

Preliminary Ecological Appraisal

Little Boats Hall, Laxfield

24 July 2023



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SUMMARY

- HCI Ltd. has been commissioned to carry out protected species surveys for bats, relating to a proposed development at Little Boats Hall, Badingham Road, Laxfield, Suffolk, IP13 8HU (grid reference: TM 30964 71160).
- This report provides the results of the bat survey and any potential effects of the proposed development on such species.
- The ecology report is required in support of a planning application for the demolition of the existing dwelling and the construction of a replacement dwelling with garage.
- The survey and assessment were completed by independent qualified and experienced ecologists with Natural England survey licences for the relevant protected species, and in accordance with the latest survey guidelines.
- The findings of the assessment are that there are no significant ecological constraints that would prevent the proposed works.
- **Further bat hibernation surveys and a European Protected Species (EPS) mitigation licence are required prior to works commencing to inform an ecological impact assessment of the site and an appropriate mitigation strategy.**
- If the following mitigation and enhancements are incorporated into the proposed layout, there will be a net gain for biodiversity, as is encouraged by the National Planning Policy Framework.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Bats	<p>Nocturnal bat surveys confirmed the building is used as:</p> <ul style="list-style-type: none"> • Common pipistrelle non-breeding day roosts. <p>Moderate value commuting and foraging habitat on site.</p>	<p>Destruction of bat roosts present in building.</p> <p>Potential light disturbance of commuting and foraging habitats on site.</p>	<p><u>Further surveys required</u></p> <p>At least two hibernation surveys to be undertaken on building two (outbuilding) between December-February.</p> <p><u>Mitigation</u></p> <p>EPS mitigation licence required from Natural England prior to any works being conducted. The licence will include the following:</p> <p>Soft roof/wall strip undertaken by hand and under watching brief.</p> <p>Installation of two integrated bat boxes on replacement dwelling.</p> <p>Installation of one standalone bat box on mature tree or building nearby.</p> <p>Roofs will be lined with either traditional type 1F bitumen felt or a non-bitumen coated roofing membrane that has passed the snagging propensity test.</p> <p>Any lighting schemes will comply with Bat Conservation Trust and CIE 150:2003 guidance.</p>

1. METHODOLOGY

- 1.1. A physical inspection of all the buildings on site were conducted and reported in the Preliminary Ecological Appraisal Report issued by HCI Ltd. (2023).
- 1.2. A total of two nocturnal bat surveys (comprised of two dusk emergence surveys) were conducted within the optimal surveying season for bats and in suitable weather conditions (Table 1). The interim guidance note (Bat Conservation Trust, 2022) states dusk surveys supported by night vision aids (“NVAs”) are favoured over dawn surveys, as they can provide clarity on exact emergence points and bat counts.
- 1.3. Two independent, qualified and experienced surveyors were used per survey: Miranda Proctor (Natural England bat licence level 1 2020-44596-CLS-CLS) and Charlie Swarts. The surveyors were stationed as shown in Figures 1-2.
- 1.4. The dusk surveys started approximately 15 minutes before sunset and finished approximately 1.5 hours after sunset.
- 1.5. Bat calls were recorded using two Anabat Walkabout bat recorders. Call data was analysed using Analook Insight software.
- 1.6. Two Canon XA40 infrared cameras were used as survey aids to assist in detecting emerging bats. Each camera was equipped with three infrared torches/floodlights. Screenshots from each camera from the darkest point of the survey are provided in Photos 1-4, to illustrate the field of view and visibility.
- 1.7. All survey methods were carried out in accordance with the most up to date good practice guidance (Collins, 2016; Bat Conservation Trust, 2022).

2. SITE CONTEXT

Location

- 2.1. The site is situated on the south-eastern edge of the village of Laxfield, with the A12 located approximately 10km east. The closest town is Halesworth located approximately 9km northeast of the site.
- 2.2. The site is enclosed by the B1117 to the west, residential dwellings to the south, grassland to the east and an arable field to the north. The wider surroundings are comprised of a mixture of residential dwellings, agricultural buildings and arable fields lined with mature trees and hedgerows.

3. DESCRIPTION OF THE DEVELOPMENT

- 3.1. The proposals are for the demolition of the existing dwelling and the construction of a replacement dwelling with garage.

4. FIELD STUDY

Nocturnal bat surveys

- 4.1. The survey conditions, start/end times and sunset/sunrise times are indicated in Table 1 below:

Visit	Date	Conditons	Start	End	Start of survey	End of survey	Sunset/sunrise
1	29/06/23	Temp Cloud cover Wind Precipitation	16C 5% 5 mph None	14°C 5% 6 mph None	21:05	22:50	21:20
2	18/07/23	Temp Cloud cover Wind Precipitation	17°C 90% 3 mph None	15°C 90% 2 mph None	20:52	22:37	21:07

Table 1, nocturnal bat survey information.

First nocturnal bat survey (dusk) – 29th June 2023

- 4.2. A total of two bats were recorded emerging from the building during the survey, consisting of two common pipistrelles *Pipistrellus pipistrellus*.
- 4.3. A common pipistrelle was recorded emerging from the fascia on the south gable end at 21:32 (Figure 1, Photo 2). A second common pipistrelle emerged from a ridge tile on the east aspect at 21:55 (Figure 1, Photo 1). Please note, whilst these bats were not echolocating at the time of emergence, they are considered to be common pipistrelle based on flight patterns, behaviour and activity recorded shortly afterwards.
- 4.4. The first bat recorded was a common pipistrelle, at 22:00, foraging in the garden.
- 4.5. A moderate level of foraging and commuting activity was recorded and observed by common pipistrelles and soprano pipistrelles *Pipistrellus pygmaeus*.



Photo 1, screenshot from infrared camera on the southwest corner. Common pipistrelle access points indicated by yellow line.



Photo 2, screenshot from infrared camera on the northeast corner. Common pipistrelle roost indicated by yellow line.



Second nocturnal bat survey (dawn) – 18th July 2023

- 4.6. A total of one bat was recorded emerging from the building during the survey.
- 4.7. One common pipistrelle emerged from the fascia on the south gable end at 21:32 (Figure 2, Photo 1). Please note, whilst this bat was not echolocating at the time of emergence, the bat is considered to be common pipistrelle based on flight patterns, behaviour and activity recorded shortly afterwards.
- 4.8. A low level of foraging and commuting activity was recorded and observed by common pipistrelles, soprano pipistrelles, brown long-eared *Plecotus auritus*, serotines and *Myotis sp.* (considered to be Daubenton's *Myotis daubentonii*).



5. DISCUSSION AND CONCLUSIONS

- 5.1. The surveys confirmed the use of the building as a non-breeding day roost by common pipistrelles.
- 5.2. The proposed works involve the demolition of the existing dwelling and the construction of a replacement dwelling with garage. resulting in the destruction of roosting locations.
- 5.3. Common pipistrelles are common and widespread (BCT, 2014) and the **destruction of a non-breeding day roost** would have a potentially **low** impact on the local bat population (Mitchell-Jones, 2004).
- 5.4. In order to be able to proceed with the proposed works and to ensure that no detrimental impacts will result on the species, a European Protected Species mitigation licence from Natural England will be required for the proposed works and the following mitigation measures will be implemented (please note, mitigation subject to change depending on further surveys):
 - i. At least two bat hibernation surveys to be conducted on the building one (the house) between December and February.
 - ii. Workers to be given a toolbox talk prior to works commencing detailing bat signs, potential roosts/access points, what to do if bats are found and to avoid activities that might cause high vibrations or noise.
 - iii. On the first day works are proposed to commence, the building will be inspected for bats using a torch and endoscope. If any bats are found and accessible, they will be captured by gloved hand, given a health check and removed to safety.
 - iv. A soft roof strip and partial demolition of the walls around the bat roosts will be undertaken with special care and under watching brief of a licenced bat ecologist. If any bats are found, work will cease immediately, and any bats removed to safety.
 - v. Once the roof has been removed, any potential roosting features will be sealed, and any timber treated using an approved product.
 - vi. Installation of two integrated bat boxes situated on the replacement dwelling (Bat Block – Appendix C, Appendix F for location).
 - vii. Installation of one standalone bat box situated on mature tree or building nearby (Greenwood’s Ecohabitats three crevice bat box – Appendix C).
 - viii. Roofs will be lined with traditional type 1F bitumen felt or a non-bitumen coated roofing membranes (NBCRM) that has passed the snagging propensity test (must be supplied/installed with the necessary certification). Please note, no other NBCRM (includes both breathable and non-breathable membranes), will be permitted as these are proven to

entangle bats through regular contact, which also compromises the integrity of the membrane.

- ix. Any lighting schemes will follow guidance from the Bat Conservation Trust and CIE 150:2003. Warm-white (long wavelength) lights with UV filters will be fitted as close to the ground as possible. Lighting units will be angled below 70° and equipped with movement sensors, baffles, hoods, louvres and horizontal cut off units at 90°.

5.5. After the effects of the above mitigation, we consider that the favourable conservation status of the local bat population will be maintained and that an EPS mitigation licence should be granted by Natural England.

6. BIBLIOGRAPHY

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Appendix A Legislation

European Protected Species

National Planning Policy - National Planning Policy Framework (NPPF)

Section 15 of the National Planning Policy Framework 2021 (NPPF): Conserving and enhancing the natural environment states that ‘planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity.’

Office of The Deputy Prime Minister (“ODPM”) Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the planning system.

Paragraph 98 of Circular 06/2005 states that ‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat’.

Implications of legislation and policies

Without this ecological assessment, the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore, the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in non-determination or refusal of the application.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Where mitigation or compensation measures are required to ensure that no significant impacts will result on biodiversity from the development, the proposed measures may be secured through planning conditions or by EPS Mitigation Licences from Natural England.

Bats

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. On 30th November 2017, these Regulations, together with subsequent amendments, were consolidated into the Conservation of Habitats and Species Regulations 2017.

European protected animal species (“EPS”) and their breeding sites or resting places are protected under Regulation 42. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit an offence only if he deliberately disturbs

such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Natural England Licensing - EPS Mitigation Licensing

Licences can be obtained from the Wildlife Management and Licensing Service at Natural England to allow certain activities that would otherwise constitute an offence, for the purposes of development (e.g. destruction of a bat roost, loss of great crested newt aquatic and terrestrial habitat, etc).

Appendix B

Native species suitable for planting and sowing

Plants should be obtained from specialist nurseries and preferably be of local genetic stock.

Key: (f) – fruit and berry species; (e) – evergreen species; (se) semi-evergreen species; (d) – deciduous species

Trees	
Alder (d)	<i>Alnus glutinosa</i>
Apples (f; d)	<i>Malus spp.</i> (local varieties)
Ash (d)	<i>Fraxinus excelsior</i>
Beech (d)	<i>Fagus sylvatica</i>
Bird cherry (f; d)	<i>Prunus padus</i>
Elder (f; d)	<i>Sambucus nigra</i>
Elm (d)	<i>Ulmus procera</i>
Field maple (d)	<i>Acer campestre</i>
Pedunculate oak (d)	<i>Quercus robur</i>
Rowan (f; d)	<i>Sorbus aucuparia</i>
Pears (f; d)	<i>Pyrus spp.</i>
Silver birch (d)	<i>Betula pendula</i>
Small-leaved lime (d)	<i>Tilia cordata</i>
White willow (d)	<i>Salix alba</i>
Wild cherry (f; d)	<i>Prunus avium</i>
Walnut (d)	<i>Juglans regia</i>

Shrubs	
Blackthorn (f; d)	<i>Prunus spinosa</i>
Buckthorn (f; d)	<i>Rhamnus catharticus</i>
Crab apple (f; d)	<i>Malus sylvestris</i>
Dog rose (f; d)	<i>Rosa canina</i>
Dogwood (f; d)	<i>Cornus sanguinea</i>
Field maple (d)	<i>Acer campestre</i>
Guelder-rose (f; d)	<i>Viburnum opulus</i>
Hawthorn (f; d)	<i>Crataegus monogyna</i>
Hazel (d)	<i>Corylus avellana</i>
Holly (e)	<i>Ilex aquifolium</i>
Honeysuckle (f; d)	<i>Lonicera periclymenum</i>
Spindle (f; d)	<i>Euonymus europaeus</i>
Wild privet (f; se)	<i>Ligustrum vulgare</i>
Yew (f; e)	<i>Taxus baccata</i>

Flowering plants	
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Black knapweed	<i>Centaurea nigra</i>
Common cat's-ear	<i>Hypochoeris radicata</i>
Common sorrel	<i>Rumex acetosa</i>
Common vetch	<i>Vicia sativa</i>
Cowslip	<i>Primula veris</i>
Field scabious	<i>Knautia arvensis</i>
Foxglove	<i>Digitalis purpurea</i>
Lady's bedstraw	<i>Galium verum</i>
Meadow buttercup	<i>Ranunculus acris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Primrose	<i>Primula vulgaris</i>
Red clover	<i>Trifolium pratense</i>
Selfheal	<i>Prunella vulgaris</i>
Sweet violet	<i>Viola odorata</i>
Wild daffodil	<i>Narcissus pseudonarcissus</i>
Yarrow	<i>Achillea millefolium</i>

Grasses	
Common bent	<i>Agrostis capillaris</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Meadow fescue	<i>Festuca pratensis</i>
Red fescue	<i>Festuca rubra</i>
Rough meadow-grass	<i>Poa trivialis</i>
Small timothy	<i>Phleum bertolonii</i>
Smooth meadow-grass	<i>Poa pratensis</i>
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>
Yellow oat-grass	<i>Trisetum flavescens</i>

Flowering Lawn Mixture – EL1 Emorsgate Seeds

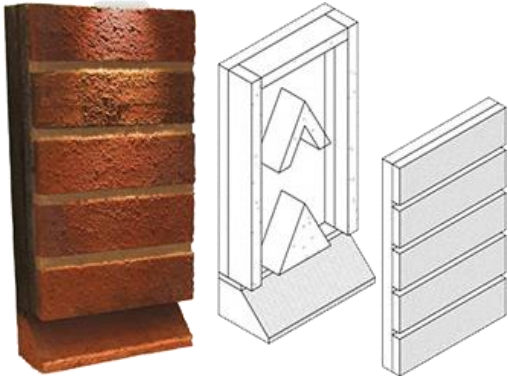



<https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/flowering-lawn-mixture/>

Wildflower Meadow Mixture – EM3 Emorsgate Seeds

<https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/>

Appendix C Examples of bat boxes

(images sourced from www.nhbs.com, www.habibat.co.uk and www.greenwoodsecohabitats.co.uk)

<p style="text-align: center;">Integrated bat box Habibat Bat Box</p> 	<p style="text-align: center;">Integrated bat box Bat Block</p> 
<p style="text-align: center;">Standalone bat box 2F Schwegler Bat Box (General purpose)</p> 	<p style="text-align: center;">Standalone bat box Greenwood's Ecohabitats three crevice bat box</p> 

Recommendations for installing bat boxes:

(Sourced from Bat Conservation Trust www.bct.org)

Ideally, several boxes should be put up facing in different directions to provide a range of conditions.

Locate boxes:

- Where bats are known to feed close to hedges and treelines (some bats use a treeline or hedgerow for navigation, putting boxes near these features may help the bats find the box).
- On trees: boxes should be placed on the trunk of a mature tree, where there is a clear flight line/accessible entrance.
- On buildings: boxes should be placed as close to the eaves as possible.
- As high as possible (ideally, at least 3 to 4m above the ground, where safe installation is possible).
- In sunny places, sheltered from strong winds (usually between south-west and south-east).

Make sure the boxes are secured.

Boxes can be installed on trees using adjustable ties to avoid damaging the trees. Otherwise, timber screw bolts or nails can be used. Aluminium alloy nails are less likely to damage saws and chipping machinery.

Bats need time to find and explore new homes, and it may be several months or even years before boxes have residents. Once bats find a place they want to live they can return over and over again. Droppings on the landing area, urine stains around the lower parts of the box and chittering noises from inside on warm afternoons and evenings are signs of occupation.