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Inspection & Assessment in relation to Bats & Breeding Birds

September 2022

Old Hall Farm
Old Ball Hall
Off Warrington Road
Widnes
WA8 3XJ

National Grid Ref: SJ54129027

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Executive Summary

As part of a proposed planning application at Old Hall Farm, Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in July 2022. The survey was commissioned by CW Planning Solutions; the proposals are understood to involve the demolition of the existing stable and erection of a single detached dwelling.

Detailed methods, findings, conclusions and recommendations are presented throughout the report; however, the reader should be aware of the following **Key** points:

Bats: Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by Appendix I, the stable at Old Hall Farm is determined to offer '**Negligible**' bat roost potential in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016). No further surveys or bat protection measures are recommended at this time.

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

Breeding Birds: No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as Barn owl and no further surveys or recommendations are necessary in relation to specially protected birds. In relation to common birds, evidence of nesting Swallows was observed within the building and another unidentified nest was observed on the roof.

In the interests of potential impact avoidance it is recommended that proposed works to areas of nesting potential (the structures as well as any areas of vegetation) within the site boundary should be undertaken outside of the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March – August). For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing. If birds are found nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

Biodiversity Enhancement: As a means of enhancement and aiding the design of the scheme in keeping with local and national planning policy considering biodiversity net-gain principles, the proposals may consider incorporating wildlife friendly provisions in addition to those described. Further recommendations, regarding bats, birds, native species and invertebrates are provided within Appendix II.

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1.0 Introduction & Reasons for Survey

1.1 As part of a proposed planning application at Old Hall Farm, (see Figure 1.1), Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in July 2022. The survey was commissioned by CW Planning Solutions; the proposals are understood to entail the demolition of the existing stables, and the erection of a single detached dwelling.

Figure 1.1 – *Existing site plan within the red line boundary (Source: Google Earth 2022)*

1.2 The aim of the survey was to ascertain if the stable on site was of value to bats whilst an assessment for birds was also carried out. If any potential roost features (PRFs) were found to be suitable for bats, or signs of use were observed, then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August (extending into September).

1.3 If additional surveys are required following the initial site visit this report will outline the details of those further requirements.

1.4 If it was determined that bat(s) or their roost/place of rest/shelter will be subsequently impacted by the works then a European Protected Species Mitigation Licence (EPSML) would be legally required to proceed with the development.

1.5 If evidence indicated breeding birds may be impacted by proposals, tailored recommendations would be made accordingly, species pending.

1.6 As part of the local authority's planning policies and obligations to the Planning Framework, ecological surveys are generally required prior to planning permission being granted where protected/priority habitats and species are, or may be present, that could be affected by the proposals for which the application seeks consent. Where more detailed surveys are recommended by the ecologist, following an initial daytime investigation, then Local Planning Authorities (LPA), on the advice of their ecological advisors, will not grant permission until such time that all relevant information is gathered.

1.7 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019) the site visit also aims to identify enhancement opportunities for biodiversity in line with national and local planning policy.

2.0 Protected Species & Their Requirements

Bats

2.1 All British bats and their **roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2019) (EU Exit). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Use of Buildings by Bats

a) Summer breeding roost (May – August)
b) Hibernation roost (October – March)
c) Transitional or temporary roost (other months)

2.3 Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance; climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

*** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to "a breeding site or resting place of such an animal" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used, is legally protected whether or not bats are in occupation.*

Birds

2.4 All wild birds, no matter how common, their eggs, young and nests, whilst being built or occupied, are protected under both the Wildlife and Countryside Act (WCA 1981) and Natural Environment and Rural Communities Act (NERC Act 2006). Birds listed on Schedule 1 of the WCA 1981, for example Barn owl (*Tyto alba*), are afforded a greater level of protection with individual birds and their nests protected also from disturbance.

2.5 Any work that would damage an occupied nest, eggs or young of breeding birds must be avoided; any damage to nests that may occur as a result of the development should be outside of the main breeding bird season (March – August). On occasions nests can become unoccupied during the breeding season but the status of the nest(s) should be determined by a suitably experienced ecologist before any damage takes place.

Policy

2.6 Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) states:

When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development

in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

2.7 Policy LPC06: Biodiversity and Geological Conservation from St Helens Local Plan Supports this;

1. development on outside a proposed designated SSSI which is likely to be detrimental effect (either singly or in combination with other developments) with not be permitted unless the benefits of the development can clearly be demonstrated to outweigh the impacts it is likely to have eon the features for which the site has been designated

2. Development directly or indirectly affecting sites of local nature conservation interest (Local Wildlife Sites, Local Geological Sites or Local Nature Reserves, educational features, and additionally, in the case of Local Nature Reserves, educational features, and additionally, in the case of Local Nature Reserves, educational features can be safeguarded. If necessary, this may require appropriate conditions and/or seeking legal agreements. The LWS, LGS and LNRs at the time of the adoption of this plan are shown on the Polices Map and listed in Appendix 6, but new sites may be designated outside of the Local Plan process.

3. Development will not be permitted where the Council is satisfied that is would have an adverse effect on priority wildlife species listed under Section 41 of the Natural Environment and Rural Communities Act 2006 or Sections 2,5 & 8 of Wildlife and Countryside Act (1981as amended).

2.8 Where more detailed surveys are recommended by the Ecologist following a daytime assessment, then the Local Planning Authority, upon the advice of their ecological advisors, should not determine an application until such time that all relevant information is gathered, i.e. - until all required survey work has been completed. This is in accordance with the obligations placed upon Local Authorities in the exercise of its functions by way of its duties under the Conservation of Habitats & Species Regulations 2019 (EU Exit).

3.0 Protected Species on Merseyside

3.1 Up to nine bat species have been recorded in Merseyside, most of which use built structures notably occupied residential properties for roosting. All bats feature on the Merseyside local biodiversity action plan (LBAP). The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Merseyside is reflected throughout the UK.

3.2 All wild birds (with only minor exceptions) and their nests, whilst being built or containing eggs or dependant young, are protected under the Wildlife & Countryside Act 1981 (as amended). Some species are, however, subject to a greater level of protection, for example Barn owl (*Tyto alba*), which are a distinctive, widespread species of protected bird listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); they are distributed throughout the UK and will use tussock-forming grasslands, rough field margins, ditches and roadside edges for hunting purposes, whilst they typically use barns/abandoned buildings and tree hollows for

nesting or roosting use. In rare instances occupied dwellings can support owls. Additional to protection from nest destruction, Schedule 1 listed species are also protected from disturbance.

4.0 Survey Methodology

4.1 As part of the Inspection & Assessment for Bats & Breeding Birds report, a desk-top and field-based study is conducted. Methods for both components of the appraisal are given below.

Desktop Study

4.2 Prior to a site visit a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations within 2.0 kilometres of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGiC – provided by DEFRA) was accessed to gather such information; this particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSMLs) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.

4.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2021/22) to help establish past use of the land and determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.

4.4 A commercial data request to the Local Environment Records Centre serving the area (which in this case is Greater Manchester Local Record Centre) has not been sourced by the Ecologist and is justified through application of the following guidance:

1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states:

"*It is generally expected that a desk study, including a data search, will be a key part of the ecological surveys or reports produced to inform a planning application. Freely available web-based sources of data and contextual information should always be used; in some cases, it may be acceptable to not undertake a data search with the LERC or other relevant NSS or local interest groups, for example:*

ii) Situations where the data search would be extremely unlikely to provide information needed to inform the assessment, due to the ***scale and location*** *of the proposed development. The appropriateness of excluding a data search will need to be judged on a case-by-case basis as, in most situations, it will be essential to carry out such a search even if the development is very small or is likely to have a low impact. It can be very difficult to demonstrate that a data search would not have provided relevant information without obtaining and reviewing those data.*

iii) In some cases for Preliminary Roost Assessments of buildings in ***low impact / small-scale*** *scenarios, such as an extension to a residential property, loft conversions (full or partial), installation of Velux/dormer windows, single modern agricultural or similar building conversion or demolition; however, it should not be assumed that data searches are never required for such scenarios and this must be judged on a case by case basis and justified accordingly.*

2) The Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) also states:

*"Very occasionally it might be possible to carry out a robust PEA without obtaining LERC/NBDC/CEDaR data; this will usually only apply to **low impact or small-scale projects** (e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis."*

4.5 As exemptions as made **bold** above can be applied at the site whilst following best practice, it is considered unnecessary to conduct a commercial data request following the desk study effort and daytime assessment at this time, which offers a proportionate level of survey effort. If, however, a data search is considered necessary by the Local Authority advisory body to inform the ecological impact assessment following any further surveys recommended in this report, a proportionate data search should be commissioned with results interpreted into the conclusions and recommendations of a re-issued/updated report.

Field Survey

4.6 In context with the above, a diurnal inspection and assessment of the building and the immediate environment in relation to bats and breeding birds was conducted on 18th July 2022 in dry conditions (16ºC), wind 2/12 (Beaufort scale), 10% cloud, by Mr. H. Mulligan Qualifying CIEEM, a trainee Ecologist who is receiving extensive training in conducting Preliminary Roost Assessments and who holds an MBiolSci in Biological Sciences (Zoology).

4.7 Bat Conservation Trust (BCT) - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) states:

"*The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

4.8 The bat and breeding bird survey was conducted in tandem; the site and building was inspected for potential places that may be of value to bats or breeding birds, and to determine if evidence of use by either group was present.

4.9 External elevations were investigated with the aid of a high-powered torch and close focus binoculars (where necessary) for places that can be used as a roost by bats or as a means of ingress for bats and birds leading to areas of roosting/nesting potential. These features are typically referred to as potential roost features (PRF) concerning bats. All external features were able to be surveyed without constraint.

4.10 The surrounding habitat was also considered in terms of general suitability for bat and bird species associated with the local habitat types.

4.11 Trees on site were inspected for places that may be of value to bats and to determine if evidence of use was present; this typically involves a search for potential roost features along with an investigation of those features using a high-powered torch or close focus binoculars. Potential roost features can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy with stem diameters in excess of 50mm or bat/bird boxes. Trees (where present) were also checked for evidence of nesting birds and suitability for relevant species.

4.12 Criteria for roost assessment are based upon the determinants given in the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016): (see Figure 4.1).

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	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[a] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation[b]). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.[c]	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. 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.
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[a] 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. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
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[a] 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. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

[a] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
[b] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
[c] This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Figure 4.1 – *BCT guidelines extract*

4.13 An assessment of the buildings was conducted when birds are within their breeding season (this is typically March – August inclusive). Elevations were inspected for evidence of birds that show a high dependency upon built structures, many of which are in a state of decline. These might include the following species for example:

- Starling (*Sturnus vulgaris*): Birds of Conservation Concern (BoCC) red status
- House Sparrow (*Passer domesticus*): BoCC red status
- House Martin (*Delichon urbica*): BoCC amber status
- Swift (*Apus apus*): BoCC red status

4.14 Additional to the site's capacity to support common species of bird, the area was subject to an assessment for capacity to support specially protected species such as Barn owl, which is protected under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended).

4.15 The results, conclusions and recommendations are based on a number of factors i.e.

- Practical experience of surveyor,
- Knowledge of bat/bird species relevant to the site location and geographical range,
- Nature of immediate/surrounding habitat in relation to foraging/commuting,
- Condition of the building,
- Presence/absence of a loft space or cellar and reasonable practicality of use,
- Presence/absence of roost potential,
- Value of roost potential – if present.

4.16 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, the Director of Tyrer Ecological Consultants Ltd, and her assessment is consistent with that of Mr. Mulligan.

5.0 Limitations

5.1 The survey was conducted in July 2022 at a time when bats are within their active season, with evidence of bats therefore being most apparent in this time period where they are roosting. Survey timing is therefore not considered a constraint in this instance.

5.2 The survey took place within the breeding bird season (typically March – September inclusive) at a time when evidence of breeding birds is most apparent. Survey timing is again not considered a constraint in this instant.

5.3 Having considered the survey constraints above, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

6.0 Desk Study Results

6.1 The proposed development site (referred to in-part as "the application site" and "the site") is a stable on Old Hall Farm, situated north of Warrington Road and is set approximately 6.2 kilometres south-east of St. Helens town centre, 5.8 kilometres north-east of Widnes town centre and 6.5 kilometres north-west of Warrington town centre.

Figure 6.1 – *Location of the application site (red boundary) within the landscape (Source: Google 2021/22)*

6.2 The immediate habitat to the site is distinctly rural and agricultural, with the extending Old Hall Farm lying to the south and east as well as the long lane to the east on which the site lies which extends from the Warrington Road to the south. Farmhouses lie to the immediate north and south alongside a patch of deciduous woodland surrounding the property to the north. Beyond these farm properties it is rural in all directions, with expanses of agricultural grassland.

6.3 The extending environment is largely similar to that of the immediate in all directions, with large areas of agricultural land throughout divided by hedgerows and treelines. Large patches of priority deciduous woodland intersperse this farmland, as well as a small patch of priority traditional orchard 1.15 kilometres to the west. The M62 lies just 0.52 kilometres to the north of the site, dividing the expanses of semi-natural land use. Lingley Green is situated 1.5 kilometres to the south-east, which is a suburb on the western edge of Warrington, while the infrastructure of greater St Helens begins approximately 1.40 kilometres to the north-west. These more urban environs include typical associated amenities, such as schools, shops, restaurants, and sports facilities.

6.4 There are no statutory designated site within 2.0 kilometres of the application site. The closest site is the Local Nature Reserve (LNR) Colliers Moss Common which lies approximately 3.20 kilometres to the north.

6.5 Collectively, the immediate and extending aforementioned ecological features should be considered favourable, with well-connected ecological networks for bats and birds and connectivity between the application site and rural areas of woodland and grassland. These corridors of connectivity provide areas for commuting and foraging for bats, with the protected species most typically associated with the habitats described being Common Pipistrelle (*Pipistrellus pipistrellus*) bats, typically associated with roosting in buildings, and Brown Long-

eared bats (*Plecotus auritus),* which are commonly associated with woodland and more semi-natural environs.

NB: *Where quality habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available and vice versa.*

6.6 Where no impact to SSSI's are predicted, NE issue the following advice within their standing guidance on SSSI impact zones (NE, 2019):

"*It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.*"

6.7 An online search of MAGiC maps revealed that no European Protected Species Mitigation Licences (EPSMLs) have been granted within 2.0 kilometres of the application site.

6.8 A search of biological records submitted to the local record centre serving the area held by Tyrer Ecological Consultants Ltd revealed no bat roosts within 2.0km of the application site.

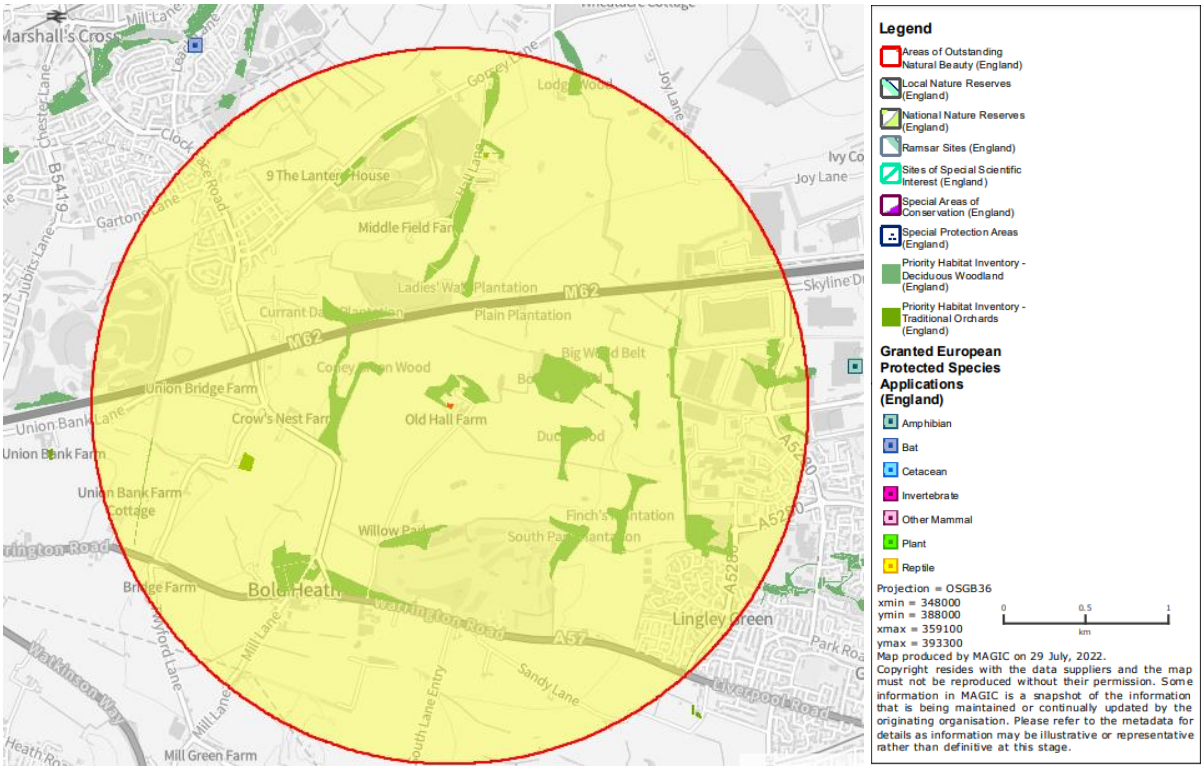

Figure 6.2 – *EPSML and designated site data for the area within 2.0 kilometres of the application site, (Source: MAGiC Maps 2022)*

7.0 Field Study Results

Bats

7.1 The surveyed building is in use as an equine stable and agricultural storage and lies to the south-west of a grazing pasture. Structurally, it is an L-shaped single storey timber-built stable with a pitched, corrugated asbestos roof and approximate maximum dimensions of 17 metres x 17 metres x 3 metres (Length x Width x Height). Collectively, the building features components such as integrated skylights and security-lighting. In respect of its condition, the surveyor is not qualified to assess structural state, however the aesthetic condition of the building was adjudged to be moderate, with some deterioration to the roof noted but generally tight timber cladding throughout.

7.2 Internally, the building is compartmentalised into various rooms and holding pens and has no loft space present. The stable is heavily cobwebbed, cool and draughty, and highly illuminated by the integrated skylights and gaps in the roof. No roof lining is present, which can provide crevices for crevice-dwelling bats such as those of the *Pipistrellus* genus.

7.3 The stable was deemed unsuitable for loft-dwelling bat species such as Brown Long-Eared bats, due to it lacking a loft space and the building being inconsistent with the roosting preferences of these species.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

7.4 Externally, the stable offers no Potential Roof features. Although there are gaps throughout the roofing, no crevices exist that could provide roosting potential for bats.

7.5 Based on the lack of PRFs, as well as the structural assessment of the building, the stable can be duly categorised as offering '**Negligible**' bat roost potential.

7.6 There are a small number of trees close to the stable, with a variety of species present; all of these were assessed to check for bat roost potential; however, none were determined to offer any potential for roosting bats. Trees near to the red line boundary should, however, be considered valuable to bats in a local context in that they provide valuable foraging/commuting habitat to bats, offering shelter, cover and habitat connectivity when in foliage.

Breeding Birds

7.7 In relation to WCA Schedule 1 specially protected bird species, such as Barn owl, no evidence to indicate use of the site by such species or suitability for use was identified, with a lack of connectivity to open agricultural land or grassland which these birds use to forage.

7.8 In relation to common bird species, evidence of nesting was discovered at the site; one Swallow (*Hirundo rustica*) nest cup was observed internally at the rafters of the most western room, as well as an unidentified nest on the roof of the building at the north-facing corner elevation. however, certain elements of the structure could feasibly support small birds adapted to urbanisation, such as House Sparrows, for example. Several bird species were seen on or around the site during the survey, such as Magpies (*Pica pica*) and Woodpigeons (*Columba palumbus*). The site is also close to a range of mature shrubbery that would provide a plethora of suitable nesting platforms for common bird species, particularly during the breeding bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March – August).

8.0 Conclusions & Recommendations

Bats

8.1 Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by Appendix I, the stable at Old Hall Farm is determined to offer '**Negligible**' bat roost potential in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016). No further surveys or bat protection measures are recommended at this time.

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

Figure 8.1 - *Bat Conservation Trust (BCT) extract on negligible roost suitability*

8.2 Bats are a transient group and buildings can deteriorate over time to provide a more hospitable environment for bats, therefore these recommendations apply for 12 months; if the building is still standing in 12 months an updated preliminary roost assessment is recommended. If in the event that bat(s) are found, or evidence of bat(s) during demolition or during proposed works or at any time, then as a legal requirement the work at the site should immediately cease and an Ecologist be contacted for further advice.

8.3 Installation of overly harsh artificial lighting as part of any development that exceeds current levels may have a negative impact upon foraging/commuting bats in the landscape, particularly if increased light spillage occurs in areas of that are currently free from illumination. A bat-sensitive lighting plan is therefore recommended in order to avoid potential impacts to bats that may use the surrounding treelines. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Lighting Guidelines for further information.

Appropriate luminaire specifications: Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires.

All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used. LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. Lighting should be directed to where it is needed, and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only. Planting can also be used as a barrier or manmade features that are required within the build can be positioned so as to form a barrier.

Predicting where the light cone and light spill will occur: There are lighting design computer programs that are widely in use which produce an image of the site in question, showing how the area will be affected by light spill when all the factors of the lighting components listed above are taken into consideration. This should be a useful tool to inform the mitigation process.

Light levels: The light should be as low as guidelines permit. If lighting is not needed in any particular area, do not light. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site.

Please refer to the 'Landscape and urban design for bats and biodiversity' (*Gunnell et. al.*, 2012, Bat Conservation Trust) Guidance Note 8 'Bats and Artificial Lighting' 2018, Bat Conservation Trust for further information.

8.4 No recommendations are necessary in relation to bats and trees, as the trees on site are not adjudged to offer any roosting potential for bats, with a distinct lack of any suitable locations such as: woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy with stem diameters in excess of 50mm or bat/bird boxes.

Breeding Birds

8.5 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as Barn owl and no further surveys or recommendations are necessary in relation to specially protected birds.

8.6 In relation to common birds, evidence of the stable's use by swallows and another unidentified bird species was observed. The shrubs and trees nearby could also offer small birds nesting habitat, particularly during the breeding bird season.

8.7 In the interests of potential impact avoidance it is recommended that proposed works to the should be undertaken outside of the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March – August). For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing. If birds are found nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

NB: *All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected from destruction, damage and disturbance under the Wildlife & Countryside Act 1981 (as amended). It is a punishable offence to interfere in any way with an active nest.*

Biodiversity Enhancement

8.8 As a means of enhancement and aiding the design of the scheme in keeping with local and national planning policy considering biodiversity net-gain principles, the proposals may consider incorporating wildlife friendly provisions in addition to those described. Further recommendations, regarding birds, native species and invertebrates are provided within Appendix II.

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Appendix I: Site Photographs

Plate 1 – The north-eastern elevation of the building

Plate 2 – The south-eastern aspect of the building

Plate 3 – The north-western elevation of the building

Plate 4 – The south-western aspect of the building

Plate 5 – Character of the field in which the stable lies

Plate 6 – Internal character of stable

Plate 7 – Internal character of the stable

Plate 8 – Swallow nest at rafters of most western room

Plate 9 – Unidentified bird nest at north-facing corner elevation

Plate 10 – Gaps in roofing

Plate 11 – Heavy cobwebbing throughout

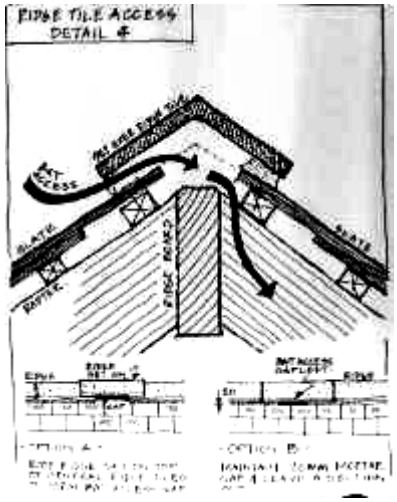
Appendix II: Biodiversity Enhancement: General Recommendations

Indicative Enhancement

Bats

Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.

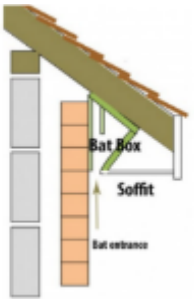


Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.

Breeding Bids - House Sparrow

The Sparrow Terrace has been designed to help redress the balance of falling House Sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House Sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of buildings.

Breeding Birds - Other

This traditional design has proved to be highly effective in attracting Robins, as well as other small species such as Black Redstart, Spotted Flycatcher and Wren. It is designed to be installed on the walls of houses, barns, garden sheds or other buildings and should be hung so that the entrance is to one side (at an angle of 90° to the wall). The front panel can be easily removed for cleaning.

This type of box should not be made conspicuous on a tree or bush because small predators can enter through the unprotected opening. By hanging on a wall, predators won't be able to reach the box. Alternatively hide the box in Ivy, Honeysuckle or other climbing plants.

Invertebrates - Bee bricks

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used.

Available in a choice of four colours: white grey, dark grey, yellow and red.

Specification
* Material: Concrete
* Origin: Cornwall, UK
* Dimensions: W 215mm x D 105mm x H 65mm
* Weight: 2.9kg
* Colours: White grey, yellow, dark grey and red

Native Planting and/or Landscaping

New feature landscaping should incorporate native woody plants as opposed to non-native species that are of significantly less benefit to biodiversity. Species such as Blackthorn (*Prunus spinosa*), Honeysuckle (*Lonicera periclymenum*), Rowan (*Sorbus aucuparia*), Guelder-rose (*Vibernum opulus*) and Hawthorn (*Crataegus monogyna*) are native and will provide a valuable resource for a myriad of wildlife as opposed to non-native, exotic species which are generally much less effective, particularly to pollinator groups including bees, butterflies and moths.

Suitable Trees	Suitable Woody Shrubs
English Oak (*Quercus robur*)	Hawthorn (*Crataegus monogyna*)
Rowan (*Sorbus aucuparia*)	Honeysuckle (*Lonicera periclymenum*)
Wild Service Tree (*Sorbus torminialis)*	Guelder Rose (*Vibernum opulus*)
Silver Birch (*Betula pendula*)	Elder (*Sambucus nigra*)
Ash (*Fraxinus excelsior*)	Wild Privet (*Ligustrum vulgare*)
Goat Willow (*Salix capraea*)	Blackthorn (*Prunus spinosa*)
Beech (*Fagus sylvatica*)	
Wild Cherry (*Prunus avium*)	