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Preliminary Ecological Appraisal Including a Protected Species Assessment at Hartest Garage, The Green, Hartest. Suffolk. IP29 4DH.

On behalf of:

Mr Davey

December 2020

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Figures, Photographs & Tables

0 SUMMARY

0.1 Skilled Ecology Consultancy Ltd. was commissioned by Mr Davey to undertake a Preliminary Ecological Appraisal including a Protected Species Assessment at Hartest Garage, The Green, Hartest. Suffolk. IP29 4DH. The report is required for a planning application for demolition and replacement of the garage with one new dwelling.

0.2 The survey was conducted on the 17th November 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 and herpetofauna record search was undertaken.

0.3 The proposed construction zone is very small, approximately 0.06ha in area and found to include a motor repair garage, hardstanding and boundary riparian trees and shrubs with common herbaceous plants. The site is adjacent to a stream (apparently unnamed tributary of the River Glem) to the east, woodland copse to the north and residential housing and roads to the south and west.

0.4 The adjacent riparian vegetation and stream are understood to be proposed for retention. The remaining site area is low in ecological value and negligible in potential to support protected, priority or rare species. No signs or evidence of such were discovered on the site or adjacent to the site.

0.5 The proposed development was considered highly unlikely to impact negatively upon protected, priority or rare species or notable habitats. Further ecological surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact, precautionary measures for bats, birds, hedgehogs, otters, water voles and amphibians are provided and should be followed along with recommendations to minimise potential for impact to the adjacent riparian vegetation and stream.

0.6 Biodiversity enhancements are also included in the report to create a net-gain in accordance with national planning policy.

1 INTRODUCTION

1.1 Background

1.1.1 Skilled Ecology Consultancy Ltd. was commissioned by Mr Davey to undertake a Preliminary Ecological Appraisal including a Protected Species Assessment at Hartest Garage, The Green, Hartest. Suffolk. IP29 4DH. The report is required for a planning application for demolition and replacement of the garage with one new dwelling.

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 The Suffolk Biodiversity Information Service were consulted for notable bat and Herpetofauna records. The results are listed in Table 1 below.

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, in order 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 late 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 17th November 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. Trees and the building were 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 outside of trees and the inside and outside of the building 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).

Reptiles & Amphibians

2.3.6 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.

Badgers, Water Voles & Other Mammals

2.3.7 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 construction zone is very small, approximately 0.06ha in area and found to include a motor repair garage, hardstanding and boundary riparian trees and shrubs with common herbaceous plants. The site is adjacent to a stream to the east, woodland copse to the north and residential housing and roads to the south and west.

3.1.2 No ponds with habitat connectivity were present within 500m of the site. The closest pond is located approximately 80m west of the site in Place Farm. The pond is separated from the site by hardstanding, buildings and a road (Ordnance Survey 2020).

3.2 Nature Conservation Sites

3.2.1 The closest statutorily designated nature conservation site is Frithy and Chadacre Wood Site of Special Scientific Interest located approximately 1.2km east and designated for its ancient semi-natural woodland habitats and wildlife it supports (MAGIC, 2020).

3.3 Data Search

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

Table 1 - Summary of local biological records.

Species	Approximate Location	Year
Mammals		
Common pipistrelle (UK and EU protected)	Hartest Church	2009
Soprano pipistrelle (UK and EU protected)	Hartest Church	2001
Brown long-eared (UK and EU protected)	Hartest Church	2013
Serotine bat (UK & EU protected)	Hartest Church	2013
Natterers bat (UK & EU protected)	1.2km south west	2003
Herpetofauna		
Great crested newt (UK and EU protected)	Mile End	2005
Grass snake (UK protected)	Brockley	1999

3.3.2 In addition to the above, a desk study discovered the Hartest Neighbourhood Plan Character Assessment which included reference to ecology surveys undertaken by the Suffolk Wildlife Trust. The Suffolk Wildlife Trust had undertaken recent surveys (September 2015) of the stream through Hartest village and disocvered evidence of otter *Lutra lutra* and kingfisher *Alcedo atthis.*

3.4 Protected, Priority & Rare Species

Vegetation & Habitats

3.4.1 Habitats on the site included a building and hardstanding, though on the northern boundary a narrow strip of herbaceous plants was present and on the eastern boundary were mature trees and shrubs with an understorey of herbaceous plants present as riparian vegetation adjacent to the stream.

3.4.2 Herbaceous plants and shrubs present included: bramble *Rubus fruitcosus*, nettle *Urtica dioica*, elder *Sambucus nigra*, lords and ladies *Arum maculatum*, broad-leaved dock *Rumex obtusifolius*, wood avens *Geum urbanum*, nipplewort *Lapsana communis*, black horehound *Ballota nigra* and ivy *Hedera helix*.

3.4.3 Trees in the riparian vegetation included ash *Fraxinus excelsior* (3 x mature trees), hawthorn *Crataegus monogyna* (1 x early mature) and horse chestnut *Aesculus hippocastanum* (1 x mature tree 1 x immature tree).

3.4.4 No protected, priority or notable plants were present and habitats were unlikely to support such species. No priority habitats are proposed for impact. No Schedule 9 Invasive plants were present.

Bats

3.4.5 Trees present on and adjacent to the site were low or negligible in potential to support roosting bats with most supporting negligible features suitable for roosting. Thin ivy growth was present climbing some trees, though this was considered low in suitability for roosting bats. No external signs or evidence of bats were observed.

3.4.6 The building was a relatively modern garage, timber frame with a pitched, metal sheeting roof lined with timber boards, metal sheeting walls and a breezeblock extension. Ivy growth was present on part of the northern elevation, though was not particularly thick in structure and negligible in suitability for roosting bats.

3.4.7 No internal or external signs or evidence of bats were discovered associated with the garage. The building was considered negligible in suitability or potential for roosting bats.

3.4.8 The proposed construction zone is small in area and low in suitability for foraging bats, though habitats immediately north and east of the site were optimal for foraging/commuting bats with the stream, riparian vegetation and woodland likely to produce significant quantities of flying insects for feeding bats.

Other Protected or Priority Mammals

3.4.9 Habitats proposed for impact were negligible in suitability or potential to support any other notable mammals, such as hedgehogs *Erinaceus europaeus* or badgers *Meles meles*. Hedgehogs may on occasions cross through the site, though significant use or nesting etc. was considered highly unlikely.

3.4.10 The proposed construction zone is set approximately 5m above the stream up a steep bank. The stream was found to be very shallow (approximately 10cm deep) and fast flowing. No aquatic vegetation or typical marginal

vegetation such as bulrush or common reed etc. were present and it is understood that the stream dries annually during summer and is reactive to rainfall. The stream is considered low in suitability or potential for water voles or otters.

3.4.11 No evidence of other 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

3.4.12 Birds observed or heard on or close to the site during the survey included; blue tit *Cyanistes caeruleus*, wood pigeon *Columba palumbus*, dunnock *Prunella modularis*, jackdaw and blackbird *Turdus merula*.

3.4.13 All birds recorded on the site are common, widespread and green-listed Birds of Conservation Concern (BoCC) species.

3.4.14 Two old bird nests (1 x wren 1 x unknown) were found on the site.

3.4.15 The BoCC ratings are summarised as follows:

- Red-listed - highest conservation concern;
- Amber-listed - moderate conservation concern;
- Green-listed - least conservation concern.

Reptiles

3.4.16 The site and surrounding habitats were negligible in suitability or potential for safe basking, foraging or breeding by reptiles of any species. It could not be discounted that on occasions grass snakes may forage in and around the adjacent stream.

3.4.17 No reptiles were observed during the survey visit.

Great Crested Newts & Other Amphibians

3.4.18 The proposed construction zone (which excludes the boundary riparian vegetation) supported habitat negligible in suitability for great crest newts or other amphibians.

3.4.19 No ponds with habitat connectivity to the site were identified. One pond was located within 100m of the site, though this was separated by hardstanding, buildings and a road considered significant dispersal obstacles for amphibians. The adjacent stream is unsuitable for breeding amphibians.

Invertebrates

3.4.20 The site supported habitat unsuitable for invertebrates of conservation concern. The adjacent riparian and stream habitats and woodland were high in suitability for a diversity of invertebrates, potentially including some rare and UK priority species of moths etc., though this habitat is proposed for retention.

3.4.21 Protected, priority or rare invertebrates were not observed during the survey visits.

Other Protected, Priority or Rare Species

3.4.22 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 Several bat species have been recorded locally (SBIS, 2020) and it is highly likely that bats will use surrounding habitats for foraging and commuting. The construction zone itself was considered negligible in suitability or potential for roosting bats and also for foraging or commuting bats with the boundary trees understood to be proposed for retention.

4.1.3 No signs or evidence of bat activity were discovered.

4.1.4 Therefore, the potential risk of significant impact to bats, bat roosts or local bat conservation was considered negligible. Further bat surveys or mitigation were considered unnecessary.

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

Water Voles & Otters

4.1.6 The stream is considered low in suitability for otters and water voles with fluctuating water levels and often being dry. No signs or evidence of such species were observed during the survey visit.

4.1.7 However, it is understood that in September 2015 signs of otter were discovered by the Suffolk Wildlife Trust along this stream somewhere in the village. The survey by the Suffolk Wildlife Trust did not find evidence of water voles.

4.1.8 The proposed construction zone is at least 5m from the water level and proposed for habitat negligible in suitability or potential for otters or water voles (mostly a building and hardstanding).

4.1.9 Overall, the risk of significant impact to otters or water voles was considered negligible. Further otter or water vole surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact, precautionary measures detailed later in the report, should be followed.

Other Protected, Priority or Rare Mammals

4.1.10 The proposed site was considered negligible in suitability or potential for any other protected, priority and rare mammals. No signs or evidence of such species were recorded on or adjacent to the site. It could not be discounted that on occasions hedgehogs may pass through the site.

4.1.11 Therefore, the risk of impact to any other protected, priority or rare mammals was considered negligible.

4.1.12 Therefore, further surveys or mitigation were deemed unnecessary. However, to minimise any residual risk of impact to hedgehogs, precautionary measures measured detailed later in the report, should be followed.

Reptiles

4.1.13 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.

4.1.14 Habitats present and proposed for impact were negligible in suitability or potential or reptiles. The risk of impact to reptiles was considered negligible.

4.1.15 Therefore, further reptile surveys or mitigation were considered unnecessary.

Amphibians

4.1.16 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.

4.1.17 Great crested newts have been recorded within 2km of the site, though not within Hartest (SBIS, 2020). One pond is present relatively close to the site, though this pond is separated from the site by significant amphibian dispersal obstacles and the likelihood of any amphibians breeding in this pond reaching the site was considered very low.

4.1.18 Overall, the risk of significant impact to great crested newts or a significant population of any other amphibians was considered negligible.

4.1.19 Therefore, further surveys or mitigation were considered unnecessary.

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

Birds

4.1.21 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.

4.1.22 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.

4.1.23 The site is low in suitability or potential for nesting by protected and priority birds and negligible in suitability for foraging by such species. Low numbers of common birds are using the site for nesting and adjacent habitats were suitable for a high diversity of common birds and occasional use by common priority and common protected species such as song thrush etc.

4.1.24 Overall, it was considered unlikely that the proposed development would significantly impact local bird communities or protected or priority species.

4.1.25 Further bird surveys or mitigation were considered unnecessary. However, to minimise any residual risk of impact to birds and prevent harm to actively nesting common birds, precautionary measures, detailed later in the report, should be followed.

Plants & Habitats

4.1.26 The risk of significant impact to notable plants or habitats was considered negligible. The risk of spreading Schedule 9 Invasive plants was considered negligible.

4.1.27 Further botanical surveys or mitigation were considered unnecessary. However, to minimise any potential impact to the adjacent stream and riparian vegetation, precautionary measures, detailed later in the report, should be followed.

Invertebrates

4.1.28 The site was considered negligible in suitability or potential for invertebrates of conservation concern and adjacent habitats are proposed for retention.

4.1.29 Consequently, the risk of significant impact to rare or priority invertebrates was considered negligible. Further invertebrate surveys or mitigation were considered unnecessary.

Other Protected & Priority species

4.1.30 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 The risk of direct or indirect impact to any nature conservation sites was considered negligible.

4.2.2 Consequently, further surveys or mitigation were deemed unnecessary.

5 RECOMMENDATIONS

5.1 Impact Avoidance Precautionary Measures & Habitat Compensation

Bats & Otters

5.1.1 Risk of significant impact to bats or otters was considered negligible, to further minimise impact, the below recommendations, should be followed:

- Ivy growth and roof materials should be removed by hand during demolition. If at any point bats or evidence of bats (droppings etc.) are found works should stop and an ecologist contacted for advice;
- Any proposed external lighting should be minimised. Where external lighting is required it should be warm white LED lamps with glass glazing, rather than plastic, as these produce the least amount of UV light possible, minimising the attraction effects on insects and minimising disturbance to local bats;
- Any external lighting proposed for the development should be aimed carefully, to minimise illumination of boundary habitats (particularly to the north and east) and avoid light spillage into the sky, or horizontally out from any buildings, by using hoods or directional lighting;
- External lighting should be set on short timers and be sensitive to large moving objects only, to prevent any passing bats switching them on.

Birds

5.1.1 It is recommended that to prevent harm to nesting birds, any tree or shrub reduction and building demolition should commence outside of the main bird breeding season (March until the end of August). If this timescale is not possible then an ecologist should check the site for active bird nests before vegetation clearance.

5.1.2 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.

Amphibians & Hedgehogs

5.1.3 The risk of significant impact or harm to amphibians or hedgehogs was considered low. To minimise any residual risk of harm, the following construction related precautionary measures should be followed:

- Vegetation on the site should be maintained short before and during works to prevent habitats improving in suitability for wildlife.
- Construction materials should be stored on hardstanding to prevent wildlife from sheltering in the materials and being harmed by movement of the materials;

- Any excavations for the development should be covered at night or should have a roughly sawn plank placed in them to facilitate escape for any wildlife which may fall in;
- No development activities at night when amphibians and hedgehogs are mostly active;
- In the unlikely event that an amphibian or hedgehog is observed on the site, activities in that area should cease and the animal should be allowed to disperse of its own accord or an ecologist should be contacted for advice.

Boundary & Adjacent Stream Habitats (Otters & Water Voles)

5.1.4 The site is positioned at the top of the bank of a stream. The stream bank is heavily vegetated with mature trees. It is understood that these are proposed for retention. To minimise any residual risk of impact to these habitats (both riparian vegetation and the stream), the below recommendations should be followed:

- Boundary trees should be protected by following The British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).
- It is expected that as part of the BS 5837 guidelines heras fencing will be required to protect the trees and roots this would also be suitable to protect the adjacent stream habitats.
- To further protect the stream from pollution and impact it is recommended that the boundary heras fencing should be covered in a fine mesh to prevent debris from leaving the site.
- It is also recommended that contractors and machinery should not disturb the approximately 5m of riverbank/riparian vegetation.

5.2 Enhancements

5.2.1 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).

5.2.2 The addition of bat boxes and 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 Beaumaris Bat Box;
- 1 x Vivara Pro sparrow terrace.
- 2 x bee bricks

5.2.3 Bat boxes, bird boxes, and bee bricks, can be purchased on-line through suppliers such as The Wildlife Shop and NHBS.

5.2.4 The bat box will be installed high (just below the roofline) facing south. The bird box and bee bricks will be installed high (just below the roofline) facing a northerly aspect.

5.2.5 The majority of the site is hardstanding and a building. Any addition of new greenspace will be an ecological enhancement. To maximise the value of new plantings, all new plantings will include only native and/or wildlife attracting species. Prioritising fruit producing varieties.

5.2.6 New lawn areas created will be sown with a wildflower meadow mixture such as EM1 by Emorsgate Seeds (or similar).

6 CONCLUSION

6.1 The proposed construction zone supported common and widespread habitats low in ecological value and negligible in potential to support protected, priority or rare species. No signs or evidence of such species were discovered during the survey visit.

6.2 Further ecological surveys or mitigation were considered unnecessary.

6.3 However, to minimise any residual risk of harm or impact to bats, birds, amphibians, hedgehogs, otters, water voles and adjacent stream and woodland habitats precautionary measures are provided and should be followed.

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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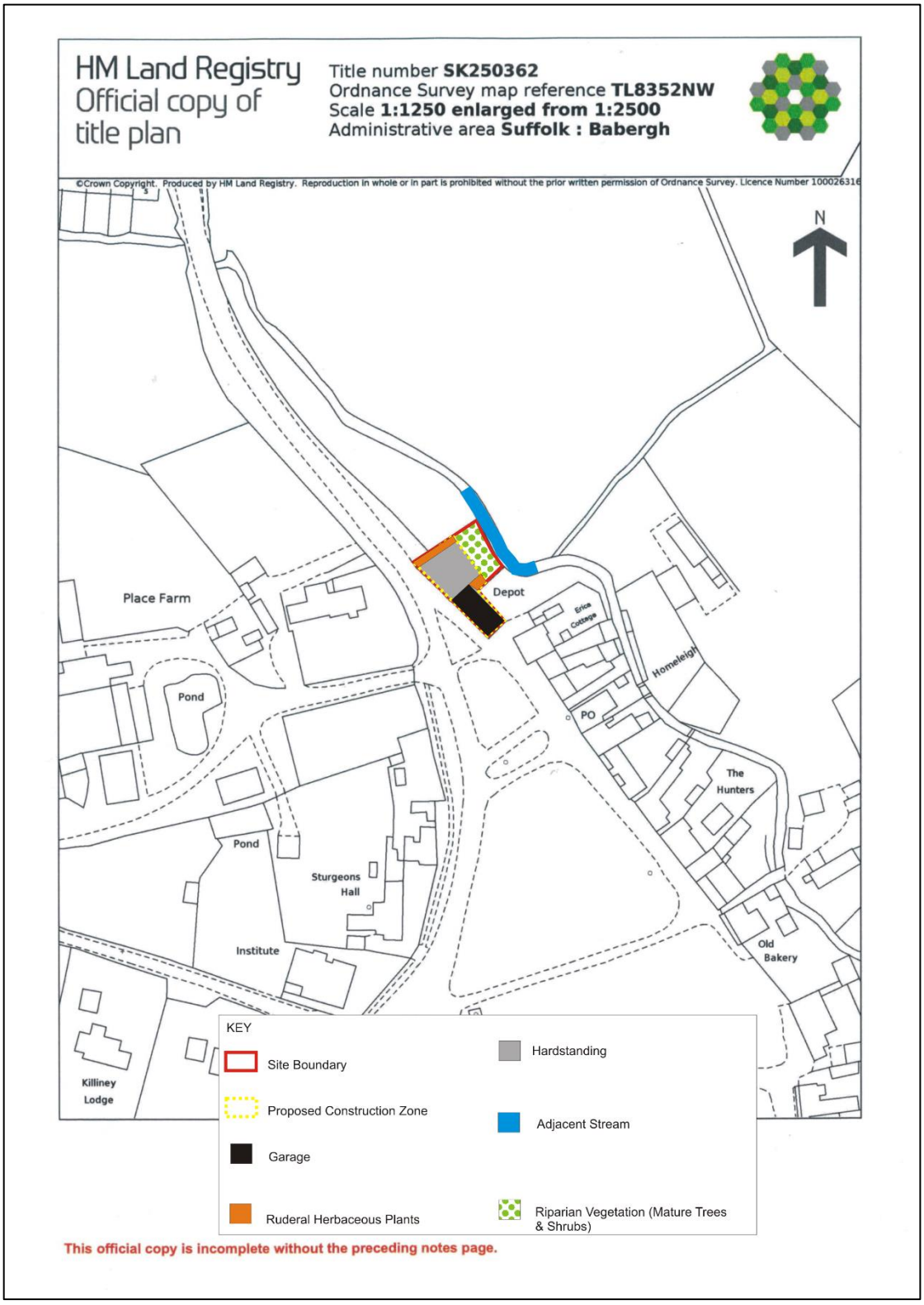
8 APPENDICES

8.1 Appendix 1: Maps

Figure 1 – Map of proposed site.



8.2 Appendix 2: Photographs

Photograph 1 – Garage at The Garage.

Photograph by Roger Spring 2020

Photograph 2 – Garage at The Garage.

Photograph by Roger Spring 2020

Photograph 3 – Main construction zone at The Garage.

Photograph by Roger Spring 2020

Photograph 4 – Mature trees (riparian habitats) along the north eastern boundary of the site at The Garage.

Photograph by Roger Spring 2020

Photograph 5 – Stream just north of the site at The Garage.

Photograph by Roger Spring 2020

Photograph 6 – North and west boundaries of the site at The Garage.

Photograph by Roger Spring 2020