Building B7), grain store (Building B8) and grain drier (Building B9). All other buildings within the site are to be converted, which will include substantial internal remodelling.

2.4 Assessor and Reviewer Experience

The site was surveyed by Ecologist Chelsea Evans, who is licensed to survey for great crested newts (licence number: 2023-113030-CL08-GCN) and is also registered under beaver class licence CL51. Chelsea has amassed over 200 hours of bat survey and training time since beginning bat work (including Preliminary Roost Assessments (PRAs), nocturnal roost emergence/re-entry surveys, activity surveys and hibernation surveys) in 2021. Chelsea has also been specifically trained on conducting PRAs and undergoes regular in-house assessment of these by Associate Director (Ecology) Claire Munn, under whose bat licence Chelsea is accredited. Chelsea is a FISC level-4 botanist (last assessed June 2023).

The report was reviewed by Associate Director (Ecology) Claire Munn, who is licensed to survey for great crested newts, bats (level 2), hazel dormice and white-clawed crayfish (licence numbers: 2015-19145-CLS-CLS, 2015-12515-CLS-CLS, 2016-21311-CLS-CLS and 2016-21100-CLS-CLS respectively). Claire also holds Natural England Class Licences for badger (CL35) and beaver (CL51) and has been the named ecologist on hazel dormouse and bat mitigation licences and badger development licences. Claire has been a practising ecologist in England since 2008 and is a FISC level-4 botanist (last assessed Sept. 2022). She is also a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and therefore subject to the CIEEM Professional Code of Conduct.

2.5 Scope of Assessment

This EclA pulls together all ecology work completed to fulfil the requirements of national and local planning policies and to advise on compliance with European and UK wildlife legislation (**Appendix 1**). This EclA combines the methods, results, evaluation and recommendations of the following surveys and assessments:

- Preliminary Ecological Appraisal (PEA), including:
 - Extended Phase 1 Habitat Survey;
 - Web-based desk study of relevant nearby designated sites and priority habitats, and granted Natural England mitigation licences; and
 - Detailed desk study, including analysis of nearby biological records and non-statutory site data.
- Preliminary bat Roost Assessment (PRA) of the buildings to be impacted; and
- Bat emergence surveys of the buildings identified during the PRA to have bat roost potential.

2.6 Objectives

The objectives of this EclA are to:

- Identify and describe all potentially significant ecological effects associated with the proposed development;
- Set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- Identify how mitigation measures will / could be secured;
- Provide an assessment of the significance of any residual effects;
- Identify appropriate enhancement measures; and
- Set out requirements for post-construction monitoring.

Figure 2.1: Red line boundary to be submitted with the application (Taylor Hare Architects, January 2023, drawing number: 2203_3002)

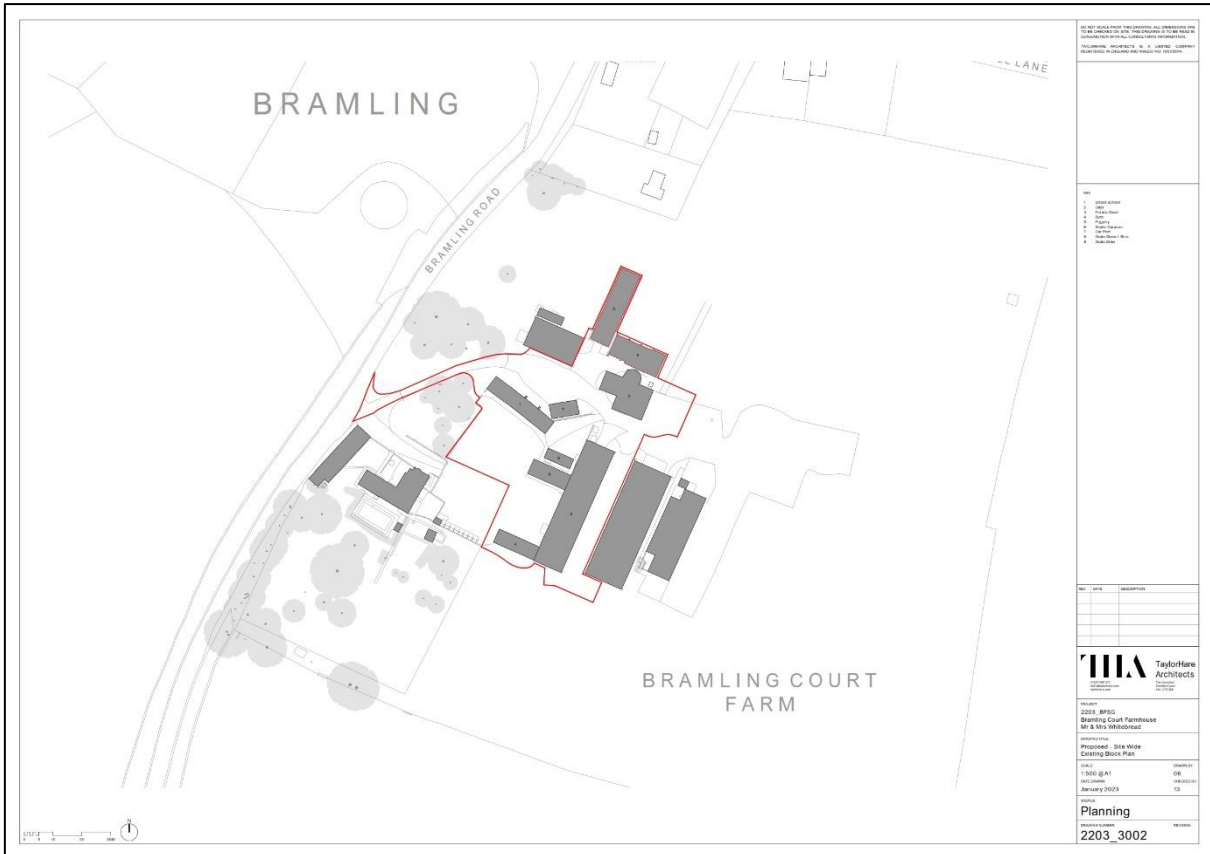
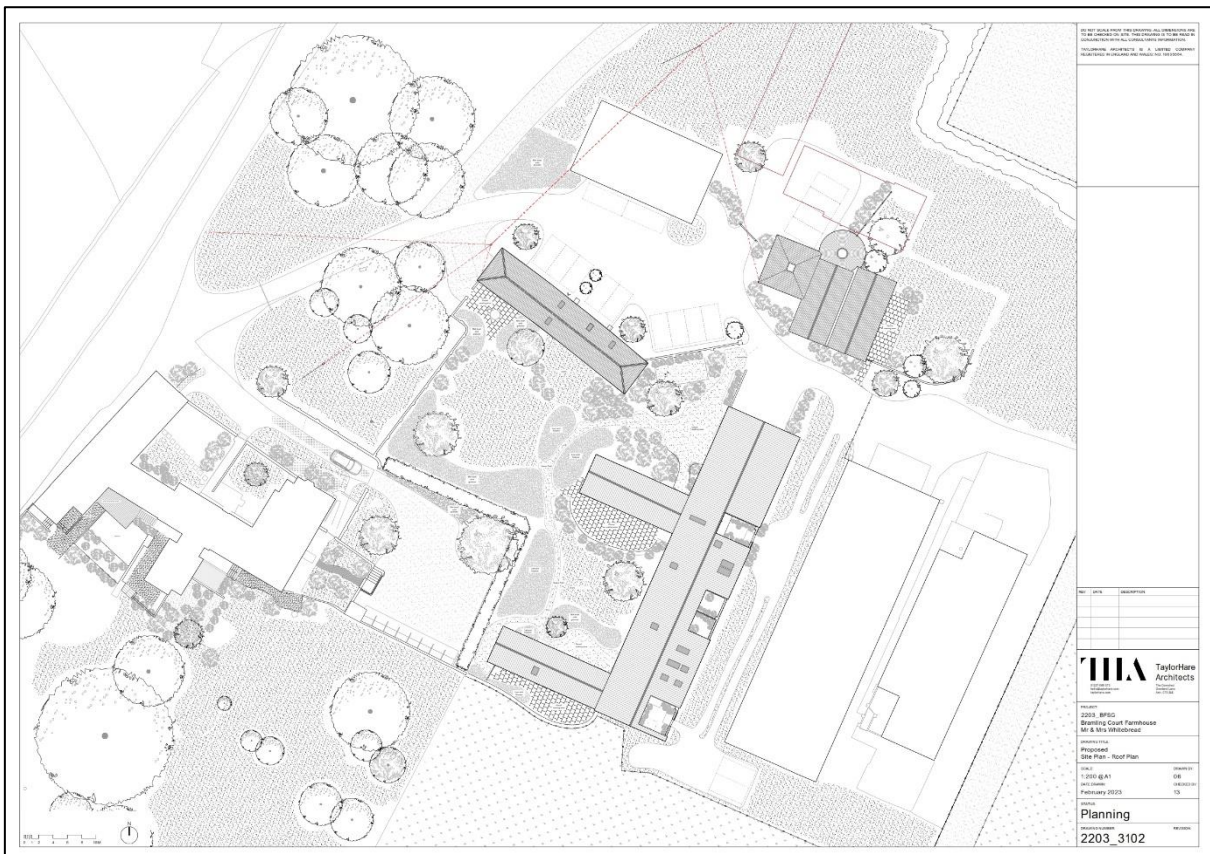


Figure 2.2: Proposed Development Plan (Taylor Hare Architects, February 2023, drawing number: 2203_3102)



3 Methodology

3.1 Scope of the Assessment

3.1.1 Zone of Influence

Aerial photographs, maps and field observations were used to identify habitats in the wider landscape which could be impacted by the proposed development of the site. By using these tools, the Zone of Influence of the development is defined as being of the following distances for each feature considered:

- 5km for statutory designated sites for nature conservation that form part of the National Site Network (NSN) and Ramsar sites;
- 2km for statutory designated sites for nature conservation of local and national importance;
- 2km for non-statutory designated sites for nature conservation of local importance;
- 2km for protected and notable species;
- 500m for Priority Habitats;
- 250m for water-bodies (in relation to great crested newts); and
- 30m for badger setts.

3.2 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database was accessed on 3rd August 2023 for information on statutory sites designated for nature conservation within a 2km radius of the site. Consideration for NSN sites was extended to a 5km radius where the potential risk of impact to interest features of such sites may extend over a wider area. Such sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). A 5km search radius was also applied to internationally designated Ramsar sites, as well as sites currently under public consultation for future designation as SACs, SPAs and Ramsar sites.

The MAGIC Impact Risk Zones (IRZs) were used to assess whether the proposed development may impact on any Sites of Special Scientific Interest (SSSI), and thus whether consultation with Natural England is needed to discuss how impacts might be avoided or mitigated.

Kent and Medway Biological Records Centre (KMBRC) was also consulted on 14th June 2022 for the following information for a 2km radius around the application site:

- Non-statutory nature conservation designations, such as Local Wildlife Sites (LWS);
- Legally protected species, such as great crested newts, reptiles and birds (extended to a 5km search radius for bats); and
- Notable / priority species, such as those listed under Section 41 of the NERC Act, 2006.

MAGIC was also accessed on 3rd August 2023 to identify any mitigation licences granted by Natural England within a 2km radius of the site.

3.3 Field Survey

The Preliminary Roost Assessment (PRA) was carried on 21st June 2023 out by Associate Director (Ecology) Claire Munn, who is licensed to survey for bats (level 2 licence number: 2015-12515-CLS-CLS). Claire is also a full member of the Chartered Institute of Ecology and Environmental Management

(CIEEM) and subject to the CIEEM Professional Code of Conduct. Claire was assisted by Senior Field Ecologist Toby Munn, who is licensed to survey for bats (level 1 licence number: 2022-10815-CL17-BAT).

The PEA survey was carried out by Ecologist Chelsea Evans, to record and map habitat types and ecological features and those within the defined Zone of Influence for each ecological receptor, where access was possible. The PEA survey was based on the red line boundary shown in **Figure 3.1**. Since ecology surveys were carried out, the red line boundary has been revised, as shown in **Figures 2.1** and **2.2**.

The PEA survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017). The habitats present on-site have been characterised under the UK Habitat Classification Habitat Definitions V2.0 (The UK Habitat Classification Working Group, 2023) and the Biodiversity Metric 3.1 Technical Supplement (Panks *et al.*, 2021). A minimum habitat parcel size of 25m² was employed, and habitats were characterised to Level 5, the most detailed level available. Habitats were plotted on a Habitat Plan (**Appendix 2**). Features of interest were identified as target notes on the Habitat Plan (**Appendix 2**).

Weather conditions during the PEA survey were 15°C, a light air (Beaufort 1), 95% cloud cover and dry.

The PEA survey was extended to look for evidence of and assess the potential for the site to support protected, notable and invasive species. This included species listed under the *Conservation of Habitats and Species Regulations 2017 (as amended)*, the *Wildlife and Countryside Act 1981 (as amended)* (WCA), and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006*, *Countryside and Rights of Way (CROW) Act 2000*, and the *Protection of Badgers Act 1992*.

The protected, notable and invasive species considered within the assessment are: invertebrates, great crested newts, common toads, reptiles, birds (including barn owl), badgers, bats, hazel dormice and terrestrial invasive species. The species assessment methodologies applied can be found in **Appendix 3**.

3.4 Evaluation

Ecological effects have been characterised using the following impact parameters, where relevant:

- Direct or indirect
- Positive or negative
- Extent
- Magnitude
- Duration
- Reversibility
- Frequency
- Timing

The above factors have been used to guide the thought process to show how each impact will occur as a result of the proposals, thus enabling a conclusion to be reached as to the likely significance of each impact as per the parameters explained below.

Designated sites, habitats and species (where presence has been identified) have been evaluated in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), with the addition of 'site' level importance.

These guidelines aim to give consistency in evaluating the importance of the ecological features within and around a site, which help inform any effects or impacts a scheme will have upon them.

A value of the ecological features (designated sites, habitats or species) has been assigned according to their level of importance using the following terms:

- International
- National
- Regional
- County
- Local
- Site
- Negligible

3.5 Limitations and Assumptions

3.5.1 Preliminary Ecological Appraisal

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the survey. The survey was completed during the optimal time of year for recording vegetation. Although a reasonable assessment of the site can be made during a single survey, seasonal variations are not observed.

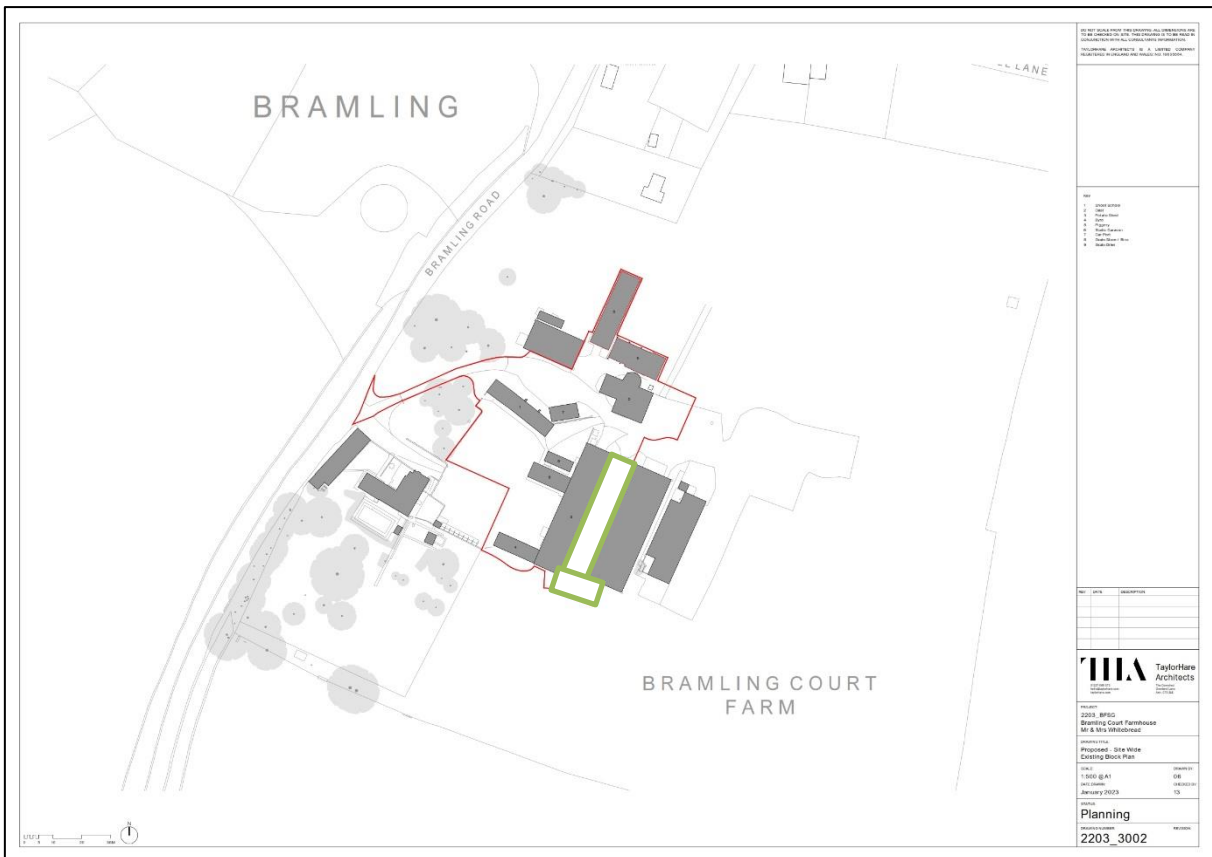
The red line application boundary for this site was revised after the PEA survey was carried out (see **Figures 2.1** and **3.1**). Whilst the areas of grassland located east and south of Building B3 were not included within the survey area (**Figure 3.2**), an incidental note was made that these parcels of grassland appeared similar to Parcel C of other neutral grassland detailed in **Section 4.2.2**. Providing that the building located east of Building B3 (outside of the revised red line boundary) is not subject to any artificial lighting, there is no significant ecological impact posed by the proposed development in this area. Therefore, there is no significant limitation to this small area not being included within the PEA survey.

This PEA provides an overview of the likelihood of protected / notable species occurring on the site (negligible, low, moderate, or high). Absence of a species cannot be presumed where no evidence was found. Further surveys have been recommended where there is reasonable likelihood of a protected species being present and impacted by the development proposal. This is based on the suitability of the habitat and any evidence observed.

This PEA does not constitute a full botanical survey or a Phase 2 pre-construction survey for Japanese knotweed.

During the PRA survey, it was only possible to view the loft void in Building B1 from the loft hatch due to a lack of safe boarding. The structure of the whole void was visible from the hatch, aided by the presence of roof lights. This area could, however, not be thoroughly searched for evidence of bat

Figure 3.2: Site areas shown in green that are now in the revised red line boundary but were not included within the PEA survey area (adapted from Taylor Hare Architects, January 2023, drawing number: 2203_3002)



4 Baseline Ecological Conditions

The following section presents the results, evaluation and discussion of the designated sites, habitats and protected / notable species, which may be impacted by the proposed development.

4.1 Designated Sites

4.1.1 Statutory Sites

Statutory sites designated for nature conservation within the vicinity of the site are provided in **Table 4.1**. Prior to the UK's departure from the European Union, Ramsar sites, SPAs and SACs formed part of a wider European network known as Natura 2000s protected sites; whilst the SPAs and SACs are now reclassified under UK law as forming part of the National Site Network (NSN), the sites designated prior to Brexit are likely to remain of **European importance**. No statutory designated sites of national and local importance were recorded within 2km of the application site.

The site falls within the Preston Marshes SSSI Impact Risk Zone (IRZ), Stodmarsh SSSI Impact Risk Assessment (IRZ), Chequer's Wood and Old Park SSSI Impact Risk Zone (IRZ) and Ileden and Oxenden Woods SSSI Impact Risk Zone (IRZ). However, with the exception of nutrient issues linked to Stodmarsh SSSI (see next paragraph), the development does not meet criteria for impacts that would likely lead to a significant effect on these SSSIs. Therefore, no consultation with Natural England and no mitigation is required for these SSSIs.

MAGIC (2023) indicates that the site lies within the zone of impact of Stodmarsh SSSI, SAC, SPA and Ramsar site, for which a nitrogen and phosphorus neutrality assessment is necessary for any development involving an increase in overnight accommodation. The proposed development results in an increase in overnight accommodation, in the form of five holiday lets, and therefore a nitrogen and phosphorous assessment is necessary.

There are no habitats or species within the site that serve as qualifying features of the nearby statutory sites. The application site is not ecologically linked to these sites due to the intervening land being extensive pasture land and arable land (OS, 2023). The development is also highly unlikely to indirectly impact any designated sites in the local area due to its small-scale size. No significant impacts on statutory sites are expected.

Further action is recommended in **Section 5** in relation to nutrient neutrality and the Stodmarsh designated sites.

Table 4.1: Statutory designated sites of international importance within 5km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Stodmarsh (Ramsar)		483.59	<p>The Ramsar site is designated for meeting criteria 2 as follows:</p> <ul style="list-style-type: none"> • Criterion 2: six British red data book wetland invertebrates, two nationally rare plants and five nationally scarce species. <p>Other qualifying species/populations include:</p> <ul style="list-style-type: none"> • Supporting 1% of the GB population of breeding gadwall <i>Anas strepera</i> • Supporting 1.5% of the GB population during spring/autumn of gadwall • Supporting 2% of the GB overwintering population of great bittern <i>Botaurus stellaris</i> • Supporting 1.8% of the GB overwintering population of northern shoveler <i>Anas clypeata</i> • Supporting 1.2% of the GB overwintering population of hen harrier <i>Circus cyaneus</i>
Stodmarsh (SPA)		483.59	<p>The site is designated for:</p> <ul style="list-style-type: none"> • Supporting 1% of the British wintering population of bittern and hen harrier • Supporting 1% of the British breeding population of gadwall and 7% of the British breeding population of bearded tit <i>Panurus biarmicus</i> <p>Supporting wintering populations of the following migratory species: gadwall, bearded tits and shoveler.</p>
Stodmarsh (SAC)		566.03	<p>The site is designated its southern eutrophic flood plain and habitat and for supporting a large population of Desmoulin's whorl snail <i>Vertigo moulinsiana</i>.</p>

4.1.2 Non-Statutory Sites

Non-statutory sites designated for nature conservation that are located within 2km of the application site are provided in **Table 4.2**. LWSs are of are of **local importance**.

Table 4.2: Non-statutory sites within 2km of the application site.

Site Name	Distance & Direction from Site	Reasons for Designation
CA30 Littlebourne Stream (LWS)	1.7km west	Information not provided.

Priority Habitats (Section 41, NERC Act 2006) are present within 500m. These include Deciduous Woodland and Traditional Orchard, both of which are located c. 300m to the east.

The development will be small enough and located far enough from the LWS and Priority Habitats for there to be any direct or indirect impacts on them. Further, there does not appear to be any direct

public path, hydrological link or other habitat connectivity between these Priority Habitats and LWS and the application site (OS, 2023). No significant impacts on non-statutory sites are expected.

No further action is recommended in relation to non-statutory designated sites and Priority Habitats.

4.2 Habitats

The habitats below were recorded within the site during the survey. No protected, Habitats of Principal Importance (HPIE) or locally important floral species or habitats were recorded within the site during the survey. Habitat types are described below and shown on the UK Habitat Plan (**Appendix 2**).

Table 4.4: Habitats recorded on-site (UK Habitats Classification).

Primary Habitat (code)	Secondary Habitat within Primary Habitat (code)
Buildings (u1b5)	-
Other neutral grassland (g3c)	-
Developed land; sealed surface (u1b)	Introduced shrub (1160)

4.2.1 Buildings

A description of the buildings within the site is provided in relation to their bat roosting suitability in **Section 4.3.6**. The buildings on site conform to UK Habitats Classification code u1b5 (buildings).

4.2.2 Other neutral grassland

Three parcels of other neutral grassland were recorded within the site, all of which conform to UK Habitat Classification Code g3c. All parcels of grassland are regularly maintained as a short sward. Parcel A is located within the central portion of the site, abutting Building B7, and includes the following species: perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, cock's-foot *Dactylus glomerata*, soft brome *Bromus hordeaceus*, dandelion *Taraxacum officinalis agg.*, smooth sow-thistle *Sonchus oleraceus*, ragwort *Jacobaea vulgaris*, field forget-me-not *Myosotis arvensis*, spear thistle *Cirsium vulgare*, germander speedwell *Veronica chamaedrys*, scarlet pimpernel *Anagallis arvensis*, common poppy *Papaver rhoeas*, groundsel *Senecio vulgaris*, bristly oxtongue *Helminthotheca echioides* and common mallow *Malva sylvestris*.

Parcel B is located in the north-eastern portion of the site and includes the following species: Yorkshire fog, rough meadow-grass *Poa trivialis*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, red dead-nettle *Lamium purpureum*, white campion *Silene latifolia*, bittersweet *Solanum dulcamara* and burdock *Arctium sp.*

Parcel C is located in the southern portion of the site and includes the following species in addition to those in Parcel A: false oat-grass *Arrhenatherum elatius*, timothy *Phleum pratense*, white clover *Trifolium repens*, yellow toadflax *Linaria vulgaris*, hedge bedstraw *Galium mollugo*, self-heal *Prunella vulgaris*, creeping buttercup *Ranunculus repens*, dove's-foot crane's-bill *Geranium molle* and yarrow *Achillea millefolium*.

Parcel D is located east and south of Building B3 (shown on **Figure 3.1**). These areas were not included within the survey area but were incidentally noted as being similar to Parcel C (**Photo 4.4**).

Other neutral grassland is common and widespread in the local landscape and was therefore deemed to be of **negligible** importance. No further action is required.

Photo 4.1: Parcel A of other neutral grassland located within the central portion of the site, facing south



Photo 4.2: Parcel B of other neutral grassland located within the north-eastern portion of the site, facing south-east



Photo 4.3: Parcel C of other neutral grassland located within the southern portion of the site, facing south-west



Photo 4.4: Parcel D of other neutral grassland located to the south of Building B3, facing south-east



4.2.3 Developed land; sealed surface

Developed land (sealed surface), which conforms to UK Habitat Classification code u1b, is located within the site boundary (**Photo 4.5**). The developed land (sealed surface) lacks any ecological value and was therefore deemed to be of **negligible** importance.

No further action is required.

Photo 4.5: Developed land (sealed surface) located within the site boundary, facing west



Introduced shrub, which conforms to UK Habitat Classification secondary code 1160, is located within the north-eastern portion of the site, abutting Building B2 (**Photo 4.6**). Introduced shrub as a habitat is comprised of non-native species and lacks diversity, therefore was deemed to be of **negligible** importance. No further action is required.

Photo 4.6: Introduced shrub located within the site boundary, facing north-east



4.3 Protected and Notable Species

Records of protected / notable species for the last ten years have been considered within the assessment below. Older records have been considered where appropriate. None of the records pertain to the site, and MAGIC did not return any records of granted EPSM licences from within 2km.

4.3.1 Invertebrates

KMBRC did not return any records for invertebrates which are listed on *Schedule 5* of the *WCA*. Numerous records of Section 41 (NERC Act, 2006) moths and butterflies were returned with the most recent being from 2015 and all records located c. 1.2km north-west.

Other neutral grassland to be significantly impacted by the proposals is unlikely to support rare or notable species. Limited nectaring opportunities are available for butterflies. The site was therefore deemed to be of **negligible** potential for rare / notable invertebrates.

No further action is required.

4.3.2 Great Crested Newts and Common Toads

KMBRC did not return any records for either great crested newt *Triturus cristatus* or common toad *Bufo bufo*. No ponds are present within the site or are located within 250m of the site (OS, 2023). The lack of water-bodies within 250m means that great crested newts and common toads are likely absent.

The site therefore was deemed to hold **negligible** potential for great crested newts and common toads.

No further action is required.

4.3.3 Reptiles

KMBRC returned nine records for slow-worm *Anguis fragilis* and seven for grass snake *Natrix helvetica*, all of which are dated 2018 and for the same location 1.7km north-east from the site. A reptile survey conducted by David Archer Associates in 2022 in relation to planning application reference CA/22/00620, found a grass snake just off site to the west of the access track.

The other neutral grassland does not provide the sward height that common lizard *Zootoca vivipara* and slow-worm typically require, with more suitable habitat being present in the wider landscape. The site was deemed to hold **low** potential for reptiles.

Precautionary measures for reptiles have therefore been recommended in **Section 5**.

4.3.4 Birds

SxBRC returned records of barn owl *Tyto alba*, which are listed as Annex I (Birds Directive) and Schedule 1 (WCA), for which suitable breeding habitat exists on-site. The records also included species of Red- and Amber-listed Birds of Conservation Concern (BoCC) (Stanbury *et al.*, 2021) that could breed on-site as follows: woodpigeon *Columba palumbus*, house sparrow *Passer domesticus*, house martin *Delichon urbicum*, swift *Apus apus* and swallow *Hirundo rustica*.

The following birds were recorded during the PEA survey: blackbird *Turdus merula* and woodpigeon. During the PRA survey, seven active house martin nests were noted in the car port section on the eastern elevation of Building B2 and an active blue tit *Cyanistes caeruleus* nest was noted in a cavity where mortar was missing in the brick work on the southern elevation of Building B2. Three birds' nests were noted inside Building B7 (car port) and a little owl *Athene noctua* was perching on a timber beam inside Building B4.

It was thought that bird interest (nesting / foraging) is likely to be confined to the buildings. The site therefore was deemed to hold **high** potential for widespread species of nesting bird. The site overall was, however, considered to hold **negligible** potential for bird species listed as Annex I (Birds Directive) and / or Schedule 1 (WCA), with the exception of barn owl *Tyto alba*, which is discussed separately in **Section 4.3.4.1**. The small nature of the site and heavy levels of disturbance mean that the site was deemed to have **negligible** potential for notable wintering bird species and assemblages.

Further action for nesting birds is recommended in **Section 5**.

4.3.4.1 Barn Owl

A single large owl pellet, typical of those deposited by barn owls, was found underneath the northernmost roof timber in the upper floor of Building B2. Barn owls are known to nest within a purpose-built nest box located within the hay barn, which lies immediately east of Building B3 and c. 15m south of Building B2, just outside the red line boundary. Barn owls are likely to forage within the grassland immediately off site and in the wider landscape due to its thatch and suitability for rodent prey. The pellet is most likely an indication of barn owls roosting within Building B2, which probably access the building through the broken window-pane on the eastern elevation. However, there are suitable ledges for nesting barn owls within Building B2; this combined with the confirmed breeding by barn owls in a nearby building means that Building B2 was deemed to be of **moderate** potential to support breeding by this species. No evidence of barn owls was found in the other buildings within the site.

Further action has been recommended in **Section 5**.

4.3.5 Badgers

KMBRC did not return any records for badger. No badger setts or other evidence of badger presence were recorded on or within 30m of the site boundary, where access was possible. No earth banks suitable for digging were noted on site.

No further action is required.

4.3.6 Bats

KMBRC returned records for 10 bat species dating from 1984 to 2019: serotine *Eptesicus serotinus*, Daubenton's *Myotis daubentonii*, whiskered *Myotis mystacinus*, Natterer's *Myotis nattereri*, Leisler's *Nyctalus leisleri*, noctule *Nyctalus noctula*, Nathusius' pipistrelle *Pipistrelle nathusii*, brown long-eared *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, and soprano pipistrelle *Pipistrellus pygmaeus*. These records comprised five maternity roosts, three hibernation roosts and 25 roosts of unknown type.

The nearest roost record was for a maternity roost and unknown roost type for whiskered and/or Brandt's bats in 1997. This roost is recorded as being c. 1.4km west of the site. In 2004, the same grid reference is recorded for supporting an unknown roost type for brown long-eared bat/s. However, the grid reference provided is for six figures and provides 100m accuracy therefore it is unknown whether all roosts refer to the same location.

It should be noted that confirmed roosts for brown long-eared bats and common pipistrelles were recorded in the Bramling Court Farmhouse, immediately outside and south-west of the application boundary, during a Preliminary Ecological Appraisal and follow-up bat surveys by David Archer Associates in 2022 in relation to a separate planning application. The presence of brown long-eared bats was confirmed by DNA testing of bat droppings within the loft spaces, with common pipistrelle day roosts also being confirmed by follow-up nocturnal emergence surveys. No brown-long eared bats emerged during the nocturnal surveys but thousands of droppings of varying ages in the loft voids suggest that the Farmhouse is likely used as a maternity roost by brown long-eared bats when conditions are suitable.

4.3.6.2 Roosting (Buildings)

The relevant buildings on site have been described below. Refer to **Appendix 2** for the building locations.

Building B1 – Shoot School

Building B1 is a red brick, single-storey building with a hipped, pitched, tiled roof and sky-lights. The roof has multiple raised and missing tiles. There are numerous suitable gaps for bats around the windows and doors as well as open eaves. Some mortar gaps were also observed. Inside, the walls are battened and lined with a plywood type material which extends into the roof space and to door and window frames where there are access points. Access to the loft space was not considered safe although the surveyor could see into the space via a loft hatch from a ladder and took photos. The loft void was light due to the presence of sky-lights.

No evidence of bats was found within or on the building, although absence of evidence should not be assumed due to the lack of access into the loft void.

Prior to further surveys being undertaken, Building B1 was deemed to be of **high** suitability for roosting bats during the active season and **low** suitability during the hibernation season.

Photo 4.7: Building B1, facing north



Photo 4.8: Building B1, view of internal loft void form loft hatch



Building B2 – Oast

Building B2 is a two-storey red brick building with double pitched roof and a flat roofed extension to the west. The roofs are of corrugated asbestos. To the north are the lower levels of an old oast.

Due to the complexity of this building, the various elevations have been numbered and a corresponding plan provided (**Figure 4.1**).

- Elevation one has mortar gaps between bricks which could lead to cavity spaces. There are gaps under the corrugated sheet roof edges, where these meet the wall and beneath the flashing on the south-west corner.

-
- Elevation two has mortar gaps between bricks which could lead to cavity spaces. A blue tit was noted nesting in a cavity six courses down from the top. A suitable hole was also noted directly above the double doors on the lower level which are otherwise well sealed.
 - Elevation three has mortar gaps between bricks which could lead to cavity spaces. There is a timber framed window with no obvious suitable features for bats. There are gaps under the guttering and open eaves.
 - Elevation four has mortar gaps between bricks which could lead to cavity spaces. Double sliding doors on the lower level have some gaps around them. The double pitched roof has gaps around the fascia. A door on the first floor and a boarded-up window with gaps could also provide access points.
 - Elevation five has open-fronted parking ports on the ground floor level. There are three timber framed windows on the first floor which have rotten timber, mortar gaps and missing windowpanes. There are gaps under the roof due to some missing bricks at each end of the elevation. In the car port area, there are gaps behind timber beams and spaces between bricks suitable for bats in the corners. A bat dropping, typical of those deposited by pipistrelle bats, was found here on the back wall. Seven house martin nests were also noted in this section.
 - Elevation six is the north-east side of a round oast house that has the traditional roof missing and a flat roof of timber and felt construction. There are many gaps suitable for bats around the decaying roof and gaps between bricks which could lead to cavity spaces, particularly in the corner where the round building meets the main square shape of the main building.
 - Elevation seven is the north-west side of a round oast that has the traditional roof missing and a flat roof of timber and felt construction. There are many gaps suitable for bats around the decaying roof and gaps between bricks which could lead to cavity spaces, particularly in the corner where the round building meets the square shape of the main building. There are double doors with gaps that could also provide access for bats.

Inside on the ground floor of the western section, a single bat dropping was found under a timber beam. This was collected for DNA analysis, which confirmed that the dropping was deposited by a brown long-eared bat (sample no. SEL-2074-3, **Appendix 4**). There are many features suitable for bats to use both in the timber and brick work.

On the ground floor of the eastern section a dead bat was found, which was too decayed for reliable species identification. Suitable roosting spots were noted above a concrete lintel, gaps around timbers and in masonry particularly where the walls meet the round oast beyond. A single bat dropping was found in the south-west corner, which was crumbled and thus not collected for DNA analysis.

Upstairs in the central room there are many suitable features for bats to use. This includes gaps in timber lintels as well as gaps and crevices in the masonry, particularly where the walls meet the round oast beyond. Feeding remains in the form of two moth wings were also found here beneath a timber beam. Six bat droppings were noted within this section of the building, scattered in different locations.

There is also a loft hatch in this room which could possibly give access to the western portion of the roof space. This was not accessible.

Upstairs, the most easterly room also provides roosting opportunities for bats and there is also a gap in the brickwork leading outside to the south. Fourteen bat droppings were found scattered in the southern part of this room, eight of which were collected for DNA analysis. This confirmed that the droppings were deposited by brown long-eared bats (sample number SEL-2074-4, **Appendix 4**). Evidence of bats feeding in the form of peacock butterfly *Aglais io*, small tortoiseshell butterfly *Aglais urticae* and green lacewing moth *Chrysoperla sp.* wings were scattered throughout.

Upstairs in the most westerly room, the ceiling is starting to drop, leaving access to outside via the gaps under the edge of a corrugated roof. Large timber beams have splits and gaps around them, and there are gaps in the brickwork. Eighteen bat droppings were found scattered throughout this room, of which four were collected for DNA analysis. These were combined with the samples from the easterly room, and all droppings tested were deposited by brown long-eared bats (sample number SEL-2074-4, **Appendix 4**).

Prior to further surveys being undertaken, Building B2 was a **confirmed** roost for brown long-eared bats and was deemed to be of **high** suitability for other species of roosting bats during the active season and **low** suitability during the hibernation season.

Photo 4.9: Building B2, western elevations (no. 1, 2 and 3 in **Figure 4.1**).



Photo 4.10: Building B2, southern elevation (no. 4 in **Figure 4.1**).



Photo 4.11: Building B2, eastern elevation (no. 5 in **Figure 4.1**).



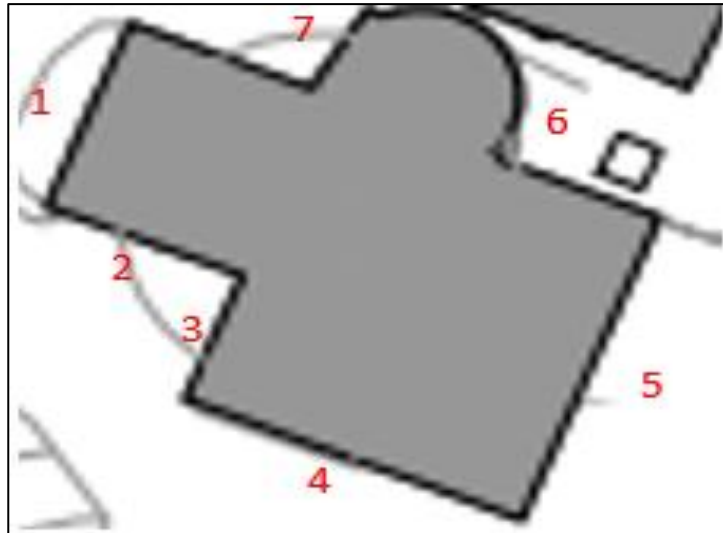
Photo 4.12: Building B2, north-east elevation (no. 6 in **Figure 4.1**).



Photo 4.13: Building B2, north-west elevation (no. 7 in **Figure 4.1**).



Figure 4.1: Plan of Building B2 showing elevation numbers referred to above



Building B3 – Potato Shed

Building B3 is of rendered block construction with corrugated asbestos pitched roof and large sliding doors on the northern elevation. There are broken sky-lights in the roof and some gaps between the corrugated sheets. The building is in regular use for storage of tractors, fertiliser and other farm materials. No evidence of bats was found within or on the building.

Prior to further surveys being undertaken, Building B3 was deemed to be of **low** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.14: Building B3, northern and eastern elevations.



Building B4 – Byre

Building B4 is a timber-framed, open-fronted building with a pitched, corrugated steel roof and timber clad gable. The interior is partially timber-lined with rough sawn beams. There are also gaps between B4 and the abutting Building B3. A little owl *Athene noctua* was seen in B4 during the PRA survey. No evidence of bats was found within or on the building.

Prior to further surveys being undertaken, Building B4 was deemed to be of **low** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.15: Building B4, western and northern elevations



Building B5 – Piggery

Building B5 is of mixed construction with a timber frame. The pitched roof is corrugated steel as is the gable end. Parts of the building are timber clad, and parts built of concrete blocks. There is a brick-built chimney in the northern-most corner. The building is very exposed, in regular human use as an extension to the static caravan (Building B6) and lacks crevice features suitable for bats. No evidence of bats was found within or on the building.

Building B5 was deemed to be of **negligible** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.16: Building B5, western and southern elevations.



Building B6 – Static Caravan

Building B6 is a standard static caravan in good condition and in constant use. No evidence of bats was found on the building.

Building B6 was deemed to be of **negligible** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.17: Building B6, northern elevation.



Building B7 – Car Port

Building B7 is an open fronted car port of timber frame and steel sheet construction and appears relatively new. It is exposed and lacks any suitable crevice features for bats. No evidence of bats was found within or on the building.

Building B7 was deemed to be of **negligible** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.18: Building B7, western and northern elevations.



Building B8 – Grain Store/Bins

Building B8 is steel-framed with steel and asbestos sheeting on the walls and pitched roof. There are gaps providing possible access for bats above the door on the southern elevation, under the gutters, and likely beneath the roof flashing. Internally the building contains large steel silos. No evidence of bats was found within or on the building.

Prior to undertaking further surveys, Building B8 was deemed to be of **low** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.19: Building B8, southern elevation.



Building B9 – Grain Dryer

Building B9 is steel framed with steel and asbestos sheeting on the walls and pitched roof. There are gaps providing access for bats at the edges of the corrugated sheets and under the gutters. Skylights may also provide access, and a suitable gap was noted above the door on the western end of the

northern elevation. Bat feeding remains were found in the form of a small number of tortoiseshell butterfly wings inside the building beneath a skylight.

Prior to undertaking further surveys, Building B9 was deemed to be of **moderate** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.20: Building B9, eastern and northern elevations.



Building B10 – Building Off-site

Building B10 is officially outside of the red line boundary but has been included here as the southern and western elevations abut the site. B10 is built of concrete blocks and corrugated asbestos sheet with a corrugated asbestos sheet roof. No internal inspection was undertaken. Of the parts of the building abutting the site, gaps were present on the eastern elevation, which could permit bat access.

Prior to undertaking further surveys, Building B10 was deemed to be of **low** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Photo 4.21: Building B10 (off-site), southern and eastern elevations.



Overall Suitability for Roosting Bats in Buildings

Several access points and roosting opportunities were available for bats within the buildings, which are described in **Table 4.5**. The roost assessment concluded that Buildings B1 and B2 held **high** suitability for roosting bats during the active season and **low** suitability during the hibernation season, Building B9 held **moderate** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season Buildings B3, B4 and B8 held **low** suitability for roosting bats during the active season and **negligible** suitability during the hibernation season.

Table 4.5: Potential access points and roosting opportunities for bats.

Building #	Evidence of Bats	Potential Access Points	Potential Roosting Opportunities	Bat Roosting Suitability
B1	None	Multiple missing and raised tiles on the roof. Gaps around windows and doors. Open eaves.	Multiple gaps around windows and doors. Behind internal lining. Loft space.	High (active season) Low (hibernation season)
B2	Bat droppings in multiple locations, confirmed to be deposited by brown long eared bat by DNA analysis. Suspected pipistrelle droppings. Feeding remains. Dead bat.	Multiple gaps around doors and windows. Gaps in brickwork, beneath fascia and through open eaves. Missing bricks, and missing windowpanes.	Multiple gaps around doors and windows. Gaps in brickwork, beneath fascia and open eaves. Missing bricks, roof space, rough sawn beams, crevices between timbers and brickwork. Splits in large beams.	High (active season) Low (hibernation season)
B3	None.	Broken sky-lights, gaps between the corrugated roofing sheets.	Gaps between corrugated roofing sheets and under beams and roof fixtures.	Low (active season) Negligible (hibernation season).
B4	None.	Open fronted building.	Behind partial timber lining, gaps between beams and timbers. Gaps where B3 meets B4.	Low (active season) Negligible (hibernation season).
B5	None.	None.	None.	Negligible (active season) Negligible (hibernation season).
B6	None.	None.	None.	Negligible (active season) Negligible (hibernation season).
B7	None.	None.	None.	Negligible (active season) Negligible (hibernation season).
B8	None.	Gaps around doors, under guttering and beneath roof flashing.	Gaps and potential crevices around doors, under guttering and beneath roof flashing.	Low (active season) Negligible (hibernation season).

Building #	Evidence of Bats	Potential Access Points	Potential Roosting Opportunities	Bat Roosting Suitability
B9	Bat feeding remains were found in the form of a small number of tortoiseshell butterfly wings inside the building beneath a skylight.	Gaps at corrugated roof sheets and under the gutters. Gaps above the door. Likely via skylight.	Gaps and potential crevices around doors, under guttering and beneath roof sheeting.	Moderate (active season) Negligible (hibernation season).
B10	None. Building B10 is officially outside of the red line boundary but has been included here as the southern and eastern elevations abut the site.	Gaps were present on the eastern elevation, which could permit bat access.	No internal inspection was undertaken.	Likely based on partial external PRA: Low (active season) Negligible (hibernation season)

Further surveys for roosting bats were undertaken in the form of three emergence surveys of Buildings B1 and B2, two emergence surveys of Building B9 and one emergence survey of Buildings B3, B4 and B8.

4.3.6.3 Nocturnal surveys

A summary of the nocturnal surveys has been provided below. Refer to **Appendix 5** for the raw data tables, surveyor locations, IR positions and results.

4.3.6.3.1 Building B1

Dusk Emergence Survey 1 – 12th July 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

Dusk Emergence Survey 2 – 3rd August 2023

A single common pipistrelle emerged from under a roof tile close to the eaves or within the eaves on the southern corner of the south-western elevation of Building B1.

Dusk Emergence Survey 3 – 17th August 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

4.3.6.3.2 Building B2

Dusk Emergence Survey 1 – 10th July 2023

A single common pipistrelle emerged from under the lead flashing on the southern elevation, near the south-west corner of Building B2. A single common pipistrelle also emerged from under the corrugated roof on the western elevation, near the south-west corner. Three common pipistrelles emerged from the roof of the Oast on Building B2.

Dusk Emergence Survey 2 – 31st July 2023

Two common pipistrelles emerged from the roof of the Oast on Building B2.

Dusk Emergence Survey 3 – 17th August 2023

One common pipistrelle emerged from under lead flashing on the southern elevation, near the south-west corner of Building B2.

4.3.6.3.3 Building B9

Dusk Emergence Survey 1 – 10th July 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

Dusk Emergence Survey 2 – 31st July 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

4.3.6.3.4 Building B3

Dusk Emergence Survey 1 - 12th July 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

4.3.6.3.5 Building B4

Dusk Emergence Survey 1 - 12th July 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

4.3.6.3.6 Building B8

Dusk Emergence Survey 1 - 10th July 2023

No bats were recorded entering or emerging from the building during the nocturnal survey.

4.3.7 Bat roosts

4.3.7.1 Building B1

Common pipistrelle day roost

Roost 1: a single common pipistrelle emerged from under a roof tile close to the eaves or within the eaves on the southern corner of the south-western elevation of Building B1. This confirms the presence of a single male or non-breeding female common pipistrelle day roost within Building B1.

The common pipistrelle day roost is given **local** level importance due to supporting an individual non-breeding bat that is of common prevalence both locally and across the UK (Wray, 2010).

4.3.7.2 Building B2

Common pipistrelle day roosts

Roost 2: a single male or non-breeding female common pipistrelle was recorded emerging from under lead flashing on the southern elevation, near the south-west corner on 10th July 2023 and 17th August 2023. This confirms the presence of a single male or non-breeding female common pipistrelle day roost within Building B2.

Roost 3: an additional single male or non-breeding female common pipistrelle was recorded emerging from under the corrugated roof on the western elevation, near the south-west corner on 10th July 2023. This confirms the presence of another single male or non-breeding female common pipistrelle day roost within Building B2.

Roost 4: three male or non-breeding female common pipistrelles were recorded emerging from the roof of the Oast on 10th July 2023 and a two male or non-breeding female common pipistrelles were recorded emerging from the roof of the Oast on 31st July 2023. This confirms the presence of one day roost for a maximum count of three non-breeding female or male common pipistrelles located within the Oast of Building B2.

These three common pipistrelle day roosts are given **local** level importance due to them supporting small numbers of non-breeding bats that are of common prevalence both locally and across the UK (Wray, 2010).

Brown long-eared day roost

Roost 5: A likely day or night roost used infrequently by a small number of brown long-eared bats was recorded on the ground floor and first floor of Building B2, as evidenced by the presence of a dead bat, feeding remains and bat droppings, confirmed by DNA tested to have been deposited by this species (**Appendix 4**). The brown long-eared bat roost is given **local** level importance due to it supporting a small number of non-breeding individuals that are of common prevalence both locally and across the UK (Wray, 2010).

4.3.7.3 Hibernation consideration

Buildings B1 and B2

The features identified as potentially suitable for hibernating bats do not lend themselves to typical hibernation survey methods of measuring activity by use of static detectors and manual inspection over winter months. Therefore, as a precaution, it should be assumed that hibernating bats may be present within Buildings B1 and B2 and appropriate avoidance measures are therefore to be implemented.

Further action has been detailed in **Section 5** for roosting bats.

4.3.7.4 Foraging and Commuting

A lack of optimal habitat for foraging and commuting bats was recorded within the application boundary. More suitable habitat was recorded immediately outside of the application boundary in the form of scattered trees and hedgerows, which connect to similar habitats within the wider area. The site was therefore deemed to be of **low** suitability for foraging and commuting bats.

During the bat roost surveys, the area of the site immediately surrounding Buildings B1 and B2 was noted to be used by small numbers of common species for foraging and commuting purposes. Common pipistrelle and soprano pipistrelle were the most frequently recorded. Brown long-eared (a common bat), serotine and noctule (considered to be rarer bats) were recorded at low levels.

Precautionary measures for foraging and commuting bats are recommended in **Section 5**.

4.3.8 Hazel Dormice

KMBRC did not return any records for hazel dormice *Muscardinus avellanarius*. There is no suitable habitat within the application boundary to support dormice and it is not connected to a suitable hedgerow network or sufficiently sized woodland to sustain a viable dormouse population. The site was therefore considered to hold **negligible** potential for dormice.

No further action is recommended.

4.3.9 Hedgehogs and Other Section 41 Priority / Rare Species

KMBRC returned one record of hedgehog *Erinaceus europaeus*, which is dated 2014 and is located c. 2km south of the site.

The site has limited suitable habitat for hedgehogs and more suitable habitat is present in surrounding landscape.

No further action is required.

4.3.10 Invasive Plants

No invasive plant species listed under Schedule 9 of the *WCA* were noted on site during the survey. No further action is required.

4.4 Summary of Baseline Ecological Conditions

Table 4.6: Summary of the scale of importance for each ecological feature.

Ecological Receptor	Scale of Importance
Statutory sites: Stodmarsh (Ramsar, SPA and SAC)	European
Non-statutory sites: Littlebourne Stream (LWS)	Negligible
Priority habitats: Deciduous Woodland and Traditional Orchard	Negligible
Site habitats: Other neutral grassland (g3c), developed land sealed surface (u1b) and introduced shrub (secondary code 1160)	Negligible
Invertebrates	Negligible
Great crested newts and common toads	Negligible
Reptiles	Site
Birds	Site – common and widespread species only
Barn owls	Local
Badgers	Negligible
Bats (roosting in buildings)	Local
Bats (foraging and commuting)	Local
Hazel dormice	Negligible
Hedgehog / brown hare / other Priority Species	Negligible
Invasive species	Negligible

5 Assessment of Effects and Mitigation Measures

The following ecological receptors have been determined unlikely to be impacted by the proposed development for the reasons provided below, and as such have been scoped out from further evaluation, with no avoidance or mitigation measures required:

Table 5.1: Ecological receptors screened out from further assessment.

Ecological Receptor	Reason no Impacts are Expected
Non-statutory sites: Littlebourne Stream (LWS)	Site is not ecologically linked to the non-statutory sites and no pathways for ecological receptors identified.
Priority habitats: Deciduous Woodland and Traditional Orchard	Site is not ecologically linked to these priority habitats and no pathways for ecological receptors identified.
Site habitats: other neutral grassland (g3c), developed land sealed surface (u1b) and introduced shrub (secondary code 1160)	Negligible ecological value.
Invertebrates	No suitable habitat for rare / notable species.
Great crested newts and common toads	No water-bodies within 250m of the site.
Badgers	No confirmed setts or activity present.
Hazel dormice	No suitable habitat on site and the site does not connect to any suitable habitat.
Hedgehog / brown hare / other Priority Species	Habitat of negligible suitability within the application boundary and more suitable habitat within the wider landscape.
Invasive species	None recorded within the site boundary.

Where impacts or potential impacts are anticipated, these have been described below along with recommendations for avoidance and / or mitigation measures.

5.1 Statutory sites: Stodmarsh (Ramsar, SPA and SAC)

5.1.1 Potential Impacts

MAGIC (2023) indicate that the site lies within the zone of impact of Stodmarsh Valley designated SACs, SPAs, Ramsar and SSSI sites for which a nitrogen and phosphorus neutrality assessment is necessary. It is possible that the proposed development could have an adverse effect on the integrity of the statutory site through nutrient loading.

5.1.2 Mitigation Measures

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017, further assessment on this issue and additional mitigation measures will be required to accompany the planning application as the development meets the criteria of creating new overnight accommodation.

Depending on the nature of the mitigation measures proposed, these could be secured by a planning condition.

5.1.3 Significance of Residual Effects

The outcome of the nitrogen and phosphorus neutrality assessment will determine the significance of residual effects.

5.2 Reptiles

5.2.1 Potential Impacts

There is a low risk of common and widespread reptiles such as slow-worms, grass snakes and common lizards utilising habitats within the application boundary if they are not continued to be managed. As it stands, the majority of the other neutral grassland lacks sufficient sward height and thatch to support reptiles.

If reptiles were to be present on site during ground preparation and construction activities, reptiles could be directly impacted through killing or injuring.

5.2.2 Mitigation Measures

The precautionary measures below will be followed to dissuade reptiles from entering the construction zone and prevent harm to any occasionally present individuals on site:

- The grassland on site will continue to be regularly maintained and the grass sward height will be kept to a maximum of 15cm until completion of the construction period;
- During construction, materials will be stored off the ground on pallets or equivalent to prevent reptiles from taking refuge under them; and
- Vehicles will remain on short grass or hardstanding to prevent hard to reptiles.

If a reptile is discovered, stop works immediately and allow the reptile to move away of its volition. Do not recommence works in that area until the reptile has moved away. Do not handle reptiles; if a reptile does need to be moved to safety, contact an ecologist for advice and assistance.

These measures could be secured by a planning condition.

5.2.3 Significance of Residual Effects

Once the avoidance measures have been implemented, there will be no significant residual effect on reptiles.

5.3 Birds (non-Schedule 1)

5.3.1 Potential Impacts

Common and widespread nesting bird species may be directly impacted by the removal of introduced shrub. Common and widespread nesting bird species may also be impacted by the demolition and conversion of the buildings located within the application boundary.

5.3.2 Mitigation Measures

Demolish Buildings B7, B8 and B9 and remove all suitable nesting bird features from Buildings B3, B4 and B5 between September and February (inclusive) prior to conversion works commencing, in order to avoid the main breeding bird season. Once works have started, the regular disturbance caused by the works should deter birds from nesting in partially converted buildings. However, if works are paused for a period of time longer than one month during the breeding season, either suitable features

will be covered until works resume or a check for nesting birds will be carried out immediately before works resume.

The covered car port in the eastern elevation of Building B2 will not be retained, and as such replacement nesting provision will be provided for house martins. Seven nests were noted here during the PRA survey and thus provision for seven nearby nests will be incorporated into the converted Building B2. This will take the form of seven house martin cups installed at the eaves of the southern and eastern elevations. See **Appendix 8** for examples of suitable nest cups and the locations of the proposed house martin nest cups.

It was not clear if the little owl seen during the PRA and subsequent nocturnal bat surveys was nesting or roosting in Building B4. As a precaution due to the proposed conversion of Building B4, replacement nesting provision for a pair of little owls is to be provided. This will be in the form of a little owl box installed at least 3m high near the apex of the southern gable wall of Building B3 (**Appendix 8**), which is the closest suitable location to Building B4 and the current potential nest location. A perch will also be installed immediately adjacent to the nest box entrance so that owlets can walk in and out prior to fledging. The design will follow that provided by the Barn Owl Trust, shown in **Appendix 8**. A pre-made version of this box is available to purchase from the Barn Owl Trust. The box is to be cleaned out during autumn or winter every 2-3 years.

These measures could be secured by a planning condition.

5.3.3 Significance of Residual Effects

Once the avoidance measures have been implemented, there will be no significant residual effects on common and widespread nesting bird species, including those on the Red- and Amber-list BoCC lists.

5.4 Barn owl

5.4.1 Potential Impacts

No barn owl nests were noted within Building B2 during the preliminary roost assessment or during an internal inspection of Building B2 on 17th August 2023. Further, no barn owls were recorded in this building during the nocturnal bat surveys. If a barn owl was to start nesting within the building then inappropriate timings and methods of work could result in disturbing or damaging the nest.

5.4.2 Mitigation Measures

A pre-commencement check by a suitably licenced ecologist will be carried out of Building B2 to check that barn owls have continued not to breed within Building B2. This will happen 24 – 48 hours before works commence.

This could be secured by a planning condition.

5.4.3 Significance of Residual Effects

The mitigation proposed in **Section 5.4.2** will result in a negligible residual effect on nesting barn owls through killing or injuring and disturbing, damage or destruction of barn owl nests.

5.5 Bats (roosting in Buildings)

5.5.1 Potential Impacts

Common pipistrelle day roosts

Building B1 supports one day roost for a single non-breeding female or male common pipistrelle (Roost 1) and Building B2 supports two days roosts for a single non-breeding female or male common pipistrelle (Roosts 2 and 3) and one day roost for a maximum count of three non-breeding female or male common pipistrelles (Roost 4).

Whilst Buildings B1 and B2 will be retained and subject to internal remodelling, repairs to the roof of both buildings and associated features will also be carried out. These repair works will therefore lead to a permanent loss of all four common pipistrelle day roosts. This would be considered a moderate adverse impact at the local scale. Another potential impact may result from an unsupervised contractor killing / injuring bats during the conversion works, all of which would be major adverse impacts at the local level.

Brown long-eared bat day roost

A likely day or night roost used infrequently by a small number of brown long-eared bats is located within the ground and first floors of Building B2 (Roost 5). These floors are to be converted for residential use with a new loft void created above the eastern end of the building. This will result in a permanent loss of the existing roost, which would be a moderate adverse impact at the local scale. Another potential impact may result from an unsupervised contractor killing / injuring bats during the conversion works, all of which would be major adverse impacts at the local level.

Hibernation roosts

The potential presence of hibernation roosts in discrete features that are not possible to accurately survey for hibernating bats, such as crevices beneath roof tiles, means that the conversion works of Buildings B1 and B2 could result in roost loss and/or disturbance depending on the timing of works. Another potential impact may result from an unsupervised contractor killing / injuring bats during the conversion works, all of which would be major adverse impacts at the local level.

5.5.2 Mitigation Measures

No evidence of bats roosting within Buildings B3, B4, B8 and B9 was found and therefore works to these buildings can proceed without a derogation licence. In the unlikely event that a bat is discovered, works should stop immediately and the advice of a suitably experienced ecologist should be sought.

Building B1 supports a single male or non-breeding female common pipistrelle day roost (Roost 1). Building B2 supports two day roosts each used by a single male or non-breeding female common pipistrelle (Roost 2 and 3), another day roost used by three male or non-breeding female common pipistrelles (Roost 4), and a likely day or night roost used infrequently by a small number of brown long-eared bats (Roost 5). Both buildings provide crevices that could be used by hibernating bats. A mitigation strategy that is designed to protect bats and maintain their favourable conservation status will need to be submitted to support the planning application. A European Protected Species Mitigation (EPSM) licence will also be required before there are any works that may impact bat roosts identified within Buildings B1 and B2.

Natural England usually take at least six weeks to determine an EPSM Licence application and a Licence will only be granted once planning consent has been received with all conditions relating to wildlife discharged.

Planning permission and a licence will only be issued for developments that are considered to meet the following three tests:

1. The development is in the interests of public health and safety, or is required for imperative reasons of overriding public interest.
2. There is no satisfactory alternative to the development.
3. The local favourable conservation status of the bat populations concerned will be maintained.

5.5.2.1 Imperative Reasons of Overriding Public Interest

The existing buildings do not meet the needs of the current owner and are falling into a further state of disrepair. The proposed work will provide five holiday lets which will be used by the public and provide an income for the current owner.

5.5.2.2 No Satisfactory Alternative

The client does not own an alternative site and Buildings B1 and B2 are in need of substantial repairs to ensure their longevity. The proposed works have been judged as the most satisfactory method for improving the use of the buildings, whilst also preserving the bat population on site.

The 'do nothing approach' was rejected as the current buildings do not meet the requirements of the client and the client does not own an alternative site. Without a resulting source of income to offset the costs of the extensive repair / conversion works required, the buildings would continue to fall into a state of further disrepair.

5.5.2.3 Favourable Conservation Status

The Bat Mitigation Licence will include the required bat mitigation strategy to ensure roosting bats are protected and their favourable conservation status maintained. The mitigation strategy will include the following (see **Appendix 7** for related figures):

Roosting Provision

- Roost 1: an alternative roosting site in the form of a crevice space tile suitable for a common pipistrelle (e.g. Habibat Bat Access Slate or Spicer Tiles Handmade Bat Access Clay Roof Tile), will be incorporated within the western elevation of Building B1 to ensure there a suitable replacement for this roost in a similar location to the existing roost.
- Roost 2 and 3: two crevice space tiles will be incorporated onto Building B2 with one located on the western elevation and one on the southern elevation of the oast to ensure replacement close to the existing roost locations.
- Roost 4: one integrated bat tube (e.g. Schwegler 1FR Bat Tube) will be incorporated into the wall of the on the western elevation of Building B2, which is close to the existing roost location.

These features will be located and positioned as per the advice of the licenced ecologist undertaking the licensable works. The contractors employed to install these features are to liaise directly with the licenced ecologist, to ensure correct positioning. All features must not be illuminated by any lighting on-site, adjacent to the site or attached onto the outside of the building.

The locations for the replacement roost features shown in **Appendix 7** have been chosen based on their closeness to the original roost locations and their being suitably distant from light spill from windows.

- **Roost 5:** a loft void will be retained and modified on the eastern elevation of Building B2, which will measure length 10.5m, width 5.1m and height 2.5m. As the access points to the roost could not be confirmed during the survey, a range of access points to the loft will be provided, including two bat access tiles near the ridge on the eastern side of the roof, and another two access tiles near the ridge on the western side of the same roof. Bitumen 1F felt will be used to line the roof; no breathable membranes are to be used in this loft void. Rough sawn timber beams will be included in the loft void for brown long-eared bats to roost on. Where new timber-treated products are to be used in retained roost areas, these must be bat-safe, as per this product list: <https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts>

Temporary Roosting Provision

- One temporary bat box suitable for small numbers of common pipistrelles and brown long-eared bats, will be erected onto a suitable tree within the wider ownership boundary (to be confirmed by the licensed ecologist) prior to works commencing. A suitable box is the Vivara Large Woodstone Multi-chambered bat box. This box will provide suitable temporary roosts whilst works proceed, provide a suitable release site during the capture and exclusion works and will be left *in-situ* on completion of the works as part of the proposed enhancement features for the site.

Timing of Licensable Works

- The licensable works to remove any bats and bat roosting features from Buildings B1 and B2 will be undertaken during the active season, which runs from March – October. Licensable works must not be undertaken within the hibernation season (November – February). As hibernation potential within Buildings B1 and B2 cannot be ruled out, this will remove any risk to potential hibernating bats.
- Licensable works will only be completed during weather conditions suitable for bats to be active (this is typically considered 8°C or above for three consecutive nights).

Capture and exclusion methods

- A toolbox talk will be given to all site workers by a suitably qualified ecologist prior to works commencing. This will cover the legal protection of bats, any potential risks on-site (including species recorded within the local area and roost locations), what evidence of roosting bats looks like and the protocol that must be followed in the event a bat or evidence of roosting bats is noted within Buildings B1 and B2.
- A pre-works internal and external inspection of Buildings B1 and B2 will be carried out by a suitably licensed ecologist to confirm there is no change in roost status at the time of the works. A high-powered torch, endoscope and ladder will be used where appropriate.
- A destructive search by soft demolition of all suitable bat roosting features within Buildings B1 and B2 will be completed under supervision of a licensed ecologist. The suitable bat roosting

features will be carefully dismantled by hand and in stages, to allow these areas to be checked by the licensed ecologist supervising the works.

- In the event a bat is found, the bat will be checked over to ensure it is healthy and then moved to the pre-erected bat box present on site. The entrance to the bat box will be stuffed with a cloth to allow the bat to settle and decrease the risk of the bat flying in the daytime / returning to the building. The cloth will be removed at the end of the day to allow the bat to emerge at dusk.
- The name and contact details of a local bat carer will be obtained and retained on-site in the event a bat is injured on-site or found to require care. It is recommended that the bat carer be informed of the date of the works to ensure that this measure can be implemented successfully in the event it is required.

Monitoring

It is unlikely that Natural England will require monitoring of the day roosts as these are all for more common bat species and are of lower conservation significance.

It is advised that a planning condition is imposed requiring this outline mitigation strategy to be adhered to, with amendments to the strategy as necessary in line with the licence issued by Natural England.

5.5.3 Significance of Residual Effects

Once the mitigation measures above have been implemented, there will be no significant residual effects on roosting bats.

5.6 Bats (foraging and commuting)

5.6.1 Potential Impacts

Artificial lighting used during both the construction and operational phases of the development has potential to disturb foraging and commuting bats within the site and the local area.

5.6.2 Mitigation Measures

A Lighting Management Plan will be devised prior to construction works to minimise artificial lighting impacts on any retained and newly created bat roost features and associated access points and flight lines as well as to minimise lighting impacts on foraging and commuting bats using the site and adjacent habitats.

The Lighting Management Plan will include the following measures to reduce impacts on bats caused by artificial lighting (ILP & BCT, 2023):

- Any task lighting used during construction will be directed away from retained and newly created bat roost features and associated access points and flight lines as well as adjacent off-site trees;
- Any necessary security lighting will be set on short timers with a sensitivity to large moving objects only;
- Any new internal light fittings will be installed in a recess where installed in proximity to newly created roost features in Buildings B1 and B2 in order to reduce glare and light spill to bats accessing the roost space above or adjacent to these windows;

- Lighting times will be limited to provide dark periods;
- LED light sources will be used wherever possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capabilities. A warm spectrum light (ideally <2700 Kelvin) will be used to reduce the blue light component. Lights will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012). Luminaires should be mounted on the horizontal, i.e. with no upward tilt. The use of UV light will be avoided and metal halide, fluorescent light sources will not be used; and
- As a last resort, hoods or cowls will be used to avoid light being directed at the sky or towards the roost features and associated access points and flight lines.

5.6.3 Significance of Residual Effects

Once the avoidance measures have been implemented, there will be no significant residual effects on foraging, commuting and roosting bats.

5.7 Summary of Effects and Avoidance and Mitigation Measures

Table 5.2: Significance of residual effects, avoidance and mitigation measures required and method of securing avoidance and mitigation measures

Ecological Receptor	Avoidance / Mitigation Measures Required	Means of Securing Avoidance / Mitigation Measures	Significance of Residual Effects
Statutory site: Stodmarsh (Ramsar, SPA and SAC)	A nitrogen and phosphorus neutrality assessment is required to determine the necessary mitigation measures.	Planning condition / Section 106 agreement or similar, depending on nature of mitigation agreed by the LPA.	Negligible.
Reptiles	Precautionary measures will be followed to dissuade reptiles from entering the construction zone.	Planning condition.	Negligible.
Birds	Demolish Buildings B7, B8 and B9 and removal all suitable nesting bird features from Building B3, B4 and B5 between September and February (inclusive) to avoid the main breeding season. Provide seven house martin nests within Building B2 and a little own nest box and perch on Building B3.	Planning condition.	Negligible.
Barn owl	A pre-commencement check by a suitably licenced ecologist will be carried out of Building B2 to check that barn owls have continued not to breed within Building B2.	Planning condition.	Negligible.

Ecological Receptor	Avoidance / Mitigation Measures Required	Means of Securing Avoidance / Mitigation Measures	Significance of Residual Effects
Bats (roosting in buildings)	A derogation licence is required from Natural England to destroy one common pipistrelle day roost in Building B1, three common pipistrelle day roosts in Building B2 and one likely day/night roost of brown long-eared bats. Works to be carried out to Buildings B1 and B2 will be carried out March – October (inclusive) to avoid the hibernation season.	Planning condition, with derogation licence being applied for on receipt of planning permission being granted but prior to impacts occurring to roof features of Buildings B1 and B2 and internal space of Building B2.	Negligible.
Bats (foraging and commuting)	Implement a sensitive lighting strategy.	Planning condition.	Negligible

5.8 Cumulative Effects

A separate granted planning consent (Canterbury City Council CA/22/01736) for alterations to the farmhouse and adjacent stable building, just beyond the south-west of the site boundary within Bramling Court Farm, includes mitigation measures relating to bats roosting in the farmhouse. Whilst the planning application has been granted, no works have yet commenced and no bat mitigation licence has yet been applied for in relation to planning consent CA/22/01736. If the works here do take place under licence, they will involve the loss and replacement of a brown long-eared bat maternity roost, one common pipistrelle day roost and a likely brown long-eared bat day roost. The bats using the farmhouse will form part of the same population of common pipistrelle and brown long-eared bats found roosting within Buildings B1 and B2. There will be no long-term cumulative effect on bats as all roosts are being replaced, with both applications including a bat loft for brown long-eared bats and suitable crevice roost spaces for common pipistrelles. However, if the works to the farmhouse and Building B2 were to happen simultaneously, this would result in a potentially significant cumulative temporary loss of several roosting spaces. With Building B1 supporting only a single common pipistrelle bat, this is of less significance.

The licence requirements, which will be decided by Natural England, will ensure that any cumulative impacts on bats are taken into account. If planning consent is obtained for this planning application, works that will impact the roosts in Building B2 of this application and the farmhouse in application CA/22/01736 should be carried out at different times; replacement roost features required to be installed for one application must be *in situ* before the roost features of the building in the other application are impacted.

No other cumulative effects are expected based on a planning application search covering local planning applications in the Bramling area for the last two years.

6 Enhancements

The recommendations below are designed to enhance the value of the site for wildlife, as encouraged through the National Planning Policy Framework (2021), and to help achieve meaningful biodiversity net gain in the context of both national and local biodiversity priorities and targets:

- 1) A native hedgerow will be planted along the access track and along the southern site boundary to increase habitat connectivity around the site. Locally sourced, native fruit and berry bearing species such as hazel *Corylus avellana*, apple *Malus* spp., hawthorn *Crataegus monogyna*, guelder rose *Viburnum opulus* and spindle *Euonymus europaeus* are recommended. Refer to **Appendix 9** for further suitable species.
- 2) Twelve native trees of local provenance will be planted within the site boundary. Refer to **Appendix 9** for suitable species.
- 3) At least one Schwegler House Martin Nest No. 9B or Schwegler Swift Nest Box No. 17B (or suitable long-lasting alternative) will be installed onto each building. The house martin nest cups will be positioned under eaves on external walls on elevations of the buildings which protect the nesting feature from the weather. The swift nest boxes will be positioned at least 6-7m above the ground.
- 4) Low level nectar and pollen rich planting will be incorporated into the landscape plan. This will include species suitable to attract night-flying moths, as detailed in **Table A9.3, Appendix 9**.
- 5) Two insect houses will be provided in sheltered, warm locations e.g. within any new low level nectar and pollen rich planting to provide over-wintering sites for beneficial insects such as lady birds and lacewings, which typically prey on pest species.
- 6) Swathes of infrequently cut grassland will be created and maintained in the shared garden spaces to provide relatively undisturbed habitat for small mammals, invertebrates, birds and reptiles. These areas will have suitable ground and soil preparation and then be sown with a wildflower seed mix (e.g. Emorsgate EL1).
- 7) A hedgehog house will be provided within a sheltered location e.g. within tall grassland along the southern boundary, a good distance away from Bramling Road.

7 Conclusions

The EclA has identified that with the incorporation of the proposed avoidance and mitigation measures together with the European Protected Species Mitigation (EPSM) licence and nutrient neutrality measures secured, there will be negligible negative impacts on ecological receptors as a result of the proposed development.

There is an opportunity to enhance the development for local wildlife by incorporating the enhancement measures proposed and this will ensure compliance with all relevant wildlife legislation and national and local planning policies.

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Appendix 1 Legislation & Planning Policy

Legislation

Conservation of Habitats and Species Regulations (CHSR) (as amended) 2017 & Conservation of Habitat and Species (Amendment) (EU Exit) Regulations 2019

The *CHSR 2017* transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

The purpose of the 2019 amendments applied to the legislation were to ensure the continued functionality of the Regulations once the UK has left the European Union, with no significant policy changes included.

Wildlife & Countryside Act (WCA)

The *WCA 1981*, as amended by the *Countryside and Rights of Way Act (CRoW) 2000* and the *Natural Environment and Rural Communities Act (NERC) 2006*, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

Natural Environment & Rural Communities (NERC) Act

The *NERC Act 2006* amends the *CRoW Act*, by further extending the requirement to have regard for biodiversity to all public authorities, which includes local authorities and local planning authorities and requires that the Secretary of State consults Natural England (NE) in the publication of the list of living organisms and habitat types deemed to be of principal importance in conserving biodiversity.

Relevant Protected Species Legislation

Species	Relevant Legislation	Level of Protection
Reptiles (adder, grass snake, common lizard & slow-worm)	Partially protected under <i>Schedule 5</i> of the <i>Wildlife and Countryside Act, 1981 (as amended)</i> .	It is an offence to: <ul style="list-style-type: none"> intentionally kill or injure these animals. sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals.
Birds	Protection under the <i>Wildlife and Countryside Act, 1981 (as amended)</i> .	It is an offence to: <ul style="list-style-type: none"> intentionally kill, injure or take any wild bird. intentionally take, damage or destroy nests in use or being built (including ground nesting birds). intentionally take, damage or destroy eggs. Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests.
Barn owls	Protection of their nests and young under <i>Schedule 1</i> of the <i>Wildlife and Countryside Act, 1981</i> .	It is an offence to: <ul style="list-style-type: none"> Damage or destroy a nest; Disturb a barn owl while it is building a nest or is in, on or near a nest containing eggs or young; and Disturb a barn owl's dependant young. <p>As barn owls do not create typical nests, their 'nest-places' comprised of layers of debris are considered to be the 'nest'. Removing the features surrounding this nest is therefore considered to be damage or destruction.</p>
Bats	Protected species under the <i>Conservation of Habitats and Species Regulations (as amended) 2017</i> . Full protection under <i>Schedule 5</i> of the <i>Wildlife and Countryside Act, 1981 (as amended)</i> . Protected by the <i>Wild Mammals (Protection) Act 1996</i> .	It is an offence to: <ul style="list-style-type: none"> intentionally kill, injure, or take any species of bat. intentionally or recklessly disturb bats. intentionally or recklessly damage destroy or obstruct access to bat roosts.
Wild Mammals	The <i>Wild Mammals (Protection) Act 1996</i> .	This makes it an offence to: <ul style="list-style-type: none"> crush or asphyxiate any wild mammal with intent to inflict unnecessary suffering. <p>This may apply during site clearance for development, particularly where burrowing animals such as foxes and rabbits are present, since such animals could be crushed or asphyxiated in their burrows by heavy machinery.</p>

National Planning Policy

National Planning Policy Framework (NPPF)

The NPPF sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning application (MHCLG, 2021). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development, following the principles of the mitigation hierarchy. The goals set out within the NPPF are for developments to minimise impacts on and provide net gains for biodiversity, including at the catchment or landscape scale.

The NPPF works in conjunction with Government Circular *06/2005 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System.'*

Regional and Local Planning Policy and Guidance

Local Structure Plans

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012, and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC Act (2006).

UK Post-2010 Biodiversity Framework

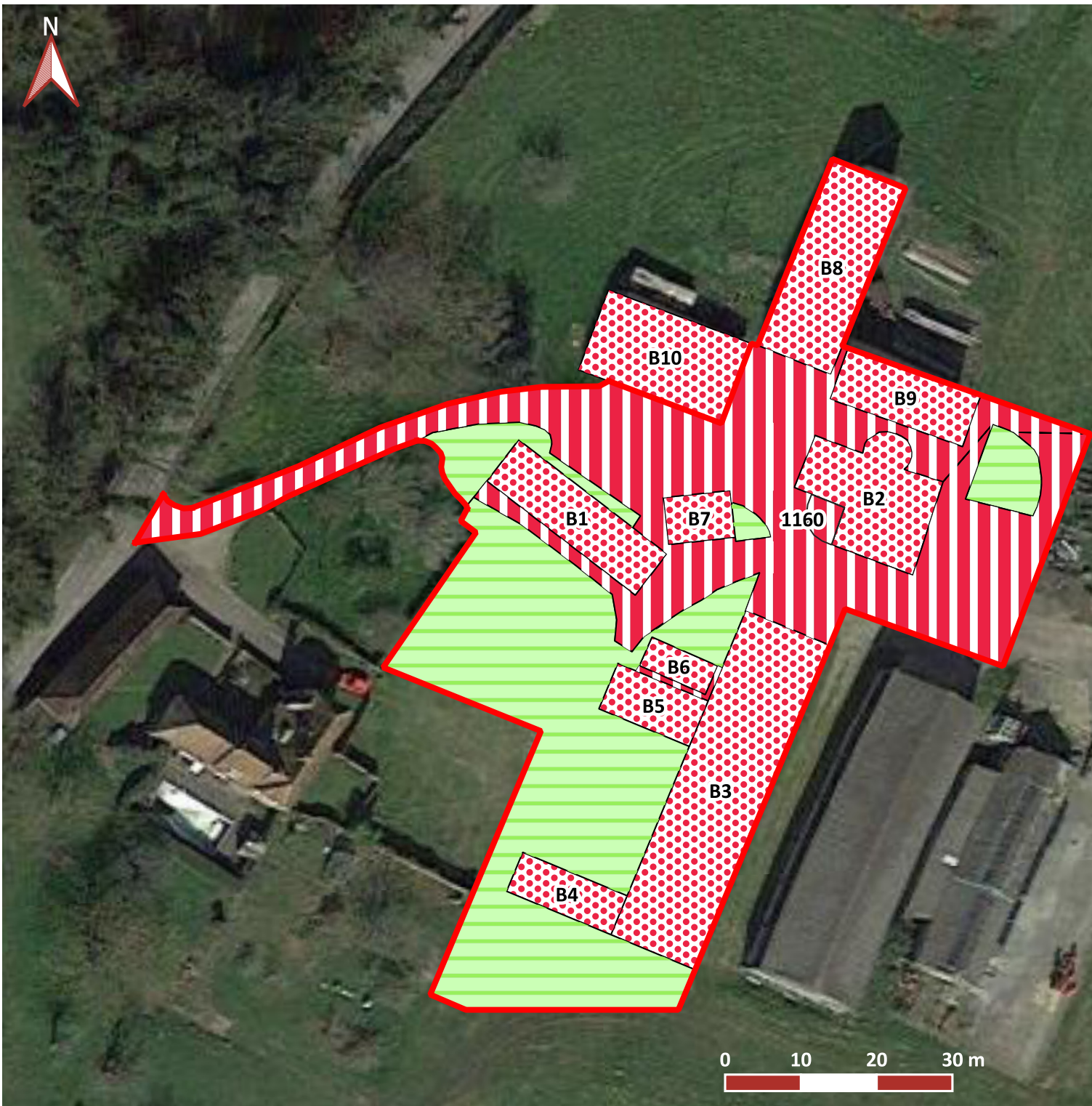
The UK Post-2010 Biodiversity Framework (2012) was produced in response to a change in strategic thinking following the publication of the Convention of Biological Diversity's Strategic Plan for Biodiversity 2011–2020. The Strategic Plan consists of 20 new biodiversity targets for 2020, termed the 'Aichi biodiversity targets' and the launch of the new EU Biodiversity Strategy in May 2011.

The framework sets a structure for action across the UK between now and 2020, including a shared vision and priorities for UK-scale activities to help deliver the Aichi targets and the EU Biodiversity Strategy. A major commitment by Parties to the Convention of Biological Diversity is to produce a National Biodiversity Strategy and/or Action Plan (NBSAP).






Natural England Standing Advice

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

Appendix 2 UK Habitat Map



Legend

-  Application site boundary
-  g3c - other neutral grassland
-  u1b - developed land. sealed surface
-  u1b5 - buildings
-  1160 - Introduced shrub



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Appendix 3 Species Assessment Methodology

8.1.1 Great Crested Newts and Common Toad

The site was assessed for suitability to support amphibians such as the legally protected great crested newt *Triturus cristatus* and the notable common toad *Bufo bufo*. The assessment was undertaken in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).

Based on Natural England (2015) guidance, surveys of land greater than 250m from the nearest water-body are normally appropriate when all of the following conditions are met:

- a) Maps, aerial photos, walkover surveys or other data indicate that the water-body(ies) has/have potential to support a large great crested newt population;
- b) The development footprint contains particularly favourable habitat, especially if it constitutes the majority available locally;
- c) The development would have a substantial negative effect on that habitat; and
- d) There is an absence of dispersal barriers.

The proposed development does not meet criteria a and b above, and therefore consideration was given to water-bodies on and within 250m of the site using OS maps and aerial images.

8.1.2 Reptiles

The site was assessed for suitability to support reptiles with reference to the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and *Froglife Advice Sheet 10 An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation* (Froglife, 1999).

8.1.3 Barn Owl

Buildings within the site were externally and internally inspected from the ground for signs of barn owl *Tyto alba* following *Survey Techniques Leaflet No. 8* (The Barn Owl Trust, 2010). Barn owl pellets, white excreta ('whitewash'), feathers and nest debris were searched for. Any potential access points and darkened cavities of sufficient size to accommodate owls were noted. Attention was given to walls beneath any openings, and overhead structures such as beams or ledges.

8.1.4 Badgers

The site and a 30m zone around the site (where accessible), were surveyed for badger *Meles meles* evidence such as setts, latrines, pathways, footprints, snuffle holes and badger hairs. Any setts recorded were classified according to published criteria (Harris, et al., 1989).

8.1.5 Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, 2016).

8.1.5.1 Roosting

The buildings on site were assessed for suitability to support roosting bats per the scales in **Table A3.1**. Equipment used to investigate the buildings included binoculars, a ladder, and a high-power torch. All buildings were described and surveyed for bats and their evidence, which includes droppings, staining, scratch marks and feeding remains.

Bat droppings collected from within Building B2 were sent to Swift Ecology for genotype analysis and species identification using their multi-species testing option.

Table A3.1: Classifying the bat roosting suitability of buildings (Collins, 2016).

Low / negligible roosting suitability	Buildings with few, if any, features suitable for roosting.
Moderate roosting suitability	Features with moderate roosting potential, with roosting features appearing less suitable.
High roosting suitability	With significant roosting potential, either because they contain a large number of suitable features or those features present appear optimal.
Confirmed roost	Evidence of bat occupation found.

8.1.5.2 Foraging and Commuting

The site was assessed for its suitability to support foraging and commuting bats according to **Table A3.2**.

Table A3.2: Classifying the suitability of bat foraging and commuting habitat (Collins, 2016).

Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated or poorly connected to habitat in the surrounding landscape. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that bats may use for commuting such as tree-lines and scrub or linked back gardens. Habitat that connects to the wider landscape that bats may use for foraging such as trees, scrub grassland and water.
High	Continuous, high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, tree-lines and woodland edge. High quality habitat that is well-connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

8.1.5.3 Nocturnal Surveys

Buildings B1 and B2 were subject to three emergence surveys, Building B9 was subject to two emergence surveys, and Buildings B3, B4 and B8 were subject to one emergence survey in line with standard guidance (Collins, 2016; BCT, 2022). The emergence surveys commenced fifteen minutes before sunset and continued for 1.5 hours after sunset. Refer to **Table A3.3** for the survey dates and weather conditions.

Table A3.4 details the number of surveyors and infra-red cameras which were situated at key points around each building to give suitable coverage (see **Appendix 5** for map showing surveyor, IR camera

and illuminator locations during the surveys). The hand-held equipment used included Echo Meter Touch 2 Pro and Elekon BatLoggerM recorders. Infra-red technology used in total throughout the surveys included:

- One Canon XA40 4K UHD camcorder with two Domar waterproof 80cm CCTV camera IR illuminator lamps and Windows Media Player for reviewing the footage.
- One Canon XA11 4K UHD camcorder with two Domar waterproof 80cm CCTV camera IR illuminator lamps and Windows Media Player for reviewing the footage.
- Five NightFox Whisker night vision goggles - 1080p resolution, 30 fps, 1-10x optical zoom, 8x digital zoom with built in Infra-red illuminator. Recorded onto 128 gb san-disk memory cards. Reviewed using VLC media player and edited using Bandi-cam.

Surveyors recorded any bat activity observed within the site, including species, flight direction and behaviour. Bat calls were then analysed using Kaleidoscope and Bat Explorer software.

The nocturnal surveys were led by either Claire Munn (level-2 bat licence and conducting bat surveys since 2008) or Toby Munn (level-1 bat licence and conducting bat surveys since 2011) and other members of the survey team comprised the following suitably trained staff:

- Chelsea Evans (conducting bat surveys since 2021);
- Flora Haynes (level-1 bat licence and conducting bat surveys since 2013);
- Trevor O’Sullivan (conducting bat surveys since 2011);
- Rowan O’Sullivan (conducting bat surveys since 2008);
- Katy Fuller (conducting bat surveys since 2020);
- Katy Clements (conducting bat surveys since 2010); and
- Pam Worrall (conducting bat surveys since 2018).

Table A3.3: Times and weather conditions of the emergence surveys.

Date (2023)	Sunset (24 Hrs)	Survey Duration	Weather Conditions
10 th July (Buildings B2, B8 and B9)	21:10	20:55 – 22:40	20°C, Beaufort 2, 50% Cloud cover, Dry.
12 th July (Buildings B1, B3 and B4)	21:08	20:53 – 22:38	19°C, Beaufort 2-3, 10% Cloud cover, Dry.
31 st July (Buildings B2 and B9)	20:44	20:29 – 22:14	18°C, Beaufort 2, 30% Cloud cover, Dry.
3 rd August (Building B1)	20:40	20:25 – 22:10	20°C - 16°C, Beaufort 0, 30% Cloud cover, Dry.
17 th August (Buildings B1 and B2)	20:14	19:59 – 21:44	19°C, 90% cloud cover, Beaufort 2, Dry

Table A3.4: Number of surveyors and IR cameras per building on each survey (see **Appendix 5** for the location of the surveyors and IR cameras).

Building	Number of surveyors	Number of IR cameras
Building B1	2	2

Building B2	4	4
Building B3	3	2
Building B4	2	2
Building B8	2	2
Building B9	2	2

8.1.6 Hazel Dormouse

The site was assessed for potential to support the hazel dormouse *Muscardinus avellanarius*, in accordance with the *Dormouse Conservation Handbook* (Bright, *et al.*, 2006). Dormice typically use connected woodland, hedgerows and scrub that contain suitable food plants. Aerial images were used to assess the connectivity of any suitable habitat on the site to woodland and hedgerows within the wider area.

8.1.7 Other Species

The site was assessed for suitability to support other protected and notable fauna species / assemblages including birds, invertebrates and mammals.

8.1.8 Invasive Species

The site was searched for invasive plants such as giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica*, and rhododendron *Rhododendron ponticum*.

Appendix 4 Bat Dropping DNA Results

Table A4.1: DNA analysis confirmation that both samples of bat droppings were from brown long-eared bats in Building B2.

SEL-2074-3	EG-2023-0669	Plecotus auritus (Brown long-eared bat) Note: All UK bat species tested for - only a single species detected in this sample.	qPCR	20	
SEL-2074-4	EG-2023-0670	Plecotus auritus (Brown long-eared bat) Note: All UK bat species tested for - only a single species detected in this sample.	qPCR	16	

Appendix 5 Bat Roost Survey Results

Table A5.1: Bat emergence survey results.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
Emergence Survey 1: 10th July 2023 (Buildings B2, B8 & B9)	
21:30	Common pipistrelle. H+S. Foraging briefly east of B8.
21:32	Common pipistrelle. H+S. Emergence from B2, elevation 2. Top left corner under roof flashing (Roost 2).
21:37	Common pipistrelle. H+S. Commuting from south-west towards B2.
21:38	Common pipistrelle. H+S. Occasional foraging pass for 2 minutes. North of B8.
21:39	Non-echolocating bat. SNH. Flying east between B2 and B9 and then south along the side of B2
21:40	Common pipistrelle. HNS. Pass. South-east of B2.
21:40	Common pipistrelle. H+S. Commuting south-west of B2.
21:41	Common pipistrelle. HNS. Foraging for 1 minute. South-east of B2
21:41	Common pipistrelle. H+S. Emergence from west of flat roofed oast section of B2 (Roost 4).
21:43	Bat sp. (likely common pipistrelle). SNH. Emerged from the flat roof, east side of oast section of B2. Flew away north-west Roost 4).
21:43	Common pipistrelle. HNS. Foraging pass. South-east of B2
21:48	Common pipistrelle. H+S. Foraging above flat roof of oast section of B2.
21:48	Common pipistrelle. H+S. Flying east into barn behind surveyor. Foraging for 3 minutes. South-east of B2
21:46	Common Pipistrelle x2. H+S. Foraging along north and east sides of B8.
21:49	Common pipistrelle. H+S. Commuting south- west across site.
21:50	Common pipistrelle. H+S. Second bat enters off-site barn behind surveyor. Foraging for 1 minute. South-east of B2
21:50	Common pipistrelle. HNS. Close pass. South-west of B2.
21:51	Common pipistrelle. HNS. Distant foraging. East of B2.
21:54	Common pipistrelle. HNS. Distant pass. East of B2.
21:56	Common pipistrelle. HNS. Close pass. South-west of B2.
21:57	Common pipistrelle. H+S Foraging in barn in south-east of site before leaving to the west.
21:56	Common pipistrelle. HNS. Brief pass. West of B2.
21:58	Common pipistrelle. HNS. Distant pass. East of B2.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
21:58	Common pipistrelle. HNS. Brief pass. West of B2.
21:58	Common pipistrelle. H+S Flying between barn in south-east of site and south of B2.
21:59	Common pipistrelle. HNS. Close pass. South-west of B2.
22:00	Common pipistrelle. HNS. Brief, distant pass. South-west of B2.
22:01	Common pipistrelle. H+S Foraging in barn in south-east of site before leaving to the west.
22:02	Common pipistrelle. HNS. Distant pass. East of B2.
22:02	Common pipistrelle. H+S. Emergence from east roof of B2 (Roost 4).
22:03	Common pipistrelle. H+S. Emergence from B2 elevation 1. Top right, beneath corrugated roof edge. Very close to red alarm box (Roost 3).
22:04	Common pipistrelle. H+S. Flying from north-east in to barn to south-east of site to forage.
22:05	Common pipistrelle. H+S Foraging in barn in south-east of site before leaving to the west.
22:05	Common pipistrelle. HNS. Pass possibly 2 bats. East of B2.
22:06	Common pipistrelle. HNS. Close pass. South-west of B2.
22:06	Common pipistrelle. H+S Flying from barn in south-east of site before leaving to the west.
22:07	Common pipistrelle. HNS. Pass. East of B2.
22:07	Common pipistrelle. H+S. Commuting between B8 & B9.
22:08	Common pipistrelle. H+S. Foraging east to west at south of site for 4 minutes.
22:09	Common pipistrelle. HNS. Commuting pass. North of B8.
22:09	Common pipistrelle. HNS. Distant pass. East of B2.
22:09	Noctule. HNS. Brief pass north of B8.
22:10	Noctule. HNS. Single distant pass. South-west of B2.
22:11	Common pipistrelle. HNS. Distant pass. East of B2.
22:11	Common pipistrelle. H+S. Commuting north-west at south-west of B2.
22:12	Common pipistrelle. HNS. Commuting pass. North of B8.
22:13	Common pipistrelle. HNS. Distant pass. East of B2.
22:16	Common pipistrelle. H+S. Flying west to east and around barn at south of site for 2 minutes.
22:22	Soprano pipistrelle. HNS. Distant pass. South-east of B2.
22:23	Common pipistrelle. HNS. Distant pass. West of B2.
22:23	Common pipistrelle. HNS. Foraging pass. East of B2.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
22:24	Soprano pipistrelle. HNS. Distant pass. South-west of B2.
22:24	Common pipistrelle. H+S. Commuting south along east of site into barn at south-east and then out of barn flying towards south-west of site.
22:25	Common pipistrelle. HNS. Foraging close to south-west of B2.
22:28	Common pipistrelle. HNS. Distant pass. West of B2.
22:29	Common pipistrelle. HNS. Foraging pass. East of B2.
22:29	Common pipistrelle. HNS. Close commuting pass. North of B8.
22:31	Common pipistrelle. HNS. Foraging close to south-east of B2.
22:31	Common pipistrelle. HNS. Foraging close to south-west of B2.
22:32	Common pipistrelle. HNS. Distant pass. West of B2.
22:32	Common pipistrelle. HNS. Distant pass, south-east of B2.
22:33	Common pipistrelle. HNS. Commuting pass. North of B8.
22:33	Common pipistrelle. HNS. Commuting close to south-west of B2.
22:35	Common pipistrelle. HNS. Distant pass. West of B2.
22:35	Common pipistrelle. HNS. Brief, distant pass. South-west of B2.
22:36	Common pipistrelle. HNS. Distant pass. East of B2.
22:36	Common pipistrelle. HNS. Commuting pass. North of B8.
22:36	Common pipistrelle. HNS. Distant pass, south-east of B2.
Emergence Survey 2: 12th July 2023 (Building B1, B3 & B4.)	
21:52	Common pipistrelle. H+S. Commuting from north-east over B1.
22:00	Common pipistrelle. H+S. Several circular flights over B4 and B5.
22:05	Common pipistrelle. H+S. Foraging near B1 for 2 minutes.
22:09	Common pipistrelle. HNS. Foraging. South of B1.
22:10	Common pipistrelle. H+S. Commuting west to east along track.
22:12	Common pipistrelle. H+S. Foraging along track and trees beyond.
22:14	Soprano pipistrelle. HNS. Commuting pass. North of B3.
22:14	Soprano pipistrelle. H+S. Foraging east to west along track.
22:15	Common pipistrelle. H+S. Commuting from north-east over B1.
22:15	Common pipistrelle. HNS. Brief pass. South of B1.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
22:17	Common pipistrelle. H+S. Foraging along track and trees beyond.
22:21	Soprano pipistrelle. HNS. Foraging between B4 and B5.
22:21	Soprano pipistrelle. HNS. Brief pass. South of B1.
22:29	Soprano pipistrelle. HNS. Brief foraging pass. North of B1.
22:30	Common pipistrelle. H+S. Foraging east to west along track.
22:31	Common pipistrelle. HNS. Brief pass. North of B1.
22:31	Common pipistrelle. HNS. Brief pass. South of B1.
22:33	Common pipistrelle. HNS. Foraging. North of B1.
22:35	Common pipistrelle. HNS. Foraging. North of B1.
22:35	Noctule. HNS. Brief pass. South of B1.
22:36	Serotine. HNS. Brief commuting pass. North of B1.
22:37	Soprano pipistrelle. HNS. Brief pass. North of B1.
Emergence Survey 3: 31st July 2023 (Buildings B2 & B9)	
21:13	Common pipistrelle. HNS. Brief call. South-west of B2.
21:15	Common pipistrelle. H+S. Flying south between B8 and B9.
21:17	Common pipistrelle. H+S. Flying south between B8 and B9.
21:19	Common pipistrelle. H+S. Occasional, regular foraging passes for 42 minutes. North of B9.
21:21	Common pipistrelle. HNS. Brief distant call. East of B2.
21:21	Common pipistrelle. Emergence from west of flat roof oast section of B2 (Roost 4).
21:24	Common pipistrelle. HNS. Brief distant call. East of B2.
21:25	Common pipistrelle. HNS. Brief distant call. East of B2.
21:27	Common pipistrelle. HNS. Brief distant call. East of B2.
21:28	Common pipistrelle. H+S. Commuting west to east across south of site.
21:29	Common pipistrelle. HNS. Foraging close to south-east of B2.
21:29	Common pipistrelle. H+S. Flying around south-east corner of B9.
21:29	Common pipistrelle. HNS. Single commuting pass very close to south-west of B2.
21:30	Soprano pipistrelle. H+S. Foraging passes for 15 minutes. North of B9.
21:30	Common pipistrelle. H+S. Flying from south-east corner of B9 to B2.
21:31	Common pipistrelle. H+S. Commuting east across south elevation of B2.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
21:31	Common pipistrelle. H+S. Flying from south-east corner of B9 to B2.
21:31	Common pipistrelle. H+S. Foraging to south-east of B2.
21:32	Common pipistrelle. H+S. Flying from south, over B2.
21:33	Soprano pipistrelle. HNS. Single close pass. South of B9.
21:33	Common pipistrelle. HNS. Brief pass, close to south-west of B2.
21:33	Common pipistrelle. HNS. Brief pass. West of B2.
21:33	Common pipistrelle. Emergence from east of flat roof oast section of B2 (Roost 4).
21:34	Common pipistrelle. HNS. Brief pass, close to south-west of B2.
21:34	Common pipistrelle. HNS. Foraging close to south of B9.
21:34	Common pipistrelle. HNS. Brief call. East of B2.
21:35	Common pipistrelle. HNS. Brief pass. West of B2.
21:35	Common pipistrelle. H+S. Foraging close to corner of B2. East of B2.
21:36	Common pipistrelle. H+S. Foraging flying east across south elevation of B2.
21:37	Common pipistrelle. H+S. Near top west corner of flat roof west side of B2
21:37	Common pipistrelle. HNS. Brief pass. Close to south of B9.
21:37	Common pipistrelle. H+S Foraging. East of B2.
21:37	Common pipistrelle. H+S. Foraging briefly. South-east of B2.
21:38	Common pipistrelle. HNS. Foraging close to south of B9.
21:40	Common pipistrelle x3. H+S. Foraging. East of B2.
21:40	Common pipistrelle. H+S. Foraging flying east across south elevation of B2.
21:40	Common pipistrelle. H+S. Foraging very close to south elevation of B9.
21:41	Common pipistrelle. H+S. Foraging around south-east corner of B9.
21:41	Common pipistrelle. HNS. Distant foraging. South-west of B2.
21:42	Common pipistrelle. HNS. Foraging close to south of B9.
21:42	Common pipistrelle. HNS. Commuting pass very close to south-west of B2.
21:42	Common pipistrelle. HNS. Brief pass. West of B2.
21:43	Common pipistrelle. HNS. Brief pass east of B2.
21:43	Common pipistrelle. HNS. Regular foraging passes for 3 minutes. Very close to south-west of B2.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
21:44	Common pipistrelle. HNS. Foraging close to south of B9.
21:44	Common pipistrelle. H+S. Flying south between double pitches of roof of B2.
21:44	Common pipistrelle. HNS. Brief pass. West of B2.
21:46	Common pipistrelle. HNS. Foraging close to south of B9.
21:46	Common pipistrelle. HNS. Foraging pass. Very close to south-west of B2.
21:47	Common pipistrelle x2/3. Foraging over and around B2, for 6 minutes.
21:47	Common pipistrelle. HNS. Regular foraging passes for 3 minutes. Very close to south-west of B2.
21:50	Common pipistrelle x3. H+S. Foraging. South-east of B2.
21:50	Common pipistrelle x2. H+S. Commuting south between double pitches of roof of B2.
21:52	Common pipistrelle. HNS. Occasional foraging passes for 3 minutes. Very close to south-west of B2.
21:52	Common pipistrelle. H+S. Foraging briefly. South-east of B2.
21:53	Common pipistrelle. HNS. Brief pass. West of B2.
21:53	Common pipistrelle x2. H+S. Foraging for 2 minutes. South-east of B2.
21:54	Common pipistrelle. HNS. Foraging close to south of B9.
21:55	Common pipistrelle. H+S. Foraging for 5 minutes. South-east of B2.
21:55	Common pipistrelle. HNS. Likely 2 bats foraging close to south-west of B2.
21:56	Common pipistrelle. HNS. Brief pass. West of B2.
22:04	Common pipistrelle. H+S. Foraging pass west to east and then east to west. South of B2.
22:06	Common pipistrelle. HNS. Brief pass. West of B2.

Emergence Survey 4: 3rd August 2023 (Building B1)

Time	Notes (HNS = heard but not seen) (H+S = heard and seen)
21:09	Noctule. HNS. Distant commuting pass. North of B1.
21:09	Noctule. HNS. Distant commuting pass. South of B1.
21:11	Noctule. HNS. Distant commuting pass. North of B1.
21:14	Common pipistrelle. H+S. Regular foraging passes. South of B1.
21:17	Soprano pipistrelle. H+S. Commuting west to east. North of B1.
21:17	One common pipistrelle emerged from under a roof tile at the bottom of the eastern end of the southern elevation of the roof (Roost 1).

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
21:19	Soprano pipistrelle. H+S. Occasional foraging passes. South of B1.
21:19	Common pipistrelle. H+S. Commuting south-west to east. North of B1.
21:20	Soprano pipistrelle. H+S. Commuting west to east, along track. North of B1.
21:22	Noctule. HNS. Distant commuting pass. North of B1.
21:22	Common pipistrelle. H+S. Foraging west of B1.
21:25	Soprano pipistrelle. HNS. Brief pass. North of B1.
21:26	Noctule. HNS. Distant commuting pass. North of B1.
21:26	Soprano pipistrelle. H+S. Foraging between B1 and B10.
21:29	Common pipistrelle. H+S. Foraging up and down south-west elevation of B1 for 6 minutes.
21:34	Common pipistrelle x2. H+S Foraging north of B1.
21:38	Soprano pipistrelle. HNS. Foraging near north of B1.
21:41	Soprano pipistrelle. H+S. Foraging west of of B1.
21:42	Common pipistrelle. H+S. Commuting east to west along track.
21:43	Common pipistrelle. H+S. Foraging. West of B1.
21:44	Common pipistrelle. H+S. Foraging. West of B1.
21:47	Common pipistrelle. H+S. Foraging. West of B1.
21:53	Common pipistrelle. H+S. Foraging. West of B1.
21:55	Soprano pipistrelle. HNS. Distant commuting pass. North of B1.
Emergence Survey 5: 17th August 2023 (Buildings B1 and B2)	
Time	Notes (HNS = heard but not seen) (H+S = heard and seen)
20:31	Common pipistrelle very brief and distant. HNS.
20:31 – 20:35	Common pipistrelle flew into the building east of Building B3 (outside of the red-line boundary).
20:36	Common pipistrelle. H+S. Emergence from B2, elevation 2. Top left corner under roof flashing (Roost 2).
20:46	Common pipistrelle commuting over Building B2 travelling in a northerly direction from surveyor 5.
20:48	Common pipistrelle foraging along the southern elevation of Building B2.
20:49	Common pipistrelle foraging along the southern elevation of Building B2. HNS.

Time	Notes (HNS = heard but not seen) (H+S = heard and seen) (SNH = seen but not heard)
21:49 – 21:07	Common pipistrelle foraging above the other neutral grassland located to the west of Building B1.
20:52	Common pipistrelle commuting in a northerly direction over Building B1 and then started foraging along the north-eastern elevation of Building B1.
20:53	Common pipistrelle commuting over the oast in a south-easterly direction.
20:56	Common pipistrelle foraging near the southern elevation of Building B2. HNS.
20:56	Common pipistrelle foraging around the northern corner of Building B1.
20:58	Common pipistrelle foraging between surveyor 2 and surveyor 1 then commuting towards surveyor 6.
21:02	Common pipistrelle commuting. HNS.
21:08	Soprano pipistrelle foraging. HNS.
21:10	Common pipistrelle commuting. HNS.
21:18	Soprano pipistrelle commuting near Building B1.
21:20	Soprano pipistrelle commuting. HNS.
21:21	Common pipistrelle very brief and distant. HNS.
21:24 – 21:25	Soprano pipistrelle foraging. HNS.
21:28	Soprano pipistrelle commuting. HNS.
21:34	Common pipistrelle very brief and distant. HNS.
21:35 – 21:38	Brown long-eared bat. HNS.
21:39	Common pipistrelle very brief and distant. HNS.
21:43	Brown long-eared bat. HNS.

Figure A5.1: Location of bat emergences.

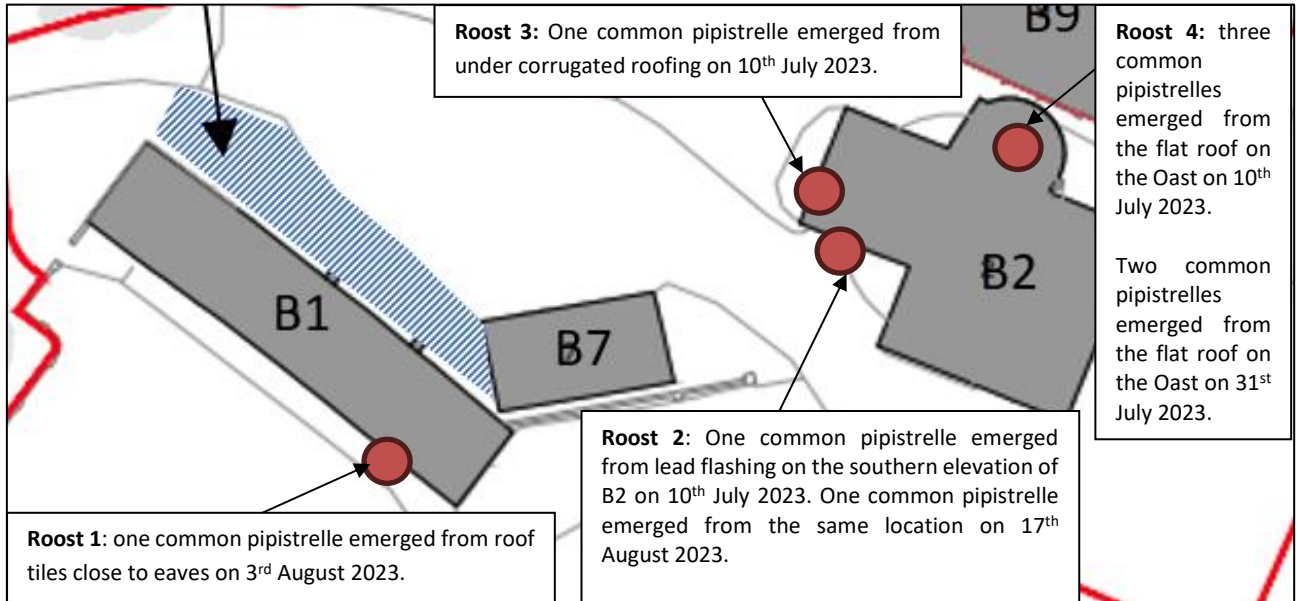


Photo A5.1: Location of emergence point under bottom row of tiles or from eaves on 03.08.2023 for Roost 1, common pipistrelle day roost (view from IR Canon camera).



Photo A5.2: Location of emergence point from under lead flashing on 10.07.2023 and 17.08.2023 for Roost 2, common pipistrelle day roost (Building B2, view from IR Whisker camera). Note the date stamp is incorrect and should say 17th July 2023.



Photo A5.3: Location of emergence point from beneath corrugated metal roof edge on 10.07.2023 for Roost 3, common pipistrelle day roost (Building B2, view from IR Whisker camera). Note the date stamp is incorrect and should say 17th July 2023.



Photo A5.4: Location of emergence point from under felt on 10.07.2023 and 31.07.2023 for Roost 4, common pipistrelle day roost (Building B2, view from IR Whisker camera).



Figure A5.2: Surveyor and IR camera locations whilst surveying Buildings B2, B8 and B9 on 10th July 2023.

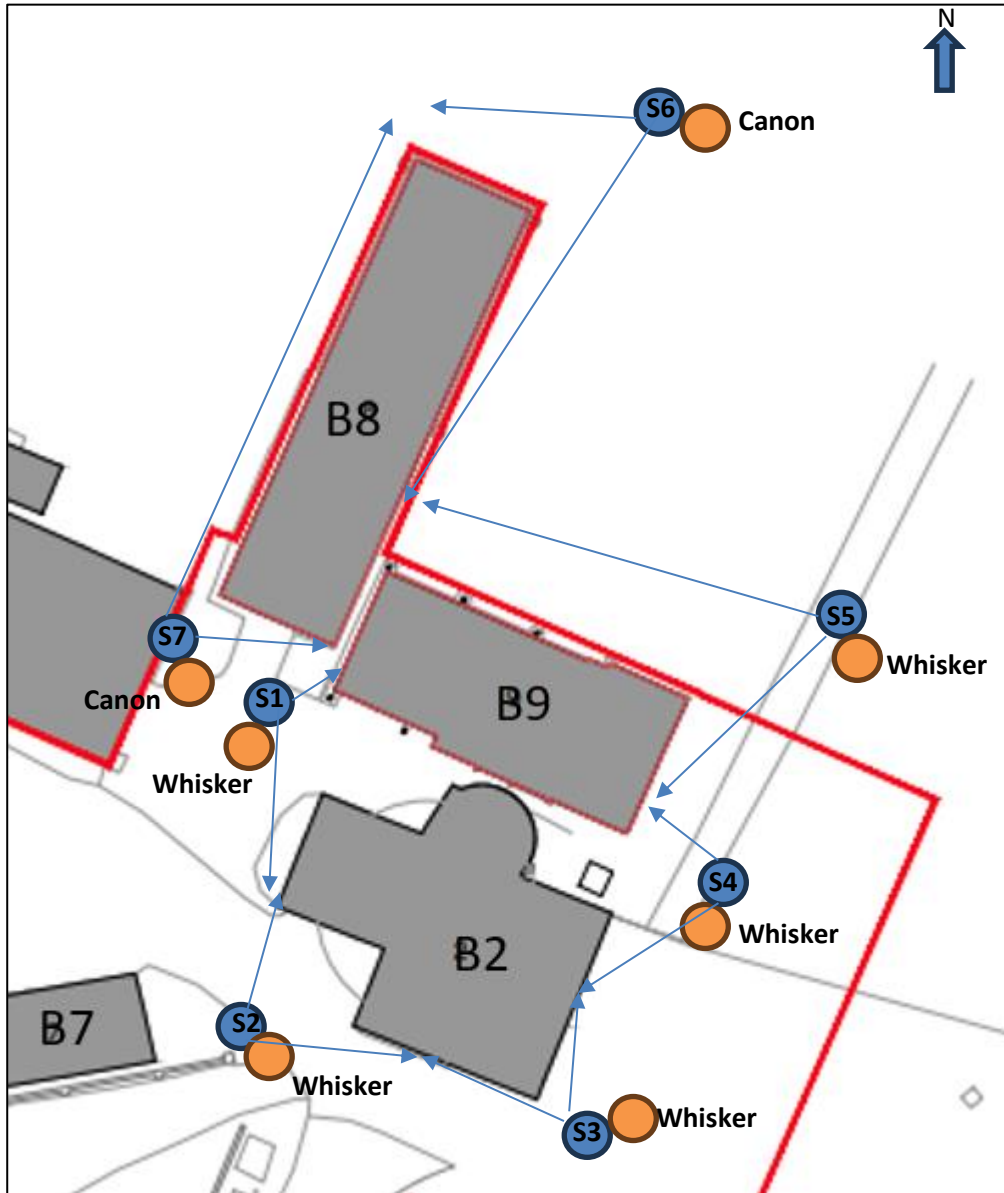


Figure A5.3: Surveyor and IR camera locations whilst surveying Buildings B1, B3 and B4 on 12th July 2023.

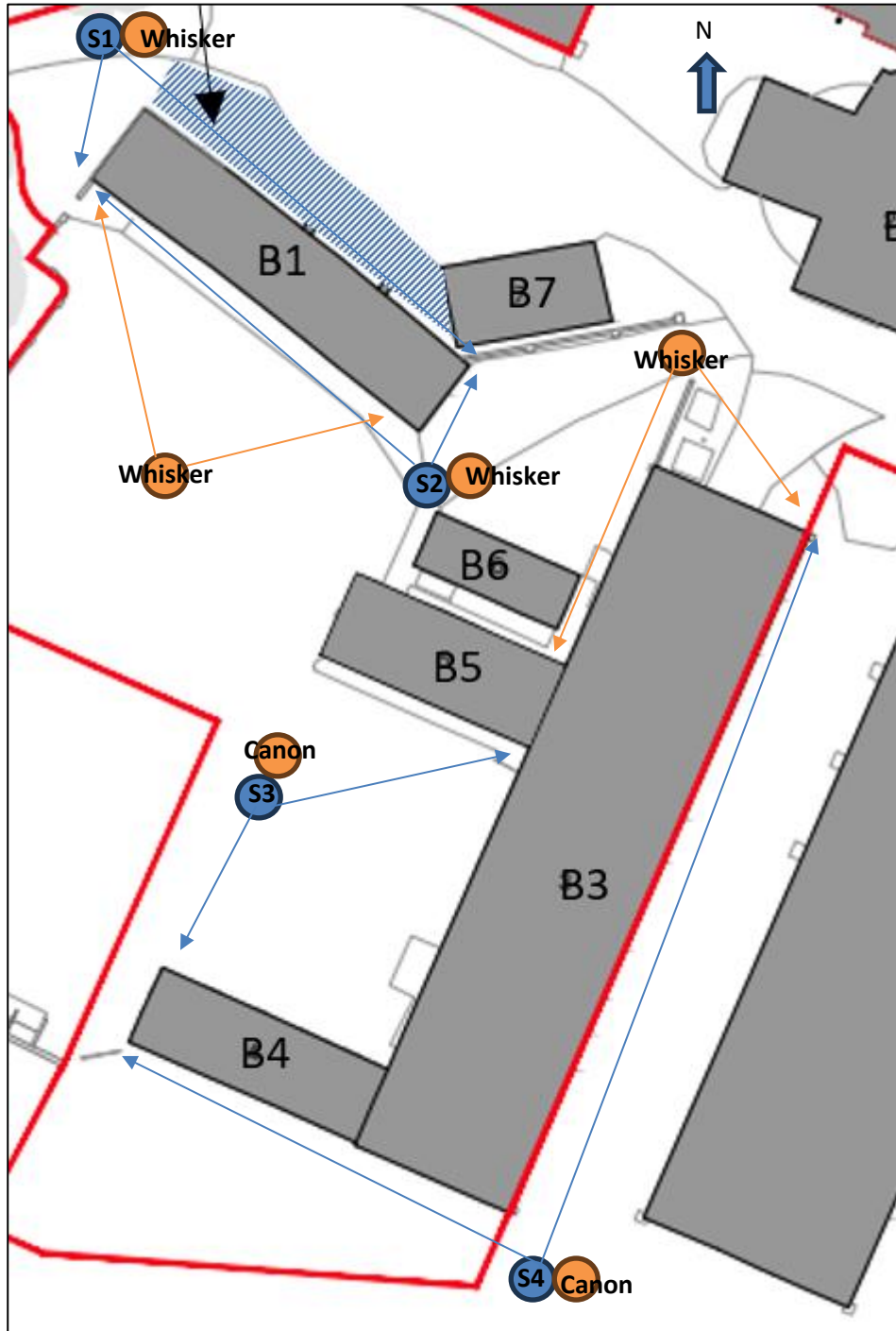
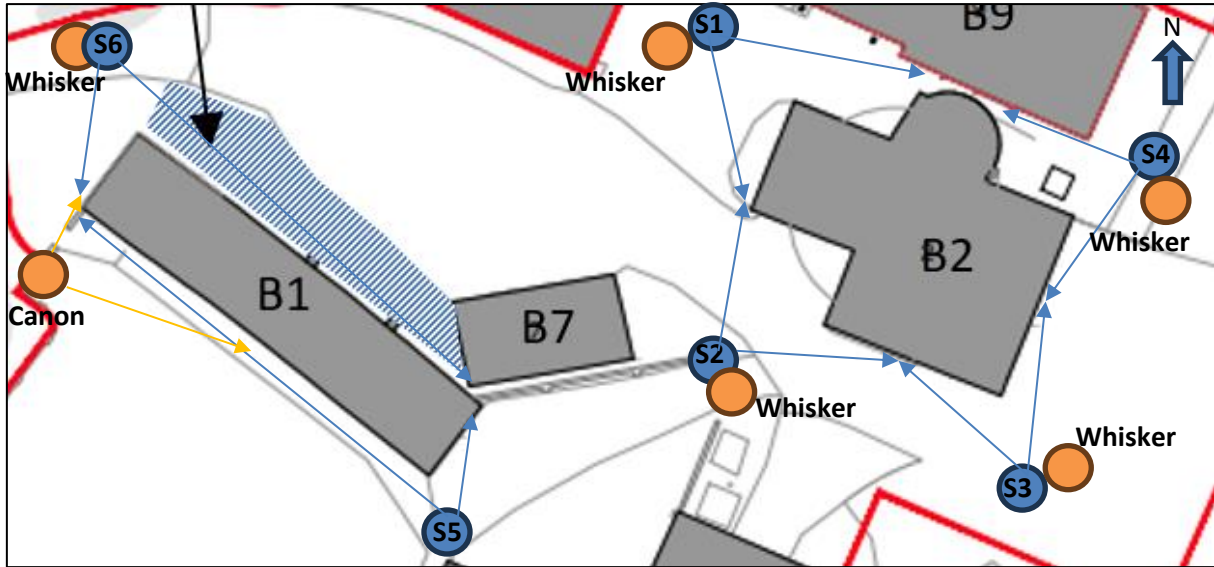


Figure A5.6: Surveyor and IR camera locations whilst surveying Buildings B1 and B2 on 17th August 2023.



Appendix 6 Evaluating Bats in the Wider Ecological Context

The evaluation of the bat population using the site is based on *Valuing Bats in Ecological Impact Assessment* (Wray *et. al.*, 2010). The text in **bold** indicates the process of evaluation for roosting, commuting and foraging bats on site.

Where bats (species and number) use certain habitats (to roost, commute or forage), their population is assigned a relative ecological value. The value to the species is partly based on habitat usage and the rarity of the bat species. For commuting routes or foraging areas, the number of roosts nearby is also a factor. Once the value of the bat population is calculated, mitigation for impacts on the bats can be determined.

British bat species have been subdivided into groups, dependant on their abundance within England; common, rarer and rarest.

Table A6.1: Categorising bats by abundance in England.

Rarity	Bat Species
Rarest	Greater horseshoe bat Bechstein's bat Alcathoe's bat Greater mouse-eared bat Barbastelle Grey long-eared bat
Rarer	Lesser horseshoe bat Whiskered bat Brandt's bat Daubenton's bat Natterer's bat Leisler's bat Noctule Nathusius' pipistrelle Serotine
Common	Common pipistrelle Soprano pipistrelle Brown long-eared bat

Table A6.2: Evaluating bat roosts.

Geographic Frame of Reference	Roost Types
International	SAC sites.
National/UK	Maternity sites (rarest species). Sites meeting SSSI guidelines.
Regional	Mating sites (rarer/rarest species) including well-used swarming sites. Maternity sites (rarer species). Hibernation sites (rarest species). Significant hibernation sites for rarer/rarest species or all species assemblages.
County	Maternity sites (common species). Small numbers of hibernating bats (common and rarer species). Feeding perches (rarer/rarest species). Individual bats (rarer/rarest species). Small numbers of non-breeding bats (rarer/rarest species).
District, Local or Parish	Feeding perches (common species). Individual bats (common species). Small numbers of non-breeding bats (common species). Mating sites (common species).

To calculate the score for either commuting routes or foraging areas the numerical values from each column below are added together (**Tables A6.3 and A6.4** below).

Table A6.3: Evaluating commuting routes.

Species	Number of Bats	Roosts / Potential Roosts Nearby	Type & Complexity of Linear Features
Common (2)	Individual bats (5)	None (1)	Absence of (other) linear features (1)
-	-	Small number (3)	Unvegetated fences and large field sizes (2)
Rarer (5)	Small number of bats (10)	Moderate number/Not known (4)	Walls, gappy or flailed hedgerows, isolated well grown hedgerows, and moderate field sizes (3)
-	-	Large number of roosts or close to a SSSI (5)	Well grown and well connected hedgerows, small field sizes (4)
Rarest (20)	Large number of bats (20)	Close to or within a SAC for the species (20)	Complex network of mature well-established hedgerows, small fields and rivers/streams (5)

Table A6.4: Evaluating foraging areas.

Species	Number of Bats	Roosts / Potential Roosts Nearby	Foraging Habitat Characteristics
Common (2)	Individual bats (5)	None (1)	Industrial or other site without established vegetation (1)
-	-	Small number (3)	Suburban areas or intensive arable land (2)
Rarer (5)	Small number of bats (10)	Moderate number/Not known (4)	Isolated woodland patches less intensive arable and/or small towns and villages (3)
-	-	Large number of roosts or close to a SSSI (5)	Larger or connected woodland blocks, mixed agriculture and small villages/hamlets (4)
Rarest (20)	Large number of bats (20)	Close to or within a SAC for the species (20)	Mosaic of pasture, woodlands and wetland areas (5)

Finally, the evaluation of bat commuting routes and foraging areas on the site is based on the following scoring system.

Table A6.5: Scoring system for valuing commuting and foraging bats.

Geographic Frame of Reference	Score
International	>50
National	41-50
Regional	31-40
County	21-30
District, Local or Parish	11-20
Not Important	1-10

Appendix 7 Bat Mitigation Plan

See next pages for the proposed bat mitigation shown on edited excerpts of Taylor Hare Architects drawings (shoot school drawing no: 2203_3210 and Oast drawing no: 2203_3220).

Figure A7.1: Proposed location for the crevice space tile (CST) on the western elevation on **Building B1** to replace **Roost 1** (common pipistrelle day roost used by one individual).

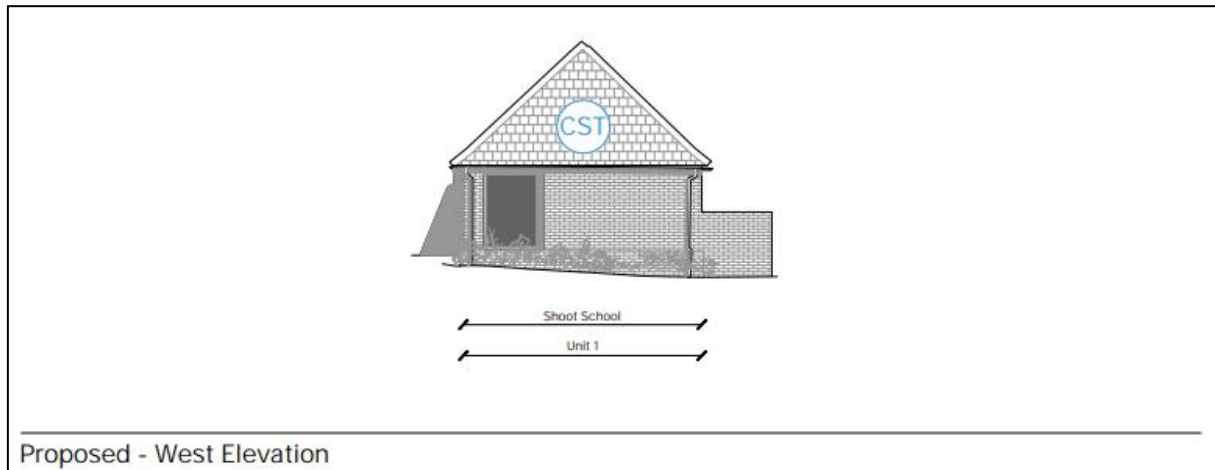


Figure A7.2: Proposed location for the crevice space tile (CST) on the southern elevation on **Building B2** to replace **Roost 2** (common pipistrelle day roost used by one individual).



Figure A7.3: Proposed location for the crevice space tile (CST) on the western elevation on **Building B2** to replace **Roost 3** (common pipistrelle day roost used by one individual) and integrated bat tube (IBT) to replace **Roost 4** (common pipistrelle day roost used by three individuals).



Figure A7.5: Proposed location (blue rectangle) for the loft within the eastern end of **Building B2** to replace **Roost 5** (likely day/night roost used occasionally by brown long-eared bats). Blue circles with 'CST' show the proposed access tiles on the eastern elevation; two additional access tiles are to be in mirrored locations on the western elevation of the same roof.

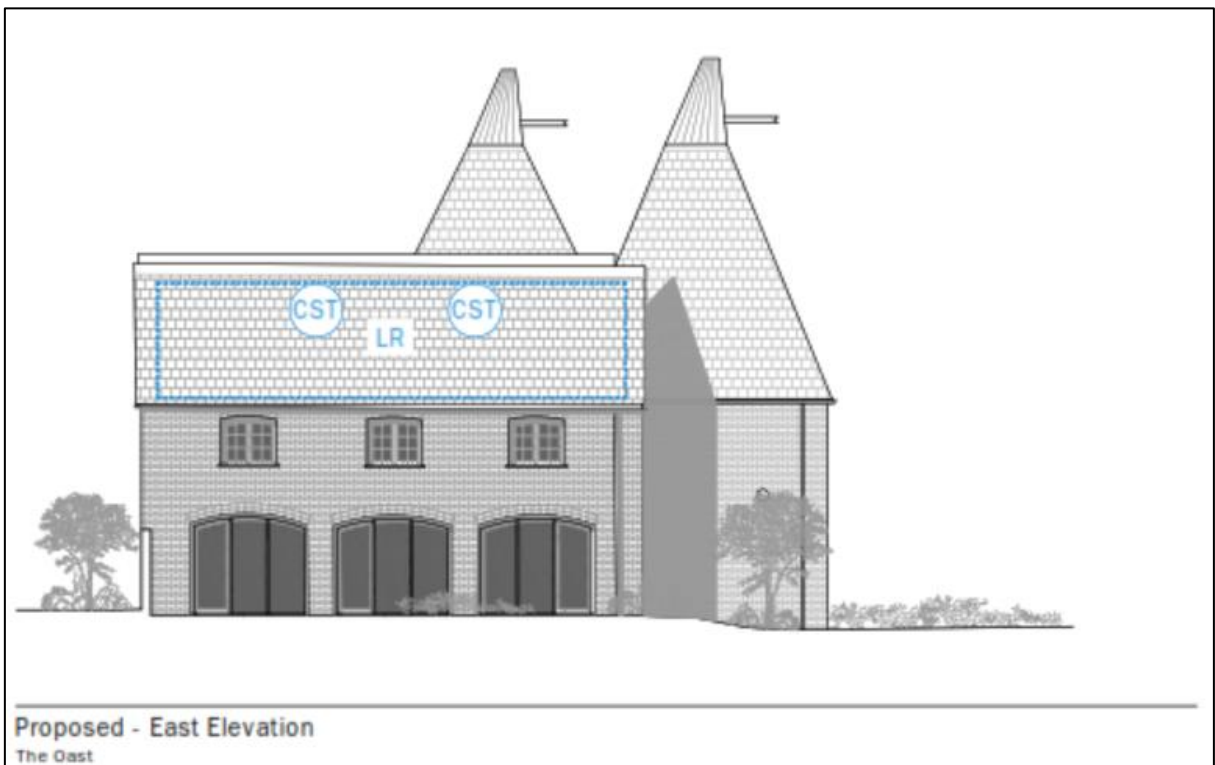
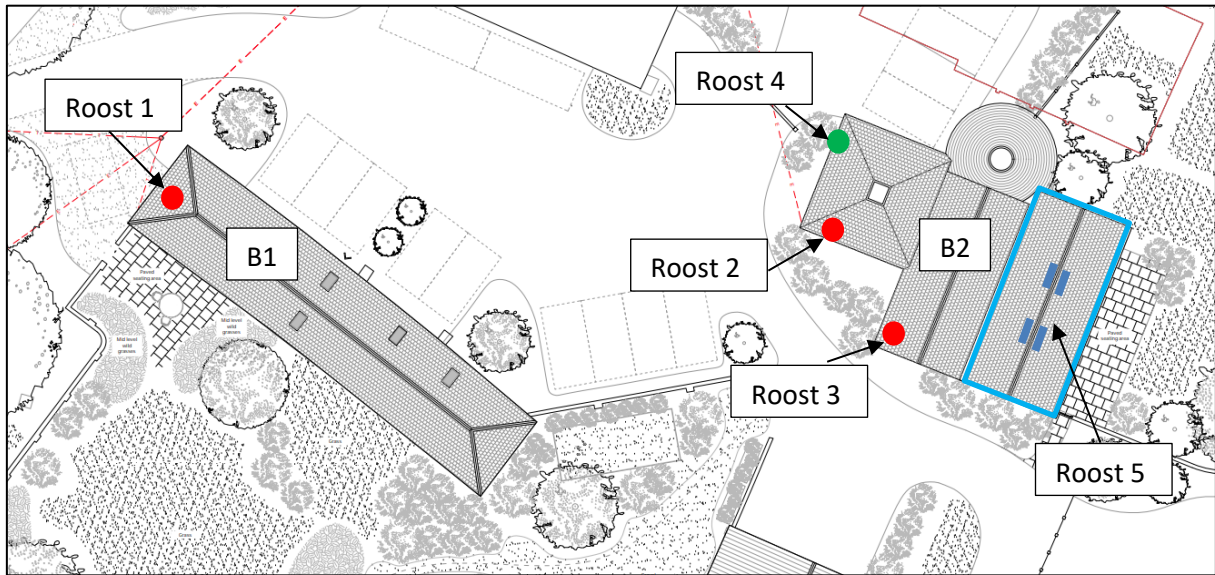


Figure A7.6: Proposed replacement roost locations shown on the roof plan drawing, with red circles showing common pipistrelle crevice space tiles (Roost 1, 2 and 3), the green circle showing the common pipistrelle bat tube (Roost 4) and blue rectangle showing the brown long-eared bat loft (Roost 5) with blue lines showing access tiles to the bat loft.



Appendix 8 Bird Mitigation

Figure A8.1: Proposed little owl nest box design (Barn Owl Trust, 2023), to be installed with long perch at entrance.

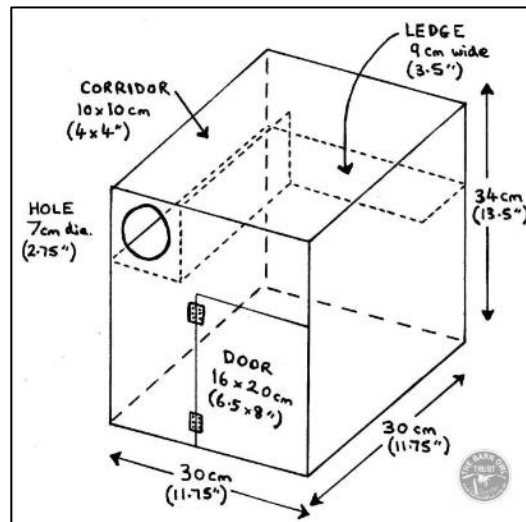


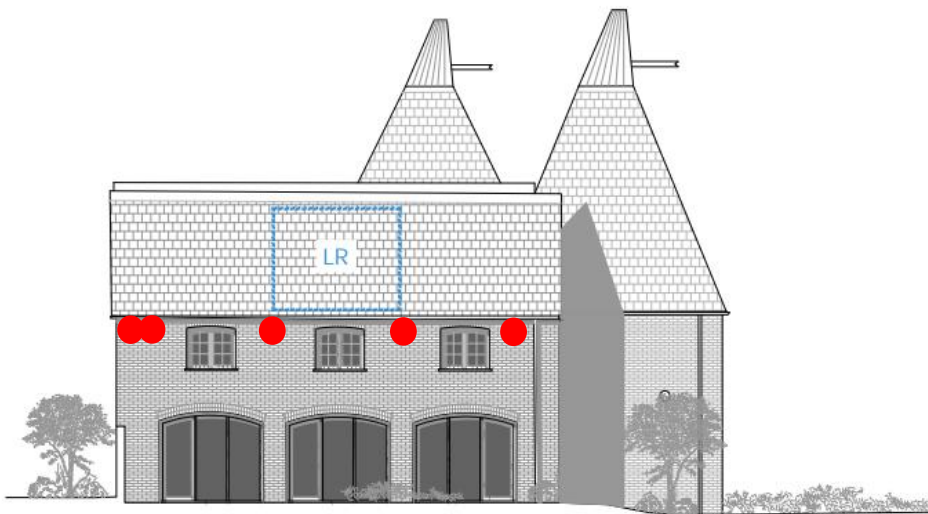
Photo 8.1: Proposed location of little owl box and perch (red oval) on southern gable end of Building B3, once existing ventilation has been filled in as part of conversion works.



Figure A8.2: Examples of suitable Woodstone, long-lasting house martin nest cups (CJ Wildlife, 2023)



Figure A8.3: Proposed locations for 7 no. house martin nest cups (red circles)



Proposed - East Elevation
The Oast



Proposed - South Elevation
The Oast

Appendix 9 Wildlife Friendly Planting

Table A9.1: Native and wildlife-friendly shrubs (Natural England, 2008).

Common Name	Scientific Name
Hazel	<i>Corylus avellana</i>
Elder	<i>Sambucus nigra</i>
Goat willow	<i>Salix caprea</i>
Hawthorn	<i>Crataegus monogyna</i>
Dog rose	<i>Rosa canina</i>
Guelder rose	<i>Viburnum opulus</i>
Gorse	<i>Ulex europaeus</i>
Broom	<i>Cytisus scoparius</i>
Wayfaring tree	<i>Viburnum lantana</i>
Shrubby cinquefoil	<i>Potentilla fruticosa</i>
Raspberry	<i>Rubus idaeus</i>
Alder buckthorn	<i>Frangula alnus</i>
Wild privet	<i>Ligustrum vulgare</i>
Barberry	<i>Berberis × stenophylla</i>
Barberry	<i>Berberis vulgaris</i>
Bell heather	<i>Erica cinerea</i>
Bilberry	<i>Vaccinium myrtillus</i>
Black currant	<i>Ribes nigrum</i>
Blackthorn	<i>Prunus spinosa</i>
Buckthorn	<i>Rhamnus catharticus</i>
Butcher's-broom	<i>Ruscus aculeatus</i>
Cowberry	<i>Vaccinium vitis-idaea</i>
Cross-leaved heath	<i>Erica tetralix</i>
New Zealand holly	<i>Olearia macrodonta</i>
Daphne	<i>Daphne odora</i>
Dogwood	<i>Cornus sanguinea</i>
Field rose	<i>Rosa arvensis</i>
Firethorn	<i>Pyracanthus angustifolia</i>
Flowering Currant	<i>Ribes sanguineum</i>
Gooseberry	<i>Ribes uva-crispa</i>
Hebe 'Midsummer Beauty'	<i>Hebe</i> sp.
Himalayan honeysuckle	<i>Leycesteria formosa</i>
Holly	<i>Ilex aquifolium</i>
Japanese quince	<i>Chaenomeles japonica</i>
Lilac	<i>Syringa vulgaris</i>
Mexican orange	<i>Choisya ternata</i>
Mezereon	<i>Daphne mezereum</i>
Midland hawthorn	<i>Crataegus laevigata</i>
Oregon grape	<i>Mahonia aquifolium</i>
Osier	<i>Salix viminalis</i>
Portugal laurel	<i>Prunus lusitanica</i>
Privet	<i>Ligustrum ovalifolium</i>
Purple willow	<i>Salix purpurea</i>

Common Name	Scientific Name
Snowy mespilus	<i>Amelanchier canadensis, Amelanchier lamarckii</i>
Spindle	<i>Euonymus europaeus</i>
Spurge laurel	<i>Daphne laureola</i>
Sweet briar	<i>Rosa rubiginosa</i>
Wild privet	<i>Ligustrum vulgare</i>

Table A9.2: Native and wildlife-friendly trees (Natural England, 2008).

Common Name	Scientific Name
Pedunculate oak	<i>Quercus robur</i>
Ash	<i>Fraxinus excelsior</i>
Wych elm	<i>Ulmus glabra</i>
Whitebeam	<i>Sorbus aria agg.</i>
Rowan	<i>Sorbus aucuparia</i>
Aspen	<i>Populus tremula</i>
Apple	<i>Malus domestica</i>
Bird cherry	<i>Prunus padus</i>
Common alder	<i>Alnus glutinosa</i>
Crab apple	<i>Malus sylvestris</i>
Crack willow	<i>Salix fragilis</i>
Downy birch	<i>Betula pubescens</i>
Field maple	<i>Acer campestre</i>
Hornbeam	<i>Carpinus betulus</i>
Juniper	<i>Juniperus communis</i>
Large-leaved lime	<i>Tilia platyphyllos</i>
Small-leaved lime	<i>Tilia cordata</i>
Pear	<i>Pyrus communis</i>
Scots pine	<i>Pinus sylvestris</i>
Sessile oak	<i>Quercus petraea</i>
Silver birch	<i>Betula pendula</i>
Sweet chestnut	<i>Castanea sativa</i>
Wild cherry	<i>Prunus avium</i>
Wild service-tree	<i>Sorbus torminalis</i>
Yew	<i>Taxus baccata</i>

Table A9.3: Moth pollinator species (Butterfly Conservation, 2019).

Common Name	Scientific Name
Honeysuckle	<i>Lonicera periclymenum</i>
Jasmine	<i>Jasminum officinale</i>
Evening primrose	<i>Oenothera biennis</i>
Sweet rocket	<i>Hesperis matronalis</i>
Night-scented stock	<i>Matthiola bicornis</i>
Aubretia	<i>Aubretia sp.</i>
Cuckooflower	<i>Cardamine pratensis</i>
Forget-me-not	<i>Myosotis sp.</i>
Honesty	<i>Lunaria annua</i>

Pansy	<i>Viola sp.</i>
Primrose	<i>Primula veris</i>
Wallflower	<i>Erysimum sp.</i>
French marigold	<i>Tagetes sp.</i>
Ice plant	<i>Sedum sp.</i>
Knapweed	<i>Centaurea sp.</i>
Lavender	<i>Lavendula sp.</i>
Marjoram	<i>Origanum vulgare</i>
Michaelmas daisy	<i>Aster amellus</i>
Mint	<i>Mentha sp.</i>
Scabious	<i>Scabiosa sp.</i>
Thyme	<i>Thymus sp.</i>