



Glaven Ecology



**Land to the rear of
Burnsall
Squires Drove
Three Holes**

**Ecological Impact
Assessment**

**Prepared by
Glaven Ecology**

**on behalf of
Swann Edwards**

February 2023

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1.1	Draft	-	17/02/2023	Carolyn Smith MSc, BSc (Hons), MCIEEM
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The data contained within the report are accurate to the best of our knowledge and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct.

The report conforms to the British Standard 42020:2013 Biodiversity – Code of practice for planning and development.

We confirm that any opinions expressed are our best and professional true opinions. This report has been prepared by an ecology specialist and does not purport to provide legal advice.

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that animals and plants can migration/establish and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

1 Summary

- 1.1 Glaven Ecology was commissioned to undertake an ecological assessment on a site to the rear of Burnsall, Squires Drove, Three Holes, PE14 9JY. The survey work was completed by Carolyn Smith MSc, BSc. (Hons) MCIEEM on 15th February 2023.
- 1.2 Proposals are for the demolition of the existing building on site and the erection of a single residential unit with parking areas and gardens.
- 1.3 The site sits within SSSI Impact Risk Zone for the Ouse Washes (5500m southeast). However, residential developments do not fall within the categories requiring further consultation with Natural England.
- 1.4 The site consisted of consisted of a single storey building with fibre board roof and walls and tin roof lean-to. The building sat within a gravel/bare ground access way and grass adjacent an arable field and dry ditch.
- 1.5 No further surveys for protected species are required.
- 1.6 Mitigation measures recommended include:
 - Precautionary approach to site clearance including timing of works when clearing vegetation.
 - External lights associated with the development should use warm white lights at <2700k.
 - The developer is advised to deal with the rabbits on site humanely before site clearance begins (i.e. using a specialist contractor).
- 1.7 Based on successful implementation of mitigation measures and other safeguards, no significant adverse effects are predicted as a result of the proposed.
- 1.8 Enhancements recommended for the site include the installation of bat and bird boxes and a bat friendly planting scheme.

2 Introduction

2.1 Background

2.1.1 Glaven Ecology was commissioned to undertake an ecological assessment ecological assessment on a site to the rear of Burnsall, Squires Drove, Three Holes, PE14 9JY. The survey work was completed by Carolyn Smith MSc, BSc. (Hons) MCIEEM on 15th February 2023.

2.1.2 This survey and report aim to establish the baseline ecology of the site and its suitability to support any protected species. It assesses potential impacts on these features as a result of the works and advises on the need for further surveys. It sets out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects.

2.2 Site Location and Description

2.3 The site was located at OS Grid Reference TF 512 000 (Appendix 1) to the east of Three Holes and consisted of approximately 0.1ha with a single storey building with fibre board roof and walls and tin roof lean-to with tin walls of a now non-existent building. The building sat within a gravel/bare ground access way and grass adjacent an arable field and dry ditch.

2.3.1 The wider environment was dominated by an arable landscape with a network of drainage ditches crossed to the north by Middle Level Main Drain. There were two small pockets of woodland to the southeast and several small orchards to the south and northeast.

2.4 Project Overview

2.4.1 Proposals are for the demolition of the existing building on site and the erection of a single residential unit with parking areas and gardens.

3 Legislation

3.1.1 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 and their nests and eggs.

3.1.2 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 2010, these Regulations, together with subsequent amendments, were consolidated into The Conservation of Habitats and Species Regulations 2010.

3.2 Badgers

3.2.1 Badgers are protected under the Protection of Badgers Act 1992. Under the Act, it is a serious offence to kill, injure, interfere or take a badger. It is also an offence to damage or interfere with an actively used sett unless a licence is obtained.

3.3 Bats

3.3.1 All UK bat species are protected under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). This legislation fully protects bats and their breeding sites or resting places, making it an offence to deliberately capture, injure or kill bats, deliberately disturb bats, damage or destroy a bat breeding or resting place.

3.4 Birds

3.4.1 All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended).

3.4.2 Certain species (including barn owl *Tyto alba*) are also listed under Schedule 1 of the Wildlife and Countryside Act 1981, which prevents disturbance of the species or its nest and/or eggs at any time with protection by special penalties.

3.5 Great Crested Newts

3.5.1 Great crested newts *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by The Wildlife and Countryside Act 1981 (Section 9, Schedule 5 and as amended) and The Conservation (Natural Habitats & c.) Regulations 1994. It is an offence to:

- 1) Disturb, injure or kill recklessly a great crested newt.
- 2) Disturb or destroy recklessly great crested newt habitat (a breeding site or place of shelter).

3.6 Reptiles

3.6.1 Reptiles are all given limited legal protection under part of Section 9 (1) and all of Section 9 (5) of the Wildlife and Countryside Act 1981 (as 1.1.1 amended). This means that it is an offence to intentionally kill, injure and offer for sale.

3.7 Water Voles

3.7.1 The water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species. This means it is offence to:

- 1) intentionally capture, kill or injure water vole.
- 2) damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care)
- 3) disturb them in a place of shelter or protection (on purpose or by not taking enough care)
- 4) possess, sell, control or transport live or dead water voles or parts of them.

3.8 Statutory Designated Conservation Sites

3.8.1 National designations such as Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR), are afforded statutory protection. SSSIs are notified and protected under the Wildlife and Countryside Act 1981 as amended. SSSIs are notified based on specific criteria, including the general representativeness and rarity of the site and of the species or habitats supported by it.

4 Survey Methods

4.1 Desk Study

4.1.1 The Multi-Agency Geographic Information for the Countryside (MAGIC maps) was reviewed to identify nature conservation sites and protected species licensing data within 2km of the proposed development site in February 2023.

4.1.2 The types of features considered within the desk study includes designated sites, habitats and species of principal importance for conservation of biodiversity and protected species,

4.2 Field Survey

4.2.1 A UK Habitat (UKHab) Survey of the site was undertaken during the initial site visit on 15th February 2023. The survey method followed UKHab method and classification system (Butcher et al, 2020), with the methods being 'extended' to include an evaluation of potential habitats for any protected or valued species. Photographs were taken to record key features/views.

4.2.2 Habitats outside of the landholding were appraised as far as possible by viewing from the landholding, public footpaths, and roads, as well as by using publicly accessible aerial photographs.

4.2.3 The survey was undertaken on 15th February 2023 by Carolyn Smith MSc, BSc (Hons), MCIEEM (Natural England Level 1 Licence for bats [reference 2018-34461-CLS]; Great Crested Newts [reference 2017-29746-CLS-CLS] and barn owl class licence [reference CL29/00568]).

4.2.4 The weather at the time of the survey was 10°C with a slight breeze and dry.

4.3 Protected Species

Amphibians and reptiles

4.3.1 The habitat was assessed for reptiles and amphibians and suitable materials were lifted to check for signs of reptiles.

Badger

4.3.2 The habitats on site and in the immediate surrounding area were assessed for their potential to support badgers.

4.3.3 Evidence of badger activity (including setts, footprints, latrines, trails, scratching posts, guard hairs and foraging activity) was searched for within the site.

Bats

4.3.4 A general assessment was made of the suitability of site features for roosting, commuting and foraging bats and the likely presence of bats within the site area.

4.3.5 A Preliminary Roost Appraisal was completed on the existing building on site. The survey work was completed in accordance with the Bat Conservation Trust's "Bat Surveys for Professional Ecologists" (Collins, 2016). A scoring system was applied to the building using the criteria shown in Table 2.

4.3.6 The building was investigated for evidence of bat use and evaluated for bat roosting potential. The visual search for signs of bats consisted of a slow methodical search both internally and externally for actual roosting bats and their signs:

- Droppings on walls, windowsills and floors can be used to identify species;
- Scratch marks and staining at roosts and exit holes can be used to identify the presence of bats;
- Dense spider webs at a potential roost can often indicate bat absence;
- The presence of butterfly wings may be an indication of bat presence.

Table 2: Assessing the potential suitability of a development site for bats (Collins, 2016)

Suitability	Description of roosting habitats	Description of commuting and foraging habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features onsite likely to be used by commuting or foraging bats
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.</p> <p>A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub</p>
Moderate	A structure or 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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed)	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens
High	A structure or 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, conditions and surrounding habitat	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge

Birds

4.3.7 Evidence of nesting birds was searched for, and the site was assessed as to its potential to support nesting birds.

4.3.8 Table 3 shows the criteria used when assessing the likelihood of a protected species being present within the survey area:

Table 3: Criteria considered when assessing the likelihood of occurrence of protected species.

Assessment Category	Criteria
Present	Species are confirmed as present from the current survey or historical confirmed records.
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape. Good quality surrounding habitat and good connectivity.
Moderate	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality or small in size. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.

4.4 Evaluation and Assessment

4.4.1 Ecological features are evaluated and assessed with due consideration for the Chartered Institute of Ecology and Environmental Management (CIEEM) 2019 Guidelines for Ecological Impact Assessment (EclA).

4.4.2 The following the impact magnitude categories and criteria will be used:

- Major negative effect – that which has a harmful impact on the integrity of a site or the conservation status of a population of a species within a defined geographical area (e.g. fundamentally reduces the capacity to support wildlife for the entirety of a conservation site or compromises the persistence of a species' population).
- Intermediate negative effect – that which has no adverse impact on the integrity of a conservation site or the conservation status of a species' population but does have an important adverse impact in terms of achieving certain ecological objectives (e.g. sustaining target habitat conditions and levels of wildlife for a conservation site or maintaining population growth for a species).
- Minor negative effect – some minor detrimental effect is evident, but not to the extent that it has an adverse impact in terms of achieving ecological objectives.
- Neutral effect – that which has no predictable or measurable impact.
- Positive effect – that which has a net positive impact on an ecological receptor.

4.5 Survey Limitations

4.5.1 The whole area was accessible for survey and there were no significant limitations to the survey.

5 Baseline Ecological Conditions

5.1 Designations

5.1.1 No Statutory Designated Sites were identified within 2km of the site.

5.2 The site sits on the outer limits of a SSSI Impact Risk Zone for the Ouse Washes (5500m southeast). However, residential developments do not fall within the categories requiring further consultation with Natural England which include residential developments of 50 units or more.

5.3 Habitats and Flora

Notable Flora Records

5.3.1 No records of note were recorded in the site during the survey.

5.3.2 Invasive plants such as Japanese knotweed, Himalayan balsam and giant hogweed were not recorded within the site.

Habitats

5.3.3 The existing access way was to bare earth and gravel with a narrow grass margin. The area in front of the building to gravel with low vegetation overgrowth. There were areas of modified grassland to the east and south of the site with a dry ditch running along part of the western boundary (Figures 1 and 2 - Further site photos can be found in Appendix 3).

5.3.4 The grass around site was of a poor structure with very few herbs present, those recorded included dandelion, creeping buttercup, ragwort and red dead nettle.

5.3.5 The gravel area in front of the building was covered in ground ivy and moss.

5.3.6 The south and eastern boundaries were to a large arable field. The access track had some ivy scrub and two pine trees along the western boundary and a privet hedge to the boundary with Burnsall.

5.3.7 There was a rabbit warren in the south of the site with bare patches of earth.

5.3.8 A habitat map can be found In Appendix 4.



Figure 1: The building – northern aspect



Figure 2: The western boundary and dry ditch.

5.4 Fauna

Amphibians

- 5.4.1 The site is within a Green Risk Zone for great crested newt presence according to the DEFRA map for District Licensing of Great Crested Newts (GCN) in Norfolk and Suffolk. These are areas that are deemed to contain sparsely distributed GCN and are less likely to contain important pathways of connecting habitat for this species.
- 5.4.2 There were no class licence returns for great crested newt presence showing on Magic maps within 2km of the site and no records of granted European Protected Species Licencing.
- 5.4.3 There were no ponds within 250m of the site and the ditch to the western boundary was dry.
- 5.4.4 The habitats on site were sub-optimal for amphibians offering little in the way of foraging or sheltering opportunities. The majority of the site was to gravel and short, poor structure vegetation.
- 5.4.5 It was assessed that the likelihood of great crested newt presence within the site was **negligible**.

Badgers

- 5.4.6 The site did not provide suitable habitat for sett creation and there were very limited opportunities for foraging.

5.4.7 No evidence of badgers such as latrines, snuffle holes, mammal runs, or badger dung found was found during the survey.

5.4.8 The likelihood of foraging badgers being occasionally present within the site is **negligible**.

Bats

5.4.9 There were no records of granted European Protected Species Mitigation Licence within 2km of the site.

5.4.10 The habitats immediately around the site had low potential for foraging and commuting bats, with poor vegetation structure a large arable field adjacent. The wider environment also had moderate potential for bats with the network of ditches provide some foraging.

5.4.11 The pine trees along the track boundary were covered in ivy growth but appeared in good condition and had no potential roost features present. The ivy did not appear to be thick enough to provide any roosting opportunities in its own right.

Visual inspection

5.4.12 The building was a single storey storage shed with heavy growth on either end and the rear (Figure 3).

5.4.13 The roof and walls were to fibre boarding and whilst warped in places they didn't present any suitable cavities for roosting bats.

5.4.14 There were windows on both aspects with tightly sealed window frames. There was a broken window on the northern aspect with boarding behind, preventing access inside.

5.4.15 Despite the dilapidated nature of the building it appeared well sealed.

5.4.16 Internally the building was one space (Figure 4) with a boarded ceiling creating a very low roof void. There was one area where the boarding had come away revealing an unlined roof with metal frame (Figure 5).

5.4.17 The internal walls had no gaps or cracks, although there was old ivy growth coming in through the roof.

5.4.18 To the rear of the building was an open fronted lean-to with unlined tin roof (Figure 6).

5.4.19 No bats or signs of bats were observed during the survey and roosting opportunities were minimal.

5.4.20 The building was assessed as having **negligible potential** to support roosting bats.



Figure 3: Western aspect – with ivy growth



Figure 4: Internal view



Figure 5: Unlined roof and metal frame



Figure 5: Rear lean-to.

Birds

5.4.21 Nesting opportunities on site were limited to the pine trees along the track boundary and potentially within the ivy around the building. No old nests were observed.

5.4.22 The likelihood of nesting birds on site is assessed as **moderate**.

Reptiles

5.4.23 The habitats on site offered poor foraging for reptiles being limited in size and of a poor structure.

5.4.24 The building was generally well sealed offering no sheltering opportunities. There were no habitats on site that could be used for hibernation.

5.4.25 The gravel area could possibly offer basking opportunities, but the lack of any other habitat suggests that the likelihood of reptiles being present on site was assessed as **negligible**.

Water voles and otters

5.4.26 The ditch adjacent to the western boundary was dry at the time of the survey and not suitable for these species.

5.4.27 There was no vegetation along the ditch apart from grass, which was obviously well maintained.

5.4.28 The likelihood of these species being present on site was assessed as **negligible**.

Other species

5.4.29 There was a rabbit warren to the rear of the building with several holes and droppings present.

6 Assessments of Effects

6.1 Site proposals

6.1.1 Proposals at the Site comprise the following:

- Demolition and removal of the existing building on site.
- Erection of one residential house, with associated gardens and parking areas, using the existing accessway onto Squires Drove.

6.2 Assessment of Likely Significant Effects

Designated sites

Predicted Effects

6.3 The site sits within SSSI Impact Risk Zone for the Ouse Washes but does not fall within the categories requiring further consultation with Natural England.

6.3.1 No potential pathways of impact are anticipated on the Designated Sites given the scale and location of the development and the distance to the Designated Sites.

Habitats and Flora

Predicted Effects

6.3.2 The site is of low botanical importance and provided little in the way of foraging habitat for wildlife.

If the pine trees along the track boundary are being retained there is the risk of damage to roots through construction works therefore minor negative effects are predicted.

Mitigation Measures

6.3.3 Protection of boundary trees will be implemented through suitable tree protection in accordance with BS 5837:2005.

Residual Effects

6.3.4 Through the implementation of the above mitigation measures, no significant adverse effects are predicted.

Fauna

Amphibians

Predicted Effects

- 6.3.5 The habitats on site were sub-optimal for this species and the desk study and field survey suggest these species are unlikely to be present on site.
- 6.3.6 No significant adverse effects or legal infringements are predicted.

Badgers

Predicted Effects

- 6.3.7 There was no suitable habitat for setts and foraging opportunities were limited.
- 6.3.8 No significant adverse effects or legal infringements are predicted.

Bats

Predicted Effects

- 6.3.9 No foraging or commuting routes will be affected and no fragmentation of habitat will be caused by the proposed works.
- 6.3.10 There was negligible roost potential within the site, however low numbers of commuting bats may cross the site or exploit site boundaries therefore neutral effects are predicted.

Mitigation Measures

- 6.3.11 External lights associated with the new house should be of a low light level to further minimise impacts on bats that might forage and commute in the vicinity.
- 6.3.12 Warm white lights should be used at <2700k. This reduces the ultraviolet component or that has high attraction effects on insects which can lead to a reduction in prey availability for some light sensitive bat species.

Residual Effects

- 6.3.13 Through the implementation of the above mitigation measures, no significant adverse effects are predicted.

Birds

Predicted Effects

- 6.3.14 Nesting opportunities were limited but there are opportunities for nesting within the ivy on the existing building.
- 6.3.15 During site clearance there is the risk of killing and injuring nesting birds, damaging their nests or eggs, as a result of vegetation clearance. In the absence of mitigation a minor adverse effect is predicted at the Local level.

Mitigation Measures

- 6.3.16 To avoid committing an offence under the Wildlife and Countryside Act 1981 (as amended), any site clearance will take place outside of the bird nesting period (i.e. outside of March to August), or failing that, following confirmation by a suitably qualified ecologist that nesting birds are absent from the habitats to be cleared.

Residual effects

- 6.3.17 Through the implementation of the above mitigation measures, no significant adverse effects are predicted.

Reptiles

Predicted Effects

- 6.3.18 The habitats on site were sub-optimal for this species and the desk study and field survey suggest these species are highly unlikely to be present on site.
- 6.3.19 No significant adverse effects or legal infringements are predicted.

Water voles and otters

Predicted Effects

- 6.3.20 The habitats on and adjacent to the site were sub-optimal for this species and the desk study and field survey suggest these species are highly unlikely to be present on site.
- 6.3.21 No significant adverse effects or legal infringements are predicted.

Rabbits

- 6.3.22 Whilst not a protected species, rabbits are covered by the Animal Welfare Act 2006, and thereby protected from unnecessary suffering.

Mitigation Measures

6.3.23 The developer is advised to deal with the rabbits on site humanely before site clearance begins (i.e. using a specialist contractor).

Summary of Effects

6.3.24 Table 4 below summarises the assessment of effects, including any mitigation and subsequent residual effects.

Table 4: Summary of effects

Ecological Factor	Likely Significant Effect and/or Legal Implication (before mitigation)	Avoidance & Mitigation Measures	Residual Effects (after mitigation)
Designated sites	No significant effects	-	No significant effect
Habitats and flora	Minor negative effects	Tree protection in accordance with BS5837: 2005	No significant effect
Amphibians	No significant effects	-	No significant effect
Badgers	No significant effects	-	No significant effect
Bats	Neutral effects	Low level lighting scheme.	No significant effect
Birds	Minor negative effects	Sensitive timing of works/nest checks by ecologist	No significant effect
Reptiles	No significant effects	-	No significant effect
Water voles	No significant effects	-	No significant effect
Rabbits	Destruction of rabbit warren during site clearance.	The developer is advised to deal with the rabbits on site humanely before site clearance begins (i.e. using a specialist contractor).	Loss of warren

7 Enhancements

7.1 Habitats

7.1.1 Any new grass on the site will use a mix with at least four grass species and eight herb species. This will encourage invertebrates on the developed site which in turn will provide feeding opportunities for bats and birds.

- Suitable mixes are available online and can be targeted to the desired grassland style, for example Emorsgate provides mixes for flowering lawns (when regular mowing is required) and for wildflower grassland (when infrequent mowing is possible).

7.1.2 Consideration should also be given to incorporating pollinator and bat friendly planting schemes into any planned landscaping. Suggested plants include:

Bedding Plants		Climbers	
Nottingham catchfly	<i>Silene nutans</i>	European honeysuckle	<i>Lonicera caprifolium</i>
Night-scented catchfly	<i>S. noctiflora</i>	Italian honeysuckle	<i>L. etrusca superba</i>
Bladder campion	<i>S. vulgaris</i>	Japanese honeysuckle	<i>L. japonica halliana</i>
Night-scented stock	<i>Matthiola bicornis</i>	Honeysuckle (native)	<i>L. periclymenum...</i>
Sweet rocket	<i>Hesperis matronalis</i>	White jasmine	<i>Jasminium officinale</i>
Evening primrose	<i>Oenothera biennis</i>	Dogrose	<i>Rosa canina</i>
Tobacco plant	<i>Nicotiana affinis</i>	Sweetbriar	<i>R. rubiginosa</i>
Cherry pie	<i>Heliotropun x hybridum</i>	Fieldrose	<i>R. arvensis</i>
Soapwort	<i>Saponaria officinalis</i>	Ivy	<i>Hedera helix</i>

7.2 Bats

7.2.1 Install one integrated bat box on the southern or eastern aspect of the new property as close to the eaves as possible. The [Integrated Eco Bat Box](#) or [Vivara Pro Build in Bat box](#) are suitable examples.

7.3 Birds

7.3.1 As per BS:42021:2022 *Integral nest boxes* install one swift box style bird nest box into each new house. Boxes intended for swifts are well used by other species of conservation concern and can be considered a 'universal' nest chamber (Newall, 2021). Swift nest boxes are commercially available and will be provided with instructions for appropriate installation.

7.3.2 In general, bird boxes should be sited in or on gable ends, or under overhanging eaves, overlooking gardens or other green spaces, and with a clear/unobstructed flight line for easier access and egress. The northern aspect is preferable out of direct sunlight.

8 References

- British Standards (2013) *BS 42020, Biodiversity – Code of practice for planning and development*. BSI, London
- British Standards (2022) *BS 42021:2022, Integral nest boxes – selection and installation for new developments - specification*. BSI, London
- Butcher, B. (et al) (2020), *The UK Classification User manual Version 1.1*: <http://www.ukhab.org>
- CIEEM (2019) *Biodiversity net gain – a practical guide*. CIEEM, Hampshire
- CIEEM (2019) *Guidelines for Ecological Impact Assessment in the UK and Ireland: terrestrial, freshwater and coastal*. CIEEM, Hampshire
- Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists — Good Practice Guidelines*, 3rd edition, Bat Conservation Trust, London.
- Google Earth (2023) <https://www.google.com/earth/>
- JNCC (2008) UK Biodiversity Action Plan Priority Habitat description: traditional orchards. <http://jncc.defra.gov.uk/page-5706>
- Magic database (2023) <https://magic.defra.gov.uk/>
- Natural England (2020) *Template for Method Statement to support application for licence under Regulation 55(2)(e) of The Conservation of Habitats and Species Regulations 2017 (as amended) in respect of great crested newts Triturus cristatus. Form WML-A14-2 (Version April 2020)*
- Newall, D. (2021) Swift Bricks: The 'Universal' Nest Brick. <https://cieem.net/swift-bricks-the-universal-nest-brick-by-dick-newell>
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.

Appendix 1 – Site Location



Source Google Earth Pro, 2023

Appendix 2 – Survey photos

All photos were taken on 15th February 2023



Photograph 1: Existing access way



Photograph 2: The dry ditch.



Photograph 3: Western boundary



Photograph 4: Rabbit holes to the rear of site.



Photograph 5: Area of rabbit holes.

Appendix 4 – Habitat Map

