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Environmental and Rural Chartered Surveyors

Ecological Appraisal

Land Opposite Woodfield Garage

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ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

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Author	Matthew Thomas	Date	20th December 2018
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Contents

1. EXECUTIVE SUMMARY

1.1.1 Envirotech NW Ltd were commissioned in December 2018 by Judith Douglas Town Planning limited to carry out an ecological appraisal of land off Longsight Lane, Osbaldeston Green. It is proposed that a new workshop and offices with access track are constructed on the site.

1.1.2 The site was initially surveyed by Bowland Ecology Ltd in 2017 and this included a data search and desk study, followed up with a site visit.

1.1.3 The site was then re-surveyed by Envirotech in 2018 when the proposals for the access track were added to the application.

1.1.4 The core of the site is already hard standing and of negligible value to protected or notable species. The new access track passes over a poor semi-improved grassland field that is also of very low value to any species of interest.

1.1.5 The species poor hedgerow affected by the proposal is not considered important under the Hedgerow Regulations (1997). Hedgerows of greater value to wildlife around the site will not be affected by the proposals.

1.1.6 Birds are likely to utilise the hedgerow on site boundary for nesting between March and September. Any vegetation clearance should therefore be undertaken outside of this period.

1.1.7 The Reasonable Avoidance Measures outlined in this report should be utilised for amphibians that may occur in the area. It is however considered that theses species are unlikely to utilise the areas affected by the proposals.

1.1.8 No other notable or protected species were recorded on the site.

2. INTRODUCTION

2.1 Background

2.1.1 In December 2018 Envirotech NW Ltd were commissioned by Judith Douglas Town Planning limited to carry out an Ecological Appraisal of land opposite Woodfield Garage at Osbaldeston Green, central grid reference SD 65856 32569 (Figure 1). A site investigation was undertaken and a report compiled which includes recommendations for any future actions and or mitigation required.

2.1.2 The survey was requested in connection with the proposed construction of new access track across a poor semi improved grassland field and the construction of new offices and workshop on a hardstanding compound.

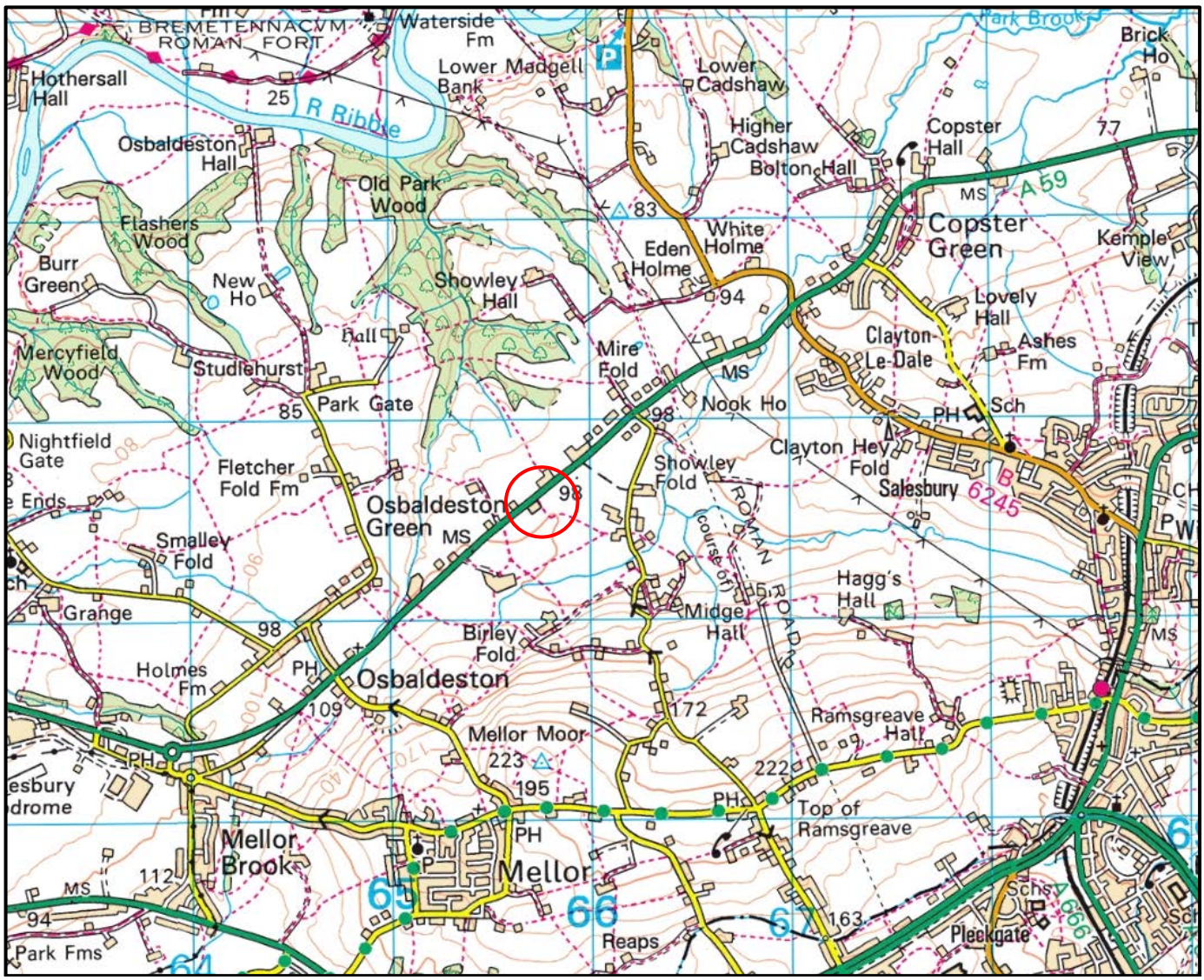

Figure 1 *Site location at SD 65856 32569 circled red.*

2.2 Objectives

2.2.1 The main objectives of the study were:

- The completion of a Phase 1 Habitat Survey including the preparation of a vegetation and habitat map of the site and the immediate surrounding area.
- The survey and assessment of all habitats for statutorily protected species.
- An evaluation of the ecological significance of the site.
- The identification of any potential development constraints and the specification of the scope of mitigation and enhancement required in accordance with wildlife legislation, planning policy and other relevant guidance, and;
- The identification of any further surveys or precautionary assessments that may be required prior to the commencement of any development activities.

3. METHODOLOGY AND SOURCES OF INFORMATION

3.1 Data Search

3.1.1 An existing report of surveys undertaken by Bowland Ecology Ltd in 2017, which included a data search from the Biological Records centre for Lancashire "LERN", the Envirotech dataset, and the Multi-Agency Geographic Information for the Countryside (MAGIC) were searched to establish the presence of any records of statutorily protected, notable or rare species, and any designated sites of international, national, regional or local importance within a 2km radius of the site boundary.

3.1.2 The Envirotech dataset is compiled from extensive field surveys from the period 2004-present, as well as records obtained from third parties during this time.

3.1.3 Google Earth and Google Street View were consulted to establish the presence of any features of ecological importance within the local area.

3.2 Vegetation and Habitats

3.2.1 A vegetation and habitat map was produced for the site and the immediate surrounding area. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC 2003).

3.2.2 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act (1981) and indicators of important and uncommon plant communities. All plant nomenclature follows Stace (1991).

3.2.3 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the Wildlife and Countryside Act (1981), namely Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) on terrestrial habitat and aquatic species such as floating pennywort (*Hydrocotyle ranunculoides*), water hyacinth (*Eichhornia crassipes*) and New Zealand pygmyweed (*Crassula helmsii*).

3.2.4 The survey was also informed by questioning the landowner/site agent to ascertain the recent history of the site.

3.3 Timing and Personnel

3.3.1 During the visit, weather conditions were suitable for the survey types undertaken.

3.3.2 The site and surrounding land was visited on the 11th December 2018 by

- (MT) Mr Matthew Thomas BSc (Hons), Grad CIEEM
  Natural England Bat Class Licence (Level 2)
  Natural England Barn Owl Licence
  Natural England Great Crested Newt Licence (Level 1)

4. SPECIES SURVEY METHODOLOGY

4.1 Amphibian

4.1.1 Great crested newts (*Triturus cristatus*) are listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. It is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations (2017) and Schedule 5 of the Wildlife & Countryside Act (1981).

4.1.2 The criteria used in the assessments were based on those contained in the Herpetofauna Workers Manual and Oldham et al, 2000, and in applying these criteria a precautionary approach was adopted. Following the criteria developed by Oldham et al (2000), the HSI tool developed for use with great crested newts and forming part of Natural England's EPS Licensing process was used to determine the suitability of ponds for great crested newts

4.1.3 Water-bodies located within or adjacent to the study area were all visited by Bowland Ecology Ltd in 2017 and HSI scores compiled. This report utilises the Habitat Suitability Assessments made by Bowland Ecology Ltd (2017).

4.2 Badger

4.2.1 Badgers (*Meles meles*) and their setts are protected under the Protection of Badgers Act (1992). This legislation arises from animal welfare issues (rather than on the basis of nature conservation grounds) and protects badgers from being killed, injured or disturbed whilst occupying a sett.

4.2.2 A disturbance to badgers in their setts may occur as a result of construction operations. Natural England recommends that the use of heavy machinery in proximity of a sett entrance should be avoided, with a 'disturbance free-zone' being established.

4.2.3 The degree of disturbance attributed to construction activity is a function of the background level of activity badgers are accustomed to and that which will be attributed to a proposed activity. The "disturbance free zone" is therefore site specific.

4.2.4 The survey for badgers comprised an assessment of all suitable habitat within and outside the study area boundary (where this was possible) to a distance of 30m for indications of use by badgers.

4.2.5 Signs of badgers which were searched for included:

- Setts - 'D' shaped entrances at least 25cms wide and wider than they are high with large spoil mounds
- Discarded bedding at sett entrances (this includes grass and leaves)
- Scratching posts on shrubs and trees close to a sett entrance
- The presence of badger hairs which are coarse, up to 100mm long with a long black section and a white tip

- Dung pit latrines and footprints
- Habitual runs through vegetation and beneath fences
- Hedgehog carcases

4.3 Bats

4.3.1 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981), and are included on Schedule 2 of the Conservation (of Natural Habitats) Regulations (2017), as European Protected Species. Taken together, these pieces of legislation make it an offence to:

- Intentionally or recklessly kill, injure or capture bats;
- Deliberately or recklessly disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts.

4.3.2 The Bat Conservation Trust (Hundt (2012) and Collins, J. (ed) (2016) issued guidelines on bat survey methodology, a key feature of their recommendation is for the undertaking of a pre-survey assessment – an initial desk-study and a walkover assessment of the survey area and its surrounding area to identify the relative value of the habitats present for bats and likely commuting routes. This is to be followed by a survey program that is appropriate to the likely level of bat activity within the survey area to be determined by and based on the experience of the surveyor.

4.3.3 The potential value of the survey area for foraging bats was assessed through consideration of two main factors: professional knowledge of bat ecology and foraging behaviour in combination with the geographical location, topography and habitats present within the survey area and surrounds. This resulted in the production of a map showing habitat quality both on and adjacent to the site.

4.3.4 All trees and structures on and within the survey area boundary were assessed for their potential to support roosting or hibernating bats. This comprised a close inspection of all trees and buildings on the site to allow an assessment of their potential to be used by bats to be made by a licensed surveyor.

4.3.5 Trees were all assessed in accordance with Collins, J. (ed) (2016).

4.4 Birds

4.4.1 All breeding birds, other than pest species, are protected under the Wildlife and Countryside Act of 1981 when building a nest, rearing young or sitting on eggs. Some bird species, such as barn owl (*Tyto alba*), are protected when near an active nest site. Several birds are listed as UK and or County BAP species.

4.4.2 Bird species and behaviour was noted during the other field surveys. All areas are covered equally, in order to avoid the subjective survey of better quality 'bird habitat'.

4.5 Invertebrates

4.5.1 A general assessment was made of the study area's suitability for supporting invertebrates during the phase 1 survey. The study area's lack of habitat diversity, species-poor composition and uniformity of vegetation structure (i.e., lack of variation in height and microtopography) resulted in our belief that a low diversity of invertebrates would be likely to occur across the site.

4.5.2 The presence of invertebrates was noted during the other surveys which were undertaken. The extent of sampling was limited in that it could be confirmed that no priority or BAP species would be likely to be affected by the proposal.

4.6 Reptiles

4.6.1 All native reptiles are protected in Britain under the Wildlife and Countryside Act of 1981. It is an offence to intentionally kill, injure, sell or advertise to sell any of the six native species.

4.6.2 The survey for these species was based on assessing the habitat type and suitability of the site. This comprised an assessment of satellite imagery for the site and surrounding area as well as comparison of the results from the records searches with habitat types. The general habitat at the site was evaluated in terms of its suitability to reptiles for foraging or breeding.

4.6.3 Reptile surveys comprising visual encounter surveys were undertaken. Habitat at the site was not considered sufficiently suitable for a full presence/ absence survey to be warranted.

4.7 Survey limitations

4.7.1 No significant survey limitations were encountered.

5. RESULTS

5.1 Data Search

5.1.1 There are no records of protected or notable species for the site. There are however records of protected or notable species within 2km (Figure 2). These are discussed in the relevant sections below.

5.1.2 Old Park Wood Biological Heritage Site is the nearest non-statutory site and is located 0.3 km north of the site.

5.1.3 The nearest statutory protected site is the Harper Clough and Smalley Delph Quarries SSSI, SAC 5.8km to the east (Figure 4).

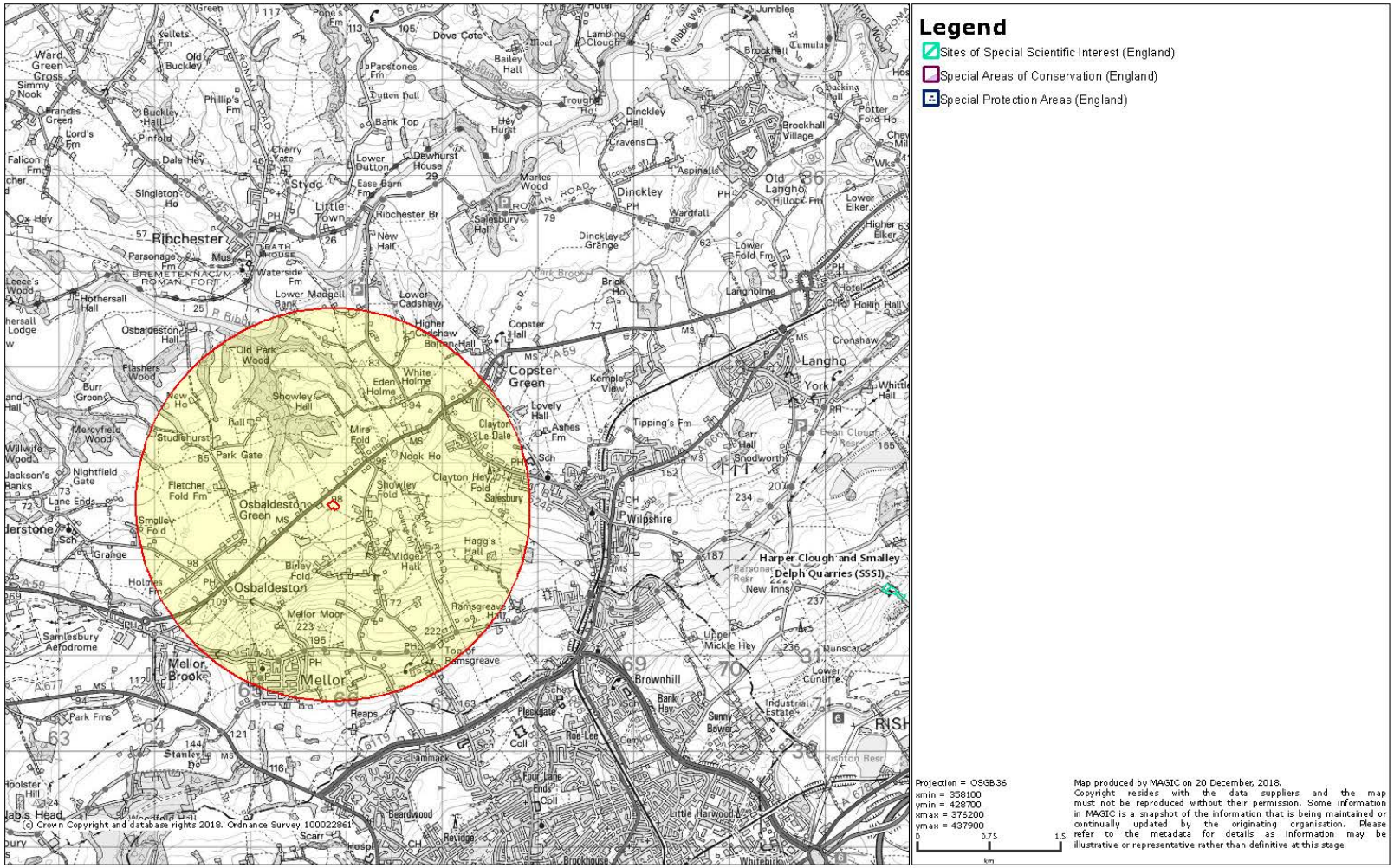

Figure 2 *Statutory designated sites 2km buffer.*

6. PHASE 1 SURVEY RESULTS

6.1 Habitat Results

6.1.1 The core of the site comprises an area of hardstanding with hedges and fences on its boundary. It is also proposed an access track is installed across a poor semi-improved grassland.

6.1.2 See Figure 5 for the Phase 1 Habitat Plan and Table 1 for the descriptive Botanical and Faunal Target Notes, hereafter referred to as BTN and FTN.

Target Note	Description	Comment
BTN1	Other habitat	Woodfield garage is opposite the site, across Longsight Road and is a busy industrial site.
BTN2	Hardstanding	A small enclosed hardstanding area, shielded from Longsight Road by large leylandii (*Cupressus* x *leylandii*) trees. This area is a busy construction yard with materials and vehicles stored there.
BTN3	Defunct hedge – species-poor	A defunct hedge runs across the north boundary of the site an this is composed of hawthorn (*Crataegus monogyna*), oak (*Quercus robur*), willow (*Salix* spp.), and bramble (*Rubus fruticosus* agg.).
BTN4	Hedge with trees – species-poor	An untamed and gappy hedge with mature and semi mature trees. Species present include oak, hawthorn, hazel (*Corylus avellana*), alder (*Alnus glutinosa*) and holly (*Ilex aquifolium*). Bramble and nettle grow at the base although the groundflora is relatively sparse, presumably due to the shading provided by the mature trees.
BTN5	Hedge with trees – native species rich	A short stretch of hedge that includes a mature oak tree. Other species present include hawthorn, holly, willow, dog rose (*Rosa canina*) and some honeysuckle (*Lonicera* sp.).
BTN6	Poor semi-improved grassland	Species present in this grazed grassland are typical for the area, with perennial ryegrass (Lolium perenne), creeping buttercup (*Ranunculus repens*), meadowgrass (*Poa* sp.) crested dogstail (*Cynosurus cristatus*), cocksfoot and then some soft rush (Juncus effuses) in the wetter areas.
BTN7	Other habitat	A residential area with extensive domestic garden areas is present to the south-west of the site.
BTN8	Other tall herb – ruderal	A recently created earth bank/bund at the south of the site covered with grasses such as cocksfoot and perennial ryegrass but also with nettle, yellow loosestrife (*Lysimachia punctata*), broad-leaved dock (*Rumex obtusifolius*), common butterbur (*Petasites hybridus*), greater plantain (*Plantago major*) and soft rush at the base.
BTN9	Intact hedge – species-poor	A very managed and shaped roadside hedge of predominantly hawthorn but with occasional sycamore (*Acer psedoplantanus*) and elder (*Sambucus nigra*).
FTN1	Hardstanding	The core of the site is entirely surfaced with compacted, crushed aggregates. There are materials, mostly palletised and vehicles stored on this surface. The groundworks for the proposed building appear to have been completed already.
FTN2	Standing water	There is a pond on the site boundary, which appeared to be suitable for use by amphibians and scored 'Good' when assessed using the Habitat Suitability Index for great crested newts (Table 3).

Table 1 *Details of Botanical and Faunal Target Notes.*

*Habitats outside the site boundary are indicative only and have been mapped from within the site boundary or from publicly accessible land

	**BTN4** **Mature and semi-mature trees comprise much of the hedge to the south-west of the site.**
	**BTN5** **The species rich hedge on the south-east boundary of the site.**
	**BTN6** **The predominantly hawthorn hedge at the roadside, through which the access track will pass.**

	**FTN2/BTN6** **Pond 1 which is on the site boundary, within the poor semi-improved grassland field adjacent.**
	**BTN8** **The bund wall on the south boundary of the site is a mixture of grass and ruderal.**
	**Core development area comprises hardstanding**

Table 2 *Photographs of target noted and notable features on the site.*

6.2 Vegetation

6.2.1 Details of the plant species found on site are included in the target notes. Species recorded are all commonly occurring and undoubtedly occur elsewhere in similar habitats in the local area.

6.2.2 The poor semi-improved grassland has a very low species diversity and ecological value. Whilst the assemblage of species within it is higher than improved pasture, the species are all indicative of regular grazing and disturbance, this habitat does not constitute a BAP habitat.

6.2.3 There are intact species rich and species poor hedges and defunct hedges on the site boundary. Only a small section of species poor hedge will need to be altered to facilitate access to the site. The remaining hedges can remain untouched.

6.2.4 Only a single hedge is affected by the proposals for the site, BTN9, this hedge is not classified as important under the Hedgerow Regulations (1997) (See Appendix 1).

6.2.5 There are numerous trees on the site boundary, both mature and semi mature. It is not proposed that any trees are felled as part of the proposals.

6.2.6 Bowland Ecology Ltd (2017) reported the presence of Himalayan balsam on the south-west boundary of the site. The site has been re-configured since that survey took place and this species was not evident, however its seeds likely remain viable in the soil.

6.2.7 There is no evidence of Japanese knotweed or giant hogweed on the site. No other invasive or notable weed species listed on Schedule 9 (Section 14) of the Wildlife and Countryside Act (1981) (as amended) was identified within the site or adjacent land.

6.3 Amphibian

6.3.1 Bowland Ecology Ltd (2017) report that there are six records of two amphibians species within 2km of the site. Three of the records are for great crested newt. All of the records relate to a pond 1.5km west of the site.

6.3.2 Ordnance Survey mapping shows eight ponds within 250m of the site, Figure 4. These ponds were all visited by Bowland Ecology Ltd in 2017 and HSI scores compiled (Table 3). In 2018 it was found that Pond 3 no longer exists.

6.3.3 Although a pond close to the site, Pond 1 is considered to offer habitat considered to be potentially of 'Good' suitability for great crested newts, there are no records of this species within 1.5km.

6.3.4 The core of the site, an area of compacted aggregate is considered to be of negligible value to amphibians and will not change significantly as a result of the proposals.

6.3.5 An access track is to be installed across the adjacent poor semi-improved grassland field. This habitat is also considered to be of low-negligible value to amphibian species.

6.3.6 The proposed tarmac access track is flat and would not constitute a barrier to amphibian movement.

6.3.7 Pond 1 is not affected by the proposal and is retained in the scheme.

6.3.8 Hedges adjoining the ponds are likely to be utilised for foraging and commuting across the landscape. Only a small section of species poor hedge (BTN6) at the side of Longsight Road will be altered by the proposal.

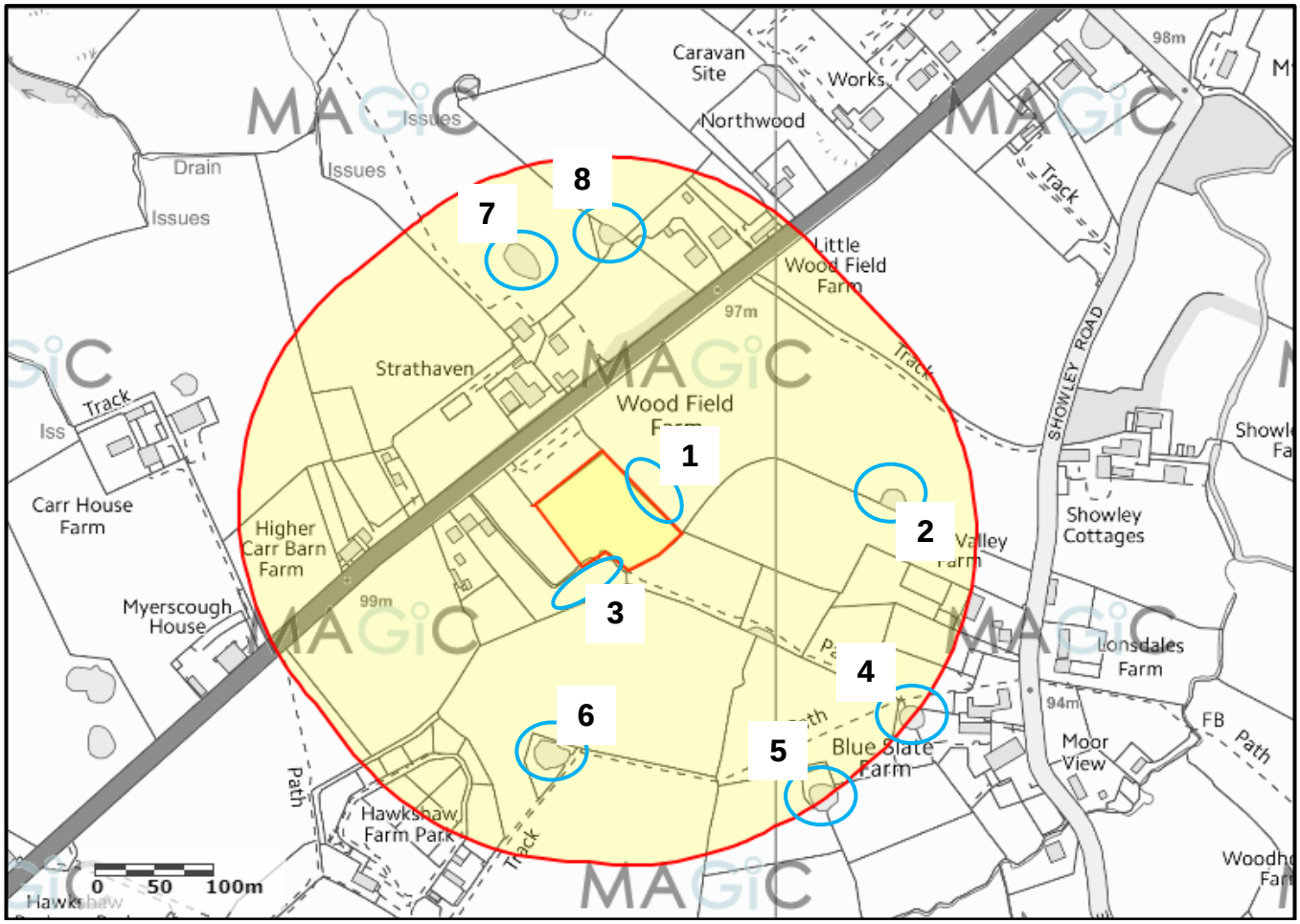

Figure 4 *Ponds are numbered and circled blue within a 250m radius of the site (red outline).*

Pond #	SI1 - Location	SI2 - Pond Area	SI3 - Pond Drying	SI4 - Water Quality	SI5 - Shade	SI6 - Fowl	SI7 - Fish	SI8 - Ponds	SI9 - Terrestrial Habitat	SI10 - Macrophytes	HSI	Suitability
1	1	0.7	0.9	0.67	1	0.67	0.3	1	0.67	0.5	0.71	**Good**
2	1	0.7	0.9	0.33	1	0.67	0.33	1	0.67	0.3	0.63	**Average**
3	-	-	-	-	-	-	-	-	-	-	-	**Defunct**
4	1	0.05	0.1	0.67	1	0.67	0.3	1	0.67	0.85	0.46	**Poor**
5	1	0.2	0.5	0.33	0.2	0.67	0.3	1	1	0.3	0.46	**Poor**
6	1	1	0.9	0.67	0.2	0.67	0.7	1	1	0.3	0.66	**Average**
7	1	1	0.9	0.67	1	0.67	0.3	1	0.67	0.4	0.72	**Good**
8	1	0.2	0.9	0.67	1	0.67	0.3	1	0.67	0.3	0.59	**Below Average**

Table 3 *Habitat Suitability Index assessment as undertook by Bowland Ecology Ltd (2017). Note that Pond 3 was found to be no longer in existence at the time of the 2018 survey.*

6.3.9 There are numerous opportunities for amphibians to seek refuge around the perimeter of the site. Hedges such as BTN3 and BTN5 have rubble and rock throughout their base. None of theses areas will however be altered as part of the proposals.

6.3.10 As the only groundworks still to take place at the site are the route of the proposed access track, which is on short grazed poor semi-improved pasture and a section of species poor hedge, it is considered that Reasonable Avoidance Measures for amphibians are sufficient.

6.4 Badger

6.4.1 There are no records of badgers occur within 2km of the site.

6.4.2 Badger setts do not occur on site and a lack of feeding signs or runs across the site would suggest that they do not occur within 30m of site boundaries.

6.4.3 The proposed development will not impact on any existing badger runs or setts. The porosity of the surrounding fields to the passage of badgers will not be affected.

6.5 Bats

6.5.1 There are three records of two species of bat within 2km of the site. These are for common pipistrelle (*Pipistrellus pipistrellus*) and brown long-eared (*Plecotus auritus*) bats.

6.5.2 The foraging habitat around the site perimeter is considered to be of moderate-high quality due to the presence of mature trees, a pond and a diversity of woody species. The core of site and the route of the access track (poor semi-improved grassland) are considered to offer negligible and low quality foraging habitat respectively.

6.5.3 There are no buildings on site that could offer bats roosting opportunties.

6.5.4 There are numerous mature and semi-mature trees on the periphery of the site and a number of these trees contained crevices and potential roosting features for bats. No trees will however be directly impacted by the proposals.

6.5.5 Providing the trees on the site periphery remain free from direct impacts and lighting of the site is sympathetic to the possible presence of bats in trees, it is considered that impacts on bats from the proposals are likely to be minimal.

Key

Site Boundary

High Quality

Moderate Quality

Low Quality

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Figure 5

Assessment of Bat
Foraging Habitat Potential

SCALE: NTS | REV 01

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

6.6 Birds

6.6.1 There are numerous records of birds within 2km of the site. Woodpigeon (*Columba palumbus*) were noted on site during the survey.

6.6.2 The intact hedgerows on the site boundary offer potential habitat for feeding and nesting birds. The core of the site, the hard standing and poor semi-improved grassland has a low potential for use by nesting birds as the grassland is grazed and as such is usually short. Trampling risks are also very high within this area of the site.

6.6.3 The gappy defunct hedges within the site have insufficient density to be of high value to nesting birds.

6.6.4 There were no rot holes or cracks in the trees within the site boundary which would support tree hole nesting species such as woodpeckers.

6.6.5 A risk assessment of the site in respect of its future potential for and value to nesting birds could be adequately made.

6.6.6 Precautionary mitigation is considered appropriate. The landscaping scheme should include species such as rowan (*Sorbus aucuparia*) which are seed bearing and will provide food for birds in the winter.

6.7 Invertebrates

6.7.1 No vegetation on site was recorded which would provide an important resource for invertebrates in the local area.

6.7.2 There is deadwood in the trees and hedges on the site boundary that would provide a resource for this species.

6.7.3 Given the poor quality habitats contained within the site in comparison to the wider area, it is not considered that this site is of any local significance for invertebrates.

6.8 Reptiles

6.8.1 There are no records for reptiles within 2km of the site. Reptiles have not been recorded on the site.

6.8.2 The majority of the site has a very low value to reptiles being devoid of significant ground cover. There are no areas of the core development area which would be particularly favourable to reptiles.

6.8.3 Reptiles may occur along the hedges on the boundary of the site and this provides linkage across the local landscape.

6.8.4 No specific mitigation for these species is considered necessary.

6.9 Statutory and Non-Statutory Sites

Direct Impacts:

6.9.1 There are no statutory or non-statutory sites which are connected to the site such that site development would directly affect the dispersal of species between them or directly impact upon their integrity.

6.9.2 The habitats on site do not represent or are linked to those found in any of the statutory or non-statutory sites locally.

Indirect Impacts:

6.9.3 There are no statutory or non-statutory sites which are connected to the site such that site development would indirectly affect the dispersal of species between them or indirectly impact upon their integrity.

7. MITIGATION/RECOMMENDATIONS

7.1 Compensatory planting and habitat enhancement

7.1.1 The roots of trees on the site and its boundaries should be adequately protected during work in accordance with industry standards. Young or Semi-mature or Mature or Veteran or all trees should as far as possible be retained in the scheme.

7.1.2 The landscaping scheme should utilise plants which are native and wildlife friendly. Wildflower seed could be used to plant verges to enhance the ecological value of the site and continuity between the site and the wider area.

7.1.3 Hedgerows around the site should be retained or improved where possible. Any lengths of intact hedgerow to be removed to facilitate development should be transplanted and or replanted in order that there is no net negative impact on this BAP habitat due to development. The roots of hedgerow plants/trees should be adequately protected during development from compaction/ground disturbance.

7.1.4 Light spill onto hedges and trees on the site boundary should be completely avoided.

7.2 Amphibians

7.2.1 In order to minimise impacts on amphibians the following Reasonable Avoidance Measures should be used.

- All work must take place during daylight hours as amphibians are more likely to be commuting over night and this will ensure the risk to any amphibians commuting through the site will be minimised.

- During the development, measures should be put in place to discourage amphibians from using the development area, the creation of any piles of earth, materials and rubble which could form potential artificial hibernacula and refuge should be avoided at all times. It is recommended that any spoil or rubble will be removed immediately to skips, or on hard standing or short grass. This will ensure that no potential amphibian hibernation or resting sites are created.

- The storage of all loose materials must be palletised or similar so they are off the ground whenever possible.

- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure amphibians are not trapped during work.

- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling. Back filling should be completed immediately after any excavations, ideally back filling as an on-going process to the work in hand.

7.3 Badger

7.3.1 Badger setts are not known to occur within 2km of the site. These setts will be undisturbed by work but in order to minimise impacts on badgers passing over the site the following points should also be followed.

- All work must take place during daylight hours as badgers are more likely to be commuting over the site at night and this will ensure the risk to any badgers passing through the site will be minimised.

- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure badgers are not trapped during work.

- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling. Back filling should be completed immediately after any excavations, ideally back filling as an on-going process to the work in hand.

- Boundary fences/walls should incorporate gaps at their base to facilitate the passage of badgers across the site.

7.4 Bats

7.4.1 Work at night should be restricted, new planting within the site should enhance structural diversity and light spill onto the boundary should be minimised.

7.4.2 If any trees need to be felled they should be inspected individually to ensure bats are absent.

7.4.3 Overall it is considered there negligible impact on the favourable conservation status of bats from the proposals.

7.5 Birds

7.5.1 Nesting by birds within the development area is considered likely to occur. Birds may nest within hedges on the periphery of the site.

7.5.2 Any vegetation to be trimmed or cleared should be checked for nesting birds before it is removed. Ideally vegetation clearance should occur outside the bird nesting period March- September. If vegetation clearance is to occur in the March-September period a check for nesting birds should be conducted first by a suitably qualified individual.

7.5.3 New planting within the site and the retention of trees and shrubs on the site boundary will maintain the ecological functionality of the site for breeding birds.

7.5.4 If nesting birds are found at the site all site works shall cease and further ecological advice shall be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.6 Invertebrates

7.6.1 Landscaping should include native or wildlife friendly locally sourced species and seek to be as species rich as possible.

7.6.2 Contaminants should not be allowed to enter the soils on site during work. To effect this, spill kits should be provided on site. Re-fuelling of all plant and machinery should be undertaken away from open drains and water courses. Drip trays should be used under static machinery.

7.6.3 Any cut wood and chippings could be piled around the site periphery and at the base of hedges where it can decompose naturally and provide a resource for invertebrates.

7.7 Reptiles

7.7.1 There is no requirement for specific mitigation for these species. However, as a precautionary measure, in the unlikely event that any signs of any reptile activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.7.2 The points in respect of not leaving open trenches without means of escape detailed for badgers are also applicable to these species.

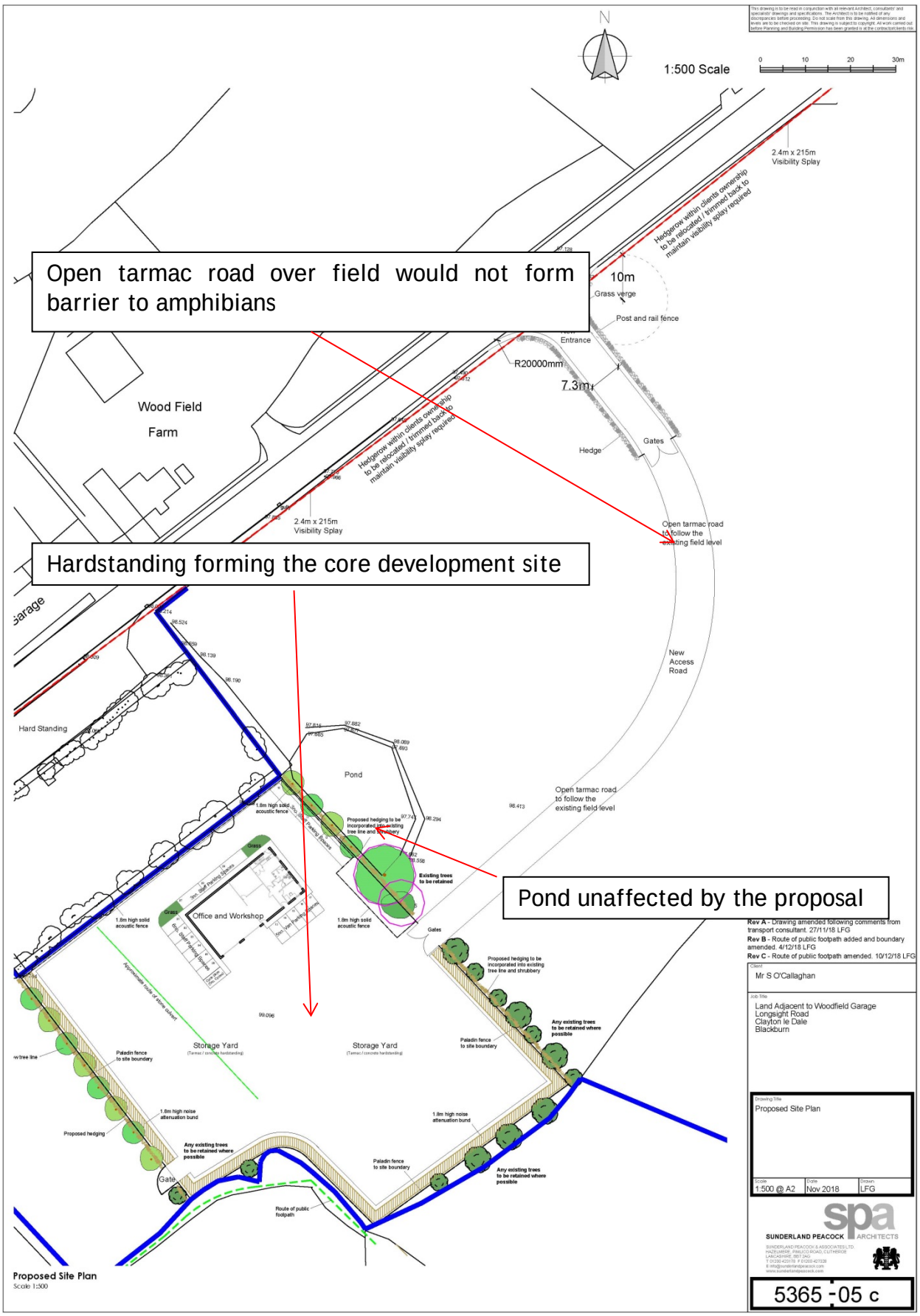

Figure 6 *Proposed site Plan.*

8. CONCLUSION

8.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land comprising hardstanding and poor semi-improved grassland off Longsight Lane, Osbaldeston Green. It is proposed a new office and workshop and access track are constructed there.

8.1.2 Surveys of the site were originally undertaken in 2017 by Bowland Ecology Ltd. These were updated in 2018 by Envirotech NW Ltd including the addition land of the proposed access track.

8.1.3 Bats amphibians and nesting birds are known to occur in the local area, there was however no conclusive evidence of any specifically protected species regularly occurring on the site or the surrounding areas which would be negatively affected by site development following the mitigation proposed.

8.1.4 The vegetation to be cleared has a low ecological significance in the local area; the trees close to but outside the development area will not be affected by the proposals.

8.1.5 The protection of trees on the site boundary and landscaping will promote structural diversity in both the canopy and at ground level and will encourage a wider variety of wildlife to use the site than already occurs.

8.1.6 Contractors will be observant for protected species and all nesting birds. Should any species be found during construction, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

9. REFERENCES

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Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10 (4), 143-155.

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10. APPENDIX

Feature / Hedge	Length 20m +	Hedge is not bounding the curtilage of dwelling	Hedge established more than 30years	Hedge boundary of protected or common land or land used for agriculture or forestry	ARCHAEOLOGY AND HISTORY	Archaeological feature which is included in the schedule of monuments	Situated wholly or partly within an archaeological site	Boundary of a pre-1600 AD estate	Integral part of a field system	Protected species records	FEATURES	Bank or wall	Gaps less than 10%	Standard trees	Ditch	Parallel hedge	Footpath/ Bridleway	Connection points	Woody species	Average ground flora species	HEDGE CLASSIFIED AS IMPORTANT
1	Yes	Yes	Yes	Yes		No*	No*	No*	No*	No		No	Yes	No	No	No	Yes	0	2	0	**No**
	No = Automatic failure					Yes = Automatic pass						7 woody species or 6 woody species + 3 features or 5 woody species + 4 features or highway + 4 woody species and 2 features									

11. * Historic and archaeological records have not been checked for this site.