
Preliminary Ecological Appraisal

Rose Cottage, Brettenham

for

Ann Roffe

5 October 2023

Client

Ann Roffe

Planning authority

Babergh Mid Suffolk District Council

Time limit of reliance

Please note that the reported surveys were conducted on the date(s) stated in the report and that it represents site conditions at the time of the visit. The findings and recommended mitigation are based on these conditions. If site conditions change materially after the site survey, the original report cannot be relied upon and will need to be updated. Ecological reports and surveys can typically be relied on for 18 to 24 months from the date of survey.

Surveys supporting European Protected Species Mitigation Licence applications must be within the current or most recent survey season for bats (May to September), or within two survey seasons for great crested newts (March to June).

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Signed disclosure

The information, data, advice and opinions provided in this report which I have provided is true and has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional bona fide opinions.

Nathan Duszynski, ACIEEM

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Table of Contents

SUMMARY	4
1. METHOD	7
2. SITE CONTEXT	7
3. DESCRIPTION OF THE DEVELOPMENT	9
4. PROTECTED SITES	9
5. HABITATS	11
6. PROTECTED AND NOTABLE SPECIES	18
7. DISCUSSION AND CONCLUSIONS	33
8. BIBLIOGRAPHY	39
APPENDIX A	METHODS
APPENDIX B	MAP OF PROTECTED SITES WITHIN 2KM
APPENDIX C	PROTECTED SITES CITATIONS
APPENDIX D	LEGISLATION
APPENDIX E	PLANT SPECIES RECORDED ON SITE
APPENDIX F	NATIVE SPECIES SUITABLE FOR PLANTING AND SOWING
APPENDIX G	EXAMPLES OF BAT AND BIRD BOXES
APPENDIX H	EXAMPLES OF HEDGEHOG FRIENDLY FENCING
APPENDIX I	BEE BRICKS
APPENDIX J	SITE PLAN

SUMMARY

- Greenlight Environmental Consultancy Ltd. has been commissioned to carry out a Preliminary Ecological Appraisal for a proposed development at Rose Cottage, 39 The Street, Brettenham, Suffolk, IP7 7QP (grid reference: TL 95862 53609).
- This report outlines the habitat features on site, the likelihood of protected species being present and any potential effects of the proposed development on such species.
- The ecology report is required in support of a planning application for the extension of the existing dwelling and construction of a cartlodge.
- The survey and assessment were completed by independent, qualified and experienced ecologists with Natural England survey licences for the relevant protected species.
- The findings of the assessment are that the habitats on the site are of **low** ecological value and that there are no significant ecological constraints that would prevent the proposed works.
- **Further surveys/licences are required for great crested newts and badgers prior to works commencing to inform an ecological impact assessment and appropriate mitigation strategy, or for great crested newts to offset any adverse impacts via financial contributions. Additionally, proposed works to building two (outbuilding) must take place under supervision of a licenced and qualified ecologist.**
- If the following mitigation and enhancements are incorporated into the proposed layout, there will be a net gain for biodiversity, as is encouraged by the National Planning Policy Framework.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Protected sites	One statutory and five non-statutory protected sites within 2km.	No significant impacts on protected sites and their qualifying features.	None required.
Protected habitats and habitats subject to conservation designations	Modified grassland will be removed as part of the proposed works. No Priority Habitats will be affected.	Low scale of habitat loss predicted for wildlife.	<p><u>Mitigation</u></p> <p>Soft landscaping scheme to include:</p> <ul style="list-style-type: none"> • The planting of new native species-rich hedgerows and trees around the site. • Flowering lawn mixtures, rich in nectar and pollen. <p>Construction work to be carried out in accordance with BSI (2012), BS 5837:2012, to protect trees and their root protection areas.</p> <p>Aquatic habitats adjacent the site to be protected from runoff and pollution from the proposed development.</p>

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
			Aquatic habitats will be clearly marked with temporary protective fencing, detailing no work zones.
Bats	<p>Low bat roosting potential in building one (dwelling) and two (outbuilding).</p> <p>Negligible bat roosting potential in building three and four.</p> <p>Low - moderate bat roosting potential in four trees located on site.</p> <p>Moderate value commuting and foraging habitat on site.</p>	<p>Potential disturbance of bat roosts if present in building and trees.</p> <p>Potential roosting features in building one (dwelling) unaffected by proposed works and building two (outbuilding) limited to $\approx 5\text{m}^2$ of north facing roof space.</p> <p>Low scale loss and potential light disturbance of commuting and foraging habitats on site.</p>	<p><u>Mitigation</u></p> <p>On the first day works are proposed to commence, the tiles of building two (outbuilding) will be surveyed for bats using a torch and endoscope.</p> <p>If bats or evidence of bats are found to be present within building two (outbuilding), further activity surveys and a European Protected Species Mitigation Licence (EPSML) will be required for the development.</p> <p>If no bats or evidence of bats are found within building two (outbuilding), a soft roof strip will be undertaken with special care and under watching brief of a licenced bat ecologist.</p> <p>If proposed works change to affect potential roosting features within building one (dwelling), further bat activity surveys and an EPSML may be required for the development.</p> <p>If proposed works change to affect trees with moderate bat roosting potential, further bat surveys will be conducted.</p> <p>If proposed works change to affect trees with low bat roosting potential, a soft-fell approach will be adopted.</p> <p>Any lighting schemes will comply with Bat Conservation Trust and CIE 150:2017 guidance.</p> <p><u>Enhancement</u></p> <p>Installation of one integrated and one standalone bat box installed on extended building and appropriate tree respectively.</p>
Breeding birds	<p>Nesting habitats for scrub, hedgerow, tree and building nesting birds present on site, including potential breeding habitat for Red and Amber listed species.</p> <p>No suitable barn owl foraging habitat on site.</p>	<p>Low scale loss of nesting habitat on site.</p> <p>Potential disturbance to breeding birds.</p> <p>Loss of one barn owl roosting location.</p>	<p><u>Mitigation</u></p> <p>Works to any scrub, hedgerow, trees and buildings on site to be conducted outside bird nesting season or under watching brief of ecologist if during nesting season.</p> <p><u>Enhancement</u></p> <p>Installation of one integrated swift box and one sparrow terrace on extended building.</p>

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Great crested newts	Suitable terrestrial habitats on site. Four ponds within 250m of the site, three assessed as below average to good suitability and one could not be accessed for detailed assessment. Site falls within Amber risk zone for district level licensing. Seven GCN records within 2km.	Potential harm to GCN if present on site during works. Loss of GCN terrestrial habitat not considered significant to a local population of GCN, if present.	<u>Further steps required</u> This can be in the form of either: <ul style="list-style-type: none"> • Further GCN surveys (presence/likely absence surveys conducted between mid-March and mid-June, or eDNA surveys conducted between mid-April and June). The outcome of the surveys will inform a detailed mitigation strategy and whether an EPS Mitigation Licence will be required from Natural England. • Applying to join a District Level Licensing scheme to determine the required level of financial contribution to GCN mitigation, which can be completed at any time of year.
Reptiles	Habitats on site suitable. Two reptile records within 2km.	Reptiles unlikely to be found on site due to small quantities of suitable habitats present. No impacts predicted.	<u>Precautionary mitigation</u> Cut and maintain vegetation short (maximum height of 10cm) on and around the site until the start of works.
Badgers	No badger signs on site, but habitat suitable for badger setts. Two badger records within 2km.	Disturbance and/or destruction of newly excavated badger setts within 30m of proposed works.	<u>Mitigation</u> Pre-construction survey for badger setts conducted within 30 days of proposed start date. If a badger sett is discovered, the nature of planned works within 30m of the sett will require assessment for potential impacts, and to inform an appropriate mitigation strategy. This may include further surveys and sett closure under licence.
Other animals	N/A	Potential harm to animals.	<u>Mitigation</u> If fencing is required, this will be porous and provide openings for hedgehogs. Rough sawn planks will be placed inside any open excavations. Construction materials will be stored off the ground on pallets and waste materials in skips. <u>Enhancement</u> Installation of one bee brick.

1. METHOD

- 1.1. A walkover of the site was conducted on 18th August 2023 by Miranda Proctor – an independent, qualified and experienced ecologist. Survey conditions were as follows: 20°C, 7mph wind, overcast and dry.
- 1.2. All survey methods were carried out in accordance with the most up to date good practice guidance for the relevant protected species. Please refer to Appendix A for the full methodology and species breakdown.
- 1.3. The habitats on and directly adjacent the site were considered unsuitable for the following protected species, with no evidence or signs of use observed. No further surveys or mitigation for these species are detailed in this report:
 - Water vole *Arvicola amphibius*
 - Otter *Lutra lutra*
 - White-clawed crayfish *Austropotamobius pallipes*
 - Hazel dormouse *Muscardinus avellanarius*
 - Natterjack toad *Epidalea calamita*

2. SITE CONTEXT

Location

- 2.1. The general location of the site is shown in Figure 1 below.
- 2.2. The site is situated within the village of Brettenham, with the River Brett located approximately 0.7km northwest and 1.1km south. The closest town is Stowmarket located approximately 9.1km northeast of the site.
- 2.3. The site is enclosed by grassland to the north, The Street to the south and residential dwellings with associated developed land and garden space to the east and west. The wider surroundings are comprised of scattered settlements, blocks of woodland, grassland and arable fields lined with mature trees and hedgerows.

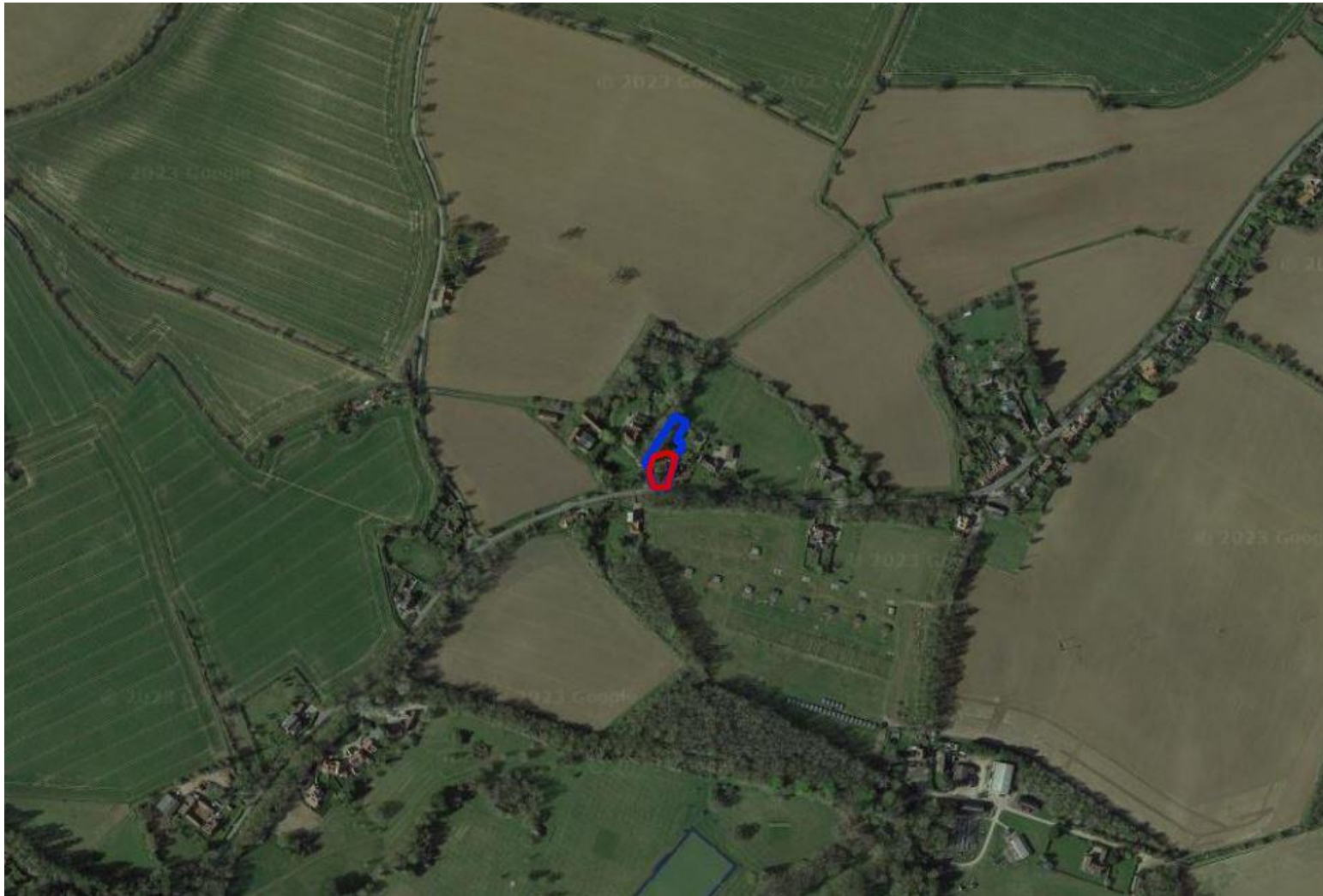


Figure 1

Satellite image of site surroundings, site indicated by red line.

Image © Google, date accessed 25/08/23

3. DESCRIPTION OF THE DEVELOPMENT

- 3.1. The proposals are for the extension of the existing dwelling and construction of a cartlodge. Please refer to Appendix J for the site plan.

4. PROTECTED SITES

Statutory

- 4.1. There is one statutory protected site located within 2km – one Sites of Special Scientific Interest (“SSSI”). Please refer to Appendix C for the full citation.
- i. Thorpe Morieux Woods SSSI, approximately 1.1km northwest.
- “Thorpe Morieux Woods are three ancient coppice woods on poorly drained boulder clays. The woods show a graduation from alkaline to acidic conditions depending on the thickness of a surface deposit of sand and loess. All three woods are under active coppice management and have entirely semi-natural stands. The ground flora contains several uncommon species, is diverse and is notable for the large populations of oxlip *Primula elatior*; a scarce local species.”*
- 4.2. The proposed development falls outside of all SSSI Impact Risk Zones relating to rural residential developments.

Non-statutory

- 4.3. There are five non-statutory protected sites located within 2km – five County Wildlife Sites (“CWS”). Please refer to Appendix C for the full citations.
- i. Knightshill Grove CWS, approximately 1km southwest.
- “Knightshill Grove, a small wood, is situated between the villages of Brettenham and Thorpe Morieux, indeed the parish boundary runs through the wood. It is surrounded by arable land but linked to other areas of woodland by mature hedges.”*
- ii. Morieux Wood CWS, approximately 1km northwest
- “Morieux Wood is one of a number of ancient woodlands in the parishes of Brettenham and Thorpe Morieux.”*
- iii. Ram’s Wood CWS, approximately 0.5km north.
- “Ram’s Wood is one of a number of ancient woodlands situated in the parish of Brettenham listed in English Nature’s Inventory of Ancient Woodland.”*

- iv. Rattlesden Airfield CWS, approximately 1.6km north.

“The site consists of two areas of semi-natural habitat that have regenerated on the edges of the former Rattlesden WW2 airfield.”

- v. Home Wood CWS, approximately 1.9km southeast.

“Home Wood is situated on a gentle south facing slope of the Brett valley adjacent to the Bury Road which links Brettenham with Hitcham.”

5. HABITATS

Desktop review

- 5.1. Priority Habitats to occur within 2km (identified using MAGIC – managed by Natural England), include Good Quality Semi-Improved Grassland, Deciduous Woodland, Traditional Orchards and Woodpasture and Parkland BAP Priority Habitat. The closest of which, is Deciduous Woodland located approximately 190m south of the site.

Field study

- 5.2. The habitats on the site are of **low** ecological value, being mainly modified grassland (managed and unmanaged) and hedgerows (Priority Habitat) on the site peripheries.
- 5.3. Priority Habitats, as listed under the NERC Act 2006 Section 41 Habitats of Principal Importance found on site include: Hedgerows.
- 5.4. Figure 2 provides a map of the habitats present on the site. NERC Act 2006 Section 41 habitats have been identified where relevant. A full list of plant species recorded on site is attached in Appendix E.

Modified grassland (UK Habitat Classification g4; secondary code: 10 scattered scrub, 11 scattered trees, 16 tall herb and 1150 flower bed)

- 5.5. The majority of the site features irregularly mown and unmanaged grassland; both perennial ryegrass *Lolium perenne* and white clover *Trifolium repens* are abundant, and the grassland features less than nine species per m². Species include: barren brome *Bromus sterilis*, broadleaf dock *Rumex obtusifolius*, cock's-foot *Dactylis glomerata*, creeping buttercup *Ranunculus repens*, daisy *Bellis perennis*, dandelion *Taraxacum officinale*, dove's-foot cranesbill *Geranium molle*, fescue *Festuca sp.*, ground ivy *Glechoma hederacea*, hawksbeard *Crepis sp.*, herb-robert *Geranium rovertianum*, medic *Medicago sp.*, perennial ryegrass, ribwort plantain *Plantago lanceolata*, selfheal *Prunella vulgaris*, smaller cat's-tail *Typha angustifolia*, white dead-nettle *Lamium album* and Yorkshire fog *Holcus lanatus*.
- 5.6. The grassland features scattered scrub dominated by bramble *Rubus fruticosus* and scattered trees including hawthorn *Crataegus monogyna* and silver birch *Betula pendula*. Tall herb occurs within areas of unmanaged grassland and along site boundaries and species include: cow parsley *Anthriscus sylvestris*, false oat-grass *Arrhenatherum elatius*, hogweed *Heracleum sp.*, nettle *Urtica dioica*, prickly sow thistle *Sonchus asper* and willowherb *Epilobium sp.* Various flowerbeds are present with species including box honeysuckle *Lonicera nitida*, cotoneaster

Cotoneaster sp., fuschia *Fuschia sp.*, hellebore *Helleborus sp.*, hydrangea *Hydrangea sp.*, iris *Iris sp.*, Leyland cypress *Cupressus x leylandii* and rose *Rosa sp.*

Species-rich native hedgerow (UK Habitat Classification h2a5: secondary codes: 80 unmanaged, 117 dry, 190 hedgerow with trees, 191 ditch and 1174 line of trees) – Priority Habitat

- 5.7. The site features a species-rich, predominantly native, hedgerow with trees which is unmanaged along the western site boundary. Hedgerow species include: elm *Ulmus sp.*, hawthorn and ivy *Hedera helix*. Tree species include: ash *Fraxinus excelsior*, English oak *Quercus robur*, lime *Tilia sp.*, Scot's pine *Pinus sylvestris*, spruce *Picea sp.* and sycamore *Acer pseudoplatanus*. A dry ditch runs parallel to the hedgerow and is encroached by tall herb species.
- 5.8. A line of trees is present along the northern site boundary, dominated by plum *Prunus sp.*
- 5.9. These hedgerows do not qualify as “important” under The Hedgerow Regulations 1997, lacking the required number of native woody species or associated features.

Non-native and ornamental hedgerow (UK Habitat Classification h2b: secondary codes: 75 active management)

- 5.10. A Leyland cypress dominated hedgerow encloses part of the eastern site boundary.

Buildings (UK Habitat Classification u1b5)

- 5.11. There are several buildings on site. Please refer to the bat section detailed below for further information.

Other developed land (UK Habitat Classification u1b6)

- 5.12. The site features a compacted gravel drive and patio slab hardstanding.

Built linear features (UK Habitat Classification u1e: secondary codes: 68 mortared wall and 69 fence)

- 5.13. The site is enclosed by a mixture of brick wall, closeboard fence and post and rail fence.

Target note	Comments
A	Stacked materials
B	Log piles
C	Compost
D	Brash pile

Table 1, target notes.

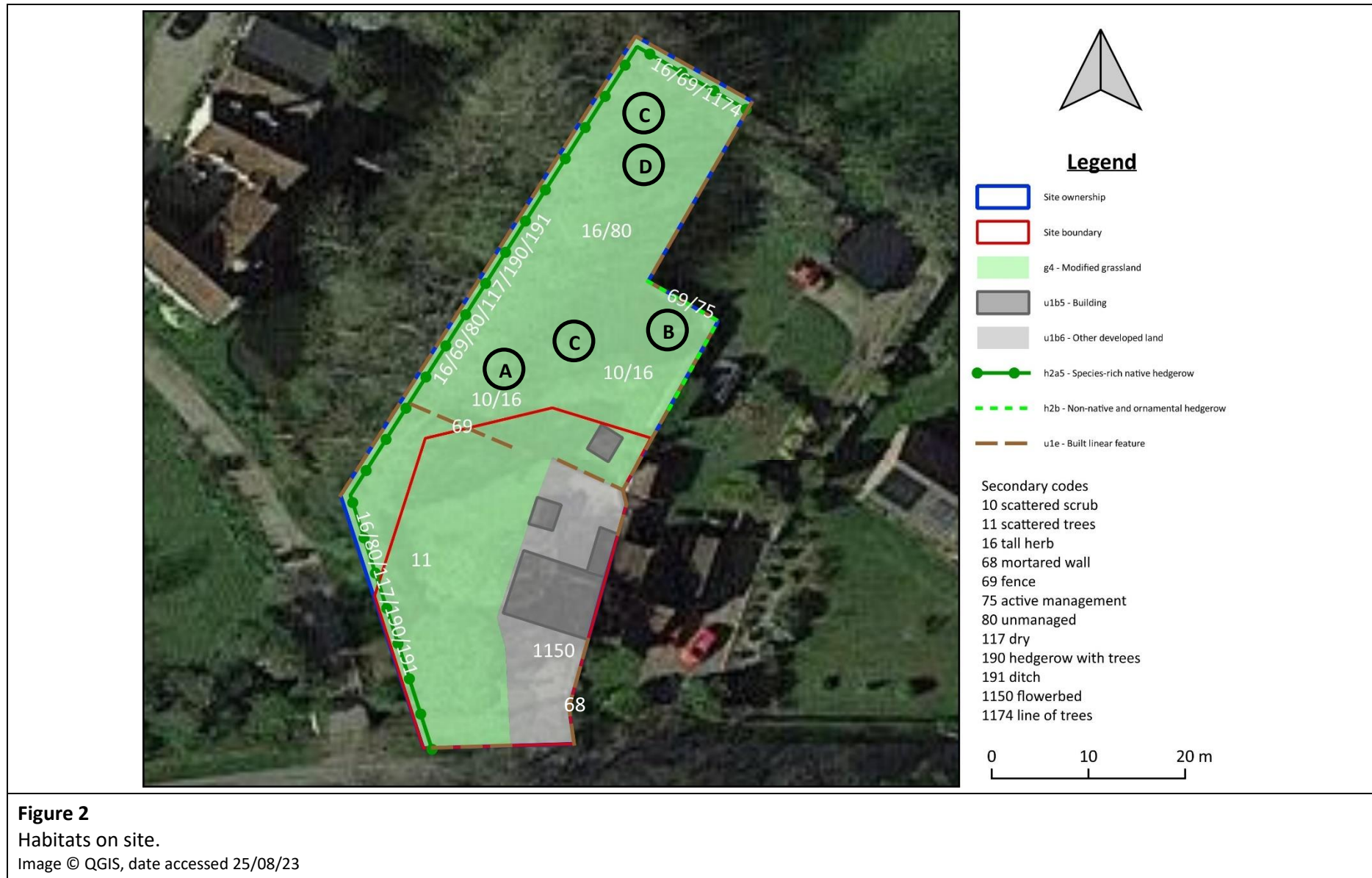




Photo 1, road frontage and existing southern access to the site, looking northwest.



Photo 2, looking north along the western boundary enclosed by fence and a hedgerow with trees.



Photo 3, looking east along the line of trees and fence along the northern site boundary.



Photo 4, looking across the site from the northwest corner.



Photo 5, looking south toward the dwelling and area of proposed extension.



Photo 6, looking west across the modified grassland managed as lawn where the cartlodge is proposed.

6. PROTECTED AND NOTABLE SPECIES

Desktop review

Data search

- 6.1. The biodiversity data search within 2km of the site indicated 582 records from 151 species.
- 6.2. Records of note within 2km and relevant to the proposed development works are:
 - Six swift *Apus apus* records, with the most recent from 2015.
 - Seven GCN *Triturus cristatus* records, with the most recent from 2013. The closest record is located approximately 0.3km northwest.
 - Two reptile records, with the most recent from 2019. Species include: slow-worm *Anguis fragilis* and common lizard *Zootoca vivipara*.
 - Two badger *Meles meles* records, with the most recent from 2004. The closest record is located approximately 1.3km west.
 - 26 hedgehog *Erinaceus europaeus* records, with the most recent from 2022.
 - Three bat records, with the most recent from 2014, including unidentified pipistrelles *Pipistrellus sp.* and brown long-eared *Plecotus auritus*.

Protected species licences

- 6.3. A 2km search on <http://www.magic.gov.uk/> indicated no records of granted European Protected Species (“EPS”) Mitigation Licences.

Bats

6.4. There are four buildings and four trees with bat roosting potential located on site, as indicated in Figure 3 and photos 7-13.



Building one

- 6.5. The dwelling is constructed of brick walls and a pitched clay pantile roof (tightly fitted). The building features PVC soffit boxes and PVC framed windows and doors.
- 6.6. Internally the roof features a closed loft space, lined with bitumen, a ridge beam and timber trusses (1m high at the apex). The loft space is dark with no artificial light and the loft floor is lined with 3" closed form insulation sheets.
- 6.7. Roosting opportunities were observed within crevices between the soffit box and brick wall on the south aspect, between lead flashing and a tile on the south aspect and within the loft space.
- 6.8. Although no bats or evidence of bats were observed, the loft space was only viewed from the loft hatch due to space constraint.

- 6.9. The dwelling is assessed as **low** summer, but **negligible** hibernation roost suitability for bats due to its location, roosting features and signs of bats. Please note, the building is occupied during winter months and features central heating, which would create fluctuations in temperature and humidity.



Photo 7, south aspect of building one, looking north.



Photo 7, internal view of building one, looking south.



Photo 8, crevice between soffit box and brick wall on the south aspect.

Building two

- 6.10. The outbuilding is constructed of brick walls and a single-pitched clay pantile roof. The building features timber fascias and timber framed windows and doors.
- 6.11. Internally the roof space is open, featuring timber trusses and no roof lining.
- 6.12. Whilst a small number of roosting opportunities were observed beneath lifted tiles and between mortar and tiles, the roof is unlined and the crevices are north facing. No bats or evidence of bats were observed.
- 6.13. The outbuilding is assessed as limited **low** summer, but **negligible** hibernation roost suitability for bats due to its location, roosting features and signs of bats. Please note, roosting features observed were external and therefore subject to fluctuations in temperature and humidity.



Photo 9, north and west aspects of building two.



Photo 10, internal view of building two, looking northeast.

Buildings 3 & 4

6.14. The buildings vary in construction and are comprised of:

- Building three – a timber framed garden shed featuring tongue and groove timber cladding and a pitched bitumen felt roof. Internally the building features an open roof space lined with insulation sheets and moderate natural light levels.
- Building four – a timber framed shed with timber cladding and a pitched bitumen felt roof. Internally the building features chipboard lined and moderate natural light levels.

6.15. There were no signs of use by bats on the building exteriors or interiors and the structures provide unsuitable roost environments, with no suitable cavities for roosting bats. The buildings are assessed as **negligible** (summer and hibernation) roost suitability for bats.



Photo 11, south and east aspects of building three.



Photo 12, south and west aspects of building four.

Trees

6.16. The trees around the site boundary were assessed for bat roosting potential.

6.17. A total of four trees on or adjacent the site were assessed as having **low** to **moderate** roost suitability for bats based on their location, age and suitable features (Table 2, Figure 3).

6.18. The remaining trees are assessed as **negligible** bat roosting potential, due to their age and/or lack of features.

Tree No.	Tree species	What3words	Bat roosting potential	Potential roosting features
1	Silver birch	marketing. special. cattle	Low	Cracked limb
2	Lime	plants. genius. grass	Moderate	Trunk cavity
3	Sycamore	poem. abundance. unsightly	Low	Trunk cavity although low at 1.9m high.
4	Ash (dieback)	evolves. sweeper. clef	Low	Deadwood

Table 2, trees with bat roosting potential.



Photo 13, tree three with trunk cavity.

Foraging and commuting links

6.19. The site itself provides **moderate** value foraging habitat for bats along the boundary hedgerows.

6.20. The landscape immediately adjacent to the site is considered of **low** to **moderate** value for foraging and commuting bats, with linked gardens, hedgerows, treelines and the River Brett located approximately 0.7km northwest and 1.1km south providing links to the wider landscape. Residential dwellings adjacent the site and within Brettenham have the potential to provide roosting opportunities for bats.

Birds

- 6.21. Birds in the UK are classified into three categories of conservation importance - red, amber and green. Factors such as global threat level, population decline, breeding population decline and contraction of breeding range are taken into account to determine classification.
- 6.22. The following bird species were observed during the site visit:

Green listed:

Blackbird	<i>Turdus merula</i>
Blue tit	<i>Cyanistes caeruleus</i>
Buzzard	<i>Buteo buteo</i>
Swallows	<i>Hirundo rustica</i>

- 6.23. The site provides suitable nesting habitats for scrub, hedgerow, tree and building nesting species.
- 6.24. The site provides potential breeding habitat for the following Red listed species: house martin *Delichon urbicum*, house sparrow *Passer domesticus*, mistle thrush *Turdus viscivorus*, swift and starling *Sturnus vulgaris*.
- 6.25. The site provides potential breeding habitat for the following Amber listed species: dunnock *Prunella modularis*, song thrush *Turdus philomelos*, woodpigeon *Columba palumbus* and wren *Troglodytes troglodytes*.
- 6.26. No signs of barn owl were found on the site and no foraging habitat is present.

Great crested newts

- 6.27. There are no ponds within the survey site and four further ponds within 250m, which for the size of the development and nature of terrestrial habitat on the site, is a sufficient distance to consider for assessment (Figure 4). GCN are most likely to occupy good quality terrestrial habitat within 250m of a breeding pond (English Nature, 2001).
- 6.28. The terrestrial habitats on the site are considered both suitable (unmanaged grassland, scattered scrub, hedgerows, stacked materials/log piles/brash piles) and unsuitable (other developed land and managed grassland) for GCN.
- 6.29. Terrestrial habitats adjacent the site include a mixture of unsuitable (arable fields and residential dwellings with associated gardens and hardstanding) and suitable (unmanaged grassland, scrub, hedgerows and deciduous woodland) GCN foraging, commuting and hibernating habitats.
- 6.30. Ponds 1-3 were assessed as **below average to good** suitability for GCN (Table 3). Pond four was not assessed in detail, as authorised access to the ponds was not available.

- 6.31. The site falls within the Amber risk zone for GCN district level licensing, which is classified as “containing main population centres for GCN and comprise important connecting habitat that aids natural dispersal” (Natural England, 2021).
- 6.32. The River Brett located approximately 0.7km northwest and 1.1km south acts as a habitat barrier and ecologically separates the site from ponds in the local vicinity.

Pond	1	2	3
Geographic location	Zone A	Zone A	Zone A
	1.00	1.00	1.00
Pond surface area (m²)	800m ²	200m ²	<50m ²
	0.99	0.40	0.05
Desiccation rate	Never	Never	<2 years in 10
	0.90	0.90	1.00
Water quality/ invert density	Poor	Poor	Poor
	0.33	0.33	0.33
Shoreline shade (%)	60%	35%	40%
	1.00	1.00	1.00
Waterfowl impacts	Absent	Absent	Absent
	1.00	1.00	1.00
Fish impacts	Possible	Possible	Possible
	0.67	0.67	0.67
Ponds within 1km	13+	13+	13+
	1.00	1.00	1.00
Terrestrial habitat quality	Moderate	Moderate	Moderate
	0.67	0.67	0.67
Macrophyte cover (%)	0%	95%	5%
	0.30	0.85	0.35
HSI Score	Good	Good	Below average
	0.72	0.73	0.55

Table 3, HSI score for ponds within 250m of the proposed site.



Photo 14, pond one, looking northwest.



Photo 15, pond two, looking north.



Photo 16, pond three, looking southwest.

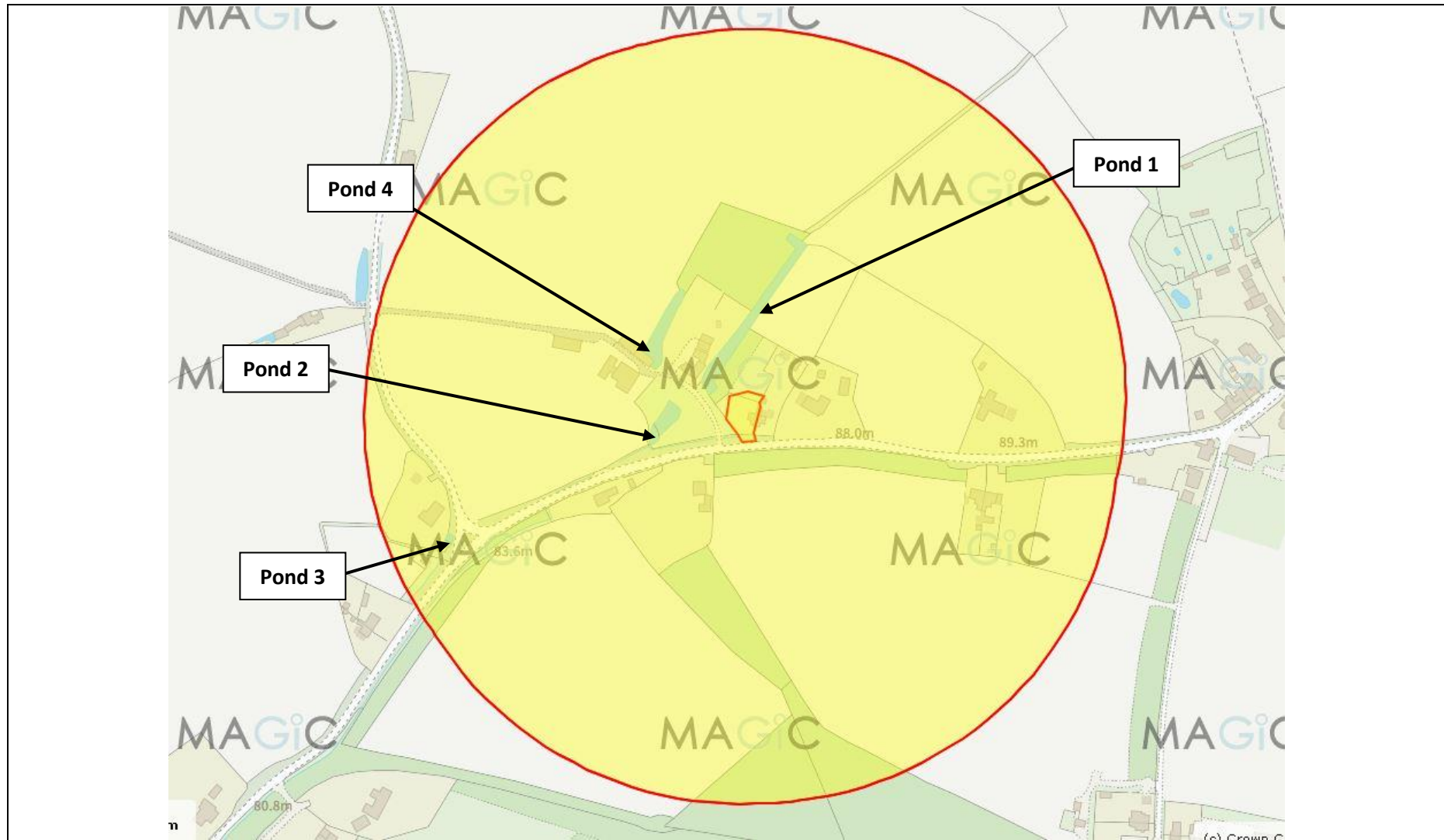


Figure 4
Ponds within 250m of the proposed site.
Image © MAGIC, date accessed 25/08/23

Reptiles

- 6.33. The habitats on the site are considered both suitable (unmanaged grassland, scattered scrub, hedgerows, compost heap and stacked materials/log piles/brush piles) and unsuitable (other developed land and managed grassland) for reptiles. The compost heap could be used for egg-laying by grass snakes and the stacked materials/log piles/brush piles could be used as refuge.
- 6.34. Habitats located on the site boundaries including the base of the hedgerows and the dry ditch could be used as commuting habitats by reptiles if they were present in the area.
- 6.35. Terrestrial habitats adjacent the site include a mixture of unsuitable (arable fields and residential dwellings with associated gardens and hardstanding) and suitable (scrub, hedgerows and deciduous woodland) reptile foraging, commuting and hibernating habitats.
- 6.36. The River Brett located approximately 0.7km northwest and 1.1km south acts as a habitat barrier and ecologically separates the site from habitats further afield. Please note, the River Brett would not act as a habitat barrier to grass snakes who use bodies of water to commute and forage along.

Badgers

- 6.37. No signs of badger presence were found on or near the site, although the habitats on site are considered suitable for badger setts, foraging and commuting. Banks along the dry ditch along the western site boundary provide suitable sett locations, with unmanaged grassland and hedgerows providing suitable foraging and commuting habitats.
- 6.38. Habitats within the local vicinity include arable fields, hedgerows, treelines and deciduous woodland, providing suitable habitats for badger setts, foraging and commuting.

Other animals

- 6.39. The site is considered predominantly unsuitable for stag beetles *Lucanus cervus*, with the only dead wood located on site being less than 20cm in diameter.

7. DISCUSSION AND CONCLUSIONS

Protected sites

- 7.1. The development footprint falls outside all identified protected sites (statutory and non-statutory). There is one statutory protected site and five non-statutory protected sites located within 2km of the site.
- The closest statutory protected site (Thorpe Morieux Wood SSSI), is located approximately 1.1km northwest and designated for its ancient coppice woods.
 - The closest non-statutory protected site (Ram's Wood CWS), is located approximately 0.5km north of the site and designated for its ancient wood.
- 7.2. The proposed development falls outside of any SSSI Impact Risk Zones relating to rural residential developments.
- 7.3. The proposed development is expected to have no effects on statutory or non-statutory protected sites or their qualifying features, owing to its relatively small scale, distance to protected sites and limited predicted impacts beyond the area of works.

Habitats

- 7.4. The proposed works will require the extension of building one (dwelling), demolition of building two (outbuilding), removal of ≈ 0.01 ha other developed land and clearance of vegetated habitats on site, including ≈ 0.02 ha of modified grassland. No priority habitats will be affected by the proposed development. This is expected to result in a low scale loss of nesting habitat for building nesting birds, and a low scale loss of foraging features for bats. Please refer to the bat section below for predicted impacts on buildings and trees with potential bat roosts.
- 7.5. As a precautionary measure, the following mitigation will be implemented to avoid impacts on habitats from the proposed works:
- i. A soft landscaping scheme to include:
 - a. The planting of new native species-rich (≥ 5 species), hedgerows and trees around the site (see Appendix F for suggested species).
 - b. The planting of flowering lawn mixtures in open spaces, which are rich in nectar and pollen (see Appendix F for suggested seed mix).
 - ii. Construction works carried out in accordance with British Standards Institution (2012), BS 5837:2012, Trees in relation to design, demolition and construction – recommendations, to protect trees which are to be retained and their root protection areas.

- iii. Aquatic habitats adjacent the site to be protected from runoff and pollution from the proposed development. This will include the production of environmental management systems and/or permits (where applicable), pollution incident response plans, the use of spill kits, plant nappies, designated refuelling stations and storage of machinery, materials and site compounds $\geq 10\text{m}$ from aquatic habitats.
- iv. Aquatic habitats will be clearly marked with temporary protective fencing, detailing no work zones (including storage of materials and soil).

Bats

- 7.6. The proposed works are expected to result in a low scale loss of potential roosting, foraging and commuting habitats for bats through the extension of building one (dwelling), demolition of building two (outbuilding), clearance of vegetation and through increased noise and light levels. Please note, the proposed extension on building one (dwelling) will not affect any potential roosting features and therefore no further surveys are required under the current plans for this building.
- 7.7. Although building two (outbuilding) has low roost suitability for bats with a small number of lifted tiles and missing mortar, the roof is north facing, unlined and the proposed works only involve the removal of $\approx 5\text{m}^2$ of roof space. We therefore consider that the mitigation provided below is sufficient, given the evidence available and that the proposed works will have a minimal effect on any potential roosting bats.
- 7.8. The following mitigation will be implemented to avoid impacts on bats from the proposed works:
 - i. On the first day works are proposed to commence, the tiles of building two (outbuilding) will be surveyed for bats using a torch and endoscope. If bats or evidence of bats are found to be present and roosting within the building, further activity surveys and a European Protected Species Mitigation Licence will be required for the development.
 - ii. If no bats or evidence of bats are found during the endoscope survey, the removal of the tiles of building two (outbuilding) will be undertaken with special care and under watching brief of a licenced bat ecologist. If any bats are found, work will cease immediately and advise on the appropriate mitigation will be obtained.
 - iii. If proposed plans change to affect potential roosting features within building one (dwelling) further activity surveys and a European Protected Species Mitigation Licence may be required for the development.

- iv. If proposed works change to incorporate trees with moderate bat roosting potential on the site, further bat surveys will be conducted prior to work commencing, to assess their potential use by bats.
 - v. If proposed works change to incorporate trees with low bat roosting potential, a soft-fell approach will be adopted. This is where the tree limbs are cut, slowly lowered to the ground and left overnight with roosting features pointing upwards, to allow any roosting bats the opportunity to disperse. If a bat is found, works must cease immediately and a suitably licensed ecologist sought to advise on appropriate mitigation.
 - vi. Any lighting schemes will follow guidance from the Bat Conservation Trust (GN08/23) and CIE 150:2017. Warm-white (<3,000K) lights with UV filters (where necessary) will be installed away from roosting locations and linear features. Lighting units will feature a beam angle <70°, connected to movement sensors and feature baffles, hoods, louvres and horizontal cut off units at 90° where necessary.
- 7.9. Building Regulations state that the energy efficiency of buildings must be improved where possible and that contractors must assess the condensation risk within the roof space and make appropriate provisions in line with BS 5250:2011. This British Standard states that both High Resistance (bitumen type 1F) and Low Resistance (non-bitumen coated roofing membranes (NBCRM)) underlays are acceptable as long as appropriate ventilation is provided. As NBCRM are proven to entangle bats through regular contact, which also compromises the integrity of the membrane, the Bat Conservation Trust recommend only NBCRM that have passed the snagging propensity test (must be supplied/installed with the necessary certification) or traditional type 1F bitumen are used.
- 7.10. As enhancements, the following will be implemented:
- i. One integrated bat box installed on the extended dwelling (Bat Block – Appendix G).
 - ii. One standalone bat box installed on an appropriate tree on site (Greenwood’s Ecohabitats three crevice bat box – Appendix G).
- 7.11. After these precautionary mitigation measures, we predict no impact on bats as a result of the development plans. We consider that a European Protected Species Licence will not be required, and no further surveys are necessary.

Birds

- 7.12. The proposed works are expected to result in a low scale loss of bird nesting habitat through the extension of building one (dwelling), demolition of building two (outbuilding) and clearance of vegetation.
- 7.13. As a precautionary measure, the following mitigation will be implemented to avoid impacts on birds from the proposed works:
- i. Any works affecting bird nesting habitat such as management of scrub, hedgerows, trees or buildings would ideally need to be conducted outside the main nesting season. If work is planned during the bird nesting season (between 1st March and 31st July), then a precautionary check of all habitats will be conducted by a qualified ecologist immediately prior to starting any work. If any nesting birds are found, an appropriate protection zone from the nest will be required and will be maintained until the young have fledged.
- 7.14. As enhancements, the following will be implemented:
- i. One integrated swift box installed on the extended dwelling (Swift Block – Appendix G).
 - ii. One sparrow terrace installed on the extended dwelling (Schwegler 1SP Sparrow Terrace – Appendix G).
- 7.15. Natural England and Local Planning Authorities (“LPA”) have recognised a significant decline in swift populations across the country, and are actively endorsing integrated swift boxes to provide a net gain in biodiversity, as is encouraged by NPPF 2021.

Great crested newts

- 7.16. The proposed works are expected to result in a loss of ≈0.03ha terrestrial habitat (≈0.01ha of other developed land and ≈0.02ha of modified grassland).
- 7.17. Taking a worst-case scenario of 0.01-0.1ha of land being lost or damaged within 100m of a breeding pond (ponds one, two and four), the risk assessment calculation (set out in the GCN method statement template provided by Natural England) indicates an “*offence likely*”.
- 7.18. As GCN may commute across the site to reach ponds in the local vicinity, further steps are required to inform the planning application. This can be in the form of the following methods:
- i. Further GCN surveys:
 - a. Presence/likely absence surveys on ponds within 250m of the site which contain sufficient levels of water during the GCN breeding season (can only be conducted between mid-March and mid-June). Please note, a number of visits are required in the peak season (mid-April to mid-May).

- b. eDNA surveys on ponds within 250m of the site which contain sufficient levels of water during the GCN breeding season (can only be conducted between mid-April and June).
 - c. The outcomes of the presence/likely absence or eDNA surveys will inform a detailed mitigation strategy for GCN and whether a district level license or EPS Mitigation Licence will be required from Natural England for the proposed development to proceed.
- ii. Apply to join a district level licensing (“DLL”) scheme (can be completed all year round). Please note, all ponds will be assumed to contain GCN unless presence/likely absence surveys or eDNA tests have confirmed likely absence.

Reptiles

- 7.19. The proposed works are expected to result in a low scale loss of reptile habitat through the clearance of ≈0.02ha of modified grassland.
- 7.20. Although suitable reptile habitats are present on site, they are in small quantities (≈0.02ha) and would be unable to support a population in isolation. As a precautionary measure, the following mitigation will be implemented to avoid impacts on reptiles from the proposed works:
- i. Vegetation on site will be cut and maintained short (maximum height of 10cm) until the start of works, to discourage animals from using these areas.
- 7.21. After these precautionary mitigation measures, we predict no impact on reptiles as a result of the development plans, and no further surveys are necessary.

Badgers

- 7.22. The proposed works will require the extension of building one (dwelling), demolition of building two (outbuilding), removal of other developed land and clearance of vegetated habitats on site, including ≈0.02ha of modified grassland. This has the potential to destroy or disturb newly excavated badger setts, if present.
- 7.23. Good working practices will be adhered to during any development work. The following mitigation will be implemented to avoid impacts on badgers from the proposed works:
- i. A pre-construction survey for badger setts to be conducted within 30 days of the proposed start date. Badgers are a mobile species and the site provides suitable habitat for their setts. A badger survey may be necessary if signs of an active sett are found within a distance from construction activities which might damage badger setts.

- ii. If a badger sett is discovered, the nature of planned works within 30m of the sett will require assessment for potential impacts, and to inform an appropriate mitigation strategy. This may include further surveys and sett closure under licence.

7.24. After these precautionary mitigation measures, we predict no impact on badgers or their setts as a result of the development plans.

Other animals

7.25. The surrounding habitat of the site is considered suitable for hedgehogs. To maintain potential hedgehog routes within the site and between the site and further habitats, any fencing installed will be porous and provide access openings for hedgehogs (see Appendix H for examples).

7.26. General mitigation to protect wildlife during the construction period are as follows:

- i. Any excavations will have a rough sawn plank placed inside to act as a ramp to allow any animals that have fallen in to escape. The excavations will be checked each morning works are scheduled for, to remove any animals trapped.
- ii. Construction materials will be stored off the ground on pallets and waste materials in skips, to prevent providing shelter for animals and subsequent harm when materials are moved.

7.27. As enhancements, the following will be implemented:

- i. The installation of one bee brick on extended building (Bee brick – Appendix I).

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Appendix A

Methods

Desktop Review

A desktop review of published data, such as records of protected sites and species, OS maps and satellite images has been carried out. A data search was carried out with the Suffolk Biodiversity Information Service ("SBIS").

A field survey visit was conducted to confirm the findings of the desktop review and to record habitats and species located on site.

Equipment available for use during the survey were binoculars, ladders, torches, endoscope and a digital camera.

Habitats

The habitats on site have been defined using the UK Habitat Classification (Butcher *et al.*, 2020). Natural Environment and Rural Communities (NERC) Act (2006) habitats listed under section 41 have been identified where appropriate.

Bats

An assessment of the habitats on and surrounding the site for bat interest was made, in accordance with latest bat survey guidelines (Collins, 2016).

The building(s) on site was assessed for its potential to support roosting bats and involved a thorough internal and external search of all suitable cavities, holes and crevices. All suitable areas, including objects, ledges and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

In exposed conditions, the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

An evaluation system was applied to the building(s) using the following criteria:

- **Negligible roost suitability for bats.** These buildings have no potential roosting features for bats, or very few or minor features in an isolated or unsuitable location such that the presence of a bat roost is considered highly unlikely. Such buildings usually fall into two main types: generally, well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall, or without an attic space; or those which contain some or all of the above features, but are both draughty and thick in cobwebs

or contain strong odours such as solvents, diesel etc. It must be borne in mind that a building from this latter group can become suitable for bats following refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment. When no suitable habitats for bats are found, no further surveys or European Protected Species (“EPS”) mitigation licence are required.

- **Low roost suitability for bats.** Buildings in this category have one or more potential roost sites that could be used by individual bat opportunistically. These buildings do not however provide suitable conditions (such as space, shelter, temperature, humidity, or light and noise disturbance) to be used on a regular basis by a large number of bats. Structures with low roost suitability for bats will require **one dusk emergence or one dawn re-entry survey** conducted between May and August to assess their current use by bats.
- **Moderate roost suitability for bats.** These buildings contain one or more potential roosting sites which could be regularly used by bats owing to their size, shelter, protection and conditions. These buildings are however unlikely to support a roost of high conservation status (maternity roost or hibernation roost). Structures with moderate roost suitability for bats will require two surveys, **one dusk emergence and one dawn re-entry survey** conducted between May and September with at least one of the surveys undertaken between May and August, to assess their current use by bats.
- **High roost suitability for bats.** This group includes buildings with one or more potential roost sites which are obviously suitable for use by a larger number of bats on a regular basis and potentially for longer periods of time owing to their size, shelter, protection and conditions. These buildings may support a roost of high conservation status (maternity roost or hibernation roost) and will require three activity surveys to assess their current use by bats. The surveys should include at least **one dusk emergence and** at least **one dawn re-entry survey** (the third survey can either be at dusk or dawn) and should be conducted between May and September with at least two of surveys undertaken between May and August.

Trees on and around the site were assessed for their suitability to support roosting bats. The assessment involved a ground level inspection of the exterior of the trees to search for features offering roosting potential to bats such as split limbs, woodpecker holes, cavities, lifted bark and dense thick-stemmed ivy.

An evaluation system was applied to the trees using the following criteria:

- **Negligible roost suitability for bats.** Trees unlikely to be used by roosting bats.
- **Low roost suitability for bats.** A tree of sufficient size and age to contain Potential Roosting Features (“PRFs”), but with none seen from the ground or features seen with only very limited roosting potential.
- **Moderate roost suitability for bats.** A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.

- **High roost suitability for bats.** A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection and surrounding habitat.

The habitats on and around the site were assessed for their commuting and foraging potential for bats. An evaluation system was applied to the commuting and foraging potential using the following criteria.

- **Negligible commuting and foraging potential for bats.** Habitat features unlikely to be used by commuting or foraging bats.
- **Low commuting and foraging potential for bats.** Habitats that could be used by a small number of commuting or foraging bats such as, a gappy hedgerow, unvegetated stream or lone trees, but are isolated and not well connected to the surrounding landscape.
- **Moderate commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, lines of trees, scrub, linked back gardens, grasslands and water features.
- **High commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, river valleys, watercourses, hedgerows, lines of trees, deciduous woodland, and grazed parkland. These habitats are likely to be used regularly by commuting or foraging bats and are likely to be close to, or connected to, known roosts.

Birds

The site and its surrounding habitats were assessed for their potential to support breeding birds. Bird nesting habitat could include grassland, hedgerows, scrub, trees and buildings.

Bird species noted during the site visit were recorded. Trees, buildings and grassland were checked for use by barn owls, swifts and skylarks.

Great crested newts

Habitats on and near the site were assessed for their suitability for great crested newts ("GCN").

Water features on and near the site were assessed for their suitability for occupation by GCN, according to a Habitat Suitability Index ("HSI"). The HSI is a theoretical index of a waterbody's suitability to support a breeding population of GCN and is calculated from a series of ten variables recorded on site, as detailed in Table 4.

Indices	Name	Description
SI1	Geographic Location	Lowland England or upland England, Scotland and Wales
SI2	Pond area	To the nearest 50m ²
SI3	Permanence	Number of years' pond dry out of ten
SI4	Water quality	Measured by invertebrate diversity
SI5	Shade	Percentage shading of pond edge at least 1m from shore
SI6	Fowl	Level of waterfowl use
SI7	Fish	Level of fish population
SI8	Pond count	Number of ponds within 1km divided by 3.14
SI9	Terrestrial habitat	Quality of surrounding terrestrial habitat
SI10	Macrophytes	Percentage extent of macrophyte cover on pond surface

Table 4, HSI indices.

The HSI score is the geometric mean of the ten suitability indices calculated:

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

Once calculated, the HSI score for a waterbody can be categorised as follows:

Excellent (>0.8)

Good (0.7 – 0.79)

Average (0.6 – 0.69)

Below Average (0.5 – 0.59)

Water voles, otters and white-clawed crayfish

Water features on and adjacent to the site were assessed for use by water vole, otter and white-clawed crayfish. Otters in England typically use areas of fresh water and streams and ditches for moving between habitats. Otter holts are usually located underneath tree roots, in tunnels. Field signs of presence include spraints on prominent features such as bridges, tree bases or boulders, and footprints.

Water voles inhabit burrows in the banks of ponds, ditches, streams and rivers. Field signs include droppings left in latrine spots, burrow entrances or feeding remains.

White-clawed crayfish inhabit streams and rivers with a moderate flow rate, and lakes. Clear, well-oxygenated water is preferred. Typical habitat features include crevices in rocks, gaps between stones, submerged plants and tree roots.

Reptiles

The habitats on the site and within the proposed area of works were assessed for suitability for reptiles.

Reptiles rely on conditions that allow them to maintain their body temperature through basking. They require access to direct sunlight, shelter from the elements, sufficiently large populations of prey species and hibernation sites.

Reptiles typically favour a habitat mosaic with a diverse vegetation structure, which could include grassland, scrub and woodland.

Badgers

An inspection of all habitats with the potential to support badger *Meles meles* sett construction and foraging activities on the application site was undertaken. Any incidental observations of badger signs were also recorded. The survey comprised searching for evidence of badger activity in the form of setts, droppings, pathways, snuffle holes, hair and footprints.

Dormice

Dormice habitats include deciduous woodland, hedgerows and scrub. Dormice are found mainly in the south of England, including Kent and Sussex, with sporadic populations elsewhere. An assessment of the suitability of site habitats for occupation by dormice was made.

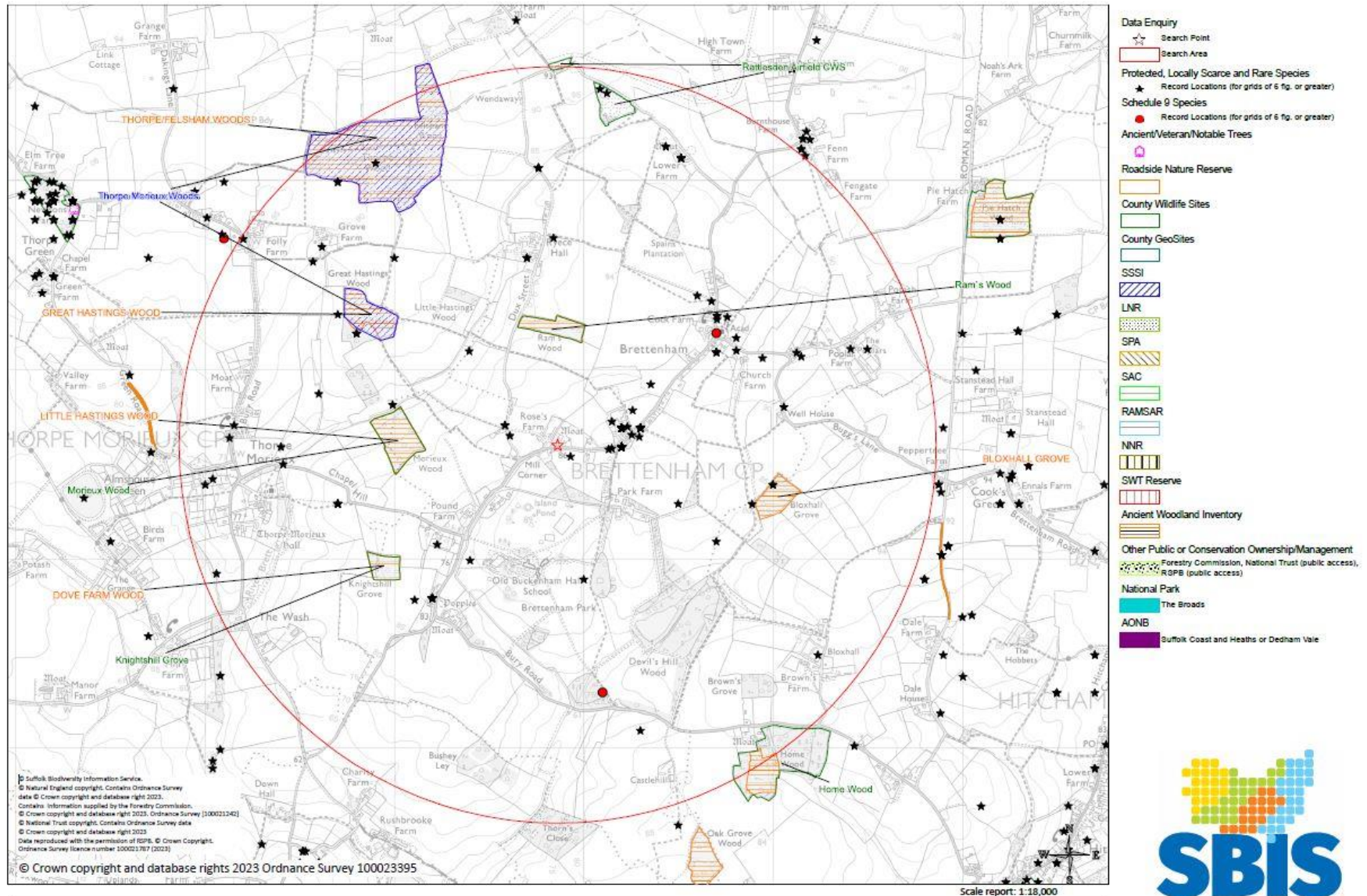
Other protected species

Particular regard was made to the nature of the proposed development and the potential of impact upon any other protected species, species which are nationally or locally scarce, or species subject to other conservation designations such as Red Data Book or Priority S41 species, from the development work, should these be present in the area.

Constraints

The loft space of the dwelling was only accessible from the loft hatch due to space limitations.

Appendix B
Map of protected sites within 2km



Greenlight (Rose Cottage, Brettenham TL 95862 53609) 2km Data Enquiry

SBIS
SUFFOLK BIODIVERSITY
INFORMATION SERVICE
Date: 26/07/2023 | Drawn by: Andy Mercer

Appendix C

Protected sites citations

SSSI citations

COUNTY: SUFFOLK SITE NAME: THORPE MORIEUX WOODS

DISTRICT: BABERGH, MID SUFFOLK

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981.

Local Planning Authority: Babergh District Council
Mid Suffolk District Council

National Grid Reference: TL 925547 Area: 43.6 (ha.) 107.7 (ac.)
TL 950551

Ordnance Survey Sheet 1:50,000: 155 1:10,000: TL 95 NW, TL 95 NE,
TL 95 SE, TL 95 SW

Date Notified (Under 1949 Act): 1972 Date of Last Revision: –

Date Notified (Under 1981 Act): 1985 Date of Last Revision: –

Other Information:

Bull's Wood is a nature reserve belonging to the Suffolk Trust for Nature Conservation.

Reasons for Notification:

Thorpe Morieux Woods are three ancient coppice woods on poorly drained boulder clays. The woods show a gradation from alkaline to acidic conditions depending on the thickness of a surface deposit of sand and loess. All three woods are under active coppice management and have entirely semi-natural stands. The ground flora contains several uncommon species, is diverse and is notable for the large populations of oxlip *Primula elatior*; a scarce local species.

The stand-types in Bull's Wood are mainly acid pedunculate oak-hazel-ash woodland and wet ash-maple woodland. There are, in addition good stands of invasive and lineage elm woodland. Thorpe and Felsham Woods are on more acid soils and contain very little field maple *Acer campestre*; therefore oak-hazel-ash woodland predominates. There are also small areas of secondary woodland with no coppice layer. Hastings Wood has similarities with Bull's Wood and has good stands of ash-maple woodland.

Bramble *Rubus fruticosus* agg. and dog's mercury *Mercurialis perennis* are dominant on the ground flora of all the woods with oxlips co-dominant in places. Many species that are indicators of ancient woodland occur including wood anemone *Anemone nemorosa*, wood sorrel *Oxalis acetosella*, wood spurge *Euphorbia amygdaloides*, wood melick *Melica uniflora*, herb paris *Paris quadrifolia* and early purple orchid *Orchis mascula*. Several wet hollows with marsh marigolds *Caltha palustris* and lesser pond sedge *Carex acutiformis* are also present. Wet rides have been created in Thorpe and Felsham Woods. Meadowsweet *Filipendula ulmaria*, tufted hair-grass *Deschampsia cespitosa* and rough meadow-grass *Poa trivialis* are dominant with creeping buttercup *Ranunculus repens*, water avens *Geum rivale* and soft rush *Juncus effusus*.

County Wildlife Sites citations

CWS Number	Name	Description	Area (ha)
Babergh 36	Knightshill Grove	Knightshill Grove, a small wood, is situated between the villages of Brettenham and Thorpe Morieux, indeed the parish boundary runs through the wood. It is surrounded by arable land but linked to other areas of woodland by mature hedges. Knightshill Grove is listed in the Ancient Woodland Inventory (English Nature) as Dove Farm Wood. A number of old and large stumps are evidence of the wood's antiquity. In the main, Knightshill Grove is an oak and ash dominated woodland. Beneath the tree canopy, hazel coppice and hawthorn form the shrub layer. It is very variable; in some places forming a dense layer but in other areas the wood has an open structure. Field maple, dogwood and elder are also present and a thick carpet of dog's mercury interspersed with nettle covers the woodland floor. Dead wood, in the form of several large beech and elm trees is abundant, particularly in the western compartment of the wood. Extensive windblow damage has occurred here and the resulting impenetrable shrub growth and fallen timber provides a valuable habitat for breeding birds.	1.98
Babergh 37	Morieux Wood	Morieux Wood is one of a number of ancient woodlands in the parishes of Brettenham and Thorpe Morieux. It is listed in English Nature's Inventory of Ancient Woodland as Little Hastings Wood. The wood is enclosed by ditches on all sides. A stream runs along the north western boundary. Ash, sycamore, birch, sweet chestnut and beech are frequent in the tree layer. Beneath this is a sparse shrub layer of hazel coppice, hawthorn, blackthorn and elder. The woodland floor is carpeted with a dense layer of dog's mercury interspersed with bramble. Spurge laurel, a scarce plant restricted to ancient woods occurs in the south-eastern corner. There is very little mature timber, although a number of dead standing trees provide food and nesting sites for woodland invertebrates and birds. Morieux Wood is used extensively for shooting.	4.94
Babergh 38	Ram's Wood	Ram's Wood is one of a number of ancient woodlands situated in the parish of Brettenham listed in English Nature's Inventory of Ancient Woodland. It lies adjacent to Dux Street (the Brettenham to Felsham Road) and is surrounded by arable land. Ram's Wood is composed of mature oak and ash trees, beneath which is an understorey of hazel coppice and hawthorn. The eastern end of the wood is predominantly silver birch, sycamore and oak with a dense shrub layer of hawthorn, elder and young sycamore. Elm, some of which is effected by Dutch elm disease, is scattered throughout the wood. Breeding spotted woodpeckers which require this dead standing timber have been recorded in Ram's Wood. Planted trees include Norway maple which occurs particularly along the western edge beside the road. In addition to common woodland plants the ground flora also includes a number of uncommon indicator species which are restricted to ancient woodlands, for example pendulous sedge which occurs frequently in the wood particularly on the eastern edge. A large proportion of the wood remains unmanaged, however small scale recoppicing work has taken place along the northern margin.	2.77

Babergh 39	Rattlesden Airfield	<p>This site consists of two areas of semi-natural habitat that have regenerated on the edges of the former Rattlesden WW2 airfield. The regeneration and development of habitats on this site has, in part, been influenced by the fragments of former airfield infrastructure that remain, such as concrete taxi and runways. Along with the site's underlying chalky Boulder Clays, the concrete has affected the soil pH and also impeded drainage in places. This has led to localised colonisation by chalk tolerant species such as yellow-wort, purging flax, bee and common-spotted orchid, the concrete provides a habitat niche for 'wall plants' such as biting stonecrop, and wet hollows and formerly rutted ground provide suitable habitat for wetland species including rushes and false fox sedge. Both parts of the site have valuable areas of naturally regenerated scrub which is of high value for birds. The reservoir in the south-eastern site is very sheltered, with its steep sunny banks being ideal for colonisation by unimproved grassland species such as yellow-wort, orchids and bird's-foot trefoil. The combination of bare ground, good sources of native pollen and nectar and the sheltered location also make this valuable habitat for butterflies, dragonflies and other invertebrates. Grass snake (biodiversity priority species), common toad (biodiversity priority species) and common frog have all been recorded on site.</p> <p>For a comparatively small area, this CWS has a very diverse range of habitats from mature trees, scrub, unimproved grassland (biodiversity priority habitat), open water (biodiversity priority habitat) and bare ground and is therefore valuable for a wide range of wildlife.</p>	2.99
Babergh 68	Home Wood	<p>Home Wood is situated on a gentle south facing slope of the Brett valley adjacent to the Bury Road which links Brettenham with Hitcham. It is listed in English Nature's Ancient Woodland Inventory and contains a number of interesting historical features including a moat, located in the north-western corner of the site. The original structure of the wood has been considerably altered by management work. The oak, ash and field maple coppice has been extensively interplanted with conifers particularly Corsican pine. Native woody species which remain in the wood include birch, spindle, hawthorn, hazel, willow and elm. The shrub layer is dense in places and provides good nesting habitat for breeding birds. A detailed survey of the wood carried out by the Suffolk Wildlife Trust in 1990 identified a species-rich ground flora which includes 11 scarce species strongly associated with ancient woodland. One of these plants ie. oxlip is a nationally rare plant which is restricted to some ancient woods in East Anglia. There is a thriving population of oxlip in Home Wood. In addition to timber production, Home Wood is used for paint ball war games, game-rearing and shooting.</p>	12.3

Appendix D

Legislation

European Protected Species

The Ramsar Convention (1971) on Wetlands of International Importance especially as Waterfowl Habitat seeks to promote the conservation and wise use of wetlands, particularly those which support internationally significant numbers of water birds. This is achieved through the designation of Ramsar Sites.

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC) sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It requires member states to designate Special Protection Areas (SPAs) for protection of certain species.

The main piece of legislation relating to nature conservation in Great Britain is **The Wildlife and Countryside Act 1981 (as amended)**. This Act is supplemented by provision in **The Countryside and Rights of Way (CROW) Act 2000** and **The Natural Environment and Rural Communities Act 2006 (in England and Wales)**. This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds, their nests and eggs.

The Countryside and Rights of Way Act 2000 strengthens the protection given to SSSIs. It revises the procedures for the notification of SSSIs and for the consenting of operations which may damage the special interest of a SSSI. Local authorities have a duty to take steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of SSSIs. The act also strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" destroying or damaging the habitats of certain protected species.

UK wildlife is also protected under **The Conservation (Natural Habitats &c.) Regulations 1994** (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2017, these Regulations, together with subsequent amendments, were consolidated into **The Conservation of Habitats and Species Regulations 2017**.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Protection of Badgers Act 1992 consolidates previous badger legislation by providing comprehensive protection for badgers and their setts, with a requirement that any authorised sett disturbance or destruction be carried out under licence.

The Hedgerows Regulations 1997 aim to protect important hedgerows in the countryside. They make it illegal to remove most countryside hedges without first notifying the local planning authority, and provide protection for 'important hedgerows'.

County Wildlife Site is a non-statutory designation used to identify high quality wildlife habitats in a county context. Local Authorities have a responsibility as part of their planning function to take account of sites of substantial nature conservation value and to consider them alongside other material planning considerations. The location of County Wildlife Sites will be included in Local Plans and Development Documents.

National Planning Policy - National Planning Policy Framework (NPPF)

Section 15 of the National Planning Policy Framework 2021 (NPPF): Conserving and enhancing the natural environment states that 'planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity.'

Office of The Deputy Prime Minister ("ODPM") Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the planning system.

Paragraph 98 of Circular 06/2005 states that 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat'.

Implications of legislation and policies

Without this ecological assessment, the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore, the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in non-determination or refusal of the application.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Where mitigation or compensation measures are required to ensure that no significant impacts will result on biodiversity from the development, the proposed measures may be secured through planning conditions or by EPS Mitigation Licences from Natural England.

Bats

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. On 30th November 2017, these Regulations, together with subsequent amendments, were consolidated into the Conservation of Habitats and Species Regulations 2017.

European protected animal species (“EPS”) and their breeding sites or resting places are protected under Regulation 42. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and, if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

Barn Owls

The Habitats Regulations (1994), as amended, states that a person commits an offence in the case of Barn Owl only if this species is disturbed in the breeding season. This applies equally to all those bird species listed under Schedule 1.

Breeding Birds

It is an offence to kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built (even of "pest" species); take or destroy the eggs of any wild bird.

Great Crested Newts

Great crested newts are protected under both English and European law. It is an offence to kill, injure, disturb or take great crested newts or to damage or destroy their places of shelter, whether the animals are present or not.

Water Vole

The water vole received limited legal protection in April 1998 through its inclusion in Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) for some offences. Legal protection makes it an offence to:

- intentionally kill, injure or take (capture) a water vole;

- possess or control a dead or live water vole, or any part of a water vole;
- intentionally or recklessly damage or destroy access to any structure or place which water voles use for shelter or protection or disturb Water Voles while they are using such a place;
- sell, offer for sale or advertise for sale live or dead Water Voles

Water voles, their breeding sites and resting places are protected by law. In most cases, work can be planned to avoid harming water voles. If works cannot avoid disturbing them or damaging their habitats, you may be able to get a licence from Natural England.

Otters

Otters are protected under Section 9 of the Wildlife and Countryside Act 1981 (as amended) and revised by the Countryside and Rights of Way Act 2004, making it an offence to:

- intentionally kill, injure or take an otter;
- possess or control any (live or dead) otter, or any part of or anything derived from an otter;
- intentionally or recklessly damage or destroy or obstruct access to any structure or place used for shelter or protection by an otter;
- intentionally or recklessly disturb an otter while it is occupying a structure or place for that purpose;
- to sell, offer for sale, possess or transport for the purpose of sale any (live or dead) otter or part or derivative of an otter;
- to advertise for buying and selling such things.

Furthermore, otters are included on Schedule 2 of the Conservation (Habitats &c.) Regulations (1994), making it an offence to:

- deliberately to capture or kill a wild animal of a European protected species;
- deliberately to disturb any such animal;
- deliberately to take or destroy the eggs of such an animal; or
- damage or destroy a breeding site or resting place of such an animal.

Otters are also listed as a priority species on the UK and Biodiversity Action Plans.

White-Clawed Crayfish

This crayfish is listed under Annex II of the habitats directive and areas are designated as Special Areas of Conservation to protect this species. Outside of this a licence is required to capture this species. It is listed as a priority species under the Biodiversity Action Plan and is a Species of Principal Importance under section 41 of the NERC Act 2006.

Reptiles

Reptiles such as common lizard, slowworm, grass snake or adder are protected under Section 9 of the Wildlife & Countryside Act (1981) as amended. The legislation makes it illegal to deliberately or recklessly kill or injure

any native reptile. This protection therefore requires that reasonable effort be made to avoid harm to reptiles during developments on land occupied by reptiles.

Badger

The Wildlife and Countryside Act (1981) and its subsequent amendment in 1985 made it an offence to take, kill, injure or ill-treat a badger. The badger gained further protection under the auspices of The Protection of Badgers Act (1992) which consolidates all former protective legislation in relation to badgers, except their inclusion on Schedule 6 of the Wildlife and Countryside Act 1981.

Under the 1992 Act, the badger sett is protected against obstruction, destruction, and damage; furthermore, the animal's access to and from the sett must not be impeded. It should be noted that the concept/definition of the sett extends beyond the main sett to include annexe, subsidiary and outlying setts. However, although the badger and its sett are protected (including access to the sett), the wider habitat and foraging ground is not.

Dormice

Dormice are protected from being killed, injured, captured or disturbed and their resting and breeding places should not be damaged or destroyed.

Natural England Licensing - EPS Mitigation Licensing

Licences can be obtained from the Wildlife Management and Licensing Service at Natural England to allow certain activities that would otherwise constitute an offence, for the purposes of development (e.g. destruction of a bat roost, loss of great crested newt aquatic and terrestrial habitat, etc).

Appendix E

Plant species recorded on site

English name	Scientific name
Ash	<i>Fraxinus excelsior</i>
Barren brome	<i>Bromus sterilis</i>
Box honeysuckle	<i>Lonicera nitida</i>
Bramble	<i>Rubus fruticosus</i>
Broadleaf dock	<i>Rumex obtusifolius</i>
Cock's-foot	<i>Dactylis glomerata</i>
Cotoneaster	<i>Cotoneaster sp.</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping buttercup	<i>Ranunculus repens</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinale</i>
Dove's-foot cranesbill	<i>Geranium molle</i>
Elm	<i>Ulmus sp.</i>
English oak	<i>Quercus robur</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Fescue	<i>Festuca sp.</i>
Fuchsia	<i>Fuchsia sp.</i>
Ground ivy	<i>Glechoma hederacea</i>
Hawksbeard	<i>Crepis sp.</i>
Hawthorn	<i>Crataegus monogyna</i>
Hellebore	<i>Helleborus sp.</i>
Herb-robert	<i>Geranium robertianum</i>
Hogweed	<i>Heracleum sphondylium</i>
Hydrangea	<i>Hydrangea sp.</i>
Iris	<i>Iris sp.</i>
Ivy	<i>Hedera helix</i>
Leyland cypress	<i>Cupressus x leylandii</i>
Lime	<i>Tilia sp.</i>
Medic	<i>Medicago sp.</i>
Nettle	<i>Urtica dioica</i>
Perennial ryegrass	<i>Lolium perenne</i>
Plum	<i>Prunus domestica</i>
Prickly sow thistle	<i>Sonchus asper</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Rose	<i>Rosa sp.</i>
Selfheal	<i>Prunella vulgaris</i>
Scot's pine	<i>Pinus sylvestris</i>
Silver birch	<i>Betula pendula</i>
Smaller cat's-tail	<i>Typha angustifolia</i>
Spruce	<i>Picea sp.</i>
Sycamore	<i>Acer pseudoplatanus</i>
White clover	<i>Trifolium repens</i>
White dead-nettle	<i>Lamium album</i>
Willowherb	<i>Epilobium sp.</i>
Yorkshire fog	<i>Holcus lanatus</i>

Appendix F

Native species suitable for planting and sowing

Plants should be obtained from specialist nurseries and preferably be of local genetic stock.

Key: (f) – fruit and berry species; (e) – evergreen species; (se) semi-evergreen species; (d) – deciduous species

Trees	
Alder (d)	<i>Alnus glutinosa</i>
Apples (f; d)	<i>Malus spp.</i> (local varieties)
Ash (d)	<i>Fraxinus excelsior</i>
Beech (d)	<i>Fagus sylvatica</i>
Bird cherry (f; d)	<i>Prunus padus</i>
Elder (f; d)	<i>Sambucus nigra</i>
Elm (d)	<i>Ulmus procera</i>
Field maple (d)	<i>Acer campestre</i>
Pedunculate oak (d)	<i>Quercus robur</i>
Rowan (f; d)	<i>Sorbus aucuparia</i>
Pears (f; d)	<i>Pyrus spp.</i>
Silver birch (d)	<i>Betula pendula</i>
Small-leaved lime (d)	<i>Tilia cordata</i>
White willow (d)	<i>Salix alba</i>
Wild cherry (f; d)	<i>Prunus avium</i>
Walnut (d)	<i>Juglans regia</i>

Shrubs	
Blackthorn (f; d)	<i>Prunus spinosa</i>
Buckthorn (f; d)	<i>Rhamnus catharticus</i>
Crab apple (f; d)	<i>Malus sylvestris</i>
Dog rose (f; d)	<i>Rosa canina</i>
Dogwood (f; d)	<i>Cornus sanguinea</i>
Field maple (d)	<i>Acer campestre</i>
Guelder-rose (f; d)	<i>Viburnum opulus</i>
Hawthorn (f; d)	<i>Crataegus monogyna</i>
Hazel (d)	<i>Corylus avellana</i>
Holly (e)	<i>Ilex aquifolium</i>
Honeysuckle (f; d)	<i>Lonicera periclymenum</i>
Spindle (f; d)	<i>Euonymus europaeus</i>
Wild privet (f; se)	<i>Ligustrum vulgare</i>
Yew (f; e)	<i>Taxus baccata</i>

Flowering plants	
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Black knapweed	<i>Centaurea nigra</i>
Common cat's-ear	<i>Hypochoeris radicata</i>
Common sorrel	<i>Rumex acetosa</i>
Common vetch	<i>Vicia sativa</i>
Cowslip	<i>Primula veris</i>
Field scabious	<i>Knautia arvensis</i>
Foxglove	<i>Digitalis purpurea</i>
Lady's bedstraw	<i>Galium verum</i>
Meadow buttercup	<i>Ranunculus acris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Primrose	<i>Primula vulgaris</i>
Red clover	<i>Trifolium pratense</i>
Selfheal	<i>Prunella vulgaris</i>
Sweet violet	<i>Viola odorata</i>
Wild daffodil	<i>Narcissus pseudonarcissus</i>
Yarrow	<i>Achillea millefolium</i>

Grasses	
Common bent	<i>Agrostis capillaris</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Meadow fescue	<i>Festuca pratensis</i>
Red fescue	<i>Festuca rubra</i>
Rough meadow-grass	<i>Poa trivialis</i>
Small timothy	<i>Phleum bertolonii</i>
Smooth meadow-grass	<i>Poa pratensis</i>
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>
Yellow oat-grass	<i>Trisetum flavescens</i>

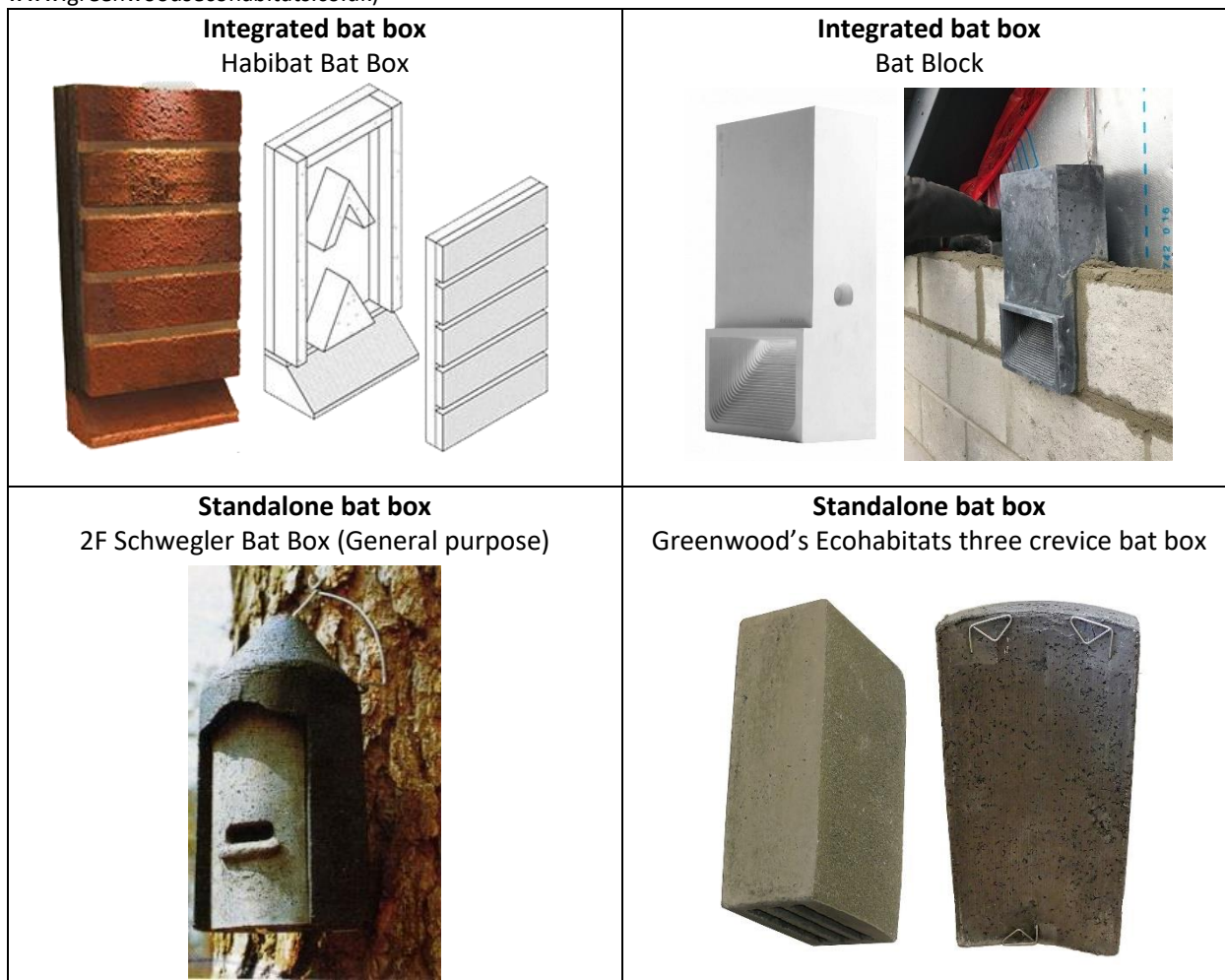
Flowering Lawn Mixture – EL1 Emorsgate Seeds

<https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/flowering-lawn-mixture/>

Appendix G

Examples of bat and bird boxes

(images sourced from www.nhbs.com, www.habibat.co.uk, www.manthorpe.co.uk, www.barnowltrust.org.uk and www.greenwoodsecohabitats.co.uk)



Recommendations for installing bat boxes:

(Sourced from Bat Conservation Trust www.bct.org)

Ideally, several boxes should be put up facing in different directions to provide a range of conditions.




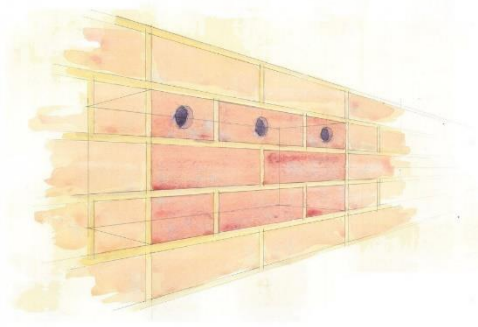
Locate boxes:

- Where bats are known to feed close to hedges and treelines (some bats use a treeline or hedgerow for navigation, putting boxes near these features may help the bats find the box).
- On trees: boxes should be placed on the trunk of a mature tree, where there is a clear flight line/accessible entrance.
- On buildings: boxes should be placed as close to the eaves as possible.
- As high as possible (ideally, at least 3 to 4m above the ground, where safe installation is possible).
- In sunny places, sheltered from strong winds (usually between south-west and south-east).

Make sure the boxes are secured.

Boxes can be installed on trees using adjustable ties to avoid damaging the trees. Otherwise, timber screw bolts or nails can be used. Aluminium alloy nails are less likely to damage saws and chipping machinery.

Bats need time to find and explore new homes, and it may be several months or even years before boxes have residents. Once bats find a place they want to live they can return over and over again. Droppings on the landing area, urine stains around the lower parts of the box and chattering noises from inside on warm afternoons and evenings are signs of occupation.

<p style="text-align: center;">Integrated swift box Swift Block</p> 	<p style="text-align: center;">Integrated swift box Manthorpe Swift Brick</p> 
<p style="text-align: center;">Integrated sparrow terrace 1SP Schwegler Sparrow Terrace</p> 	<p style="text-align: center;">Integrated sparrow terrace Terraced Sparrow Box</p> 

Recommendations for installing bird boxes:

(Sourced from British Trust for Ornithology www.bto.org, Manthorpe www.manthorpe.co.uk and Barn Owl Trust www.barnowltrust.org.uk)

The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully.

Tips for putting up a nest box:

- Boxes should be sited 1-3m from the ground, ideally on tree trunks but can be placed on the side of a shed or wall. Avoid areas where foliage obscures the entrance hole.
- Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours.
- Shelter your nest box from prevailing wind, rain and strong sunlight. The box should face between north and east, and angled vertically or slightly downwards to prevent rain entering.
- Make sure cats cannot get into the box.
- Keep nest box away from bird feeders.
- Use galvanized or stainless steel screws or nails. If fixing boxes to trees, galvanised wire can be used to tie the box to the trunk or hang it from a branch. Make sure to regularly inspect these fittings (every two or three years) to ensure the box remains securely attached.



Tips for putting up house sparrow terraces and swift bricks/boxes:

- Locate ≥ 5 m high on the gable wall of the property and above the level of the insulation zone.
- Where possible, install in locations that are unlikely to receive large amounts of direct sunlight during the hottest times of the day, ideal places include below the overhang of the verge and barge board.

Appendix H

Examples of hedgehog friendly fencing

(images sourced from www.quercusfencing.com and www.jackson-fencing.co.uk)

<p>Quercus Fencing Hedgehog friendly oak woven fencing panels</p>  A photograph showing a hedgehog sitting on a wooden fence panel. The fence is made of horizontal wooden slats. There is a gap in the fence where the hedgehog is sitting, and it appears to be looking through it. The background shows green grass.	<p>Jacksons-Fencing Hedgehog friendly gravel board for use with slotted posts</p>  A photograph showing a hedgehog passing through a gap in a gravel board fence. The fence is made of horizontal wooden slats. There is a gap in the fence where the hedgehog is passing through. The background shows a garden with autumn leaves on the ground.
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Recommendations for installing hedgehog friendly fencing:

(Sourced from Hedgehog Street www.hedgehogstreet.org)



A hedgehog friendly fence should have a gap measuring at least 13cm by 13cm in the gravel board. These gaps allow any hedgehog to pass through but are too small for nearly all pets.

At least one hedgehog friendly fence panel should be located on each side of your garden, to provide unimpeded access.

Almost all fencing materials can be made hedgehog friendly, but may require DIY adaptations. Please note that some concrete gravel boards contain metal rods running along the length of the boards to provide strength and rigidity, and cannot be cut. To overcome this, a gap can be left between the gravel board and post to provide the required gap.

Appendix I Bee Bricks

(images sourced from www.nhbs.com and www.greenandblue.co.uk)

Bee post	Bee bricks
	
Recommended bee brick installation	
(Sourced from NHBS www.nhbs.com)	
<ul style="list-style-type: none">• Bee bricks will be installed on a south facing sunny spot of an external wall of the residential dwelling, at a minimum height of 1m. No vegetation should be obstructing the holes.• Bee posts will be positioned south facing in a sun exposed spot, with no vegetation covering the fascia. The posts must be set in a concrete base at a minimum of 30mm, similar to installing a fencepost.	

Appendix J

Site plan

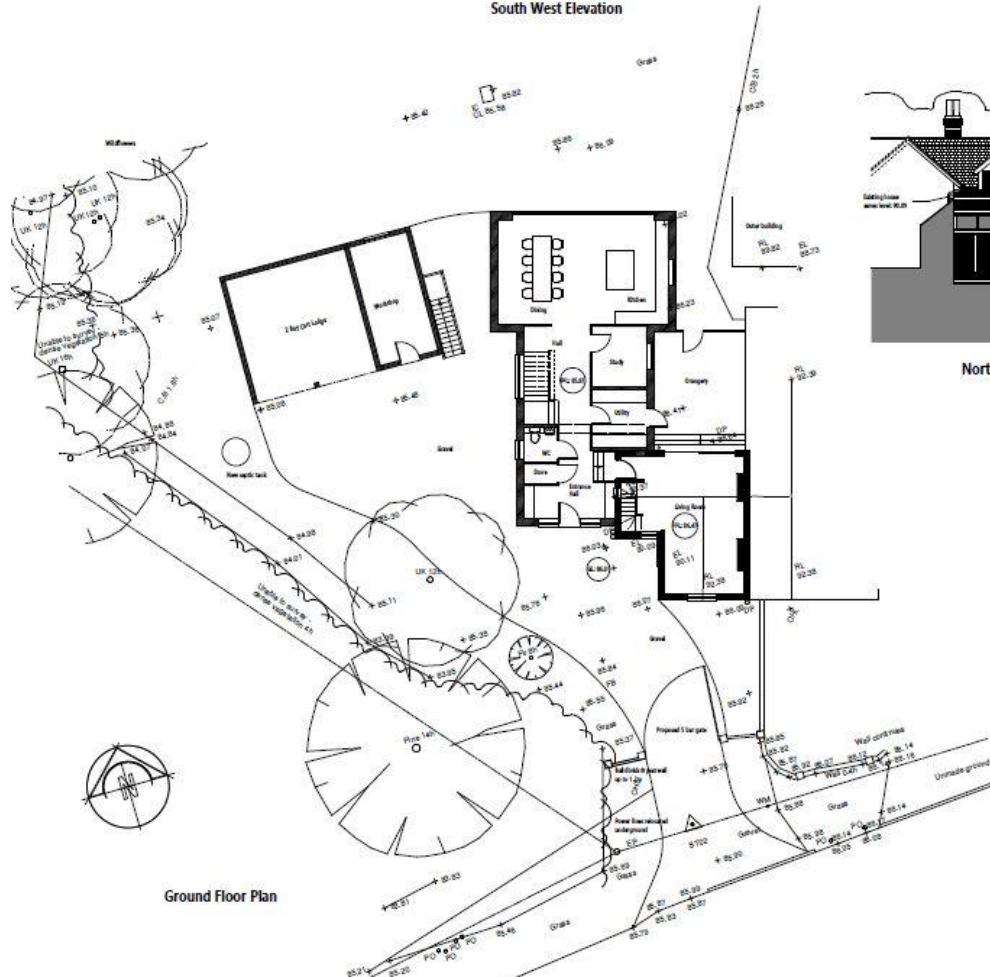


South West Elevation



North West Elevation

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Ground Floor Plan



North East Elevation



South East Elevation

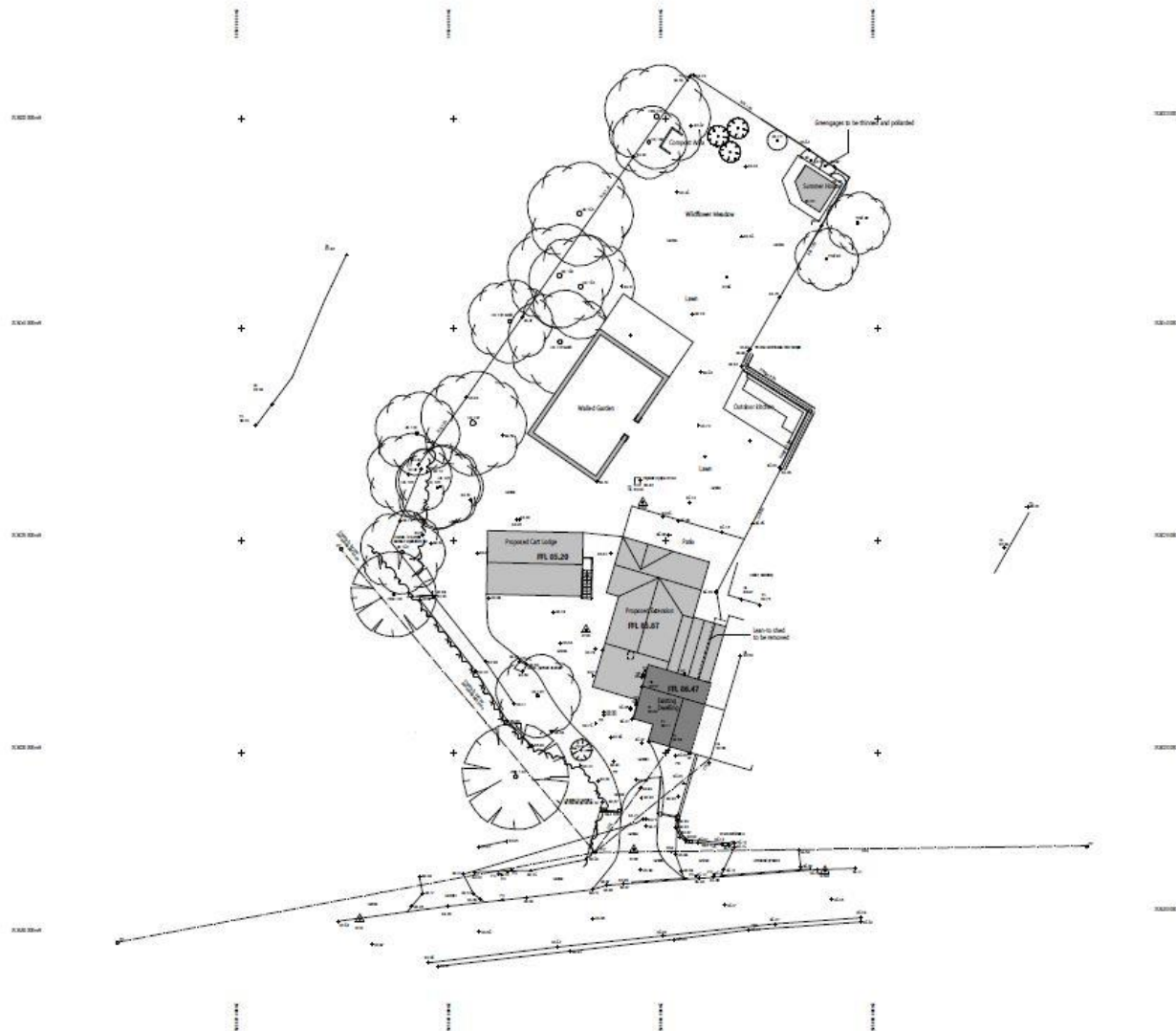


First Floor Plan



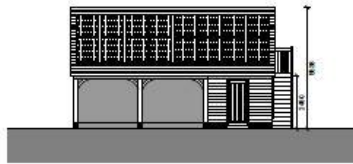
REVISIONS:	
PROJECT:	Proposed linked extension
ADDRESS:	Rose Cottage, 29 The Street, Swettenham, SP7 7QP
CLIENT:	Ann Roffe and Richard Knightley
DATE:	December 2022
SCALE / SIZE:	1:100 / A1
DRAWING:	Proposed Scheme Design
REFERENCE:	LDA-300-20G
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REVISIONS	
PROJECT	Proposed linked extension
ADDRESS	Rose Cottage, 19 The Street, Brettenham, SP7 7QP
CLIENT	Ann Roffe and Richard Knightley
DATE	July 2022
SCALE / SIZE	1:200 / A1
DRAWING	Topographical Survey - Proposed Design
REFERENCE	LDA-300-23A
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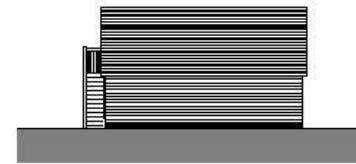
South East Elevation



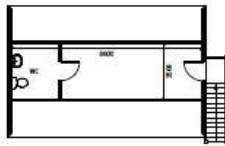
North East Elevation



South West Elevation



North West Elevation



First Floor Plan



Ground Floor Plan



REVISIONS	
PROJECT	Proposed linked extension
ADDRESS	Rose Cottage, 19 The Street, Brettenham, IP7 7QP
CLIENT	Alex Roffe and Richard Knightley
DATE	December 2022
SCALE / SET	1:100 / A1
DRAWINGS	Proposed Carriage
REFERENCE	LDA-300-21
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