B E R N W O O D E C O L O G Y

✆ 01296 728351 · ✉ enquiries@bernwood.net · www.bernwood.net

The 'Springfield' Public House

Springfield, Milton Keynes,
Buckinghamshire

Preliminary Ecological Appraisal and Preliminary Roost Assessment Report

Campbell Park Parish Council

14th July 2021

SJ-SPH-21.001 (Issue 1)

Proud to be:

Hensmans Farm, Nearton End, Swanbourne, Buckinghamshire, MK17 0SL

Limitations

Ecological assessments can only assess a site at a particular time. This evidence can be used to draw conclusions as to the likely presence or absence of species (animals and plants), population size, use of the site by animals; it is neither definitive nor complete.

Any survey is a snapshot in time and should not be regarded as a complete study. Seasonality and weather conditions may also affect survey results.

The preparation of mitigation strategies, consultation exercise and submission of any licence applications cannot be relied upon until approved [licensed] in writing by third parties. Allowance must be made for both programme and financial change to projects as a result of application failure, amendment or refusal.

Every effort has been taken to provide an accurate assessment of the situation pertaining to this site and information available at the time of the preparation of this report, but no liability can be assumed for omissions, or subsequent changes to design and development.

Surveys have been based on anticipated work resulting from instruction and information supplied at the time of request. Additional works should be anticipated as surveys and proposals for the site progress.

No responsibility will be accepted for any use of or reliance on the contents of this report by any third party.

No responsibility will be accepted for changes or alterations made to this report following submission to Bernwood Ecology client.

Bernwood Ecology, its employees and associates reserve the right to report on any incidents or actions [deliberate or reckless] that result in a breach of licence conditions or are in contravention of existing legislation.

Quality Assurance

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Author: E. Dickins, MSc. MCIEEM, Senior Ecologist
Editor: E. Dickins, MSc. MCIEEM, Senior Ecologist
Proof-reader: S. Sanchez, MSc. CIEEM Qualifying Member, Assistant Ecologist

Executive Summary

Bernwood Ecology have undertaken a Preliminary Ecological Appraisal and Preliminary Roost Assessment, supported with a data search for historical species and site records, of the derelict 'The Springfield' public house and property in Milton Keynes. The proposals are for the redevelopment of the site, including demolition of the building, to create a new office hub for Campbell Park Parish Council.

The site includes principally a building, hardstanding and overgrown mixed native and non-native introduced shrub.

The survey evaluated the habitats onsite within the site boundary as negligible and low ecological value. The proposals will result in loss of all habitats on site. The redevelopment of the site presents opportunities to incorporate significant enhancements for biodiversity within the site designs. Opportunities for doing so are included.

The Preliminary Roost Assessment was constrained due to repeat vandalism and damage to the building. The building has been given a 'Low' potential to support roosting bats and further survey is required to provide a confidence in an absence of roosting bats.

Nesting birds are likely to use the building and vegetation within the site and adjacent to the site boundary. Vegetation clearance should be timed to avoid the spring and summer when nesting birds are most likely to be present.

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1. Introduction and Objectives

1.1 Bernwood Ecology were instructed by Campbell Park Parish Council (CCPC) through Smith Jenkins on 7th June 2021 to undertake a Preliminary Ecological Appraisal and a Preliminary Roost Assessment at the former public house known as 'The Springfield', 47 Springfield Blvd, Springfield, Milton Keynes MK6 3HR (SP 86678 38588) (Appendices 1 & 2).

1.2 The aims of the survey are to identify any ecological constraints to the development proposals, identify further survey effort required and provide recommendations on ecological enhancements for biodiversity net gain (CIEEM, 2017). As the proposals will directly impact the building within the site boundary, a Preliminary Roost Assessment was conducted to ascertain whether bats are likely to be using the building for roosting, through either the identification of evidence of bat presence or the suitability of the building to support roosting bats. Actual and potential roost entry/ exit points will be recorded and the species, roost type and roost size will be estimated if bats, or evidence of bats, is found.

1.3 The proposals are to demolish the existing building and construct a new office hub for the CCPC. Site designs are in early stages at the time of writing.

2. Legal Protection

2.1 The finding of this report represents the professional opinion of qualified ecologists and does not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this report.

2.2 The following information is a simplified summary of the legislation and the full text of the Wildlife & Countryside Act 1981 (as amended) (WCA 1981), the Conservation of Habitats and Species Regulations 2017 (2017 Regulations) and other legislation together with current published guidelines should be consulted.

European Protected Species

2.3 It is understood that 2017 Regulations will be further amended due to the departure of the UK from the EU on 31st January 2020. From that date the provisions in The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 will apply (see https://www.legislation.gov.uk/uksi/2019/579/contents/made). Existing protection for habitats and species including standards and assessment procedures will remain as they have been prior to the UK leaving the EU.

2.4 The 2017 Regulations and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 should be read together until further clarification or changes are made available by the UK Government or legal case law.

2.5 All European Protected Species (EPS; great crested newts, bats, otter, white-clawed crayfish, hazel dormice, etc.) are protected under the 2017 Regulations and the WCA 1981. It is an offence under section 41 of the 2017 Regulations to:

- deliberately capture, injure or kill any wild animal of a EPS;
- deliberately disturb a EPS (including in particular any disturbance which is likely to impair their ability to survive, breed or reproduce, rear or nurture their young; or to hibernate or migrate; or which affects significantly the local distribution or abundance of the species);
- deliberately take or destroy the eggs of a EPS;
- damage or destroy a breeding site or resting place of a EPS; or,
- possess, control, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a EPS, or any part of, or anything derived from a EPS.

2.6 Section 9(4) (b) and (c) of the WCA 1981 makes it an offence to:

- intentionally or recklessly disturb a EPS while it is occupying a structure or place which it uses for shelter or protection; or,
- intentionally or recklessly obstruct access to any structure or place which any EPS uses for shelter or protection.

2.7 In order for otherwise illegal acts to proceed lawfully, an appropriate licence must be sought under the 2017 Regulations and WCA 1981. Licences for the purpose of development are currently determined by Natural England and must include an appropriate mitigation and monitoring scheme to secure the "favourable conservation status" of the species in the local area.

Widespread Species of Reptile

2.8 Widespread species of reptiles (grass snakes, adder, slow worm and common lizard) are protected under the WCA 1981. These species receive partial protection under Section 9(1) and section 9(5). It is an offence to:

- intentionally kill or injure a common species of reptile; or
- sell, or attempt to sell a live or dead reptile or any part of or anything derived from it.

Badgers

2.9 Badgers are protected under the Protection of Badgers Act 1992 (PBA 1992). It is an offence (expect as permitted by or under the PBA 1992) to:

- wilfully kill, injure or take a badger or to attempt to do so;
- cruelly ill-treat a badger;
- intentionally or recklessly interfere with a badger sett by damaging or destroying a badger sett or any part of it or obstructing access to, or any entrance of, a

badger sett; causing a dog to enter a badger sett; or disturbing a badger when it is occupying a badger sett;
- possess or have control of a dead badger or a part of or anything derived from a badger; or,
- sell or offer for sale a live badger or to possess or have control of a live badger.

Water Voles

2.10 Water voles are fully protected under Section 9 of the Wildlife & Countryside Act 1981 (as amended). It is an offence to:
- intentionally kill, injure or take (capture) a water vole;
- possess or control a live or dead water vole, or any part of a water vole;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb water voles while they are using such a place; or,
- sell, offer for sale or advertise for live or dead water voles.

2.11 Licences are available from Natural England to allow activities that would otherwise be offences for:
- scientific or educational purposes;
- the purpose of ringing or marking;
- conserving wild animals or introducing them to particular areas;
- preserving public health or public safety;
- preventing the spread of disease; and,
- preventing serious damage to any form of property or to fisheries.

2.12 There is no provision under wildlife legislation for licensing what would otherwise be offences for the specific purpose of development, maintenance or land management, but consideration will be given to licensing a development proposal if licensable actions will provide a conservation benefit for water voles.

Non-native Species

2.13 It is an offence, under section 14, to release or allow to escape into the wild any animal listed on Schedule 9 Part I of the WCA 1981; this includes edible dormice *Glis glis* and other species here.

2.14 It is an offence, under section 14, to grow, or cause to grow in the wild any plant listed on Schedule 9 Part II of the WCA 1981.

2.15 Section 11 of the WCA 1981 prohibits the use of traps for those wild animals listed on Schedule 6 without a licence. The list includes Gliridae, the dormouse family, which includes edible dormice.

Wild Birds

2.16 Wild birds are protected under the WCA 1981. The basic principle of the Act is that all wild birds, their nests and eggs are protected by law and some rarer species are afforded special protection. Wild birds are defined as those resident in or visitors to Great Britain, in a wild state (does not include poultry or game bird). Section 1(1) of the WCA 1981 states that it is an offence to intentionally or recklessly:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

2.17 Section 1(2) of the WCA 1981 states that it is an offence to possess or control any live or dead wild bird or any part of or anything derived from a wild bird or an egg or part of an egg of a wild bird.

2.18 It is an offence under section 1(5) of the WCA 1981 to intentionally or recklessly:

- disturb any wild bird included in schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or,
- disturb dependent young of such a bird.

3. Planning

National

3.1 The local planning authority has the power to request information under Article 4 of the Town and Country (Planning Applications) Regulations 1988 (SI1988.1812) (S3) which covers general information for full applications.

3.2 The National Planning Policy Framework (NPPF) revised in 2019 requires the planning system and policies to balance economic, social and environmental factors of sustainable development. The environmental component of the NPPF states that any planning application must: *'contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy'*. Chapter 15 (Conserving and Protecting the Natural Environment) includes the methods by which this is to be achieved, including:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value;
- recognising the intrinsic character and beauty of the countryside; and,

- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

3.3 Planning permission should be refused if: significant harm from a development cannot be adequately avoided, adequately mitigated, or as a last resort compensated for. The presumption in favour of development does not apply where development requiring appropriate assessment under the Habitats Directive is being considered, planned or determined. Planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscape and nature conservation. Please see updated Planning Practice Guidance https://www.gov.uk/government/speeches/local-planning.

3.4 Section 99 of ODPM Circular 06/2005 states: 'It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by development. Where this is the case, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/ or planning obligations, before permission is granted'.

3.5 Local authorities have a duty to consider the three derogation 'tests' of the Habitats Directive: no satisfactory alternative, imperative reasons of overriding public interest (including those of a social or economic nature or beneficial consequences for the environment) and that the favourable conservation status of the species will be maintained. If any of these requirements are not met, the local authority should refuse planning permission regardless of any commitment to obtain a Natural England licence.

Local

3.6 The Plan:MK sets out the Council's strategy for meeting the Borough's needs until 2031. The Plan:MK, together with any neighbourhood plans that have been adopted are to be taken into account when considering planning applications. A key objective of the Plan:MK is to "*mitigate the Borough's impact on climate change and reduce carbon dioxide emissions through locating development away from areas of flood risk*

and significant biodiversity value" and "*to encourage healthy lifestyles with the provision of recreation facilities and to biodiversity by enhancing the linear park network and extending and connecting it into new developments while conserving and enhancing key landscapes and important habitats*." Further to this, "*development should result in a net gain in biodiversity through use of strategic, connected green infrastructure, in line with policies NE1-6."* The NE policies relate to:

- NE1: Protection of sites
- NE2: Protected species and priority species and habitats
- NE3: Biodiversity and geological enhancement
- NE4: Green infrastructure
- NE5: Conserving and enhancing landscape character
- NE6: Environmental pollution

4. Methodology

Desk Study

4.1 A 1km data search for designated sites and historical records was requested from Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC).

4.2 A search of MAGIC Map (magic.defra.gov.uk) for European Protected Species Licenses (EPSLs) within 2km was undertaken by Bernwood Ecology. It should be noted that the MAGIC database was last updated in May 2019, therefore licences granted after that time will not yet be uploaded. Bernwood Ecology also searched for great crested newt *Triturus cristatus* environmental DNA (eDNA) results for pond surveys undertaken by DEFRA 2017-2019, great crested newt licence returns, and priority habitats within 1km of the site.

Preliminary Ecological Appraisal

4.3 The purpose of the Preliminary Ecological Appraisal (PEA) is to establish the presence or potential presence of protected species and habitats on or near the site (zones of influence), and specifically:

- identify likely ecological constraints associated with the proposals;
- identify any mitigation measures likely to be required, following the 'mitigation hierarchy';
- identify any additional surveys which may be required to inform a full ecological assessment; and,
- identify opportunities offered by a project to deliver ecological enhancements (CIEEM, 2017).

4.4 Habitats on site are assessed and mapped following the JNCC Phase I Habitat Survey methodology (JNCC, 2010). The survey was undertaken by E. Dickins, MSc. MCIEEM

on 29th June 2021, adhering to good practice guidelines and industry standard (BSI, 2013). Weather at the time of the survey was partly cloudy and warm, with temperatures around 14°C.

Preliminary Roost Assessment

4.5 The objective of the Preliminary Roost Assessment (PRA) is to undertake a daytime inspection of the structure to assess whether there are actual or potential bat roosts present by searching for evidence of bat use and assessing the suitability of the structure to support bat roosts. If evidence of bats is found, the assessment searches for evidence to indicate:

- which species are present;
- an indicative roost size;
- roost access point(s);
- the roost type(s); and,
- whether further survey effort is required in relation to the proposals.

4.6 The PRA was carried out by E. Dickins (bat survey class licence levels 3 & 4 surveyor: 2016-27135-CLS-CLS/ 2016-27136-CLS-CLS on 29th June 2021 following the Bat Conservation Trust (BCT) Good Practice Guidelines (Collins, 2016). The building was systematically searched internally and externally (from the ground) for evidence indicating the presence of bats (live and dead bats, staining at potential roost entry points, feeding remains, droppings and urine marks) and assessed for suitability to support bat roosts through the identification of potential roosting features and potential bat access points.

4.7 Equipment available for use during the PRA included ladders, high-powered torches, binoculars, digital camera, and sample jars (for collecting droppings for subsequent DNA analysis if required).

Biosafety and Biosecurity

4.8 All fieldwork is undertaken in line with the current government and professional (CIEEM, BSI, BCT, IUCN, etc.) COVID-19 guidelines at the time, maintaining physical distancing between surveyors, clients, and members of the public as appropriate.

4.9 Hygiene and biosecurity measures set out with Bernwood Ecology's COVID-19 Risk Plan are strictly adhered to, including regular thorough handwashing where possible and, where not, regular use of an appropriate viricidal hand sanitiser.

Scientific Consultation

4.10 In agreement with Conservation Evidence, Bernwood Ecology, as Evidence Champions, will:

- ensure that, where possible, the mitigation work is designed around a scientifically testable approach, observing the Conservation Evidence approach to critical assessment, study design, analysis and reporting;
- build into project planning processes and reports a requirement for ecologists to check the Conservation Evidence website for relevant evidence, and describe the findings in the report; and,
- where possible, publish results reporting on any tests of conservation interventions whether successful or otherwise in agreement with the client in the Conservation Evidence journal and other peer-reviewed journals.

5. Constraints and Limitations

Historical Records

5.1 Environmental records can provide an indication of the likely presence of a species on, or within proximity, to the site. The absence of records for protected species and sites does not necessarily indicate absence. The use of historical environmental records is not a substitute for appropriate surveys at the correct time of year when informing land use change and development proposals.

5.2 Qualifications for historical records, e.g., if a badger record is for a road casualty or of a sett, may not always be known.

5.3 Data search accuracy is variable and will often range from 10km to 1m. Most commonly, accuracy will be within 10m. The original raw data from data searches should be consulted where the record accuracy is needed.

Safe Access

5.4 Part or all the site may be considered to be inaccessible following an assessment of risk and therefore the survey may be constrained. Risks that may limit the survey effort include structurally unsafe structure(s) (including roof joists), confined spaces and dangerous egress and ingress points, asbestos, sharps, livestock, and hostilities from members of the public. Details of any access constraints are provided within the results of the report.

Digital Mapping

5.5 Every effort is made to ensure mapping accuracy; however, the exact locations of features should not be relied upon.

Mobile Species

5.6 Bats are a highly mobile species and move throughout a landscape often using multiple roost sites (depending on the species). Bats may be found in any suitable roosting cavity or void at any time of the year.

6. Results

Desk Study

6.1 There are no statutory sites, and three non-statutory sites within the search area, including two Milton Keynes Wildlife Corridors (MKWC) which have the same weighting as a Local Wildlife Site (LWS) in the local plan (Plan:MK). The nearest priority habitat found on MAGIC Map is a deciduous woodland habitat within 5m to the west. In addition, the site is within a 'B-Line': "*The B-Lines are a series of 'insect pathways' running through our countryside and towns, along which Buglife are restoring and creating a series of wildflower-rich habitat stepping stones. They link existing wildlife areas together, creating a network, like a railway, that will weave across the British landscape. This will provide large areas of brand new habitat benefiting bees and butterflies – but also a host of other wildlife.*" A summary of relevant designated sites and priority habitats is included in Table 1 (public data search results available upon request).

6.2 A summary of relevant historical species records is included in Table 2 (public data search results available upon request).

6.3 The MAGIC Map Licensing Layer identified a licence granted for the damage of a Daubenton's *Myotis daubentonii* resting place 2014 to 2016 approximately 460m east (2014-3952-EPS-MIT-2).

6.4 The MAGIC Map search found one record of a great crested newt licence return from 2017 approximately 925m to the east, and no DEFRA eDNA survey records.

Table 1. Summary of relevant designated site records and priority habitats. Obtained from BMERC and MAGIC Map.

Abbreviations: BNS: Biological Notification Site. MKWC: Milton Keynes Wildlife Corridor.

Site name	Designation	Approx. distance from the site (at closest point)	Details
Non-statutory Sites			
Grand Union Canal, Woolstone	BNS	605m	Canal or Wet Ditch
Grand Union Canal	MKWC (wetland)	365m	
River Ouzel	MKWC (wetland)	805m	
Priority Habitats			
Deciduous woodland	-	5m	Adjacent to the site, west
Traditional orchard	-	735m	-

Table 2. Summary of relevant protected species records. Obtained from BMERC.

Abbreviations: WCA Sch1.1: Wildlife and Countryside Act 1981 Schedule 1 part 1. WCA Sch8: Wildlife and Countryside Act 1981 Schedule 8. WCA Sch9: Wildlife and Countryside Act 1981 Schedule 9. EPS: European Protected Species.

Species	Highest designation	Year of most recent record	Approx. distance from the site	Details
Plants				
Bluebell *Hyacinthoides non-scripta*	WCA Sch8	2000	470m	-
Himalayan cotoneaster *Cotoneaster simonsii*	WCA Sch9	2000	470m	-
Bats				
Long-eared bat *Plecotus* sp.	EPS	2012	770m	'Present'
Pipistrelle species *Pipistrellus* sp.	EPS	2020	350m	Audio recording
Amphibians				
Great crested newt *Triturus cristatus*	EPS	2017	1.0km	eDNA testing There are several other records for closer occurrences of this species, the nearest of which is 750m from 2003
Birds				
Barn owl *Tyto alba*	WCA Sch1.1	2011	870m	Woughton-on-the-Green
Black redstart *Phoenicurus ochruros*	WCA Sch1.1	2016	>1.0km	CMK

Table 2. Continued.

Species	Highest designation	Year of most recent record	Approx. distance from the site	Details
Brambling *Fringilla montifringilla*	WCA Sch1.1	2018	925m	Campbell Park
Fieldfare *Turdus pilaris*	WCA Sch1.1	2020	925m	Campbell Park
Firecrest *Regulus ignicapilla*	WCA Sch1.1	1991	925m	Campbell Park
Hobby *Falco subbuteo*	WCA Sch1.1	2020	870m	Woughton-on-the-Green
Kingfisher *Alcedo atthis*	WCA Sch1.1	2012	824m	Oakgrove
Merlin *Falco columbarius*	WCA Sch1.1	2017	925m	Campbell Park
Red kite *Milvus milvus*	WCA Sch1.1	2020	925m	Campbell Park
Redwing *Turdus iliacus*	WCA Sch1.1	2018	925m	Campbell Park
Ring-necked parakeet *Psittacula krameria*	WCA Sch9	2020	670m	Woolstone

Preliminary Ecological Appraisal

6.5 The site is located in the estate of Springfield, in proximity to the town centre of Milton Keynes. Springfield is predominantly an area of high-density housing with shared public green spaces and a school nearby. The V8 Marlborough Street dual carriageway is to the west, and Springfield Boulevard residential link road is to the north. The nearest linear water feature is the Grand Union Canal 375m east. The nearest significant woodland is Linford Wood >2.30km north west, with small mixed plantation woodlands along the Grand Union Canal and River Ousel Corridors 430m and 1.0km east. There are no ponds visible on Ordnance Survey map (scale 1:10,000) within 500m of the site.

6.6 The area surveyed is approximately 0.2ha in size, and primarily consists of building, hardstanding and overgrown areas of introduced shrub planting. The site is surrounded by wooden hoarding and small areas of Heras panels. The public house has been closed for a number of years and is described as being derelict for at least four or five years with evidence of repeated vandalism, break-ins and damage. Habitats are described in greater detail in Table 3 below and mapped in Appendix 3. Photographs are provided.

Table 3. Habitat descriptions.

Habitat	Description
Building	The building is described in detail in the PRA section below.
Hardstanding	There is a paved terrace (TN1) and other small paved areas around the building which have become overgrown with vegetation including dock *Rumex* sp., self-heal *Prunella vulgaris*, willowherb *Epilobium* sp. and bramble *Rubus fruticosus* (Figure 1). A large area of the site is dominated by tarmac – presumably the previous public house car park. The tarmac is largely in good condition, though colonising vegetation was apparent in places (Figure 2).
Introduced shrub	There are areas of the site which would likely have been planted with a mixture of native and non-native species of shrubs and plants. As the site has been derelict for an extended period, it is difficult to differentiate between what is self-set and what was original planting. Species noted include hazel *Corylus avellana,* ash *Fraxinus excelsior*, laurel *Prunus* sp., rose *Rosa* sp., hawthorn *Crataegus monogyna* and ornamental species. Cock's-foot grass *Dactylis glomerata,* white clover *Trifolium perenne* and elder *Sambucus nigra* were also noted. A central diving band of planted shrub separates the car park (TN2) dominated by dogwood *Cornus sanguinea*, hazel, bramble, and ash with nipplewort *Lapsana communis*, ribwort plantain *Plantago lanceolata* and goat willow *Salix caprea* and three feature trees (two long-since felled and one dead) thought to be poplar *Populus* sp. (Figures 3 & 4).
Bare ground	There are small areas of bare ground on the edges of the site caused by shading of the building and the recent removal of shrubs and trees to prevent bridging into the site to limit anti-social behaviour (Figures 5 & 6).
Perennial vegetation	There is a narrow strip of vegetation along the northern site boundary of the car park, which is predominantly rye grass *Lolium perenne*, with false oat-grass *Arrhenathrum elatius.* Oxeye daisy *Leucanthemum vulgare* and lady's bedstraw *Galium verum* were also present, favoured by a notable presence of damselflies (Figure 7).
Wall	There are several walls around the site constructed from red brick, used to create flower beds, or to landscape the terrace etc. Most of these are heavily encroached by vegetation.

Table 3. Continued.

Habitat	Description
Adjacent habitats	There is a double avenue of semi-mature London plane *Platanus* × *acerifolia* trees north of the site, along Springfield Boulevard (TN3) (Figure 8), together with a single mature English oak *Quercus robur* (TN4) (Figure 9). A small cluster of horse chestnut *Aesculus hippocastanum* and ash are located immediately outside the site's eastern corner (TN5) (Figure 10). There is an additional area of introduced shrub planting around the western and southern boundaries, outside the site's hoarding, including dogwood, sycamore *Acer pseudoplatanus* and laurel with hedge bindweed *Calystegia sepium* (TN6).

Figure 1. Overgrown terrace hardstanding (paving).

Figure 2. Hardstanding of the carpark (tarmac).

Figure 3. Overgrown introduced planting.

Figure 4. Carpark boundary overgrown introduced planting.

Figure 5. Bare ground to the north of the site.

Figure 6. Bare ground to the east of the site.

Figure 7. Perennial vegetation strip along the northern boundary.

Figure 8. Double avenue of London plane.

Figure 9. English oak showing proximity to property boundary.

Figure 10. Horse chestnut and ash planted trees outside eastern boundary.

Preliminary Roost Assessment

6.7 The building is the site of the previous 'The Springfield' public house, which is understood to have closed many years previous and has since been the subject of anti-social behaviour including vandalism and metal thefts. This history has caused a significant amount of damage to the building, both internally and externally which has constrained the PRA element of the survey.

6.8 The building has been designed to allow for living-in for the management of the public house, with a flat including kitchen, bathroom and storage areas on the first floor. The ground floors were the lounge and bars of the public house (Figure 11). There is a basement previously used as a cellar, accessible through a double garage door off the carpark (Figures 12 & 13). The cellar has a boarded ceiling which has been damaged in places. There are roof voids present in the building both above the first floor and above some limited areas of the ground floor (e.g., above a disabled toilet). Due to the damage to the building, many areas of ceiling were missing on the first floor; combined with the water ingress caused by roof damage, it was deemed unsafe to enter the roof voids to undertake an internal inspection for bats. From the first floor it could be determined that the roof structures are constructed from sawn timbers with bitumen felt lining under roof tiles. There appears to be clear plastic sheeting in places, which may possibly be a lining over the joists in some or all of the roof voids above the first floor. At least one water tank was noted to be present, but it could not be determined whether this was covered or not (Figures 14 – 16).

6.9 Externally, the roof has several inverted dormer windows, including a larger inverted dormer area with door access off the living kitchen area. This and all the windows were boarded up, limiting visual inspection of these areas. From the ground, it could be seen that damage to the cheeks of the dormers had occurred, together with removal and damage to roof tiles in some places. Roof tiles on the building are interlocking cement tiles, with simple hip and ridge tiles which appeared to be well-embedded, including the end hip tiles. There are small projections where roof

sections meet clad in wooden weatherboarding; again, some of this showed signs of damage. The eaves of the building are overhanging and enclosed with wooden boarding. Again, there was evidence of damage to these in places (Figures 17 – 21).

6.10 There was no evidence of bats identified internally or externally during the PRA, though there are many potential bat access points and roosting opportunities noted through gaps around doors (including the cellar garage doors), windows and roof tiles.

6.11 A summary plan of the findings of the Preliminary Roost Assessment can be found in Appendix 4.

Figure 11. Lounge area of the bar (ground floor).

Figure 12. Cellar.

Figure 13. Cellar garage door with gaps around edges.

Figure 14. Example of damage to ceilings (lounge, ground floor).

Figure 15. Roof void above toilet on ground floor, showing roof structure above.

Figure 16. Removed ceiling under water tank on the first floor.

Figure 17. Boarded up door leading out through inverted dormer from kitchen of the living.

Figure 18. Showing damage around the inverted dormer window on the northern aspect.

Figure 19. Damage to the roof structure around the inverted dormer leading out from the living kitchen on the southern aspect. Note small section of weatherboarding where roof sections meet.

Figure 20. Example of overhanging eaves.

Figure 21. Example of damage to the boarding of the overhanging eaves.

7. Discussion and Conclusions

Designated Sites and Priority Habitats

7.1 There are no protected sites on or near to the site. There is deciduous woodland priority habitat adjacent (within 5m), separated from the site via a public footpath (redway). The woodland is unlikely to be directly or indirectly impacted by the proposals or the construction activities; however, advice is provided to protect this habitat from accidental damage. The site is within a B-Line, which can be used to identify potential habitat enhancements that can be incorporated for invertebrates as part of the site landscaping designs.

7.2 Recommendations are made to increase the biodiversity value of the areas directly affected by and adjacent to the proposals.

Habitats

7.3 The habitats identified on site during the survey have generally poor ecological value. The hardstanding has a negligible ecological value, while the overgrown shrubs have a low ecological value. This low value is due to the lack of species and structural diversity, and maturity; though these habitats may provide species-specific benefits, for example for wild nesting birds. All habitats on site will be lost because of the proposals. While the proposals are in the early design stages, the redevelopment of the site presents opportunities to create better more biodiverse habitats through careful landscape designs and planting schedules.

7.4 The double London plane avenue is not anticipated to be directly impacted, as the trees are likely to be outside of the impacts of root protection areas given their distance from the site boundary. Care must be taken by contractors throughout the demolition and construction activities to protect this avenue from damage through parking and deliveries/ material storage for example. The adjacent English oak tree outside the northern boundary and the cluster of horse chestnut and ash trees outside the eastern boundary require assessment by a qualified arborist to identify whether the roots may fall within the site boundary, and therefore whether works could result in accidental damage to the trees from ground works. Where possible, the designs and construction methods must minimise damage to these trees.

Great Crested Newt

7.5 There are historical records for great crested newts in the local area, with the most recent 1.0km away, and the nearest 750m away. There are no ponds identified within 500m of the site and therefore it is highly unlikely that this species will be present on site or encountered during the works and no further recommendation for surveys or mitigation are advised.

Reptiles

7.6 There are no reptile records within 1km of the site. The overgrown scrub may provide some suitability for supporting common species of reptiles, such as grass snake; however, the hoarding is likely to provide a barrier to the movement of wildlife onto the site and connectivity of the site to adjacent areas of potential reptile habitat is poor. Recommendations for best practice measures are made to reduce the residual risk of harm to wildlife during demolition and construction.

Non-flying Mammals

7.7 There are no historical records for any non-flying mammals identified by the desk study. There was no evidence of mammal activity on site (no latrines, mammal tracks, or footprints for example). The hoarding is likely to reduce access by mammals. It is unlikely that the demolition and construction activities will result in impacts on non-flying mammals, such as badger. Recommendations for best practice measures are made to reduce the residual risk of harm to wildlife during demolition and construction.

Bats

7.8 There are a small number of historical records for bats identified by the desk study, including an EPSL for damage to a Daubenton's bat roost in 2014 460m away.

7.9 There was no evidence of roosting bats identified internally or externally during the PRA. There are multiple potential roosting points and roost access points seen from damaged roof tiles, damaged boarding on the overhanging eaves, gaps around the cellar doors, etc. The PRA survey was constrained on health and safety grounds, and therefore it is not possible to determine confidently an absence of roosting bats from the structure. The demolition of the structure would result in roost destruction, as well as potential disturbance, killing and injury of bats should they be present. It is therefore recommended that further survey effort is carried out to provide confidence in the absence of roosting bats. As the site is subject to ongoing pressure from vandalism and the site has poor connectivity to habitats of high value for bats, the building is assessed as having a 'Low' suitability for bats and a single bat emergence survey is advised.

Wild Birds

7.10 Nesting birds are likely to use areas of the building and vegetation on site for nesting. There was no evidence of Schedule 1 species including barn owl within the surveyed area. Furthermore, these species are unlikely to be encountered on or near to the site due to the lack of suitable nesting habitat and/ or the rarity of some of these species,

such as redwing, breeding in the UK. Recommendations are made to avoid the risk of damage and destruction of active nests during site clearance.

8. Recommendations

8.1 The ecological mitigation hierarchy must be followed by all elements of the project, from design, to construction, to end use, to ensure there is a net gain to biodiversity on site and the favourable conservation status of protected species is maintained. The mitigation hierarchy follows:

- *Avoid*: avoid impacts on biodiversity as a priority.
- *Minimise*: minimise impacts that cannot be completely avoided, through alternations to design, use, scale, location, timing of phases, etc.
- *Mitigate and compensate*: undertake works which will have an impact by implementing safeguarding measures, such as using an Ecological Clerk of Works (ECoW) where there are risks to wildlife. Provide compensation to replace habitats that have been lost as a consequence of proposals.
- *Enhance*: Provide additional habitats and features for wildlife to ensure biodiversity net gain. Habitat offsetting may be required where net biodiversity gain cannot be secured within the site boundary.

Best Practice Measures

8.2 General measures are to be implemented to avoid the risk of harm to wildlife before and during the construction activities:

- During construction, any excavations are to be backfilled or covered overnight or created with a shallow sloping side to allow any inadvertently captured wildlife to escape unaided.
- No fires are to be lit on site.
- No food is to be left on site overnight that may attract scavenging wildlife into the working area.
- All litter is to be stored in suitable covered bins or taken home to reduce the likelihood of litter being distributed into the local area by the weather.

8.3 Where protected species are unexpectedly encountered on or near to the site, before or during construction, works are to cease and the advice of a professional ecologist sought to allow a reassessment of impacts and appropriate advice to be given.

8.4 To ensure that active birds' nests are not damaged or destroyed during the construction activities, it is advised that the removal of vegetation and demolition of the building are started during the autumn or winter months (i.e., September-February) when birds are least likely to be nesting, subject to other protected species recommendations (i.e., for bats). Works undertaken outside of this period will require

a nesting bird check to be conducted by a suitably experienced ecologist no more than 24 hours prior to works starting. If active nests are observed, construction activity within the vicinity must cease and an appropriate safe zone around the nest established until the young have been verified to have fully fledged by the ecologist and the nest is no longer active.

Habitat Retention and Enhancement

8.5 Root Protection Areas are to be implemented for the trees surrounding the site boundary in line with Trees in relation to design, demolition and construction (BSI, 2012).

8.6 Enhancement opportunities to be considered in the landscaping for the site, are:

- The creation of new native species-rich hedges using at least four woody species (e.g., field maple *Acer campestre*, hazel, hawthorn, guelder rose *Viburnum opulus*, elder, beech *Fagus sylvatica*, hornbeam *Carpinus betulus,* English oak, etc.). Once established, hedges are to be managed through a once-a-year cut in January or February to maximise the berries and nuts available to birds and wildlife during the winter. Underplanting the hedges with locally sourced native woodland flora and spring bulbs such as wood anemone *Anemone nemorosa*, English bluebell*,* and snowdrops *Galanthus nivalis* and/ or a woodland seed mixture (e.g., Emorsgate seed mixture EW1) will provide additional benefits for invertebrates and prevent exposure of bare ground under hedges.
- Sowing amenity areas with a flowering lawn or wildflower mixture instead of a grass mix of a traditional lawn. Seed mixes must only use locally sourced native species (e.g., Emorsgate seeds EL1- Flowering lawn mixture) and will require a lower intensity of mowing once established. Where possible, margins of higher floristic diversity which can be cut once a year in late autumn are also to be created to benefit invertebrates.
- The avoidance of planting non-native species, such as cherry and Portuguese laurel, rhododendron, cotoneaster, Virginia creeper, etc., especially those listed on Schedule 9 of the WCA 1981.
- The limited use of herbicides and pesticides as part of the longer term management of the site to only where absolutely needed (i.e., to control invasive or injurious weeds through spot treatment only).
- The inclusion of integrated bat and bird boxes (one of each) (e.g., Ibstock Enclosed Bat Box 'B' and 9A-1 Schwegler House Martin Single Box or similar). The boxes are to be sited at least 3m from ground level and >1m away from opening doors and windows, to reduce potential predation risk. There must be no artificial lighting spilling onto the boxes.

Bats

8.7 A bat emergence survey is required to determine the presence/ reasonable absence of bats within the building. This must be carried out in the optimal survey season (May to August/ September). Four experienced bat surveyors will be required to provide adequate coverage of the structure during the survey. If bats are observed to be roosting within the building, then further surveys and an EPSL will be required for works to demolish the building to proceed lawfully.

8.8 There must be no additional lighting on site that will spill artificial light onto any habitats of ecological value (created habitats and adjacent retained habitats). Published guidance on the use of lighting in relation to bats (Institute of Lighting Professionals and the Bat Conservation Trust 2018) should be used to guide any necessary lighting for health and safety purposes, such as:

- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700 Kelvin) should be adopted to reduce blue light component.
- Any external security lighting should be set on motion-sensors and short (one-minute) timers.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2013).
- Proposals for light fittings and designs are to include baffles, hoods or louvres to reduce light spill and direct it only to where it is needed.
- The planting of trees, bushes and hedges can be used to mitigate for impacts of artificial lighting through the creation of dark buffers.

Age of Survey Data

8.9 It is accepted that ecological surveys have a limited period of validity due to changing habitats and the transient behaviours of some UK wildlife species. Delays on the progression of the project beyond 12-18 months will require the surveys to be repeated (CIEEM, 2019).

9. References and Further Reading

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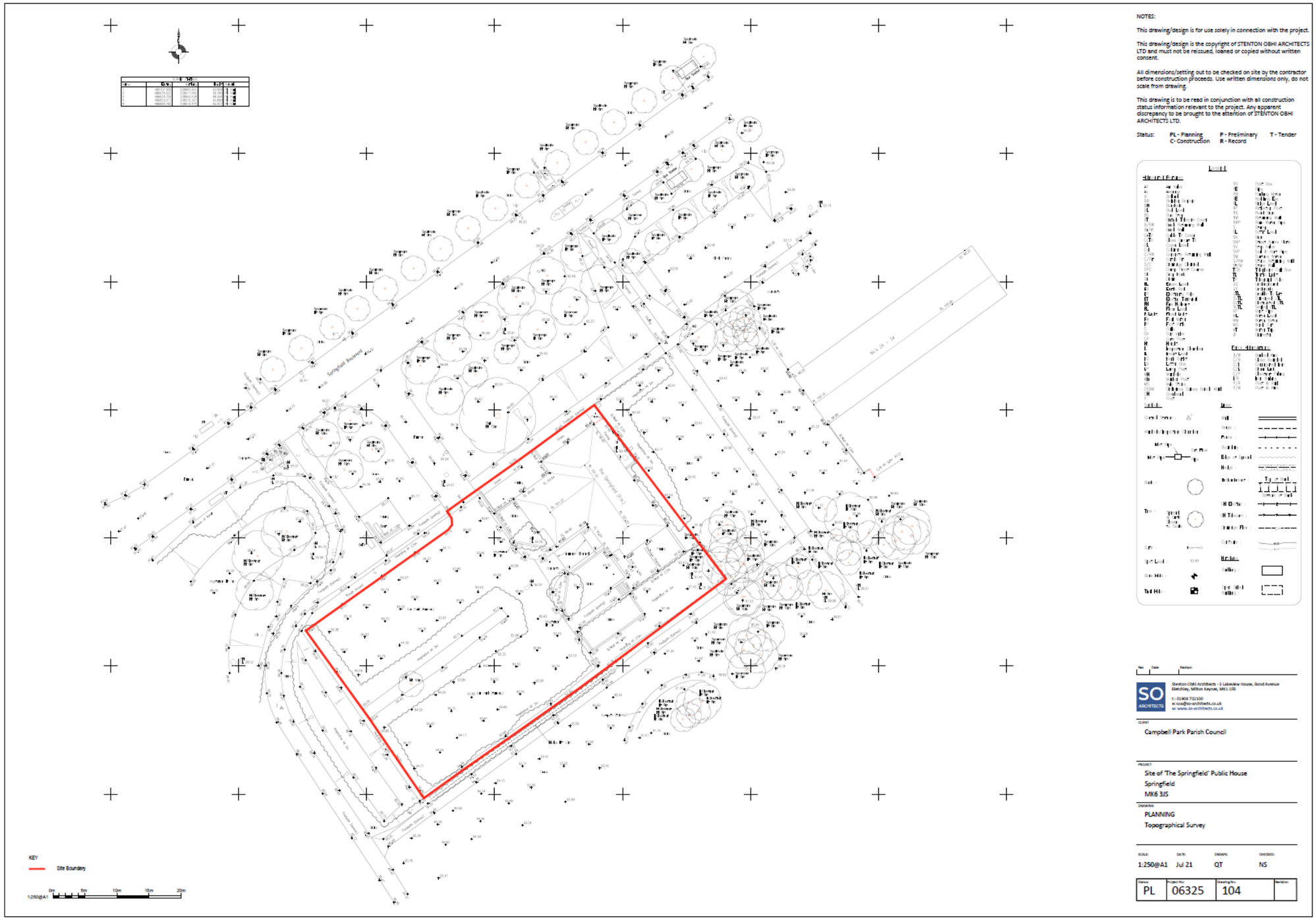
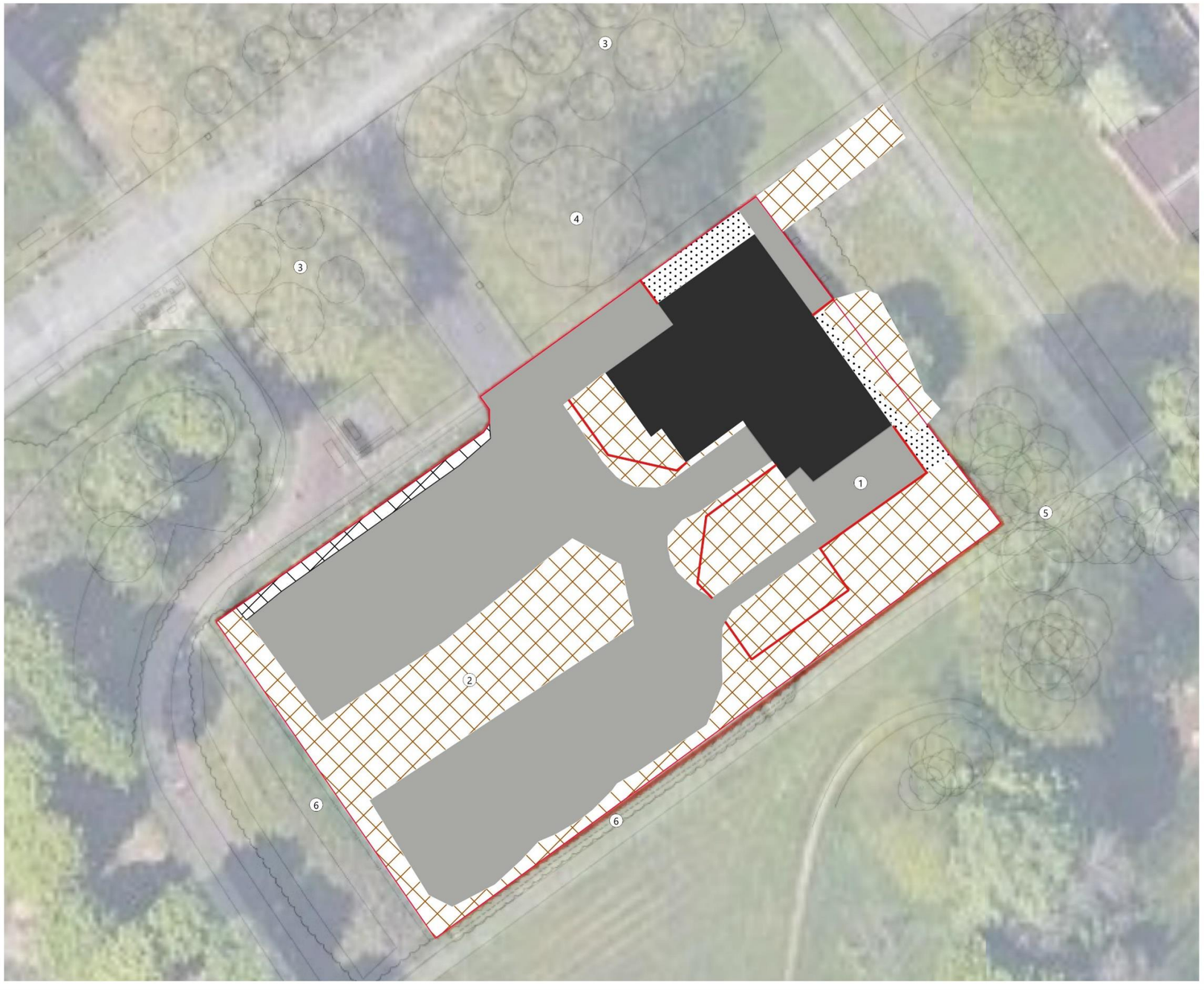
Appendix 1. Site location in relation to existing landscape.

Appendix 2. Site topographical.



Appendix 3. Habitat plan.



Target Note
Site Boundary
Wall
Bare Ground
Building
Hardstanding
Introduced Shrub
Perennial Vegetation

Georefernced onto (C) Google Imagery, using 06325:104 by Stenton-Obhi Architects

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Habitat Plan

Site: 'The Springfield', Springfield, Milton Keynes

Revision and Date: (-) 12/07/2021.

BERNWOOD ECOLOGY

www.bernwood.net
enquiries@bernwood.net
01296 728351

Appendix 4. Preliminary Roost Assessment plan.