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Report prepared for: Steve Harrison

For the Site of: Leatherland 15 Cambridge St, Aylesbury HP20 1RP

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Cherryfield Ecology has prepared this report for the named clients use only.

Ecological reports are limited in shelf life, Natural England usually expect reports for licences to be from the most recent or current season. Therefore, should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site. Information is believed to be accurate at the time of survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

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Ecological Appraisal (EA)

0.0 Non-Technical Summary

0.1 Background

This report follows national guidelines JNCC (2010) and UKHab's (2020) allowing for a day-time inspection and recommends for further surveys, if considered necessary. If a deviation from the guidelines has been made, this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of Leatherland 15 Cambridge St, Aylesbury HP20 1RP.

The client commissioned Cherryfield Ecology to undertake an EA as the proposals include for the erection of a dormer, and an upward extension to the rear of the building. Plans have been provided (Appendix I)

0.2 Results and Findings

The proposals include the erection of a dormer, and an upward extension to the rear of the building.

The site consists of one terraced two-storey dwelling. No protected species or evidence of protected species were found on site at the time of the survey.

The site provides negligible potential for badger, Great Crested Newt (GCN) and reptiles due to the lack of suitable habitat and limited connectivity to more suitable habitats.

The building (B1) provides negligible potential for roosting bats due to the lack of roosting features and access points throughout the building.

The site provides low potential for breeding birds due to limited nesting opportunities on the building.

0.3 Impact Assessment and Recommendations

Bats - Unlicensed Method Statement

The local surrounds don't provide suitable habitat for bats due to being located within dense urban area with limited connectivity to suitable habitat such as trees, although five gaps are present in the roofing tiles, therefore an unlicensed method statement will be required, please refer to section 4.

Breeding Birds - No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on site to ensure the building/vegetation is not occupied by breeding birds, prior to demolition/clearance. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

Great Crested Newt (GCN) - No further survey is necessary, due to a lack of suitable habitat, also, the site is located within a green impact zone according to NatureSpace; however, if GCN are found on site, all works must stop, and advice sought.

Reptiles - No further survey is necessary, due to a lack of suitable habitat; however, if reptiles are found on site, all works must stop, and advice sought.

Habitats - All habitats found are common and widespread, no impacts are foreseen.

No impacts are foreseen; however, if any protected species are found during the development, all works must stop, and advice sought.

The findings outlined in this report are valid for one year, after which updated surveys will be required.

Enhancements and mitigation are recommended (please see Section 4.4 for further details).

1.0 Introduction

1.1 Aim

The aim of this report is to inform of ecological constraints that may affect the development proposals and recommend to the client if further surveys are required for protected species. An impact assessment is undertaken at this stage; however, if further surveys are required, additional and unexpected impacts may result. The information within this report can be used as the baseline for any Biodiversity Net Gain (BNG) metric requirements, however the calculations are not included within this report.

1.2 Background Information

The client, Steve Harrison, has commissioned Cherryfield Ecology to undertake an EA for the site of Leatherland 15 Cambridge St, Aylesbury HP20 1RP. Planning permission is being sought for the erection of a dormer, and an upward extension to the rear of the building.

This survey has checked all habitats, buildings, trees (from ground level only) or structures due to be affected by the proposals on site; it includes checking for protected species, signs of protected species or habitat value e.g. crevices, badger setts, ponds etc. as well as mapping the habitats on site.

The inspection was conducted on the 14/11/2023.

The survey can only ever provide a ‘snapshot’ of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and therefore a synopsis is provided.

The survey can be conducted year-round with the optimal period between mid-March and mid-October (south)/1st April and 30th September (north). However, it can be limited due to bad weather and in the winter, when some species are not as active, thus evidence and species are often not found. During these periods, habitat value (likely presence) becomes more important to the assessment of the site.

Summary of legislation and National Planning Policy that protects wildlife in England:

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

Wildlife and Countryside Act 1981 as amended.

Countrywide and Rights of Way Act 2000.

Natural Environment and Rural Communities Act 2006.

National Planning Policy Framework (“NPPF”).

Circular 06/05.

This legislation makes it illegal to:

Intentionally or deliberately kill, injure or capture a protected species.

Deliberately disturb a protected species, whether at rest or not.

Damage, destroy or obstruct access to a resting place.

Possess or transport a protected species or any part of that species, unless acquired legally.

Sell, barter or exchange a protected species, or any part of a species.

1.3 Species Specific Information

All UK protected species have the same protection and the detail under Bats also applies to GCN, Dormouse, Otters and the two UK protected reptiles.

1.3.1 Breeding Birds

All nesting birds are protected under the Wildlife and Countryside Act (as amended) 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. Furthermore, a number of birds enjoy further protection under that Act and are listed on Schedule 1 of the Act. These further protected birds are also protected from disturbance and it may be necessary to operate a “no-go” buffer zone around such nests - typically out to 5m.

1.3.2 Bats

All 18 species of bat common in the UK (17 known to be breeding) are fully protected under the Wildlife and Countryside Act (as amended) 1981 through inclusion in Schedule V of the Act. All bat species in the UK are also included in Schedule II of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which transpose Annex II of the Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (“Habitats Directive”) which defines United Kingdom protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

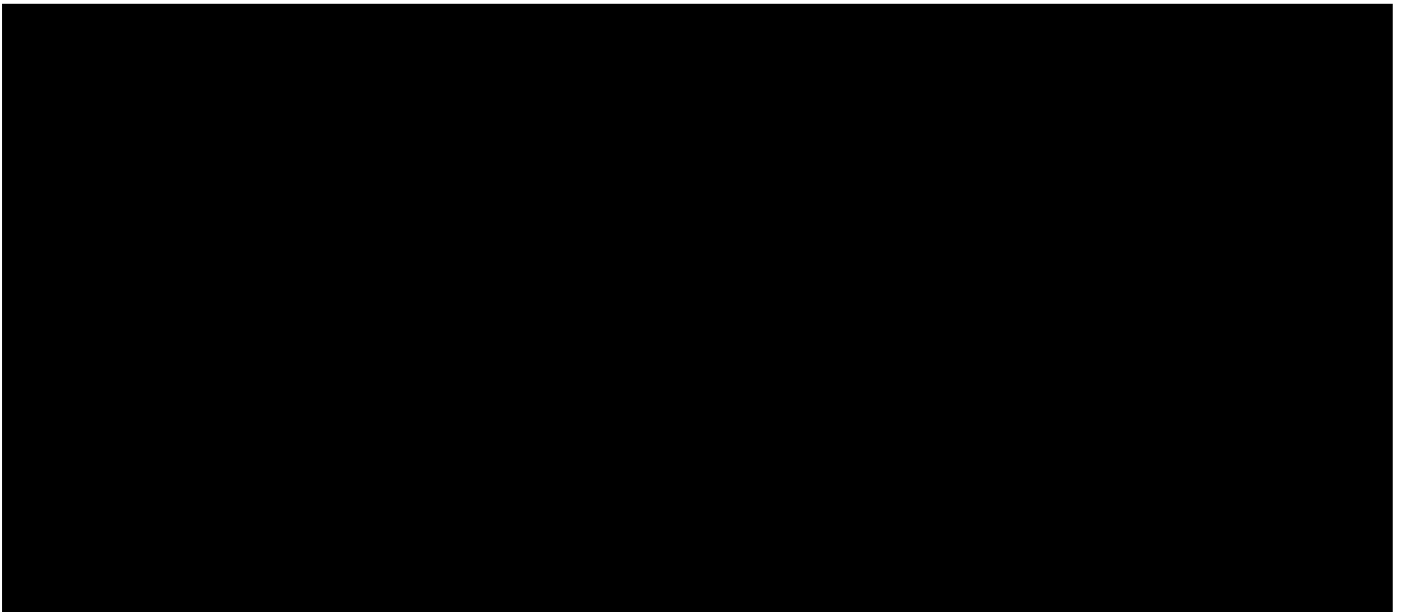
1.3.3 Reptiles

There are six species of reptiles in Great Britain (Edgar et al. 2010) and four of these are commonly found; the Barred Grass Snake *Natrix helvetica*, Adder *Vipera berus*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis*.

All native British species of reptiles are legally protected through their inclusion in Schedule V of the Wildlife and Countryside Act 1981. As such, all species are protected from deliberate killing or injury. Therefore, where development is permitted, and there will be a significant change in land use, a reasonable effort must be undertaken to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without appropriate licensing.

Two species of reptile; the Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis* are further protected under The Conservation of Habitats and Species

(Amendment) (EU Exit) Regulations 2019, which defines UK protected species of animals (“rare reptiles”).



1.3.5 Great Crested Newts

Great Crested Newts (GCN) *Triturus cristatus* are listed in both The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and in Schedule V of the Wildlife and Countryside Act 1981.

GCN are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

1.3.6 Otter

The Eurasian Otter *Lutra lutra* is the only Otter species native to the UK. The Eurasian Otter is fully protected under Schedule V of the Wildlife and Countryside Act (as amended) 1981 and in Schedule II of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which transpose Annex II of the Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (“Habitats Directive”) which defines United Kingdom protected species of animals. This legislation makes it illegal to:

capture, kill, disturb or injure otters (on purpose or by not taking enough care).

damage or destroy a breeding or resting place (deliberately or by not taking enough care).

obstruct access to their resting or sheltering places (deliberately or by not taking enough care).

possess, sell, control or transport live or dead otters, or parts of otters.

1.3.7 Water Vole

The Water Vole *Arvicola amphibius* are protected under Schedule V of the Wildlife and Countryside Act 1981 and is a priority conservation species. This legislation makes it illegal to:

intentionally capture, kill or injure water voles.

damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care).

disturb them in a place of shelter or protection (on purpose or by not taking enough care).

possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

1.4 Protected Sites and Priority Habitats

Some areas with distinctive plants, animals, habitats, geology or landforms are protected at the international, European, national and local level under statutory and non-statutory sites. Some habitats have been identified as needing priority conservation action; UK BAP Priority Habitats are a range of semi-natural habitat types that are identified as being the most threatened and requiring conservation action.

If a statutory site, non-statutory site or UK priority habitat is to be affected in proposed development, details will be outlined below:

There are no protected sites or priority habitats located within the site boundary.

2.0 Methods

The survey follows the national guidelines JNCC (2010) and UKHabs (2020), and the following equipment is available for the inspection:

Torches (e.g. LED Lensar type).

Ladders (Standard 4m telescopic surveying ladder).

Endoscope where holes, cracks and crevices are accessible.

Mirrors (extendable and movable mirror face).

Binoculars (Pentax close focus).

Thermometer/hygrometer.

Camera.

Sample bags for collecting dropping and feeding evidence.

Condition assessments for BNG are included (where required) within the table in the results section.

Target notes are made when appropriate to highlight, for example, protected species or an 'other feature(s)' of ecological note.

If a deviation from the guidelines has been made the reason and justification will be explained below:

No deviation from the standard guidelines has been made for this survey.

2.1 Limitations

This survey provides a snapshot of the site at the time of the survey only. Species are highly mobile and can turn up from time to time unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

The southeastern section of the roof was not visible.

Table 1: Habitat value (likelihood) of protected species presence assessed against Collins (2016), Edgar et al (2010) and Natural England (2007) etc.

Likelihood of species presence (Habitat Value)	Features that species can use, regardless of evidence being present.
Confirmed Presence	<p>Species are found to be present during the survey.</p> <p>Evidence of species is found to be present during the survey.</p>
Higher likelihood of presence	<p>Buildings, trees or other structures or habitat features of particular significance for use by protected species e.g. nesting habitat, roosting opportunities, and ponds.</p> <p>Habitat of high quality for foraging e.g. broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is connected with the wider landscape by strong linear features that would be used by commuting species e.g. river and or stream valleys and hedgerows.</p> <p>Site is close to known locations of records for protected species.</p>
Moderate and Lower likelihood of species presence	<p>Several potential habitat opportunities in buildings, trees or other habitats.</p> <p>Habitat could be used for foraging e.g. trees, shrub, grassland or water.</p> <p>Site is connected with the wider landscape by linear features that could be used by commuting species e.g. lines of trees and scrub or linked back gardens.</p> <p>A small number of less significant habitat opportunities.</p> <p>Isolated habitat for foraging e.g. a lone tree or patch of scrub.</p> <p>An isolated site not connected by prominent linear landscape features.</p>
Negligible likelihood of species presence	<p>No features suitable for roosting, minor foraging or commuting.</p>

3.0 Results

The following section details the results of the desk study, inspection and survey; it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centered on Grid Reference - SP819138 and Postcode - HP20 1RP.

Table 2: Weather Records

Parameter	Unit/value
Temperature	10°C
Cloud cover	100%
Precipitation	None
Wind	1/12

3.2 MAGIC

The following statutory sites and Natural England Protected Species (NEPS) have been located within the 1km search area (Figure 1).

Table 3: Magic search results

Receptor	Distance and Direction (m/Km)	Description
Statutory sites	n/a	n/a
Granted protected species licenses	~428m southeast	Brown Long-Eared Plecotus auritus (Licence 2015-15954)
	~1814m southeast	Common Pipistrelle Pipistrellus pipistrellus (Licence 2009-1033)
	~246m southeast	Brown Long-Eared (Licence 2009-1470)
Priority habitat	~661m Northeast	Deciduous woodland

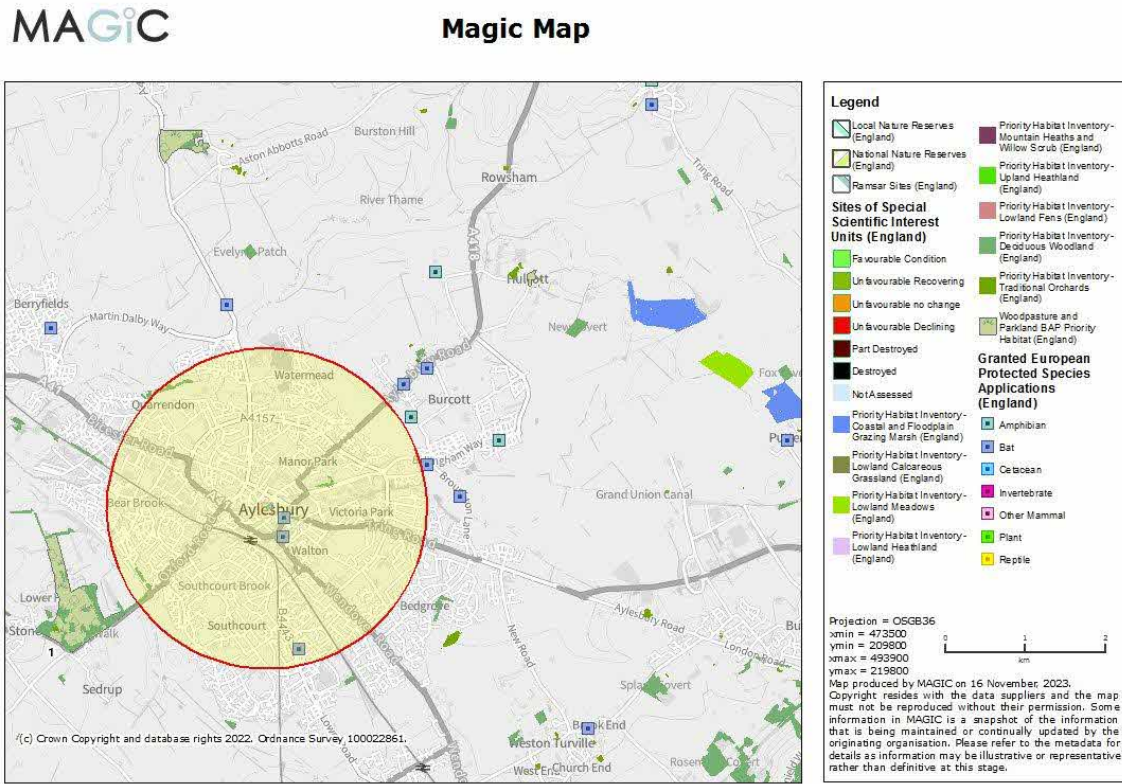


Figure 1: Magic Map Search

3.3 Biological Records Data

A standard 1km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context.

Biological records were obtained from Buckinghamshire and Milton Keynes (2023).

Table 4: Biological Records

Species	Number of Records	Closest Record (accuracy)	Most Recent Record (year)
Amphibians			
Common Toad <i>Bufo bufo</i>	0	-	-
Great Crest Newt <i>Triturus cristatus</i>	0	-	-
Common Frog <i>Rana temporaria</i>	3	402m (10m)	2019
Smooth newt <i>Lissotriton vulgaris</i>	0	-	-
Palmate newt <i>Lissotriton helveticus</i>	1	361m (100m)	2007

Bats			
Barbastelle <i>Barbastella barbastellus</i>	2	361m (100m)	2011
Brown Long-Eared Plecotus <i>auritus</i>	-	-	-
Common Pipistrelle <i>Pipistrellus pipistrellus</i>	19	100m (100m)	2016
Daubenton's Myotis <i>daubentonii</i>	4	361m (100m)	2007
Leisler's <i>Nyctalus leisleri</i>	-	-	-
Nathusius' Pipistrelle <i>Pipistrellus nathusii</i>	-	-	-
Natterer's Myotis <i>nattererii</i>	-	-	-
Noctule <i>Nyctalus noctula</i>	3	361m (100m)	2015
Serotine <i>Eptesicus serotinus</i>	-	-	-
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	4	361m (100m)	2015
Unidentified Bat <i>Chiroptera sp.</i>	5	361m (100m)	2015
Unidentified Long-Eared Plecotus <i>sp.</i>	-	-	-
Unidentified Myotis <i>Myotis sp.</i>	2	361m (100m)	2015
Unidentified Pipistrelle <i>Pipistrellus sp.</i>	6	361m (100m)	2015
Unidentified Vesper <i>Vespertilionidae</i>	0	-	-
Whiskered Myotis <i>mystacinus</i>	0	-	-
Mammals (exc. Bats)			
Badger <i>Meles meles</i>	1	806m (100m)	2010
Hazel Dormouse <i>Muscardinus avellanarius</i>	0	-	-
West European Hedgehog <i>Erinaceus europaeus</i>	0	-	-
Otter <i>Lutra lutra</i>	7	412m (100m)	2003
Water Vole <i>Arvicola amphibius</i>	25	224m (100m)	2021
Reptiles			
Adder <i>Vipera berus</i>	0	-	-
Common Lizard <i>Zootoca vivipara</i>	0	-	-
Grass Snake <i>Natrix helvetica</i>	0	-	-
Slow-Worm <i>Anguis fragilis</i>	0	-	-
Other			
Birds, Invertebrates, Plants etc.	0	-	-

3.4 Site Location and Surrounds

The site is located in Aylesbury, Buckinghamshire and is surrounded by high density housing in the immediate locale. Table 5 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 5: Habitat features suitable for use by protected species.

Feature	Description
Water course	The Grand Union canal is ~391.55m Southeast. Bear Brook is ~336.49m South. California Brook is ~584.98m Southwest.
Water bodies	Aylesbury Basin is ~388.88m Southeast. There is a small pond ~596.74m Southwest. There are two small ponds to the Southeast ~808.18m and 920.43m away.
Woodland	There are no woodlands within the search area.
Linear e.g. hedgerows	There is a railway line ~453.75m South of the site.
Pasture/arable/grassland	Vail Park has grassland ~382.33m East. Alfred Rose Memorial Park is a grassland ~667.61m Northeast. There is amenity grassland ~710.10m Southwest, a part of Sir Henry Floyd Grammer School. There is amenity grassland that is part of Aylesbury High School ~937.25m Southeast.
Other	Tring Road Cemetery is ~887.29m East Southeast of the site.

3.5 Habitat, Building, Tree or Other Structure

This section details the structures/habitat reference and descriptions (see Figure 6 for Site Plan).

3.5.1 Habitats

Habitats found on site are mapped using the Phase 1 Habitat (JNCC, 2010) and UK Habs (UK Habs, 2020). When the UK Habs has a subset type, this has been used to match as best as possible to the Phase 1 Habitat.

Table 6: Habitat features found on site, this includes for the Phase 1 Habitat type and the nearest UK Habs type. UK Habs may be broken down to subsets when required and if the habitat meets the criteria.

Habitat Features		
Phase 1 Habitat Type	UKHab Habitat Type	Description
Buildings	Buildings/developed land sealed surface	B1 is a brick built, two-storey, terraced building, with a gable ended roof structure. The roof is made up of clay tiles and has two chimneys. There is a single storey extension to

the rear of the building made up of flat and pitched roof sections, covered with bitumen felt.



Figure 2: Front exterior of B1



Figure 3: Flat bitumen felt extension to the rear of B1

There is an internal loft void within B1, which is felt lined and has timber framing, the floor is partially boarded and insulated.



The following table details the condition assessments for all sites meeting the DEFRA Metric 4.0 criteria, if the site meets the small-scale metric criteria condition assessments are not required (see Appendix II for the sheets).

Table 7: Biodiversity Net Gain Condition Assessments/Scores (see Appendix II)

Habitat (UKHabs)	Condition Score
Buildings/Developed Land Sealed Surface	Set score

Table 8: Target Notes

Target Note	Description
n/a	n/a

3.6 Species List

No species were present on site.

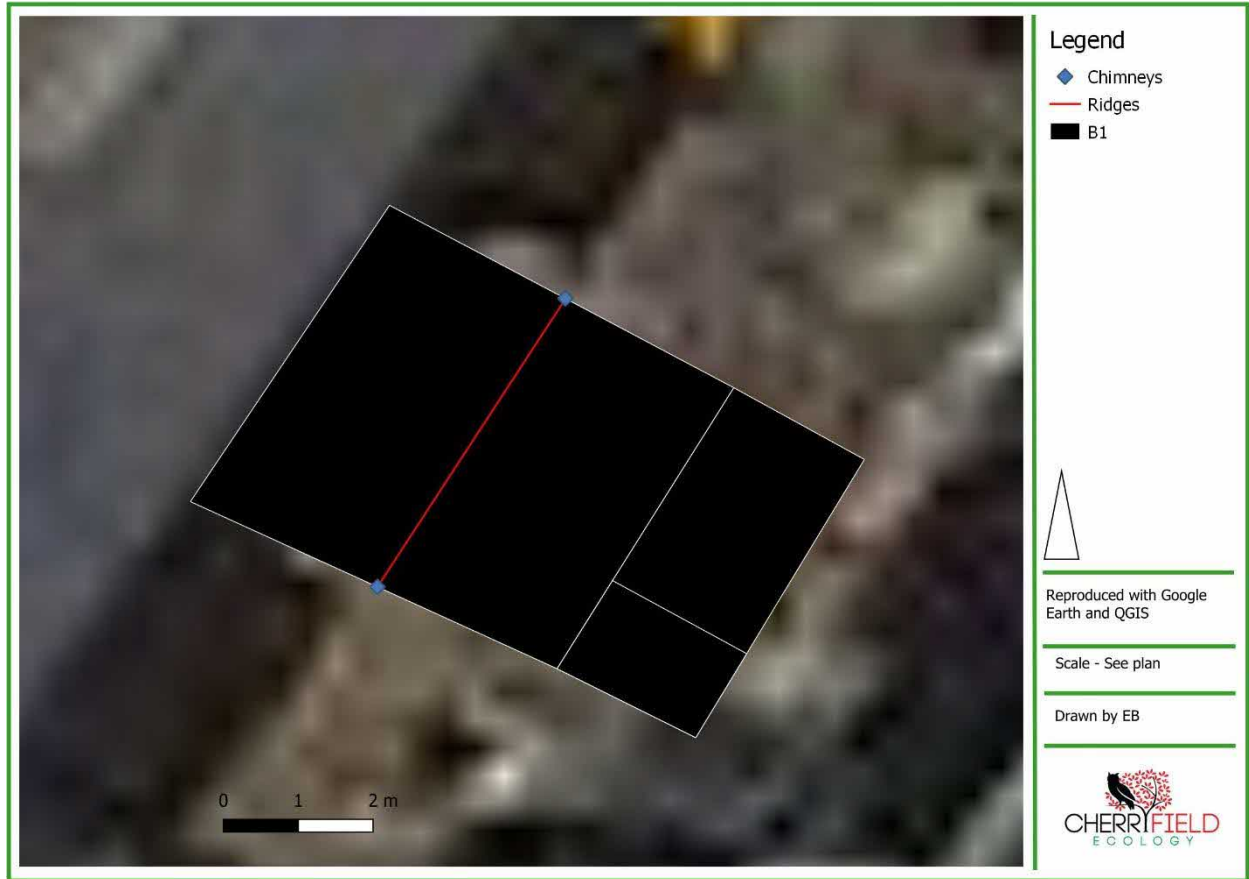


Figure 6: Site Plan

3.7 Evidence or Likelihood of Species Presence

This section details the evidence located and likelihood of species presence.

3.7.1 Bats

Table 10: Bats, evidence or the potential for the species.

Bats found	No bats were found at the time of the survey.
Evidence of bat use	No evidence of bats was found at the time of the survey.
Potential for bat use	Level of likelihood of presence - B1 - Negligible

The site provides negligible potential for bats due to the sites location within an urban area, which results in limited access to optimal habitats and increased disruption e.g. from nearby street lighting. While some minor gaps are present on the front exterior of the roof. No evidence from the internal inspection suggested bats were using the minor number of broken/slipped tiles to the front elevation, those that were present, with the ridge and chimney areas not displaying any gaps.



Figure 7: Examples of gaps present in B1

3.7.3 Breeding Birds

Table 12: Breeding birds, evidence or potential for the species

Breeding birds found	No breeding birds were found at the time of the survey.
Evidence of breeding bird use	No evidence of breeding birds was found at the time of the survey.
Potential for breeding bird use	Level of likelihood of presence - low The site provides low potential for breeding birds due to limited nesting opportunities on the building.

3.7.4 Amphibian

Table 13: Amphibians, evidence or potential for species use.

Amphibians found	No Great Crested Newt (GCN) were found at the time of the survey.
Evidence of amphibian use	No evidence of GCN was found at the time of the survey.
Potential for amphibian use	Level of likelihood of presence - Negligible The site is within a green impact zone according to Nature Space, meaning GCN may be present in the local area, however due to a lack of connectivity to any water bodies, and unsuitable habitat on site, the likelihood of presence is negligible.

3.7.5 Reptile

Table 14: Reptiles, evidence or potential for species use.

Reptiles found	No reptiles were found at the time of the survey.
Evidence of reptile use	No evidence of reptiles was found at the time of the survey.
Potential for reptile use	Level of likelihood of presence - Negligible The site provides negligible potential for reptiles due to the lack of suitable habitat onsite for refuge, foraging, basking etc.

3.7.6 Other Species e.g. Hazel Dormouse / Otter / Water Vole

Table 15: Other protected species, evidence or potential for species use.

Species found	No other protected species were found at the time of the survey.
Evidence of species use	No evidence of other protected species was found at the time of the survey.
Potential for species use	Level of likelihood of presence - Negligible The site provides negligible potential for other protected species due to the lack of suitable habitat onsite e.g. watercourses for otter <i>Lutra lutra</i> .

3.7.7 Invasive Non-Native

No invasive non-native species were found at the time of the survey.

4.0 Conclusions, Discussion, Impacts and Recommendations

The following section details the conclusions, discussion, impacts and recommendations in the context of the proposed works.

4.1 Conclusion and Discussion

The proposals include the erection of a dormer, and an upward extension to the rear of the building.

The site consists of one terraced two-storey dwelling. No protected species or evidence of protected species were found on site at the time of the survey.

The site provides negligible potential for badger, Great Crested Newt (GCN) and reptiles due to the lack of suitable habitat and limited connectivity to more suitable habitats.

The building (B1) provides negligible potential for roosting bats due to the lack of roosting features and access points throughout the building.

The site provides low potential for breeding birds due to limited nesting opportunities on the building.

Recommended surveys are found in section 4.3.

4.2 Potential Impacts

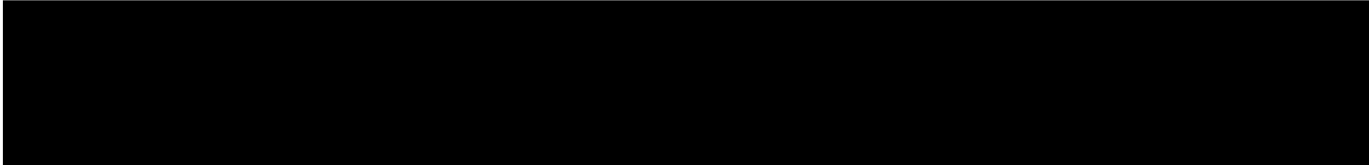
Impact assessments must be proportionate to the scale of the development (CIEEM, 2018) and Table 16 details a proportionate impact assessment based on current information.

Table 16: Impact Assessment

Impact	Breeding Birds - Low chance for active nests to be lost in the development.
Characterisation of unmitigated impact on the feature	Breeding Birds - A low-level loss/impact at a local level.
Effect without mitigation	Without mitigation individual birds could be killed, injured or trapped during the works.
Mitigation and/or potential enhancement	See Table 17 and Table 18

Significance of effects of residual impacts (after mitigation)	Breeding Birds - If lost habitat is replaced by bird boxes and mitigation is followed, the effects would be negligible.
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4.3 Recommendations



Bats - Unlicensed Method Statement

The local surrounds don't provide suitable habitat for bats due to being located within dense urban area with limited connectivity to suitable habitat such as trees, although five gaps are present in the roofing tiles, therefore an unlicensed method statement will be required, please refer to section 4.

Breeding Birds - No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on site to ensure the building/vegetation is not occupied by breeding birds, prior to demolition/clearance. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

Great Crested Newt (GCN) - No further survey is necessary, due to a lack of suitable habitat, also, the site is located within a green impact zone according to NatureSpace; however, if GCN are found on site, all works must stop, and advice sought.

Reptiles - No further survey is necessary, due to a lack of suitable habitat; however, if reptiles are found on site, all works must stop, and advice sought.

Habitats - All habitats found are common and widespread, no impacts are foreseen.

4.4 Recommended Enhancements and Mitigation

Table 17: Recommended Mitigation

Work	Specification
Lighting	<p>Any lighting near or shining onto any trees/buildings etc, will be designed to minimise the impact it has on potential species and commuting.</p> <p>Lighting will be in line with the BCT lighting guidelines (Bats and Lighting in the UK (Bat Conservation Trust, 2018) https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/)</p> <p>This lighting, where possible, will be of low level, be on downward deflectors and be on PIR sensors. Using LED directional lighting can also be a way of minimising the light spill affecting the habitat. No up-lighting should be used. Light spill must be minimised too as low as possible.</p> <p>This will ensure that the roosting and commuting resources that the bats are likely to be using is maintained.</p>
Precautions to be undertaken during works.	<p>The following must be undertaken:</p> <p>All works must be undertaken within 12 months of this report, thereafter a material change check will be required to check for changes that could affect potential bat habitat.</p> <p>If any protected species are found at any point whatsoever during works, works will stop and further advice will be sought.</p>

Table 18: The local authority has a duty to enhance biodiversity in its day-to-day duties; the following are suggested enhancements that are easily installed into a development and can be cost effective whilst ensuring a gain for local wildlife.

Work	Specification
General Precautions	Store all material on hardstanding or in buildings to prevent artificial refuges being created.
Bat and bird box enhancement.	<p>Bat tubes can be installed into the extension.</p> <p>A minimum of one bat tube (Figure 8) will be installed under the eaves of the extension.</p>


	 <p style="text-align: center;">Figure 8: Bat tube</p>
<p>Swifts Apus apus</p>	<p>Swift nest boxes are recommended due to the increased lack of nesting opportunities swifts are finding in modern built dwelling homes.</p> <p>Information is adapted from the RSPB https://www.rspb.org.uk/our-work/rspb-news/news/stories/swift-advice-for-ecologists/ and http://actionforswifts.blogspot.com</p> <p>The following will be undertaken:</p> <p style="padding-left: 40px;">Wherever possible, swift bricks will be installed into new or restored buildings to increase the overall availability of nest sites for swifts and other species. Birds such as house sparrow can use swift bricks, but swifts cannot use house sparrow nest bricks.</p> <p style="padding-left: 40px;">Integral swift bricks are the preferred option on new housing developments. These should be fitted in clusters of 2 to 4 on gable ends and near the roofline where swifts would naturally look for a potential nest site.</p> <p style="padding-left: 40px;">Try to ensure swift bricks have a minimum of 5m clearance beneath and in front. Always avoid locating them above doors and windows to help prevent a disturbance issue to both the birds and human owners.</p>



Figure 11: Example of swift bricks, that can be built into a dwelling, Source: <https://www.birdbrickhouses.co.uk/brick-nesting-boxes/>



Figure 12: Swift box, source: <http://actionforswifts.blogspot.com/p/diy-swift-box-designs.html>

5.0 References

- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, September 2018. Chartered Institute of Ecology and Environmental Management, Winchester, online at <https://www.cieem.net/data/files/ECIA%20Guidelines.pdf>
- Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, London
- Google Earth, (2017), Located on site postcode, online
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit.
- MAGIC, (2017): Magic maps, NEPS licences and designated sites, online <http://www.magic.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.aspx>, accessed as report date.
- Mitchell-Jones, A.J. (2004), Bat Mitigation Guidelines, English Nature, Peterborough
- National Planning Policy Framework, 2019
- Natural England (2007). Badgers and Development a Guide to Best Practice and Licensing. Natural England. Bristol.
- Paul Edgar, Jim Foster and John Baker (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth
- Records: Buckinghamshire and Milton Keynes (2023)
- The Great British Hedgerow Survey (2019), People's Trust for Endangered Species, online <https://hedgerowsurvey.ptes.org/>, accessed report date.
- Tom Langton, Catherine Beckett and Jim Foster (2001). Great Crested Newt Conservation Handbook. Froglife.
- UKHab (2020), UK Habitat Classification, UKHab, [Online] <https://ukhab.org/>
(Accessed at time of report)
- Hedgerow Survey Handbook (2nd Edition), DEFRA, 2007, online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69285/pb11951-hedgerow-survey-handbook-070314.pdf accessed on 20/10/2022

Appendix I - Site Plans



Existing and Proposed Site Plan (Drawing Office Associated Ltd., 2023)