stark ecology ltd

PRELIMINARY ECOLOGICAL APPRAISAL REPORT

NEW ACCESS TO OAK LODGE, WEST YATTON, WILTSHIRE

BY

stark ecology ltd

JUNE 2023

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INTRODUCTION

Stark Ecology Ltd was asked by Stonewood Builders to carry out a Preliminary Ecological Appraisal survey of a section of hedgerow and part of a field where a new site access to Oak Lodge is proposed.

The new site access is located at OS Grid Reference ST858747 and is to the north of the A420, close to the rural village of West Yatton, near Chippenham. The site access is surrounded by open countryside which supports mixed farmland with excellent connectivity to woodland and hedgerow networks.



Fig 1: Oak Lodge is surrounded by mixed farmland with excellent connectivity to hedgerow networks and woodland.

The Preliminary Ecological Appraisal was carried out by Georgie Starkie BSc (Hons) MSc MRSB (Natural England Class 2 Bat Licence Number 2015-13123-CLS-CLS) on 23rd May 2023 when the weather was clear and dry with no wind and the temperature was c.18°C.

METHODOLOGY

Data Search

A data search was requested from the Wiltshire and Swindon Biological Records Centre (WSBRC) for records of protected and notable species and designated sites within 2km of West Yatton.

The MAGIC website was also used to search for any European Protected Species licences which have been granted by Natural England for work at sites within 2km.

Preliminary Ecological Appraisal

The site was surveyed according to the Extended Phase 1 Habitat Survey guidelines set out by the Joint Nature Conservancy Committee (JNCC), in which the habitats present on site are classified. Any signs of protected or notable species were also recorded:

Bats: Trees which are proposed for removal were surveyed in accordance with the Bat Survey Guidelines, published by the Bat Conservation Trust (BCT).

The habitats on site were assessed for their potential to provide commuting and foraging habitat for bats.

Badgers: Evidence of badgers was sought, in particular badger setts which can be recognised by their characteristic size and shape, with large spoil heaps outside entrances. Other signs such as latrines (small pits in which badgers deposit their faeces), pathways through vegetation, hairs adhering to vegetation or sett entrances and snuffle holes indicating foraging were also noted.

Hazel dormouse: The habitats on and surrounding the site were assessed for their suitability to support hazel dormouse.

Great crested newts: The habitats on and surrounding the site were assessed for their suitability to support great crested newts.

Reptiles: The habitats on site were assessed for their suitability to support reptile species.

Nesting birds: The habitats on site were assessed for their suitability to support nesting birds.

Hedgehog: The habitats on site were assessed for their suitability to support hedgehog.

Limitations

This survey provides a brief snapshot of the site at the time the work was carried out and while every step was taken to ensure that the results of the survey are accurate, features of ecological value can change and therefore this report is only valid for 12 months.

RESULTS

Desk Study

Habitats

Oak Lodge lies within the core area for lesser horseshoe *Rhinolophus hipposideros* bats associated with the Bath and Bradford on Avon Bats Special Area of Conservation (SAC).

There are four Sites of Special Scientific Interest (SSSI) within 2km of West Yatton:

- West Yatton Down SSSI is c.850m to the northwest and is an outstanding example of lightly grazed unimproved limestone grassland. The steep slopes have an abundance of grass and shrub species. The site is of great value for butterflies, some are also associated with the scrub which occurs alongside the seasonal stream.
- Rack Hill SSSI is c.1.4km to the northwest and supports coarse, relatively species-poor grassland which grade into areas of shorter turf with more extensive unenclosed woodland at the south of the site.
- Honeybrook Farm SSSI is c.1.6km to the southwest and comprises a series of unimproved neutral to calcareous hay meadows, unimproved limestone grassland, ancient semi-natural woodland, a small lake and an undisturbed meandering stretch of river.
- Dank's Down and Truckle Hill SSSI is c.1.6km to the northwest and occupies the south and southwest facing slopes of a deeply incised valley situated on the Great Oolitic limestone of Jurassic age. The grassland exhibits a varied structure, with both regularly and lightly grazed sward.

There are 30 Local Wildlife Sites (LWS) within 2km of Oak Lodge, all of which support grassland or woodland habitats as well as running water with its associated marginal habitats. Oak Lodge does not lie within or adjacent to any of these LWS.

Approximately 130m to the west of the site and separated from it by a small rural road, is a Protected Road Verge (Ford to Giddeahall Verge) which is also designated as a Local Geological Site (LGS).

The site does not support any Protected or Notable habitats and is not adjacent to any Priority Habitats.

Species

The results of the data search include records of thirteen bat species within 2km:

- Greater horseshoe *R. ferrumequinum*;
- Lesser horseshoe;
- Barbastelle *Barbastella barbastellus*;
- Serotine *Eptesicus serotinus*;
- Natterer's *Myotis nattereri;*
- Whiskered *M. mystacinus*;
- Brandt's *M. brandtii*;
- Daubenton's *M. daubentonii*;
- Noctule *Nyctalus noctula*;
- Leisler's *N. leislerii*;
- Common pipistrelle *Pipistrellus pipistrellus*;
- Soprano pipistrelle *P. pygmaeus*; and
- Brown long-eared *Plecotus auritus*.

None of these bat records relate to the site itself.

The MAGIC website lists one bat licence granted for work at locations within 2km of Oak Lodge. In 2017, at a site c.1.9km to the southwest, a licence was granted for work resulting in the destruction of a resting place used by brown long-eared and lesser horseshoe bats.

Other mammal records include otter *Lutra lutra* and water vole *Arvicola amphibius*, predominantly along the By Brook which is more than 1km to the west and badger *Meles meles*, hedgehog *Erinaceous europaeus* and brown hare *Lepus europaeus* have all been recorded within 2km. Hazel dormouse *Muscardinus avellanarius* has been recorded c.2km to the northwest of West Yatton.

There are no records of great crested newts *Triturus cristata* within 2km of West Yatton.

All four of the common reptile species (slow worm *Anguis fragilis*, grass snake *Natrix natrix*, common lizard *Lacerta vivipara* and adder *Vipera berus*) have been recorded within 2km of Oak Lodge, although the adder records are historic.

Bird records include species associated with buildings (swift *Apus apus* and house martin *Delichon urbicum*), ground nesting species including lapwing *Vanellus vanellus* and golden plover *Pluvialis apricaria* and passerine species including linnet *Linaria cannabina* and green finch *Chloris chloris*.

Preliminary Ecological Appraisal

The site comprises the following habitats:

- Semi-improved grassland; and
- Trees.

Semi-improved grassland

The new access will lead onto a field of semi-improved grassland which is occasionally grazed but shows little sign of any other management. Species present include cocksfoot *Dactylis glomerata*, red fescue *Festuca rubra*, creeping buttercup *Ranunculus repens*, tufted hair grass *Deschampsia cespitosa*, nettle *Urtica dioica*, broadleaved plantain *Plantago major* and dock *Rumex obtusifolius*.



Fig 2: Semi-improved grassland.

This photo taken facing south on 23rd May 2023.

Trees

Six trees which are within a line of trees running along the northern boundary of the A420 will need to be removed in order to create the new site access. The trees that

are to be removed include an oak *Quercus robur*, two ash *Fraxinus excelsior* which are covered in ivy *Hedera helix*, hawthorn *Crataegus monogyna* and field maple *Acer campestre*.

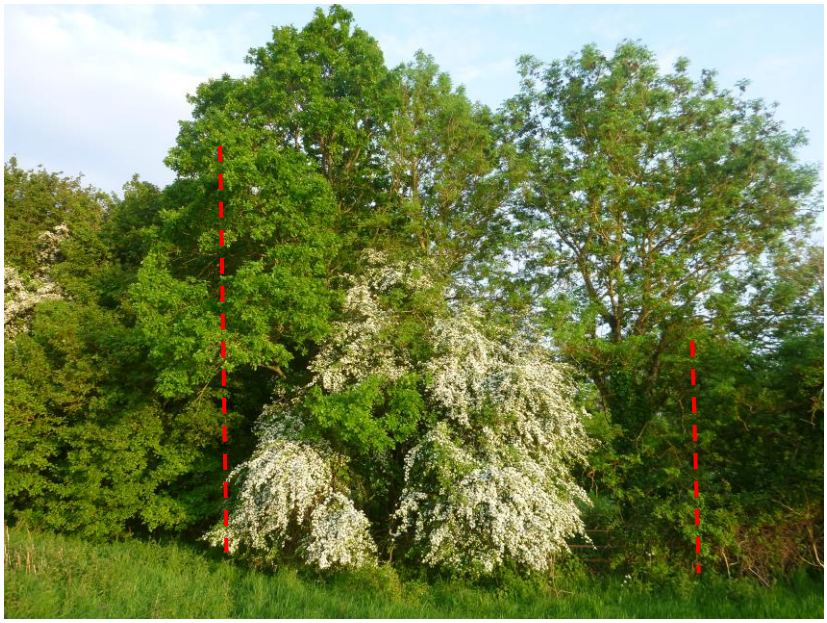


Fig 3: These trees (between the dashed red lines) will be removed to make way for a new access to Oak Lodge from the A420.

This photo taken facing south on 23rd May 2023.

Bats

Roosting

All the trees that will need to be removed to make way for the new access were assessed for their potential to support roosting bats. The hawthorn and field maple trees support no features in which bats could roost and the oak tree was also found to have a smooth bark with no cracks, splits, cavities or other features in the trunk or limbs which could be used as a roost. The oak, field maple and hawthorn trees all have Negligible potential to support roosting bats.



Fig 4: The oak tree which is proposed for removal has Negligible potential to support roosting bats.

This photo taken on 23rd May 2023.

The two ivy covered ash trees do not support any cracks, splits or other features that could be used by roosting bats but the dense ivy covering the trees could provide shelter on an occasional basis for small numbers of crevice dwelling bats. The ivy covered ash trees are both considered to have Low potential to support roosting bats, in accordance with the criteria set out in the Bat Survey Guidelines.

Commuting and Foraging

The semi-improved grassland and tree line provide high quality habitat for bats to use when commuting and foraging through the surrounding landscape. During emergence and re-entry surveys of Oak Lodge carried out in May and June 2023 use of the site by lesser horseshoe, greater horseshoe and barbastelle bats for these purposes was confirmed, with more common species also recorded.

Badgers

No badger setts were identified within the area of habitat which needs to be removed in order to create the new site access but the site supports suitable habitat for badgers as they commute and forage through the surrounding landscape.

Hazel Dormouse

There is a record of a hazel dormouse c.2km to the northwest of the site and trees which need to be removed in order to create the new site access could be used by hazel dormouse at all times of the year for commuting, foraging, breeding, nest construction and hibernation. The new site access will include the removal of only a small number of trees and so further surveys for hazel dormouse have not been carried out.

Great Crested Newts

The site supports suitable terrestrial habitat for great crested newt but there are no records of this species within 2km and no ponds or other waterbodies in which this species could breed are shown on OS maps within 500m of the location of the new access to Oak Lodge. As a result, great crested newts are not considered to pose a constraint to the development proposals for the site.

Reptiles

The grassland and field edge supports suitable habitat for common reptile species such as slow worm and grass snake, including over the winter hibernation period when they could hibernate in the root system of the trees.

Nesting Birds

The trees have the potential to support nesting birds between March and August (inclusive) and the semi-improved grassland could be used by ground nesting species.

Other Species

Brown Hare

The site supports suitable habitat for this species and it is possible that animals pass through the site on occasion while moving through the wider landscape.

Hedgehog

The site supports suitable habitat for hedgehogs to use when commuting and foraging through the wider landscape at night.

LEGISLATION

Bats

Bats are protected under Regulation 41 of the Conservation of Habitats and Species Regulations 2017 and under Section 9 of the Wildlife and Countryside Act 1981.

Under this legislation it is an offence to:

- Kill, injure or handle a bat;
- Possess a bat (whether alive or dead);
- Disturb a roosting bat; or
- Sell (or offer for sale) a bat (without an appropriate licence).

In addition, it is an offence to damage, destroy or obstruct access to a bat roost, whether it is currently in use or not.

Reptiles

All native reptile species are protected against intentional or reckless killing or injury by the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act.

The habitat of the four common species of reptile (common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, adder *Vipera berus* and grass snake *Natrix natrix*) does not receive additional protection.

Nesting Birds

The Wildlife & Countryside Act 1981 protects bird species in the UK and makes it an offence to:

- Intentionally kill, injure or take a wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- Intentionally take or destroy the egg of any wild bird.

Other offences under this legislation relate to taking and possessing specimens or the eggs of wild birds.

Hedgehog

Hedgehogs are a Species of Principal Importance (SoPI) under Section 41 of the NERC Act (2006) and should, as such, be conserved through the planning process. Hedgehogs would also fall under the provisions of the Wild Mammals (Protection) Act, 1996, which prevents certain cruel acts against wild mammals.

Brown Hare

Brown hare are a SoPI under Section 41 of the NERC Act (2006) and should, as such, be conserved through the planning process. Brown hare would also fall under the provisions of the Wild Mammals (Protection) Act, 1996, which prevents certain cruel acts against wild mammals.

DISCUSSION AND CONCLUSIONS

Bats

Roosting

The two ivy covered ash trees have Low potential to support roosting bats. In accordance with the Bat Survey Guidelines, no further surveys of these trees are required prior to their removal but they must be soft felled, with each section lowered to the ground and left overnight before being processed and removed from the site the following day.

Commuting and Foraging

The on-site habitats provide excellent habitat for bats as they commute and forage through the wider landscape and use of the site by a range of species was confirmed during emergence and re-entry surveys of Oak Lodge carried out in May and June 2023. The proposals will only result in the removal of a small number of trees with new tree planting around the site entrance proposed which will provide enhancement and allow the site to continue to be used for this purpose. No impact on the use of the site by bats as they commute and forage through the surroundings is anticipated as a result of the proposals to create a new site access to Oak Lodge.

Lighting is to be kept to a minimum but where new lighting is required for the purposes of safety or security, this will comply with ILP Guidance Note 8.

Badgers, Brown Hare and Hedgehog

No badger setts have been identified at the site and no latrines or snuffle holes were found. However, the site does support suitable foraging habitat for this species and so the following steps should be taken to avoid accidental harm to badgers and other wildlife (including brown hare and hedgehog) moving across the site during development works:

- Any trenches that have to be left open overnight must be adapted so that any animal that falls into it is able to escape, either by leaving a gradient at one end, or placing a structure (such as a plank of wood) in the trench to allow animals to climb out;
- Anything that may present a fire or other hazard (eg. stored chemicals) should be kept securely locked and made inaccessible to wild animals moving around the site at night.

Hazel Dormouse

The trees that are due for removal provide potentially suitable habitat for dormice and are connected in the wider landscape to hedgerow networks and woodland which provide a link to the location c.2km to the northwest where there is a record of this species from 2008. Dormice are almost exclusively arboreal and the removal of any section of hedgerow or other connecting habitat would be anticipated to result in impacts on hazel dormouse. However, this removal will be of a small number of trees, creating a gap which is less than 10m wide and which will allow tree canopies to grow above the new access, retaining habitat connectivity for this species.

In order to protect dormice and their nests, the trees will need to be removed to a height of c.30cm between December and February (inclusive), outside the active period for dormice. The removal of the trees will need to be supervised by a suitably licensed ecologist who will be able to provide advice in the event that a hazel dormouse or their nests are found.

The roots of the trees will need to be removed between April and September (inclusive), outside the hibernation period.

Enhancement

To enhance retained vegetation for hazel dormouse it is recommended that five dormouse nest boxes are installed in retained mature trees adjacent to those that are to be removed.

Reptiles

The site supports potentially suitable habitat for common reptile species such as slow worm, including for hibernation over the winter months in the root system of the trees. No surveys for reptiles have been carried out but their presence in the habitat within the site boundaries is assumed. On completion of construction work the site will continue to be suitable for reptiles and no loss of habitat connectivity is anticipated. To protect individual animals from harm during construction, the following precautionary working methods should be adopted.

Precautionary Working Methods

April – September (Inclusive)

If initial site works are to be carried out over the spring and summer months, when reptiles are active and could be present within the grassland in the construction area, the following approach to site preparation is recommended in order to avoid negative impacts on them.

Prior to any works commencing, and before any delivery of materials for the works, all vegetation in the construction area should be progressively mown to gradually reduce the length and density of the vegetation on site. The final cut should be as close to the ground as possible without scouring. Progressive mowing carried out over several days will encourage any reptiles and amphibians present to move out of the development area into surrounding retained habitat. Once the vegetation has been mown to ground level it must be kept close mown until works on site are complete. If the vegetation is allowed to re-grow reptiles may move back onto the development site and a progressive mowing regime should be reinstated to prevent harm to animals that have returned.

October – March (Inclusive)

The roots of the trees are suitable for reptiles to use over the winter hibernation period. Removal of the root system must avoid the winter hibernation period in order to avoid harm or disturbance.

Enhancement

To enhance the site for reptiles (and for amphibians and small mammals, including hedgehogs), the provision of a hibernacula in a quiet area of the site, away from disturbance from human activity, is recommended. The hibernacula should be created according to the following specification:

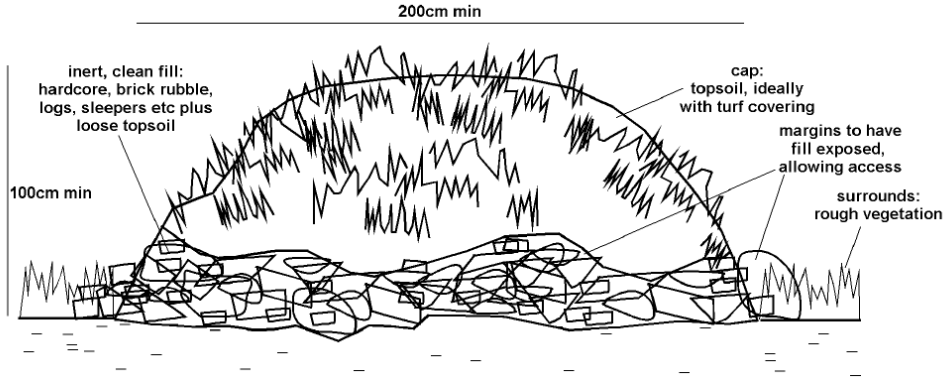


Fig 5: Hibernacula are to be created to this specification.

Nesting Birds

The trees are suitable for use by nesting birds and the use of the grassland in the field by ground nesting species is also possible.

Given the protection afforded to all breeding birds, their nests, eggs and young, it is strongly recommended that any removal of, or disturbance to, vegetation that offers

potential nesting habitat for breeding birds, should be undertaken between October and February, inclusive, outside of the main bird breeding season.

During this period October to February (inclusive) the vegetation should be cut down to ground level, using hand-held mechanised tools, and the arisings removed from the site. Should this seasonal constraint prove not to be practicable, then suitable surveys for active nests should be undertaken of any vegetation which is to be cleared during the nesting bird season (March to August, inclusive). These surveys should be undertaken by a suitably qualified ecologist immediately prior to the start of any works. If any active nest or nest under construction is found, then a buffer zone of at least 5m (with distance dependent upon species and location) should be created around the nest and maintained until all chicks have fledged. Once the fledglings are no longer dependent upon the nest, works can then re-commence.

It should be noted that significant delays can result to works being undertaken during the breeding bird season and, as such, it is strongly recommended that vegetation clearance works, where possible, are completed during the winter months.

REFERENCES

http://www.magic.defra.gov.uk/

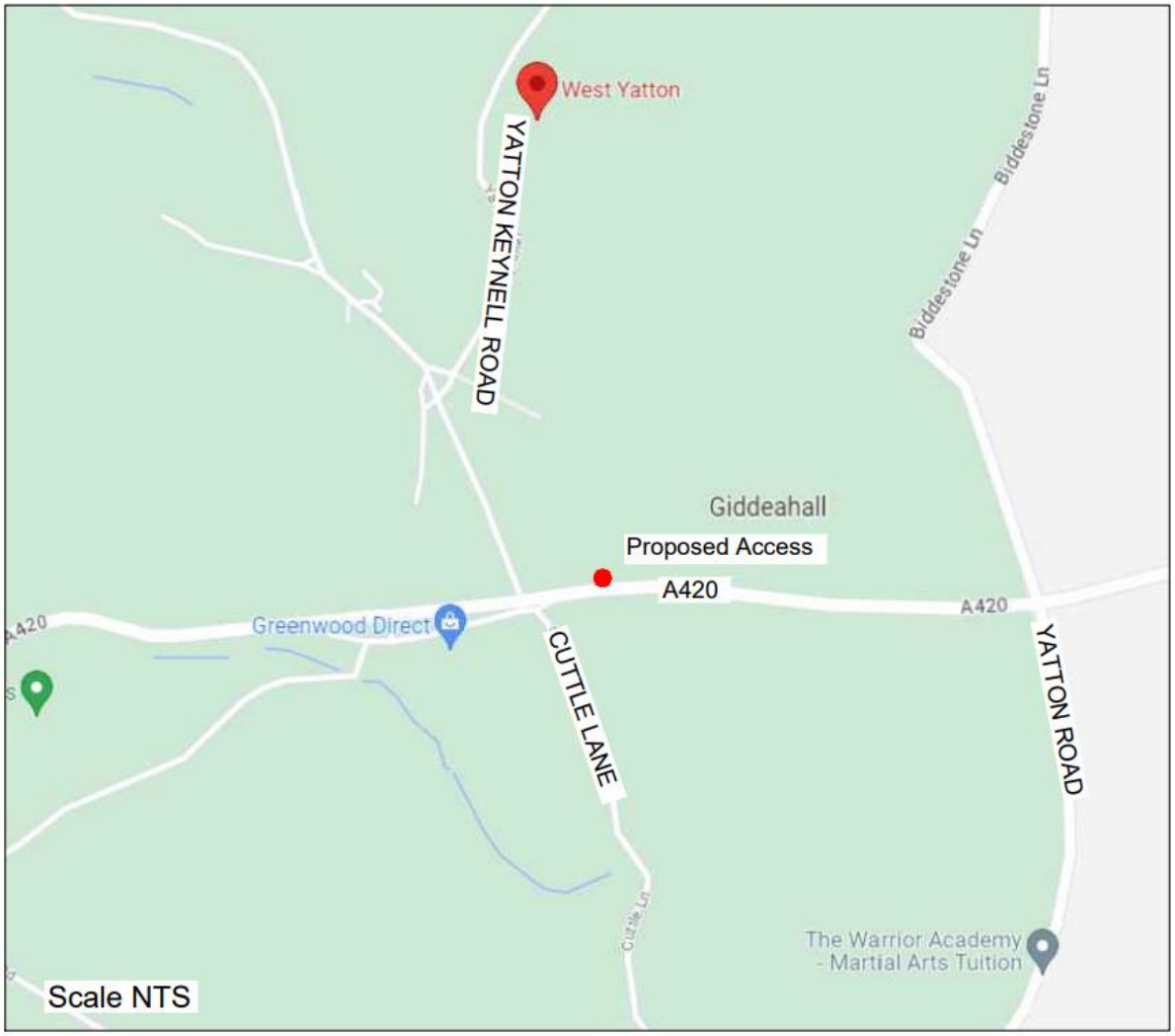
Bat Special Areas of Conservation (SAC). Planning Guidance for Wiltshire. September 2015.

Handbook for Phase 1 Habitat Survey: A technique for environmental audit. 2010. Joint Nature Conservation Committee (JNCC).

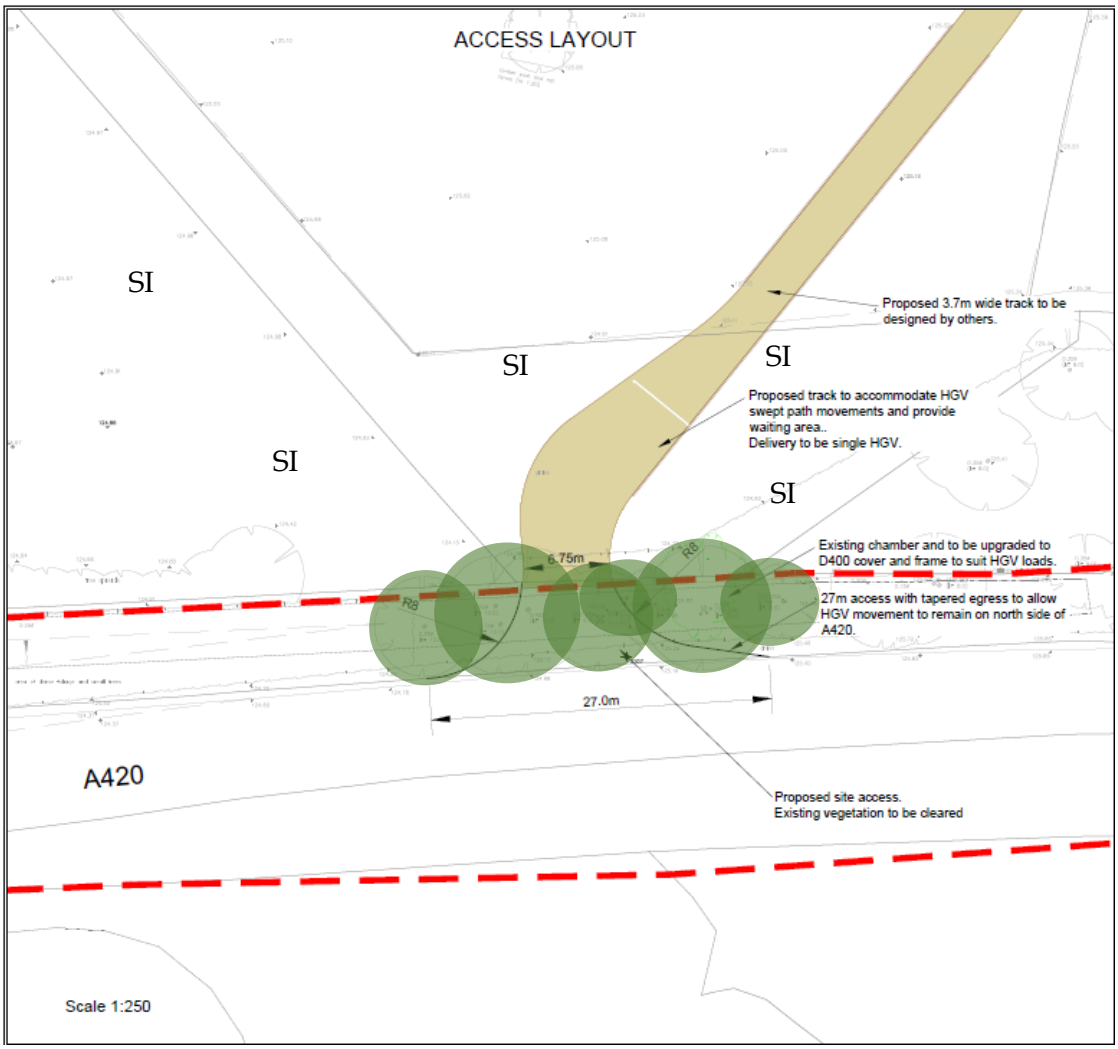
Collins, J. (ed.). (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition.). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.

APPENDIX 1: SITE MAP

SITE LOCATION PLAN



Habitat Map



Key

SI Semi-improved grassland

Trees