Liz Lord Ecology

Grassy Lane Farm, Woolpit, Suffolk

Preliminary Ecological Appraisal

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CONTENTS

1.0 SUMMARY

1.1 The site (located at NGR: TL9867861469) was found to comprise a collection of relatively modern former piggery buildings and wooden stables surrounded by hard standing, with a small donkey paddock to the rear. Planning permission is being sought to demolish the existing buildings and construct four residential dwellings with parking areas and gardens, accessed via the existing driveway.

1.2 The buildings were deemed to be of negligible suitability for roosting bats, with a lack of roosting crevices and / or accessible roosting crevices.

1.3 All of the buildings and the scattered trees / shrubs provide good potential nesting opportunities for birds. Ideally building works and any removal of woody vegetation should commence during October to February inclusive to avoid the bird nesting season; but if this is not possible, immediately prior to commencement of works a check for nesting birds should be undertaken by a suitably experienced ecologist. Any active nests will need to be left in situ until the young have left the nest.

1.4 The site is not deemed suitable for any other protected species.

1.5 The mitigation and enhancement measures detailed in section 6.0 can be secured via a planning condition, and should result in an overall enhancement of the site for nesting house sparrow, swift and crevice dwelling roosting bats.

2.0 INTRODUCTION

Instruction

2.1 This report has been prepared by Liz Lord following instruction by Mr K Webber of Peter Wells Architects to carry out an ecological appraisal of land and buildings at Grassy Lane Farm, Warren Lane, Woolpit, Bury St Edmunds, Suffolk IP30 9RT.

Site Proposals

2.2 Planning permission is being sought to demolish the existing buildings and construct four residential dwellings with parking areas and gardens, accessed via the existing driveway.

Site Description

2.3 The site is situated close to the centre of Woolpit Heath, approximately 1km to the south east of Woolpit and between the conurbations of Bury St Edmunds and Stowmarket. The site comprises a collection of relatively modern former agricultural buildings in a concrete yard, with an adjoining donkey paddock. The site is surrounded to the north, east and west by further grazing paddocks, and is adjoined by residential gardens to the south.

2.4 The wider landscape is generally dominated by arable fields lined with hedges and trees, and small village settlements, however there is a notable expanse of woodland situated c.700m to the east of the site. A site location plan is provided below.

Fig 1A: Site location, with site indicated beneath red arrow. Aerial photograph sourced from Google Earth Pro

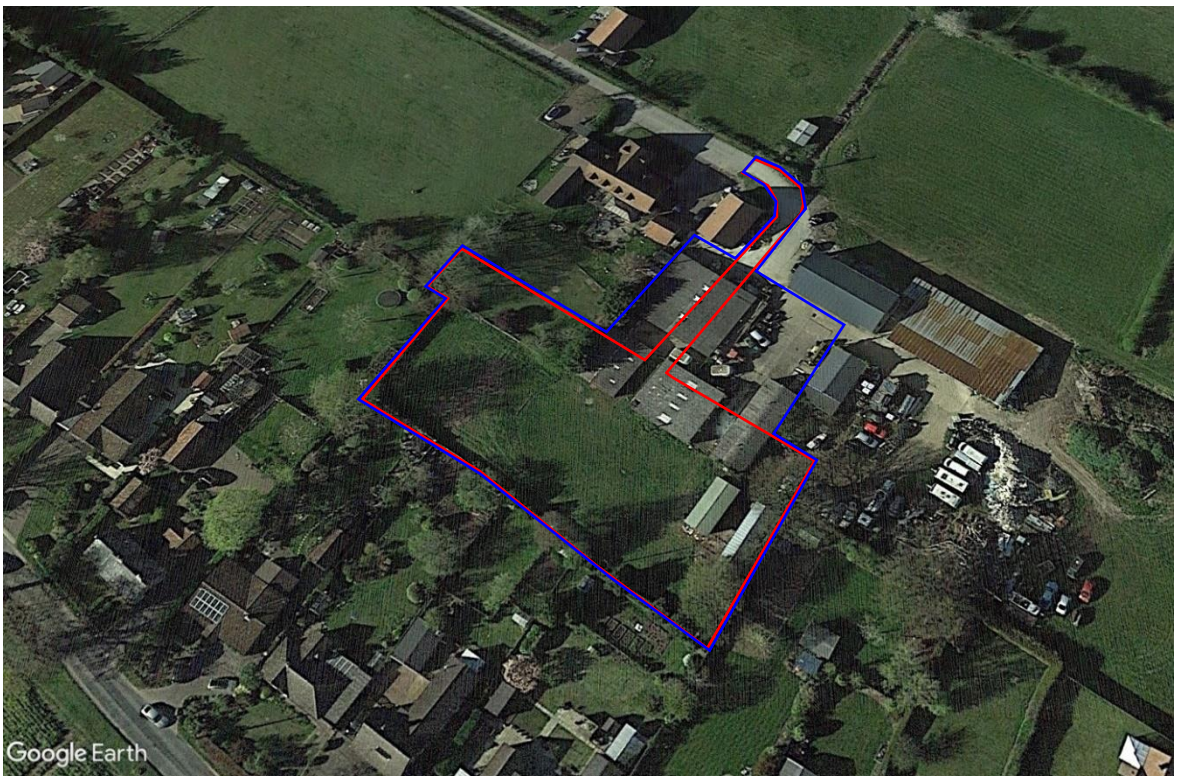


Fig 1B: Aerial plan, with approximate development boundary outlined in red, and survey boundary outlined in blue. Aerial photograph sourced from Google Earth Pro

Objectives

2.5 This report has been written broadly in accordance with the report writing guidelines produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) (CIEEM 2018, 2017a, 2017b). In accordance with the client brief, this survey and report aims to:

2.5.1 Identify and describe all potentially significant ecological effects on protected and notable species / sites associated with the proposals;

2.5.2 Set out the mitigation measures required to ensure compliance with nature conservation legislation and address any potentially significant ecological effects;

2.5.3 Identify how mitigation measures will / could be secured;

2.5.4 Provide an assessment of the significance of any residual effects;

2.5.5 Identify appropriate enhancement measures; and

2.5.6 Where deemed necessary, set out the requirements for post construction monitoring.

2.6 This survey and report is intended to inform, as necessary, the layout and design of the proposals, future landscape design and management on site, and where required the methodology and timing of development works.

Timescales

2.7 The total works period is expected to be around 24-36 months following the granting of relevant permissions.

2.8 This report is valid for a period of 18 months from the date of survey. Beyond this time, changes to the buildings and vegetation may have occurred which could require re-assessment and potentially further survey to re-determine the presence / likely absence of protected species.

Relevant Documents

2.9 The site assessment was based upon drawing number PW788-PL501 dated June 2023 by Peter Wells Architects, as shown in Appendix 1. Any minor amendments to the overall building scheme are unlikely to alter the conclusions and recommendations of this report.

2.10 Recommendations included within this report are the professional opinion of an experienced ecologist based on the client's proposals for the site, the site surveys, the results of the desk study, and features present in the surrounding environment.

3.0 METHODOLOGY

Desk Study

3.1 The Multi Agency Geographic Information for the Countryside (MAGIC) website was consulted on 19th March 2024 to determine the presence of any nationally and internationally designated sites such as Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within influencing distance of the proposals.

3.2 The MAGIC website was also used to search for any records of European Protected Species Mitigation (EPSM) licences that have been approved by Natural England within a 5km radius of the application site since late 2008 (last updated January 2022). The website was checked for any data from Natural England's great crested newt eDNA Habitat Suitability Index pond surveys for District Level Licensing 2017-2019 (last updated December 2023); and data from Natural England great crested newt Class Survey Licence returns within a 5km radius of the site (last updated December 2023).

3.3 A records search was carried out in January 2024 with the Suffolk Biodiversity Information Service (SBIS) for County Wildlife Sites and protected and notable species within a 2km radius of the site.

Site Survey

3.4 A site survey was carried out on 12th March 2024. The survey was based upon the standard methodology for Extended Phase 1 Habitat Surveys (JNCC 2010) and the UK Habitat Classification system (UKHab Ltd 2023). The relative abundance of individual plant species was recorded, and habitats were classified according to the abundance of plant species present. Any evidence of invasive species such as Japanese knotweed was noted.

3.5 The survey area was limited to the site and immediately surrounding land as highlighted in Figure 1B and Appendix 1, plus land within the potential Zone of Influence.

3.6 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act 2006. Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (Collins, J. 2023) and Habitat Suitability Index for Great Crested Newt (Oldham *et al*, 2000).

3.7 Using criteria provided in best practice guidelines, habitats have been assessed for their potential to support protected species; notably bats, barn owls *Tyto alba,* badgers *Meles meles*, great crested newts *Triturus cristatus*, reptiles, water voles *Arvicola amphibius*, dormice *Muscardinus avellanarius* and otters *Lutra lutra*.

3.8 Where methodologies, classification or recommendations deviate from best practice guidelines, this report provides ecological justification for such changes.

Ground Level Tree Assessment

3.9 Trees were subject to a ground level tree assessment in accordance with criteria outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. 2023). Trees were surveyed using a powerful torch and a pair of Nikon 12 x 50 binoculars to determine the presence of any potential roost features (PRFs), including but not limited to woodpecker holes, knot holes, tear-outs, cracks, lifted bark, compression forks and large ivy stems. Where an accessible PRF was identified, it was inspected with an Easyview 8mm digital recording endoscope to better determine the characteristics of the feature and to search for bats and evidence of roosting bats.

Building Inspection

3.10 The buildings were surveyed and assessed in accordance with criteria outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. 2023).

3.11 The internal and external inspection of the buildings were carried out using – as necessary – a powerful torch, a ladder, a pair of Nikon 12 x 50 binoculars and an Easyview 8mm digital recording endoscope to inspect gaps and crevices for bats and evidence of bats.

3.12 Floors, walls and storage surfaces beneath all possible access points or crevices which may be used for roosting were checked for droppings, scratching and urine or fur staining, and particular attention was paid to the areas beneath tie beams from which bats may hang or rest.

3.13 The ridge boards, tie beams, barge boards and door / window frames of the buildings were specifically checked for scratching and staining, as well as roosting bats. Particular attention was paid to any gaps in and around timbers, roofs and walls; and the walls, ledges and ground area below.

3.14 Floor surfaces comprised concrete, and had not been recently swept or cleared prior to the building inspection.

Surveyors

3.15 The survey was carried out by Liz Lord. Liz has been a professional ecologist since 2005, and holds current Natural England licences to survey bats - Class Licence Reg. No. 2015-13305-CLS-CLS; great crested newts - Class Licence Reg. No. 2020-44816-CLS-CLS; and barn owls - Class Licence Reg. No. CL29/00160. Liz is a full member of CIEEM.

3.16 The weather at the time of the building inspection and site survey comprised light rain, with little to no wind (BF0-1) and a temperature of 9˚C.

Zone of Influence

3.17 The potential impacts of a development are not always limited to the boundaries of the site concerned, such as where there are ecological or hydrological links beyond the site boundaries. In order for the proposed works to have an impact on habitats and species outside of the site boundaries, there needs to be a source of impact, a pathway and a receptor for that impact.

3.18 The Zone of Influence will vary for different habitats and species depending on their sensitivity to predicted impacts, the distribution and status of the relevant species, whether a species is mobile, migratory, and whether its presence and activity varies according to the seasons.

3.19 An assessment of the Zone of Influence has been made based on the site layout shown in Appendix 1, and where necessary recommendations to avoid any significant adverse impacts beyond the site boundaries have been provided in section 5.0.

Limitations

3.20 The conclusions in this report are based on the best information available during the reported period of survey.

3.21 The survey was undertaken at a time of year when some plant species are not present above ground, or are simply not easily recorded; however an overall assessment of the flora communities present at the time of survey has been used to assess the likelihood of the unrecorded presence of any plant species of conservation importance. Due to the species recorded to be present at the time of survey, the UKHab categories assigned to the various habitats present are unlikely to change following survey later in the spring / summer.

3.22 Ecological surveys provide only a 'snapshot' of the site in time, and many species, such as bats and badgers, are capable of colonising a site in a very short space of time. Lack of evidence of a species at the time of survey can only allow conclusion of the *likely* absence of this species, since no level of survey effort is capable of proving absence beyond doubt.

3.23 Whilst best efforts have been made to identify all water bodies within 250m of the site, it is not always possible to record all garden ponds using Ordnance Survey maps and aerial photography. Additional search effort with respect to garden ponds is likely to be disproportionate, as many garden ponds have limited suitability for great crested newts, and it is a common constraint associated with all Ecological Assessments.

Geographic Context

3.24 Where applicable, the importance of each ecological feature has been considered in a geographic context as follows:

- International and European
- National
- Regional
- Metropolitan, County, vice-county or other local authority-wide area
- River Basin District
- Estuarine system/Coastal cell
- Local (further categorized into District, Borough or Parish)
- Site

Assessment of Impacts and Effects

3.25 The following definitions are used for the terms 'impact' and 'effect' in accordance with CIEEM (2018) guidelines:

- Impact – actions resulting in changes to an ecological feature
- Effect – outcome to an ecological feature from an impact

3.26 The importance of any ecological feature has been determined via the site surveys detailed in this report. Note that species and habitats afforded legal protection are, by default, always considered within the EcIA assessment process to be 'important'.

3.27 Potential impacts of the proposals on any such features have been assessed based on the client proposals for the site, and following a review of all phases of the project. Impacts are assessed through consideration of the extent, magnitude, duration, reversibility, timing and frequency of works which may result in likely 'significant' impacts to any ecological features present. The route through which impacts may occur (direct, indirect, secondary or cumulative) has also been considered. Positive impacts are assessed as well as negative.

3.28 The results of the surveys have been used to identify any potentially significant impacts in the absence of any avoidance, mitigation or compensation measures. Any such appropriate measures have then been proposed where necessary.

Characterisation of Ecological Impacts

3.29 When considering ecological impacts and effects, the following characteristics have been considered:

- positive or negative
- extent
- magnitude
- duration
- frequency and timing
- reversibility

3.30 Where various characteristics have not been specifically referred to in this report, they have been considered insignificant or irrelevant to that specific feature.

3.31 A 'significant effect' is defined within the current CIEEM guidelines (2018) as: "*an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local.*"

3.32 Where a significant effect is predicted, this requires assessment and reporting in order to provide the decision maker with sufficient information to determine the environmental consequences of a project. A significant effect can be either positive or negative, and its extent will determine the requirement of conditions, restrictions or monitoring works.

3.33 The current CIEEM guidelines (2018) also state that: "*After assessing the impacts of the proposal, all attempts should be made to avoid and mitigate ecological impacts. Once measures to avoid and mitigate ecological impacts have been finalised, assessment of the residual impacts should be undertaken to determine the significance of their effects on ecological features. Any residual impacts that will result in effects that are significant, and the proposed compensatory measures, will be the factors considered against ecological objectives (legislation and policy) in determining the outcome of the application.*"

3.34 This report has taken into account the factors detailed above for each important ecological feature in the absence of mitigation. Recommendations have then been made with respect to avoidance / mitigation / compensation / enhancement as necessary, and an assessment of the residual impacts after such measures has been made.

Mitigation Hierarchy

3.35 In order to minimise the likelihood of any significant negative residual effects on environmental features, this assessment has followed the mitigation hierarchy (listed below in order of preference):

- Avoidance – measures that avoid harm to ecological features, both spatially and temporally;
- Mitigation – avoidance or minimisation of negative effects through appropriate timing of works, or the provision of mitigation measures within the scheme design which can be guaranteed by condition or similar;
- Compensation – measures taken to offset residual effects which result in the loss of, or permanent damage to, ecological features despite mitigation;
- Enhancement – measures to provide net benefits for biodiversity, either by improved management of existing features, or the provision of new features, and over and above that which is required to mitigate / compensate for an impact. Delivery should be secured via planning condition or similar.

Legislation and Policy

3.36 Specific reference has been made to the individual legal protection of the species detailed within this report, however additional information with respect to other relevant legislation and planning policy is provided in section 8.0.

3.37 The legislation of particular relevance within the body of this report is the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). The former confers legal protection to 'European' Protected Species against both disturbance and harm, and extends to the full protection of their habitats. This legislation also provides legal protection for a number of internationally designated sites within the UK, and remains in place following Brexit.

3.38 The Wildlife and Countryside Act 1981 (as amended) is UK specific, and generally only provides protection against direct harm to individuals of a species.

4.0 RESULTS (*Baseline Conditions*)

Site Summary

4.1 The site comprises a collection of relatively modern former piggery buildings and wooden stables surrounded by hard standing, with a small donkey paddock to the rear.

Desk Study: Statutory Designated Sites

4.2 Natural England's MAGIC website indicates that there are no UK statutory designated sites located within potential influencing distance of the proposals. The closest designated site is Norton Wood SSSI, located over 3km to the north west of the site.

4.3 There are no internationally designated sites located within potential influencing distance of the site, and the site is not located within the Zone of Influence for internationally designated sites with respect to recreational pressures.

Desk Study: Non-Statutory Designated Sites

4.4 There are no County Wildlife Sites located within influencing distance of the site. Shelland and Woolpit Woods CWS lies just over 600m to the east of the site, but with no direct connectivity to the site.

Habitats

Water bodies

4.5 No water bodies are present on site. Site location plans, aerial photography and Ordnance Survey maps at 1:10,000 scale highlighted the presence of one potential small garden pond at 180m east of the site, and a small pond at 250m south east.

4.6 Both ponds are separated from the site by mature residential gardens, grazing pasture and numerous thick hedges. Given the relatively limited potential amphibian habitats present on site, the large distance between the site and the two identified ponds, and the lack of any habitats of notable value beyond the site to the west, the potential for any great crested newts which may be present in either waterbody to utilise the site for any purpose is negligible. The two ponds are therefore not considered to be of significant relevance to the proposals, are scoped out of this assessment and are not considered further.

Hard standing / sealed surface (u1b)

4.7 The site access comprises a concrete driveway, leading into the concrete former farmyard. The concrete is in good condition with no significant cracks or crevices, and very minor accumulations of debris, moss and weeds alongside buildings.

4.8 A small area of gravel parking is present adjacent to Building 1.

Sparsely vegetated urban land (u1f)

4.9 On the eastern edge of the site is a small area of land used to store farm machinery and materials. Between the stored materials – some of which are raised on pallets – is a mosaic of concrete hardstanding, bare earth and scattered cleavers *Galium aparine*, nettles *Urtica dioica*, bramble *Rubus fruticosus agg.* and occasional tussocks of grass.

Other neutral grassland (g3c)

4.10 The donkey paddocks, which cover the majority of the proposed development boundary and are located across the southern half of the site, consist of an open area of rotationally grazed neutral grassland. Grass cover dominates, with false oat grass *Arrhenatherum elatius*, Yorkshire fog *Holcus lanatus*, cocksfoot *Dactylis glomerata* and smooth meadow grass *Poa pratensis* present. Frequent to occasional creeping buttercup *Ranunculus repens*, ribwort plantain *Plantago lanceolata,* yarrow *Achillea millefolium*, common mouse-ear *Cerastium fontanum*, white clover *Trifolium repens*, dandelion *Taraxacum officinale*, cats ear *Hypochaeris radicata* and doves-foot cranesbill *Geranium molle* were recorded across the paddocks, with rare occurrences of spear thistle *Cirsium vulgare* and nettles along the field margins.

4.11 The grass is very short where it is grazed, and slightly longer where it is not currently being grazed, but is not tussocky and no litter layer is present.

Native hedgerow (h2a)

4.12 A row of leggy and gappy mature shrubs extend west from Building 2, accompanied by a mix of wooden and metal mesh fencing panels which separate two sections of the donkey paddock. Here grows individual mature hawthorn *Crataegus monogyna*, cherry *Prunus sp*., apple *Malus sp.* and elder *Sambucus nigra*, as well as a mature *Berberis sp*.

4.13 The southern and part of the western paddock boundaries are also delineated with various sections of both native and ornamental hedgerow species, however all appear to be located within the boundaries of the adjacent gardens.

Trees

4.14 A group of semi-mature hornbeam *Carpinus betulus* are present in the south eastern corner of the site, and a mature oak *Quercus robur* tree overhangs part of the eastern site boundary, however the oak tree appears to be located on or just outside of the site boundary.

4.15 On the western side of the site is a row of mature conifers *Cupressus sp.* growing immediately to the west of Building 2. Immediately adjacent the site to the west is a row of semi-mature ash *Fraxinus excelsior* and oak trees, with one semi-mature oak tree present just within the western site boundary.

4.16 It is understood that the mature ash, oak and hornbeam trees will be retained as part of the proposals, with the conifers and smaller shrubs to the west of Building 2 removed.

Invasive species

4.17 No aerial evidence of Japanese knotweed *Fallopia japonica* was recorded within the site or the immediately adjacent areas at the time of survey.

Site photographs

Photo 1: Donkey grazing paddock with mature shrubs and small trees on western side of site

Photo 2: Semi-mature oak tree in western corner of donkey paddock

Photo 3: Main area of site – neutral grassland grazed rotationally

Photo 4: Group of semi-mature hornbeam in south eastern corner of site

Photo 5: Centre of farmyard with concrete hard standing and the northern ends of B4 and B5 visible

Photo 6: Northern end of Building 1, with adjacent concrete hard standing and offsite adjacent residential property

Photo 7: Overgrown stored equipment and materials in north eastern corner of site

Photo 8: Mosaic of bare ground, sparse vegetation, and stored materials to east of Building 4

Buildings (u1b5)

4.18 Six individual buildings are present on site, all set around areas of concrete with some bare, muddy corridors leading between the buildings to the adjacent donkey paddocks. Most of the former piggery buildings were in varying degrees of use as workshops and for storage, and the stables appeared to be disused.

4.19 The locations of the buildings are shown on Figure 2, overleaf, with the building inspection results detailed below.

4.20 The buildings and any Potential Roosting Features (PRFs) are described below, along with any evidence of the presence of roosting bats. No evidence of the presence of barn owls was recorded in any of the buildings.

Fig. 2: Building location plan. Aerial photograph sourced from Google Earth Pro

Building 1

4.21 A large, single storey building constructed of breeze blocks, wooden supports and occasional metal girders with a shallow pitched corrugated fibreboard roof. Door and window frames are generally metal, with no surrounding gaps. Wooden roof supports sit tight within the breeze blocks and the roof sheets are cemented in place at the eaves. The roof sheets are lined internally with insulation boards, and whilst there is a cavity between here and the corrugations of the fibreboard sheets above, access at the eaves is restricted by guttering. No gaps are present beneath the wooden barge boards upon which the guttering is fixed.

4.22 The floor is concrete, with a small proportion of the building in current use as a workshop, and numerous undisturbed stored items present upon which to search for evidence of the presence of bats. No such evidence was recorded, with just a small number of mouse and rat droppings noted. An old likely robin *Erithacus rubecula* nest was observed on a roof beam. Three ventilation shafts are present along the ridge, and provide permanent access into the building.

Photo 9: Northern façade of Building 1

Photo 10: Internal structure of B1 – a mix of closely fitting wooden and metal supports

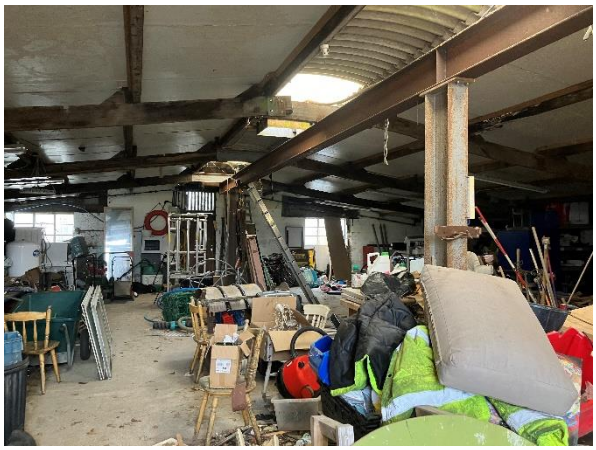


Photo 11: Internal view of Building 1

Photo 12: Closely fitting end beams and roofing sheets of B1

Building 2

4.23 A smaller single storey building also constructed of breeze blocks, with a wooden and metal frame supporting a shallow pitched roof which is covered with unlined corrugated fibreboard sheets. A number of corrugated Perspex skylights are present, and some are broken, allowing access into the building.

4.24 A wooden barge board is present on the gable ends, but with a large (c.100mm) gap between here and the wall, which is unsuitable for use by roosting bats. The floor is concrete, and the building is predominantly dis-used other than to house donkey feed and a number of cats. No evidence of the presence of bats was recorded in the building.

Photo 13: North eastern facades of Building 2

Photo 14: Internal view of Building 2

Photo 15: Building 2 roof structure – fibreboard sheets, broken Perspex sheets and a metal ridge covering

Photo 16: Large gap between barge boards and walls of Building 2 – not suitable for crevice dwelling bats

Building 3

4.25 A third breeze block building, with modern wooden beams supporting a long, shallow sloping roof covered with unlined corrugated fibreboard sheets. Regular Perspex skylights create light internal conditions. The front of the building is a combination of vertical wooden boards, metal sheet doors and metal gates, allowing permanent access into the building.

4.26 Part of the building frame has collapsed in the south western corner, and extensive damp and rot is present across the western half of the building. Floors are concrete, with the eastern half of the building used for storage, and the western half dis-used. No evidence of the presence of bats was recorded.

Photo 17: Southern façade of Building 3 – in centre with long sloping roof

Photo 18: North eastern facades of Building 3

Photo 19: Internal view of Building 3

Photo 20: Internal view of Building 3, south western end, with partially collapsed roof

Building 4

4.27 A single storey building constructed of a mis-match of materials on a metal frame. No ridge beam is present, and the roof comprises curved, unlined, corrugated fibreboards. The northern end of the building has a false sheet metal ceiling, with an unlined roof void above here. Gaps beneath the corrugations have been filled at the eaves with expanding foam. No gaps are present beneath wooden barge boards, which sit tight against the wall materials.

4.28 Walls are lined internally with plyboard in places, with a thin polystyrene board between here and the external mix of cement fibre sheet boards, corrugated metal sheets, uPVC windows, wooden and Perspex windows, and corrugated fibreboard sheets.

4.29 The building is used as a workshop and for storage. No evidence of the presence of bats or nesting birds was recorded.

Photo 21: North western façades of Building 4

Photo 22: Internal structure of Building 4

Photo 23: Metal sheet ceiling at northern end of Building 4

Photo 24: Eastern wall of Building 4

Building 5

4.30 A wooden framed stable block with a corrugated tin roof lined with plastic coated wooden boards. No ridge beam is present. Walls consist of narrow weatherboarding, tightly fitted but with large sections missing and / or chewed by donkeys from around 1m down. This provides potential access to a wall cavity approximately 30-40mm wide, however the internal wall comprises a smooth and shiny plastic surface upon which bats would not be able to grip, thereby preventing bat access into the wall cavity. The cavity was, in any case, found to be filled with dense cobwebs, straw and debris due to the cavity being open at the top. The stables are divided internally by featheredge boarding.

4.31 No evidence of the presence of bats was recorded, however a likely pigeon *Columba palumbus* nest was recorded on a tie beam.

Photo 25: South western facades of Building 5

Photo 26: Slippery plastic surface of internal wall lining

Photo 27: Internal view of Building 5

Photo 28: Roof structure of B5, with bird nest on beam

Building 6

4.32 A second wooden framed stable block, with a shallow pitched roof covered in corrugated tin and lined with wooden sarking. There is no ridge beam, and a large gap is present between the tin sheets and the sarking below. Walls are a combination of weatherboarding and corrugated tin, with the lower weatherboarded walls having been chewed away by donkeys. Some of the walls are lined internally with a papery bitumen felt, but with no opportunity for bats to roost beneath. Rear (eastern) walls and part of the roof are covered in dense ivy *Hedera helix.*

4.33 Similar wall cavities are present as per Building 5, and these were also found to be filled with dense dirt, cobwebs and straw, due to internal boarding covering the lower half of the walls only, and being open at the top.

4.34 A number of old (partially collapsed) swallow *Hirundo rustica* nests were recorded in the building, as well as some intact nests, but with no evidence to suggest recent use e.g. accumulations of droppings likely to have been from summer 2023. No evidence of the presence of bats was recorded in the building.

Photo 29: South western facades of Building 6

Photo 30: Internal view of Building 5, with chewed lower wall sections

Photo 31: Typical view inside lower wall cavities

Photo 32: Large gap between tin roof covering and wooden sarking beneath

Animals

Bats

4.35 The desk study identified one bat EPSM licence within 5km of the site, at 4.3km to the south for a non-breeding roost of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus* and brown long-eared bat *Plecotus auritus*.

4.36 The SBIS records search returned ten records of bats at 1-2km from the site in all directions – mostly common pipistrelle and soprano pipistrelle, with single records of noctule *Nyctalus noctula* and leisler's bat *N. leisleri.*

Bats - roosting

4.37 No evidence of the presence of bats was recorded in any of the buildings.

4.38 No PRFs were recorded in any of the buildings, or where there was potential for bats to utilise a cavity – such as that in Building 1 between corrugated fibreboard roof sheets and sheet insulation beneath – access was severely obstructed such that there was negligible potential for bats to use the relevant feature.

4.39 As a result, all of the buildings were assessed as being of 'negligible' suitability for roosting bats.

4.40 With the exception of the mature oak tree on the eastern site boundary, the trees were also assessed as being of 'negligible' suitability for roosting bats, with no PRFs recorded. The eastern oak tree is likely to be of 'low' suitability for roosting bats, with some very minor deadwood on branches and a dense covering of ivy across the trunk. However, since the tree will be retained and unaffected by the proposals, no further survey is required.

Bats – commuting / foraging

4.41 The site provides a very small area of habitat for foraging and / or commuting bats, limited to the hedge-lined donkey paddock at the southern end of the site. A number of external lighting features were noted on the buildings, however it is not known whether they all work.

Invertebrates

4.42 The site is considered likely to support common and widespread invertebrate species typical of the habitats present.

Amphibians

4.43 The MAGIC search highlighted six distinct groups of records of great crested newt (GCN) within 5km of the site – various groups of class licence returns and EPSM licences at 1.5km east, 2km north east, 2.2km west, 2.8km south west, 3.8km north west and 4.7km south east of the site. The SBIS search returned 14 records of GCN within 2km of the site dating from 2016 to 2022, with the closest at 0.65km to the north east of the site, and the remainder at 1-2km from the site.

4.44 Whilst GCN appear to be widespread within the surrounding landscape, due to an apparent lack of ponds within potential influencing distance of the site, and the presence of low quality potential GCN terrestrial habitats within the site boundaries, there is negligible potential for GCN to be present on site or adversely affected by the proposals.

Reptiles

4.45 The site does not support any habitats with potential to support reptiles, and is not located adjacent to any such habitats.

Birds

4.46 All of the buildings provide potential nesting opportunities for birds to varying degrees, as do the small numbers of trees. Pigeon, robin / blackbird and old swallow nests were recorded in some of the buildings.

4.47 No evidence of the presence of barn owl was recorded in any of the buildings.

Badger

4.48 Badgers are a common and widespread species, not of conservation concern.

4.49 No evidence of badger was recorded on or within 30m of the site. No setts, footprints, hairs, latrines, snuffle holes or scratching indicative of the presence of badgers was recorded.

Otter and Water Vole

4.50 There are no waterbodies on, adjacent or connected to the site which have potential to support otters or water voles.

Dormice

4.51 There are no habitats present on site with potential to support dormice.

Other Legally Protected Species

4.52 Due to a lack of suitable habitats the site is not considered likely to support any other legally protected species.

Species of Principal Importance

4.53 The grazing pasture may be used by foraging and commuting hedgehog *Erinaceus europaeus* and toad *Bufo bufo*, and by foraging starling *Sturnus vulgaris,* all of which are Species of Principal Importance in England (SPIE). Numerous records of hedgehog were returned by the SBIS search.

4.54 The buildings could be used by nesting house sparrow *Passer domesticus*, however none were recorded on site at the time of survey, and no evidence to suggest nesting activity was recorded. The site contains very little other habitat suitable to support SPIE.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Designated Sites

5.1 The site does not lie within the Zone of Influence for any nationally or internationally designated sites. No further survey or mitigation is required in this regard.

5.2 The proposals are not considered to be detrimental to any CWS. No further survey or mitigation is recommended.

Bats

5.3 All species of bat are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended). In summary, this makes it an offence to harm or disturb a bat; damage or destroy a roost; and obstruct access to a roost (whether or not bats are present at the time).

5.4 Potential effects on roosting bats: negligible.

5.5 Mitigation measures for roosting bats: none required.

5.6 Potential effects on commuting / foraging bats: in the absence of mitigation negligible impacts are predicted with respect to foraging and commuting bats as the site provides a very small area of such habitat, the vast majority of which is to be retained, however the effects on small numbers of commuting bats – particularly brown long-eared bats – could be greater where additional and / or inappropriate lighting is installed on site.

5.7 Mitigation measures for commuting / foraging bats: external lighting must avoid illuminating the site boundaries or any enhancement features at night. New lighting would ideally be limited to small porch lights which are located as close to the ground as possible. Where possible external lighting should be on short duration motion sensors; use hoods, cowls, louvres and shields to direct light to the ground; and use warm white (<3000K) LED bulbs.

5.8 Residual effects: negligible. Following the provision of two artificial roosting features for crevices dwelling bats within the new buildings, a minor enhancement at the site level could be achieved for roosting bats such as common and soprano pipistrelle.

Amphibians

5.9 Great crested newts (GCNs) and their habitats are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended).

5.10 Potential effects: negligible.

5.11 Mitigation: none required.

5.12 Residual effects: negligible.

Reptiles

5.13 All Suffolk reptile species are protected against harm under the Wildlife and Countryside Act 1981 (as amended).

5.14 Potential effects: negligible.

5.15 Mitigation: none required.

5.16 Residual effects: negligible.

Birds

5.17 Breeding birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended).

5.18 Potential effects: the buildings and shrubs / trees provide nesting opportunities for a range of bird species. The disturbance and destruction of an active nest could have a negative effect on some bird species at the site level.

5.19 Mitigation measures: ideally any works to woody vegetation or the buildings would commence during October to February inclusive to avoid the bird nesting season. If this is not possible, immediately prior to commencement of works a check for nesting birds should be undertaken by a suitably experienced ecologist. Any active nests will need to be left in situ until the young have left.

5.20 Residual effects: following implementation of the measures detailed in section 6.0 – the provision of two double or triple nest boxes for house sparrows and three nest boxes for swifts – no significant adverse effect is predicted on bird species at any level and an overall enhancement for house sparrow and swift will result. Both species are present locally, with 32 records of house sparrow and 23 records of swift returned by the SBIS search.

Badger

5.21 Badgers and their setts are afforded protection under the Protection of Badgers Act 1992 (as amended). This legislation includes protection against damage to badger setts and against interference and disturbance of badgers whilst they are occupying a sett.

5.22 Potential effects: negligible. No evidence of badgers was found on site or immediately adjacent, and there is no indication that badgers are likely to colonise the site in the near future.

5.23 Mitigation measures: none.

5.24 Residual effects: negligible.

Otters

5.25 Otters and their habitats are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended).

5.26 Potential effects: none.

5.27 Mitigation measures: none.

5.28 Residual effects: none.

Water Voles

5.29 Water voles and their habitats are fully protected by the Wildlife and Countryside Act 1981 (as amended).

5.30 Potential effects: none.

5.31 Mitigation measures: none.

5.32 Residual effects: none.

Dormice

5.33 Dormice and their habitats are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended).

5.34 Potential effects: negligible.

5.35 Mitigation measures: none.

5.36 Residual effects: negligible.

Invertebrates

5.37 Potential effects: negligible.

5.38 Mitigation measures: none.

5.39 Residual effects: negligible.

Other Legally Protected or Notable Species

5.40 The proposed development is not anticipated to impact on any other legally protected species, therefore no mitigation measures are recommended.

5.41 Mitigation and enhancement measures will provide artificial nesting and roosting features suitable for house sparrow (a SPIE) and swift (an amber listed species of conservation concern) as well as crevice dwelling bats (many of which are SPIE).

5.42 The measures detailed in section 6.0 can be secured via planning condition.

6.0 MITIGATION & ENHANCEMENT MEASURES

6.1 **2 no. house sparrow boxes** will be built in to the eastern façades of the new buildings. The boxes will be located at least 3m high, ideally immediately beneath the eaves and well away from all window and door openings. The recommended box types are shown below; others must be agreed with an ecologist.

Woodstone Estella House Sparrow Box

Made of long lasting woodstone; can be built-in or fixed externally

Available from CJ Wildlife

Dimensions 29 x 16 x 21cm, weight 6kg

Habibat House Sparrow Terrace Box

Made of concrete, to be integrated into buildings during construction. Can be supplied with various brick facings, or without brick facings for incorporation into a rendered or weatherboarded wall.

440 x 215 x 150mm *Available from habibat.co.uk*

6.2 **2 no. bat boxes** will be built in or fixed externally to the southern or western façades of the new buildings. The boxes will be located at least 4m high, and well away from windows and sources of artificial lighting with a 1-2m clear drop beneath the box entrance i.e. clear of all wires, aerials etc. The recommended box types are shown below; others must be agreed with an ecologist.

Vivara Pro woodstone build in bat tube – to be built in to a wall and covered externally with render or weather boarding

Habibat Bat Box – to be built in to a brick wall. Also available with no facing to be built into a weatherboarded wall

Bat Box

To fit in to the outside skin of 75mm / 3" brickwork course; or can be supplied without brick facings for incorporation into a weatherboarded wall

Available from birdbrickhouses.co.uk

Eco-Kent bat box – for installation on building walls or tree trunks. With two wooden crevices suitable for use by a range of bat species including pipistrelle and brown long-eared bats

Isabella bat box – for installation on building walls or tree trunks. Provides a single internal cavity, suitable for use by a variety of species, including brown long-eared bats

Vivara Pro Beaumaris woodstone bat box midi – for external installation on walls or trees, provides a single internal crevice

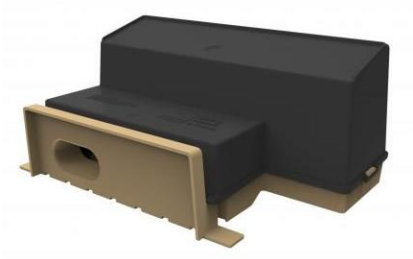
6.3 **3 no. swift nest boxes** will be built in or externally fixed to the northern gable ends of the new buildings. The boxes will be located at the top of the gable end apex, and will therefore be at least 4-5m high. The boxes must be placed at least 0.5m apart, ideally 1m, or spread across the two gable end apexes.

The final design of the box chosen may be dictated by the wall materials, however only boxes shown on the webpages of Swift Conservation (https://www.swift-conservation.org/) should be used. A selection of these box types are shown overleaf; others are available on the website. Built-in may provide better thermal insulation than external boxes, however as a north facing position will be used, this is not essential.

Build-in swift nest box

The ideal internal depth of a swift box is 140mm, however if cavity width is limited, boxes can be manufactured with a reduced depth (minimum 100mm). Can be supplied with various brick facings, or without brick facings for incorporation into a rendered or weatherboarded wall.

Available from brickbirdhouses.co.uk



Manthorpe swift brick

Made of plastic, to be incorporated into a brick wall. Available in different colour facings

Available from wildcare.co.uk

Swift S- brick

To be incorporated into a brick wall. Available in different colour facings, and for rendered walls.

Available from actionforswifts.com

External swift boxes

A range of box sizes available, as well as a triangular gable end design. Long lasting, with good internal temperature regimes. Available in a range of colours.

Available from impeckable.co.uk

7.0 REFERENCES

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* Version 1.1. Chartered Institute for Ecology and Environmental Management, Winchester.

CIEEM (2017a) *Guidelines for Preliminary Ecological Appraisal, 2nd edition.* Chartered Institute for Ecology and Environmental Management, Winchester.

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Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* The Bat Conservation Trust, London.

Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. Revised print, JNCC, Peterborough.

Institution of Lighting Professionals (2023) *Guidance Note 08/23: Bats and Artificial Lighting at Night*. Institution of Lighting Professionals and Bat Conservation Trust.

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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, pp. 143-155.

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8.0 LEGISLATION

The Conservation of Habitats and Species Regulations 2017 (as amended)

8.1 The Conservation of Habitats and Species Regulations 2017 (as amended) will soon become the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019). These regulations will continue to provide safeguards for European Protected Sites and Species as listed in the Habitats Directive. As a result, the same provisions remain in place for European protected species, licensing requirements and protected areas after Brexit.

8.2 Species protected by the former European legislation includes great crested newt, all UK bat species, dormice and otter. A number of other plant and animal species are also included such as sand lizard, smooth snake and natterjack toad, however these additional species are rare, with restricted geographical ranges and specific habitat types.

8.3 Under The Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to:

- Damage, destroy or obstruct access to an EPS breeding or resting place;
- Deliberately capture, injure or kill an EPS (including their eggs);
- Deliberately disturb an EPS, in particular any actions which may impair an animals ability to survive, breed or nurture their young; or their ability to hibernate or migrate; or which may significantly affect the local distribution or abundance of the species to which they belong.

8.4 The legislation applies to all stages of amphibian life cycles (eggs, larvae and adult), and to active bat roosts even when they are not occupied at that particular time of year.

8.5 Natural England can, under certain circumstances, grant a licence to permit actions which would otherwise be unlawful, subject to the species concerned being maintained at a Favourable Conservation Status and there being a true need for the proposed works to take place.

8.6 Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are also afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended). Ramsar sites, which are designated under the Convention on Wetlands of International Importance (1971), are afforded the same level of protection as SPAs and SACs via national planning policy.

The Wildlife and Countryside Act 1981 (as amended)

8.7 The Wildlife and Countryside Act 1981 (as amended) provides varied levels of protection for a range of species including those already listed above.

8.8 Water vole are one of the species not listed under the Conservation of Habitats and Species Regulations 2017 (as amended), but are afforded the highest level of protection under the Wildlife and Countryside Act 1981 (as amended).

8.9 It is an offence to intentionally kill, injure or take a water vole, to intentionally or recklessly damage or destroy a structure or place used for shelter and/or protection, to disturb a water vole whilst occupying a structure and/or place used for shelter and protection, or to obstruct access to any structure and/or place used for shelter or protection.

8.10 Other species, such as common lizard, slow worm, adder and grass snake, are afforded less protection. For these species it is an offence to intentionally or recklessly kill or injure animals.

8.11 All active bird nests, eggs and young are protected against intentional destruction. Schedule 1 listed birds e.g. barn owls, kingfishers, are further protected from intentional and reckless disturbance whilst breeding.

8.12 Schedule 9 of The Wildlife and Countryside Act lists plant species for which it is an offence for a person to plant, or otherwise cause to grow in the wild. This includes Japanese Knotweed which, under the Environment Protection Act 1990 (as amended) is classed as 'controlled waste'. If any parts of the plant including stems, leaves and rhizomes are taken off-site they must be disposed of safely at a landfill site licensed to deal with such contaminated waste.

8.13 Sites of Species Scientific Interest (SSSI) are afforded protection by the Wildlife and Countryside Act 1981 (as amended).

The Protection of Badgers Act 1992 (as amended)

8.14 The Protection of Badgers Act (1992) makes it an offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so, and to intentionally or recklessly interfere with a sett.

The Protection of Mammals Act 1996 (as amended)

8.15 The Act protects all wild mammals against actions which have the intention of causing unnecessary suffering, including crushing and asphyxiation.

The Natural Environment and Rural Communities Act 2006 (as amended)

8.16 Under sections 40 and 41 of the Natural Environment and Rural Communities Act (NERC) 2006 local authorities have an obligation to have regard to the purpose of conserving biodiversity in carrying out their duties. The majority of UK legally protected species are listed under Section 41 the NERC Act.

8.17 Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006) also requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity' in England (Species of Principal Importance in England – SPIE). The S41 list is used to guide decision-makers, including local and regional authorities, in implementing their duty under Section 40 of the act to have regard to the conservation of biodiversity in England when carrying out their normal functions.

The Environment Act 2021 & National Planning Policy Framework (NPPF)

8.18 The Environment Act 2021 makes provision for biodiversity gain to be a condition of planning permission in England, with a minimum 10% BNG mandatory from January 2024. The 25 Year Environment Plan (DEFRA, 2021) sets out goals for improving the environment and leaving it in a better state for the next generation, and is supported by the National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing and Communities 2023), which makes general provisions for the delivery of BNG.

8.19 The NPPF states that plans should:

a) *"Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity (as already detailed in Government Circular 06/200520); wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*

b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

8.20 Locally specific polices set out what strategies need to be taken into account when delivering BNG, and may include Green Infrastructure Strategies and Local Nature Recovery Strategies in order that BNG may contribute to wider nature recovery plans.

Statutory Designated Sites

8.21 Under the National Parks and Access to the Countryside Act 1949 (as amended), statutory conservation agencies were able to establish National Nature Reserves (NNRs), with provisions for these areas strengthened by the Wildlife and Countryside Act 1981 (as amended). They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them.

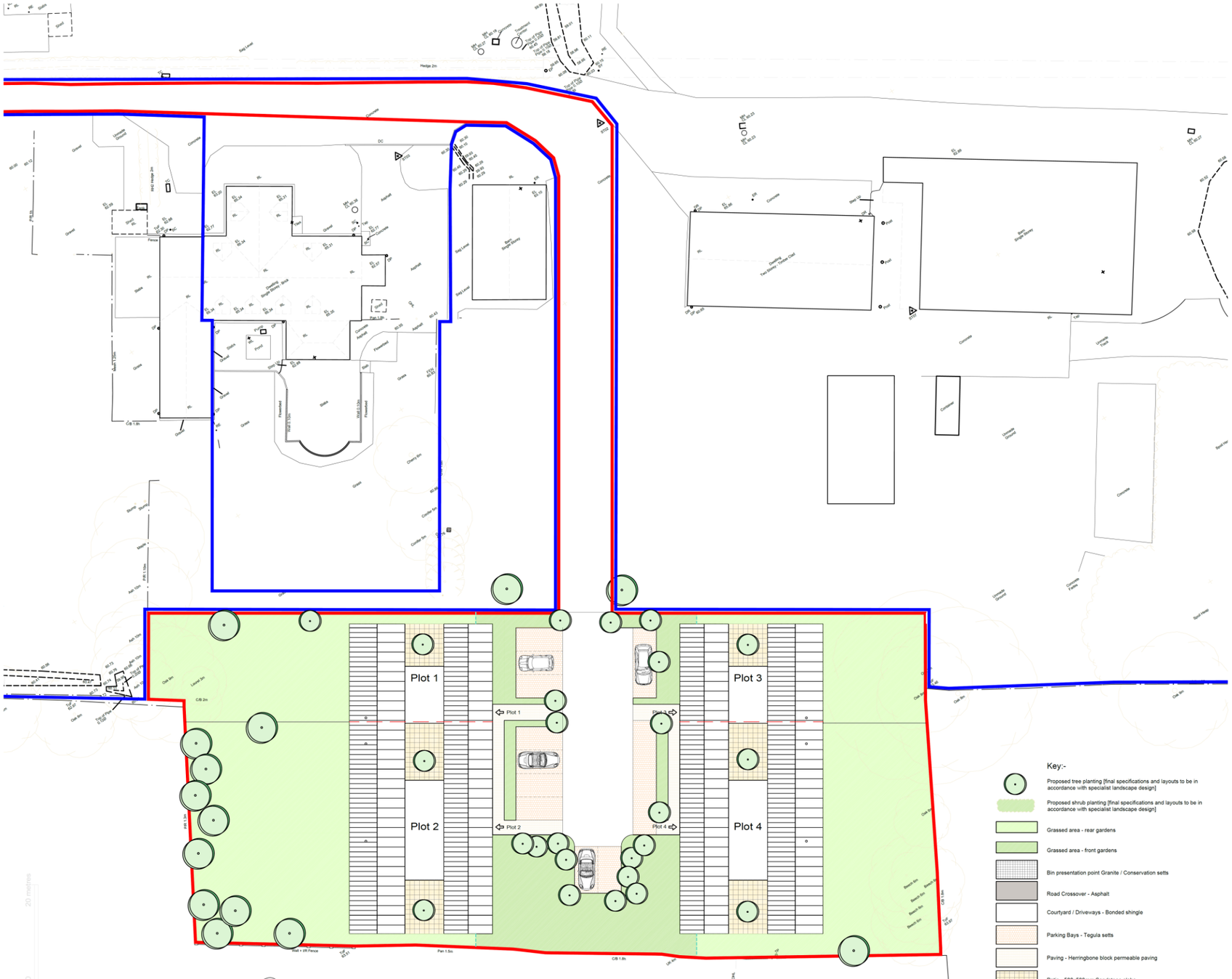
8.22 Local Nature Reserves (LNRs) can be declared by local authorities after consultation with the relevant statutory nature conservation agency under the National Parks and Access to the Countryside Act 1949 (as amended). LNRs are not subject to legal protection, but are afforded protection against damaging operations via byelaws, and against development via local planning policies.

Non-Statutory Designated Sites

8.23 Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINCs), Sites of Nature Conservation Importance (SNCIs) and County Wildlife Sites (CWS) are often designated by the local Wildlife Trust. They are not usually afforded ay legal protection, but are recognised in the planning system and given some protection through planning policy.

Appendix 1:

Proposed Layout Plans



CDM

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

Designers Hazard Information for Construction

These notes refer specifically to the information shown on this drawing. Refer to Health & Safety Plan for further information.

1. If you do not fully understand the risks involved during the construction of the items indicated on this drawing ask your health & safety advisor or a member of the design team before proceeding.

Schedule of Accommodation

Plot No.	Beds/Person	Detached / Semi-detached/ Terrace	GIFA/m² [ft²]	Parking Arrangements
Plot 1	2b/4p	Semi-detached Bungalow	112 [1200]	Parking Bay x 2
Plot 2	2b/8p	Semi-detached Bungalow	225 [2410]	Parking Bay x 4
Plot 3	2b/4p	Semi-detached Bungalow	112 [1200]	Parking Bay x 2
Plot 4	2b/8p	Semi-detached Bungalow	225 [2410]	Parking Bay x 4

Approx. Site Area = 4,100m² / 0.41ha

Key:-

- Proposed tree planting [final specifications and layouts to be in accordance with specialist landscape design]
- Proposed shrub planting [final specifications and layouts to be in accordance with specialist landscape design]
- Grassed area - rear gardens
- Grassed area - front gardens
- Bin presentation point Granite / Conservation setts
- Road Crossover - Asphalt
- Courtyard / Driveways - Bonded shingle
- Parking Bays - Tegula setts
- Paving - Herringbone block permeable paving
- Patio - 500x500mm Sandstone slabs
- Carparking delineated by studs within the bonded shingle
- 1.2m high timber post & rail fence
- 1.8m high timber fence
- 0.9m high brickwork wall
- Denotes wheelie bins - 240 litre General domestic waste, 240 litre garden waste & 240 litre recyclable plastic/paper. Refuse collections are made by the Local Authority on a weekly basis.

Date	Revision	Description	Drawn	Checked

Project:	Barns Site, Grassy Lane Farm, Woolpit		
Client:	Mr M Peart		
Drawing Title:	Proposed Site Plan & Location Plan		
Drawing Number:	PW788 PL501		
Drawing Status:	Planning	Drawn By:	kdw
Scale:	1:200 (at A1)	Date:	05/06/2023

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