

Preliminary Ecological Appraisal and Preliminary Roost Assessment

Survey site:

Ropley, Botley Road, West End, Southampton, SO30 3HA

Client:

Pitter Properties Ltd

Survey date: 13/02/2024 – 15/02/2024

Project:

This report is prepared to inform a planning application for the demolition of the existing garage and construction of two dwellings with associated access road and landscaping

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 Anna Dolby and Harley Stone (Natural England Bat Licence Number: 2023-11031-CL17-BAT)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (mph)	Rain
13/02/2024	15	93	100	1.2	Light drizzle
15/02/2024	16	78	70	1.5	None

Ecological Survey Factor	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.
Conclusion, Impact or Recommendations	
Habitats and plants (see habitat map in Appendix 1, location plan in Appendix 2, photos in Appendix 3 and proposal plan in Appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
Summary of Survey Findings	The site is located in West End, Southampton at the National Grid Reference SU 47461 14395 and has an area of approximately 0.14ha comprising of residential dwelling with a vegetated garden with individual trees. It is surrounded by urban developments with parcels of grassland, scrub, and woodland. The wider landscape comprises coniferous and broadleaf woodland to the south. A site location plan is provided in Appendix 2. The habitats present onsite include: • Buildings (u1b5) • Developed land, sealed surface – vegetated garden - unmanaged (u1b – 828- 521) • Artificial unvegetated, unsealed surface – vegetated garden – unmanaged (u1c – 828 – 521) • Other standing water – Ornamental pond (r1g – 46) • Non-native and ornamental hedgerows (h2b) • Bramble scrub – young trees – self-set (h3d – 202) • Scattered trees (32)

	• Line of trees (33) <u>Developed land, sealed surface with buildings</u> One dwelling is present on site, with one greenhouse present within the vegetated garden, one dog kennel and one wooden garden structure to the west of the dwelling. The main building is a two-storey dwelling with a single storey garage attached. The driveway consists of paving stones, which lead from the northeast corner and around the main dwelling. These have been left unmanaged with areas of vegetation growing. <u>Artificial unvegetated, unsealed surface</u> Extending from the paving stones is an area of unmanaged unsealed surface used for parked cars. This area is within the vegetated garden and has been left unmanaged, with areas of perennial rye grass and broadleaved herbs colonising the surface. <u>Vegetated garden</u> The majority of the site is made up of vegetated garden, which has been left unmanaged. Species include perennial ryegrass (D) and ground ivy (D). There are small areas of scattered scrub within the garden. <u>Ornamental pond</u> A small man-made ornamental pond is present just south of the main dwelling, this is approximately 2m² in size. The pond is surrounded by sealed surface and ground ivy. The pond was subject to a HSI assessment, which is mentioned later in this report (within amphibians section). Condition assessment:
--	--

	The pond had a moderate level of turbidity. The pond was surrounded by vegetated garden and stone paving. No duckweed was present on the pond surface. There were no artificial pipeworks or pumps connected to the pond. No non-native or invasive species of plants or animals were visible during the survey; however this was completed outside optimal season. No fish were seen within the pond. The pond is less than 3m deep with >50% emergent plants. The ponds surface is <50 shaded by adjacent trees. <u>Non-native and ornamental hedgerows</u> Five species poor ornamental hedgerows are present on site. One of the hedgerows at the centre of the site contains trees. Each hedgerow appears to be unmanaged with different heights throughout, the tallest areas being >2m and shortest being approximately 0.5m. Native species were found within the two hedgerows within the northern area of the site, however they made up less than 80% of the hedgerow. Species include: D: Bramble <i>Rubus fruticosus</i>, Scarlet firethorn <i>Pyracantha coccinea</i>, Lawson's cypress <i>Chamaecyparis lawsoniana</i> A: Cherry laurel <i>Prunus laurocerasus</i>, Laurustinus <i>Viburnum tinus</i> F: Ivy <i>Hedera helix</i>, English Yew <i>Taxus baccata</i> O: Holly <i>Ilex aquifolium</i> R: Topiarist's hebe <i>Veronica topiaria</i> <u>Bramble scrub</u> Towards the south of the vegetated garden there are large areas of dense scrub with scattered trees. The majority of the scattered trees are self-seeded saplings. Species include: D: Bramble <i>Rubus fruticosus</i>, Ivy <i>Hedera helix</i> A: Cypress spp.
--	---

	O: Buddleia <i>Buddleja davidii</i> Condition assessment: >80% of the scrub was native, however only two native woody species were present. Seedlings, saplings, young shrubs and mature shrubs are all present. No invasive schedule 9 species were present within the scrub. The scrub had a defined edge however the grass within the vegetated garden has a short sward height, dominated by ivy. <u>Scattered trees</u> There are a number of scattered trees within the site boundary, most of which are young self-seeded trees. Species include: D: Lawson cypress <i>Chamaecyparis lawsoniana</i> O: Crab apple Condition assessment: The majority of the scattered trees present were Lawson cypress. Approximately ~50% of the trees were mature. There was little to no evidence of adverse impact on tree health due to human activity. Natural ecological niches for vertebrates and invertebrates are present. ~>20% of the tree canopy area is oversailing vegetation beneath. <u>Line of trees</u> There are two lines of trees within the site boundary, both along the east boundary. Most of the trees had ivy attached towards the base of the trees. Species include: D: Cypress spp., ivy <i>Hedera helix</i>
--	--

	A: Spruce spp. Condition assessment: Less than 70% of the trees are native species. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area with no individual gaps being >5m wide. Ivy cladding was present within the majority of the trees. There is a fence line next to the line of trees, with areas of hard standing to the west of the line. At least ~95% if the trees are in healthy condition. <u>Local habitats</u> There are no notable habitats present within the site boundary, however there are notable habitats within 2km of the site, the closest being deciduous woodland located 0.28km southwest of the site. The intervening habitats between the site and closest notable habitat is comprised of amenity land including hard standing car park, main access roads, leisure centre, urban dwellings and amenity grassland – as such, the deciduous woodland is not considered to have suitable connectivity to the site.
<i>Foreseen Impacts</i>	Areas of ornamental hedgerow, scattered trees, vegetated garden, scrub, ornamental pond and developed land, sealed surface will be removed or altered to facilitate the proposed plan. This will result in a net loss in biodiversity at the site. Further habitats on site are widespread and are not notable. No impacts to notable habitats in the local area are anticipated due to the small scale of the proposal and distance from the site to these notable habitats.
<i>Recommendations</i>	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).

	To compensate for the proposed habitat losses at the site, the following habitat creation measures should be incorporated: • Species rich grassland planting • Local wildflower planting in suitable locations onsite • Green wall with climbing plants along the western boundary, which may help to reduce noise pollution from local garage. • Increase of native species within the hedgerows, including hazel and hornbeam • Removal or control of buddleia
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	The site located within 2km of several designated sites: <u>Moorgreen Meadows Site of Special Scientific Interest (SSSI) ~ 0.63 km northeast</u> A neutral meadow and alder wood flanking a small tributary of the River Hamble on the Bracklesham Beds of the Hampshire Basin. The sward comprises at least 17 co-dominant herbs and grasses and is of exceptional scientific importance for its populations of marsh orchids. <u>Wildern Local Nature Reserve LNR ~ 1.4km southeast</u> The site has a diverse habitat including a mosaic of ponds, two flooded meadows, woodland and a valley mire all linked by streams flowing through the site. Bird species common to the site include the Goldfinch, Bullfinch and Siskin, rarer species include the Lesser Redpoll and Brambling. Other species include an assemblage of butterfly and insect species. The presence of non-statutory designated sites within 2km cannot be established without biological records data from the Local Biological Records Centre.

Foreseen Impacts	No impacts foreseen due to the size and distance of the site from these designated areas. Furthermore, whilst the presence of non-statutory sites cannot be ascertained without local records, it is not anticipated that such sites would be in the locality due to the urban nature of the surrounding area.		
Recommendations	None required.		
Invasive / Non-native species			
Summary of Survey Findings	No invasive species recorded on site – however the site survey was undertaken outside the optimal season for identifying invasive species, so evidence of these could have been missed.		
Foreseen Impacts	None foreseen.		
Recommendations	No further surveys but remain vigilant.		
Invertebrates			
Summary of Survey Findings	No habitat suitable for protected or notable invertebrates is present on site. The site does provide habitat value for common assemblages of invertebrates which could exploit the hedgerows, scrub and the trees onsite.		
Foreseen Impacts	None foreseen.		
Recommendations	No further surveys required.		
Bats			
Summary of Survey Findings	<u>Wider landscape within 2km of site</u> A search of the magic database returned four EPSLs for bats within a 2km radius of the site. This includes: 		

	2016-22944-EPS-MIT – 0.12km north	Brown long-eared and Common pipistrelle	Damage and destruction of a resting place
	2019-42509-EPS-MIT – 0.80km northwest	Common pipistrelle and Serotine	Destruction of a resting place
	2016-22386-EPS-MIT – 1.36km northeast	Brown long-eared bat, Common pipistrelle and Soprano pipistrelle	Destruction of a resting place
	EPSM2013-5805 – 1.54km southeast	Common pipistrelle	Destruction of a resting place
Habitats present on-site and within the immediate vicinity include lines of trees, scattered trees, hedgerows and ornamental pond. These are likely to provide a significant resource for foraging and commuting bats. <u>Site</u> The site has four structures – a dwelling area with single storey garage attached (B1), greenhouse (B2), dog kennel (B3) and overgrown structure (B4) to the west of the dwelling. <u>B1</u> Northern elevation:			



Eastern elevation:



Southern elevation:





B1 is a two-storey red brick residential dwelling with clay hanging tiles and slate tile roof with white PVC soffit boxes. The slate tiles are completely flush to the roof with no visible gaps. A single-storey garage is attached on the eastern side. The roof is composite, with one chimney sealed with lead flashing, the northern, southern and western elevations are hipped, with shed and flat roofs on the eastern elevation. Windows are plastic PVC, sealed with silicone, there are two bay windows on the northern elevation, embellished with decorative detailing. The garage door is made of wood and painted blue.

There are gaps within the hanging tiles, soffit boxes, brick work and lead flashing on B1 that have potential for roosting bats. These have been circled in yellow on the photographs and their corresponding elevations.

B2:



B2 is a single-storey greenhouse with glass panels, it has been left unmanaged with several broken panels. B2 has no features for roosting bats.

B3:



B3 is a dog kennel/enclosure made of wood with metal mesh columns, it has been left unmanaged with sparse areas of vegetation within. It has a flat roof made of wood. B3 has no features for roosting bats.

B4:



B4 is an open structure with partial red brick structure and wooden panels. B4 has an open roof, with wooden panels across the top to keep its structure. B4 has no features for roosting bats and too much exposure to the elements.

Interior

B1 - garage void/eastern elevation:



The attached garage on the eastern elevation had a sloped roof, there was no lining, and the underside of the roof tiles were exposed with wooden beams. These were in good condition, with no visible gaps. Daylight was visible due to the circle window on the northern elevation.

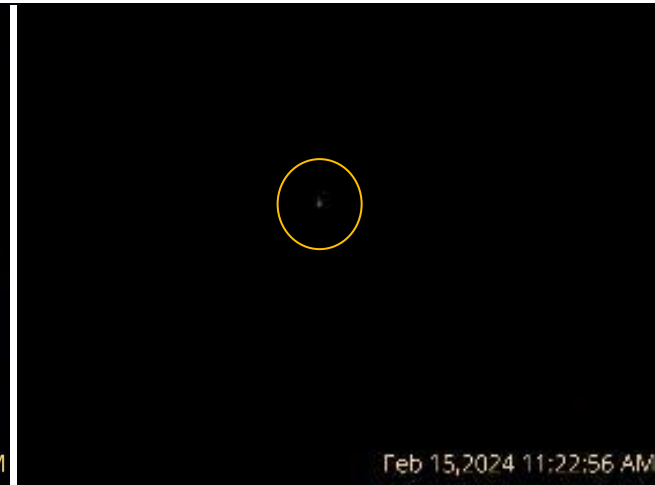
The ambient temperature inside the loft space was 16°C, with 78% humidity which was the same as the outside temperature and humidity during the survey.

Approximately 4m (height), 2.6m (width), 4.9m (length).

No droppings were found within this area.

B1 – Main dwelling void





There was no lining, exposing the underside of the tiles and wooden beams across. The loft space provides roosting potential for void dwelling bat species. Wooden panels covered the floor with areas of wool lining. The only daylight visible within the loft void was from a gap within the western elevation (as circled in yellow above). The ambient temperature inside the loft space was 16°C, with 78% humidity which was the same as the outside temperature and humidity during the survey. Therefore, the temperature within the void is unlikely to remain consistent.

Approximately 4m (height), 7m (width), 10m (length).

Rat droppings were found on the floor near the loft opening.

No bat droppings were found within the loft void, however due to health and safety reasons not all areas of the void were assessed.

Suitability assessment

	B1 has moderate suitability for roosting bats. There are several features including gaps within hanging tiles, soffit boxes, lead flashing and brick work. Furthermore, not all areas of the void were inspected and therefore bat droppings and other features could have been missed. B2 offers negligible suitability for roosting bats. There are no features for bats to use for roosting. It is unlikely that crevice dwelling bat species would be able to use this structure. B3 offers negligible suitability for roosting bats. There are no features for bats to use for roosting. As such, any bat utilisation of this building is likely to be exploratory in nature. B4 offers negligible suitability for roosting bats, due to the missing roof, and lack of suitable roosting features. The lack of roof exposes the structure to the elements; therefore, no consistent temperature or humidity will be maintained. This is unlikely to provide significant shelter for bats. As such, any bat utilisation of this building is likely to be exploratory in nature. <u>Trees</u> The line of trees along the eastern boundary of the site had ivy cladding towards the base of each tree. The ivy present is not assessed to be thick enough to provide roosting value for bats. No visible bark inclusions, cavities, detached limbs or cracks were visible on any of the trees from a ground level assessment. also It is unlikely any suitable features persist underneath the ivy cladding due to the age of the trees. However, the trees are good value for foraging and commuting bats. One of the scattered trees, at the southern boundary, had several cavities and cracks, however the
--	---

	tree was ~3m tall, therefore these features were easily accessible for inspection. The features were assessed to be unsuitable for bats, due to the depth of the cavities and rotten condition of the tree. The trees on site fall into the PRF Far category – further assessment required.
<i>Foreseen Impacts</i>	The attached garage and kitchen are to be removed to facilitate the construction of an access driveway. This could destroy any bat roosts present in this building and risk injury or death to bats, if present at the time of works. B2, B3 and B4 are likely to be removed or altered to facilitate the proposed plan, however it is unlikely that bats are using these structures due to the lack of roosting features. Trees are to be retained where possible, however the development will likely include the removal of some trees at the eastern boundary and scattered trees within the southern centre of site. These trees have low value for roosting bats. Furthermore, there are several areas of trees within the immediate areas of site that bats could use for foraging and commuting. New artificial lighting could deter bats from utilising these habitats.
<i>Recommendations</i>	<u>B1</u> Two bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely absence of a bat roost in B1. The survey should be completed during the optimal survey period mid-May to August inclusive. Infra-red cameras should be used as an aid. Surveys must be a minimum of three weeks apart. Three surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building, one additional survey may be required to characterise the roost and to inform an EPSL application to Natural England. 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. <u>Trees</u> Best practice guidelines state that trees with low suitability for roosting bats do not require further surveys. Instead, prior to any pruning or felling, a close-up inspection, using an endoscope, of any features that could be used by roosting bats will be undertaken to determine the presence or likely absence of roosting bats. This will require a qualified arborist who holds a British Standard 8596 – Surveying for Bats in Trees or Woodland certificate or a suitably qualified bat ecologist and a Mobile Elevated Work Platform (MEWP) to access the full height of the trees to look for suitable bat roost features. 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. A low impact lighting strategy will 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
Birds	
<i>Summary of Survey Findings</i>	No evidence of nesting birds was found on site during the surveys; however, birds could use the trees, scrub and main dwelling on site. The gaps within the soffit boxes provides potential for nesting birds, this includes schedule 1 bird species (i.e. house sparrow). Scrub and scattered trees will be removed for the proposed construction. The single storey garage attached to the dwelling will be demolished.

<i>Foreseen Impacts</i>	The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.
<i>Recommendations</i>	Any vegetation removal or works to the building should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. A buffer of at least 3-5m buffer should be created between any machinery and active nests until the young have fledged.
Reptiles	
<i>Summary of Survey Findings</i>	The areas of scrub, vegetated garden and hedgerow provides suitable habitats for reptiles, for foraging, hibernation and commuting. There are areas of metal and other materials left on the ground within the vegetated garden, creating refugia for reptiles.  Feb 15, 2024 11:41 D4 A44

	The immediate areas adjacent to site include main access road with kerbs to the north, small area of trees and grassland to the south and urban dwellings with gardens to the east and west. Reptiles may access the site via the southern boundary, there is a small column of trees between the car park to the west and leisure centre to the east. However, due to the urban area, it is likely that the grassland is maintained for amenity purposes making it less suitable for commuting reptiles.
<i>Foreseen Impacts</i>	Scrub, rubble piles (i.e. image above), vegetated garden and small areas of hedgerow will be removed to facilitate the construction of two new dwellings and hard standing. There is more extensive habitat to the southwest of site, however local knowledge reports that reptiles (i.e. slow worms), have been found on the site previously. Thus, site clearance could result in the death or injury of reptiles, if present.
<i>Recommendations</i>	Reptile surveys will be required to determine presence or likely absence of reptiles on the site. This will comprise the deployment and monitoring of artificial refugia over seven visits and such surveys must be undertaken between April, May and September, in accordance with current survey guidelines (Gent & Gibson, 2003).
Amphibians	
<i>Summary of Survey Findings</i>	There is one small ornamental pond on site. 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). A review of aerial imagery indicates the presence of two ponds within 500m with the closest being 389m south of the site. This is separated by urban vegetated garden, grassland and woodland. Fences separate the urban gardens and woodland which reduces the likelihood of great crested newts travelling between ponds. The second pond is 471m southeast from site. This is separated by the urban main access roads and car parking

	of Utilita bowl, urban dwellings leisure centre. A habitat index suitability assessment (HSI) was completed with pond suitability being calculated as good. No EPSL returns for GCN were found within a 2km radius of the site. Three great crested newt pond surveys were conducted between 2017-2019 and no great crested newts were present within any of the ponds, the closest being 1.21km east.																								
Foreseen Impacts	The ornamental pond may be removed or altered, and scrub will be removed to facilitate the proposed plan. When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is likely to result in the loss or significant disturbance of 0.0304ha of suitable great crested newt habitat (i.e. scrub). If great crested newts are present within the pond on site, this will constitute a loss of 0.0304ha within 100m of a potential breeding pond. When completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces an Amber risk score, which states: Offence Likely. <table><tr><th>Component</th><th>Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)</th><th>Notional offence probability score</th></tr><tr><td>Great crested newt breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land within 100m of any breeding pond(s)</td><td>0.01 - 0.1 ha lost or damaged</td><td>0.3</td></tr><tr><td>Land 100-250m from any breeding pond(s)</td><td>No effect</td><td>0</td></tr><tr><td>Land >250m from any breeding pond(s)</td><td>0.01 - 0.1 ha lost or damaged</td><td>0.001</td></tr><tr><td>Individual great crested newts</td><td>No effect</td><td>0</td></tr><tr><td colspan="2">Maximum:</td><td>0.3</td></tr><tr><td colspan="2">Rapid risk assessment result:</td><td>AMBER: OFFENCE LIKELY</td></tr></table>	Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score	Great crested newt breeding pond(s)	No effect	0	Land within 100m of any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.3	Land 100-250m from any breeding pond(s)	No effect	0	Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001	Individual great crested newts	No effect	0	Maximum:		0.3	Rapid risk assessment result:		AMBER: OFFENCE LIKELY
Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score																							
Great crested newt breeding pond(s)	No effect	0																							
Land within 100m of any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.3																							
Land 100-250m from any breeding pond(s)	No effect	0																							
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001																							
Individual great crested newts	No effect	0																							
Maximum:		0.3																							
Rapid risk assessment result:		AMBER: OFFENCE LIKELY																							

<i>Recommendations</i>	Suitable terrestrial amphibian habitat includes scrub, grassland and areas of hedgerow will be removed. If it is necessary for the suitable aquatic habitat on site (i.e. pond) to be moved or altered, environmental DNA (eDNA) surveys will be required of any ponds within 250m/500m of the site (where accessible) to determine the presence or absence of great crested newts. This will comprise collecting water samples and sending them off for laboratory analysis and such surveys must be undertaken between mid-April and June, in accordance with current survey guidelines (Biggs et al, 2014).
Badger	
<i>Summary of Survey Findings</i>	No evidence of badgers was found on or within 30m of the site. The topography of the vegetated garden is uneven, with small holes likely to be rabbit or dug out by dogs from the previous tenant. The immediate adjacent habitats include main access road with kerbs to the north, small area of trees and grassland to the south and urban dwellings with gardens to the east and west.
<i>Foreseen Impacts</i>	Scrub and vegetated garden will be removed during the construction, the loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally.
<i>Recommendations</i>	In the unlikely event that a badger sett is identified within 30m, works must cease and advice must be sought from a suitably qualified ecologist.
Riparian mammals	
<i>Summary of Survey Findings</i>	There are no significant watercourses on or suitably connected to the site, due to the urban barriers in place isolating the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	None.
Hazel dormouse	

<i>Summary of Survey Findings</i>	One EPSL license for hazel dormice was granted 0.89km southeast of the site (EPSM2012-4209). The site consists of scrub, ornamental hedgerows, trees and vegetative garden. The scrub is predominantly bramble, the fruits on bramble provide a good food source for hazel dormice. Scrub and hedgerow also provide areas for hibernation and nesting for hazel dormice. There is a corridor of trees south of the site boundary, which connects to a parcel of broadleaf and coniferous woodland, Telegraph Wood. A desk study of the PTES Dormouse Monitoring Scheme found 7 records for the presence of dormice within 1km of the site in proximity to this woodland.
<i>Foreseen Impacts</i>	Areas of scrub, trees and a small amount of ornamental hedgerow will be removed to facilitate the construction of two new dwellings. The loss of such habitats is likely to be inconsequential to local dormouse populations owing to the presence of more extensive habitat locally. However, site clearance could result in the death or injury of dormice, if present.
<i>Recommendations</i>	Owing to the nature of the proposed development and the low potential for impacts to dormice, further dormouse surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures: • Site clearance will be undertaken outside of the dormouse hibernation season (November to March) insofar as is possible. • A toolbox talk will be given to contractors regarding the possible presence of dormice at the site. • Heras fencing will be erected around the working area to prevent encroachment into retained habitats where dormice could be present. • A pre-commencement inspection of the site will be undertaken for dormice. • In the unlikely event that a dormouse or evidence of dormouse is identified, works must cease and advice must be sought from a suitably qualified ecologist.

Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	The scrub, vegetated garden and hedgerows are likely to provide habitats for foraging or hibernating hedgehogs. The fence that surrounds the site has missing fence panels and gaps creating access points for commuting hedgehogs. Hedgehogs are an urban adapted species; it is likely that they will use the site.
<i>Foreseen Impacts</i>	Areas of scrub, trees and ornamental hedgerow will be removed to facilitate the construction of two dwellings and hard standing. 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>	General precautionary working methods will be adopted to mitigate any hedgehogs in the unlikely event they are identified onsite. These can include: • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Vegetation will be maintained at a short sward of 5cm. • 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.

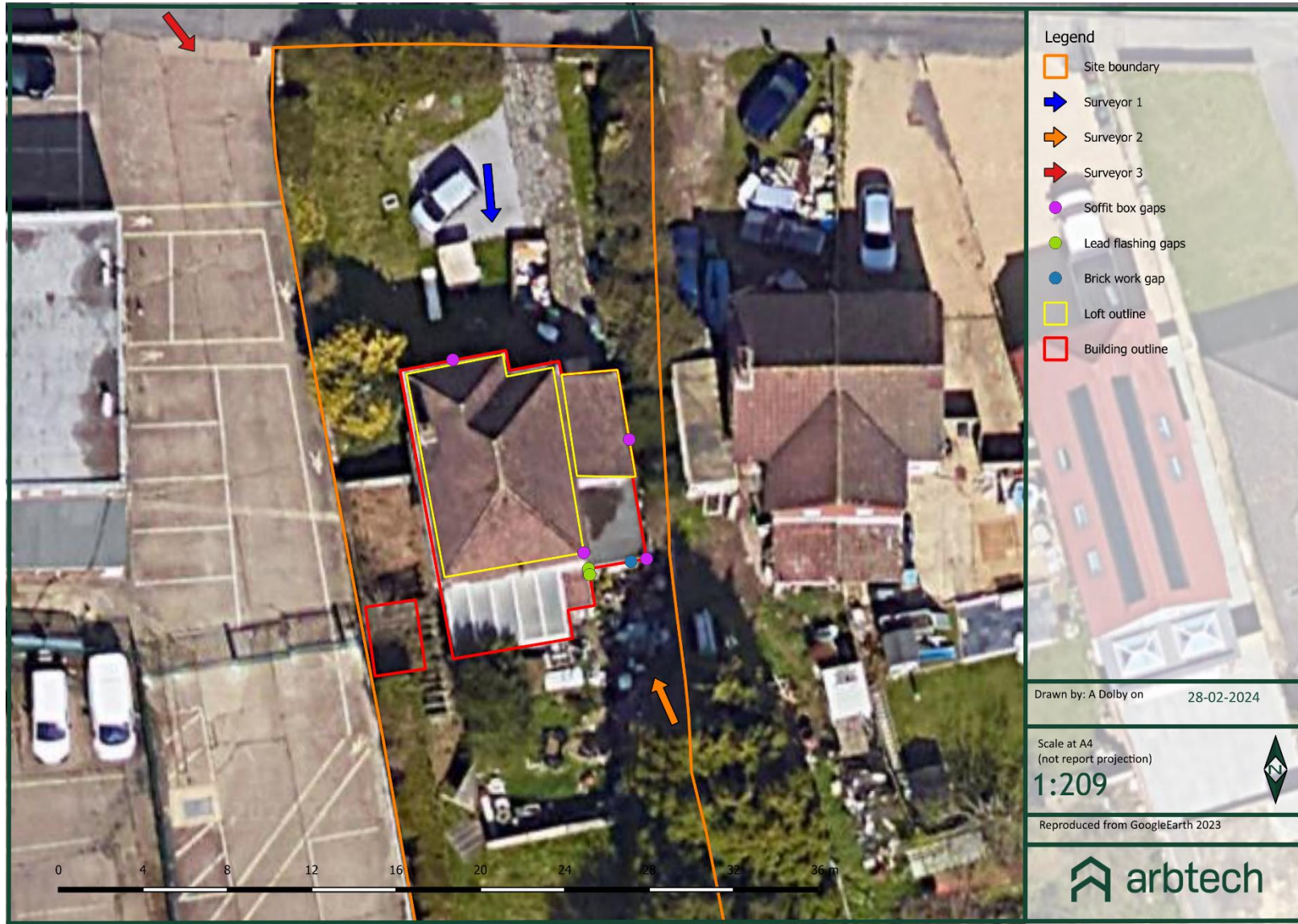
Appendix 1: Survey/Habitat map



Appendix 2: PRA map



Appendix 3: Proposed BERS plan



Appendix 4: Location map



Appendix 5: Pond location map



Appendix 6: Proposed plan



Appendix 7: Photos



Photo 1: The northern area of vegetated garden, with hard standing and artificial unsealed surface.



Photo 2: The hard standing paving stones at the northern area of site. With ornamental hedgerows.



Photo 3: Ornamental hedgerow at the northeast boundary.



Photo 4: Vegetated garden behind the house, with western ornamental hedgerow.



Photo 5: The ornamental pond within the vegetated garden.



Photo 6: The dense bramble scrub and scattered trees towards the southern boundary of site.



Photo 7: Line of trees (left) and scattered trees at southern area of site.



Photo 8: Scattered trees at the southern boundary.



Photo 9: Line of trees along the eastern boundary with fence line, with ivy cladding.



Photo 10: One of the trees along the eastern boundary, which has been subject to coppicing.



Photo 11: One of the scattered trees within the bramble scrub.



Photo 12: A view of the eastern line of trees, showing the height of the trees.

Limitations and Copyright

Limitations

The loft space in B1 was not fully accessible due to health and safety reason caused by the mouldy and damp flooring panels, these were unsafe to walk on. There was no storage or items within the loft however, which made it easy to see any roosting features within the loft.

Unable to observe the tiles on the western elevation due to the fence line and third-party land to the west of the site, however bat roosting features were found within the other elevations of the building.

The PEA was completed outside the optimal season for plant identification, however there is a low chance that any notable species would be within the site boundary due to previous use for amenity garden.

The HIS was completed outside the optimal season, however this was calculated without shade and macrophyte cover being added to appropriately evaluate the pond during the sub-optimal season.

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.