Preliminary Bat Roost Assessment

Acre Wood, Tower Road, Aylmerton

for

FAL



Client FAL

Planning authority

North Norfolk District Council

Time limit of reliance

Please note that the reported surveys were conducted on the date(s) stated in the report and that it represents site conditions at the time of the visit. The findings and recommended mitigation are based on these conditions. If site conditions change materially after the site survey, the original report cannot be relied upon and will need to be updated. Ecological reports and surveys can typically be relied on for 18 to 24 months from the date of survey.

Surveys supporting European Protected Species Mitigation Licence applications must be within the current or most recent survey season for bats (May to September), or within two survey seasons for great crested newts (March to June).

Document	Preliminary Bat Roost Assessment
Version	1.0
Date	16 May 2023
Reference number	3102
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Signed disclosure

The information, data, advice and opinions provided in this report which I have provided is true and has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional bona fide opinions.

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APPENDIX G PROPOSED PLANS

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SUMMARY

- Greenlight Environmental Consultancy Ltd. has been commissioned to carry out a Preliminary Bat Roost Assessment for a development at Acre Wood, Tower Road, Aylmerton, Norfolk, NR11 8QG (grid reference: TG 18692 40870).
- This report outlines the likelihood of bats being present and any potential effects of the proposed development on such species.
- The ecology report is required in support of a planning application for an extension on the south aspect of the existing dwelling.
- The survey and assessment were completed by independent, qualified and experienced ecologists with Natural England survey licences for the relevant protected species.
- The findings of the assessment are that there are no significant ecological constraints that would prevent the proposed works.
- Under the proposed plans, no further surveys/licences are required to inform an ecological impact assessment or 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
Protected sites	Three statutory protected sites within 2km. Site falls within one designation (Norfolk Coast AONB). Although site located within GRIAMS zone of influence and Broads SAC nutrient neutrality catchment area, there will be no net gain in residential units.	No significant impacts on protected sites and their qualifying features.	None required.
Bats	Negligible bat roosting potential in building one (house). Low-moderate value commuting and foraging habitat on site.	Low scale loss and potential light disturbance of commuting and foraging habitats on site.	Mitigation Any lighting schemes will comply with Bat Conservation Trust and CIE 150:2003 guidance. Enhancement Installation of one integrated bat box on the extended building.
Breeding birds	Nesting habitats for hedgerow, tree and building nesting birds present on site, including potential	Low scale loss of nesting habitat on site.	Mitigation Works to any hedgerows, trees and buildings on site to be conducted outside bird nesting season or under watching brief of ecologist if during nesting season.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
	breeding habitat for Amber listed species. No suitable barn owl foraging habitat on site.		Enhancement Installation of one integrated swift box and one small bird box, installed on the extended building and trees respectively.
Other animals	N/A	Potential harm to animals.	Mitigation If fencing is required, this will be porous and provide openings for hedgehogs. Rough sawn planks will be placed inside any open excavations. Construction materials will be stored off the ground on pallets and waste materials in skips.

1. METHOD

- 1.1. A walkover of the site was conducted on 2nd May 2023 by Lucy Reed and Daniel Howes independent, qualified and experienced ecologists. Survey conditions were as follows: 12°C, 5mph wind, partly sunny and dry.
- 1.2. All survey methods were carried out in accordance with the most up to date good practice guidance for the relevant protected species. Please refer to Appendix A for the full methodology and species breakdown.

2. SITE CONTEXT

Location

- 2.1. The general location of the site is shown in Figure 1 below.
- 2.2. The site is situated within the village of Aylmerton, with the A148 located approximately 0.2km southeast. The closest town is Cromer, located approximately 2.2km northeast of the site.
- 2.3. The site is enclosed by the Tower Road to the north, residential dwellings to the east and south and deciduous woodland to the west. The wider surroundings are comprised of a mixture of residential dwellings, caravan parks, large blocks of woodland and arable fields lined with mature trees and hedgerows.

Acre Wood, Tower Road, Aylmerton

Preliminary Bat Roost Assessment



Figure 1Satellite image of site surroundings, site indicated by red line. Image © Google, date accessed 10/05/23

3. DESCRIPTION OF THE DEVELOPMENT

3.1. The proposals are for an extension on the south aspect of the existing dwelling. Please refer to Appendix G for the proposed plans.

4. PROTECTED SITES

Statutory

- 4.1. There are three statutory protected sites located within 2km one Outstanding Area of Natural Beauty (AONB) and two Sites of Special Scientific Interest ("SSSI"). Please refer to Appendix B for the full citation.
 - i. Norfolk Coast AONB, site falls within designation.

"The Norfolk Coast is a protected Area of Outstanding Natural Beauty that sweeps around most of the coastline of Norfolk, England. Comprising 451 square kilometres of intertidal, coastal and agricultural land that stretches across the territory of three different local authorities and one county council, the Area is characterised by remarkable natural landscapes, and renowned as one of the few lowland areas in the UK to have a genuine 'wilderness' quality."

ii. Felbrigg Woods SSSI, approximately 0.2km southeast.

"Felbrigg Woods are situated on the edge of the Cromer Ridge on a plateau that slopes to the south. The Great Wood is one of only two known sites for acid Beech stands in Norfolk and probably represents an outlying native population of Beech Fagus sylvatica at the edge of its range. The ancient trees within the woodland and old deer park carry an interesting and diverse lichen flora including several East Anglian rarities."

iii. Briton's Lane Gravel Pit SSSI, approximately 1.6km west.

"This pit provides excellent exposures in the Pleistocene Briton's Lane Gravels of the Cromer Ridge. These deposits, comprising coarse outwash gravels and sands (derived from melting ice) are associated with the Cromer tills of Anglian age."

- 4.2. The proposed development falls outside of all SSSI Impact Risk Zones relating to all planning applications.
- 4.3. Although the site is located within the Norfolk Green Infrastructure Recreational Avoidance and Mitigation Strategy ("GIRAMS") zone of influence and the Broads SAC nutrient neutrality catchment area, there will be no net gain in residential units, being an extension to the existing residential dwelling.

5. PROTECTED AND NOTABLE SPECIES

Desktop review

Protected species licences

- 5.1. A 2km search on http://www.magic.gov.uk/ indicated one record of a granted European Protected Species ("EPS") Mitigation Licence relating to:
 - Bats (case reference: 2014-4821-EPS-MIT) from 2015, approximately 1.7km east. Species
 on the licence include: common pipistrelle *Pipistrellus pipistrellus* and brown long-eared *Plecotus auritus*.

Bats

Building one – house

- 5.2. The house is of brick construction with the upper half of the brickwork rendered and featuring a flat roof. The house features PVC windows and doors and a large rolling garage door on the north aspect of the building. The brickwork is in good condition with no gaps/crevices present.
- 5.3. Internally, no loft spaces or eaves are present.
- 5.4. There were no signs of use by bats on the building exterior or interior and the structure provides an unsuitable roost environment, with no suitable cavities for roosting bats. The building is assessed as **negligible** (summer and hibernation) roost suitability for bats.



Photo 1, north and east aspects of building one, looking southwest.



Photo 2, south and east aspects of building one, looking northwest.



Photo 3, location of proposed southern extension on building one, looking east.

Foraging and commuting links

- 5.5. The site itself provides **low-moderate** value foraging habitat for bats along the boundary hedgerows and treelines, which connects the site to the surrounding woodland.
- 5.6. The landscape immediately adjacent to the site is considered of **low** to **high** value for foraging and commuting bats, with linked gardens, hedgerows, treelines and woodland providing links to the wider landscape. Residential dwellings adjacent the site and within Aylmerton have the potential to provide roosting opportunities for bats.

Birds

- 5.7. Birds in the UK are classified into three categories of conservation importance red, amber and green. Factors such as global threat level, population decline, breeding population decline and contraction of breeding range are taken into account to determine classification.
- 5.8. The following bird species were observed during the site visit:

Amber listed:

Dunnock Woodpigeon Wren Prunella modularis Columba palumbus Troglodytes troglodytes

Green listed:

Blackbird Turdus merula
Blackcap Sylvia atricapilla
Chaffinch Fringilla coelebs

Chiffchaff Phylloscopus collybita

Great tit Parus major

Robin Erithacus rubecula

- 5.9. The site provides suitable nesting habitats hedgerow, tree and building nesting species.
- 5.10. The site provides potential breeding habitat for the following Amber listed species: dunnock, woodpigeon and wren.
- 5.11. No signs of barn owl were found on the site and no foraging habitat is present.

6. DISCUSSION AND CONCLUSIONS

Protected sites

- 6.1. The development footprint falls within one statutory protected site designation. There are a further two statutory protected sites within 2km of the site.
 - The closest statutory protected site (Norfolk Coast AONB), is located onsite and designated for its maritime habitats.
- 6.2. The proposed development falls outside of all SSSI Impact Risk Zones relating to all planning applications.
- 6.3. Although the site is located within the GIRAMS zone of influence and the Broads SAC nutrient neutrality catchment area, there will be no net gain in residential units, being an extension to the existing residential dwelling.

Bats

- 6.4. The proposed works are expected to result in a low scale loss of potential roosting, foraging and commuting habitats for bats through increased noise and light levels.
- 6.5. As a precautionary measure, the following mitigation will be implemented to avoid impacts on bats from the proposed works:
 - i. 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°. Lighting must be directional away from the boundary hedgerows, trees and woodland.
- 6.6. Building Regulations state that the energy efficiency of buildings must be improved where possible and that contractors must assess the condensation risk within the roof space and make appropriate provisions in line with BS 5250:2011. This British Standard states that both High Resistance (bitumen type 1F) and Low Resistance (non-bitumen coated roofing membranes (NBCRM)) underlays are acceptable as long as appropriate ventilation is provided. As NBCRM are proven to entangle bats through regular contact, which also compromises the integrity of the membrane, the Bat Conservation Trust recommend only NBCRM that have passed the snagging propensity test (must be supplied/installed with the necessary certification) or traditional type 1F bitumen are used.
- 6.7. As enhancements, the following will be implemented:

- i. One integrated bat box installed on the extended building (Bat Block Appendix E).
- 6.8. After these precautionary mitigation measures, we predict no impact on bats as a result of the development plans. We consider that a European Protected Species Licence will not be required, and no further surveys are necessary.

Birds

- 6.9. The proposed works are expected to result in a low scale loss of bird nesting habitat through the extension of the building.
- 6.10. As a precautionary measure, the following mitigation will be implemented to avoid impacts on birds from the proposed works:
 - i. Any works affecting bird nesting habitat such as management of hedgerows, trees or buildings would ideally need to be conducted outside the main nesting season. If work is planned during the bird nesting season (between 1st March and 31st July), then a precautionary check of all habitats will be conducted by a qualified ecologist immediately prior to starting any work. If any nesting birds are found, an appropriate protection zone from the nest will be required and will be maintained until the young have fledged.
- 6.11. As enhancements, the following will be implemented:
 - i. One integrated swift box on the extended building (Swift Block Appendix E).
 - ii. One small bird box installed on a suitable tree on the site (Schwegler 1B or 2H Nest Box Appendix E).
- 6.12. Natural England and Local Planning Authorities ("LPA") have recognised a significant decline in swift populations across the country, and are actively endorsing integrated swift boxes to provide a net gain in biodiversity, as is encouraged by NPPF 2021.

Other animals

- 6.13. The surrounding habitat of the site is considered suitable for hedgehogs. To maintain potential hedgehog routes within the site and between the site and further habitats, any fencing installed will be porous and provide access openings for hedgehogs (see Appendix F for examples).
- 6.14. General mitigation to protect wildlife during the construction period are as follows:
 - i. Any excavations will have a rough sawn plank placed inside to act as a ramp to allow any animals that have fallen in to escape. The excavations will be checked each morning works are scheduled for, to remove any animals trapped.

ii. Construction materials will be stored off the ground on pallets and waste materials in skips, to prevent providing shelter for animals and subsequent harm when materials are moved.

7. BIBLIOGRAPHY

Barn Owl Trust (2012). Barn Owl Conservation Handbook. Pelagic Publishing: Exeter.

British Standard BS 42020:2013 Biodiversity - Code of Practice for planning and development.

British Standards Institution (2012). BS 5837:2012, Trees in relation to design, demolition and construction – Recommendations.

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

Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn, R., Lock, L. Musgrove, A., Noble, D., Stroud, D., Richard, G. (2015). Birds of conservation concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. British Birds 108, 708-746.

International Commission on Illumination (2003). CIE 150:2003, Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations.

Mitchell-Jones (2004). Bat mitigation guidelines. English Nature: Peterborough

Stone, E.L. (2013). Bats and lighting: Overview of current evidence and mitigation. University of Bristol.

Appendix A Methods

Desktop Review

A desktop review of published data, such as records of protected sites and species, OS maps and satellite images has been carried out. A data search was carried out using www.magic.gov.uk for statutory protected sites and habitats.

A field survey visit was conducted to confirm the findings of the desktop review and to record habitats and species located on site.

Equipment available for use during the survey were binoculars, ladders, torches, endoscope and a digital camera.

Bats

An assessment of the habitats on and surrounding the site for bat interest was made, in accordance with latest bat survey guidelines (Collins, 2016).

The building(s) on site was assessed for its potential to support roosting bats and involved a thorough internal and external search of all suitable cavities, holes and crevices. All suitable areas, including objects, ledges and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

In exposed conditions, the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

An evaluation system was applied to the building(s) using the following criteria:

• Negligible roost suitability for bats. These buildings have no potential roosting features for bats, or very few or minor features in an isolated or unsuitable location such that the presence of a bat roost is considered highly unlikely. Such buildings usually fall into two main types: generally, well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall, or without an attic space; or those which contain some or all of the above features, but are both draughty and thick in cobwebs or contain strong odours such as solvents, diesel etc. It must be borne in mind that a building from this latter group can become suitable for bats following refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment. When no suitable habitats

for bats are found, no further surveys or European Protected Species ("EPS") mitigation licence are required.

- Low roost suitability for bats. Buildings in this category have one or more potential roost sites that could be used by individual bat opportunistically. These buildings do not however provide suitable conditions (such as space, shelter, temperature, humidity, or light and noise disturbance) to be used on a regular basis by a large number of bats. Structures with low roost suitability for bats will require one dusk emergence or one dawn re-entry survey conducted between May and August to assess their current use by bats.
- Moderate roost suitability for bats. These buildings contain one or more potential roosting sites which could be regularly used by bats owing to their size, shelter, protection and conditions. These buildings are however unlikely to support a roost of high conservation status (maternity roost or hibernation roost). Structures with moderate roost suitability for bats will require two surveys, one dusk emergence and one dawn re-entry survey conducted between May and September with at least one of the surveys undertaken between May and August, to assess their current use by bats.
- High roost suitability for bats. This group includes buildings with one or more potential roost sites which are obviously suitable for use by a larger number of bats on a regular basis and potentially for longer periods of time owing to their size, shelter, protection and conditions. These buildings may support a roost of high conservation status (maternity roost or hibernation roost) and will require three activity surveys to assess their current use by bats. The surveys should include at least one dusk emergence and at least one dawn re-entry survey (the third survey can either be at dusk or dawn) and should be conducted between May and September with at least two of surveys undertaken between May and August.

Trees on and around the site were assessed for their suitability to support roosting bats. The assessment involved a ground level inspection of the exterior of the trees to search for features offering roosting potential to bats such as split limbs, woodpecker holes, cavities, lifted bark and dense thick-stemmed ivy.

An evaluation system was applied to the trees using the following criteria:

- Negligible roost suitability for bats. Trees unlikely to be used by roosting bats.
- Low roost suitability for bats. A tree of sufficient size and age to contain Potential Roosting Features ("PRFs"), but with none seen from the ground or features seen with only very limited roosting potential.
- Moderate roost suitability for bats. A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
- **High roost suitability for bats.** A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection and surrounding habitat.

The habitats on and around the site were assessed for their commuting and foraging potential for bats. An evaluation system was applied to the commuting and foraging potential using the following criteria.

- Negligible commuting and foraging potential for bats. Habitat features unlikely to be used by commuting or foraging bats.
- Low commuting and foraging potential for bats. Habitats that could be used by a small number of commuting or foraging bats such as, a gappy hedgerow, unvegetated stream or lone trees, but are isolated and not well connected to the surrounding landscape.
- Moderate commuting and foraging potential for bats. Habitats that are continuous and connected to the wider landscape such as, lines of trees, scrub, linked back gardens, grasslands and water features.
- High commuting and foraging potential for bats. Habitats that are continuous and connected to the
 wider landscape such as, river valleys, watercourses, hedgerows, lines of trees, deciduous woodland,
 and grazed parkland. These habitats are likely to be used regularly by commuting or foraging bats and
 are likely to be close to, or connected to, known roosts.

Birds

The site and its surrounding habitats were assessed for their potential to support breeding birds. Bird nesting habitat could include grassland, hedgerows, scrub, trees and buildings.

Bird species noted during the site visit were recorded. Trees, buildings and grassland were checked for use by barn owls, swifts and skylarks.

Constraints

Appendix B Protected sites citations

SSSI citations

COUNTY: Norfolk SITE NAME: FELBRIGG WOODS

DISTRICT: North Norfolk

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife

and Countryside Act 1981

Local Planning Authority: North Norfolk District Council

National Grid Reference: TG 196401 Area: 162.5 (ha) 401.5 (ac)

Ordnance Survey Sheet 1:50,000: 133 1:10,000: TG 14 SE, 13 NE, 23 NW, 24

SW

Date Notified (Under 1949 Act): 1971 Date of Last Revision: -

Date Notified (Under 1981 Act): 1987 Date of Last Revision: N/A

Other Information:

This site is listed in 'A Nature Conservation Review'. Part of the site is under a forestry dedication agreement with the Forestry Commission.

Reasons for Notification:

Felbrigg Woods are situated on the edge of the Cromer Ridge on a plateau that slopes to the south. The Great Wood is one of only two known sites for acid Beech stands in Norfolk and probably represents an outlying native population of Beech Fagus sylvatica at the edge of its range. The ancient trees within the woodland and old deer park carry an interesting and diverse lichen flora including several East Anglian rarities. The site is also of considerable entomological and ornithological interest.

The natural Beech stands have been pollarded in the distant past and the resulting stools and boles are massive. The Beech pollards probably originated on medieval commonland when they were unlikely to have been planted and there is old documentary evidence for Beech in this part of Norfolk. There are few other tree species present with the Beech and the ground flora under the Beeches is poor, consisting chiefly of moss species. Maiden trees of Beech occur throughout the wood with frequent Pedunculate Oak and Sweet Chestnut. Most of these trees were planted in the 19th century but there are some old trees from earlier plantings. Bramble Rubus fruticosus and Bracken Pteridium aquilinum dominate the ground flora here with Honeysuckle Lonicera periclymenum and Creeping Soft-grass Holcus mollis. In locally flushed zones, Dog's Mercury Mercurialis perennis, Sanicle Sanicula europaea and Enchanter's Nightshade Circaea lutetiana occur. There is no shrub layer over much of the wood but it is well developed in an area of recently invaded parkland just north of Felbrigg Hall with Hazel Corylus avellana, Holly Ilex aquifolium, Elder Sambucus nigra and Sallow Salix caprea.

Many of the rides are narrow but they support occasional Wood Sorrel Oxalis acetosella and Yellow Pimpernel Lysimachia nemorum. Acidic grassland has developed on some of the wider woodland rides and is dominated by Sheep's Fescue Festuca ovina and Creeping Soft-grass with Heather Calluna vulgaris and Sheep's Sorrel Rumex acetosella.

The ancient trees in the park and woodland support over 50 species of lichen, a large total for East Anglia including species such as *Graphis elegans* and *Parmelia purlata* that are more commonly found in western and southern Britain. Many of the species are also indicators of ancient undisturbed woodland and provide further evidence for the continuity of old Beech forest.

The fungi and invertebrates are also probably of great interest but they have been little studied to date. Two rare flies have been recorded however, *Triphleba excisa* and *Mycetophila lubomirski*.

The wood supports a wide range of breeding birds including Wood Warbler and Redstart.

COUNTY: Norfolk SITE NAME: BRITON'S LANE GRAVEL PIT

DISTRICT: North Norfolk

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife

and Countryside Act 1981

Local Planning Authority: North Norfolk District Council

National Grid Reference: TG 169415 Area: 20.9 (ha) 51.6 (ac)

Ordnance Survey Sheet 1:50,000: 133 1:10,000: TG 14 SE

Date Notified (Under 1949 Act): N/A Date of Last Revision: N/A

Date Notified (Under 1981 Act): 1985 Date of Last Revision: -

Other Information:

A new site.

Reasons for Notification:

This pit provides excellent exposures in the Pleistocene Briton's Lane Gravels of the Cromer Ridge. These deposits, comprising coarse outwash gravels and sands (derived from melting ice) are associated with the Cromer tills of Anglian age. These fluvioglacial sediments are rarely and poorly exposed in the extensive coastal section of Norfolk, which makes this an important complementary locality.

The site is a working quarry.

Appendix C Legislation

European Protected Species

The Ramsar Convention (1971) on Wetlands of International Importance especially as Waterfowl Habitat seeks to promote the conservation and wise use of wetlands, particularly those which support internationally significant numbers of water birds. This is achieved through the designation of Ramsar Sites.

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC) sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It requires member states to designate Special Protection Areas (SPAs) for protection of certain species.

The main piece of legislation relating to nature conservation in Great Britain is **The Wildlife and Countryside Act 1981 (as amended).** This Act is supplemented by provision in **The Countryside and Rights of Way (CRoW) Act 2000** and **The Natural Environment and Rural Communities Act 2006 (in England and Wales).** This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds, their nests and eggs.

The Countryside and Rights of Way Act 2000 strengthens the protection given to SSSIs. It revises the procedures for the notification of SSSIs and for the consenting of operations which may damage the special interest of a SSSI. Local authorities have a duty to take steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of SSSIs. The act also strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" destroying or damaging the habitats of certain protected species.

UK wildlife is also protected under **The Conservation (Natural Habitats &c.) Regulations 1994** (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2017, these Regulations, together with subsequent amendments, were consolidated into **The Conservation of Habitats and Species Regulations 2017.**

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

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.

Barn Owls

The Habitats Regulations (1994), as amended, states that a person commits an offence in the case of Barn Owl only if this species is disturbed in the breeding season. This applies equally to all those bird species listed under Schedule 1.

Breeding Birds

It is an offence to kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built (even of "pest" species); take or destroy the eggs of any wild bird.

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 D Native species suitable for planting and sowing

Plants should be obtained from specialist nurseries and preferably be of local genetic stock. <u>Key</u>: (f) – fruit and berry species; (e) – evergreen species; (se) semi-evergreen species; (d) – deciduous species

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

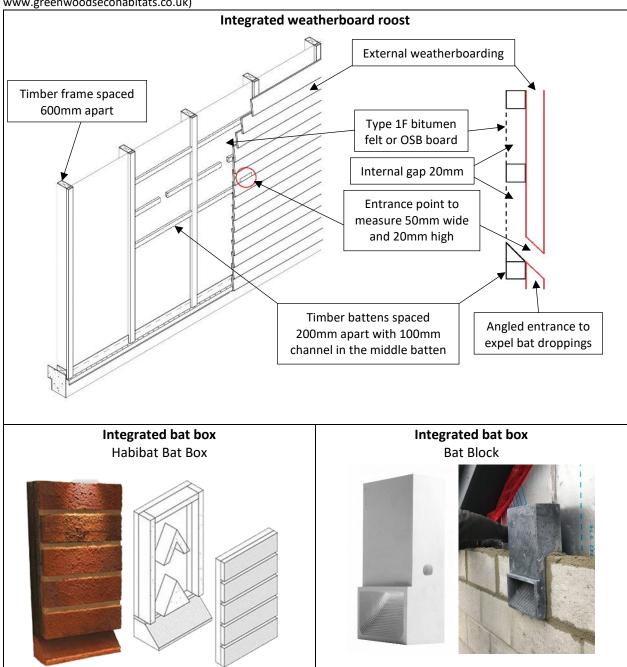
Shrubs		
Blackthorn (f; d)	Prunus spinosa	
Buckthorn (f; d)	Rhamnus catharticus	
Crab apple (f; d)	Malus sylvestris	
Dog rose (f; d)	Rosa canina	
Dogwood (f; d)	Cornus sanguinea	
Field maple (d)	Acer campestre	
Guelder-rose (f; d)	Viburnum opulus	
Hawthorn (f; d)	Crataegus monogyna	
Hazel (d)	Corylus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

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

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

Appendix E Examples of bat and bird boxes

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



Standalone bat box 2F Schwegler Bat Box (General purpose)





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.



Recommendations for installing bird boxes:

(Sourced from British Trust for Ornithology www.bto.org, Manthorpe www.manthorpe.co.uk and Barn Owl Trust www.barnowltrust.org.uk)

The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully.

Tips for putting up a nest box:

- Boxes should be sited 1-3m from the ground, ideally on tree trunks but can be placed on the side of a shed or wall. Avoid areas where foliage obscures the entrance hole.
- Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours.
- Shelter your nest box from prevailing wind, rain and strong sunlight. The box should face between north and east, and angled vertically or slightly downwards to prevent rain entering.
- Make sure cats cannot get into the box.
- Keep nest box away from bird feeders.
- Use galvanized or stainless steel screws or nails. If fixing boxes to trees, galvanised wire can be used to tie the box to the trunk or hang it from a branch. Make sure to regularly inspect these fittings (every two or three years) to ensure the box remains securely attached.

Tips for putting up house sparrow terraces and swift bricks/boxes:

- Locate ≥5m high on the gable wall of the property and above the level of the insulation zone.
- Where possible, install in locations that are unlikely to receive large amounts of direct sunlight during the hottest times of the day, ideal places include below the overhang of the verge and barge board.

Tips for putting up barn owl boxes:

- The box should be installed on a building or tree in open farmland, on an isolated hedgerow or along the edge of a woodland.
- Boxes should be sited at least 3m from the ground, with a clear flight-path for entry and exit.
- Where possible, install boxes facing suitable habitat and ideally away from the prevailing wind.
- Nest boxes should ideally be installed in pairs.

Appendix F Examples of hedgehog friendly fencing

(images sourced from www.quercusfencing.com and www.jackson-fencing.co.uk)

Quercus Fencing

Hedgehog friendly oak woven fencing panels



Jacksons-Fencing Hedgehog friendly gravel board for use with slotted posts



Recommendations for installing hedgehog friendly fencing:

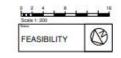
(Sourced from Hedgehog Street www.hedgehogstreet.org)

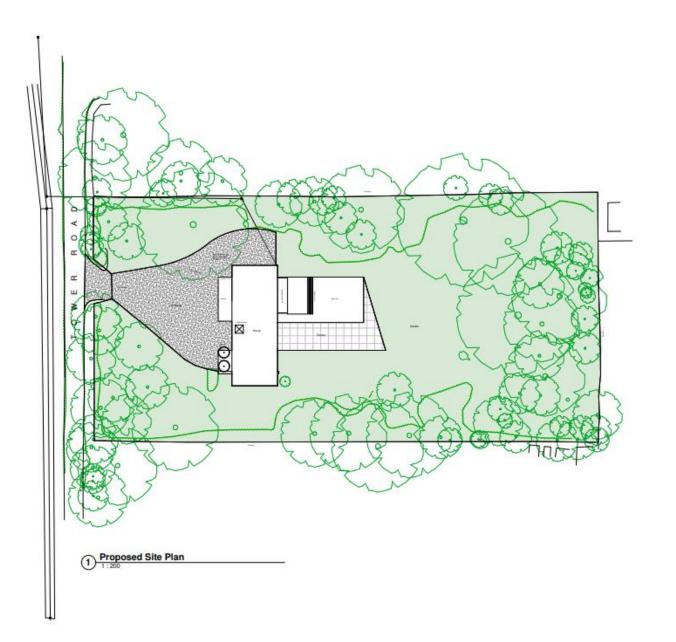
A hedgehog friendly fence should have a gap measuring at least 13cm by 13cm in the gravel board. These gaps allow any hedgehog to pass through but are too small for nearly all pets.

At least one hedgehog friendly fence panel should be located on each side of your garden, to provide unimpeded access.

Almost all fencing materials can be made hedgehog friendly, but may require DIY adaptations. Please note that some concrete gravel boards contain metal rods running along the length of the boards to provide strength and rigidity, and cannot be cut. To overcome this, a gap can be left between the gravel board and post to provide the required gap.

Appendix G Proposed plans







Acre Wood, Tower Road, Aylmerton

Preliminary Bat Roost Assessment