

Preliminary Ecological Appraisal of Land at Charlton, Hitchin, Hertfordshire



East elevation of Building 1

July 2022

**Carried out on behalf of
Michael & Will Taylor**

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Land at Charlton, Hitchin Preliminary Ecological Appraisal

EXECUTIVE SUMMARY

A preliminary ecological appraisal was carried out of a farmyard and adjacent land at Charlton. The survey involved carrying out an internal and external inspection of the buildings for evidence of use by bats, barn owls and nesting birds, and a habitat and species survey of the land, with an assessment of the habitats and the potential for protected species to be present.

No evidence of bats was found in any of the buildings, which are all considered to have negligible or no potential to support roosting bats as they are mostly constructed of materials such as timber, breeze block and corrugated sheeting which provides few roosting opportunities for bats with the timber and corrugated sheeting having poor insulation properties. Some are also open-sided that make their interiors very light and draughty, which would deter roosting bats. The proposed development will not require a licence from Natural England, though as the presence of roosting bats can never be discounted entirely, a schedule of precautionary measures will need to be adopted during initial building and demolition work as outlined in the mitigation section at the end of the report.

The only tree at the site that contains any deadwood features that could have potential to support roosting bats is a mature ash along the River Hiz. The tree would be retained, though a check for bats would need to be made if any tree surgery work is carried out on it. The River Hiz, boundary hedgerows and adjacent trees to the north of the site would provide good foraging habitat for bats, and any new external lighting should be kept to a minimum and directed away from them.

No evidence of barn owls was found in any of the buildings though as nesting birds are protected by law under The Wildlife and Countryside Act 1981, a check for nesting birds will need to be undertaken prior to building and demolition work commencing on any of the buildings or the removal of any woody vegetation, which should ideally avoid the bird nesting season. If nesting birds are identified, works in the area of the nest will be delayed until the birds have left the nest.

No reptile or amphibians were recorded, with the hardstanding and concrete yards and sparse grassland and weed vegetation providing poor terrestrial habitat for these species, though the dense ruderal vegetation alongside the River Hiz could provide cover for them. There are no records of great crested newt within 1km of the site, and a great crested newt licence would not be required for the development, with a non-licensed strategy of reasonable avoidance measures sufficient to minimise the risk of this or any other amphibian or reptile species being harmed during clearance and construction work.

Most of the habitats and vegetation at the site are not of significant biodiversity interest, consisting of species poor disturbed grassland, ruderal and weed vegetation supporting only common plant species typical of these habitats. The hedgerows along the boundaries of the site are quite species-poor, being mostly dominated by hawthorn, blackthorn and elm, though they have a dense structure.

The River Hiz running through the middle of the site is a chalk stream of greater biodiversity interest and care would need to be taken that a sufficient buffer of semi-natural vegetation is retained either side of it. Precautions will also need to be taken to ensure that there is no run-off of silt, chemicals or oil into the stream, both during work and after completion of the development.

As many of the existing trees and hedgerows should be retained in the development and the planting scheme should use a high proportion of indigenous or berry bearing tree and shrub species as they have a higher value for local wildlife. Bat roosting and bird nesting opportunities such as artificial bat cavities and swift boxes could also be incorporated into some of the buildings to provide

a net gain for biodiversity within the development as required by the NPPF, with holes provided in the base of any new solid boundary features such as closeboard fences or walls to maintain foraging routes for hedgehogs.

1. INTRODUCTION

1.1 Surveyor Experience and Competence

The surveys were led by Philip Irving MCIEEM, who has worked for over twenty years as a Senior Ecologist for a Countryside Management Trust based in Bedfordshire, providing ecological advice on the management of Trust sites and writing management plans etc.

He also undertakes consultancy work including surveys for bats, great crested newts and other protected species, and holds a Natural England Bat Survey Class Licence CL18 (licence registration no: 2015-12411-CLS-CLS), and a great crested newt class licence CL08 (licence registration no: 2015-17174-CLS-CLS).

1.2 Site Description

The site is located on the east side of Charlton Road in the hamlet of Charlton c. 0.5km from the south and west edges of Hitchin centred at Ordnance Survey Grid Reference TL178280. The c. 0.5ha application site consists of a farmyard containing a range of mostly modern agricultural buildings, with areas of improved grassland to the north and northwest, and the headwater of the River Hiz running through the centre of the site.

Housing and agricultural buildings of various ages and construction are directly to the south and west of the site, interspersed and surrounded by small fields of pasture, with belts of woodland alongside the River Hiz to the north and south of the village. Mixed farmland is the predominant land-use in the area with the parkland and woodland associated with Hitchin Priory to the northeast of Charlton, and the extensive housing and commercial buildings of Hitchin beyond it c. 0.5km to the north and east.

1.3 Proposed Works

Given that the presence of protected species and habitats is a material consideration in the planning process (NPPF), a survey is required to provide information to the local planning authority (North Hertfordshire District Council) on any impact the proposal is likely to have on any habitats or species present. Any impact identified on protected species will need mitigation proposals to be put forward to the planning authority to ensure any populations in the area are maintained at a favourable conservation status.

1.4 Aims of Survey

The aims of the survey are to:

- Assess the current use of the buildings by bats, barn owls and nesting birds and assess the impact of the proposed development on any protected species using the buildings.
- Conduct an ecological survey of the application site to identify habitats and species present and assess their importance for biodiversity and determine the impact of the proposed development on any habitats or protected species at the site.
- Produce a mitigation plan for any impact on protected species to ensure the population is maintained at a favourable conservation status in the local area.

- Propose biodiversity enhancements to be included in the development to provide a net gain for biodiversity as required by the NPPF.

2. LEGISLATION RELEVANT TO PROTECTED SPECIES

2.1 Bats

Throughout Europe in the last 30 years there has been an awareness that bat populations are declining considerably. This decline combined with their special roosting requirements has led to them being given special protection by law. All bats and their roosts are protected by law under The Wildlife and Countryside Act 1981 (as amended), through inclusion in schedule 5, section 9. From 1st April 2010, a new version of the Habitats Regulations came into force in England and Wales to become the Conservation of Habitats and Species Regulations. This version of the legislation updates and consolidates all the amendments to the Regulations since they were first made in 1994 and effectively makes any disturbance of bats an offence. In summary, taken together the legislation makes it illegal to:

- Intentionally kill, injure or capture bats;
- Intentionally or recklessly disturb bats while they are occupying a structure used for shelter or protection;
- Intentionally or recklessly damage, destroy or obstruct access to areas used by bats for shelter or protection.

Structures used by bats for shelter are commonly known as bat roosts. Because bats tend to re-use the same roosts, legal opinion is that, the roost is protected whether or not the bats are present at the time. The appropriate Statutory Nature Conservation Organisation (SNCO) must be consulted of any work that may affect bats, or their roosts. In England, the appropriate SNCO is Natural England who will advise as to whether work can be carried out, and if so, the methods to be used.

Developments that would contravene the protection afforded to bats under the Conservation of Habitats and Species Regulations 2010 require a Habitat Regulations Licence issued by Natural England before any works can commence. Three tests must be satisfied before Natural England can issue a licence or permit otherwise prohibited acts. The Local Planning Authority will need to ensure that tests 1 and 2 have been satisfied and Natural England will need to be consulted regarding test 3. The three tests are:

1. That the development is 'in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of social or economic nature and beneficial consequences of primary importance for the environment' (Regulation 44 (2) (e)).
2. That there is no satisfactory alternative (Regulation 44 (3) (a)).
3. That the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range (Regulation 44 (3) (b)).

The legislation means that the developer will need to have a clearly documented compensation strategy to maintain the numbers of bats in the local area.

2.2 Barn Owls and Nesting Birds

Nesting birds and schedule 1 birds such as barn owl are protected by law under The Wildlife and Countryside Act 1981 which makes it an offence to kill, injure or take any wild bird, and take, damage or destroy any nest in use or being built or any egg.

2.3 Badgers

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992. This act consolidates all previous legislation including the Badgers Act 1973 and the Badgers (Further Protection) Act 1991. Under the 1992 Act it is an offence to:

- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- possess a dead badger or any part of a badger;
- cruelly ill-treat a badger;
- use badger tongs in the course of killing, taking or attempting to kill a badger;
- dig for a badger;
- sell or offer for sale or control any live badger;
- mark, tag or ring a badger;
- interfere with a badger sett by:
 - damaging a sett or any part thereof;
 - destroying a sett;
 - obstructing access to a sett;
 - causing a dog to enter a sett;
 - disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: “any structure or place which displays signs indicating current use by a badger”.

Badger setts can be disturbed inadvertently by earth moving operations, excavation and coring and any work that disturbs badgers whilst occupying a sett is illegal without a licence from Natural England. It is emphasised that badgers can be disturbed by work near a sett even if there is no direct interference or damage to the sett. For this reason, Natural England has provided guidelines on the types of activity which it considers should be licensed within certain distances of sett entrances. For example the following may require a licence:

- using very heavy machinery (generally tracked vehicles) within 30 m of any entrance to an active sett;
- using lighter machinery (generally wheeled vehicles), particularly any digging operation, within 20 m;
- light work such as hand digging or scrub clearance within 10 m.

2.4 Great Crested Newts

Great Crested Newt is listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), receiving protection for the animal and its habitat.

Under the Wildlife and Countryside Act it is illegal to undertake the following:

- Intentionally or deliberately kill, injure or capture great crested newt;
- deliberately disturb great crested newt;
- damage, destroy or obstruct access to and any structure or place used for shelter or protection by great crested newt;
- possess or transport a great crested newt or any parts of a great crested newt unless acquired legally;
- sell, barter or exchange great crested newt or any parts of great crested newts.

In order for otherwise illegal acts to proceed lawfully, the appropriate licence must be sought.

2.5 Reptiles

All common native reptile species (grass snake, adder, common lizard and slow-worm) are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which makes it illegal to intentionally kill or injure a common reptile.

3. METHODOLOGY

An internal and external inspection of the buildings was made on the 19th July 2022 by Philip Irving MCIEEM, and evidence of use by bats and other protected species was looked for, for example droppings, urine streaks, nesting/roosting sites, feeding remains or live animals.

Bats may roost in a variety of situations including within the hollows of timbers, within gaps in brickwork, or below the ridge beam inside buildings. Buildings can be considered as potential roosts if cracks or holes in excess of 8mm x 12mm are present. Such gaps are large enough to allow the smallest species of bats to gain access. It is usual for bats to select roosting areas that are sheltered and warm, avoiding exposed draughty conditions.

Constraints - Bat roosts are of a transient nature and bats may move from roost to roost. A single bat may use a large number and wide variety of roosts during the year. This behaviour may result in some roosting sites not being encountered during the dates of the survey.

Following the inspection survey of the buildings, a walkover survey of the application site was made to identify habitats and species present. The survey also included a list of bird species seen or heard within or in close proximity to the site: a search for potential bat roosting opportunities in trees, looking for deadwood features such as holes, hollows and loose bark that could support roosting bats; evidence of badger activity, either setts or signs of foraging behaviour such as paths and dung pits; and a visual search for reptiles and amphibians.

The weather at the time of the survey was sunshine with a moderate south-easterly breeze and a temperature of 36°C.

4. RESULTS

4.1 Desk Study

There are no statutory protected sites such as SSSI's within 1km of the application site, though the edge of the Chilterns AONB is c. 1.4km to the northwest. The River Hiz chalk stream runs through the centre of the site and its source is at Wellhead Farm c. 0.5km to the southwest. The stream has areas of secondary deciduous woodland alongside it, the nearest c. 100m to the southwest and c. 200m to the northeast of the site, with a small traditional orchard alongside it c. 150m to the north. Other areas of deciduous woodland are present on the south edge of Hitchin c. 300m to the north of the site, with the only other habitat of interest consisting of areas of good quality semi-improved grassland at Maydencroft Manor c. 350m to the southeast.

Bat records within 2km of the site include common and soprano pipistrelle, brown long-eared, natterer's and Daubenton's bat including a common pipistrelle roost on the western edge of Hitchin c. 800m to the northeast of the site, two roosts of brown long-eared bat c. 1km to the northwest, a roost of soprano pipistrelle c. 1.6km to the north, and a roost of common pipistrelle, brown long-eared and natterer's bat at Gosmore Hill c. 2km to the south. Other mammal records include frequent records of hedgehog from Hitchin and occasional brown hare, badger and polecat. There are also records of various amber and red-listed and other protected birds including skylark,

kingfisher, meadow pipit, swift, cuckoo, house martin, yellowhammer, kestrel, swallow, linnet, house sparrow, dunnock, bullfinch, starling, song thrush, mistle thrush, barn owl and lapwing. The nearest reptile records are of grass snake, slow-worm and common lizard from Hitchin more than 1km from the site with records of common frog, common toad and smooth newt within 1km, with the nearest record of great crested newt near St. Ippolyts c. 2km to the southeast.

4.2 Description

The buildings subject to the survey are described below and numbered as shown on the plan at the end of the report:

Building 1 – A one storey brick barn with sliding wooden doors on the south elevation and a pitched corrugated sheeting roof, unlined and vaulted internally. The south end of the barn is divided internally by brick walls into two stores, with the centre of the barn divided into five enclosed grain stores that are fed by pipework that leads to extensive machinery in the north of the barn. There are walkways along the east and west sides of the grain stores, the eastern one within the main structure of the barn, though the one on the west side consists of a low-sided corrugated sheeting structure with a mono-pitched roof, with a concrete track along its northwest side. The barn is in good structural condition with no significant damage to the well-pointed brick walls or the roof, and is considered to have negligible potential to support roosting bats.

Attached to the north end of the barn and connected internally to it are a flat-roofed corrugated iron shed and a steel-framed and pitched roofed corrugated sheeting machinery store that is open-sided on the east elevation. Due to the materials used in their construction, the sheds are considered to have no potential to support roosting bats.

Building 2 – A modern concrete-framed shed with corrugated sheeting on the walls and the low-pitched roof. Double sliding doors on the north and south elevations provide access to the undivided and vaulted interior, which is used as a workshop and vehicle and hay store. The shed is in good structural condition with no significant damage to the walls and roof, though there is ivy (*Hedera helix*) on part of the east elevation, and combined with the materials used in its construction and the high levels of disturbance from its use, it is considered to have negligible potential to support roosting bats.

Attached to the east elevation of the shed is a low, one storey brick barn with a pitched and hipped slate roof, and is partly overgrown with ivy, sycamore (*Acer pseudoplatanus*) saplings, buddleia (*Buddleia davidii*) and elder (*Sambucus nigra*).

Building 3 – A modern concrete-framed shed used for storing firewood and other materials, mostly open-sided with a low-pitched corrugated sheeting roof, and unlined internally with occasional skylights, making the interior very light and draughty. Part of the southwest elevation either side of the entrance is constructed of breeze block and corrugated sheeting, and there are timber-framed and open-sided sections with flat, corrugated iron roofs attached to the southwest, southeast and northwest sides of the shed.

Directly to the southeast of the shed is a timber-framed shed with a flat, corrugated iron roof that is open-sided apart from corrugated iron on the southeast elevation, which is mostly covered in dense ivy. Directly to the northeast of the shed is another timber-framed and open-sided shed with a flat profiled steel sheeting roof. To the northwest of this shed is a corrugated iron and timber panel shed with a curved corrugated iron roof that is divided from the main shed by a stand of buddleia and elder.

Due to the materials used in their construction and most being open-sided, all the sheds are considered to have no potential to support roosting bats.

Building 4 – Open-sided timber framed barns with flat, corrugated iron roofs, partly covered in dense ivy. Due to their open-sided construction they are considered to have no potential to support roosting bats.

Building 5 – Located in the field to the northwest of the farmyard is a low one storey wooden shed with a pitched timber-framed corrugated sheeting roof, unlined internally with part of the roof missing at the north end. The disused shed is divided internally into meshed and panelled cages and has numerous unglazed and meshed windows that make the interior very light and draughty. Due to this and the materials used in its construction the building is considered to have no potential to support roosting bats.

The only other structures at the site are two steel silos to the east of Buildings 1 and 2 that have no potential to support roosting bats.

The farmyard consists mostly of unvegetated hardstanding and concrete yards with areas of sparse disturbed grassland and weed vegetation on the edges, with a larger area of heavily rabbit grazed disturbed grassland to the north of the buildings. The grassland is dominated by perennial rye grass (*Lolium perenne*) with frequent cocksfoot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*), patches of common ragwort (*Senecio jacobaea*), hairy sedge (*Carex hirta*) and creeping thistle (*Cirsium arvense*), and occasional false oat grass (*Arrhenatherum elatius*), annual meadow grass (*Poa annua*), greater plantain (*Plantago major*), ground ivy (*Glechoma hederacea*), yarrow (*Achillea millefolium*) and herb robert (*Geranium robertianum*). The northern area of grassland is fringed by dense OV25-Urtica-Cirsium ruderal vegetation dominated by nettle (*Urtica dioica*) and creeping thistle, with a row of mature of mature ash (*Fraxinus excelsior*), elder and one false acacia (*Robinia pseudoacacia*) on its north edge. The species-poor improved grassland in the field to the northwest of the farmyard is similar and also heavily rabbit grazed and sparse near the south entrance and at the north end.

The headwater of the River Hiz that flows through the centre of the site is a shallow chalk stream containing abundant water starwort sp. (*Callitriche* sp.) with occasional watercress sp. (*Nasturtium* sp.) and water mint (*Mentha aquatica*). The banks are covered in ruderal vegetation dominated by great willowherb (*Epilobium hirsutum*), pendulous sedge (*Carex pendula*), nettle and cleavers (*Galium aparine*) with occasional broad-leaved willowherb (*Epilobium montanum*), broad-leaved dock (*Rumex obtusifolius*), common mallow (*Malva sylvestris*), lesser burdock (*Arctium minus*), great mullein (*Verbascum thapsus*), spear thistle (*Cirsium vulgare*), prickly lettuce (*Lactuca serriola*), perforate St. John's wort (*Hypericum perforatum*), common ragwort, hogweed (*Heracleum sphondylium*), field forget-me-not (*Myosotis arvensis*), smooth hawksbeard (*Crepis capillaris*) and white bryony (*Bryonia dioica*). Among the ruderal vegetation is scattered young tree and scrub regeneration of ash, alder (*Alnus glutinosa*), hawthorn, field maple (*Acer campestre*), dog rose (*Rosa canina*) and bramble (*Rubus fruticosus*). At the north end of the site the stream is heavily shaded by mature and semi-mature ash trees that suppress the aquatic and marginal vegetation.

The c. 3-4m high hedgerows along the southeast and northeast boundaries of the site have a dense structure and are dominated by hawthorn (*Crataegus monogyna*) and elm sp. (*Ulmus* sp.) with frequent elder and occasional ornamental shrubs including rose sp. (*Rosa* sp.) and *Cotoneaster* sp. with the base of the hedgerows dominated by nettle and cleavers. The hedgerows along the northwest and southwest boundaries of the northwest field are dominated by hawthorn and blackthorn (*Prunus spinosa*) with occasional elm sp., elder, wild privet (*Ligustrum vulgare*), wild hop (*Humulus lupulus*), bramble and white bryony. The northwest hedgerow is c. 3-4m high but the southwest hedgerow is trimmed to c. 2-3m high and there is a stand of elder in the southwest corner of the field.

An ivy-covered brick wall and corrugated iron fencing is present on the boundaries of the farmyard in the southeast corner of the site, with a low wooden fence along the north boundary of the northwest field.

4.3 Field Survey

No evidence of bats was found in any of the buildings.

The only tree that contained deadwood features that could support roosting bats was the mature ash at the north end of the River Hiz which contained dead branches and woodpecker holes in the trunk.

No evidence of barn owls was found in any of the buildings, and the only evidence of nesting birds was a large disused bird nest, probably jackdaw, on the machinery in the north end of Building 1.

Birds recorded in and around the site consisted of grey heron (along the River Hiz), woodpigeon, jackdaw, blackbird, house sparrow, goldfinch, wren and great tit.

No evidence of badgers was found and no reptiles or amphibians were recorded.

5. ASSESSMENT

5.1 Bats

No evidence of bats was found in any of the buildings, which are all considered to have negligible or no potential to support roosting bats as they are mostly constructed of materials such as timber, breeze block and corrugated sheeting which provides few roosting opportunities for bats with the timber and corrugated sheeting having poor insulation properties. Some are also open-sided that make their interiors very light and draughty, which would deter roosting bats. In spite of this, the presence of bats can never be discounted entirely and there is still the potential for direct disturbance of any hidden roosting bats that may be present during building or demolition work.

The only tree at the site that contains any deadwood features that could have potential to support roosting bats is a mature ash along the River Hiz. The tree would be retained, though a check for bats would need to be made if any tree surgery work is carried out on it.

The River Hiz, boundary hedgerows and adjacent trees to the north of the site would provide good foraging habitat for bats, and any new external lighting should be kept to a minimum and directed away from them. The site would only be a very small part of any bats foraging area so the impact on bats in this respect would be low.

5.2 Barn Owls and Nesting Birds

No evidence of barn owls was found in any of the buildings though as nesting birds are protected by law under The Wildlife and Countryside Act 1981, a check for nesting birds will need to be undertaken prior to building and demolition work commencing on any of the buildings or the removal of any woody vegetation, which should ideally avoid the bird nesting season.

5.3 Great Crested Newts and Reptiles

No reptile or amphibians were recorded, with the hardstanding and concrete yards and sparse grassland and weed vegetation providing poor terrestrial habitat for these species, though the dense ruderal vegetation alongside the River Hiz could provide cover for them. There are no records of great crested newt within 1km of the site, and a great crested newt licence would not be required for

the development, with a non-licensed strategy of reasonable avoidance measures sufficient to minimise the risk of this or any other amphibian or reptile species being harmed during clearance and construction work.

5.4 Habitats and Vegetation

Most of the habitats and vegetation at the site are not of significant biodiversity interest, consisting of species poor disturbed grassland, ruderal and weed vegetation supporting only common plant species typical of these habitats. The hedgerows along the boundaries of the site are quite species-poor, being mostly dominated by hawthorn, blackthorn and elm, though they have a dense structure.

The River Hiz running through the middle of the site is a chalk stream of greater biodiversity interest and care would need to be taken that a sufficient buffer of semi-natural vegetation is retained either side of it. Precautions will also need to be taken to ensure that there is no run-off of silt, chemicals or oil into the stream, both during work and after completion of the development.

6. RECOMMENDATIONS AND MITIGATION

6.1 Bats

Bats and their roosts are protected by law under The Conservation of Habitats and Species Regulations 2010 and a European Protected Species license to derogate from this protection would be required to allow building and demolition work to be undertaken if a roost was present and the proposed activity is likely to result in an offence, such as significant alterations to or loss of bat roosts. As no evidence of roosting bats was found in any of the buildings and they are of negligible or no potential to support them, a licence from Natural England would not be required for the proposed development, though it is recommended that the following precautionary measures are implemented to reduce the impact of disturbance to bats as a result of the proposed work:

- Preliminary building and demolition work will be undertaken with care, with any roof coverings removed by hand and in an upwards direction to minimise any possible impact on any bats which may be present. If any bats or evidence of them is discovered, work will stop, and if necessary, a licence will be obtained before work proceeds.
- Any timber treatment products required will be sanctioned by Natural England and a check for roosting bats made before timber treatment commences.
- A toolbox talk will be given to all contractors working on the buildings to make them aware of the potential presence of bats, the protection afforded them, the methods of working required to avoid harm to bats, and what to do in the event that bats are found.

Any tree surgery work required on the mature ash tree along the River Hiz should be carried out with care and a check for evidence of bats made prior to work commencing, with any holes or cavities exposed for evidence of bats, using an endoscope if necessary.

New roosting opportunities for bats could be provided in the development by incorporating artificial cavities such as Habibat bat boxes into the south or west elevations of some of the buildings to provide a gain for biodiversity within the development as required by the NPPF.

Any new external lighting required, either temporary lighting during building work or permanent lighting post development, will be low level and not be directed at the River Hiz, boundary hedgerows, the adjacent trees to the north of the site and any new roosting features to minimise any impact on foraging and roosting bats. Where external lighting proves necessary it should consist of

LED light sources or be fitted with directional accessories (i.e. hoods, cowls, shields, louvres) to minimise light spillage and direct light away from sensitive areas.

6.2 Nesting Birds

As nesting birds are protected by law under The Wildlife and Countryside Act 1981, initial building or demolition work, or any clearance of woody vegetation, should be timed to avoid the bird nesting season (which is generally from March to September). If this isn't possible, a check for nesting birds will be undertaken prior to works commencing by an ecologist. If an active nest is found, work must cease and an appropriate sized buffer established around the nest. The buffer must remain intact until it has been confirmed that the young have fledged and the nest is no longer in use.

New nesting opportunities for birds could also be provided in the development, for example by incorporating swift nest bricks under the north facing eaves of some of the buildings to provide a further gain for biodiversity.

6.3 Badgers and Hedgehogs

No evidence of badgers was found at the site, though as a precaution any excavations which are necessary will either be covered at night or fitted with suitable ramps in order to prevent any foraging badgers or other mammals such as hedgehogs from becoming trapped. These will be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches. Any pipes that need to be left overnight on site will also be capped to avoid animals becoming trapped.

Small holes (13cm square gap) should be provided at the base of any new solid boundary features such as closeboard fencing to maintain habitat connectivity and access to foraging and nesting opportunities for hedgehogs.

6.4 Amphibians and Reptiles

The following reasonable avoidance measures will be employed as part of a non-licensed strategy to reduce the risks to amphibians and reptiles during clearance and construction work:

- All vegetation due for clearance will be cut no lower than 150mm high using hand tools only, or kept close cut from February onwards prior to work commencing, to deter any species from using it as cover, and to make it easier to find any that may be present. Any animals that are found will be collected and moved to suitable undisturbed areas of long vegetation on the adjacent farmland. Animals will be transported in a covered black bucket to reduce stress and will not be contained for longer than 30 minutes. If great crested newts are found whilst works are on-going despite following good practise guidelines, all work will stop and the situation re-assessed and a mitigation licence applied for if necessary. Any handling of this species will only be carried out by someone with a great crested newt license.
- If construction work is carried out at a time of year when these species are likely to be active, the following precautions will be carried out:
 - Excavations will be backfilled, covered overnight, or ramps placed in to allow any animals to escape
 - Machinery, materials etc. should be stored on areas of hardstanding or raised off the ground on pallets where possible
 - Waste materials will be removed off site immediately or stored in skips where possible
 - Concrete will not be left unset overnight, or suitable barriers erected to prevent newts accessing the concrete.

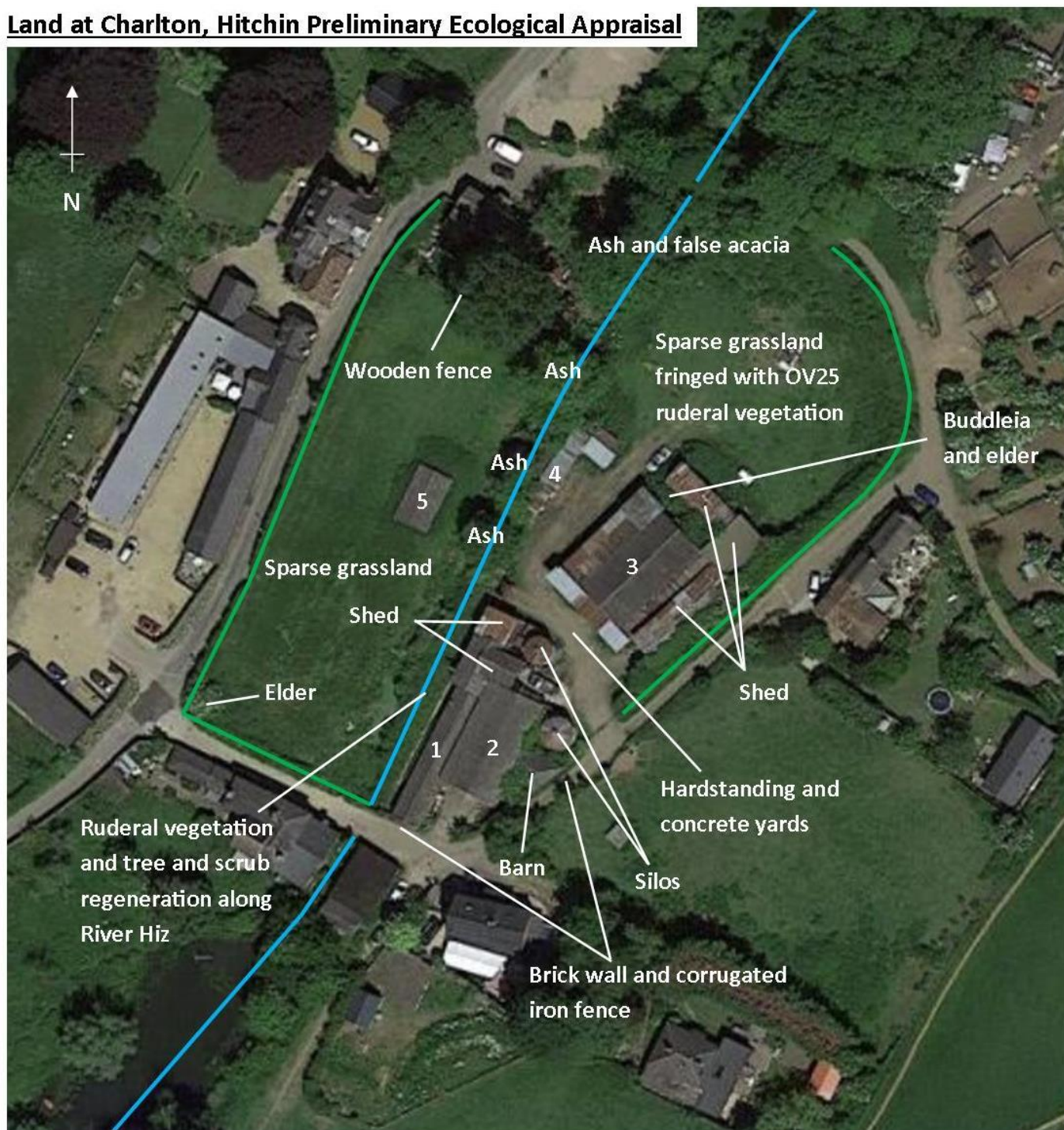
- Excavations and working areas will be managed so as not to create temporary waterbodies which may attract newts onto the site.

6.5 Habitats and Vegetation

As many of the existing trees and hedgerows should be retained in the development and the planting scheme should use a high proportion of indigenous or berry bearing tree and shrub species as they have a higher value for local wildlife.

Precautions should be implemented to prevent any discharge of silt, chemicals or oil from entering the River Hiz, both during work and after completion of the development. Chemicals such as fuel or oil should be stored in a designated area away from the stream, and this storage area should be constructed of sand bags which will minimise any escape of spilled substances.

Land at Charlton, Hitchin Preliminary Ecological Appraisal



Key

- 4 Buildings subject to survey (as described in text)
- River Hiz
- Hedgerow

APPENDIX

Photographs



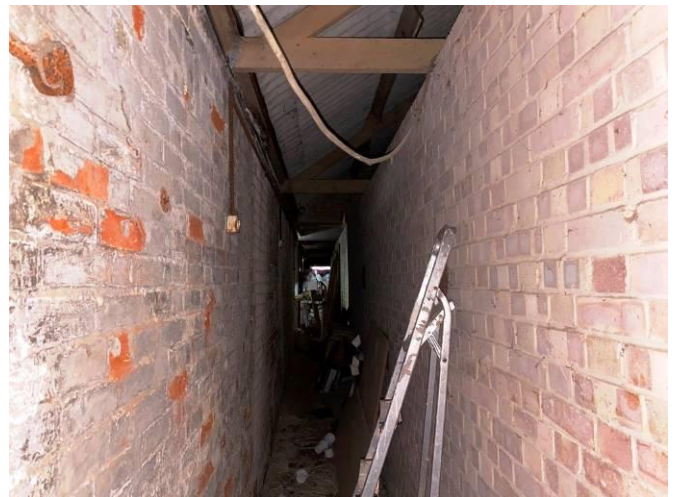
Store at south end of Building 1



Grain store in centre of Building 1



Machinery at north end of Building 1



Walkway on east side of grain stores in Building 1



Walkway on west side of grain stores in Building 1



Exterior of walkway on west side of Building 1



Corrugated iron shed to north of Building 1



Machinery store and silo to north of Building 1



South elevation of Building 2



North and east elevations of Building 2 and silo



Interior of Building 2



Barn attached to east elevation of Building 2



Southwest and northwest elevations of Building 3



Interior of Building 3



Shed to southeast of Building 3



Shed to northeast of Building 3



Curved roofed shed to northeast of Building 3



Interior of curved roofed shed



Building 4



South and east elevations of Building 5



North and west elevations of Building 5



Interior of Building 5



Grassland to north of buildings



Grassland in field to northwest of buildings



River Hiz



Water starwort in River Hiz



Pendulous sedge along banks of River Hiz



Ruderal vegetation and scrub along banks of River Hiz



Semi-mature ash trees along River Hiz



Mature ash along River Hiz



Hedgerow along southeast boundary



Hedgerow along northwest boundary of northwest field



Hedgerow along southwest boundary of northwest field



Corrugated iron fence and wall in southeast corner