

Cedar End, Eastergate Lane, Fontwell, West Sussex

Ecological Appraisal

A Report for Blacklane Developments Ltd

May 2022



**Greenspace
Ecological
Solutions**

Cedar End, Eastergate Lane, Fontwell, West Sussex

Ecological Assessment

Client:	Blacklane Developments Ltd.	
Project Ref:	Cedar End, Eastergate Lane	
Report Ref:	J21143_P2	
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1 PROJECT OVERVIEW

Client: Blacklane Developments Ltd.

Site Address: Cedar End, Eastergate Lane, Fontwell, West Sussex, PO20 3SJ

Attending Ecologists: Chris Bawler BSc (Hons) GradCIEEM, Ecologist (Natural England Level 1 Class GCN licence) (PEA & Bat Emergence survey)
Lauren Hook BSc (Hons) MSc, Graduate Ecologist (Bat Emergence survey)

Survey Date: 12th January 2022 (PEA)
16th May 2022 (Bat Emergence survey)

Site Proposals: Erection of a detached residential property within the boundary of the Site. Demolition of two outbuildings and relocation of two outbuildings.

Associated Planning Reference Number: Unknown

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Desk Study:	Multi-Agency Geographic Information for the Countryside (Magic.gov.uk)
Site Plan:	Symmetry Architecture Ltd. (1671_SYM_00_ZZ_DR_A_0203_Proposed Site Plan)

2 NON-TECHNICAL SUMMARY

- 2.1 In order to support a planning application, Cedar End, Fontwell has been subject to an Ecological Assessment, comprising a Preliminary Ecological Appraisal (PEA) and bat emergence survey, both conducted in 2022.
- 2.2 The Site's potential to support protected species and habitats was assessed during the PEA and, where required, Phase 2 species-specific surveys have been undertaken in relation to roosting bats.
- 2.3 Development of the Site will not result in detrimental impacts to any statutory or non-statutory designated sites, and the proposed development does not meet the criteria for consultation with Natural England for any of the Impact Risk Zones (IRZs) in which it falls.
- 2.4 No ancient woodland and no habitats of principal importance (HPI) under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006) will be negatively impacted by current proposals.
- 2.5 Buildings B1, B3 and B4 were assessed as having '**Negligible**' suitability for roosting bats and therefore do not require any further survey or mitigation.
- 2.6 Building B2 was identified as having '**Low**' suitability for roosting bats and Reasonable Effort to determine the presence of bats within this building was therefore applied in the form of a single dusk emergence survey, in accordance with the Bat Conservation Trust's good practice survey guidelines (Collins *et al.*, 2016). Subsequently, no bats were identified roosting within this building.
- 2.7 Supervised vegetation clearance under an Ecological Clerk of Works (ECow) will be required to facilitate the proposed development.
- 2.8 Any development proposals should seek to retain the species-poor hedgerows and scattered trees where possible.
- 2.9 Should at any point during the development a protected or notable species be identified within the Site, then all works should **stop**, and the appointed ecologist consulted on the appropriate manner in which to proceed.
- 2.10 In accordance with the requirement of the National Planning Policy Framework (NPPF) 2021 appropriate recommendations to improve the Site's suitability for wildlife have been provided.

3 INTRODUCTION

3.1 Context

- 3.1.1 Greenspace Ecological Solutions (GES) was appointed in December 2021 by Blacklane Developments Ltd to provide ecological support for a site at Eastergate Lane, West Sussex (hereafter referred to as the 'Site'). An Ecological Assessment, comprising a Preliminary Ecological Appraisal (PEA) and a bat dusk emergence survey was undertaken of the land within the redline boundary (shown in Figure 1) in support of a planning application for the erection of a proposed detached residential dwelling, as shown on the proposed site plan (Drawing 1671_SYM_00_ZZ_DR_A_0203_Proposed Site Plan – Symmetry Architecture Ltd.). Proposals also include the demolition of two outbuildings and the relocation of another outbuilding.
- 3.1.2 This report presents the findings of the Extended Phase 1 Habitat Survey, desk study and bat dusk emergence survey. It also includes recommendations for avoidance and mitigation of ecological impacts, as well as opportunities to provide biodiversity enhancements in line with the National Planning Policy Framework 2021.

3.2 Site Location

- 3.2.1 The Site is situated to the south of Fontwell, West Sussex at Ordnance Survey (OS) Grid Reference: SU 94925 06116. The geographical location of the Site is depicted in Image 1, below.

Image 1 – Site Location



3.3 Site Description

- 3.3.1 The Site is approximately 0.1ha in area and comprises amenity grassland, introduced shrub, hard standing, bare ground, four buildings, scattered trees and two species-poor hedgerows.
- 3.3.2 The Site is bound by Eastergate Lane to the south, a residential property to the north and west, and by a commercial enterprise to the east. The village of Fontwell lies to the north. The Site is situated within a predominantly rural landscape of arable and pastoral land, interspersed with small settlements, parcels of woodland and areas of green space.

3.4 Policies and Legislation

- 3.4.1 Relevant legislation and policies that apply to ecological issues within England and Wales are:

- ✦ The Conservation of Habitats and Species Regulations 2017 (as amended)
- ✦ The Wildlife and Countryside Act 1981 (as amended)
- ✦ The Natural Environment and Rural Communities (NERC) Act 2006
- ✦ Hedgerows Regulations Act 1997
- ✦ The Protection of Badgers Act 1992
- ✦ The Wild Mammal (Protection) Act 1996
- ✦ The National Planning Policy Framework (NPPF) 2021
- ✦ Government Circular 06/05
- ✦ Arun Local Plan 2011 – 2031 (Adopted 2018)

- 3.4.2 The above summary serves as guidance only. Further information is presented in Appendix A.

Bats

- 3.4.3 All British bat species are listed as European protected species under the Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations 2017), and they, and their places of rest and shelter, receive UK and European protection under these regulations and the Wildlife and Countryside Act (WCA) 1981 (as amended). This protection means that bats, and their places of rest and shelter, are a material consideration in the planning process.

- 3.4.4 Taken together, unless under licence, these make it an offence to:

- ✦ Deliberately or intentionally capture, injure, kill or take a bat;
- ✦ Deliberately disturb a bat;
- ✦ Damage or destroy a breeding site or resting place of a bat;

- ✧ Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection;
- ✧ Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
- ✧ Possess or control, transport, sell or exchange or to offer for sale, any live or dead bat, part of a bat or anything derived from a bat which has been unlawfully taken from the wild. This legislation accounts for all life stages of the species.

3.4.5 Disturbance of animals includes any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young. In the case of animals of a hibernating or migratory species, disturbance includes any disturbance which will likely impair their ability to hibernate or migrate or that will significantly affect the local distribution or abundance of the species to which they belong.

3.4.6 A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to use the same roost sites at different times of year, current legal opinion is that a bat roost is protected whether bats are present at the time.

3.4.7 In addition to the above, certain species of bat are listed on Annex II of the Habitat Regulations 2017. Annex II species include greater and lesser horseshoe bats *Rhinolophus ferrumequinum* and *Rhinolophus hipposideros*, barbastelle *Barbastellus barbastella* and Bechstein's bat *Myotis bechsteinii*. Where present, consideration to the requirement of a Special Areas of Conservation (SAC) should be given.

3.5 Objectives of the Survey

3.5.1 The objectives of the survey were to:

- ✧ Classify the main habitats present within the Site.
- ✧ Evaluate the ecological importance of these habitats.
- ✧ Assess the suitability for protected species and any otherwise notable species to occur within the Site.
- ✧ Provide appropriate recommendations for further surveys and mitigation where required, as well as opportunities for biodiversity enhancement.
- ✧ Determine the presence/likely absence of bats within the building to be affected by the proposed development.
- ✧ Identify the number and species of bats, should they be present.
- ✧ Assess whether a licence from Natural England is required for the works.

4 SURVEY METHODOLOGY

4.1 Desk Study

4.1.1 A desk study was undertaken in January 2021 to determine the presence of sites and habitats of conservation importance, along with existing records of protected and notable species of relevance to the Site.

4.1.2 The following bodies were consulted for the desk study:

- Google Earth Pro
- Magic Map (Magic.defra.gov.org) for statutory designated sites

4.1.3 The desk study involved obtaining the following information:

- International statutory designated sites within 2km
- National statutory designated sites within 2km
- Ancient woodland parcels within 30m
- Habitats of Principal Importance (NERC Act 2006) within or immediately adjacent to the Site.

4.1.4 These search areas are considered sufficient to cover the potential zone of influence of the proposed development.

4.2 Phase 1 Habitat Survey

4.2.1 The Site was surveyed using the methods outlined in '[The Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit](#)' (JNCC, 2016). The techniques applied during the survey involve identifying the main plant communities present on the Site and classifying the habitat types following the JNCC methodology. This technique provides an inventory of the basic habitat types present and enables areas of greater botanical interest which may require further, more detailed, surveys to be identified.

4.2.2 Any occurrences of recognised invasive species as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were also noted.

4.2.3 A map of the habitats and areas of interest (using a variation of the JNCC (2016) protocol for Phase 1 Habitat plans) is provided in Figure 1. Photographs of features of interest are presented in Appendix B, with target notes included in Appendix C.

4.2.4 The survey was undertaken by Ecologist Chris Bawler GradCIEEM on 12th January 2022.

Protected and Notable Species

- 4.2.5 The survey was 'extended' to consider the suitability of the Site to support protected and notable species. Species considered included those identified during the desk study, or those considered appropriate by the surveyor during the survey. Detailed surveys were not completed for these species. However, based on an understanding of species ecology, consideration was given to the Site's potential to provide sheltering or foraging habitat and/or connectivity from other areas of potentially suitable habitat to allow dispersal between populations. Core species considered during the survey are outlined below.

Bats

Preliminary Roost Assessment - Trees

- 4.2.6 Trees within the Site, which were deemed likely to be affected by the proposed development, were subject to a ground-level roost assessment in accordance with current best practice guidance (Collins, 2016). Trees were inspected for potential roosting features (PRFs) such as splits, fissures, cavities, delaminated bark, heavy ivy *Hedera* sp. cover and woodpecker holes. Evidence such as droppings, staining and bats themselves were searched for below and in suitable features, with the use of high-powered torch, telephoto lens camera and binoculars (where necessary). The quality and quantity of PRFs identified were used to categorise each tree as having 'Confirmed roosts'; or 'High', 'Moderate', 'Low' or 'Negligible' suitability to support roosting bats.

Preliminary Roost Assessment – Buildings

- 4.2.7 A full external and internal inspection was undertaken of buildings 1, 3 and 4, and a partial internal inspection was undertaken of building 2, with the use of a high-powered torch, ladder and binoculars (where required). Any suitability roosting or access points for bats such as raised fascia boards, missing/lifted tiles, cracks or crevices in brick/blockwork and gaps in soffit boxes were recorded and searched for evidence of use by bats (staining, droppings, scratch marks, or the bats themselves). The results of the scoping survey enabled the buildings to be categorised as having 'Confirmed roosts'; or 'High', 'Moderate', 'Low' or 'Negligible' suitability to support roosting bats.
- 4.2.8 Where features suitable for bats were recorded, they were classified in accordance with the categories presented in **Appendix D**.
- 4.2.9 In accordance with current good practice guidance (Collins, 2016), the level of suitability determines the need for further dusk emergence and/or pre-dawn re-entry surveys, if such buildings/built structures or trees are to be affected. Although left to the discretion of the

appointed ecologist, in most instances 'Confirmed' roosts and 'High' suitability requires three survey visits, 'Moderate' suitability requires two survey visits and 'Low' suitability requires one dusk emergence or pre-dawn re-entry survey visit. Greater detail on the minimum number of surveys recommended in most instances is presented in **Appendix E**.

Bat Emergence Survey

- 4.2.10 One dusk emergence survey was conducted on B2 on 16th May 2022. The survey was completed in accordance with current best practice guidance (Collins *et al.*, 2016) and, to adequately observe all aspects of the building, two surveyors were deployed. For clarity, the location of the surveyors is depicted in Figure 2.
- 4.2.11 The survey was undertaken in suitable weather conditions with sunset temperatures of $\geq 10^{\circ}\text{C}$, a light-moderate breeze and no rain.
- 4.2.12 To account for the varying times in which differing bat species emerge, the dusk emergence survey commenced 15 minutes before sunset and continued for 1 hour and 15 minutes after sunset.
- 4.2.13 A summary of the weather conditions and survey times recorded during the survey is provided in Table 1 below.

Table 1 – Survey times and weather conditions

Date	Emergence or Re-entry	Sunset	Start time	End time	Start weather conditions	End weather conditions
16/05/2021	Emergence	20:47	20:32	22:02	15.2°C, 90% cloud cover, light air (1BF) and no rain.	12.7°C, 20% cloud cover, no wind (0BF) and no rain.

- 4.2.14 To aid audible detection, surveyors were equipped with Elekon Batlogger detectors. These detectors convert the inaudible echolocation of bats into a frequency audible to the human ear. All calls were digitally recorded and the sonograms were later analysed using BatExplorer.

Breeding Birds

- 4.2.15 The habitats within the Site were assessed for their suitability to support nesting birds. Factors considered include suitable cover and feeding habitat. Evidence was searched for in the form of any active or disused birds' nests.

Hazel Dormouse

- 4.2.1 The Site was surveyed for suitable hazel dormouse *Muscardinus avellanarius* habitat, such as the presence of well-connected broadleaved woodland, hedgerows, mature scrub and

suitable food sources such as oak *Quercus sp.*, hazel *Corylus avellana* and other nut-bearing trees, fruiting trees and shrubs, flowers and invertebrates. Evidence of hazel dormouse searched for included woven nests and/or dormouse-gnawed nuts.

4.3 Constraints

General Constraints

- 4.3.1 The survey was carried out outside the optimal period for conducting Phase 1 habitat surveys (generally considered to be April to September inclusive) and therefore certain plant species may not have been recorded during the survey. However, the habitats within the Site were intensively managed amenity/ornamental habitats with low species diversity. Therefore, the level of information gathered during this survey is sufficient to effectively evaluate the habitats within the Site, and this does not pose a constraint to the survey findings.
- 4.3.2 Any measurements or indications of area provided within this report are estimates and are provided as a guide only.
- 4.3.3 It is important to note that ecological surveys provide information regarding the ecological baseline of a site for only a 'snapshot' of time. Therefore, if significant time lapses between the surveys and the further development or implementation of proposals updated ecological surveys may be required to identify any change in the baseline, such as natural succession of habitats, or local extinction or colonisation of species. Therefore, if a year lapses between the progressions of development proposals, it is recommended that ecological advice is sought regarding the applicability of the survey findings, in accordance with advice given by CIEEM on the lifespan of ecological reports and surveys (CIEEM, 2019).
- 4.3.4 Owing to the small-scale, localised nature of the Site, of limited biodiversity interest, a protected species data request from the local biodiversity records centre was considered disproportionate and consequently has been omitted from this report.

Phase 1 Habitat Survey

- 4.3.5 The survey was conducted in January, which is outside the optimal season for plant identification. However, as the habitats were largely amenity and introduced shrub comprising low species diversity, this constraint is not considered to have drastically affected the results or conclusions of the survey.

Preliminary Roost Assessment (PRA)

- 4.3.6 Health and safety concerns prevented safe access to the entire roof void of Building 2 during the PRA. However, the surveyor was able to view the majority of the roof void from the access

hatch and no evidence of roosting bats was observed. The building was assessed as having 'Low' suitability for roosting bats. Therefore, this is not considered a constraint to the survey findings.

Bat Emergence Survey

- 4.3.7 The western elevation of B2 was only partially visible, given the presence of Leyland cypress *Leylandii x cupressus* trees immediately adjacent to the building. However, as the PRFs identified during the initial building inspection were located at the southern end of the western elevation, it is considered likely that any bats emerging from these features would have been observed by the surveyor positioned to the south of B2.

5 SURVEY RESULTS

5.1 Desk Study

Designated sites

- 5.1.1 The desk study returned no internationally or nationally designated sites within 2km of the site.
- 5.1.2 The site lies within the Impact Risk Zones (IRZs) of Halnaker Chalk Pit Site of Special Scientific Interest (SSSI), Eartham Pit Boxgrove SSSI and Fairmile Bottom SSSI.
- 5.1.3 Non-statutory designated sites identified within the potential zone of influence of the proposed development are presented in Table 2, below.

Table 2 – Designated sites within 2km of the Site

Site Name	Description	Distance and orientation from Site
Non-statutory Designated Sites		
Fontwell Racecourse LWS	Parts of the unimproved grassland are managed as hay meadows and have very species-rich swards.	350m NW
Slindon Bottom LWS	Ancient woodland with varied flora.	1.1km N

(LWS- Local Wildlife Site)

Ancient Woodland

- 5.1.4 Eight areas of ancient woodland lie within 2km of the Site. The closest of these is an area of ancient semi-natural woodland (ASNW) which lies 710m northeast of the Site.

NERC s41 Habitats of Principal Importance (HPI)

- 5.1.5 Habitats listed under S41 of the NERC Act (2006) within 2km of the Site are presented in Table 3, below.

Table 3 – NERC S41 HPI within 2km of the Site

Habitat Type	Distance and Orientation from Site
Traditional Orchard	45m S
Lowland Meadow	300m NW
Deciduous Woodland	410m W
Ancient Woodland	710m NE
Woodpasture and Parkland	1.2km SW

Protected and Notable Species

Bats

- 5.1.6 Six European Protected Species Mitigation (EPSM) licences for bats have been granted within 5km of the Site. Further detail is provided in Table 4, below.

Table 4 – Bat EPSM Licences granted within 5km of the Site

Licence Details	Date	Distance and Orientation from Site
Destruction of a common pipistrelle resting place	2016 – 2021	1.3km S
Damage to a common pipistrelle, soprano pipistrelle and brown long-eared resting place	2015	2.4km NE
Destruction of a common pipistrelle, brown long-eared, whiskered bat and Brandt's bat resting place	2011 – 2013	3.3km N
Destruction of a common pipistrelle, brown long-eared and whiskered bat resting place	2014 – 2015	3.8km NW
Destruction of a common pipistrelle, soprano pipistrelle and brown long-eared resting place	2016 – 2021	3.9km W
Destruction of a common pipistrelle resting place	2014 – 2020	4.2km SW

Hazel dormouse

- 5.1.7 One EPSM licence for hazel dormice has been granted within 5km of the Site. Further detail is provided in Table 5, below.

Table 5 – Hazel dormouse EPSM Licence granted within 5km of the Site

Licence Details	Date	Distance and Orientation from Site
Damage to, and destruction of, a resting place	2017 – 2022	835m SW

5.2 Phase 1 Habitat Survey

- 5.2.1 The following habitat types were recorded within the Site on 12th January 2022.

- ✧ Amenity grassland
- ✧ Introduced shrub
- ✧ Scattered trees
- ✧ Species-poor intact hedgerow
- ✧ Buildings

- » Bare ground
- » Hardstanding

5.2.2 A summary of the key botanical species present within each habitat type are included within the descriptions below. While considering this information, reference should be made to the Phase 1 Habitat Map presented in Figure 1, photographs presented in Appendix B, and target notes presented in Appendix C.

Amenity grassland

5.2.3 The majority of the Site comprised amenity grassland. Species present included dominant perennial ryegrass *Lolium perenne*; frequent red clover *Trifolium pratense*, common daisy *Bellis perennis* and dandelion *Taraxacum sp.*; and occasional prickly sow-thistle *Sonchus asper* and creeping buttercup *Ranunculus repens*. The sward height was approximately <5cm high.

Introduced shrub

5.2.4 A number of ornamental beds planted with introduced shrubs were present throughout the Site. Species present within the introduced shrub included occasional spurge *Euphorbia sp.*, lavender *Lavandula sp.* and wall cotoneaster *Cotoneaster horizontalis*. Common reed *Phragmites australis*, fern *Polypodiales sp.* and palm tree were present, but rare. There were also a number of unidentifiable bulbs and other ornamental species within these beds.

Scattered trees

5.2.5 Several scattered trees were present throughout the Site. Species included willow *Salix sp.* and magnolia *Magnolia sp.* in addition to other ornamental species.

5.2.6 A group of Leyland cypress trees were present adjacent to the northern boundary and the species-poor hedgerow.

Species-poor hedgerow

5.2.7 A species-poor hedgerow which comprised cherry laurel *Prunus laurocerasus* was present along the southern boundary of the Site.

5.2.8 A species-poor hedgerow (TN1) which comprised Portuguese laurel *Prunus lusitanica* and photinia *Photinia sp.* was present on the northern boundary of the amenity grassland, near to the northern boundary of the Site.

Buildings

5.2.9 Four buildings were present within the Site, adjacent to the western boundary. The buildings comprised two sheds, a games room and a car port. A more detailed description of the structures and their suitability to support protected species is provided in Section 5.3.

Bare ground

- 5.2.10 An area of bare ground was present within the Site. This area was to the north of the species-poor hedgerow, underneath the canopy of the mature trees and adjacent to the northern boundary of the Site.

Hardstanding

- 5.2.11 Hardstanding was present in the form of a paved path which ran along the western boundary of the amenity grassland.

5.3 Protected and Notable SpeciesBats*Foraging and commuting habitat*

- 5.3.1 The Site and its surrounds provide suitable foraging and commuting habitat for bats, with the wider landscape featuring hedgerows, tree lines, woodland and open grassland areas.

Roosting habitat – Buildings

- 5.3.2 Four buildings are present within the Site, all of which are to be affected by the proposed development. Table 6 below provides a description of each building, with their locations depicted on Figure 1.

Table 6 – Building Descriptions and Suitability to Support Roosting Bats

Building Ref	Description	PRFs	Level of Suitability
B1	Single storey detached lean-to with a footprint of c. 8m ² . Good condition timber frame, open-sided on all aspects. Corrugated plastic roof, unlined. No features observed and no evidence of roosting bats.	None	Negligible
B2	Single-storey shed with an approximate footprint of 36m ² . Red brick foundation to a height of two foot with wooden weatherboarding above. Roof was pitched, with the eastern elevation covered with intact clay pan tiles and western elevation covered with corrugated steel. Clay ridge tiles also intact. Internally, the walls were lined with well-sealed plywood. The loft void was lined with bitumen felt. Approximately 3 access points where light ingress occurs – exact features not known. Rodent droppings, cobwebs and no evidence of roosting bats within.	Between plywood and wooden weatherboarding. Within the loft void.	Low

Building Ref	Description	PRFs	Level of Suitability
B3	Single storey converted log store in use as a games room with an approximate footprint of 28m ² . Red brick on western elevation, with good condition wooden cladding on other elevations. Roof covered with clay pan tiles and clay ridge tiles, lined internally with wooden cladding. Insulation present between roof and wooden cladding. All tiles intact with none missing. No loft void present. Internal timber frame intact.	None	Negligible
B4	Single-storey car port with an approximate footprint of 36m ² . Red brick foundation with a timber frame and wooden cladding walls, open-sided on eastern elevation and lined internally with chipboard. Roof covered with intact clay pan tiles, lined internally with a non-bituminous felt.	None	Negligible

- 5.3.3 The majority of the trees across the Site were either of an age and size unlikely to support roosting bats, or had no PRFs. Consequently, all trees within the Site boundary have been assessed as having '**Negligible**' suitability for roosting bats.

Emergence survey – 16th May 2022

- 5.3.4 No bats were recorded emerging from B2 during the survey. A summary of the bat survey results is presented in Table 7.
- 5.3.5 The first bat recorded during the survey was a soprano pipistrelle *Pipistrellus pygmaeus* which was heard not seen at 21:14. A foraging common pipistrelle *Pipistrellus pipistrellus* was seen foraging in the garden to the east of B2 at 21:17 and 21:27. Other species heard but not seen included noctule *Nyctalus noctula*, a myotis species *Myotis sp.* and Leisler's bat *Nyctalus leisleri*. No other species were heard or seen during the survey.

Table 7 – Survey results summary

Date	Bats emerging or returning from/to the building	Bat species recorded commuting/foraging within the Site
16/05/22	None	Common pipistrelle, soprano pipistrelle, noctule, myotis sp. and Leisler's bat

Breeding birds

- 5.3.6 There were bird boxes present on three of the buildings (B2, B3 and B4) which provided nesting opportunities for breeding birds. The introduced shrub and species-poor hedgerows

within the Site present further opportunities for nesting and foraging. The amenity grassland introduced shrub and species-poor hedgerows provide foraging habitat for breeding birds.

Hazel dormouse

- 5.3.7 The species-poor hedgerows provided suitable foraging and commuting habitat for hazel dormice, though sub-optimal. Habitat connectivity within the wider landscape is also sub-optimal, though there is a network of hedgerows, tree lines and woodlands in the local area.

Other Protected Species

- 5.3.8 The Site and surrounding habitats have suitability to support the priority species West European hedgehog.
- 5.3.9 Beyond those noted above, the survey identified negligible suitability for other species of conservation concern within the Site.

6 EVALUATION AND RECOMMENDATIONS

6.1 Designated Areas

- 6.1.1 There are no statutory designated sites within 2km of the Site. There are two non-statutory designated sites within 2km of the Site. The closest of these is Fontwell Racecourse LWS which lies 350m NW of the Site and is designated for its species-rich sward.
- 6.1.2 Given the lack of structural and functional connectivity between these designated sites and the proposed development due to the intervening road network, and the small scale of the proposed development, impacts on designated sites are considered highly unlikely.
- 6.1.3 The Site lies within the Impact Risk Zones (IRZs) of three SSSIs. However, the proposed development does not meet the criteria that would warrant further consultation with Natural England and therefore no further consideration is required.

6.2 Ancient Woodland

- 6.2.1 The closest parcel of ancient woodland lies 710m northeast of the Site. This distance falls outside of the 15m exclusion zone recommended by Natural England and the Forestry Commission when working in close proximity to such areas. Therefore, no detrimental impacts to an ancient woodland will result during construction or operational phases of the proposed development.

6.3 Habitats and Botanical Species of Interest

- 6.3.1 The development proposals should seek to retain the hedgerows and mature trees where possible, as they provide connectivity in the wider landscape.
- 6.3.2 To compensate for their loss, any trees scheduled for removal should be replaced with native species within the development proposals. Appropriate species include, but are not restricted to, wild cherry *Prunus avium*, crab apple *Malus sylvestris*, silver birch *Betula pendula* and rowan *Sorbus aucuparia*.
- 6.3.3 To compensate for their loss, any hedgerow or section of hedgerow scheduled for removal should be replaced with a hedgerow containing a range of native species. Species include, but are not restricted to, hawthorn *Crataegus monogyna*, field maple *Acer campestre*, blackthorn *Prunus spinosa*, hazel *Corylus avellana* and spindle *Euonymus europaeus*.

6.4 Protected and Notable Species

- 6.4.1 The Site has been assessed as having negligible suitability for the following protected species. Subsequently, no further surveys or recommendations have been made in relation to them:

- ✦ Badger
- ✦ Great crested newt
- ✦ Reptiles
- ✦ Water vole
- ✦ Otter

Bats

Commuting and foraging habitat

6.4.2 The Site and its surrounding habitats provide suitable foraging and commuting habitat for bats. However, current proposals will not result in a significant loss or severance of suitable bat foraging and commuting features. Therefore, no bat activity surveys are required.

6.4.3 Lighting can be detrimental to bats using vegetation for foraging and commuting and may result in habitats becoming unsuitable for bats. Proposals should seek to protect and enhance linear features, retaining them as 'dark corridors' for commuting wildlife (including bats). Where additional lighting is planned within the Site, proposals should incorporate a sensitive lighting scheme, to minimise light spill onto peripheral habitats of value to commuting bats. These should be developed in line with guidance on design measures to minimise light spill provided by the Bat Conservation Trust (BCT & ILP, 2018). Potential design measures include:

- ✦ Use of LED lighting, which does not emit UV and which has a warm white light spectrum (ideally <2700Kelvin) and uses wavelengths higher than 550nm.
- ✦ Internal lighting adjacent to windows being recessed to reduce glare and light spill.
- ✦ Directional lighting, such as specialist bollards, low-level downward direction lighting or column lighting to minimise light spill.
- ✦ Use of motion sensor lighting or timers to restrict lighting to required periods.
- ✦ Dimming or part-night lighting to reduce light levels when bats are most active.
- ✦ Use of the lowest lux possible.
- ✦ Any additional roosting features provided should remain unlit, as this can reduce their suitability for bats.

Roosting habitat – Buildings

6.4.4 B1, B3 and B4 have been assessed as having '**Negligible**' suitability for roosting bats and therefore no further survey or mitigation for bats is required for these buildings.

- 6.4.5 In accordance with current good practice guidelines (Collins *et al.*, 2016), Reasonable Effort to determine the presence or likely absence of roosting bats has been applied to B2 at the Site (which was identified during the PEA as having ‘**Low**’ bat roost potential).
- 6.4.6 No bats were recorded entering or emerging from B2 and consequently no roosts were recorded within the building. No further consideration to the presence of roosting bats is required. However, in accordance with current industry standards, should a period of more than 12 months elapse between the date of this survey and any subsequent development, it may be necessary to consider the need for an update survey to be undertaken.
- 6.4.7 Although no bats were recorded emerging from the building, in the unlikely event that bats or their roosts are identified during demolition, all works must **stop** and the appointed ecologist or Natural England must be consulted on the appropriate manner in which to proceed.
- 6.4.8 By way of enhancement, it is recommended that the installation of a bat box in a suitable location would increase the Site’s suitability for roosting bats. The box should be installed at a height of 3m or more on a sunny, sheltered aspect, away from direct illumination by artificial lighting and in a location which ensures connectivity to foraging habitats within the wider landscape. In this instance, a single integrated box such as that provided by www.habibat.co.uk is recommended for inclusion within the built structure.
- 6.4.9 The incorporation of a wildlife-friendly planting scheme post-development using native plant species would be of benefit to invertebrates, and subsequently bats.

Breeding Birds

- 6.4.10 The scattered trees, species-poor hedgerows and three of the buildings (B2, B3 and B4) all provide suitable habitat for nesting birds.
- 6.4.11 All birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended), therefore removal of suitable bird nesting habitat (including bird boxes) should be conducted outside the core breeding period for birds of Late February – August (inclusive).
- 6.4.12 Should this timeframe be unobtainable, and removal of suitable bird nesting habitat is required within the nesting season, a thorough search for the presence of breeding birds should be conducted by a suitably experienced ecologist immediately prior to the start of works. Should evidence of breeding birds be recorded, works within 5m of any nest, or works that have potential to destroy any nest(s), should stop until the eggs have hatched and the chicks fledged, or the nest is deemed by a suitably experienced ecologist to be inactive.

Hazel dormouse

6.4.13 The species-poor hedgerows provide sub-optimal foraging and commuting habitat for hazel dormice and, where possible, these habitats should be retained within the proposals. To account for the presence of connectivity to the wider landscape and the presence of the identified EPSM licence for dormice c.835m southwest of the site, should the removal of small areas of this habitat be required, the following precautionary measures should be implemented in full:

- ✧ Prior to the start of vegetation clearance, the contractors working on the project should be subject to a Toolbox Talk given by a suitably experienced and licenced Ecological Clerk of Works (ECoW). This would outline the current legislation related to dormice and the appropriate manner in which to proceed with the work.
- ✧ Upon completion of the Toolbox Talk, the ECoW would search the vegetation to be affected for the presence of dormice and dormice nests.
- ✧ Upon completion of the visual inspection, the clearance of vegetation within the hedgerow should be carried out under the supervision of the ECoW.
- ✧ To minimise impacts to hibernating dormice all vegetation clearance should be conducted during the active period March to October (inclusive).
- ✧ In the unlikely event that a dormouse is identified at any stage during the above process, all works should **stop** and Natural England contacted on the appropriate manner in which to proceed.

6.4.14 So long as the above recommendations are adhered to in full, the proposed development will be conducted in accordance with the requirements of current legislation which serves to protect dormice and their habitat, and no further surveys for dormice will be required.

Other species

6.4.15 The Site provides habitat suitable to support the priority species of European hedgehog. To compensate the loss of this habitat it is recommended that habitat connectivity across the Site be maintained as much as possible.

6.4.16 To prevent small mammals becoming trapped in excavations, any trenches or deep pits should be covered or backfilled overnight. If this is not possible, a means of escape should be provided to allow any mammals falling in to escape.

6.4.17 Beyond those noted above, there are no obvious and immediate issues regarding other protected species on the Site and no further surveys to determine the presence of other protected species is required in this instance. However, should at any point during the

development a protected or notable species be identified within the Site, then all works should stop, and the appointed ecologist consulted on the appropriate manner in which to proceed.

7 ECOLOGICAL ENHANCEMENTS

7.1 Opportunities to include biodiversity enhancements within the Site exist and, in accordance with the requirements of the NPPF 2021, the following recommendations are considered appropriate for the Site:

- ✦ Hedgerow and/or scrub planting would increase ecological connectivity between high value habitat in the wider landscape, such as parcels of ancient woodland, traditional orchard and the hedgerow network in the local area.
- ✦ The installation of integrated bird boxes in suitable locations on the proposed dwelling and/or the relocated buildings, such as those available from www.habibat.co.uk, would increase nesting opportunities for birds. To maximise suitability, boxes should be integrated on an aspect close to vegetation at a height of 2-3m, preferably on north, northeast or northwest facing elevations. Alternatively, bird boxes such as a [small bird box](#) can be installed within retained boundary vegetation or on retained trees.
- ✦ The installation of integrated bat boxes in suitable locations on the proposed dwelling and/or the relocated buildings would increase opportunities for roosting bats. In this instance, boxes such as those provided by www.habibat.co.uk are recommended for within built structures. Boxes should be installed at a height of 3m or more, or at eaves height on sunny, sheltered aspects, away from direct illumination by artificial lighting and in a location which ensures connectivity to foraging habitats within the wider landscape. Alternatively, bat boxes such as the [Schwegler 2F](#) can be installed within retained boundary vegetation or on retained trees.
- ✦ The installation of a hedgehog house in a suitable location would increase the opportunities for hedgehogs. A suggested location for a hedgehog house would be within the scattered trees adjacent to the northern boundary.
- ✦ The incorporation of a wildlife-friendly planting scheme post-development, including the creation of a diverse wildflower lawn, species-rich hedgerow planting and tree planting using native pollinator-friendly and/or berry-producing plant species, would be of benefit to invertebrates, and subsequently birds and bats. Recommended species can be found on the [RHS Plants for Pollinators](#) list.

8 REFERENCES

Bat Conservation Trust and the Institute of Lighting Professionals (BCT&ILP). (2018). Guidance Note 8: Bat and Artificial Lighting in the UK.

<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

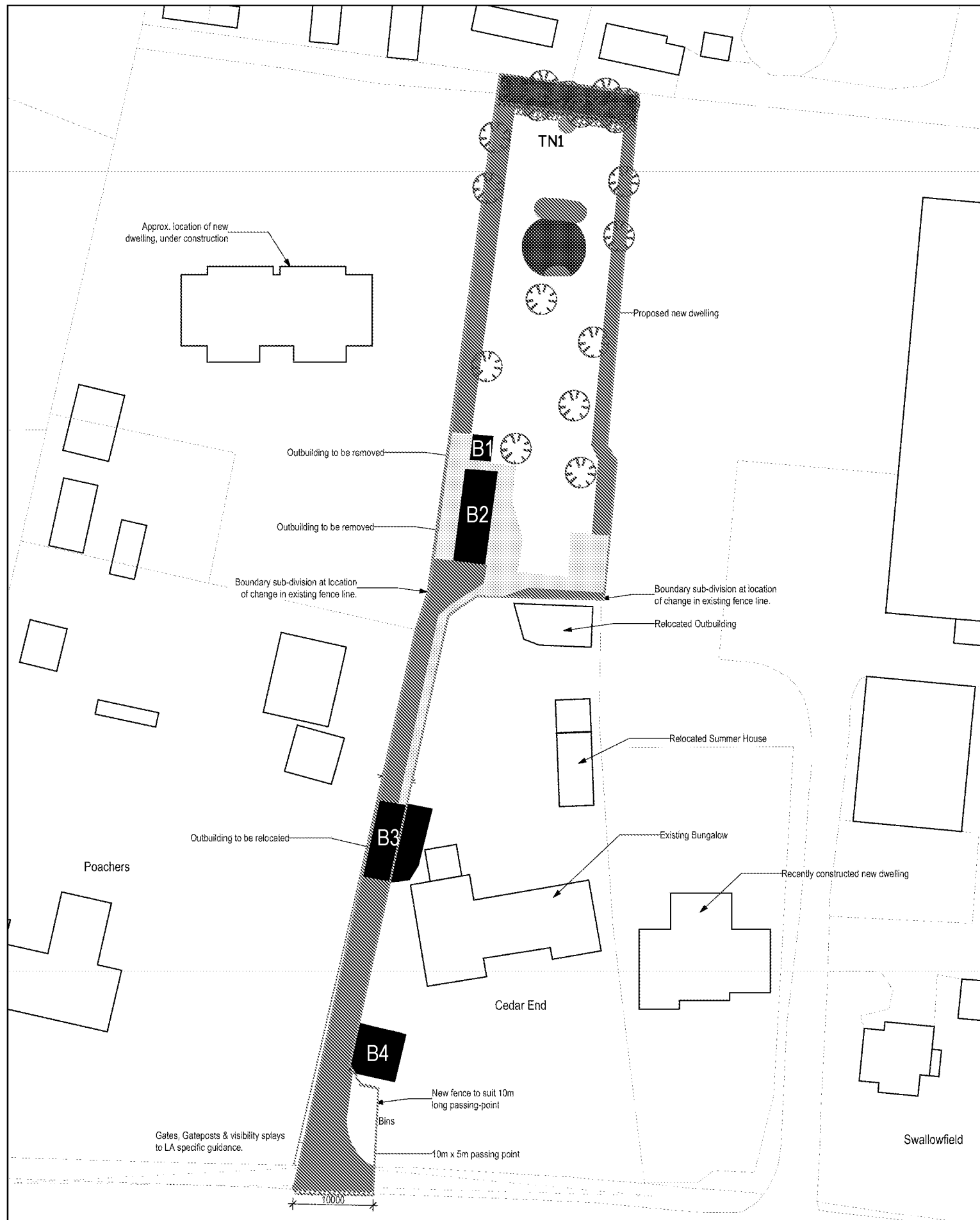
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Collins, J. (ed.) 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). Bat Conservation Trust, London.

JNCC. (2016). *Handbook for Phase 1 Habitat Survey; A Technique for Environmental Audit*. Peterborough.

Figures



Project Title : Cedar End, Eastergate

Job Reference : J21143

Drawing Title : Phase 1 Habitat Survey Plan

Date : 28-01-22

Status : Final

Scale : NTS

Drawn : CME

Checked :

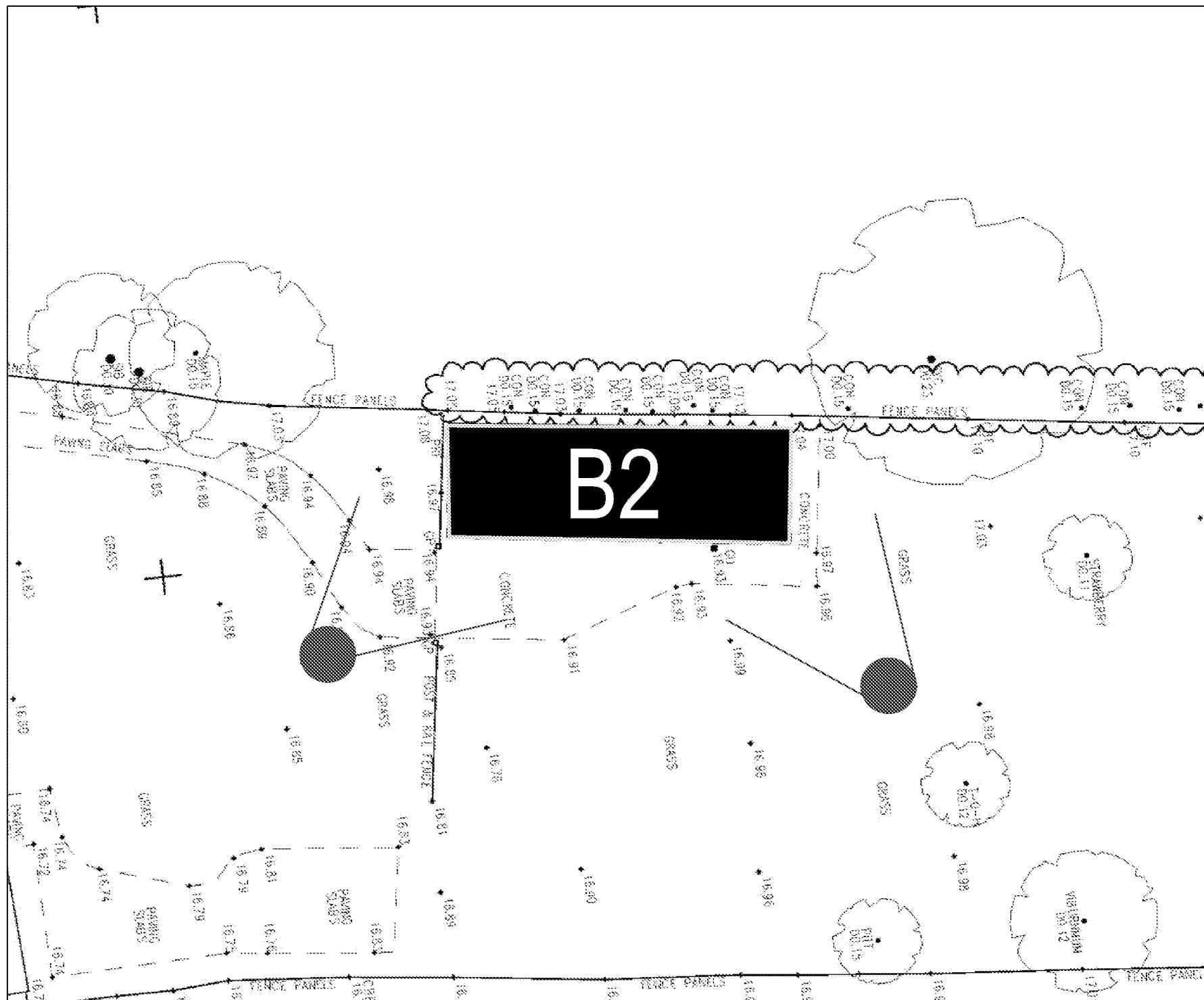
Approved : N/A

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No dimensions are to be scaled from this drawing

ARUN DISTRICT COUNCIL BN16 5ZP. All measurements are for indicative purposes only.





Legend

-  Site Boundary
-  Building with low suitability
-  Surveyor Location



Job Reference : J21143_P2

Project Title: Carter End, Fortwell

Figure 2: Building Plan and Surveyor Locations

Date : 24-06-22

Checked : CB

Drawn : CMF

Approved : N/A

Status : Final

Scale : NTS



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Appendices

APPENDIX A – Legislation

- ✧ The Conservation of Habitats and Species Regulations 2017 (as amended) transposes European Union Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. These regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' and the adaptation of planning controls for the protection of such sites and species. Under the regulations, public bodies have a duty in exercising their functions to have regard to the EC Habitats Directive.
- ✧ The Wildlife and Countryside Act 1981 (as amended) provides detail on a range of protection and offences relating to wild birds, other animals, and plants. The level of protection depends on which Schedule of the Act the species is listed on. Licences are available for specific purposes to permit actions that would otherwise constitute an offence in relation to species.
- ✧ The Natural Environment and Rural Communities (NERC) Act 2006 imposes an obligation on all public bodies, including local authorities, to consider whether their activities can contribute to the protection of wildlife. The duty is created by section 40(1) of the Act, which states that: “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”
- ✧ Hedgerows Regulations Act 1997 are enforced under the Environment Act 1995, and serves to: restrict the removal of hedgerows, or parts of hedgerows which are over 20m in length. In this case, removal includes digging up and replanting elsewhere, as well as removing from the land completely or destroying in the course of other actions. This includes developments or activities which destroy the roots, causing the vegetation to die.
- ✧ The Protection of Badgers Act 1992 exists to protect badgers *Meles meles* from cruelty. Under the act it is a criminal offense to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so, or to intentionally or recklessly interfere with a sett.
- ✧ The Wild Mammal (Protection) Act 1996 protects wild mammal species from certain cruel acts, including kicking, beating, nailing, or otherwise impaling, stabbing, burning, stoning, crushing, drowning, dragging or asphyxiation of any wild mammal with intent to inflict unnecessary suffering. Crushing and asphyxiation are most likely to occur as a result of

development proposals, should these works collapse any mammal burrows, or encounter wild mammals on site.

Appendix B – Site Photographs

Photo 1: Amenity grassland with scattered trees

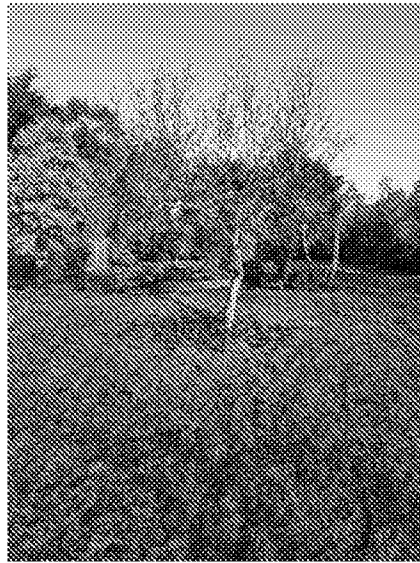


Photo 2: Scattered trees across the site



Photo 3: Filled in pond with introduced shrub flowerbeds



Photo 4: Introduced shrub flowerbeds on the eastern boundary

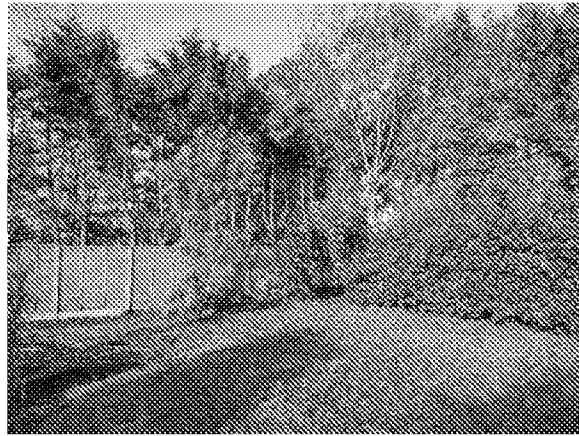


Photo 5: Species-poor hedgerow



Photo 6: B1, a stand-alone lean-to



Photo 7: B2, a shed

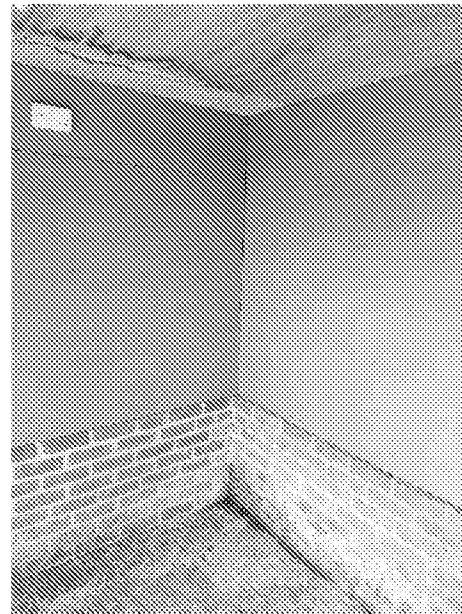


Photo 8: Sealed plywood interior of B2

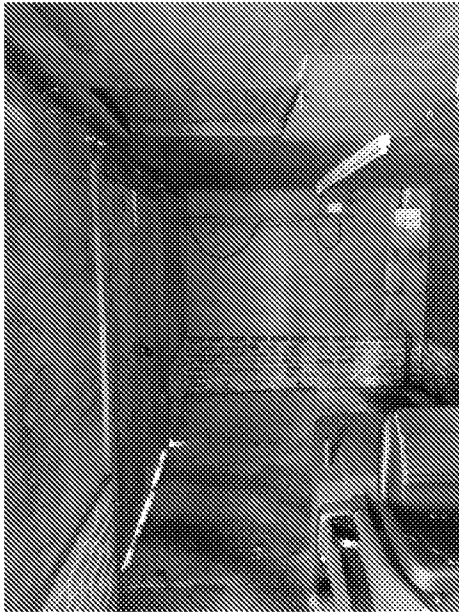


Photo 9: Loft access in the southern half of B2

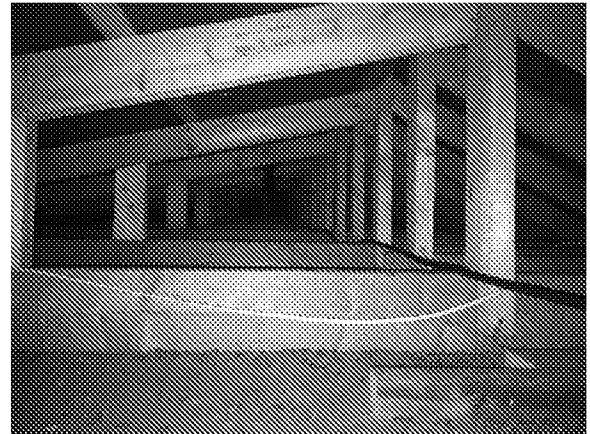


Photo 10: Loft void in B2. Rodent dropping present in the foreground



Photo 11: Loft void is lined with bitumen felt



Photo 12: Introduced shrub to the south of B2

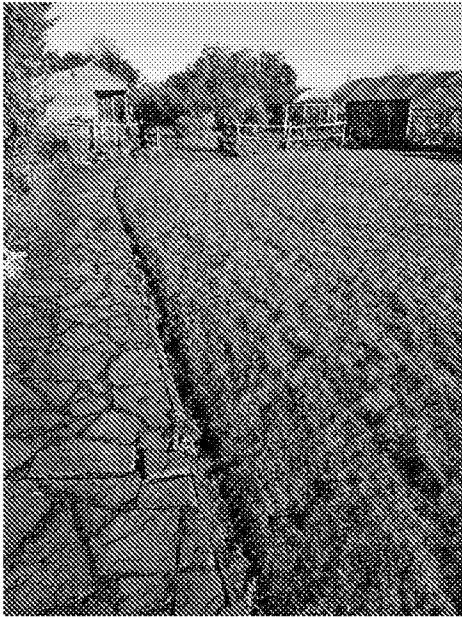


Photo 13: Hard standing path and amenity grassland

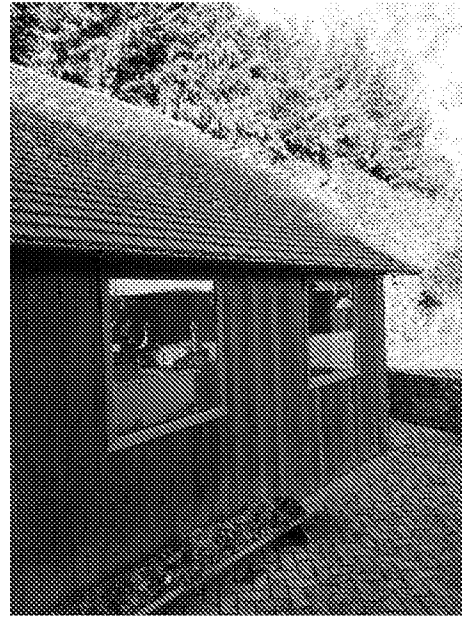


Photo 14: B3, a converted log store currently in use as a games room

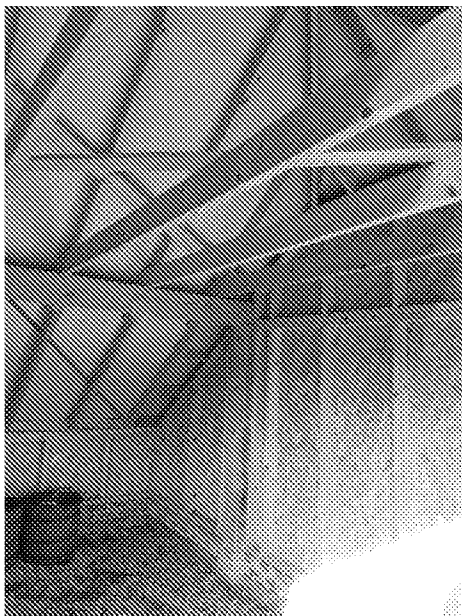


Photo 15: B4, a car port



Photo 16: Bird box on the northern elevation of B4

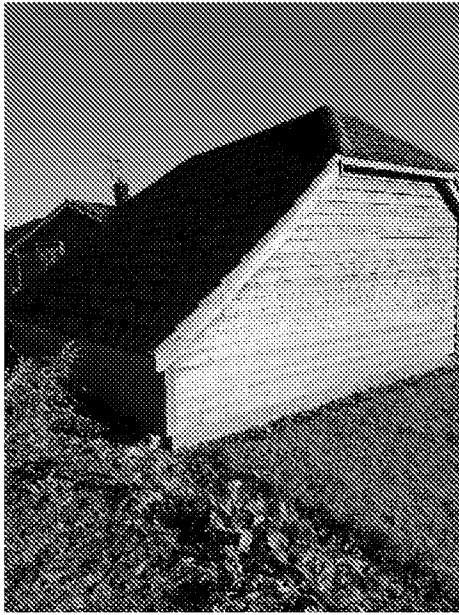


Photo 17: Southern elevation of B4

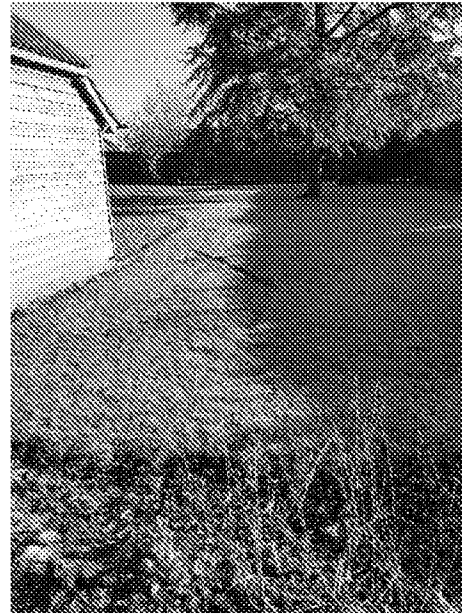


Photo 18: Amenity grassland and introduced shrub
to the south of B4

Appendix C – Target Notes

Target Note	Description
1	Species-poor hedgerow

Appendix D – Categories of Bat Roost Suitability

Roost type Level of suitability	Summer Roost used by Non- Breeding Bats	Maternity Roost	Hibernation Roost
Confirmed roost	Presence of bats or evidence of bats identified. Confirmation of a roost will likely require further surveys.		
High	Building/Structure or tree with multiple opportunities for one or more species of roosting bat. Optimal orientation. Good connectivity to optimal foraging habitats.	Building/Structure or tree with multiple roosting opportunities for pregnant female bats and young pups. Optimal orientation. Good connectivity to optimal foraging habitats.	Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats throughout the winter months.
Moderate	Building/Structure for tree with some opportunities for roosting bats. Preferable orientation. Connectivity to moderate to high quality foraging habitat available.	Building/Structure or tree with some roosting opportunities for pregnant female bats and young pups. Good orientation. Good connectivity to moderate to high quality foraging habitats.	Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats for some of the winter months. Moderate connectivity to suitable foraging areas.
Low	Building/Structure or tree with limited opportunities for roosting bats. Poor connectivity to foraging habitat.	Building/Structure or tree with limited opportunities for breeding bats. Poor connectivity to foraging habitat.	Building/Structure or tree with limited potential to support hibernating bats due to instable environmental conditions.
Negligible	Building/Structure or tree with no or very limited opportunities for roosting bats. Little to no connectivity to foraging habitat	Building/Structure or tree with no or very limited opportunities for breeding bats. Little to no connectivity to foraging habitat.	No suitable roosting opportunities for hibernating bats.

Appendix E – Minimum Number of Surveys Required in Most Instances

Negligible	Low roost suitability	Moderate roost suitability	High roost suitability*
Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required.	Structures: 1 survey visit. 1 dusk emergence or pre-dawn re-entry survey. To be conducted during May – August. Trees: Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required.	2 separate survey visits. 1 dusk emergence survey and 1 pre-dawn re-entry survey. To be conducted during May-September with at least one of the surveys May – August.	3 separate survey visits. At least 1 dusk emergence survey and a separate pre-dawn re-entry survey. The third visit could be either a dusk or dawn survey. To be undertaken during May-September with at least two of the surveys between May and August.
^a Structures that have been categorised as low suitability can be problematic, and the number of surveys required should be judged on a case-by-case basis. If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category. ^b Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; It is recommended that surveys are spaced out at least two weeks apart, preferably more. A dawn survey immediately after a dusk survey is considered one visit. If there is potential for a maternity colony, then consideration should be given to seasonal detectability and the ecologist should use their professional judgement to design the most appropriate survey regime. *For the purpose of this exercise a confirmed roost is considered under the criteria of 'High roost suitability'			