



Preliminary Ecological Appraisal and Preliminary Roost Assessment

2 The Grange, Longstock, Hampshire, SO20 6DP

Hugo Deene

Status	Issue	Name	Date
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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.

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 Hugo Deene to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at 2 The Grange, Longstock, Hampshire, SO20 6DP (hereafter referred to as “the site”). The survey was required to inform a planning application for proposed extension onto the north side of the existing residential house (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 8 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Designated sites	<p>There are 2 statutory sites within 2km of the site, the closest being River Test SSSI located 20m from the site.</p> <p>The site lies within the impact risk zone for river Test and proposed development type is not listed as a possible high risk for this designation.</p> <p>The presence of non-statutory designated sites within 2km of the site cannot be established without data from HBIC- However due to the small scale of the proposal being retained in an existing garden, no direct impacts are expected.</p>	<p>No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the proximity of the site to River Test SSSI within 100m and the possible presence of non-statutory designations in the vicinity, indirect effects such as pollution or tree damage could occur during construction.</p>	<p>Best practice measures to minimise the possibility of pollution must be implemented during construction.</p> <p>A CEMP report is suggested for pollution control, due to proximity to the River Test</p>
Habitats and flora	<p>There are no notable habitats within the site but chalk river habitats are present within 1km of the site, the closest being River Test located 20m from the site.</p>	<p>The proposed development will result in the loss of an area of mown lawn, introduced shrubs and a single cherry tree. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats and those retained at the site.</p>	<p>Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).</p>
Roosting bats B1	<p>Building 1 has a confirmed roost, as identified by bat droppings seen within both loft areas of B1, as well as a high volume of tile roosting feature seen on both roof elevations. There is an EPSL for pipistrelle with 30m of the site.</p>	<p>The proposed development will result in extensions to the northern elevation of this building. However no roosting features were noted across this area of the building</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further bat surveys are considered to be disproportionate. It is anticipated that any risk to bats can be reduced to an acceptably low level through the implementation of a Bat Mitigation plan during and post-development. This will include some the following measures, <u>but full details will be within the plan:</u></p>

	<p>The building has value for both crevice-dwelling and void-dwelling bat species</p>	<p>It is not anticipated that the proposed works will result in the damage, destruction or modification of the existing bat roosts, however, the proposed works may cause disturbance to the bat roosts. It is anticipated that a Bat mitigation plan can bring the level of risk of disturbance to an acceptable low level.</p> <p>If any works are proposed to the existing loft spaces or exiting roof structure then this could result in damage/destruction of any bat roosts present and could cause disturbance, death or injury to bats. If the new extension will be within 2m of the existing wall top on the northern gable-end then this could result in modification of the existing bat roost (i.e. preventing access).</p>	<p>Works will be scheduled during the winter months (November to March) when bats are least likely to be present, insofar as is possible.</p> <p>Roof height of the new extension will be at a suitable distance from the existing roof- 1.5m minimum, though a further reduction in height, such as a single storey would further reduce the risk.</p> <p>No work will take place on the existing roof and no scaffold will cover the existing roof during works.</p> <p>All tile features seen on the existing roof are to be retained- No alterations to the top of the gable wall will take place, including eaves and tiles.</p> <p>In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a license will be required for any further works</p> <p>If works cannot avoid tampering with the existing roof or encroaches too close to the top of the gable (i.e. within 1.5m of the wall top), or if work involves having to cause alterations to Loft 1, or decisions are made to repair any tiles on the existing roof, then three bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive.</p> <p>Infra-red cameras should be used as an aid. Surveys should be a minimum of three weeks apart.</p> <p>Two surveyors are required to provide full coverage of the building.</p> <p>An EPSL application to Natural England will be required. The EPSL application requires that 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.</p> <p>A Material Changes Check will be required within three months of the EPSL submission, if no survey work has been undertaken within that period. If bat droppings were found during the PRA, a sample will need to be sent off for DNA analysis to confirm the bat species present, to inform the EPSL application.</p>
<p>Birds</p>	<p>There is a good volume of shrubs and tree for supporting nesting birds. The building on site has low value for nesting birds as well.</p>	<p>Shrubs and mature cherry tree will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird</p>	<p>Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the tree and vegetation 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.</p>

	<p>The site has poor value for ground species, including waders and waterfowls, as there is a predation risk due to cats and dogs living at the site.</p>	<p>populations owing to their low value and the presence of more extensive habitat locally, including the volume of trees and shrubs retained at the site. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.</p>	
<p>Other species</p>	<p>A precautionary method is recommended for other protected species due to the low risk to these species, full details on this would be in the relevant tables in Table 8 of this report.</p>		

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Hugo Deene to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at 2 The Grange, Longstock, Hampshire, SO20 6DP (hereafter referred to as “the site”). The survey was required to inform a planning application for proposed extension onto the north side of the existing residential house (hereafter referred to as “the proposed development”).

(hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. 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.

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 Location and Landscape Context

The site is located at National Grid Reference SU35633670 and has an area of approximately 0.2ha comprising semi-detached residential house and surrounding garden. It is surrounded by large residential dwellings to the north and south with large vegetated gardens. Agricultural landscape is to the west, and the River Test and associated floodplains are to the east. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of 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 to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.

Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.

Potential impacts on features of value, as a result of the proposed development, have been identified.

Recommendations for further surveys and mitigation have been made.

Opportunities for the enhancement of the site for biodiversity have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 2km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

2.2 Field Survey

The survey was undertaken by Annabel Sharpe Graduate Ecologist, license number 2023-11145-CL17-BAT on 15/09/2023.

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in UK Habitat Classification User Manual (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA focussed on 1 built structure and 1 tree 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 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.

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.

Suitability Assessment

Built structures and trees 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 and Table 2 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.

Table 2: Features of a tree that are correlated with use by bats

Classification	Feature of tree and its context
Moderate to high	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be 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.
Negligible	Unsuitable for use by bats.

2.3 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

A biological records data search has not been undertaken. However, with evidence of bats seen within the loft spaces of B1 if any work will involve tampering with the roost space then biological records will be required in order to obtain any bat licenses for works.

There was no visible location of the south elevation of the roof of B1.

The second loft space in B1 was not fully accessible during the PRA as it was not boarded, and a safe route could not be determined. However, evidence was still found within this loft, within the central area but more may have been missed around the eaves.

The ground level tree assessment was undertaken when foliage was present on the trees and this obscured visibility in places.

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

3.0 Results and Evaluation

3.1 Designated Sites

Details of any statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 3 below.

The site lies within the impact risk zone for River Test SSSI. Proposed development type is not listed as a possible high risk with regard to this designation.

Table 3: Statutory designated sites within 2km radius of the site

Designated site name	Distance from site	Reasons for notification from Natural England
River Test- Site of Special Scientific Interest (SSSI)	20m	The River Test is a classic chalk stream. It is one of the most species-rich lowland rivers in England. The Test and its adjoining vegetation provide valuable habitat for wetland birds. Otters have been reported from certain parts of the site, but the Test no longer has an established population. Water voles are common in places, but their numbers are thought to have declined as has been noted elsewhere in Britain. Over 232 invertebrate taxa (species and groups of species) have been recorded from the River Test. The Test is more species rich than most other lowland rivers, with the most diverse communities of flora being found in the lower reaches where the substrate is more varied. Over 100 species of flowering plant, moss and liverwort have been recorded along its channel and banks. There are distinct successional changes on passing downstream.
Stockbridge Fen SSSI	1.2km south	Stockbridge Fen lies within the floodplain of the upper reaches of the River Test, and has developed on shallow peats over alluvium and river gravels. The main interest of the site centres on six shallow, former peat workings (shown on the 1st edn. OS map, 1871), which support an exceptionally diverse rich-fen flora. Sixteen species are indicative of ancient unimproved grassland, including a number which can be regarded as rare or uncommon throughout southern England.

3.2 Field Survey Results

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:	15/09/2023
Temperature	15°C
Humidity	84%
Cloud Cover	60%
Wind	4mph
Rain	None

Habitats and Flora

The following habitats are present within and adjacent to the site:

- U1-828- Vegetated Garden
- U1b- Developed land, sealed surface
- U1b5- Building
- H2b- Non native hedgerow
- R2a-51- Priority river- Chalk river (off-site)

A description and photographs of each habitat are provided in Table 5.

No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site.

Table 5: Description and photographs of habitats within and adjacent to the site

Habitat type	Habitat description	Photograph
<p>U1- 828- 32, 107, 108, 612, 516, 846, 847, 853</p> <p>Vegetated garden-</p> <p>Scattered trees, mown and collected, frequently mown, active management, fence, flowerbeds, introduced shrubs, mortared wall.</p>	<p>These photographs show parts of the large vegetated garden that is on the site.</p> <p>This garden is actively managed to a manicured standard, with the lawn area regularly mown to keep a sward height of 5 cm. Grass cuttings are removed to a compost site. This compost site is in the northeast corner of the site and is marked on the map in appendix 3.</p> <p>There are shrubs and flowerbeds planted around the north and south border of the site, with most of these introduced species. Some native species were seen amongst scattered trees such as hawthorn, as the second photograph shows.</p> <p>There is a small grow-bed allotment area in the northwest corner of the site, with young, planted fruit trees present in this corner as well.</p> <p>The west boundary of the garden has a 6ft mortared wall, while the rest of the site has a fence boundary. The east fence boundary is a stock-proof fencing.</p> <p>The top photograph shows the area of the garden that will be lost with development, which includes an area of grass and flowerbeds, with introduced shrubs and a mature cherry tree.</p>	 <p>The top photograph shows a well-maintained lawn area adjacent to a brick building. There are trees and shrubs in the background, and a colorful bunting banner is visible. The bottom photograph shows a large, dense tree in the foreground, with a house visible behind it. Both photos include an 'arbtech' watermark and a timestamp.</p>

<p>U1b- Developed land, sealed surface</p>	<p>This photograph showed the sealed surface, which is a paved area which surrounds B1 and acts as access paths on and off the site.</p>	
<p>U1b5- 818 Residential building</p>	<p>This photograph is of the residential building on the site. Full details on this building are within the PRA section of this report in table 6.</p>	

<p>H2b-520</p> <p>No native hedgerow-active management</p>	<p>This photograph shows a small area of hedgerow on the south boundary of the site. This is a non-native cypress hedge, measuring at least 4m in height.</p> <p>This hedgerow stretches less than 20m and is not connected to any further hedgerows, nor follows the full southern boundary line.</p> <p>This hedgerow shows active management to keep a trimmed shape.</p>	
<p>R2a 51</p> <p>Offsite priority river-Chalk river</p>	<p>This photograph shows part of the chalk river of the River Test and adjacent flood meadows as taken from the most eastern point of the site. This part of the river is within 20m of the site boundary. This is just one branch of the overall river, as it splits into multiple branches across this landscape before rejoining further downstream.</p> <p>It has shallow banks and some reed vegetation growing at the edges. A full observation cannot be made without trespassing over fences.</p> <p>There are two layers of stock-proof fencing separating the site from this river and a small area of grass.</p> <p>There are no works proposed within 50m of this riverbank,</p>	

Fauna

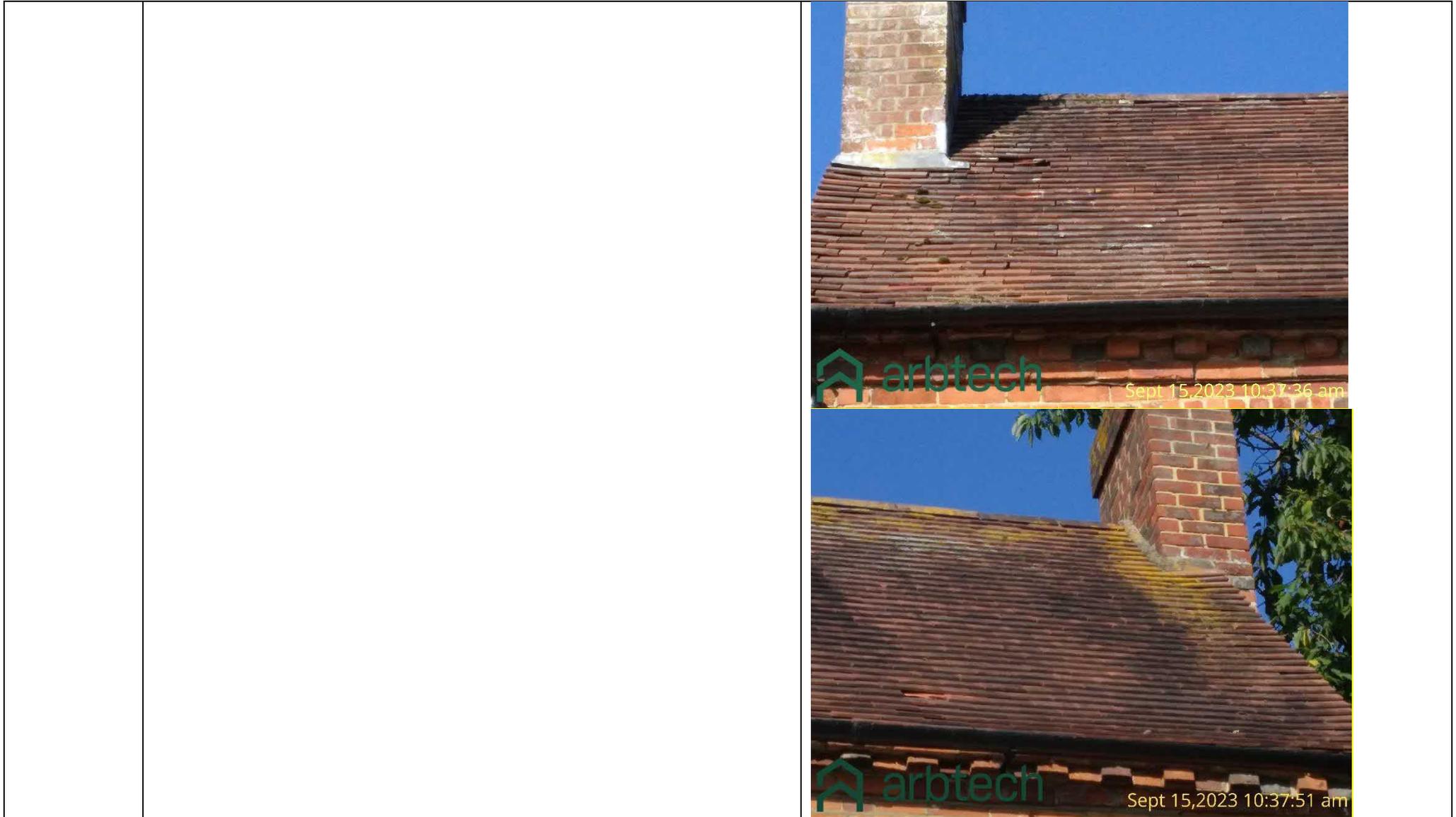
Bats

The results of the PRA are provided in Table 6. Roosting bat evidence was seen in both loft areas of B1- as well as multiple features seen.

Table 6: Assessment of the suitability of the site for bats

Feature	Description	Photographs
Historical records	There are 9 EPSLs within 2km of the site. The closest of these is within 30m of the site- 2019-43660-EPS-MIT listed for soprano pipistrelle for damage of a resting place. Other bats listed in 2k on these licenses include Brown long-eared, common pipistrelle and serotine. License 2018-38489-EPS-MIT, 1.8km northeast included damage of a breeding site. License 2019-38998-EPS-MIT, 1.73km northeast included the destruction of a breeding site of soprano pipistrelle.	
Bat foraging and commuting habitat	The site has a very large, vegetated garden, with many shrubs and small trees, including fruit trees and allotment areas. There is also a chalk stream flowing just off-site as part of the River Test floodplain, which has multiple connecting streams, ponds and lakes. This is all a good quality foraging area at and near the site for dispersing bats.	

<p>B1 – overview and east elevation</p>	<p>B1 is a semi-detached, grade 2 listed building, which serves as a residential house.</p> <p>It is constructed out of red-brick, with a flat clay-tile roof. There is a mixture of different roof heights and structures, with the majority having pitched roofs at different heights, with one area of flat roof on the west elevation.</p> <p>The windows and doors are wooden.</p> <p>There are no soffit areas or barge boards around the eaves or gable end of this building.</p> <p>There are several red-brick chimneys across this structure.</p> <p>Plans are to include extensions on the north elevation of this building.</p> <p>These photographs are of the east elevation of B1.</p> <p>There are mixed heights of the roofs on this elevation, with one gable end facing.</p> <p>With the clay-tile roof seen across this elevation, there are notable roosting features. This is a combination of lifted tiles as well as those slipped. This is evident in the field tiles and the ridge tiles. The close-up photographs following demonstrate this. More than 50 tiles of suitable roosting size were noted across the two visible roof structures.</p> <p>No features were observed within the gable end wall, in the eaves, or around the windows at this elevation.</p> <p>No droppings were found anywhere around the base of the walls.</p>	 <p>The top photograph shows the east elevation of a semi-detached red-brick building with a flat clay-tile roof. The building features several chimneys and a garden area with outdoor furniture. The bottom photograph is a close-up of the roof, showing mixed heights of tiles and a gable end wall with arched windows.</p>
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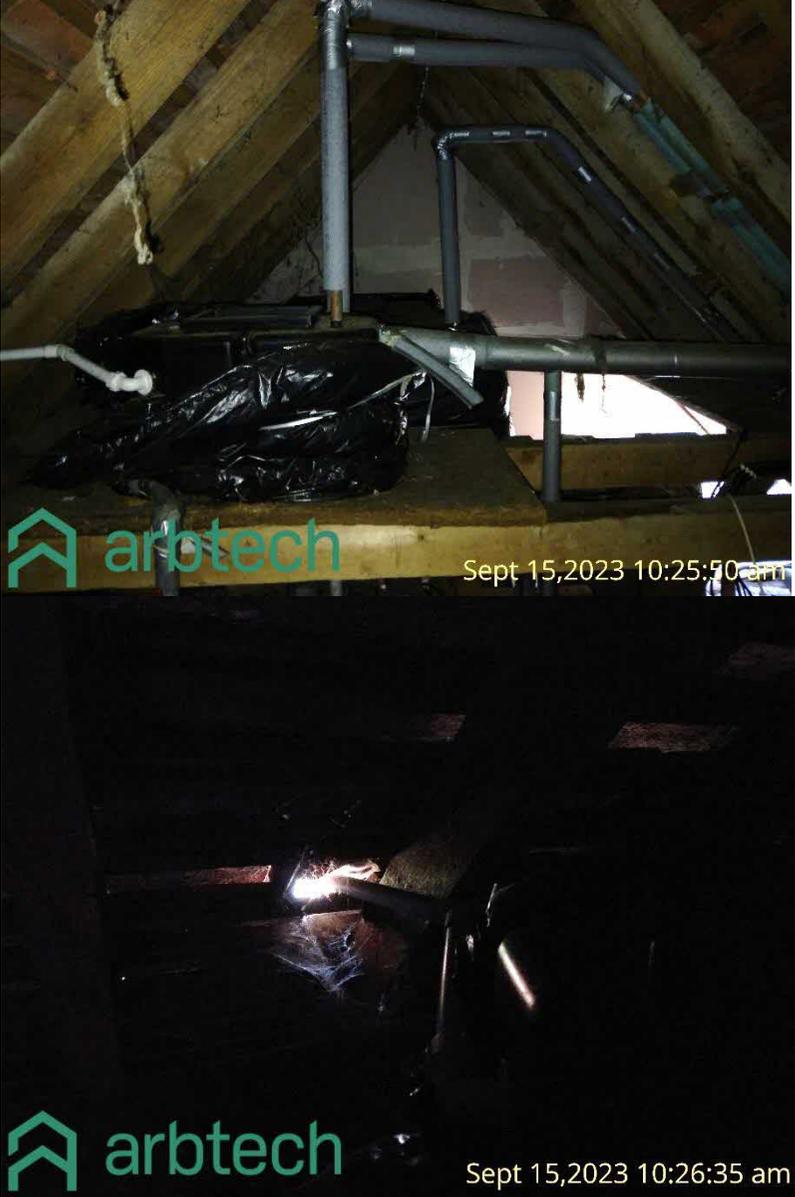


<p>B1 – northern elevation</p>	<p>This photograph is of the northern elevation where proposed extension works are to take place. There are no barge boards or soffit areas on this elevation.</p> <p>There were no roosting features observed at this elevation.</p> <p>No droppings were seen in or around the walls at this elevation.</p>	
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<p>B1 – western elevation</p>	<p>These photographs are of the western elevations of B1.</p> <p>This elevation has a combination of pitched roofs as well as a flat roof area.</p> <p>As with the eastern elevation of B1, there are several slipped and lifted tiles across this elevation, however, it was notably less than the eastern elevation. Less than 20 notable tiles to support roosting bats were seen on this elevation.</p> <p>There were no features around the walls, windows, or doors suitable for roosting bats.</p> <p>The plant growth on the wall at this elevation does not have suitable stem thickness and density to support roosting bats.</p> <p>No bat droppings were seen on the base of the walls or on any windowsills at this elevation.</p>	
<p>B1 – Southern elevation.</p>	<p>The southern elevation cannot be viewed, due to this facing onto adjacent private property, this means features at this elevation will be missed, as well as any bat roosting activity in the following surveys.</p>	

<p>B1 – interior – Loft 1.</p>	<p>These photographs are of the loft space labelled as Loft one (L1) on the PRA survey map in appendix 3, and is the loft space in the northern half of B1.</p> <p>This loft space measures 6.5m long, 2.5m high and 4m wide at the base, with a temperature of 19oC and humidity 76% at the time of the survey.</p> <p>This loft space has sarking boards as the internal lining. The floor is boarded for easy navigation, with exposed loose wool lining the eaves and gable ends.</p> <p>There was notable light coming in at the northern gable end, as the second photograph demonstrates. This indicates there is likely a direct access point through this space.</p> <p>A search was conducted for signs of roosting bats, paying close attention to key areas such as under the ridgelines and at the gable-ended walls and chimneys.</p> <p>Dropping evidence was found as detailed later in this table.</p>	
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<p>B1 Interior Loft 1- access point</p>	<p>In the southwest corner of L1 there was a notable round hole, where natural light could be seen coming through. This is suspected to lead to the smaller pitched-roof area south of L1. The filtering of natural light suggests there is direct access points in the roof. However, due to this hole's location and lack of access, a full assessment of what is beyond this hole could not be conducted.</p>	
<p>B1 –Loft 1 evidence</p>	<p>Droppings were found scattered around L1- With the greatest concentration of droppings being at the northern chimney wall. This photograph shows these droppings resting on top of the wool insulation. Crumble test of some of these droppings confirmed these did not belong to mice or rats.</p> <p>There was mixed colouration of these droppings, suggesting mixed ages. After photographing a sample was collected and labelled as S1 on the survey map in appendix 3. Around 100- droppings were seen around the northern chimney area.</p> <p>No live bats were seen inside L1 at the time of the survey.</p>	

<p>B1- Interior-Loft 2</p>	<p>These photographs are of Loft 2 (L2) of B1 which is within the southern half of B1.</p> <p>This loft space is more densely cluttered with water tanks and a variety of pipes. With no central boarding area, this did make navigating this space is difficult.</p> <p>This loft space has no internal roof lining and instead has exposed clay-tiles. There is notable spacing in these tiles where pipes are through the roof, as the second photograph demonstrates.</p> <p>Access to the far gable wall was still possible where fewer pipes and tanks were present to search for any bat roosting evidence, which is described below.</p> <p>The loft space here measures 6m long, 2.5m high (though in many places this is less due to the tanks) and 4m wide at the base.</p> <p>Floor insulation is a loose wool, which is exposed throughout.</p> <p>Internal temperatures at the time measured 21.4 degrees and 77% humidity.</p> <p>There is a single metal-framed roof skylight right by the loft hatch, which allows natural light to filter into this space at this corner.</p>	 <p>The top photograph shows a cluttered loft space with exposed wooden rafters, a network of grey pipes, and a large black plastic bag. A timestamp in the bottom right corner reads 'Sept 15, 2023 10:25:50 am'. The bottom photograph is much darker, showing a corner of the loft illuminated by a bright light source, possibly a flashlight. A timestamp in the bottom right corner reads 'Sept 15, 2023 10:26:35 am'. Both photos feature a green 'arbtech' logo in the bottom left corner.</p>
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<p>Bat evidence-L2</p> <p>B1- Suitability.</p>	<p>Bat droppings were found inside L2 at the far gable wall away from the loft hatch and window. There were droppings on top of the wool insulation, and crumble testing some pieces matched bats and not rodents such as rats or mice.</p> <p>There is also mixed colouration in droppings indicating mixed ages, but not very dark droppings were seen to indicate very recent visitation.</p> <p>After photographing a sample was taken and noted as S2 on the survey map in Appendix 3.</p> <p>Overall B1 has a high suitability for roosting bats. This is due to the presence of EPSL for soprano pipistrelle within 30m of the site. The large volume of tile roosting features across the roof elevations and the presence of good quality foraging areas right beside the building.</p> <p>The building could support both crevice-dwelling and void-dwelling bat species</p>	
<p>B1 - breeding birds and other incidental observations</p>	<p>There were scattered pieces of moss seen inside L1- which could suggest a nesting bird having brought material in to make a nest. No full nest construction was seen inside B1 at the time of the survey.</p>	

<p>T1 – suitability assessment</p>	<p>T1- is a large cherry tree, measuring at least 10m in height. This tree was in full leaf at the time of the survey which does provide some restrictions in viewing outer branches at all angles. However, the trunk could be seen and assessed and no roosting features was seen on this tree.</p> <p>This tree is negligible for roosting bats.</p>	
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Other Species

An assessment of the suitability of the site for protected or notable species is provided in Table 7.

Table 7: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability
<p>Amphibians</p>	<p>There are no EPSL or pond survey data within 500m of the site There are no ponds within 500m of the site. However, the Test Valley River system is within 20m of the site’s most eastern boundary. This river system leads and passes by several ponds within 1km of the site.</p> <p>The grassland on the site is poor value for amphibians, with a sward length of 5cm, and the risk of predation with several cats living at the site. However, features like a compost pile at the fence boundary, linked by an offsite strip of longer grass may have hibernation qualities for amphibians that may be in the area. Access off-site to the east is easily achieved as the fence line is a stock-proof fence and has sizable spacing for small-animal movement. Access is more difficult on the west boundary as this involves steps and a mortared wall.</p> <p>The area directly around the proposed development area is of poor value for amphibians, with a lack of understorey, hibernation and poor-quality foraging areas compared to other areas on and off-site.</p>

Reptiles	<p>The grassland on site is a poor value for reptiles, with a sward height of 5cm and regular mowing activity. The River Test would be an ideal habitat for reptiles like grass snakes and the compost pile on the east boundary does provide egg-laying opportunities. There are foraging areas around the flower-bed areas, though it's unknown if regular gardening activities involve pest control chemicals, which would reduce foraging opportunities.</p> <p>The area around the mortar wall and allotment patch in the northwest corner of the site provides basking and foraging opportunities. Access on and off-site is easily achieved through the eastern fence. The grassland off-site closer to the river has a better sward height for reptiles, though this still isn't a high-quality grassland area. The area directly around the site of development is poor value for reptiles, due to overshading, lack of safe basking areas, hiding areas, and limited foraging.</p>
Hazel Dormouse	There is only a section of hedge 15m on the site, which is a non-native cypress. There are no other hedgerows and disconnection from the wider landscape for any dormice to reach the site. Other habitats on site are not suitable. It's not expected this species is at the site.
Hedgehog	There were no signs of hedgehogs visiting the site- such as noticing hedgehog droppings on the grass area of the garden. There is foraging opportunities for hedgehogs within the garden, and the compost piles provide hibernation opportunity. The spaces within the stock-proof fencing would allow hedgehogs on and off-site. There was no evidence of animal runs through the fencing to suggest animals regularly coming on and off-site.
Otter	The River Test flows within 20m of the site's east boundary. The River Test is known to have otters in sparse numbers, but no longer any established population on the River Test. The area of the proposed development will be 70m from the river, and will not impact on any riverbanks. Otters could fit through the stock-proof fencing, but there are no signs of animal runs going through the fencing, or signs of otter activity like feeding remains or otter scatt.
Water Vole	<p>The River Test is within 20m of the site's east boundary. The bank of this part of the river has very shallow banks, which restricts the excavation areas for water voles. This species is known to be on the River Test but in declining numbers. A closer view of the river could not be done to assess for any droppings or foraging signs that match water voles. The habitat on site is low value for water voles, but access to the site is easily achieved. There are no signs of foraging around the fence area, or animal runs on and off site through the fence.</p> <p>The presence of multiple cats at the site, would provide a large predation risk to any individuals that may get onto the site.</p>
Birds	There is plenty of nesting opportunities for birds at the sites, with the hedgerows, trees, shrubs and features on the building that would allow nesting activity. The site is poor value for ground nesting birds and poses a very high risk with cats and dogs present, as well as children playing at the site. The River Test would support an assemblage of waterfowl and wading species of birds. But it's unlikely these species would visit the site, due to the lack of quality habitat on site for these species, and the predation risk.
Invertebrates	<p>There are a good volume of flowering shrubs and trees around the site that would support nectar-foraging invertebrates. The grassland on the site is of poor value for invertebrates due to the short sward, and dead-heading of any flowering species within through regular mowing.. It's unknown if the management of the flowerbeds and shrubs of the site includes the use of insecticides, which would impact on populations.</p> <p>There is a lack of areas of deadwood and leaf-litter areas to support ground-dwelling invertebrates.</p>

	<p>Grass areas off-site as well as the River Test would also support an assemblage of invertebrates, with a small population of dragonflies seen flying around the site at the time of the survey.</p>
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4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

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

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 8 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the extensions on the north elevation of the current residential buildings.

Table 8: Evaluation of the site and any ecological constraints

Feature	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities ¹
Designated sites	<p>There are 2 statutory sites within 2km of the site, the closest being River Test SSSI located 20m from the site.</p> <p>The site lies within the impact risk zone for river Test and proposed development type is not listed as a possible high risk for this designation.</p>	<p>No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the proximity of the site to River Test SSSI within 100m and the possible presence of non-statutory designations in the vicinity, indirect effects such as pollution or tree damage could occur during construction.</p>	<p>Best practice measures to minimise the possibility of pollution must be implemented during construction.</p> <p>A CEMP report is suggested for pollution control, due to proximity to the River Test</p>	None.

¹ The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	The presence of non-statutory designated sites within 2km of the site cannot be established without data from HBIC- However due to the small scale of the proposal being retained in an existing garden, no direct impacts are expected.			
Habitats and flora	There are no notable habitats within the site but chalk river habitats are present within 1km of the site, the closest being River Test located 20m from the site.	The proposed development will result in the loss of an area of mown lawn, introduced shrubs and a single cherry tree. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats and those retained at the site.	Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).	Planting of native trees and shrubs at the site.
Amphibians	<p>There are no ponds within 500m of the site. There are rivers and associated wetlands within 20m of the site. Which does connect close by ponds beyond 500m of the site.</p> <p>The grassland of the site is of poor value for amphibians, but access on and off the site is easily achieved through the wire fence. There is a high risk on the site due to presence of cats and dogs.</p>	Some of the garden grassland, introduced shrubs and flower beds will be removed during construction. The loss of such habitats is likely to be inconsequential to local amphibian populations owing to their low value and the presence of more extensive habitats locally. However, site clearance could result in the death or injury of amphibians, if present. This is not likely to include great crested newts due to the lack of pond presence close by.	<p>Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures:</p> <p>Maintain the short grass sward across the site, in order to provide a deterrent for amphibians who may want to cross the site.</p> <p>Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use.</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</p> <p>If any common amphibians are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a</p>	Use cut wood and brash from clearance of vegetation to create hibernation piles, against the eastern boundary close to the river habitat would be an ideal location, or adjacent to existing compost piles.

			<p>sheltered, vegetated area away from disturbance.</p> <p>In the unlikely event that a great crested newt is identified, works must cease and advise must be sought from a suitably qualified ecologist.</p>	
Reptiles	<p>The grassland on site is poor value for reptiles. There are a lack of good quality basking areas. The compost area could be used by hibernating reptiles and egg-laying reptiles like grass snakes.</p> <p>There is a big predation risk on site due to cats and dogs present.</p>	<p>A small area of grass and flowerbeds of the garden will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to reptiles, further surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</p> <p>In the unlikely event that a reptile is identified, works must cease and advise must be sought from a suitably qualified ecologist.</p> <p>Maintain the short sward height of grassland around the site during the works.</p> <p>If the compost area needs to be moved this should be done by hand.</p>	<p>Creation of additional compost areas on the site.</p> <p>Using brash and logs cleared during works to create a basking area, this can be done adjacent to the compost area, as this receives morning sun and would be safely out the way.</p>
Roosting bats B1	<p>Building 1 has a confirmed roost, as identified by bat droppings seen within both loft areas of B1, as well as a high volume of tile roosting feature seen on both roof elevations. There is an EPSL for pipistrelle with 30m of the site.</p> <p>The building has value for both crevice-dwelling and void-dwelling bat species</p>	<p>The proposed development will result in extensions to the northern elevation of this building. However no roosting features were noted across this area of the building</p> <p>It is not anticipated that the proposed works will result in the damage, destruction or modification of the exiting bat roosts, however, the proposed works may cause disturbance to the bat roosts. It is anticipated that a Bat mitigation plan can bring the level of risk of disturbance to an acceptable low level.</p> <p>If any works are proposed to the existing loft spaces or exiting roof structure then this could result in damage/destruction of any bat roosts present and could cause disturbance, death or injury to bats. If the new extension will be within 2m of the existing wall top on the northern gable-</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further bat surveys are considered to be disproportionate. It is anticipated that any risk to bats can be reduced to an acceptably low level through the implementation of a Bat Mitigation plan during and post-development. This will include some the following measures, <u>but full details will be within the plan</u>:</p> <p>Works will be scheduled during the winter months (November to March) when bats are least likely to be present, insofar as is possible.</p> <p>Roof height of the new extension will be at a suitable distance from the existing roof- 1.5m minimum, though a further reduction in height, such as a single storey would further reduce the risk.</p>	None

		<p>end then this could result in modification of the existing bat roost (i.e. preventing access).</p>	<p>No work will take place on the existing roof and no scaffold will cover the existing roof during works.</p> <p>All tile features seen on the existing roof are to be retained- No alterations to the top of the gable wall will take place, including eaves and tiles.</p> <p>In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a license will be required for any further works</p> <p>If works cannot avoid tampering with the existing roof or encroaches too close to the top of the gable (i.e. within 1.5m of the wall top), or if work involves having to cause alterations to Loft 1, or decisions are made to repair any tiles on the existing roof, then three bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive.</p> <p>Infra-red cameras should be used as an aid. Surveys should be a minimum of three weeks apart.</p> <p>Two surveyors are required to provide full coverage of the building.</p> <p>An EPSL application to Natural England will be required. The EPSL application requires that 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.</p> <p>A Material Changes Check will be required within three months of the EPSL submission, if no survey work has</p>	
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			been undertaken within that period. If bat droppings were found during the PRA, a sample will need to be sent off for DNA analysis to confirm the bat species present, to inform the EPSL application.	
Roosting bats T1	This tree has no features for supporting roosting bats	Bats are unlikely to be roosting in this tree and will not be affected by the felling of this tree	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	
Foraging and commuting bats	The large vegetated garden on site, and adjacent river 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 result in the loss of small areas of garden grass, flowerbeds, shrubs, and the cherry tree. However given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats.	None.	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, especially to replace those lost.
Hazel dormouse	There is a lack of supporting habitat for this species at the site.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None.	None.
Hedgehog	The garden at the site is easily accessible for hedgehogs especially at the east site boundary. The	A small area of the existing garden will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the	A precautionary working method will be implemented during construction, including the following measures:	None.

	<p>compost pile could support hibernating hedgehogs. There is low-value foraging opportunities for hedgehogs on the site., with a poor grass sward throughout the site. No evidence of hedgehogs was seen at the time of the survey.</p>	<p>presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.</p>	<p>Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.</p> <p>The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</p> <p>If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.</p> <p>Maintain the short grass sward throughout the works to discouragage hedgehogs from these areas.</p>	
<p>Otter</p>	<p>The River Test within 20m of the site is said to no longer have an established population of otters, but they are present in low numbers.</p> <p>There was no evidence of otters accessing the site.</p> <p>Access would be possible through the eastern fenceline.</p>	<p>The proposed development will not result in the loss of any riparian habitats and no works will be undertaken within 8m of the watercourse (as per Environment Agency regulations). However, due to the presence of the watercourse within close proximity of the site, indirect effects such as pollution could occur during construction. Furthermore, construction activities could result in the death or injury of otters, if present.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to otter, further otter surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:</p> <p>Heras fencing will be erected around the working area to prevent encroachment towards any watercourses where otter could be present and to prevent otters from wandering onto the site</p> <p>Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.</p> <p>The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to the watercourse and any retained habitats which otters could use.</p> <p>Best practice pollution prevention measures will be implemented to minimise impacts to</p>	<p>None.</p>

			<p>the watercourse and any retained habitats that otters could use.</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</p> <p>In the unlikely event that an otter holt or den is identified, works must cease and advice must be sought from a suitably qualified ecologist.</p>	
Water vole	<p>The River Test within 20m of the site is said to support water voles, but with a dwindling population, access onto the site is easily achieved for water voles. Predation risk is high due to the presence of multiple cats on the site.</p>	<p>No works will be undertaken within 5m of the top of the banks of the watercourse. Therefore, no impacts are anticipated on water vole as a result of the proposed development.</p>	<p>The method stated for Otters will also suit water voles.</p> <p>In the unlikely event that water voles or evidence of water voles is identified, works must cease and advice must be sought from a suitably qualified ecologist.</p>	None.
Birds	<p>There is a good volume of shrubs and tree for supporting nesting birds. The building on site has low value for nesting birds as well.</p> <p>The site has poor value for ground species, including waders and waterfowls, as there is a predation risk due to cats and dogs living at the site.</p>	<p>Shrubs and mature cherry tree will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally, including the volume of trees and shrubs retained at the site.</p> <p>However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.</p>	<p>Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the tree and vegetation 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.</p>	<p>The installation of 2 bird boxes at the site will provide additional nesting habitat for birds.</p> <p>The bird boxes will be installed on mature trees around the site, such as those on the eastern boundary</p> <p>General purpose bird boxes should be positioned 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight.</p> <p>Species-specific bird boxes should be installed in line with manufacturers specifications.</p>
Invertebrates	<p>There is a good volume of flowering shrubs trees and plants at the site for nectar</p>	<p>A small area of introduced shrubs, mown grass and a cherry tree will be removed during construction. The loss of such habitats is likely to be</p>	None.	<p>The following habitat creation and enhancement opportunities could be</p>

	<p>foraging species. The grassland is poor value for ground-dwelling species due to management. The river Test off-site also provides good habitat for aquatic invertebrates.</p>	<p>inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitats locally, including the volume of shrubs and trees and flowering plants retained at the site.</p>		<p>incorporated into the proposed development which would be beneficial for invertebrates: Planting of native three sand shrubs around the site to replace those lost. Allowing a boundary strip of longer grasses</p>
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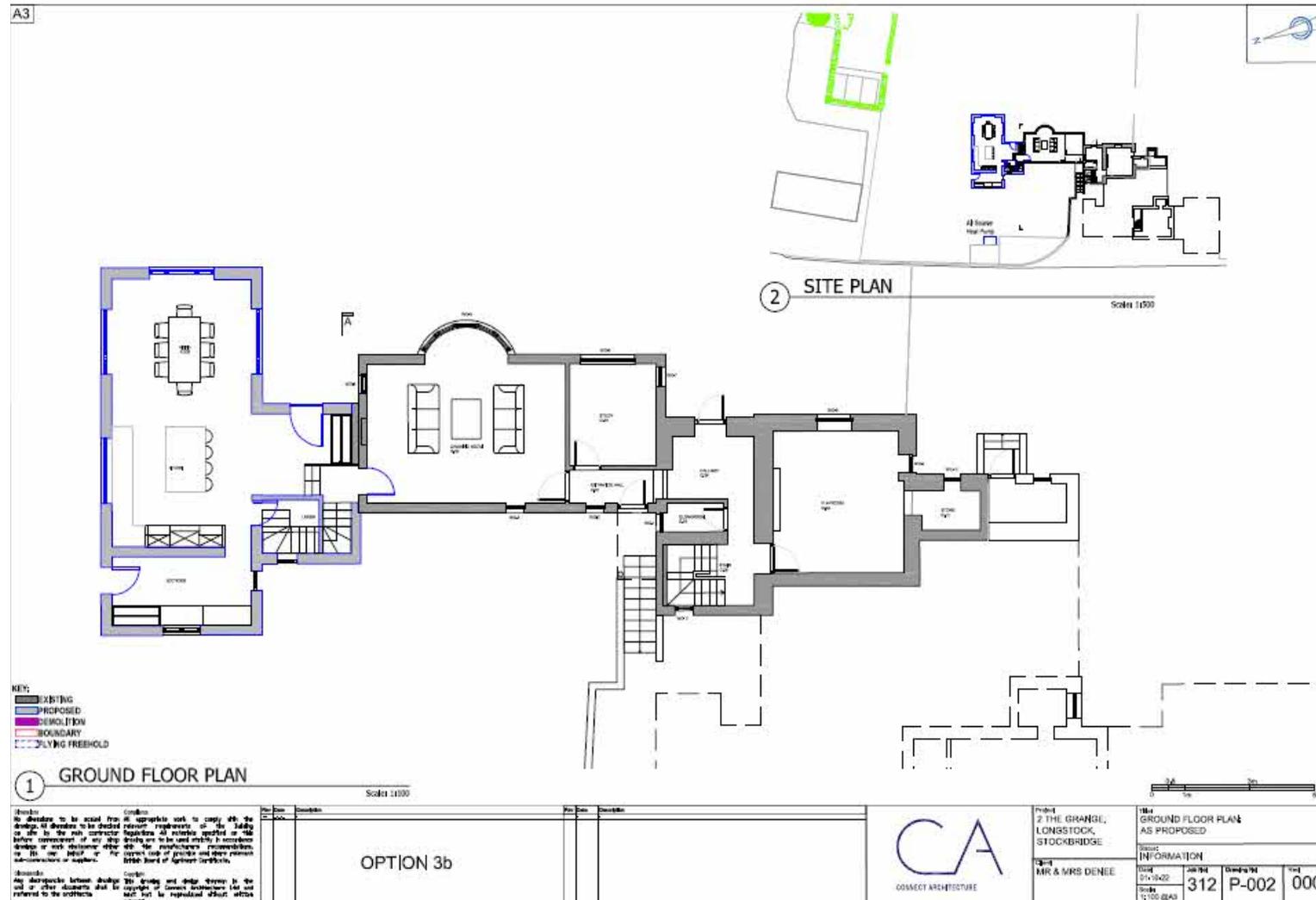
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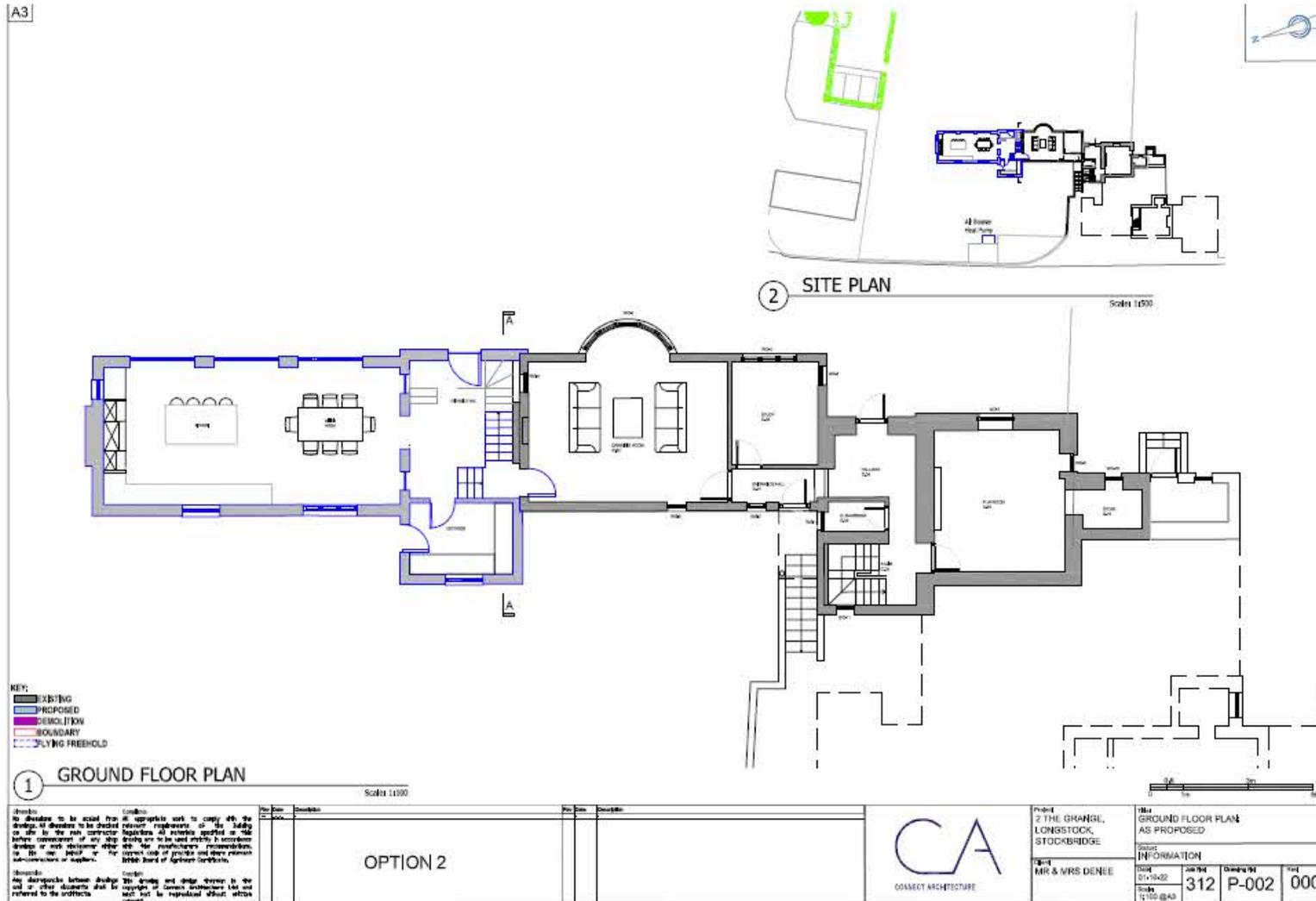
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Appendix 1: Proposed Development Plan

Option 1



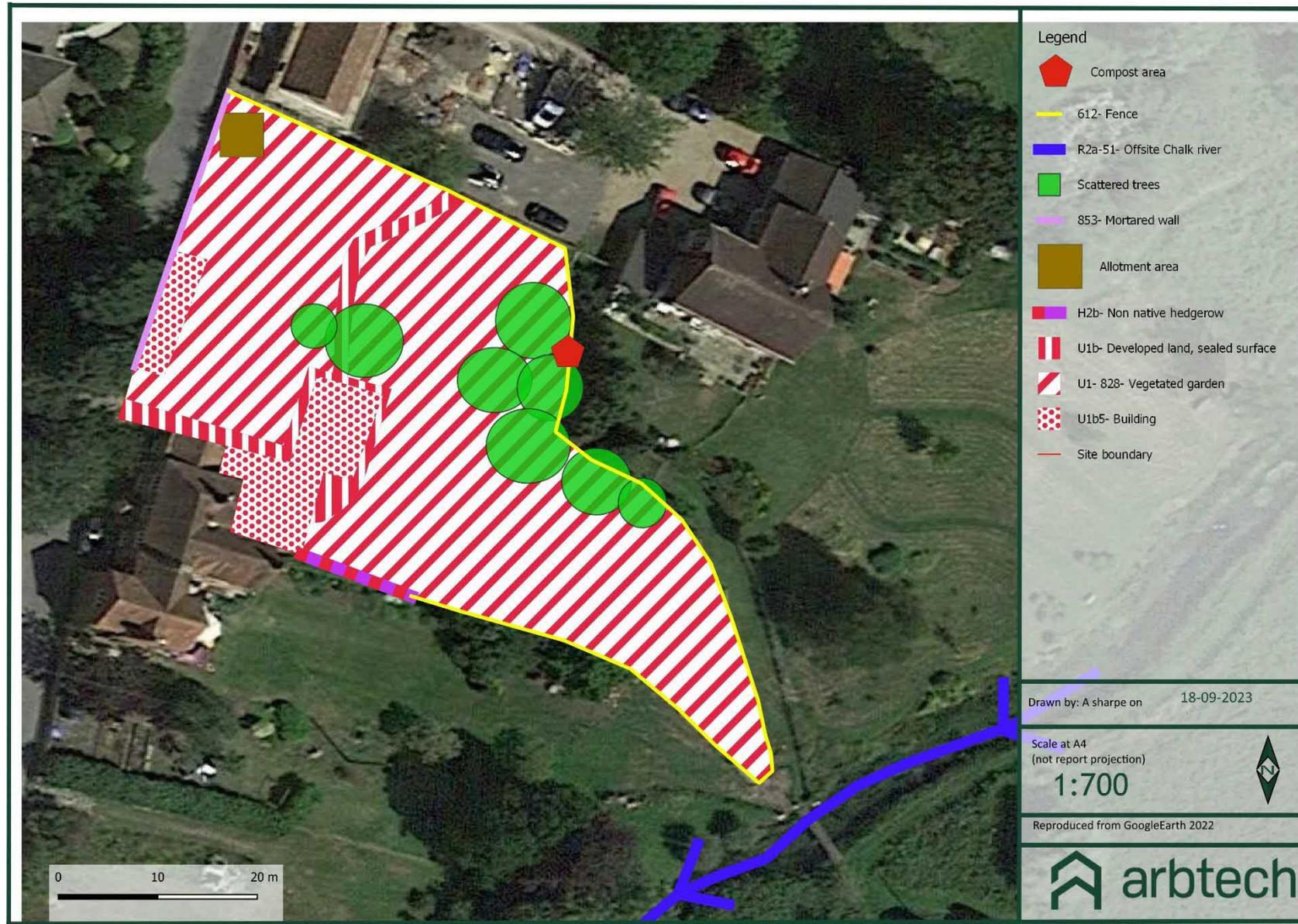
Option 2



Appendix 2: Site Location Plan



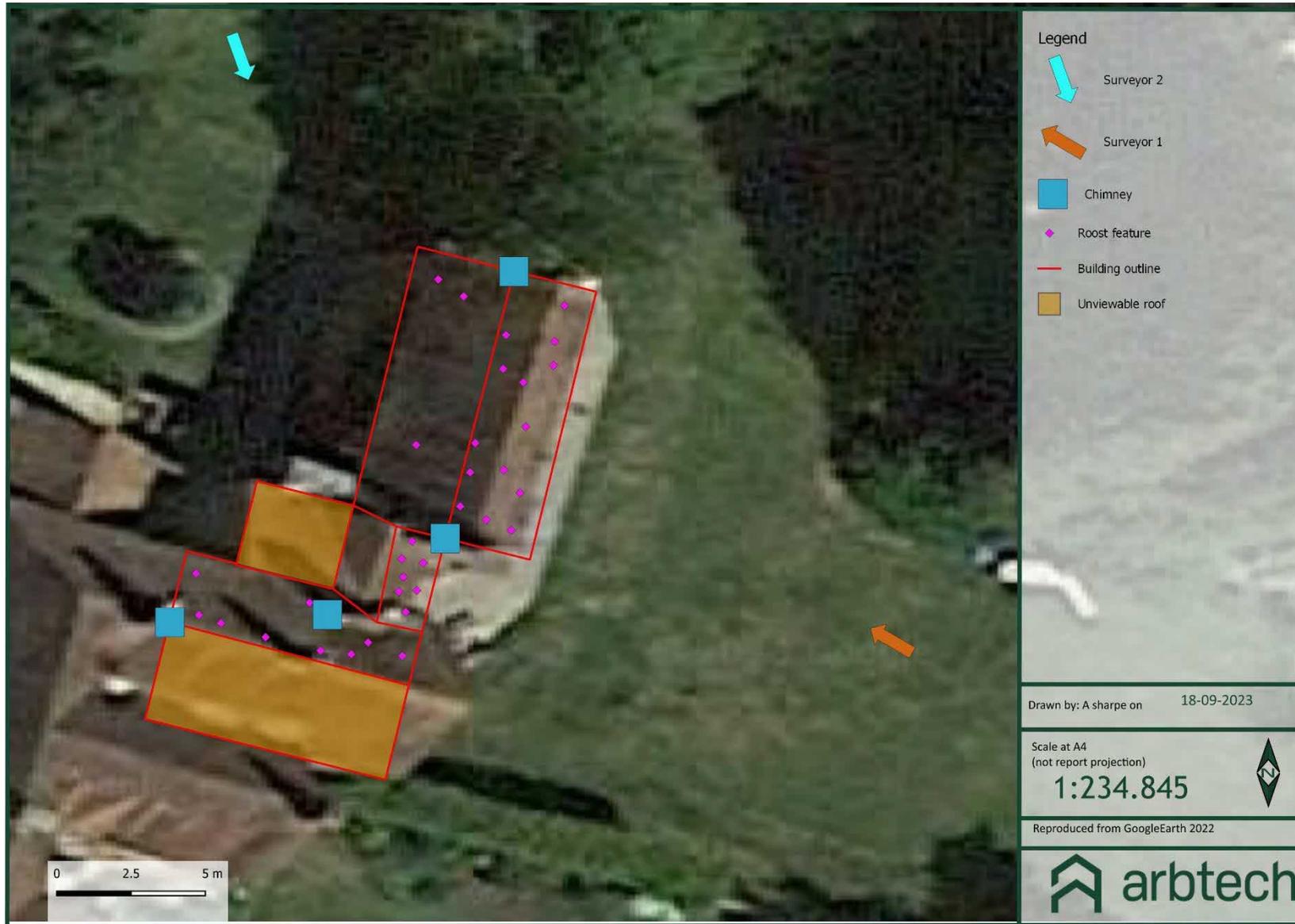
Appendix 3a: Habitat Survey Plan



Appendix 3b: PRA Plan



Appendix 3c: Proposed BERS Plan



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

Annex V species (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres”. However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

Deer Act 1991

Natural Environment & Rural Communities (NERC) Act 2006


Wild Mammals (Protection) Act 1996



Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird

- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built

- Intentionally take or destroy an egg of any wild bird

- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young

- Intentional or reckless disturbance of dependent young of such a bird

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Amphibians and Reptiles

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and 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.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable 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 licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

Intentionally kill, injure or take (capture) water voles

Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection

Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

Deliberate killing, injuring or capturing of Schedule 2 species

Deliberate disturbance of species in such a way as:

To impair their ability to survive, breed, or reproduce, or to rear or nurture young;

To impair their ability to hibernate or migrate

To affect significantly the local distribution or abundance of the species

Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) 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, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)

- Deliberate disturbance of bat species in such a way as:

 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;

 - To impair their ability to hibernate or migrate

 - To affect significantly the local distribution or abundance of the species

 - Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)

- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSL. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species

- Deliberate disturbance of species in such a way as:

 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;

 - To impair their ability to hibernate or migrate

To affect significantly the local distribution or abundance of the species

Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

Protected against intentional or reckless taking

Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

The relevant countryside agency (i.e. Natural England) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species

- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species

- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England to plant or cause to grow in the wild due to their impact on native wildlife.

Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*

- Giant hogweed *Heracleum mantegazzianum*

- Himalayan balsam *Impatiens glandulifera*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

Spear thistle *Cirsium vulgare*

Creeping thistle *Cirsium arvense*

Curled dock *Rumex crispus*

Broad-leaved dock *Rumex obtusifolius*

Common ragwort *Senecio jacobaea*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY

Environment Act 2021

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

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.

LOCAL PLANNING POLICY

Test valley Borough Local plan 2011-2019

The Test Valley Borough Local Plan can be viewed here: <https://www.testvalley.gov.uk/planning-and-building/planningpolicy/local-development-framework/dpd>

The following planning policies have implications for developers in relation to bats:

[Policy E5]

Development likely to result in the loss, deterioration or harm to habitats or species of importance to biodiversity or geological conservation interests, either directly or indirectly, will not be permitted unless:

- a) the need for, and benefits of, the development in the proposed location outweighs the adverse effect on the relevant biodiversity interest;
- b) it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the biodiversity interests; and
- c) measures can be provided (and secured through planning conditions or legal agreements), that would avoid, mitigate against or, as a last resort, compensate for the adverse effects likely to result from development.

The habitats and species of importance to biodiversity and sites of geological interest considered in relation to points a) to c) comprise:

Sites of Special Scientific Interest (SSSIs);

legally protected species;

Sites of Importance for Nature Conservation (SINCs) and Local Nature Reserves (LNRs);

priority habitats and species listed in the national and local Biodiversity Action Plans⁹⁹;

habitats and species of principal importance for the conservation of biodiversity in England¹⁰⁰;

Trees, woodlands, ancient woodland (including semi-natural and replanted woodland), aged and veteran trees, and hedgerows; and

features of the landscape that function as 'stepping stones' or form part of a wider network of sites by virtue of their coherent ecological structure or function or are of importance for the migration, dispersal and genetic exchange of wild species.

Test Valley Local BAP 2008

The Test Valley Local BAP can be viewed here: <https://www.testvalley.gov.uk/communityandleisure/naturereserves/biodiversity-action-plan>

The following habitats have been identified on or surrounding the site (based on the site survey and a review of the magic.gov.uk database) and are included in the plan:

Farmland

Aquatic landscapes

The following species could be present on the site or in the surrounding area (based on the site survey and a review of the magic.gov.uk database) and are included in the plan:

Soprano and common pipistrelle

Brown long-eared bat.

Otter

Water voles

Southern Damselfly

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.