



Preliminary Roost Assessment

85 Hamilton Road, Earley, Reading RG1 5RB

JETArch Design Limited

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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 instructed by JETArch Design Limited to undertake a Preliminary Roost Assessment (PRA) at 85 Hamilton Road, Earley, Reading RG1 5RB (hereafter referred to as “the site”). The survey was required to inform a planning application for the ‘demolition of existing garage and replacement with new single garage, three storey rear extension with basement extension following demolition of rear outhouse extension and removal of single pier to front boundary and insertion of new ironwork gate’ (hereafter referred to as “the proposed development”).

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 5 of this report.

Feature	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation, and planning policies.</i>
Roosting bats (B1)	The proposed development will result in the renovation to this building. This could result in damage and the destruction of any bat roosts present and could cause disturbance, death, or injury to bats.	One bat emergence or re-entry survey is required during the active bat season (May – September) to confirm presence or likely-absence of a bat roost in the building. If bat roosts are confirmed in the building two additional surveys will be required to inform an EPSL application to Natural England.
Roosting bats (B2)	No impacts to roosting bats are anticipated as a result of the demolition of this building, as roosts are highly unlikely to be present.	In the highly unlikely event that a bat is found prior to or during demolition, works should immediately cease, and advice should be sought from a licensed bat consultant.
Foraging and commuting bats	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. The proposed development will include the use of lighting which could spill on to bat roosting, foraging, or commuting habitat and deter bats from using these areas.	None. A low impact lighting strategy will be adopted for the site during and post-development. Further information is provided in Table 5 of this report.
Nesting birds	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.
Other ecological constraints	None identified.	N/A

Contents

1.0 Introduction and Context.....	6
1.1 Background.....	6
1.2 Site Context	6
1.3 Scope of the Report.....	6
2.0 Methodology.....	7
2.1 Desk Study	7
2.2 Field 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.....	9
3.1 Desk Study Results.....	9
3.2 Designated Sites	9
3.3 Landscape.....	9
3.4 Historical Records	9
3.5 Field Survey Results.....	10
4.0 Conclusions, Impacts and Recommendations	20
4.1 Informative Guidelines	20
4.2 Evaluation	20
5.0 Bibliography	24
Appendix 1: Proposed Development Plan.....	25
Appendix 2: Site Location Plan	26
Appendix 3: Bat Survey Plan	27
Appendix 4: Legislation and Planning Policy Related to Bats.....	28

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by JETArch Design Limited to undertake a Preliminary Roost Assessment (PRA) at 85 Hamilton Road, Earley, Reading RG1 5RB (hereafter referred to as “the site”). The survey was required to inform a planning application for the ‘demolition of existing garage and replacement with new single garage, three storey rear extension with basement extension following demolition of rear outhouse extension and removal of single pier to front boundary and insertion of new ironwork gate’ (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

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 SU 7360 7255 and has an area of approximately 0.1ha comprising one main building and garage designated as B1 and B2 which were surveyed as they will be affected by the proposed development. The site is located southeast of Reading town centre in Berkshire. The immediate landscape comprises mostly of urban buildings with the River Kennet 1,300m northwest, the River Thames 1,350m north and Caversham lakes 1,500m north of the site. The surrounding habitats include amenity gardens and tree lines as well as grassland, parkland, and woodland.

A site location plan is provided in Appendix 2.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging, and commuting 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 possible constraints to the proposed development as a result of 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.

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 of built structures where possible, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site’s bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.

- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging, and commuting bats have been set out.

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 Field Survey

The survey was undertaken by Georgia Chapman (Accredited Agent, Natural England bat licence number: 2019-41480-CLS-CLS) on 24th January 2022.

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.

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.

For any surveyed trees:

A visual inspection was undertaken from ground level using binoculars and, where accessible and safe to do so, an internal inspection of any features which bats could use for roosting was completed using an endoscope, torch, and ladders.

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

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings 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. 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. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	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. Habitat suitable for foraging in close proximity but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
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.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

Specific limitations to the survey were a lack of access to all the eaves space within B1 due to an accumulation of stored items. The eaves space was not boarded and was narrow, a safe route for a full inspection could not be determined.

These limitations have been considered during the evaluation of the site and requirement for further surveys and mitigation.

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
Highwood Local Nature Reserve (LNR)	~1,200m east	The site has exotic tree species which were part of an arboretum (collection of trees) in the house grounds and include giant redwoods and monkey puzzle. It is a fine example of mixed lowland woodland with an attractive heathland area. This could be an important local habitat for foraging, commuting and roosting bats.
Maiden Erleigh Lakes (LNR)	~1,800m southeast	Habitats include lowland mixed deciduous woodland, ancient semi natural woodland and eutrophic open water. This could be an important local habitat for foraging, commuting and roosting bats.

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 in an urban area of Berkshire, southeast of Reading town centre. The immediate urban landscape comprises mostly of buildings and roads with the River Kennet 1,300m northwest, the River Thames 1,350m north and Caversham lakes 1,500m north of the site. The surrounding habitats include treelines, amenity gardens and parkland which provides suitable habitat connectivity to nearby watercourses. The wider landscape comprises mostly of arable fields and grassland with pockets of woodland. One area of ancient woodland is located ~1,200m east of the site that could be an important local habitat for bats. Scattered irrigation ditches around the area will provide abundant insect foraging for bats.

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 <2km 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 3.

Table 3: Granted EPSLs for bats within 2km of the site

EPSL reference	Approx. distance from site	Bat species affected	Licence start date:	Licence end date:	Impacts allowed by licence
EPSM2010-2126	~320m southwest	Common pipistrelle	02/09/2010	31/08/2012	Destruction of a resting place.
2014-500-EPS-MIT	~650m southeast	Common pipistrelle and soprano pipistrelle	29/04/2014	30/09/2016	Destruction of a resting place.
EPSM2010-2266	~840m south	Common pipistrelle and brown long-eared	01/09/2010	28/02/2011	Destruction of a breeding site. Destruction of a resting place.
2014-3941-EPS-MIT 2014-3941-EPS-MIT-1	~880m northeast	Common pipistrelle and soprano pipistrelle	21/10/2014 17/12/2014	30/11/2019 30/09/2019	Damage of a resting place. Destruction of a resting place.
2014-441-EPS-MIT	~1,400m east	Common pipistrelle and soprano pipistrelle	14/04/2014	30/09/2019	Damage of a resting place. Destruction of a resting place.
2016-22301-EPS-MIT	~1,500m west	Common pipistrelle	21/04/2016	20/04/2021	Damage of a resting place.

3.5 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 results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 4.

Table 4: Weather conditions during the survey

Date: 24/01/2022	
Temperature	4°C
Humidity	80%
Cloud Cover	60%
Wind	1mph
Rain	None

Building B1 Exterior**B1: Southwest elevation (pictured opposite).**

B1 is a detached three-storey brick-built building with a hipped roof clad in slate roof tiles. There is no main loft space within B1, although there is an eaves space which is open and runs the entire perimeter of the building. The roof and ridge tiles are in very good condition with no raised, missing, or broken examples present under which bats could roost. The doors and windows are wooden framed and appear in excellent condition with no suitable bat roosting sites. The brickwork around the building appears in excellent condition with no gaps or cracks within which crevice-dwelling bats could roost.



Photograph 1: Southwest elevation of B1.

B1: Southeast elevation (pictured opposite).

There are two chimneys located on the roof of the building. The brickwork on the chimneys is in good condition. There is lead flashing around the bases of the chimney which is flat and without gaps.



Photograph 2: Close-up of roof on southeast elevation of B1.

B1: Northeast elevation (pictured opposite).

The roof tiles are in excellent condition with no raised, missing, or broken examples present under which bats could roost.

There is a dormer window extension on the northeast elevation of the building. The dormer window is UPVC framed and is clad in timber weatherboarding with a pitched slate tile roof. There is lead flashing around the base of the dormer extension, which is in very good condition with no lifted areas under which bats could roost.



Photograph 3: Northeast elevation of B1.

B1: Close up of soffit box on northeast elevation (pictured opposite).

The soffit box is generally in good condition; however, a gap is present between the brickwork and the timber board allowing access into the eaves space.



Photograph 4: Close up of soffit box on northeast elevation.

B1: Single storey extension and brick shed (pictured opposite).

A single storey sloped roof extension clad in slate roof tiles is present on the northeast elevation of B1. There is no loft space within the extension. There are several raised slate roof tiles under which crevice dwelling bats could roost.

Additionally, a brick shed is located adjacent to the extension on the northeast elevation which is clad in concrete roof tiles. The tiles are in good condition with no bat roosting sites. A gap in the door could allow access into the space; however, no evidence of roosting bats was found during the internal inspection.



Photograph 5: Single storey extension and brick shed.

B1: Northwest elevation (pictured opposite).

The soffit box is generally in good condition; however, a gap is present between the brickwork and timber board most of the way around the building providing direct access into the eaves space.

The brickwork on this elevation is in good condition with no gaps in which crevice dwelling bats could roost.

The northernmost chimney is in excellent condition with no gaps for bats to roost.



Photograph 6: Northwest elevation of B1.

B1: Soffit box on the northeast elevation (pictured opposite).

This photo shows a close-up of the significant gap between the brickwork and timber board of the soffit box on this elevation, which would allow access for bats and nesting birds into the eaves space. Evidence of birds is present on the brickwork below the gap which suggests this feature is in regular use during the nesting season.



Photograph 7: Close up of the soffit box on the northwest elevation.

B1: Basement doors (pictured opposite).

The basement doors are wooden framed and in good condition, there are no gaps in which roosting bats could access the building.



Photograph 8: Basement doors (pictured opposite).

B1 Interior**B1: Eaves space (pictured opposite).**

The main loft space within B1 is converted living space. There is an eaves space which is open and runs the perimeter of the building. The roof structure is built from modern timber beams and is lined with a breathable roof membrane. The internal wall and floor of the eaves space is lined with mineral wool insulation. The floor is un-boarded and inaccessible, it was therefore not possible to carry out a full inspection of the eaves space on every elevation.

No bat droppings were found but there was evidence of mouse activity.



Photograph 9: Interior of eaves space within B1.

B1: Eaves space on the southeast elevation (pictured opposite).

The eaves space on the southeast elevation (pictured opposite). The breathable roof membrane is in good condition with no gaps or tears for bats to roost. The floor is un-boarded and inaccessible to carry out a full inspection. The water tank was inspected for remains of bats, none were found. No evidence of bats was found on this elevation.



Photograph 10: Eaves space on southeast elevation of B1.

B1: Eaves space on the southwest elevation (pictured opposite).

The breathable roof membrane is in good condition with no gaps or tears for bats to roost. The floor is un-boarded, and the space is too narrow to be fully inspected. No bat droppings were found. The space is low in height which may reduce suitability for void dwelling species.

Approximate internal dimensions: 30 long x 1m wide x 1m high (floor to ridge height).



Photograph 11: Eaves space on southwest elevation of B1.

B1: Daylight at the eaves (pictured opposite).

Daylight enters the space on the southeast elevation through a gap at the eaves. After an external inspection it is likely this is through a gap between the soffit box and brickwork which is present on all elevations but is most significant on the northwest elevation. The northwest elevation could not be accessed for an internal inspection; however, this would not change the conclusions of the survey.



Photograph 12: Daylight enters the space at the eaves.

B1: Storage area within the basement (pictured opposite).

The basement is used to store items. The items and surfaces were searched for evidence of bats as droppings can accumulate on surfaces. However, no droppings or insect feeding remains were observed.



Photograph 13: Basement storage area.

B1: Room within the basement (pictured opposite).

A second room within the basement was inspected for bats, and evidence of bats. No bat droppings were found. The room was inaccessible for a full inspection because of the density of stored items. No daylight enters the space other than through the glass windows on the wooden doors at the entrance, indicating the space is well-sealed with no gaps for bats to enter and roost.



Photograph 14: Basement room.

B1: Space under the stairs which lead from the basement into the house (pictured opposite).

An area under the stairs was searched for bats, and evidence of bats. No droppings were found, and the space is heavily cobwebbed indicating a lack of flying activity.



Photograph 15: Space under the stairs which lead into the house.

B1 Evidence of bats

None.

B1 Breeding birds and other incidental observations

There was evidence of nesting birds located externally on the brickwork of the building below the gap at the eaves on the northeast elevation.

See **photograph 7** above.

B2 Garage

The garage is a single storey brick-built building with a flat roof. The door is wooden and is well-sealed. There are no gaps in which bats could enter the building.

The rear of the garage is obscured by a trellis and overgrown shrub, any features that could be used by bats are hidden.



Photograph 16: View of B1 and B2 from the garden.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

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 one or two further surveys are 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 bats 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 details any other ecological constraints identified such as nesting birds in relation to the proposed development.

Table 5: Evaluation of the site for bats and any other ecological constraints

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation, and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021) and local plan reference.</i>
Roosting bats (B1)	B1 has low value for roosting bats. A gap on the northeast elevation between the brickwork and the soffit box would allow access for roosting bats into the eaves space. This feature is present on all elevations where there is a gap between the soffit box and brickwork. No evidence of roosting bats was found, although limitations were encountered during the internal inspection. Additionally, raised tiles on the single storey pitched roof could provide roosting habitat for crevice-dwelling bats such as common pipistrelles.	The proposed development will result in the renovation to this building. This could result in damage or destruction of any bat roosts present and could cause disturbance, death, or injury to bats.	One bat emergence or re-entry survey is required during the optimal bat season (mid-May – August) to confirm presence or likely-absence of a bat roost in the building. The survey can be either a dusk emergence or dawn re-entry survey. Three surveyors are required to provide full coverage of the building. The survey is likely to be required before planning permission can be granted. If bat roosts are confirmed in the building two additional surveys will be required to inform an EPSL application to Natural England. The EPSL application requires that all surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	To be confirmed upon completion of the surveys.
Roosting bats (B2)	B2 had negligible value for roosting bats due to a lack of suitable roost features.	No impacts to roosting bats are anticipated as a result of the demolition of this building, as roosts are highly unlikely to be present.	In the highly unlikely event that a bat is found prior to or during demolition, works should immediately cease, and advice should be sought from a licensed bat consultant.	To be confirmed upon completion of the surveys of B1.

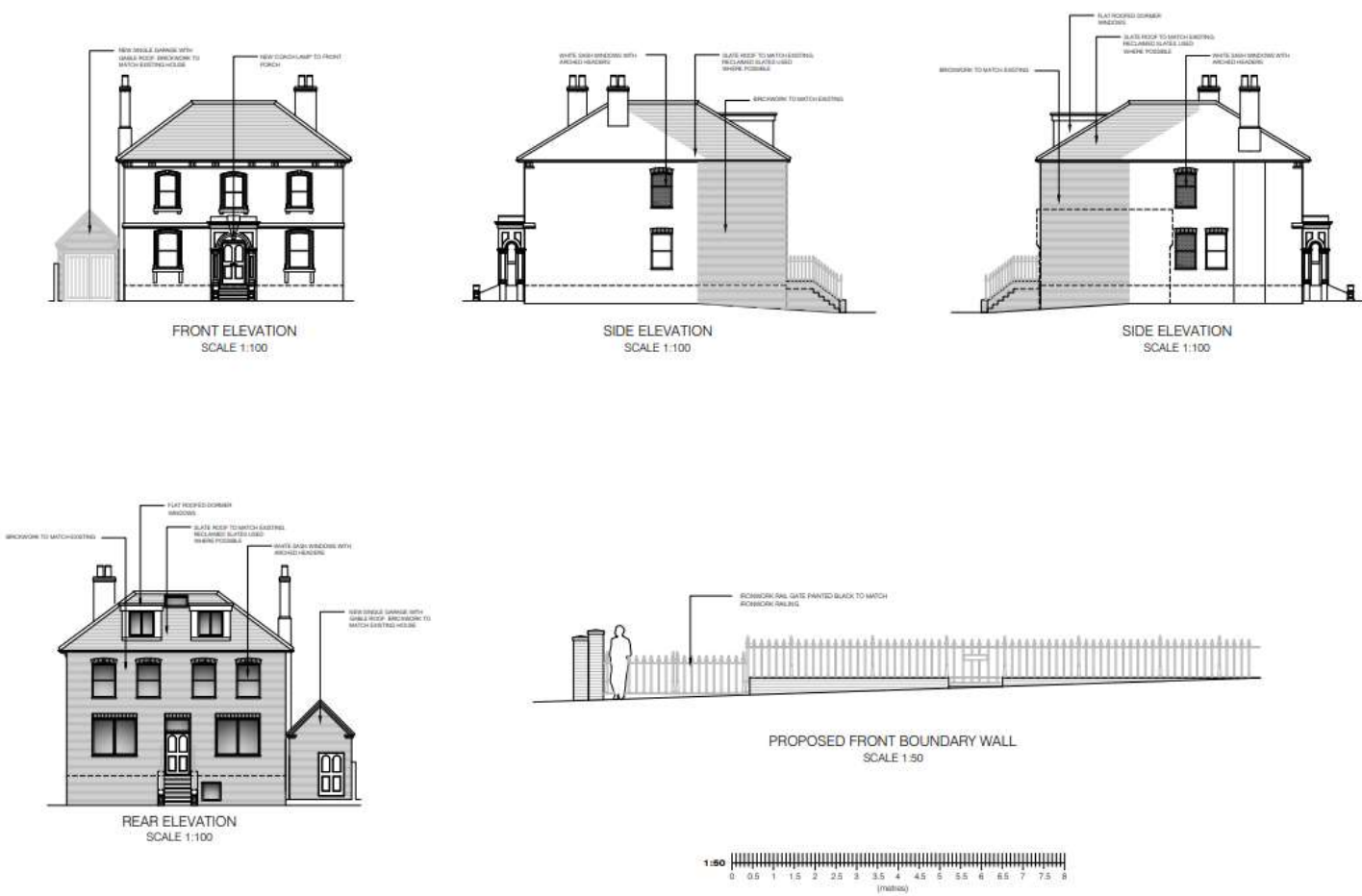
Foraging and commuting bats	Garden trees could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. The proposed development will include the use of lighting which could spill on to bat roosting, foraging, or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required 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. 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. 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. Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: • Planting of native tree, shrub, and hedgerows to increase foraging opportunities.
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			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.	
Nesting birds (B1)	The building contains evidence of nesting birds. Bird droppings are located on the brickwork below the gap at the eaves on the northeast elevation (see photograph 7).	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.	The installation of a minimum of two bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees) Schwegler 2H Robin Boxes (trees) Woodstone Nest Box (buildings or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain, and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
Other ecological constraints	None identified.	N/A	N/A	N/A

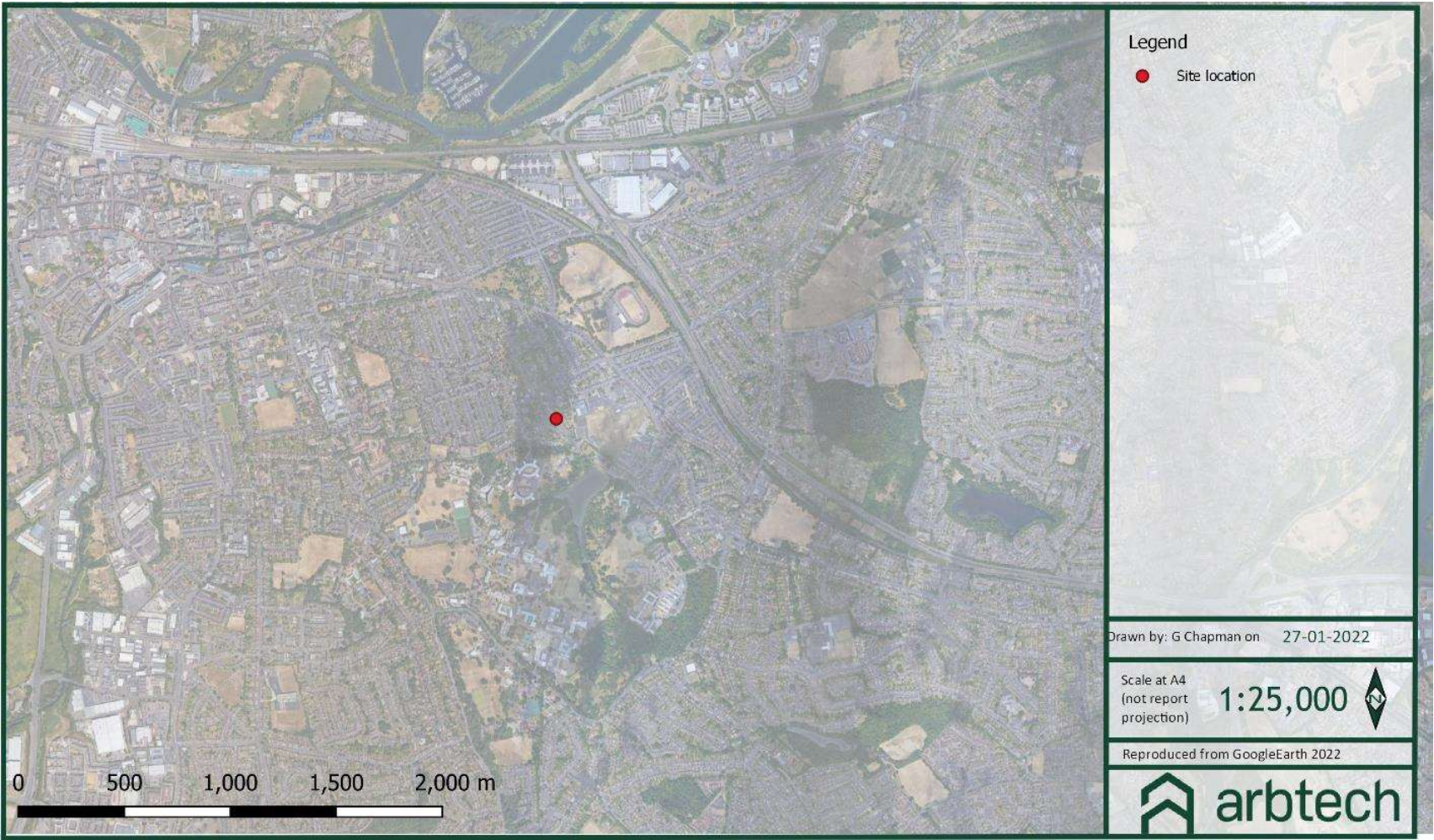
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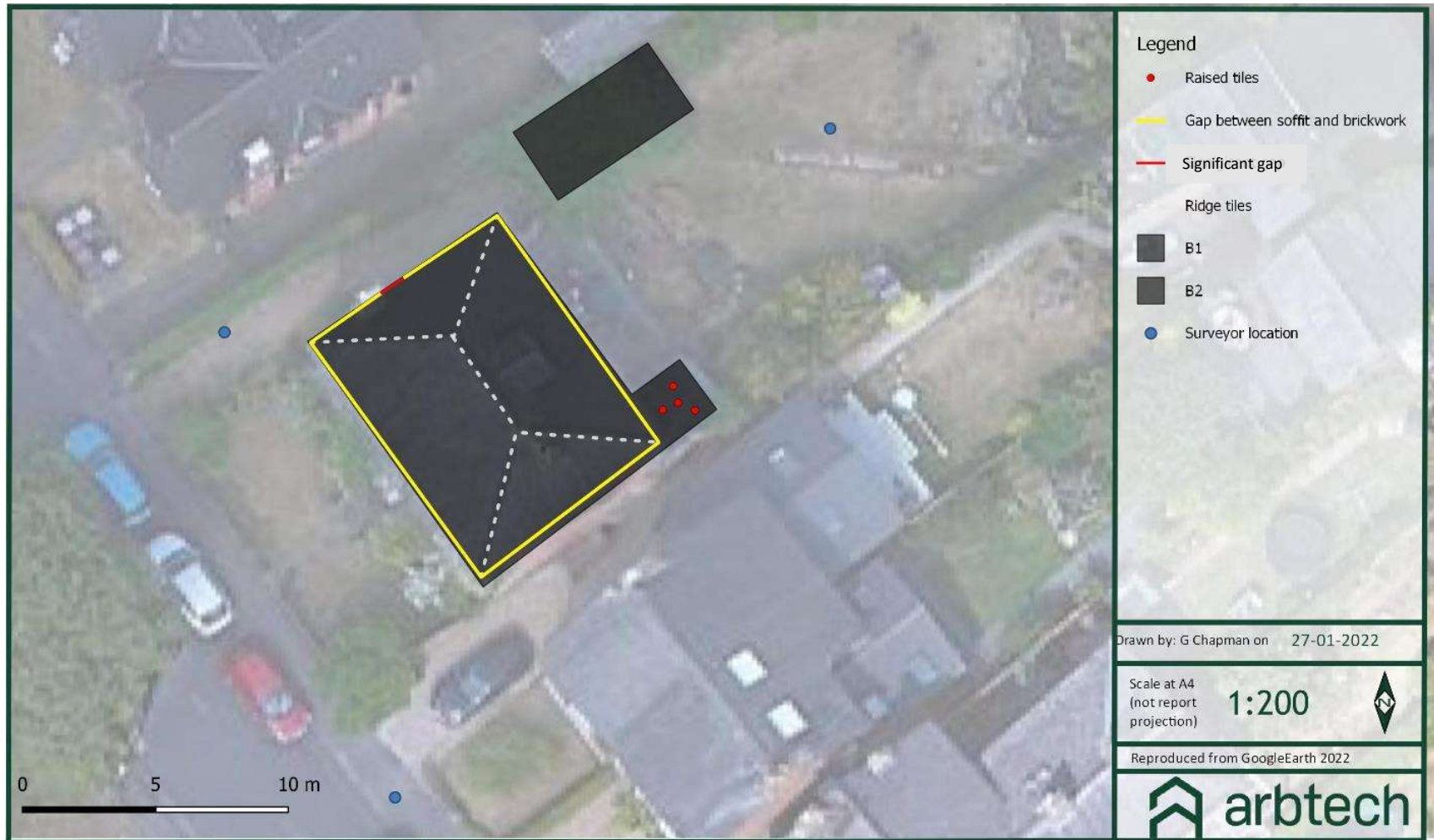
Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Bat Survey Plan



Appendix 4: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) 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 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 significantly affect 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.

EFFECT 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.
- 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.