

PROPOSED DEVELOPMENT AT THE MALTINGS, HINDERCLAY, SUFFOLK



ECOLOGICAL APPRAISAL

FINAL

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DOCUMENT HISTORY				
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1.0 EXECUTIVE SUMMARY

- 1.1 Richard Childs has prepared a planning application on behalf of Mark Lyon for a proposed extension to a barn at the Maltings, Hinderclay, Suffolk (IP22 1NF).
- 1.2 The proposed development involves the construction of a large two-storey extension off the western elevation. The existing pump house will be rebuilt within the new west extension. Two windows are also proposed to the western elevation, no works are proposed to the eastern elevation. The proposal is to convert part of the existing building into residential accommodation and extend this into the new extension.
- 1.3 The planning authority Mid-Suffolk District Council have requested that a Preliminary Ecological Appraisal is submitted prior to the application being determined. The survey has been completed by Philip Parker Associates.
- 1.4 The survey was undertaken by principal ecologist Philip Parker MCIEEM CEnv on the 5th August 2022.

SUMMARY OF THE PRELIMINARY ECOLOGICAL APPRAISAL

1.5 Data

A 2km data search undertaken with the Suffolk Biodiversity Information Service (SBIS) has recorded the following designated sites and protected species. Further information has been gathered from the MAGIC.defra.gov website:

Four CWS located within 2km of the site – the closest being Hinderclay Wood located 650m north-east;

One RNR located within 2km of the site – RNR 198 is located 1.37km north-west;

Several bat records were noted, the closest belonging to common pipistrelle located 1.24km south-west;

Twenty hedgehog records located within 2km of the site - closest located 315m south-west;

Twenty-two brown hare records within 2km of the site – closest located 265m north-east;

Two polecat records within 2km of the site – closest located 1km east;

Small number of great crested newt, common frog, smooth newt and toad records within 2km of the site – closest located 775m south-east (common frog);

One record of grass snake located 1.2km south-west;

There were multiple records for birds within 2km of the site notified under Schedule 1 and red/ amber list – none relating to the application area.

1.6 **Fauna**

Results summarising the likely implications of the development on protected species is listed in Table 1 below.

Table 1 Survey summary and development impact

Description	Description	Potential effects
Protected sites	(Closest Westhall Wood and Meadow (SSSI))	No likely effects
Bats	The proposed extension will cut into the existing roof pantiles (lower-level western elevation). Provision of 2 no windows at first floor level will cover 2m ² in total whilst the lower roof windows serving the main living area will cover approximately 9m ² in total of which will result in the loss of pantiles. There is moderate potential for bats to occur under these tiles.	The total pantiles lost to the roof windows and new extension roof is approx. 21m ² . This equates to approximately 8.5% of the entire roof all elevations (244m ² in total). These tiles will no longer be available for bats to roost under. However, they do not fall at the ridge or verges (the main places used by bats on pantile roofs). If any minor roosting sites were lost, numerous alternatives exist across the rest of the roof.
Badgers/water voles/otters/other mammals	The proposed extension site will result in the loss of 140m ² of hard surfacing (paving and gravel).	No likely effects
Reptiles	The proposed extension site will result in the loss of 140m ² of hard surfacing (paving and gravel).	No likely effects
Amphibians	Inspection of the Ordnance Survey map indicates that there are two ditches within 250m of the site. There are a couple of small water features stored as part of the owner's business, but these have only been in place for 2 months and have since been removed.	No likely effects as the works are affecting hard surfacing.

REQUIREMENT OF FURTHER SURVEYS

1.7 Bats

Given the potential impact on roosting bats that may arise as part of the development, it was recommended that at least two activity surveys were undertaken to confirm presence or absence of roosting activity. The results of these surveys are summarised in Table 2 below.

Table 2 Results of the Phase 2 bats surveys

Date of survey	Results summary
23.8.22	No bats recorded roosting. Low level foraging by common pipistrelle and soprano pipistrelle around the barn during survey.
22.9.22	No bats recorded roosting. Low level foraging by common pipistrelle around the barn during survey.

1.8 Badger, water vole, otter, hedgehog, breeding birds, amphibians, reptiles

No further surveys are required in respect to these groups.

MITIGATION AND ENHANCEMENTS

1.9 Habitats

24m of new hedgerow planting is to be included along the western boundary of the site as enhancement. This should be species rich, using a range of native plants such as hawthorn, field maple, blackthorn, hazel, spindle, and dogwood.

1.10 Roosting bats

Due to the absence of roosting bats at the property, no derogation licence is required from Natural England for the works to legally proceed. No timing constraints or ecologist supervision is required. Recommendations are made for the installation of two Greenwoods two crevice bat boxes to be mounted onto the eastern elevation of the barn as enhancement.

1.11 Breeding birds

Due to the absence of suitable bird nesting features within the area of building to be impacted on by the development, there are no timing constraints related to the development works in respect of birds. Recommendations are made for the installation of two swift boxes and two house sparrow terraces onto the new/existing barn as mitigation/enhancement. Further to this, it is recommended that the new edge roof tiles do not include bird combs to allow a range of bird species to continue to nest in the new roof.

1.12 **Other species**

Precautionary methods of working are made in respect of reptiles, amphibians and small mammals.

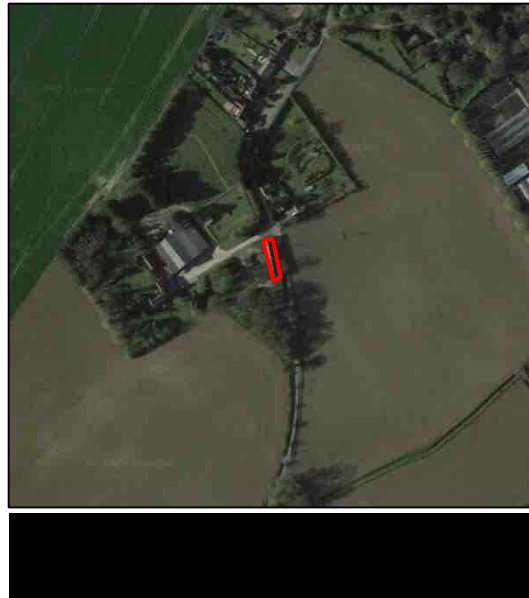
2.0 INTRODUCTION

GENERAL

- 2.1 Richard Childs is preparing a planning application on behalf of Mark Lyon for a proposed extension to a barn at the Maltings, Hinderclay, Suffolk (IP22 1NF).
- 2.2 The planning authority Mid-Suffolk District Council have requested that a Preliminary Ecological Appraisal is submitted prior to the application being determined. The survey has been completed by Philip Parker Associates.
- 2.3 The following report providing the findings has been prepared following guidance prepared by the Institute of Ecology and Environmental Management (CIEEM) and BS 42020:2013 Biodiversity : Code of practice for planning and development and takes the form of a Preliminary Ecological Appraisal (PEA).
- 2.5 The survey was undertaken by principal ecologist Philip Parker MCIEEM CEnv (Natural England Class 2 Bat Licence: 2015-14467-CLS-CLS) on the 5th August 2022.
- 2.6 The proposed development site is centred at Ordnance Survey Grid Reference TM 01497 75150 as shown on the following Ordnance Survey and aerial photograph extract.



Figure 1 – OS location plan (outlined in red)
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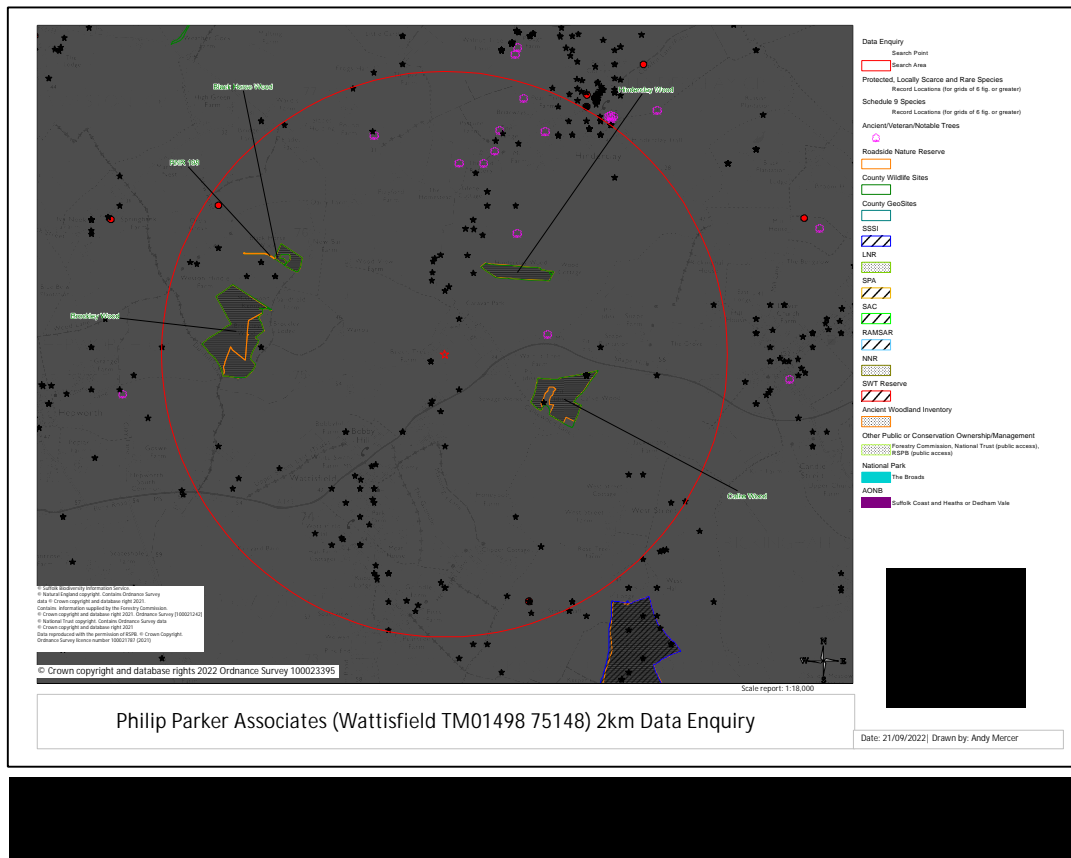


CHARACTER AREA

- 2.7 The site falls within the South Norfolk and High Suffolk Claylands (NCA).
- 2.8 The South Norfolk and High Suffolk Claylands National Character Area (NCA) occupies a large area of central East Anglia stretching from just below Norwich in the north down to the River Gipping in the south. The area is bounded to the north by Mid Norfolk and The Broads NCAs and to the east by the sandy heathland of the Suffolk Coast and Heaths NCA. To the west the landscape merges into the drier and more open character of The Brecks NCA and to the south it meets the South Suffolk and North Essex Clayland NCA with its noticeably more undulating topography. 'High' Suffolk originally derives its name from the contrast between this formerly well-treed area and the openness of the adjacent areas to the east and west. Today it is probably better understood as meaning the high and predominantly flat clay plateau that dominates the character of the NCA. The plateau is incised by numerous small-scale wooded river valleys with complex slopes that in places are much unexpected for East Anglia. The underlying geology is chalk, which forms the principal aquifer, and shallow marine deposits overlain with glacial till, buried river gravels, lake sediments and bands of glacial outwash deposits.

3.0 DATA SEARCH

3.1 In order to assess whether there are any protected species records for the development site (grid reference TM 01497 75150) and the surrounding area (2km radius), a data search from the Suffolk Biodiversity Information Services (SBIS) was undertaken on the 21st September 2022 as part of the PEA. A further assessment of Internationally Designated sites and licence records for protected species has been made using <https://magic.defra.gov.uk>.



PROTECTED SITES

3.2 A summary of the protected sites is given below.

3.3 Natura 2000 Sites

The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992) requires EU Member States to create a network of protected wildlife areas, known as Natura 2000, across the European Union. This network consists of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), established to protect wild birds under the Birds Directive (Council Directive 79/409/EEC of 2nd April 1979). These sites are part of a range of measures aimed at conserving important or threatened habitats and species.

3.4 Special Area of Conservation (SAC)

Special Areas of Conservation have been given special protection under the European Union's Habitats Directive. They provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity.

3.5 No SAC occurred within 2km of the site. The closest site belongs to Waveney and Little Ouse Valley Fens located 3.5km north.

3.6 Special Protection Area (SPA)

Special Protection Areas are strictly protected sites classified in accordance with Article 4 of the EC Directive on the conservation of wild birds (79/409/EEC), also known as the Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds, listed in Annex I to the Birds Directive, and for regularly occurring migratory species.

3.7 No SPA's occurred within 2km of the site. The closest site belongs to Breckland located 8.1km north-west.

3.8 RAMSAR Sites

Ramsar sites are wetlands of international importance designated under the Ramsar Convention.

3.9 Sites proposed for selection are advised by the UK statutory nature conservation agencies, or the relevant administration in the case of Overseas Territories and Crown Dependencies, coordinated through JNCC. In selecting sites, the relevant authorities are guided by the Criteria set out in the Convention. The UK also has a national Ramsar Committee composed of experts who provide further advice.

3.10 In the UK, the first Ramsar sites were designated in 1976. Since then, many more have been designated. Compared to many countries, the UK has a relatively large number of Ramsar sites, but they tend to be smaller in size than many countries. The initial emphasis was on selecting sites of importance to water birds within the UK, and consequently many Ramsar sites are also Special Protection Areas (SPA) classified under the Birds Directive. However, greater attention is now being directed towards the selection of Ramsar sites in UK Overseas Territories and Crown Dependencies; the first of these was designated in 1990. Both within the UK and overseas, non-bird features are increasingly taken into account, both in the selection of new sites and when reviewing existing sites.

3.11 No RAMSAR sites occurred within 2km of the site. The closest site belongs to Redgrave and South Lopham Fens located 4.5km north-east.

3.12 **Sites of Special Scientific Interest (SSSI)**

The SSSI/ASSI series has developed since 1949 as the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. These sites are also used to underpin other national and international nature conservation designations. Most SSSIs are privately-owned or managed; others are owned or managed by public bodies or non-government organisations. The SSSI/ASSI designation may extend into intertidal areas out to the jurisdictional limit of local authorities, generally Mean Low Water in England and Northern Ireland; Mean Low Water of Spring tides in Scotland. In Wales, the limit is Mean Low Water for SSSIs notified before 2002, and, for more recent notifications, the limit of Lowest Astronomical Tides, where the features of interest extend down to LAT. There is no provision for marine SSSIs/ASSIs beyond low water mark, although boundaries sometimes extend more widely within estuaries and other enclosed waters.

3.13 Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

3.14 No SSSI occurred within 2km of the site. The closest site belongs to Westhall Wood and Meadow located 2.1km south-east.

3.15 **County Wildlife Sites**

County Wildlife Sites are second tier ecological sites, identified as they fulfil a range of select criteria for their ecological interest on a county level. They do not receive statutory protection but are usually offered some protection under local plan policy.

3.16 Four CWS occurred within 2km of the site. These are listed below.

3.17 **Hinderclay Wood located 650m north-east**

Hinderclay Wood is a small remnant of woodland, surrounded by arable land and listed in English Nature's Inventory of Ancient Woodland. It consists of neglected field maple coppice with oak and ash standards and a dense shrub layer of hazel coppice. Although a detailed woodland survey has not been carried out, it appears from a brief survey that the ground flora is varied and supports abundant bluebell. Significant numbers of owl pellets suggest that the wood is used by tawny owl although it is not known whether it breeds here or not. The wood shows fairly recent signs of management. Dead wood and bramble has been cleared, some

mature oaks have been felled and a release pen for pheasants has been constructed in the wood.

3.18 Calke Wood located 670m south-east

Calke Wood situated to the north east of Wattisfield is bordered along its southern boundary by Calkewood Lane and on the remaining three sides by arable fields. The semi-natural structure of Calke Wood has been altered considerably by the planting of exotic species. Poplars fringe the entrance to the wood and conifers have been planted in a disused pit which is located close to the entrance. Further into the wood, areas have been cleared and replanted with sycamore, horse chestnut and Norway maple. The remainder of the wood consists of neglected hazel coppice with small patches dominated by old hornbeam coppice. Some coppice stools are very large and are evidence of the wood's antiquity. The ground flora of Calke Wood is reasonably varied. In addition to a good range of common woodland flowers for example bluebell and primrose, the wood also supports a number of uncommon ancient woodland indicator plants including wood anemone. A small section of wood on the southern margin has been cleared to provide land for a bungalow and garden.

3.19 Brockley Wood located 1.29km west

Brockley Wood is a large ancient woodland situated in an intensively farmed landscape in the parish of Thelnetham. It is connected to a green lane providing good hedgerow connectivity in the south and the north east. The south eastern corner also has hedgerow connections to a patch of small fields. A large ditch and bank enclosing the wood is a characteristic feature of medieval woods. Conifers have been planted in the west and north sections. Semi-natural vegetation is largely restricted to the woodland margins in these areas and to the south and east of the wood. There are a number of rides still present.

3.20 Black Horse Wood located 1.17km north-west

Blackhorse Wood is the remnant of an ancient woodland bounded on two sides by a road and on the other two sides by arable land. A large proportion of the centre of wood has been felled to provide land for a house and associated garden. The remainder of the wood consists partly of oak and field maple standards with hazel coppice and partly of birch and hornbeam, on the northern side. Many of the elms bordering the road have been killed by Dutch elm disease and now provide good breeding sites for hole nesting birds such as woodpeckers. Although dog's-mercury and bramble are in abundance throughout the wood, a number of ancient woodland indicators are also widespread, for example wood melick and wood millet.

3.21 Roadside Nature Reserve

Roadside Nature Reserves are highway verges that are protected for their special wildlife interest.

- 3.22 One Roadside Nature Reserve (RNR 198) designated for its boulder clay flora was located 1.37km north-west.

PROTECTED SPECIES

- 3.23 The following records for protected species were noted within the SBIS data search.

Bats

Common pipistrelle *Pipistrellus pipistrellus* – 2 records, latest 2019 – closest located 1.24km south-west

Soprano pipistrelle *Pipistrellus pygmaeus* – 1 record, 2019 – located 1.92km north-east

Brown long-eared *Plecotus auritus* – 2 records, latest 2019 – closest located 1.92km north-east

Leisler's *Nyctalus leisleri* – 1 record, 2019 – located 1.92km north-east

Noctule *Nyctalus noctula* – 1 record, 2019 – located 1.92km north-east

Natterer's *Myotis nattereri* – 2 records, latest 2019 – located 1.92km north-east

Daubenton's *Myotis daubentonii* – 1 record, 2019 – located 1.92km north-east

Serotine *Eptesicus serotinus* – 1 record, 2018 – located 1.92km north-east

Western barbastelle *Barbastella barbastellus* – 1 record, 2019 – located 1.92km north-east

- 3.24 A search with MAGIC revealed an absence of granted EPS licence for bats within 2km of the site.

Other mammals

Brown hare *Lepus europaeus* – 22 records, latest 2018, closest located 265m north-east

Hedgehog *Erinaceus europaeus* – 20 records, latest 2017 – closest located 315m south-west

Polecat *Mustela putorius* – 2 records, latest, 2020 – closest located 1km east

Amphibians

Great crested newt *Triturus cristatus* - 2 records, 2004 - closest located 1.31km south-east

Common frog *Rana temporaria* - 3 records, latest 2005, closest located 775m south-east

Smooth newt *Lissotriton vulgaris* - 4 records, latest 2008 – closest located 1.55km south

Toad *Bufo bufo* – 1 record, 2005 – located 1.97km south-east

- 3.25 A search with MAGIC revealed an absence of granted EPS licence for great crested newts within 2km of the site.

Reptiles

Grass snake *Natrix helvetica* – 1 record, 2018 – located 1.2km south-west

Birds (Schedule 1, red and amber listed)

Swift *Apus apus* - 15 records, latest 2020 – closest located 1km south-east

House sparrow *Passer domesticus* - 11 records, latest 2020 – no detailed grid reference provided

Spotted flycatcher *Muscicapa striata* – 7 records, latest 2020 - no detailed grid reference provided

House sparrow *Passer domesticus* – 19 records, latest 2020 – closest located 105m west

Starling *Sturnus vulgaris* – 20 records, latest 2020 – closest located 105m west

Wren *Troglodytes troglodytes* – 13 records, latest 2020 – closest located 105m west

Barn owl *Tyto alba* – 18 records, latest 2021 – closest located 1.58km north-east

- 3.26 There are a number of bird records within the 2km zone, therefore only species relevant to the development are listed above.

Invertebrates

A small number of butterfly records were returned within the data search, but none were associated with or relevant to the site.

4.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT SITE

SITE DESCRIPTION

4.1 The proposed development site is positioned within the curtilage of Beech Tree Farm, within the village and civil parish of Hinderclay. The site is located west off Hinderclay Road which joins Diss Road to the south. The site is surrounded by open farmland to the east and the farmstead to the west. A small pocket of trees line the site to the south, whilst a large area of managed lawn exists to the north.

4.2 Arable fields compartmentalised by hedgerows and trees dominates the wider landscape.

4.3 **u1b5 Buildings**

The existing barn is constructed from a mixture of brick, render and black shiplap timbers interspaced with a mixture of doors and windows. The roof is pitched and covered with clay pantiles over breathable felt. The roof extends to a lower level on the western elevation. The building is largely used by the owner as offices for their heating business.

4.4 **u1b Developed land; sealed surface**

An area of paving and gravel was noted to the west of the building. This supported planters and a small number of water features stored as part of the owner's business, however it is understood that these have only been in place for two months and have since been removed.





5.0 FAUNA SURVEY METHODOLOGY AND RESULTS

GENERAL

5.1 The potential scope of works, data search and habitats within the site have informed the basis of the preliminary ecological appraisal. Therefore, the following protected and priority species have been considered further within this report:

- Bats
- Water vole
- Otter
- [REDACTED]
- Hedgehog
- Breeding birds
- Reptiles
- Amphibians

BATS

5.2 Legislation

In Britain, all bat species and their roosts are legally protected, by both domestic and international legislation, namely:

- The Wildlife and Countryside Act (1981) (as amended);
- The Countryside and Rights of Way Act, 2000 and
- The Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019

5.3 This legislation makes it an offence amongst others to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

5.4 A bat roost is regarded as “any structure or place which any wild animal....uses for shelter or protection” As bats tend to reuse the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time.

5.5 Bats are also listed under the Natural Environment and Rural Communities Act (NERC, 2006). This is a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The list (including 56 habitats and 943 species) has been drawn up in consultation with Natural England and draws upon the UK BAP List of Priority Species and Habitats. The S41 list should be used to guide decision makers such as local and regional authorities when implementing their duty: to have regard to conservation of biodiversity in the exercise of their normal duties.

5.6 **Existing records**

Common pipistrelle, soprano pipistrelle, brown long-eared, leisler’s, noctule, natterer’s, daubenton’s, serotine and western barbastelle were all noted within the 2km SBIS data search. The closest record belongs to common pipistrelle located 1.24km south-west of the site. Further to this, a search with MAGIC revealed an absence of granted EPS licences for bats within 2km of the site.

5.7 **Survey methodology**

In summer, bats typically roost in trees and buildings. They feed along hedgerows, woodland edge, old pasture and over water. In winter, hibernation sites can include trees and buildings but more commonly underground structures such as caves and ice houses.

5.8 The Bat Mitigation Guidelines produced by Natural England set out the timescales for survey work, as follows:

Table 3 Timescales for bat survey

SEASON	ROOST TYPE	INSPECTION	BAT DETECTOR AND EMERGENCE COUNTS
Spring (Mar – May)	Building	Suitable (Signs, perhaps bats)	Limited, weather dependent
	Trees	Suitable (Signs only)	Static detectors may be useful
	Underground	Suitable (signs only)	Static detectors may be useful
Summer (June – August)	Building	Suitable (signs and bats)	Suitable
	Trees	Difficult	Limited, use sunrise survey
	Underground	Suitable (signs only)	Rarely useful
Autumn (September – November)	Building	Suitable (signs and bats)	Limited, weather dependent
	Trees	Difficult	Rather limited, weather dependent; use sunrise survey
	Underground	Suitable (signs, perhaps bats)	Static detectors may be useful
Winter (December – February)	Building	Suitable (signs, perhaps bats)	Rarely useful
	Trees	Difficult (best for signs after leaves have gone)	Rarely useful

SEASON	ROOST TYPE	INSPECTION	BAT DETECTOR AND EMERGENCE COUNTS
	Underground	Suitable (signs and bats)	Static detectors may be useful

5.9 Preliminary survey

The site was assessed for the presence of habitat that could support roosting and foraging/commuting bats.

5.10 Building survey methodology

Where present, buildings are inspected using a pair of 8 x 42 binoculars and a powerful Clulite lamp (fitted with a red filter where appropriate to avoid disturbing any bats that might be present). A Rigid CA-150 endoscope was used to inspect cavities where accessible.

5.11 Surveys concentrate on checking horizontal surfaces on which bat droppings and feeding remains could rest (including windowsills, beams, gutters, stored goods) as well as vertical surfaces such as walls. Potential access points to cavities and possible roost spaces where present are checked for urine staining and fur rubbings.

5.12 Building survey results

The results of the preliminary bat roost assessments are shown in the following tables. It is also depicted on Drawing D1.

Table 4 External roosting potential and bat evidence on the main building

Location	Roosting potential and evidence	Bat evidence
<i>External</i>	<p>External</p> <p>Open at eaves along the eastern elevation.</p> <p>Timber soffit with occasional gap by render along the western elevation.</p> <p>Gap behind signage on western elevation.</p> <p>Some gaps under pantiles on western elevation.</p> <p>Some gaps behind timber fascia on western elevation.</p>	<p>External</p> <p>No bat evidence noted.</p>

Table 5 Internal/external roosting potential and bat evidence on the detached pump house

Location	Roosting potential and evidence	Bat evidence
External	No potential roosting features.	No bat evidence noted.
Internal	No potential roosting features.	No bat evidence noted.

5.13 Bat foraging/commuting potential

The area of habitat to be impacted on by the development is limited to an area of hardstanding and gravel with no vegetative features and a small pump house building. A small pocket of trees is located immediately west of the site and provides much better foraging and commuting opportunities for bats.

5.14 Suitability of habitat for bat activity

The potential of the site to support roosting and foraging bats has been assessed against Table 4.1 of the Bat Survey Guidelines 2016 (see Table 6 below).

Table 6 Suitability of trees, buildings and habitat for bat use

Suitability	Description of roosting habitats	Commuting and foraging habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that

Suitability	Description of roosting habitats	Commuting and foraging habitat
	due to their size, shelter, protection, conditions and surrounding habitat.	is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.
Confirmed roost	Bats discovered roosting within the building/tree or definitive evidence to suggest they do so.	

5.15 On the basis of the above, it is considered that the site supports the following bat suitability;
Roost habitat – moderate suitability on the main building under tiles, negligible suitability for the detached pump house due to the lack of features
Foraging/ commuting habitat negligible suitability.

5.16 The proposed extension will cut into the existing roof pantiles (lower-level western elevation). The provision of two windows to be incorporated into the building will also result in the loss of pantiles. It will also result in the removal and rebuilding of the detached pump house.

5.17 **Requirements for further surveys**

Due to the presence of suitable bat roosting features present on the building that could be impacted on by the development works, in line with guidelines for a moderate potential building (see Table 7 below), two further surveys were undertaken to determine the presence/likely absence of bats at the property. This was undertaken in accordance with the Bat Survey Guidelines, 2016.

Table 7 Recommended minimum number of survey visits for presence/absence surveys

Potential	Description
Negligible	No surveys required
Low suitability	One survey visit. One dusk emergence or dawn re-entry survey between May and August
Moderate suitability	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey between May and August
High suitability/ Proven bat roost	Three separate survey visits between May and September. At least one dusk emergence and a separate dawn re-entry survey. The third could be either dusk or dawn. At least 2 of the visits should be between May and August.

5.18 Based on the above, two further activity surveys were undertaken to fully determine whether bat roosting activity exists at the property.

5.22 **Overall Summary:**

No bat roosting activity was recorded during the survey.

5.23 Foraging activity around the site consisted of frequent common pipistrelle foraging activity (up to two individuals) around the trees to the west. A single soprano pipistrelle additionally passed to the west on two separate occasions.

Table 9 Emergence survey on the 22nd September 2022

Sunset time: 18:55	
Time commenced: 18:40	
External temp: 19C	
Weather: Dry, F1 wind, 100% cloud cover	
External humidity: 55%	
18:40 – 19:00	No bat activity recorded.
19:00 – 19:15	2 x CP passes.
19:15 – 19:30	2 x CP passes.
19:30 – 19:45	Over period, 1 x CP constantly foraged over and around the trees to the west and along the ridge of the barn. 19:32 1 x SER was briefly heard.
19:45 – 20:00	Over period, 2 x CP constantly foraged around the trees to the west and along the barn
20:00 – 20:15	Over period, at least 2 x CP constantly foraged around the trees to the west and along the barn
20:15 – 20:30	Over period, at least 2 x CP constantly foraged around the trees to the west and along the barn
20:30 – 20:40	Over period, 2 x CP constantly foraged around the trees to the west and along the barn
Time completed: 20:40	
External temp: 16.5C	
External humidity: 65%	

5.24 **Overall Summary**

No roosting bats were recorded during the survey. Foraging activity around the site consisted of frequent common pipistrelle passes with a single pass of a soprano pipistrelle.

5.25 **Constraints to the survey**

Although the Bat Conservation Trust (BCT) Bat Survey Guidelines 2016 suggests two surveys should comprise of one emergence and one re-entry survey, these guidelines were written before the extensive use of night vision technology which provides certainty to the survey results. Philip Parker Associates Ltd only undertake dawn surveys in exceptional circumstances where a particular question needs to be answered. As there is reasonable certainty to the results at the Maltings, a dawn survey was not undertaken. This is not considered a constraint of the survey.

WATER VOLE

5.26 Legislation

Water vole *Arvicola amphibius* is protected through its inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This section of the Act protects water vole places of shelter from damage and disturbance as well as protecting the water vole itself. Legal protection makes it an offence to intentionally:

Damage, destroy or obstruct access to any structure or place that water voles use for shelter or protection;

Kill, injure or take water voles whilst they are using shelter.

5.27 Existing records

No records of water vole were noted in the SBIS 2km data search.

5.28 Survey methodology

Although a detailed survey was not undertaken during the preliminary assessment, the area on and immediately adjacent to the site was assessed for suitable habitat such as banks for burrows, water edge berms, vegetation cover, suitable water depth for swimming and diving and food source. Any obvious signs of the presence of water vole such as latrines, piles of eaten vegetation (feeding stations), burrows and runs were also noted.

5.29 Survey results

No evidence of water vole was recorded during the assessment. The ditch to the west of the site (Ditch 1) was dry at the time of the survey and is considered to remain dry for the majority of the year making it unsuitable for this species.

OTTER

5.30 Legislation

Otters are protected both under the Wildlife and Countryside Act 1981 and by the Conservation (Natural Habitats, &c.) Regulations 2017. Otters and their resting places are fully protected, and it is an offence to:

- 1) Disturb otters in their breeding or resting places;
- 2) Damage, destroy or obstruct their breeding or resting places.

5.31 Otter shelters are legally protected whether or not an otter is present.

5.32 Existing records

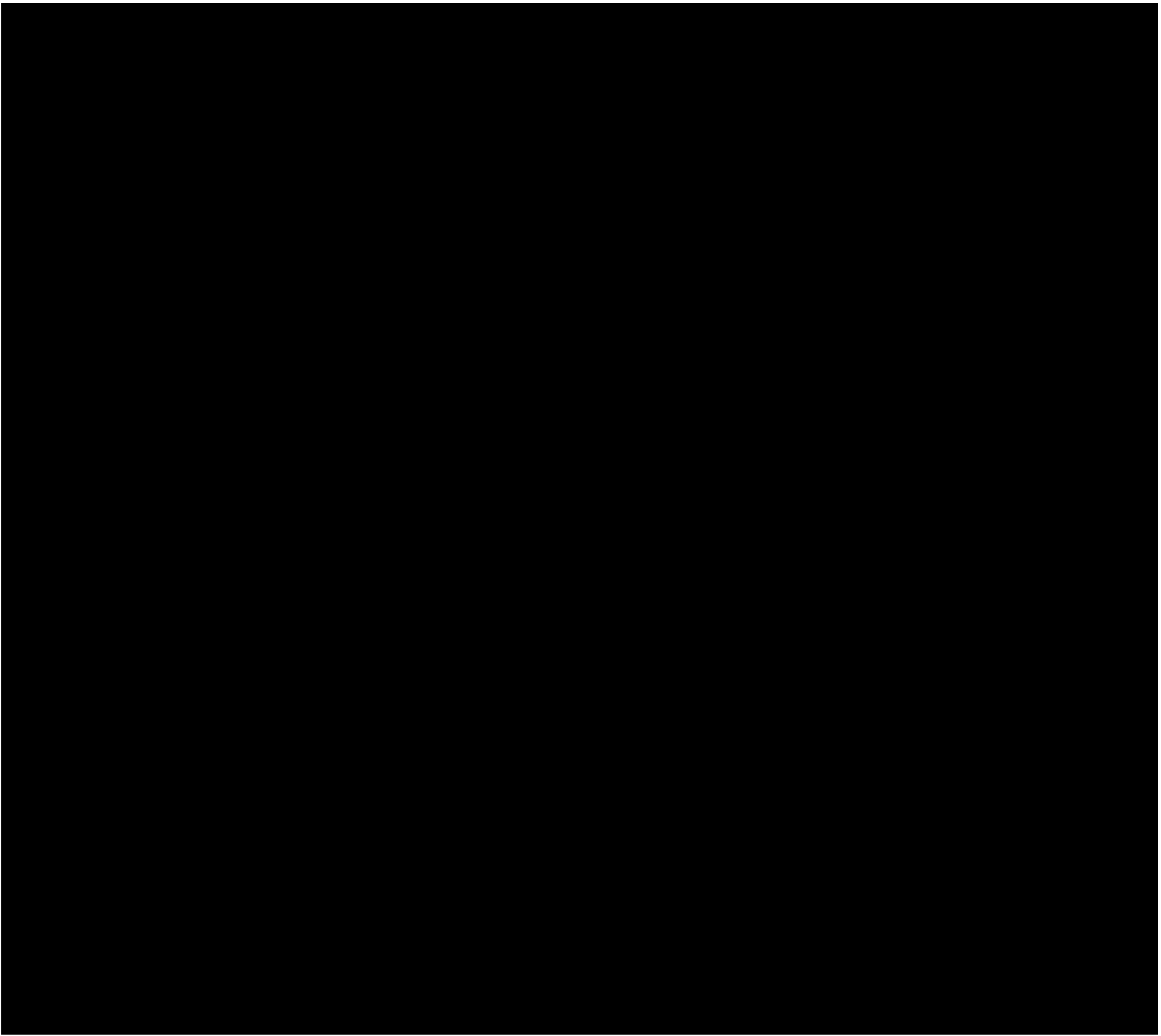
No records for otter were noted within the SBIS 2km data search.

5.33 Survey methodology

The area on and immediately adjacent to the site was searched for evidence of otter including laying up sites, commuting routes under cover, and potential feeding sites.

5.34 Survey results

No evidence of otter was recorded during the assessment . Ditch 1 was dry at the time of the survey and is considered to remain dry for the majority of the year. This combined with its small size considers it unsuitable in supporting otter.





HEDGEHOG

5.41 Legislation

Hedgehogs *Erinaceus europaeus* are partially protected under Schedule 6 of the Wildlife and Countryside Act (1981), making it illegal to trap or kill them without a licence. They are known to be in serious decline in the countryside at the moment.

5.42 Existing records

Twenty records for hedgehogs were noted within the 2km SBIS data search. The closest record was located 315m south-west of the site.

5.43 Survey methodology

The survey involved a thorough search of the site and immediate areas to identify evidence of hedgehog activity through the presence of faeces or live individuals.

5.44 Survey results

No evidence of hedgehogs was noted during the survey. The site is considered to support very limited value for this species with it being dominated by hard standing and gravel, and as such, they are considered unlikely to occur.

BREEDING BIRDS

5.45 Legislation

The majority of breeding birds in Britain are protected under the Wildlife and Countryside Act 1981 (plus amendments) from disturbance whilst nesting (generally from late April to the end of August).

5.46 Some birds such as barn owls receive special protection under Schedule 1 of the Wildlife and Countryside Act 1981 (plus amendments). This makes it an offence (amongst others) to intentionally or recklessly disturb the bird whilst building a nest, or when such a bird is in, on or near a nest containing eggs or young, or intentionally or recklessly disturb dependent young.

5.47 Existing records

A number of bird records were returned within the SBIS data search such as barn owl, starling, house sparrow, house and swift were returned. The closest relevant records belong to house sparrow, starling and wren located 105m west of the site.

5.48 Survey methodology

An assessment was made of the site's suitability to support breeding bird species. Nesting birds will utilise a broad range of habitats, including built structures, trees, scrub, isolated shrubs, dense herbaceous vegetation (terrestrial and aquatic) and open grassland. All bird species and evidence of breeding activity (active or inactive) observed on site was recorded.

5.49 Survey results

During the assessment, there was no evidence of bird nesting activity recorded on the building. There is however opportunity for a range of species to occupy the building within features such as gaps under roof tiles. Species that could be present include house sparrow *Passer domesticus*, blue tit *Cyanistes caeruleus* and wren *Troglodytes troglodytes*.

5.50 The area of ground to be lost to facilitate the development largely comprises of hardstanding and gravel which supports negligible opportunity for breeding birds. The pump house which is to be rebuilt within the development has some potential for nesting birds internally although none was recorded.

REPTILES

5.51 Legislation

The commonly occurring reptiles in Suffolk (common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix helvetica* and adder *Vipera berus*) are all given limited legal protection under part of Section 9 (1) and all of Section 9 (5) of the Wildlife and Countryside Act 1981 (as amended). This means that it is an offence to intentionally kill, injure and offer for sale all of these reptiles.

5.52 Existing records

One record of grass snake was noted within the 2km SBIS data search, located 1.2km south-west of the site.

5.53 **Survey methodology**

An assessment was made of the site's suitability to support reptile populations. Key habitat features include: tussocky/patchy grassland; scrub edge; linear watercourses; ponds; compost heaps; brush piles and rubble/soil heaps. Linkage to suitable habitat within the surrounding landscape will increase the potential for reptiles to occur, although populations can occur within isolated/fragmented habitats even within urban areas.

5.54 **Survey results**

The site is considered to support very limited value for reptiles with it being dominated by hardstanding and gravel, and as such, they are considered unlikely to occur.

AMPHIBIANS

5.55 **Legislation**

Great crested newts *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by The Wildlife and Countryside Act 1981 (Section 9, Schedule 5; and as amended) and The Conservation (Natural Habitats & c.) Regulations 1994. It is an offence to:

- 1) Disturb, injure or kill recklessly a great crested newt;
- 2) Disturb or destroy recklessly great crested newt habitat (a breeding site or place of shelter).

5.56 Great crested newt is also listed in the National Biodiversity Action Plan.

5.57 **Existing records**

Four records of smooth newt (closest 1.5km south), three records of common frog (closest 775m south-east), one record of toad (located 1.97km south-east) and two records of great crested newt (closest 1.31km south-east) have been reported. A search with MAGIC also revealed no great crested newt class survey licence returns within this search radius.

5.58 **Survey methodology**

Great crested newts utilise ponds for breeding and grassland areas for foraging. Newts are normally present in the breeding ponds between March and June and survey techniques to demonstrate presence or absence include torch survey, bottle trapping, netting and egg search. It is also possible to undertake a Habitat Suitability Index assessment (HSI), which assesses the potential of a pond to support great crested newts by looking at a range of environmental factors.

5.59 Recent development in eDNA technology means that it is possible to test pond water for the presence of great crested newt DNA between mid-April to the end of June. Environmental DNA (eDNA) is collected from the environment in which an organism lives rather than from the animal themselves. In aquatic environments, animals such as great crested newts shed cellular material into the water by reproduction, saliva, urine, faeces or skin cells. The DNA will be present in the water for several weeks and can be collected through a sample which is then analysed to detect if the target species of interest have been present in the water body.

5.60 **Survey results**

Upon viewing OS Mapping, there were no ponds present within 250m of the site. Mapping revealed the presence of two drainage ditches within the search radius;

Ditch 1 – located immediately adjacent to the site to the west

Ditch 2 – located 195m south-east



5.61 At the time of the preliminary assessment, there were a small number of water features stored on site as part of the owner's business, however it is understood that these had only been in place for two months and have since been removed. In addition to this, Ditch 1 was dry. Its condition suggests that it remains dry most of the year and is therefore unsuitable in supporting breeding great crested newts as well as other amphibians.

5.62 Ditch 2 was not assessed.

5.63 Even if great crested newts occurred within 250m of the site, it is considered very unlikely that they would occupy the application area which is limited to gravel and hardstanding.

INVERTEBRATES

5.64 Existing records

A small number of butterfly records were returned within the data search, but none were associated with or relevant to the site.

5.65 Survey methodology

The survey focused on the identification of certain habitats and features which are considered to have potential significant value for invertebrate assemblages or individual, significant species. Typical habitats include woodland fringe, dead wood, open grassland, bare ground, ponds, and hedgerows.

5.66 Survey results

The site has very limited value for invertebrates being limited to a building surrounded by hardstanding and gravel.

6.0 EFFECTS OF THE PROPOSED DEVELOPMENT WORKS ON THE SPECIES PRESENT

PROPOSED DEVELOPMENT

6.1 A number of development plans have been prepared by Tidswell Childs for the site. These are listed below with the proposed roof elevation plan shown in Figure 13 below.

The Location Plan – Drawing ref: 22.020 – 001, Rev D

Existing Roof Block Plan – Drawing ref: 22.020 – 002, Rev D

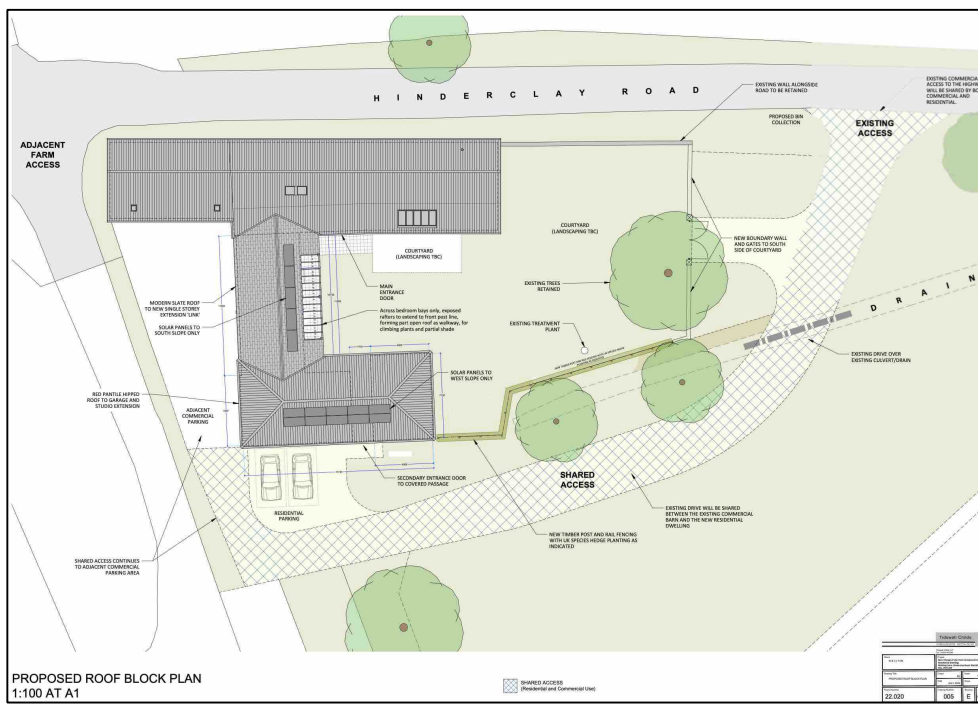
Existing Ground and First Floor Plan – Drawing ref: 22.020 – 003, Rev D

Existing Elevations – Drawing ref: 22.020 – 004, Rev D

Proposed Roof Block Plan – Drawing ref: 22.020 – 005, Rev E

Proposed Elevations Sheet 1 – Drawing ref: 22.020 – 007, Rev E

Proposed Elevations Sheet 2 – Drawing ref: 22.020 – 008, Rev E



6.2 The plan indicates that the barn will be extended on the south-western elevation and converted into residential accommodation. The existing pump house will be rebuilt within the new west extension. The development will also include the incorporation of 24m of new hedgerow planting.

IMPACTS ON PROTECTED SITES

- 6.3 Given the distance of the application area from the designated sites (the closest being Hinderclay Wood located 650m north-east of the site) and the nature of the development (measuring only a small footprint), it is not anticipated that the proposed development will have any impact on these areas.

IMPACTS ON PROTECTED HABITATS/SPECIES

- 6.4 Table 9 below details the predicted impact on protected habitats/species as part of the works.

Table 9 Survey summary and development impact

SPECIES	PREDICTED IMPACT
Habitats	Loss of paving and gravel hardstanding, which is considered to be of low ecological value.
Bats	The main building provides suitable bat roosting habitat (such as under roof tiles), however the Phase 2 surveys did not record any roosting activity associated with these features, as such, no anticipated impact to roosting bats. See sections 7.3 to 7.8 for precautionary mitigation and enhancement. The pump house will be rebuilt within the development. Any external lighting proposed as part of the development may impact on local bat activity (particularly to the west of the site). See section 7.9 for mitigation.
Water vole	Ditch 1 considered unsuitable for this species, therefore no anticipated impact on water vole.
Otter	Ditch 1 considered unsuitable for this species, therefore no anticipated impact on otter.
Hedgehog	Site is considered to be of limited value to hedgehog (comprising of hardstanding and building), therefore no anticipated impact on this species.
Breeding birds	The building itself could support breeding birds within features such as gaps under roof tiles. Development could result in death/injury of birds and/or destruction of nests if works are undertaken during the breeding bird season. Furthermore, the construction works could result in disturbance, causing birds to abandon nests. See section 7.10 to 7.11 for mitigation.
Reptiles	Site is considered to be of limited value to reptiles (comprising of hardstanding and building), therefore no anticipated impact on this group.
Amphibians	No loss of suitable breeding habitat. Ditch 1 and water features considered unsuitable in supporting great crested newts. Even if present within the wider

SPECIES	PREDICTED IMPACT
	landscape, the application area is made up of hardstanding therefore provides suboptimal terrestrial habitat for this species, as well as other amphibians. As such, no anticipated impact.
Invertebrates	Habitat provides very limited invertebrate habitat (limited to hardstanding), and as such, no anticipated impact on this group.

REQUIREMENTS FOR FURTHER SURVEYS

6.5 Bats

Two activity surveys were undertaken in line with the survey guidance set out for moderate potential buildings. As no roosting bats were recorded on any of the surveys, no further surveys are required.

6.6 Habitats, breeding birds, ████████ reptiles, amphibians, water vole, otter, hedgehog, invertebrates

No further surveys are required in respect to these groups.

LICENSING

6.7 A derogation licence (most usually a European Protected Species Licence) may be required from Natural England where the proposed development would result in an otherwise un-lawful activity. This includes:

- a. The killing or disturbance of a European Protected Species;
- b. Damage, destruction or obstruction of any place used by a European Protected Species for shelter or protection.

6.8 Any licence application will take a minimum of 30 working days to process and can only be processed once any relevant permissions have been issued. The granting of the relevant permissions to allow the works to proceed is no guarantee that a licence will be granted.

6.9 Following changes to the Habitats Regulations in 2007, the threshold to which a person commits an offence of deliberately disturbing a European Protected species has changed, such that the disturbance is likely to affect;

- (i) the ability of any significant group of animals of that species to survive, breed, rear or nurture their young, or
- (ii) the local distribution or abundance of that species

6.10 Further changes took place in January 2009, but these generally relate to increased monitoring of licensed mitigation works.

6.11 The Bat Mitigation Class Licence covers works that impact on small numbers of common bat species. Such licences are normally granted within 10 working days. Philip Parker from Philip Parker Associates Ltd is a registered consultant to work under this licence.

6.12 Licences cannot be issued on a precautionary basis and normally require the benefit of supporting activity surveys to categorise the nature of the roost.

6.13 **Bats**

Due to the absence of roosting bats on the activity surveys, it is considered that bats are likely to be absent and therefore there is no requirement for a derogation licence in order for the works to legally proceed.

7.0 MITIGATION /ENHANCEMENT STRATEGY

7.1 The proposed strategy is to mitigate the impacts of the development on the various species as set out above. In addition, proposals are also put forward to enhance the biodiversity of the site via the development. The delivery of biodiversity enhancement of development sites is promoted by National Planning Policy Framework and Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006.




HABITAT

7.2 The development proposals indicate the incorporation of 24m of new hedgerow planting into the design to the west. This should be planted using a range of native species such as hawthorn *Crataegus monogyna*, field maple *Acer campestre*, blackthorn *Prunus spinosa*, hazel *Corylus avellana*, spindle *Euonymus europaeus* and dogwood *Cornus sanguinea*.

BATS

7.3 The following table is based on the guidance within Table 8 given in the Bat Mitigation Guidelines. Given the level of evidence noted during the preliminary survey and activity surveys, there is no requirement for mitigation to offset impacts of the development.

Table 11 Guidelines for proportionate mitigation

Roost status	Mitigation/compensation depending on the impact
Feeding perches of common/rarer species  Individual bats of common species  Small numbers of common species. Not a maternity site	Flexibility over provision of bat boxes, access to new buildings etc. No conditions about timing or monitoring
Feeding perches of Annex II species 	Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements

Roost status	Mitigation/compensation depending on the impact
Small numbers of rarer species. Not a maternity Site	
Hibernation sites for small numbers of common/rarer species ↓	Timing constraints. More or less like-for-like replacement. Bats not to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred.
Maternity sites of common species Maternity sites of rarer species ↓	
Significant hibernation sites for rarer/rarest species or all species assemblages Sites meeting SSSI guidelines ↓	Timing constraints. Like-for-like replacement as a minimum. No destruction of former roost until replacement completed, and usage demonstrated. Monitoring for at least 2 years.
Maternity sites of rarest species	
	Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement completed and significant usage demonstrated. Monitoring for as long as possible.

7.4 Timing of the work

The Bat Mitigation Guidelines present the optimum seasons for works involving various types of bat roosts.

Table 12 Optimum seasons for undertaking work in different types of roost

Bat usage of the site	Optimum period for carrying out works (some variation between species)
Maternity	1 st October – 1 st May
Summer (not a proven maternity site)	1 st September – 1 st May
Hibernation	1 st May – 1 st October
Mating/swarming	1 st November – 1 st August

7.5 Due to the likely absence of roosting bats at the property and area of impact focused away from existing potential bat roost features, there are no timing restrictions to when the works can take place.

7.6 **Ecologist Involvement**

Although no roosting bats were recorded using the roof tiles for roosting during the surveys, due to the nature of roosting bats being very transitional and able to occupy many different roosting locations throughout the year (particularly the case for males and non-breeding females), the roof tiles should be removed under the supervision of a licenced bat worker. This ensures that in the unlikely scenario that bats are uncovered during the soft strip of the building, that they are dealt with in the best manner possible. Please note that if roosting bats are uncovered, works will be required to **stop immediately**, and Natural England contacted for further advice.

7.7 **New Roosting Provision**

Provision of new roosting opportunities for bats would form part of the enhancement strategy which falls as standard for developments.

7.8 Two Greenwoods two crevice bat boxes (Figure 14) should be mounted onto the eastern elevation of the existing barn fixed close to the eaves. Refer to Drawing D3 for recommended locations of boxes.



7.9 **Lighting**

The area surrounding the building has some potential for foraging and commuting bats, therefore any external lighting on the building should comply with the following principles.

Any external lighting should be limited to only that absolutely necessary for safety purposes

The brightness of the lighting should be as low as possible and kept at a low level and directed away from the boundary vegetation (notably to the west) and any new bat boxes/roosting areas

Narrow spectrum lighting with no UV light is preferred

Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats

Lighting on sensors should not be so sensitive that foraging bats set them off and should be on short timers (1 minute).

BREEDING BIRDS

- 7.10 Bird nests, when occupied or being built, receive legal protection under the Wildlife and Countryside Act 1981 (as amended). Any clearance of potential bird nesting habitat such as the roof tiles should be undertaken outside the bird nesting season, which is generally seen as extending from March to the end of August, although it may extend for longer depending on local conditions. If there is no alternative to carrying out work in these areas during this period, then suitable nesting locations will be carefully inspected by an ecologist for evidence of nests prior to works commencing. If occupied nests are present, then works must stop in the area and only recommence once the nest becomes unoccupied of its own accord. This should be confirmed by the ecologist. Please note that whilst it is not an illegal offence to disturb nesting birds, it is highly recommended that if nests are found to be present, a suitable stand-off is left around the area to ensure that the nest does not become abandoned. It is however understood that minimal bird nesting habitat is to be removed.
- 7.11 Bird nesting habitat should be incorporated onto the building/ around the site as enhancement. This includes the addition of two externally mounted Schwegler 1SP sparrow terraces (Figure 15) onto the northern elevation of the building and the external mounting of two Schwegler 16S swift nest boxes (Figure 16) onto the northern elevation of the commercial barn. Further to this, the edge roof tiles of the buildings will not incorporate bird combs to allow nesting and roosting activity by a range of bird species.



REPTILES/ AMPHIBIANS/SMALL MAMMALS

- 7.12 The potential for impacts on reptiles/protected amphibians and small mammals is considered to be limited due to the nature and size of the habitat to be lost as part of the development. However, a precautionary approach to the site development is still recommended in order to ensure that there are no impacts on any reptiles/amphibians and small mammals. This is detailed below:
- a. Keep the lawned area to be removed mown short to ensure this area does not become attractive to reptiles/amphibians and small mammals;
 - b. Keep the working area of the site clear of vegetation or other structures which protected animals might use for cover;
 - c. All waste shall be placed directly into skips or designated areas so that debris piles and therefore potential refuge areas are not created;
 - d. Further piles of loose sand or other granular materials into which animals could burrow are not to be left around the site. All such materials should ideally be delivered in bags and kept in such bags until required for use. Bags should be stored on pallets. If it is essential that they are delivered loose, they should be retained in designated areas which are not accessible to reptiles;
 - e. All trenches should be left covered. They should be checked in the morning before they are filled in. All trenches are to be provided with a small mammal ramp to allow any animals that get trapped to escape.
- 7.13 If any animals are discovered during the works, they will be moved to a safe location away from the development site (location to be agreed).

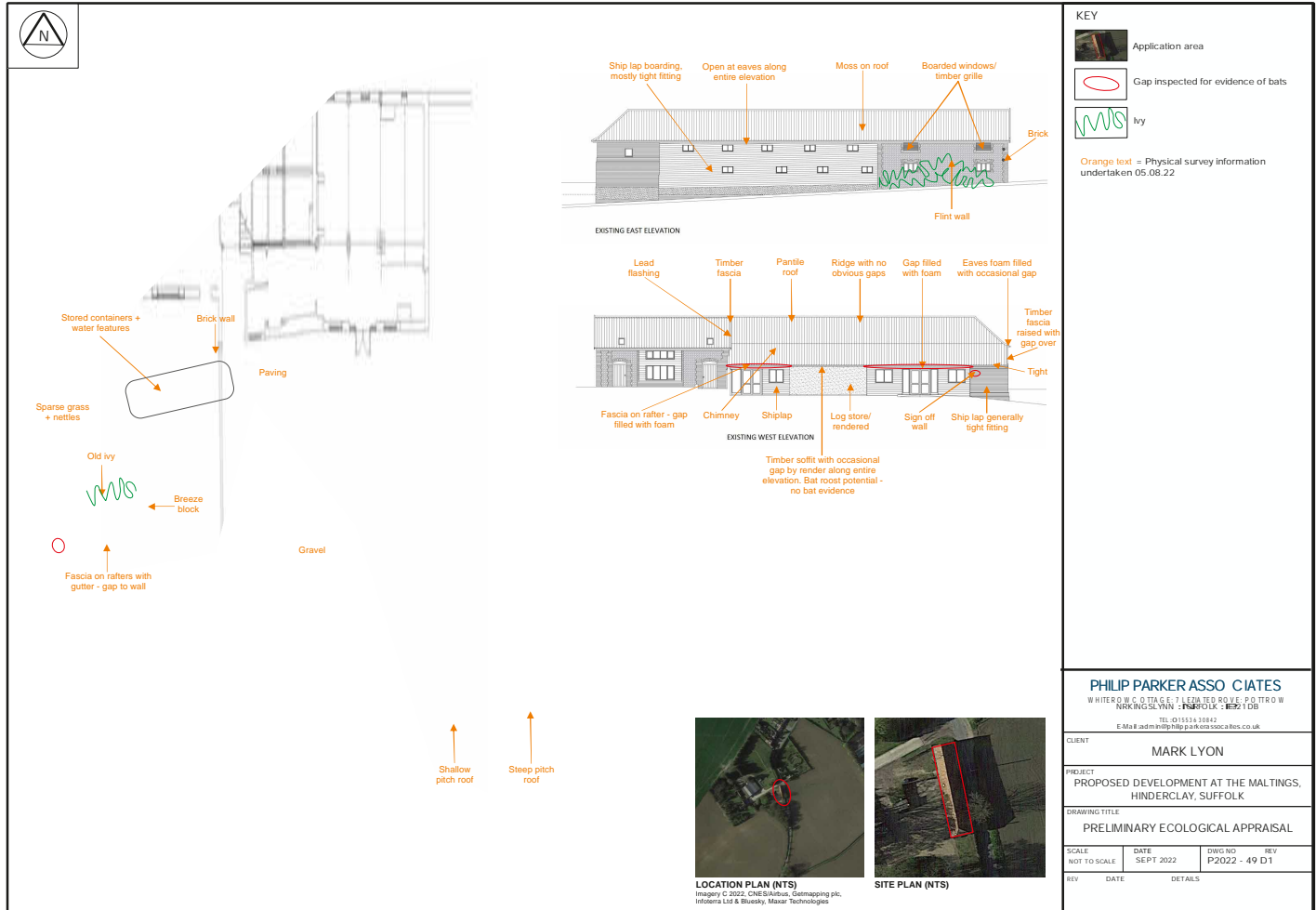
ADVISORY NOTE

- 7.14 This report presents a true reflection of habitats present and wildlife usage at the site at the time of the survey and remains valid for a period of 12 months from the date of this report. Even given the precautions set out above, it is always possible that protected species could be encountered at any time. In such a case, work should cease immediately and Philip Parker Associates Limited (Tel: 01553 630842) be contacted for further advice.

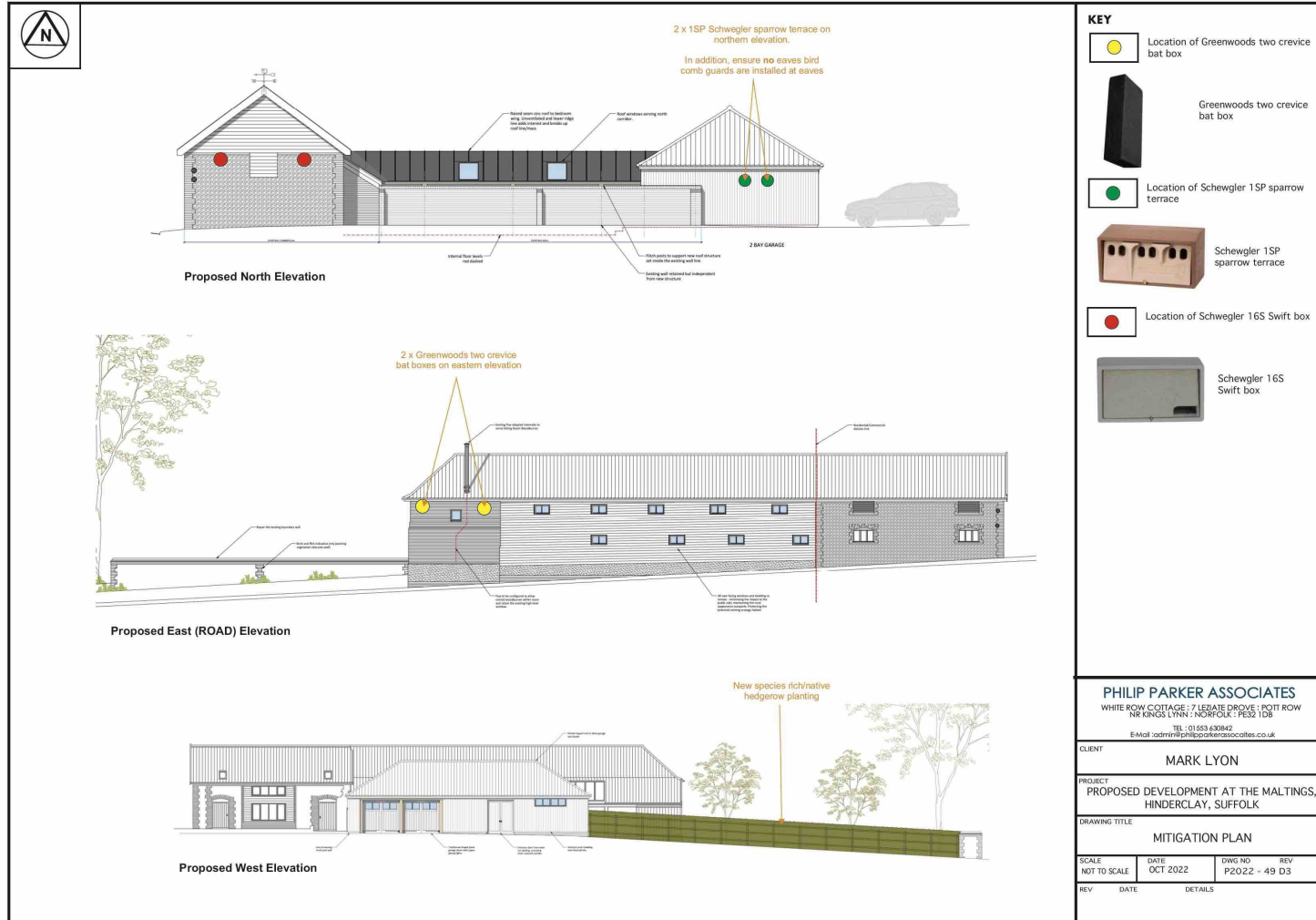
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DRAWING D1 PRELIMINARY ECOLOGICAL APPRAISAL



DAWING D3 MITIGATION PLAN



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