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Preliminary Ecological Appraisal Including Further Bat Surveys of a Barn at Trucketts Hall Barns, Glemsford, Suffolk. IP29 4LJ

On behalf of:

**Dean J. Pearce Architecture Design &
Planning Ltd.**

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0 SUMMARY

- 0.1 Skilled Ecology Consultancy Ltd. was commissioned by Dean J. Pearce Architecture Design & Planning Ltd. to undertake a Preliminary Ecological Appraisal (PEA) including a Protected Species Assessment at Tricketts Hall Barns, Glemsford, Suffolk. IP29 4LJ. The report is required for a planning application for development of the barn.
- 0.2 The original PEA survey was conducted on the 6th August 2020, by experienced ecologist Roger Spring BSc MCIEEM (licensed to survey for bats (level 2) and great crested newts *Triturus cristatus* (level 1)). The survey consisted of an inspection for preferred habitat types and signs and evidence of protected and priority species, such as for bats, great crested newts, reptiles, badgers *Meles meles* and nesting birds following Natural England (English Nature) Guidelines. A local bat record search was undertaken.
- 0.3 The proposed development site includes a 1.5 storey height, timber frame traditional barn with a pitched, slate tiled roof. An open cartlodge is present attached to the eastern elevation. The barn is used for storage including storage of fertiliser. The barn is attached to a converted barn to the north. The barn is surrounded by amenity grassland and gravel driveway with a small quantity of fruit trees on the eastern and western boundaries. The trees are proposed for retention. A moat is present approximately 40m east of the barn. This is the only waterbody within 500m of the site (Ordnance Survey Map, 2020). The site is positioned in a rural and elevated location surrounded entirely by arable fields low in ecological value.
- 0.4 A small quantity (approximately 5) of Pipistrellus sp. bat droppings were discovered below one mortice joint in the barn, no bats were discovered in the joint during the daylight inspection. Few other potential bat roosting opportunities were discovered associated with the barn with most of the timbers modern and bolted together and the roof in good condition. The barn was considered moderate in potential for roosting bats and in accordance with national bat survey guidelines one dusk emergence survey and one dawn re-entry survey were undertaken on the 11th August and 28th August 2020 respectively. One common pipistrelle was recorded emerging from the barn on the 11th August 2020. No other roosting bats were discovered and only low numbers of bats were recorded foraging/commuting around the barn.
- 0.5 The barn also supported two active swallow *Hirundo rustica* nests in the cartlodge. The moat was poor in suitability or potential for great crested newts or other amphibians due to excessive waterfowl populations and presence of fish.
- 0.6 No further ecology surveys were considered necessary. Mitigation for bats is provided in this report along with precautionary measures for birds and amphibians. Biodiversity enhancements are also provided and should be followed to create a net-gain in ecological value on the site in accordance with national planning policy.

1 INTRODUCTION

1.1 Background

- 1.1.1 Skilled Ecology Consultancy Ltd. was commissioned by Dean J. Pearce Architecture Design & Planning Ltd. to undertake a Preliminary Ecological Appraisal (PEA) including a Protected Species Assessment at Tricketts Hall Barns, Glemsford, Suffolk. IP29 4LJ. The report is required for a planning application for development of the barn.
- 1.1.2 Wildlife such as nesting birds, bats, reptiles and great crested newts *Triturus cristatus* are protected by law. Protected and priority species and habitats, are also a material consideration for individual planning decisions under the National Planning Policy Framework, 2019 (NPPF) (MHCLG, 2019).
- 1.1.3 This study and report complies with the Chartered Institute for Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisals (Second Edition, 2017).
- 1.1.4 CIEEM guidelines indicate that ecological surveying typically remains valid for between 18 months and 2 years (CIEEM, 2019).

2 METHODOLOGY

2.1 Desk Study

- 2.1.1 A local bat data search for bats was obtained through Suffolk Biodiversity Information Service (SBIS) to search for records of bats.
- 2.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) was also conducted, to check for statutory nature conservation sites.
- 2.1.3 These results were then combined with the findings of the site survey, to assess the risk of ecology issues, relevant to planning, occurring on the site.

2.2 Study Limitations

- 2.2.1 No major study limitations were found.
- 2.2.2 Botanical assessment was undertaken at a suitable time of year, though some early flowering species and annuals may no longer be present or identifiable to species level.

2.3 Initial Site Surveys

Habitats and Surroundings

2.3.1 The site was visited on the 6th August 2020 to survey for ecology issues. This included the following:

- Noting the suitability of habitats present on the site, with regard to protected, priority and rare species; including plants, amphibians, reptiles, mammals, nesting birds, invertebrates and protected, priority or red-listed Birds of Conservation Concern (BoCC);
- Assessing the habitats surrounding the site and in the local area;
- Direct survey for evidence of protected species as far as possible, e.g. for bats, reptiles, great crested newts, badgers *Meles meles*, and nesting birds;
- Checking for invasive species such as Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum*.

Bat Inspection

2.3.2 The assessment for bats was conducted by an experienced and licensed ecologist. The barn and attached cartlodge was inspected for bat activity, suitability and potential for roosting following English Nature Bat Mitigation Guidelines (English Nature, 2004) and Bat Conservation Trust Best Practice Guidelines, therefore considerations were:

- the availability of access to roosts for bats;
- the presence and suitability of cracks, crevices, gaps around tiles, ivy growth and other places as roosts;
- signs of bat activity or presence, such as; the bats themselves, droppings, grease marks, scratch marks, urine spatter and prey remains.

2.3.3 Equipment available for use during the survey included a ladder, digital camera, high-powered torch, video endoscope, and binoculars.

2.3.4 The availability of access to roosts was assessed based upon the presence of holes large enough to allow entry to bats and lack of cobwebs and dirt.

2.3.5 The barn and cartlodge were inspected for gaps, cavities, access points and crevices, and any signs of bats (droppings, staining, urine spatter), in accordance with Natural England (English Nature) guidelines (English Nature, 2004).

Further Bat Surveys

- 2.3.6 Further bat surveys, in the form of one dusk emergence survey and one dawn re-entry survey were undertaken.
- 2.3.7 The surveys were undertaken on each occasion by experienced ecologist Roger Spring BSc MCIEEM and Mary Power BSc MSc MCIEEM (both licensed to survey for bats- level 2).
- 2.3.8 The further surveys included one dusk emergence surveys on the 11th August 2020 and a dawn re-entry on the 28th August 2020.
- 2.3.9 The surveys were undertaken in suitable weather conditions at a suitable time of year for bat surveys, followed Natural England and Bat Conservation Trust Guidelines.
- 2.3.10 Equipment used during the survey included an Echo Meter Touch 2 PRO bat detector (Mary Power) and a Batbox Griffin bat detector (Roger Spring). Bat recordings were analysed using BatSound V4 software.
- 2.3.11 Surveyors were positioned around the barn watching potential exit/entry locations.
- 2.3.12 The surveyors used bat detectors and observation, to record any bats exiting or re-entering the buildings, as well as commuting and foraging activity around the site.
- 2.3.13 The emergence surveys commenced approximately 15 minutes before sunset and continued for approximately 90 minutes.
- 2.3.14 The dawn re-entry surveys commenced approximately 90 minutes before sunrise and continued until just after sunrise.

Reptiles & Amphibians

- 2.3.15 The site was inspected for potentially suitable terrestrial habitats for foraging, sheltering or dispersing amphibians and foraging, sheltering, breeding and basking habitat for reptiles. High quality terrestrial refuges searched for, included:
- Log piles & rockeries,
 - Thick leaf litter,
 - Compost & manure heaps,
 - Mammal burrows,
 - Deep ground cracks;
 - Refuse suitable for shelter;

- Tussock grassland;
- Hedgerows and any other potential habitats.

2.3.16 The closest pond (a moat) to the site was inspected for suitability for great crested newts by undertaking a Habitat Suitability Index (HSI) assessment as developed by Oldham *et al.* 2000.

Badgers, Water Voles & Other Mammals

2.3.17 Signs and evidence of badgers, water voles and other protected, priority and rare mammal activity searched for included the following:

- Setts, holes and burrows;
- Foraging holes and other diggings;
- Latrines, droppings, spraints and scats;
- Mammal hairs;
- Paw prints and other tracks;
- Feeding remains;
- Scratch marks, bedding material and other signs.

3 RESULTS AND RISK

3.1 Site Description & Location

3.1.1 The proposed development site includes a 1.5 storey height, timber frame traditional barn with a pitched, slate tiled roof. An open cartlodge is present attached to the eastern elevation. The barn is used for storage including storage of fertiliser. The barn is attached to a converted barn to the north. The barn is surrounded by amenity grassland and gravel driveway with a small quantity of fruit trees on the eastern and eastern boundaries. The trees are proposed for retention. A moat is present approximately 40m east of the barn. This is the only waterbody within 500m of the site (Ordnance Survey Map, 2020). The site is positioned in a rural and elevated location surrounded entirely by arable fields low in ecological value.

3.2 Nature Conservation Sites

3.2.1 The website for the Multi-Agency Geographic Information for the Countryside (MAGIC) was being updated at the time of writing of this report and so it was not possible to search for statutorily designated nature conservation sites within 2km of this site. However, the area is well known to Skilled Ecology

Consultancy Ltd. with our office in the village of Clare a few miles from the site. The closest statutorily designated nature conservation site known to Skilled Ecology Consultancy Ltd. is Glemsford Pits Site of Special Scientific Interest (SSSI) located approximately 4.2km south east of the site.

3.3 Data Search

3.3.1 The following information is a summary of modern, local bat records collated from SBIS (2020).

Table 1 - Summary of local bat records.

Species	Approximate Location	Year
<i>Bats (all UK & EU protected)</i>		
Barbastelle	New Street Farm Glemsford	2018
Common pipistrelle	New Street Farm Glemsford	2018
Natterers	Cavendish	2018
Brown long-eared	New Street Farm Glemsford	2018

3.4 Protected, Priority & Rare Species

Vegetation & Habitats

3.4.1 The site was found to support buildings, gravel with surrounding short improved grassland and early mature fruit trees to the east and west. It is understood that the trees are proposed for retention.

3.4.2 No UK Priority Habitats were present or proposed for impact. No rare or uncommon plants were identified. No Schedule 9 Invasive plants were identified on or adjacent to the site.

Bats

3.4.3 Approximately five bat droppings were discovered below an open mortice joint capable of supporting one roosting bat. The droppings were consistent with *Pipistrellus* sp. The majority of the barn was constructed without mortice or tenant joints and appeared to have been restored with relatively modern supporting timbers and roof in good condition. One or two of the slate tiles were lifted on the western elevation which theoretically could support low quantities of roosting bats.

3.4.4 The immediate surrounding environment supported a moat likely to produce flying insects for feeding bats, though beyond this the local environment was poor in ecological value for foraging or commuting bats being dominated by arable fields and located in an elevated location likely to experience strong wind gusts making flying for bats difficult and pushing insects away to more sheltered locations.

- 3.4.5 Two further dusk emergence/dawn re-entry surveys bat surveys were undertaken. One common pipistrelle *Pipistrellus pipistrellus* was observed emerging from the doorway of the barn on the eastern elevation by Mary Power during the dusk emergence survey confirming the presence of one roosting common pipistrelle in the barn. Low quantities of foraging common pipistrelle and brown long-eared bats were recorded.

Other Protected or Priority Mammals

- 3.4.6 Environments on the site and proposed for impact supported habitat low in suitability for mammals, such as hedgehog *Erinaceus europaeus* and badger *Meles meles*.
- 3.4.7 No signs or evidence of protected and priority mammals such as hedgehog *Erinaceus europaeus*, badger *Meles meles* harvest mouse *Micromys minutus*, water voles *Arvicola amphibious*, otter *Lutra lutra* and brown hare *Lepus europaeus*, was found on, or adjacent to, the site.

Birds

- 3.4.8 Birds observed or heard on or close to the site during the survey included; great tit *Parus major*, wood pigeon *Columba palumbus*, swallow *Hirundo rustica* and blackbird *Turdus merula*.
- 3.4.9 All birds recorded are common, widespread and green-listed Birds of Conservation Concern (BoCC) species.
- 3.4.10 Two active swallow nests were present in the cartlodge. One disused converted swallow nest (possibly by wren) was observed in the barn.
- 3.4.11 Overall, the proposed site was low in potential to support barn owls or other protected or UK priority birds. No signs or evidence of such were observed.
- 3.4.12 The BoCC ratings are summarised as follows:
- Red-listed - highest conservation concern;
 - Amber-listed - moderate conservation concern;
 - Green-listed - least conservation concern.

Reptiles

- 3.4.13 The site and adjacent habitats were negligible in suitability or potential for reptiles of any species.
- 3.4.14 The survey was undertaken at a time of year suitable for active reptiles. No reptiles were observed during the survey visit.

Great Crested Newts & Other Amphibians

- 3.4.15 Terrestrial habitat on the site and proposed for impact was negligible in suitability for great crested newts or other amphibians. The garden was well maintained.
- 3.4.16 A moat was present approximately 40m east of the site it was inspected for suitability for great crested newts. The moat was found to be a medium sized waterbody with fish and high waterfowl populations.
- 3.4.17 The Habitat Suitability Index assessment indicated the pond was poor in suitability for great crested newts.

Table 1: Habitat Suitability Index score for Pond 1 close to the site at Tricketts Hall.

Pond	Pond 1
SI1 - Location	1
SI2 - Pond area	0.85
SI3 - Pond drying	0.9
SI4 - Water quality	0.33
SI4 - Shade	1
SI6 - Fowl	0.01
SI7 - Fish	0.33
SI8 - Ponds	0.1
SI9 - Terr'l habitat	0.67
SI10 - Macrophytes	0.4
HSI	0.34

HSI Pond suitability
 <0.5 = poor
 0.5 – 0.59 = below average
 0.6 – 0.69 = average
 0.7 – 0.79 = good
 > 0.8 = excellent

- 3.4.18 No great crested newts or other amphibians were discovered on the site or nearby.

Invertebrates

- 3.4.19 The site was small in area and negligible in suitability for invertebrates of conservation concern.
- 3.4.20 Protected, priority or rare invertebrates were not observed during the survey visit.

Other Protected, Priority or Rare Species

- 3.4.21 No signs or evidence of any other protected or priority species were observed on the site, nor were there any particularly suitable habitats present for such species.

4 DISCUSSION OF RISK AND LEGISLATION

4.1 Protected & Priority Species

Bats

- 4.1.1 Bats are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000 and under the Conservation of Habitats and Species Regulations 2017. Some bats are also UK priority species. A summary of the offences likely to be relevant to development are:

- Intentionally or deliberately kill, injure or take a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection, whether bats are present or not;
- Damage or destroy a breeding site or resting place of any bat;
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
- Deliberately disturb a bat anywhere.

- 4.1.2 Records of bats were present locally (SBIS, 2020). A small quality of bat droppings and moderate potential for roosting were discovered inside the barn and externally under tiles.

- 4.1.3 One common pipistrelle was discovered roosting in the barn using the internal timber structure. Common pipistrelle bats are the most common and widespread bat in the UK (Bat Conservation Trust, 2020). The site is a roost of low conservation value at a local level.

- 4.1.4 Without mitigation the risk of significant impact and/or harm to bats and bat roosts was high.

- 4.1.5 Mitigation for the prevention of harm to bats and the provision of alternative roosting habitat is provided later in the report. A Natural England Low Impact Bat Licence will be required for works to proceed legally following granting of planning permission.

Other Protected, Priority or Rare Mammals

- 4.1.6 The proposed site offered habitat low in suitability for hedgehogs, badgers, water voles and other notable mammals. The risk of presence of such species on the site was very low.
- 4.1.7 It was considered possible that hedgehogs may forage around the site though the risk of significant impact was very low.
- 4.1.8 Consequently, further surveys and mitigation were deemed unnecessary.

Reptiles

- 4.1.9 Widespread reptile species including, grass snake, adder, slow worm and common lizard, are protected from intentional killing and injuring under the Wildlife and Countryside Act 1981. They are also UK priority species.
- 4.1.10 Habitats on and adjacent to the site were deemed unsuitable for reptiles. No reptiles were discovered during the survey visit.
- 4.1.11 Consequently, the risk of impact to reptiles was considered very low.
- 4.1.12 Therefore, further reptile surveys or mitigation were considered unnecessary.

Amphibians

- 4.1.13 Great crested newts are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000, and the Conservation of Habitats and Species Regulations 2017. Great crested newts are also UK priority species. A summary of the offences likely to be relevant to development are:
- Intentionally or deliberately capture or kill;
 - Intentionally injure;
 - Deliberately disturb, or intentionally or recklessly disturb in a place of shelter or protection;
 - Damage or destroy a breeding site or resting place;
 - Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.
- 4.1.14 The proposed site was deemed negligible in quality for terrestrial amphibians and small in area. The closest pond (a moat) was poor in suitability for great crested newts. The risk of presence or significant impact to amphibians of any species was considered negligible.
- 4.1.15 In which case, further amphibian surveys or mitigation were considered unnecessary for the project to proceed.

- 4.1.16 However, to minimise any residual risk of impact to amphibians, precautionary measures, detailed later in the report, should be followed.

Birds

- 4.1.17 Wild birds are protected under the Wildlife and Countryside Act 1981 and, with certain exceptions (e.g. pest species) in certain situations, it is an offence to intentionally:

- Kill or injure any wild bird;
- Take, damage or destroy the nest of any wild bird while it is in use or being built;
- Take or destroy the egg of any wild bird.

- 4.1.18 Some bird species (such as barn owls) are also specially protected under Schedule 1 of the Wildlife and Countryside Act 1981 and others are UK priority species.

- 4.1.19 Given the rural location of the site, it was considered likely that on occasions protected and UK priority birds may visit the site. However, given the small size of the site and low suitability of habitat for such species, the risk of presence and significant impact was very low.

- 4.1.20 Consequently, further bird surveys were considered unnecessary.

- 4.1.21 However, two active swallow nests were present and theoretically low numbers of other common birds may on occasions use the site for nesting. Therefore, to prevent harm to actively nesting birds and to compensate for habitat loss, precautionary measures, detailed later in the report, should be followed.

Plants & Habitats

- 4.1.22 No protected, priority, or rare plants were observed at the time of survey. The proposed development was highly unlikely to impact negatively on botanically important habitats or rare plant species, with the construction zone featuring very common plant species and habitats. No UK Priority Habitats were present.

- 4.1.23 Schedule 9 Invasive Species were not observed. Therefore, the risk of spreading such plants and infringing the relevant legislation was very low.

Invertebrates

- 4.1.24 The proposed construction zone was small and negligible in ecological value for invertebrates of conservation concern.

- 4.1.25 Consequently, further invertebrate surveys or mitigation were considered unnecessary.

Other Protected & Priority species

- 4.1.26 No signs or evidence of other protected, priority or rare species were observed on the site. The risk of presence or impact to such species was very low. Further ecological surveys or mitigation for any other protected, priority or rare species was unnecessary.

4.2 Other Issues

Statutorily Designated Conservation Sites & Sensitive Habitats

- 4.2.1 No statutorily designated nature conservation sites were identified within 2km of the site. This combined with the small scale of the proposed development, meant the risk of direct or indirect significant impact to any locally designated nature conservation sites or other sensitive habitats was negligible.
- 4.2.2 Further ecological surveys or mitigation were considered unnecessary.

5 RECOMMENDATIONS

5.1 Mitigation

Bats

- 5.2.1 Mitigation necessary for the prevention of harm to bats and maintenance of the ecological functionality of the site for bats include:
- Development works should commence when night weather conditions are above 7C to prevent encountering hibernating bats;
 - Prior to the commencement of development works on the barn, a bat box should be erected on a nearby tree. The box should be a 2FD Schwegler bat box. The 2FD box should be positioned high on the tree (above 4m) close to the pond 40m from the barn facing a southerly direction. This box is for alternative roosting habitat for during demolition and construction but even after construction is completed should continue to remain on site in perpetuity;
 - The initial stages of the barn development works should commence with hand deconstruction and with stripping the roof under supervision by a bat licensed ecologist. The ecologist should inspect all areas potentially suitable for roosting bats, particularly regarding mortice joints and under lifted roof tiles. If bats are discovered during the supervised works, they should be safely relocated into the installed bat box;
 - During works two Eco Integrated bat boxes should be installed into the gable-ends the barn with one facing east and the second facing south. The box boxes should be installed high on the newly converted

barn (just below the roofline). The boxes should be integrated into the cladding to provide a permanent roosting location.

- All mature trees nearby should be retained and protected within the development to retain foraging and commuting habitat;
- Minimisation of use of external lighting on and around the barns. Any necessary external lighting should use warm white LED lamps with hoods to direct the light downward and prevent horizontal or vertical light spillage. Any external lighting should be on sensors with short timers and be sensitive to large moving objects only, to prevent passing bats from switching them on.

5.2 Impact Avoidance Precautionary Measures & Habitat Compensation

Birds

5.2.2 It is recommended that to prevent harm to nesting birds construction works should commence outside of the main bird nesting season (March until the end of September). If this timescale is not possible then an ecologist should survey the site for active bird nests just prior to the commencement of works within the nesting season.

5.2.3 If an active bird nest was found, it would be necessary to protect the nest from harm or disturbance until the bird had finished nesting.

5.2.4 To compensate for nesting habitat loss, it is recommended that either one of the cartlodge bays remain open and accessible for swallows or two new Schwegler nesting cups be installed under the eaves of the building facing an easterly location close to the where the existing nests are located.

Amphibians

5.2.5 The risk of amphibians being significantly impacted by the development was very low, to minimise any residual risk of impact or harm or impact, the below recommendations should be followed:

- Vegetation around the barn should be maintained short to prevent the habitat improving in ecological quality;
- During works construction materials should be stored on hardstanding or on pallets to prevent wildlife from sheltering in the materials and being harmed by movement of the materials;
- No construction work at night when amphibians are mostly active;
- Any excavations for the development should be covered at night or should have a roughly sawn plank placed in them to facilitate escape, the plank should not be placed at more than 30° and must be at least 30cm in width;

- If at any stage amphibians or other notable wildlife are observed, works should stop immediately, and the animal should be allowed to disperse of its own accord, or an ecologist should be contacted for advice.

5.3 Enhancements

- 5.3.1 By following the below biodiversity enhancements, the development will improve the site for local wildlife and provide a net-gain in accordance with national planning policy (NPPF, 2019).
- 5.3.2 The addition of further bird boxes on the new building will increase the potential roosting and nesting sites for local bats and birds. Specifically, the following boxes should be used;
- 1 x Vivara Pro Sparrow Terrace;
- 5.3.3 Bat boxes and bird boxes can be purchased on-line through suppliers such as The Wildlife Shop and NHBS.
- 5.3.4 The integrated bird box should be installed high in the newly converted building, with the bird box positioned between north-west and north-east.
- 5.3.5 To establish or restore lawn areas around the barn following completion of works, a native wildflower seed mix such as EM1 from Emorsgate Seeds should be used.
- 5.3.6 Any other proposed planting should be native and wildlife attracting only prioritising flowering and fruit producing species.

6 CONCLUSION

- 6.1 The site supports low numbers of roosting common pipistrelle bats and nesting swallows.
- 6.2 Mitigation for the prevention of harm to bats and to provide alternative roosting habitat is included in the report and a Natural England Low Impact Bat Licence will be required for works to proceed legally.
- 6.3 Recommendations for birds and amphibians are also included and should be followed accordingly.
- 6.4 By implementing the biodiversity enhancements provided, the proposed development will be enhanced further for the benefit of local wildlife to create a net-gain in accordance with national planning policy.

7 REFERENCES

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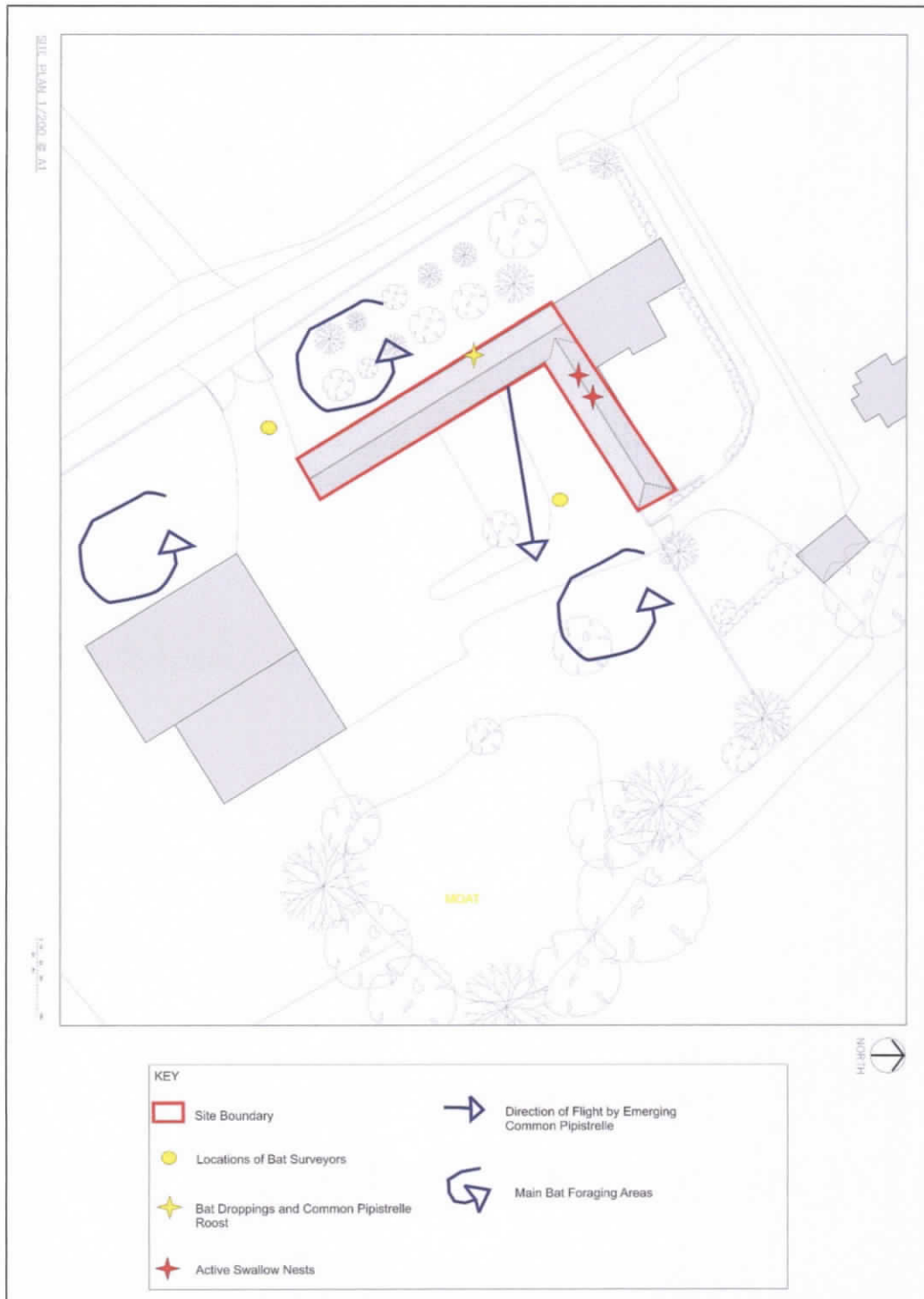
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8 APPENDICES

8.1 Appendix 1: Maps

Figure 1 – Site Map.



8.2 Appendix 2: Photographs

Photograph 1 – Barn and cartlodge proposed for development at Trucketts Hall.



Photograph by Roger Spring 2020

Photograph 2 – Eastern elevation of the barn at Trucketts Hall.



Photograph by Roger Spring 2020

Photograph 3 – Western elevation and southern gable-end at Trucketts Hall.



Photograph by Roger Spring 2020

Photograph 4 – Inside the southern end of the barn at Trucketts Hall.



Photograph by Roger Spring 2020

Photograph 5 – Inside the central area of the barn at Trucketts Hall.



Photograph by Roger Spring 2020

Photograph 6 – Inside the cartlodge at Trucketts Hall.



Photograph by Roger Spring 2020

Photograph 7 – Small quantity of bat droppings beneath mortice joint at Tricketts Hall



Photograph by Roger Spring 2020

Photograph 8 – Bat dropping beneath a mortice joint inside the barn at Tricketts Hall.



Photograph by Roger Spring 2020

Photograph 9 – Disused converted swallow nest (possibly by wren) at Tricketts Hall.



Photograph by Roger Spring 2020

Photograph 10 – Moat 40m from the site at Tricketts Hall.



Photograph by Roger Spring 2020

8.3 Appendix 3: Tables

Table 1: Dusk emergence survey results (Surveyor Roger Spring south-west of Building). 11th August 2020.

Survey start: 20:15

Survey end: 22:00

Weather: start 25C, end 24C, dry, 30% cloud, wind: 0.5 (on Beaufort scale).

Time	Bat Species	Activity on the Site
20.57	1 common pipistrelle	Bat detected and observed intermittently foraging west of barn
21.02	1 common pipistrelle	Bat detected and observed foraging south of barn
21:10	1 common pipistrelle	Bat detected and observed foraging south of barn
21:18	1 brown long-eared	Bat observed flying over the northern end of the barn flying west
21:25	1 common pipistrelle	Bats detected and observed flying briefly west of barn
21:29	1 common pipistrelle	Bat detected but not observed
21.32	1 common pipistrelle	Bat detected but not observed
21.40	1 common pipistrelle	Bat detected but not observed
21.44-21.46	1 common pipistrelle	Bat detected but not observed
22.01	1 common pipistrelle	Bat detected and observed intermittently foraging west of barn
No other bat observations or recordings		

Table 2: Dusk emergence survey results (Surveyor Mary Power east of Building). 11th August 2020.

Time	Bat Species	Activity on the Site
20.51	1 common pipistrelle	Bat detected briefly east of barn
20.59	1 common pipistrelle	Bat detected and observed emerging from doorway on east elevation then foraging east of barn
21.28	1 common pipistrelle	Bat detected and observed commuting to south west
21:30	1 common pipistrelle	Bat detected foraging over moat
21:34	1 common pipistrelle	Bat detected and observed foraging near position
21.41	1 common pipistrelle	Bat detected and observed foraging near position

21.51	1 common pipistrelle	Bat detected and observed commuting over cartlodge
21.56	1 common pipistrelle	Bat detected and observed foraging near position
22.00	1 common pipistrelle	Bat detected and observed foraging near position flew off east of position
22.02	1 brown long-eared	Bat observed foraging/commuting near position- brief pass.
No other bat observations or recordings		

Table 3: Dawn re-entry survey results (Surveyor Roger Spring south-west of Building). 28th August 2020.

Survey start: 04:30

Survey end: 06:10

Weather: start 10C, end 9C, dry, 50% cloud, wind: 0.5 (on Beaufort scale).

Time	Bat Species	Activity on the Site
04:47	1 common pipistrelle	Bat detected brief pass not observed
No other bat observations or recordings		

Table 4: Dusk emergence survey results (Surveyor Mary Power east of Building). 28th August 2020.

Time	Bat Species	Activity on the Site
No bats recorded.		