

Preliminary Ecological Appraisal and Roost Assessment

Survey site:

44 Queens View, Netley Abbey, Southampton, Hampshire, Hampshire, SO31 5EA

Client:

GRK Architecture

Survey date:

20th June 2024

Project: This report is prepared to inform a planning application with Eastleigh Borough Council The proposal is described as:
“construction of a two storey extension and alterations to the front of the property”

[Unsubmitted]

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

PRA survey methodology and legislation can be found in the Arbtech Supplement: [PRA Methodology and Legislation - 2024.](#)

The site survey was undertaken by Romany Poole (Accredited Agent on Natural England Bat Licence Number: 2018-37888-CLS-CLS)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
27/06/2024	18	76	5	9	None

Ecological Survey Factor Conclusion, Impact or Recommendations	Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, proposal plan in appendix 3 and photos in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
<i>Summary of Survey Findings</i> <i>(UKHab codes used)</i>	Site Context The survey site is centred on National Grid Reference SU 45789 08799 and has an area of approximately 0.15ha. The site comprises of a single residential dwelling with associated front and rear garden. The immediate landscape consists of built-up urban areas consisting of residential dwellings and associated gardens to the northwest, southwest and northeast of site, tarmacked roads and commercial premises comprising of large buildings and associated car parks immediately southeast of the site boundary, as well as a large tree-lined grassed recreational area and a small area of open parkland to the southeast, northeast and southwest respectively. The wider landscape consists of residential dwellings, roads and large areas of parkland and woodland to the northwest, northeast and southeast. The areas of parkland and woodland have poor connectivity to site due to the physical barriers consisting of fenced residential gardens and main roads as well as the lack of hedgerow networks and tree lines that many species utilise for commuting within the landscape.

	On-site habitats <u>Developed, sealed surface [u1b6]</u> Hardstanding is present in the form of concrete pavement in the rear garden and leading up to the front of B1. <u>Developed, sealed surface (buildings) [u1b5]</u> There is one structure located within the site. A semi residential dwelling (B1). See 'Bats' section for full PRA details. <u>Built up areas and garden –vegetated garden [u1 828]</u> Part of the site is characterised as a residential vegetated garden with areas of unmanaged grassland which retain a sward length of approximately 20cm, however the lawn is usually heavily managed. Species comprise perennial rye grass (D), creeping buttercup (O), dandelion (O) narrow leaved plantain (F) and white clover (O). Local notable habitats There are several notable habitats within 2km of site with large parcels of Deciduous woodland which is listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) located to the northwest, northeast, southeast and south of site with the closest parcel ~400m northwest. Coastal mudflats another priority habitat is located 539m to the southwest of site and provides overwintering habitat for the dark bellied goose and other wildfowl species including the great crested grebe, teal and wigeon. There are also large parcels of Ancient Woodland with the closest being West Wood ~540m and >1km to the northwest and south and Priors Hill Copse/Hound Grove >1000m to the northeast. A large parcel of Woodpasture and parkland BAP priority habitat is located ~617m to the south.
<i>Foreseen Impacts</i>	On-site habitats The habitats on-site are widespread and not notable, however the proposed development will only result in the loss of hardstanding with a small section of lawn. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats.

	Notable habitats No impacts to any notable habitats are anticipated due to the small scale and distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.
<i>Recommendations</i>	On-site habitats To compensate for the proposed habitat losses at the site, the following habitat creation measures should be incorporated: • Native shrub planting Notable habitats None required.
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	On-site designations The site is not subject to any designation. Statutory designated sites (within 2km) There are 3 statutory sites within 2km of the site, the closest being Lee-on-the Solent to Itchen Estuary a Site of Special Scientific Interest (SSSI) is located 523m southwest of site. Solent and Southampton Water a designated European site RAMSAR and Special Protected Area (SPA) is also located 523m to the southwest of site. Westwood Woodland Park Local Nature Reserve (LNR) is located 556m northwest of site.
<i>Foreseen Impacts</i>	On-site designations No impacts foreseen. Statutory and non-statutory designated sites 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 Lee-on-the-Solent to Itchen Estuary (SSSI) and Solent and Southampton Water (RAMSAR and SPA) and the nature of the proposed development could result in increased recreational pressure to nearby areas.

<i>Recommendations</i>	On-site designations None. Statutory and non-statutory designated sites Strategic solutions for recreational impacts to the above mentioned SSSI are in place. The LPA should advise on specific requirements if necessary. The site lies within a Nutrient Impact Area for new development with overnight accommodation Reg 63 of the Conservation of Habitats and Species Regulations 2017 must be applied and additional measures required. LPA should refer to natural England's Nutrient Neutrality advice.
Invasive / Non-native species	
<i>Summary of Survey Findings</i>	No problematic invasive and non-native species recorded on site.
<i>Foreseen Impacts</i>	N/A
<i>Recommendations</i>	No further surveys but remain vigilant.
Invertebrates	
<i>Summary of Survey Findings</i>	The habitats present on-site, including lawns and some ornamental shrubs, likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.
<i>Foreseen Impacts</i>	None foreseen.
<i>Recommendations</i>	No further surveys.

Bats*Summary of Survey Findings***EPSL data**

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

EPSL reference	Bat species affected	Distance from site	Impacts allowed by licence
2020-45299-EPS-MIT	Brown long-eared bat	621m northeast	Destruction of a resting place
201728698-EPS-MIT	Common pipistrelle	>1km east	Destruction of a resting place

Roosting habitat

Buildings to be impacted by the proposed development are assessed for their suitability to support roosting bats below. No evidence of roosting bats was identified on or within B1.

The site

B1 has negligible value for roosting bats due to a lack of potential roost features

Exterior of B1

B1 is a semi-detached residential dwelling (fig.1) rendered with pebble dash which appears to be in excellent condition (fig.2) with no gaps suitable for crevice dwelling species. The building has a hipped roof clad in concrete roof tiles which appear in good condition, along with the ridge tiles and hip tiles (fig.3), providing no roosting opportunities or access into the roof structure. There are uPVC soffit boxes (fig.4), windows and doors which are tight fitting to the building with no gaps suitable for roosting.



Figure 1



Figure 2



Figure 3



Figure 4

Interior of B1.

There is one loft space within the roof void of B1. It is constructed from modern timber beams, including the ridge beam, rafters and struts. The beams provide roosting sites for void-dwelling bats. The roof is lined with bitumen felt which appears in good condition (fig.5 and 6) with no gaps or areas of sagging roofing felt which can create pockets for bats to roost in. The brickwork at the gable ends (fig.7) appears in good condition with no gaps that could provide roosting opportunities or access into the loft space. No evidence of bats was identified during the survey.



Figure 5

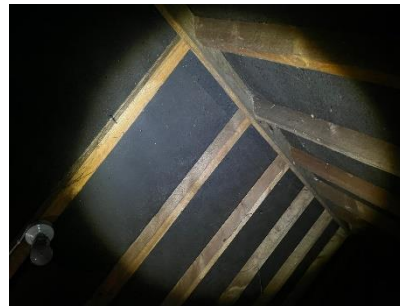


Figure 6



Figure 7

Foreseen Impacts

Roosting habitat [Buildings]

Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.

	Roosting habitat [Trees] No trees were present on the site during the survey. Foraging and commuting habitat The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. However, the proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas. Artificial lighting The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.
<i>Recommendations</i>	Roosting habitat [Buildings] 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 habitat No further surveys are required. Artificial lighting A low impact lighting strategy may be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2 Suggested biodiversity enhancements The installation of one bat box at the site will provide additional roosting habitat for bats.

	The bat boxes will be incorporated into the fabric of the new extension. They will be suitable for pipistrelles (which have been identified locally through EPSL data). Suitable bat boxes include Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.
Birds	
<i>Summary of Survey Findings</i>	Buildings No evidence of nesting birds was identified on or within B1. B1 is deemed to provide negligible habitat value for nesting birds due to a lack of suitable nesting sites or access points. Trees and vegetation No bird nests were identified within the vegetated garden on-site. Barn owls The site does not appear to provide any suitable nesting sites for barn owls. Overwintering birds Due to the small size of the site and the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds.
<i>Foreseen Impacts</i>	Buildings/trees No impacts are anticipated on nesting birds as a result of the proposed development. Barn owls None foreseen. Overwintering birds None foreseen.
<i>Recommendations</i>	Buildings

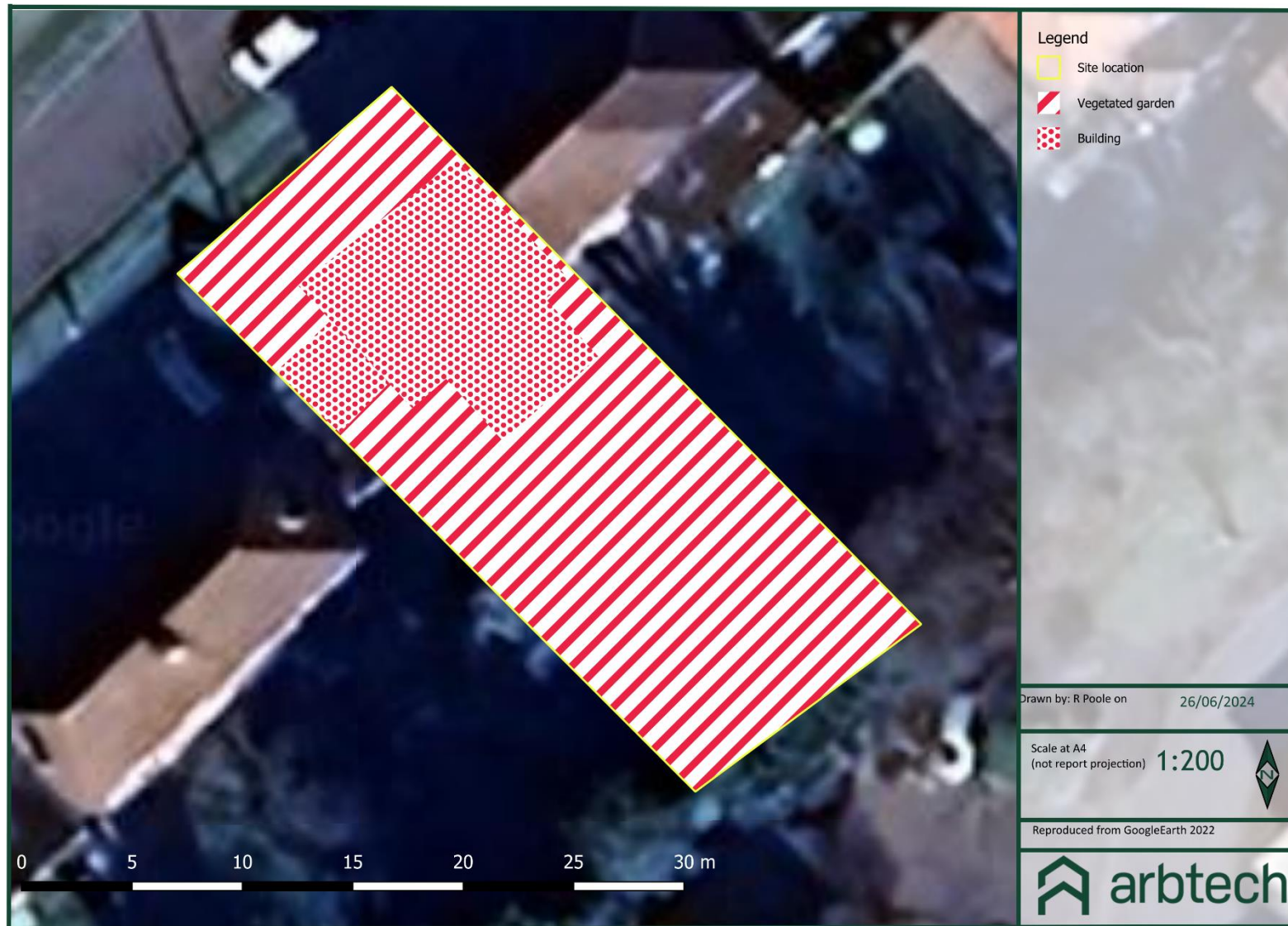
	None required Barn owls None required. Overwintering birds None required. Suggested biodiversity enhancements The installation of two integrated swift bricks (e.g. Ibstock Swift Eco Habitat or similar alternative brand) at the site will provide additional nesting habitat for birds in line with the measures outlined in the British Standard "Integral nest boxes. Selection and installation for new developments. Specification" (BS 42021:2022). Swift bricks should be integrated into the fabric of the extension during construction. Boxes should be positioned close together (0.6-1.0m between bricks) as swifts prefer to nest gregariously. The boxes should be placed at least 5m above ground level under the eaves of a building, on a north or east elevation, where they will be sheltered from prevailing wind, rain and strong sunlight. To be suitable for swifts, the bricks require an open aspect with no trees or large shrubs potentially obstructing the birds' flight path up to 5m from the brick. Swift bricks are a "universal nest brick" for small bird species, including red-listed species such as common swift, house sparrow, house martin, and starling.
Reptiles	
<i>Summary of Survey Findings</i>	EPSL data A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site. Habitat suitability There is no suitable habitat present on site for reptiles due to a lack of habitats such as scrub and rank grassland which would offer refuge for these species. Further, the site is surrounded by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration and therefore reptiles are considered unlikely to migrate from any nearby suitable habitats to the development site. As such it is likely that reptiles are absent from the development site.

<i>Foreseen Impacts</i>	No impacts are anticipated on reptiles as a result of the proposed development.
<i>Recommendations</i>	None required. Suggested biodiversity enhancements The site could be enhanced for reptiles post-development with the inclusion of log piles (created from felled materials) and planting of areas of native shrubs, to provide sheltering opportunities.
Amphibians	
<i>Summary of Survey Findings</i>	EPSL and survey data A review of the MAGIC database returned no granted EPSL records for great crested newts within 2km of the site. However, the MAGIC database did return evidence indicating the presence of great crested newts resulting from historic pond surveys undertaken in 2019 with a HIS score of poor. These records are located >1km northwest. Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). As such, the great crested newt metapopulation known to be present >1km northwest are not suitably connected to the site. Habitat suitability There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of several large bodies of water within 500m; both located i~0.402km and ~0.408km northwest and are situated on the far side of the (Grange Road). This landscape feature is likely to represent a significant barrier to dispersal due to heavy traffic flow and high kerbs along the road, eliminating connectivity to the site for great crested newts.
<i>Foreseen Impacts</i>	Given the lack of suitably connected breeding ponds within 500m of the site, the presence of GCN on-site is considered unlikely and therefore impacts to amphibians as a result of the proposed development are deemed to be acceptably low.

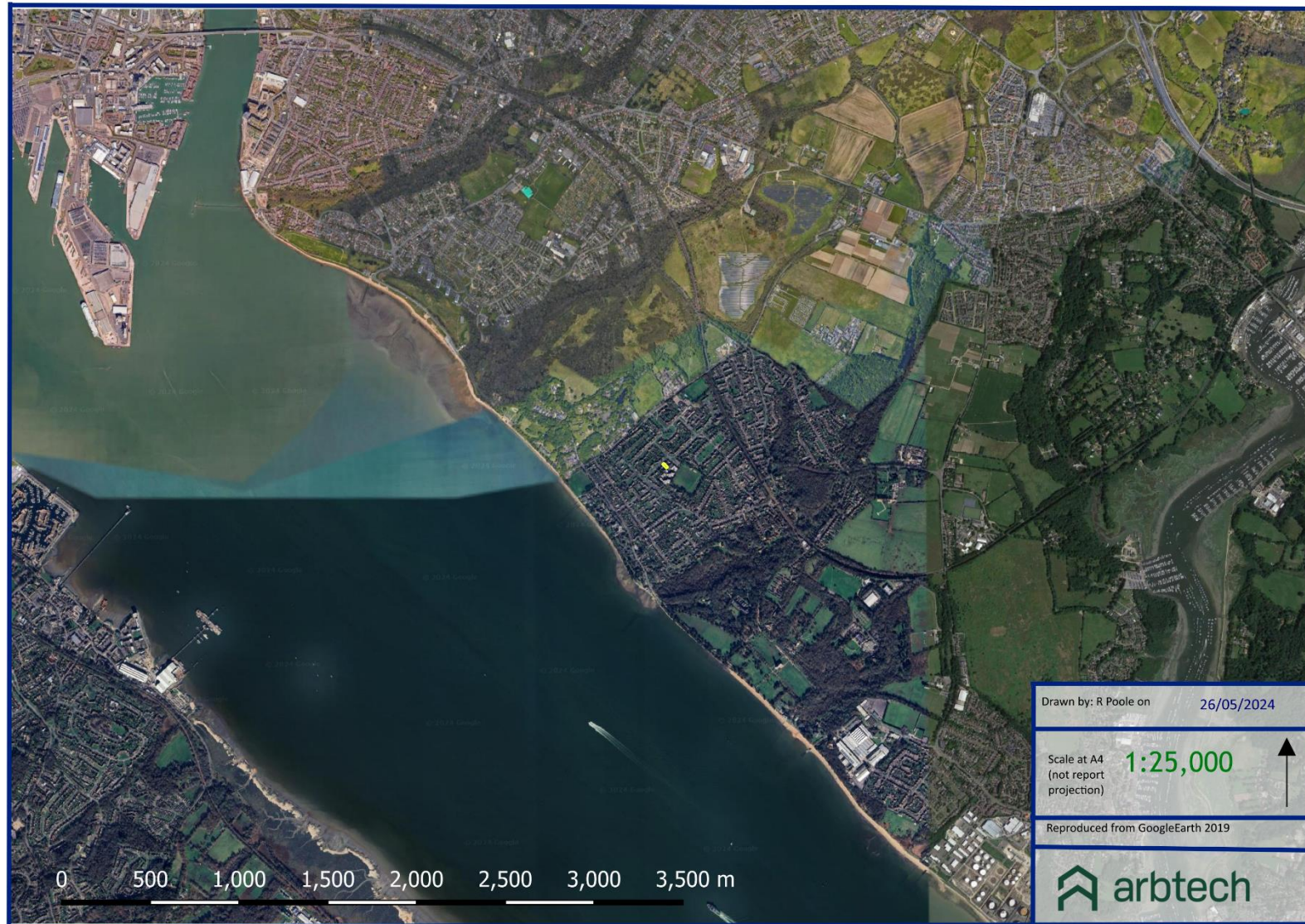
<i>Recommendations</i>	Suggested biodiversity enhancements The site could be enhanced for amphibians' post-development through creation of amphibian hibernacula using rubble and logs from site clearance. Information on how to construct a hibernaculum can be found here: https://www.wiltshirewildlife.org/hibernaculum
Badger	
<i>Summary of Survey Findings</i>	No badger setts were noted on site or within a 30m radius of the site. The site is considered unsuitable for badgers given the lack of suitable sett excavation areas/ground. Further, there is limited suitable badger foraging habitat on site given the lack of fruiting trees/scrub. The site is also surrounded by urban development (i.e. roads and buildings), which is sub-optimal habitat therefore reducing the likelihood of badgers being present within the surrounding area of the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on badgers as a result of the proposed development.
<i>Recommendations</i>	None required. Suggested biodiversity enhancements Planting fruit bearing trees and species-rich grassland to increase foraging opportunities for badgers.
Riparian animals	
<i>Summary of Survey Findings</i>	A review of the MAGIC database returned no granted EPSL records for otters or water voles within 2km of the site. There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	None required.
Hazel dormouse	
<i>Summary of Survey Findings</i>	EPSL data A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site.

	The site is enclosed by urban infrastructure including roads and significant residential development. These landscape features fragment suitable dormice habitat in the wider landscape and are likely to limit dispersal opportunities to the site. As such it is considered likely that hazel dormice are absent from site.
<i>Foreseen Impacts</i>	No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None foreseen.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	Habitats recorded on site are assessed to provide commuting opportunities for hedgehogs in the form of the vegetated garden. No evidence indicating the presence of hedgehogs was recorded on the site. Although no evidence indicating the presence of hedgehogs was recorded, access to on-site habitats is available for hedgehogs. The future presence of foraging and commuting hedgehogs for transient periods cannot be discounted.
<i>Foreseen Impacts</i>	Hardstanding 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 presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.
<i>Recommendations</i>	A precautionary working method will be implemented during construction, including the following measures: - Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. - 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. - Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. 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.

	Suggested biodiversity enhancements The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: • Planting fruit bearing trees and species-rich grassland to increase foraging opportunities. • Creation of brash piles or installation of hedgehog houses in shady areas. • Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.
--	--

Appendix 1: Habitat map

Appendix 2: Location map



Appendix 3: Proposed plan

A plan showing the proposed development will be provided in Appendix 3 when available.

Appendix 4: Photos

Photograph 1	Description
	The north-west (front) elevation of B1. The pebble dash render will be removed and replaced with brick – similar to the façade of number 42 (left).
Photograph2	Description
	The decking to the rear of B1 will be removed to facilitate the two story extension.

Photograph 3	Description
	An example of the vegetated garden which is currently unmanaged however is usually kept to a short sward length.

Limitations and Copyright

Legal

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

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

Version control			
Status	Issue	Name	Date
Draft	0.1	Romany Poole BSc (hons) MSc. Graduate ecologist	04/07/2024
Final	1.0	Romany Poole BSc (Hons) MSc, Graduate Ecologist	04/07/2024