



Preliminary Roost Assessment Survey

139 Belmont Road, Uxbridge, Middlesex, London, UB8 1QZ

NARRD LTD

Arbtech Consultant's Contact Details:

Josephine McCarthy

Consultant Ecologist

Tel: 07719 549545 **Email:** josephinemccarthy@arbtech.co.uk

Arbtech Consulting Ltd

<https://arbtech.co.uk>

Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive summary

Arbtech Consulting Limited was commissioned by NARRD Ltd to carry out a Preliminary Roost Assessment, (PRA) survey at 139 Belmont Road, Uxbridge, Middlesex, London, UB8 1QZ (hereafter referred to as "the site"). The survey was completed on 01/06/2022. The development proposals are for demolition of existing dwelling and erection of three new dwellings' A planning application is being prepared for submission to London Borough of Hillingdon.

The following is work you will need to commission (if any) in order to obtain planning permission and to comply with legislation.

Building Ref:	Summary	Recommendations
B1	<p>There are gaps in the roof tiles which could support crevice dwelling species of bat. There is no potential for void dwelling species to be present due to the roof space being largely living space with a well-sealed vestigial loft space, inaccessible to bats.</p> <p>The dwelling is located in a built environment with resources for urban bats within 150m. Although woodland and void dwelling species are unlikely to be present, common, building oriented bat species could find suitable habitat on site.</p> <p>In line with best practice guidelines (Collins, J. (ed) 2016, this building is assessed as having a 'low' habitat value for supporting roosting bats.</p>	<p>In line with planning policy and good practice guidelines, one bat emergence/re-entry survey is required to confirm presence/likely-absence of a bat roost in the building. The survey effort recommended at this stage is iterative and if bats are recorded emerging from the building, the survey effort should be adjusted. In this instance, a full suite of three surveys will be required to inform an application to Natural England for a licence to carry out the works lawfully. This licence can be applied for once planning permission has been granted.</p> <p>If no bats are seen emerging from or re-entering the building during the survey, further surveys and a licence from Natural England will not be required.</p>

Contents

1.1 Background	6
1.2 Site context	6
2.0 Methodology	7
2.1 Desk Study	7
2.2 Site Survey	7
2.3 Breeding birds and other incidental observations	7
2.4 Suitability Assessment	7
2.5 Limitations	8
3.0 Results and Evaluation	8
3.1 Desk Study Results	8
3.2 Designated Sites	8
3.3 Landscape	9
3.4 Field Survey Results	10
3.5 Site Feature descriptions and photos follow	10
4.0 Conclusions, Impacts and Recommendations	15
4.1 Informative Guidelines	15
4.2 Evaluation	16
5.0 Bibliography	20
Appendix 1: Proposed Plan	21
Appendix 2: Site Location Plan	22
Appendix 3: Legislation and Planning Policy Related to Bats	24

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was commissioned by NARRD Ltd to carry out a Preliminary Roost Assessment, (PRA) survey at 139 Belmont Road, Uxbridge, Middlesex, London, UB8 1QZ (hereafter referred to as “the site”). The survey was completed on 01/06/2022. The development proposals are for demolition of existing dwelling and erection of three new dwellings’. A planning application has been submitted to London Borough of Hillingdon. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the “Bat Surveys for Professional Ecologists—Good Practice Guidelines” publication (Collins, 2016). No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site context

The site is located at National Grid Reference TQ 0605 8462. The site comprises a detached dwelling fronting Belmont Road, with an outbuilding, mature rear gardens and scattered trees. The local landscape is urban residential with nearby waterbodies and recreational spaces. The nearest of which is Park Road Ponds LNR ~150m east of the site. An additional pond is ~250m east. Recreational fields are within ~250m northeast and northwest of the site and infrastructure associated with Uxbridge Town including a rail line and commercial development dominate the southern landscape. A location plan is provided in Appendix 2.

This report provides a description of all features suitable for roosting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on European Protected Species Mitigation Licensing (EPSML) if appropriate.

A proposed plan is provided in Appendix 1,(where provided), the site location is included in Appendix 2 and a summary of relevant legislation can be found in Appendix 3.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Site Survey

The PRA focussed on one built structures which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the building for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the building was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Table 1 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland.

	<p>Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows.</p> <p>Site is proximate to known or likely roosts (based on historical data).</p> <p>Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.</p>
Low	<p>A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators.</p> <p>Habitat suitable for foraging in close proximity but isolated in the landscape. Or an isolated site not connected by prominent linear features.</p> <p>Few features suitable for roosting, minor foraging or commuting.</p>
Negligible	Unsuitable for use by bats.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time. Limitations included:

- A biological records data search has not been undertaken to date. However, if bats are identified within the building, local bat records will be required to conform to best practice guidelines and will be necessary for any future licence application to Natural England, (if required).

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below.

3.2 Designated Sites

Details of any statutory designated sites with bat qualifying interests within a 2km radius of the site, including their reasons for notification, are provided in Table 2 below.

Table 2: Statutory designated sites with bat qualifying interests within 2km radius of the site Designated site name	Distance from site (approx.)	Reasons for notification from Natural England
Fray's Farm Meadows SSSI & LNR Denham Lock Woods SSSI	~1,000m north	The land was designated as SSSI because it represents one of the last remaining areas of relatively unimproved grassland habitat in the Greater London area. There are significant indications of improvement in condition and parts of the land are now in what can be described as favourable condition, although not all parts. The condition of the grassland is generally good and the habitat exhibits a number of features of interest, including natural floodplain features such as tall sedge beds, areas of tall fen vegetation and vegetated ditches. The presence of several plants which are scarce in the Greater London area such as ragged robin, bottle sedge and brown sedge adds to the interest. There is distinctive variation in the character of the vegetation on the site related to soils and hydrology and structural aspects which add value.

3.3 Landscape

A review of aerial photographs (Google Earth) the magic.gov.uk database and OS maps has been undertaken. Collated together, the value of the landscape for bats is described below:

The site is located in a residential area ~400m north of Uxbridge Town Centre in West London. Urban green spaces, private gardens, a tree lined rail line and local ponds provide landscape ecology for a variety of urban wildlife species including urban bats. The River Pinn and The River Colne are within 1km of the site. Waterbodies are located ~ 150m east of the site and Uxbridge Common which is a significant green space approx. 200m north extends for approx. 15acres. These habitats fall within commuting distance from the site for urban bats which are known to cross a built environment to access resources. A network of amenity gardens will provide additional resources for individual bat foraging.

Notable Habitats

Notable habitats within 2km are listed in Table 3.

Table 3

Habitat	Closest distance from site
Priority Deciduous Woodland	~3300m southeast
Ancient Woodland	~800m northeast
Woodpasture and Parkland	~1,000, southeast
Lowland Fens and Good quality semi-improved grassland	~1,600m north

3.4 Historical Records

A search of the Magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <1km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. EPSL records for bats are summarised in Table 4.

Table 4: Granted EPSLs for bats within 1km of the site

EPSL reference	Approx. distance from site	Bat species affected	Licence start date:	Licence end date:	Impacts allowed by licence
2019-44301-EPS-NSIP1	~1km northwest	DAUB	10/01/2020	10/01/2020	Destruction of a resting place
2014-3752-EPS-MIT	~1,800m southwest	C-PIP,S-PIP	24/10/2014	24/10/2019	Destruction of a resting place

3.4 Field Survey Results

The PRA focussed on one built structure which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat. The weather conditions recorded at the time of the survey are shown in Table 5.

Table 5: Weather conditions during the survey

Date: 01/06/2022	
Temperature	16.6 °C
Humidity	98%
Cloud Cover	89%
Wind	3.5mph
Rain	Occasional light rain

3.5 Site Feature descriptions and photos follow

Table 6: Description and photographs of habitats within and adjacent to the site

	Description	Photograph
B1- Southern elevation, (front).	<p>B1 is a detached dwelling with a complex roof structure entirely clad in clay tiles. Flat roofed dormer windows with tiled cheeks are present on the rear elevation. Two chimney stacks intersect the roof on the east and west elevations. The first floor walls on the front are clad in hanging tiles which appear intact and tight-fitting although raised at the tips in places.</p> <p>The building is rendered to the eaves which are well sealed with tight fitting soffits to all sides and no bat access points along their joins.</p> <p>.</p>	
B1- (north elevation, (rear)		

	<p>There are gaps in the roof tiles of varying value for bats. Some close to the gutters are of negligible bat value, A gap at the rear of the chimney stack, as well as gaps in some lifted tiles on the front elevation offer suitable habitat for crevice dwelling bats.</p>	
	<p>Showing gaps in lifted tiles on the front of B1. (Southwest corner).</p>	
	<p>There are narrow gaps between some roof tiles where the tips of the tiles are upturned. These are shallow and unlikely to permit bat access or provide any suitable refuge. A gap associated with the front dormer is sufficient in size to permit bat access to the rear of the tiles.</p>	

	<p>There are two gaps in the roof tiles on the rear roof pitch which provide suitable habitat for bats and possible access to the subspace between the tiles and the liner. (northeast corner of B1).</p>	
	<p>The rear dormer appears well sealed to the roof. There are no gaps in the fascia's and the flat roof has no cavities and no identified gaps at the verge for bat access.</p> <p>The tiles along the ridge, including the apex tiles, the bonnet tiles and the roof verges appear well mortared with no obvious gaps which bats could exploit.</p>	
	<p>The lead flashing at the base of the chimney stacks is tightly addressed to the tiles and the chimney with no associated gaps. This is true for both stacks.</p>	

B1 - Internal	<p>The roof comprises living space, (bedrooms) with a single narrow void retained below the ridge. (Approx. 0.5m height x 0.75, width). The void is lined, floor to ridge with a thick mineral wool insulation packed tightly between the rafters and along the eaves and covering all surfaces. It would not be possible for bats to penetrate the insulation to gain access to the void.</p>		
	<p>Looking along the ridge in B1. No evidence of bats or secondary evidence of bat use is visible. Points of entry for bats could not be identified. An internal bat roost of void dwelling species is considered absent from the building due to a lack of suitable habitat.</p>		
B2 - West elevation	<p>B2 is a brick-built outbuilding, rendered to the eaves below a hipped roof clad in clay tiles. The tiles are weathered in appearance and show signs of patch repairs but with no missing, loose or raised examples present. The verge and the ridge tiles are all mortared with no gaps. The eaves are closed with brick and tight fitting fascia's. No suitable habitat for roosting bats was identified externally and points of entry for bats could not be identified. However, an internal inspection is recommended during the follow-up survey to facilitate a full assessment.</p>		

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 3.

Bats

Bats are protected under the Wildlife and Countryside Act and the Conservation of Habitats and Species Regulations 2017 (amended by the Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019).

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommend additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform an EPSL application to Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey.

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommend additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence or likely absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey. If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bat roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSL application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted for further advice.

Birds

Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 5 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise extension to the roof

Table 7: Evaluation of the site for bats and any other ecological constraints

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations Measures required to adhere to guidance, legislation and planning policies.	Biodiversity Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021)
B1- Roosting Bats	<p>In line with Good Practice Guidelines (Collins, J. (Ed) 2016, the building is assessed to have a 'low' habitat value for supporting roosting bats due to the presence of a number of gaps in the roof tiles which provide suitable habitat for crevice dwelling bats.</p> <p>The building is considered unsuitable to support void dwelling bats; such as brown long-eared bats due to a lack of suitable internal habitat, no bat access points and no evidence of bats within the building.</p> <p>There are foraging resources for urban bats within 200m including a nearby waterbody and open green spaces. Bats could commute and forage in close proximity and could find suitable roosting provision within the gaps on site.</p>	<p>The proposals include the demolition of the building.</p> <p>Any bats present during the demolition works could be disturbed or harmed by the works. Any bat 'roost' present will be destroyed when the building is demolished.</p> <p>A 'bat roost' is interpreted as any place a bat uses to 'rest or shelter' (sleep, hibernate/eat) and is protected whether or not bats are present at the time.</p>	<p>To proceed with the development, following best practice and in line with planning policy, one external bat emergence re-entrance survey (BERS) should be undertaken to confirm the presence or likely absence of a bat roost within the building. Two surveyors will be required to provide sufficient coverage of the building.</p> <p>The survey should be undertaken in the optimal survey window of May to August. If bats are found to be using the building during this survey, a further two surveys will be required to enable characterisation of the bat roost present and to inform a licence application to Natural England, once planning permission has been granted.</p> <p>The further surveys should be spaced at least two weeks apart and undertaken in favourable weather conditions.</p> <p>If no bats are seen emerging from or re-entering the building during the survey, further surveys and a licence from Natural England will not be required.</p>	<p>To be determined following further survey.</p>

B2 Outbuilding	This building has no suitable features for crevice dwelling bats on the outside and no points of entry for bats to the interior. An internal inspection should be carried out during the recommended emergence survey in order to adequately rule of the presence of bats internally. However, given the nature and use of the garage building, and the assessment of the external features, the building is assessed to have a negligible value for bats.	No direct impacts on bats or their roosts are foreseen as a result of the development works. (This assessment will be superseded by any contradictory data collected during the internal inspection).	To be confirmed following further survey.	To be determined following further survey.
Foraging and commuting bats	The rear garden could support individual bat foraging. Any bats present in proximate development could commute across the site to access resources in the wider landscape.	The proposed development will not result in the removal of any significant habitat used by bats for foraging and commuting.	<p>To avoid increased levels of light pollution locally, any new lighting scheme should follow guidance from the Bat Conservation Trust.</p> <p>Low impact lighting strategies will be adopted from the guidance outlined in the new Bats and Lighting Publication produced by the Institution of Lighting Professionals and the Bat Conservation Trust "Guidance Note 08/18 Bats and artificial lighting in the UK Bats and the Built Environment series publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting.</p> <p>This will include the following measures to reduce the impacts of increased levels of light pollution on the network of amenity garden habitats to the rear of the site. Use narrow spectrum light sources to lower the range of species affected by lighting.</p> <ul style="list-style-type: none"> • Use light sources that emit minimal ultra-violet light. 	N/A

		<ul style="list-style-type: none">• Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin.• Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. <p>Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only.</p> <p>External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.</p> <p>Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.</p>	
--	--	--	--

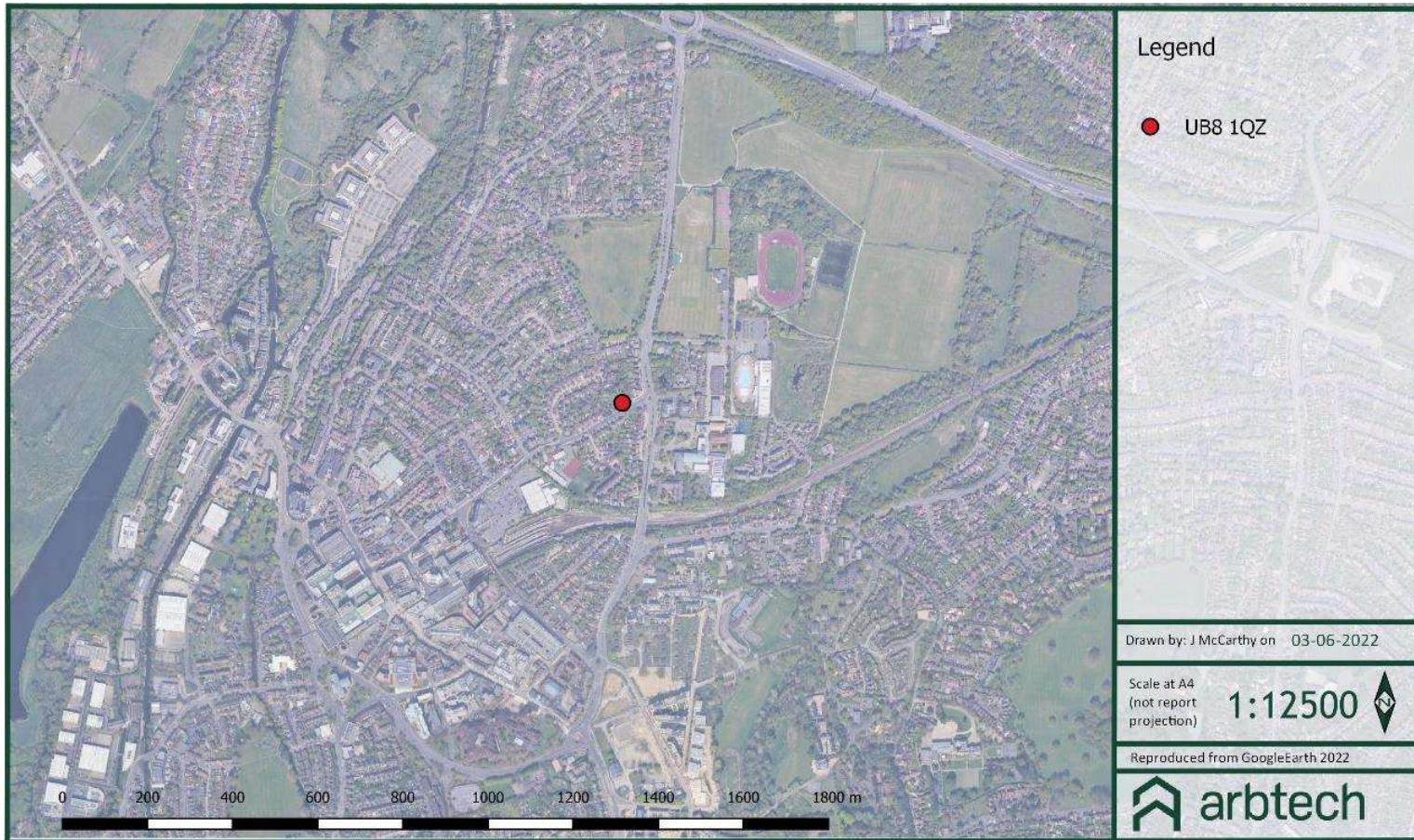
Birds	There is no evidence of nesting birds within the building and there are few opportunities for birds to gain purchase to the roof-space for nesting.	The proposed development will not impact on existing bird nesting sites.	Precautionary methods of working are recommended, in line with Sections 1-8 of the Wildlife and Countryside Act 1981, which makes it an offence to obstruct or prevent any wild bird from using its nest. A close inspection of the building should be undertaken by the contractors immediately prior to commencement of work. All active nests will need to be retained until the young have fledged.	Additional habitat for birds can be incorporated into the design of any new roof. Schwegler 1SP Sparrow Terrace Box (buildings or trees) or a similar alternative brand would provide additional habitat three pairs of nesting sparrows.
--------------	---	--	--	--

5.0 Bibliography

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected?
<http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Google Earth (2020) accessed 2022.
- Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication:
http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting.
- Magic database (2020) <http://www.magic.gov.uk/MagicMap.aspx> accessed 2022.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- National Planning Policy Framework (2021) <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25.

Appendix 1: Proposed Plan



Appendix 2: Site Location Plan

Appendix 3: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

The **Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019** came into force when Britain left the European Union on 31st January 2020. It covered amendments relevant to this survey to:

Wildlife and Countryside Act 1981: England and Wales (x1 amendment)

Conservation of Habitats and Species Regulations 2017 (x29 amendments)

All species of bat are fully protected under **The Conservation of Habitats and Species Regulations 2017** (amended by the **Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019**) which continue the same provision for European protected species, licensing requirements and protected sites after the UK leaves the EU through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the **Wildlife and Countryside Act 1981 (as amended)** through their inclusion on **Schedule 5**. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

AFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

- 1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;**
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.