

Preliminary Ecological Appraisal and Roost Assessment

Survey site:

Grey Court School, Ham House, Ham Street, Richmond, Surrey TW10 7HN

Client:

The Every Child Every Day Academy Trust

Survey date:

1st July 2024

Project:

This report is prepared to inform a planning application with the Rochford District Council. The proposal is described as:

The demolition of the Ingenium modular building.

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 Millie Holland BSc (Hons), MSc, Graduate (Accredited Agent on Natural England Bat Licence Number: 2018-33540-CLS-CLS)					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
01/07/2024	18	63	10	9	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 (UKHab codes used)	Site description The owned site is a school centred on National Grid Reference TQ 17405 72463 and has an area of approximately 6.1ha. The site consists of multiple buildings, scattered trees, hardstanding as walkway and parking, artificial grass as tennis courts and grassland. The site is located to the south of the town of Richmond and is immediately surrounded by residential infrastructure, and rural fields. The wider landscape includes residential and commercial infrastructure and rural fields. The closest waterway is a pond located ~117m southeast of the site. The survey site is towards the west of the owned site. Developed land, sealed surface (U1b) The survey site has many footpaths crossing through it and around it. These lead to the surrounding school buildings and access road to the south (figure 1). This area is well used by students.

	<p>Building (U1b5)</p> <p>In the centre of the site there is a UPVC made building, that is being influenced by the proposed development (figure 1). This building is a sphere shape and is no longer used by the school due to it being unsafe. The building site ~3m high and does not have a loft space or any other features. The building is evaluated for its habitat value to bats in a later section.</p> <p>Modified grassland (G4) scattered trees (32)</p> <p>In between the paths there are areas of modified grassland that is kept to a short sward (figure 1. 2). Species consist of:</p> <p>D: perennial rye A: barley, dandelion F: ribwort plantain, green doc O: clover, daisy, yarrow, thistle R: ragwort, cranesbill</p> <p><i>Modified grassland condition assessment</i></p> <p>There are under 6 vascular per square meter, and the sward height is kept very short (~0.3-2cm). There is no scrub present. The physical damage evident is over 5% of the total grassland area, where obvious erosion has taken place – this has meant that the cover of bare ground is ~40%. There is no bracken present, or invasive non-native plant species.</p> <p>Within the modified grassland there is four scattered trees (figure 2) including:</p> <ul style="list-style-type: none"> - Beech, that has multiple stems, averaging a DBH of 90cm. The tree stands ~20-22m tall and is mature.
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	<ul style="list-style-type: none">- Pine standing ~20-22m high, with a DBH of 103cm.- Maple standing ~14-18m high, with a DBH of 80cm.- Cherry standing 8-12m high, with a DBH of 25cm. <p><i>Individual tree condition assessment</i></p> <p>At least 70% of the trees within the block are native. The tree canopy is predominantly continuous, with gaps in cover making up less than 10% of the total area. The trees are mature. There is little to no evidence of human impact on the tree health by human activities. Natural ecological niches are not present on the trees. Less than 20% of the tree canopy area is oversailing vegetation beneath.</p> <p>Local notable habitats</p> <p>Priority habitats in the form of deciduous woodland (in the owned site boundary to the northeast, ~75m from the proposed development), traditional orchards (closest ~57m east), woodpasture and parkland BAP (closest ~88m southeast), lowland meadows (closest ~528m northwest), lowland dry acid grassland (closest ~939m northeast) are located within 2km zone of influence of the site. The site has connectivity to deciduous woodland due it being present on site and the boundary. The fragmented nature of other priority habitats means that they have little connectivity to the site.</p> <p>The local habitat in the form of deciduous woodland, and rural fields with hedgerows and scattered trees will provide optimal commuting and foraging habitats for bats. The site has good connectivity including the Grey Court School Sports Ground, Sandy Lane Playground and St Michaels Convent Gardens will provide optimal commuting and foraging habitats for bats. The site contains and has some connectivity to other good quality landscapes for bats.</p>
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<i>Foreseen Impacts</i>	<p>There are no foreseen impacts on the surrounding or onsite habitat due to the development. This is due to the urban distance between the demolition and the surrounding woodland and other priority habitats and the small scale of the proposed development.</p> <p>No trees are to be removed as part of the proposed development.</p>
<i>Recommendations</i>	<p>The recommendations are subject to change upon receipt of the proposed development plans.</p> <p>A biodiversity net gain (BNG) report is unlikely to be required for the proposal, as no habitat is affected by the proposal (one of the exemptions). The modified grass habitats can all be retained unaffected.</p>
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	<p>Onsite designation</p> <p>There are no onsite designations.</p> <p>Statutory designation site (within 2km)</p> <p>Ham Common, Richmond, London is a Local Nature Reserve (LNR) located ~309m southeast of the site. Species found include; birch and oak woodland with wet hollows and acid grassland. Notable species include remote sedge, cow-wheat and purple hairstreak butterfly, birds and owls.</p> <p>Ham Lands is another LNR that is located ~561m west of the site. Ham Lands local nature reserve is an extensive area of grassland and scrub with abundant wildlife. The site was once extensively excavated for gravel, then back-filled over time with a variety of soil types from all over London. This has created a unique mosaic of different vegetation types attracting many butterfly and bird species. In spring, the site is full of hawthorn blossom and in the summer, the meadows support hundreds of wild flowers.</p> <p>Richmond Park is a National Nature Reserve (NNR) that is located ~931m east of the site. Richmond Park is London's largest NNR. It is notable for its rare beetles which feed on dead and decaying wood.</p>

	<p>Richmond Park is a Site of Special Scientific Interest (SSSI) located ~1,005m east of the site. Richmond Park has been managed as a royal deer park since the seventeenth century, producing a range of habitats of value to wildlife. In particular, Richmond Park is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. In addition, the Park supports the most extensive area of dry acid grassland in Greater London.</p> <p>Richmond Park is a Special Area of Conservation (SAC) that is located ~1,005m east of the site. Richmond Park has a large number of ancient trees with decaying timber. It is at the heart of the south London centre of distribution for stag beetle <i>Lucanus cervus</i>, and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.</p> <p>Non-statutory sites</p> <p>The presence of non-statutory designated sites within 2km of the site cannot be established without data from the greenspace information for greater London (GIGL).</p>
<i>Foreseen Impacts</i>	The site is within the impact risk zone for the surrounding SSSI and SAC, however the proposed development is not listed as having any affects on the designations. Therefore, there are no foreseen impacts on surrounding designated sites.
<i>Recommendations</i>	The proposed development may need a habitats regulations assessment (HRA), due to the proximity of the SAC. The HRA will determine if there are any negative impacts on the designations as a result of the proposed development.
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>	No habitat for protected or notable invertebrates is found on site. There is limited suboptimal habitat for invertebrates within the modified grassland, however the frequent exposure to a number of people and noise means that there is likely to be few invertebrates present within this area. Also, the presences of surrounding optimal habitat within the woodlands and areas of grassland that are less disturbed, will reduce onsite populations further.
<i>Foreseen Impacts</i>	None foreseen, due to the continued abundance of onsite habitat for invertebrates post development.
<i>Recommendations</i>	No further surveys.
Bats	
<i>Summary of Survey Findings</i>	<p>EPSL applications</p> <p>There is a total of 4 granted EPSL licences within 2km of the site.</p> <ul style="list-style-type: none"> • The closest being ~935m away from the site for the damage and destruction of brown long-eared and soprano pipistrelle resting place. The licence was active between 06/09/2016 – 01/09/2021. • ~946m away from the site for destruction of a common pipistrelle and soprano pipistrelle resting place. The licence is active between 13/11/2019 – 28/02/2025. • ~1,164m away from the site for the destruction of a soprano pipistrelle resting place. The licence was active between 01/06/2014 – 30/09/2015. • ~1,282m away from the site for the destruction of brown long-eared, common pipistrelle and soprano pipistrelle resting place. The licence was active between 06/09/2016 – 01/09/2021. <p>Foraging and commuting habitat</p>

	<p>The site has optimal foraging and commuting habitat for bats within the scattered trees and woodland. There is also good connectivity to further habitats from the site, such as woodlands and arable fields, which are optimal for foraging and commuting bats. Consequently, the site has high habitat value for foraging and commuting bats.</p> <p>Onsite roosting habitat</p> <p>Within the survey site there is one UPVC building, that is a sphere shape which is currently disused, but previous has been used as a classroom (figure 1).</p> <p><i>External inspection</i></p> <p>Externally the building has smooth sides, with a few skylight windows and a door and windows on the west elevation. Despite the building being in bad condition, it is still well sealed with no areas for bats to roost (figure 3). Also given the construction of the building, it is unlikely that bats are going to roost within it. The panelling on the outside would not give crevice dwellers enough protection from predators or the elements.</p> <p><i>Internal inspection</i></p> <p>Internally the building does not have a loft void, therefore removing any suitability for void dwellers (figure 4). Additionally, the space inside is bright, due to the skylights and the windows on the west elevation. The unusual construction also means that there is no where for void dwellers to roost such as timber beams, as the internal structure is smooth and curved.</p> <p>There are no trees onsite with features for roosting bats.</p>
<i>Foreseen Impacts</i>	<p>The proposed development has no foreseen impacts on roosting bats as there are no suitable roosting features for bats within the building.</p>

	The proposed development may lead to an increase in the amount of current lighting of surrounding habitats. This may disturb commuting bats.
<i>Recommendations</i>	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 scattered trees for nesting. No habitat for schedule 1 birds was observed.
<i>Foreseen Impacts</i>	Although no vegetation is to be removed as a result of the proposed development, the proximity of the scattered trees to the demolition works could result in the disturbance and subsequent abandonment of nests.
<i>Recommendations</i>	The recommendations are subject to change upon receipt of the proposed development plans. 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. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.
Reptiles	
<i>Summary of Survey Findings</i>	EPSL application There are no EPSL applications for rare reptiles within 2km of the site. Onsite habitat

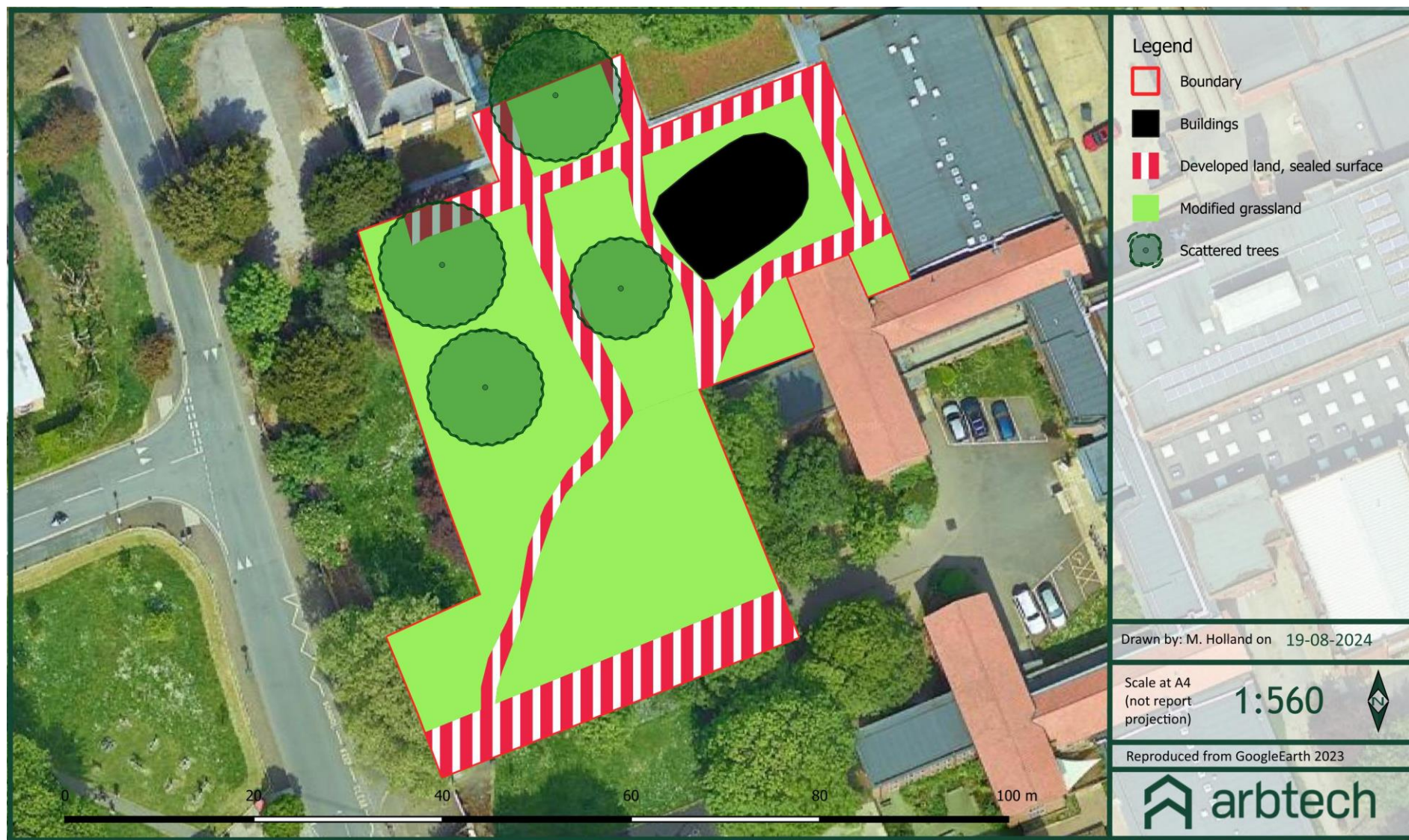
	There is limited onsite habitat for reptiles within the modified grassland. However, as this is limited and suboptimal it is unlikely that reptiles will be using this area for basking, foraging or commuting. The surround habitats also have more abundant optimal habitat for reptiles, therefore reducing the likelihood of reptiles being onsite. No suitable habitat is being removed as part of the proposed development.
<i>Foreseen Impacts</i>	Although no areas of suitable habitat are being removed as part of the development, there is a low risk that a low number of reptiles could be present in the vicinity of the works due to the connectivity of the site to optimal habitat. These could be injured or killed without mitigation.
<i>Recommendations</i>	<p>A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:</p> <ul style="list-style-type: none"> • Vegetation will be maintained at a short sward (5cm) to discourage reptiles. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any reptiles 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. • In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist. <p>The site could be enhanced for reptiles post development with the inclusion of log piles and a compost heap.</p>
Amphibians	

<i>Summary of Survey Findings</i>	<p>EPSL applications</p> <p>There are no EPSLs for amphibians within 2km of the site.</p> <p>Onsite habitat</p> <p>Amphibians require suitable aquatic habitat in which to breed; there is one pond ~445m southeast however when consulting OS maps, there are hazards including residential properties and urban roads. There is no suitable terrestrial habitat within the interior of the site, as the modified grassland would be too open to house any amphibians as it would leave them vulnerable to prey. The interior of the site has negligible habitat value for amphibians. Therefore, protected amphibians are likely to be absent from the interior of the survey site year round.</p>
<i>Foreseen Impacts</i>	None foreseen as all the vegetation onsite will be retained.
<i>Recommendations</i>	No further surveys are required.
Badger	
<i>Summary of Survey Findings</i>	<p>There is a known badger set, which is located on the east boundary within the deciduous woodland, this is ~150m from the proposed development boundary. Although there is a fence and school ground between the proposed development and the known badger set, it is likely that badgers will use this space for foraging and commuting. Consequently, transient badgers for some time cannot be discounted, despite the limited habitat.</p>
<i>Foreseen Impacts</i>	The presences of transient badgers during the works cannot be discounted. This could result in the death or injury of individuals, without mitigation.
<i>Recommendations</i>	<p>The recommendations are subject to change upon receipt of the proposed development plans.</p> <p>Basic precautionary mitigation during works is recommended:</p> <ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.

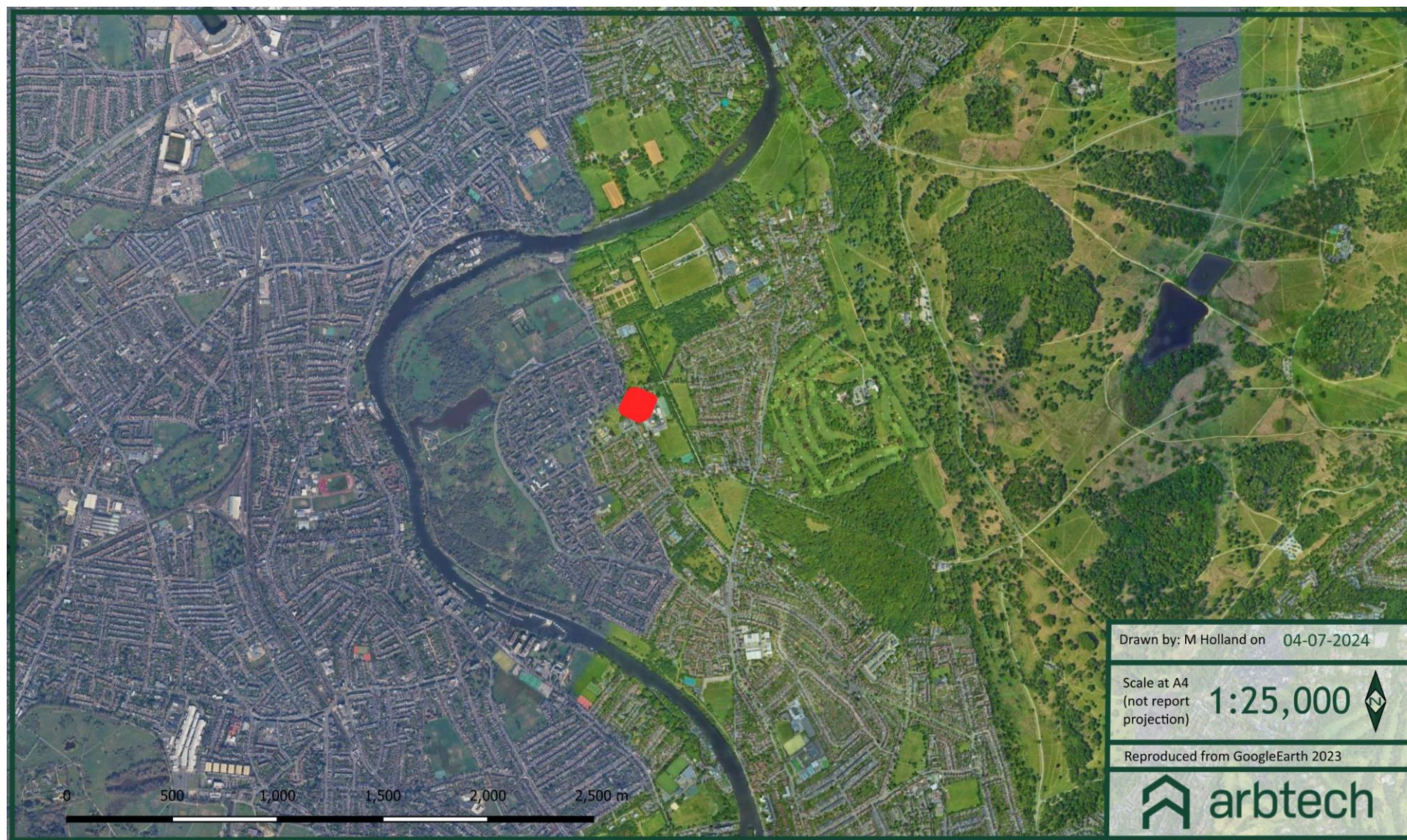
	<ul style="list-style-type: none"> The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to habitats which badgers could use. South and west boundaries. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>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.</p>
Riparian animals	
<i>Summary of Survey Findings</i>	There are no watercourses on or connected to the site.
<i>Foreseen Impacts</i>	No impacts are anticipated on riparian animals as a result of the proposed development.
<i>Recommendations</i>	N/A
Hazel dormouse	
<i>Summary of Survey Findings</i>	<p>EPSL application</p> <p>There are no EPSL applications for dormice within 2km of the site.</p> <p>Onsite habitat</p> <p>Although the owned boundary is connected to a deciduous woodland to the east, there is no suitable dormouse habitat on the site itself and the local habitats are heavily fragmented and not connected to core habitats for the species. Also the frequent disturbance of the onsite trees, would further reduce the suitability for badgers.</p>
<i>Foreseen Impacts</i>	No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None.
Other e.g. hedgehog	

<i>Summary of Survey Findings</i>	The grassland onsite provides limited foraging and commuting opportunities for hedgehogs, with woodland habitat nearby.
<i>Foreseen Impacts</i>	The scrub will be retained during construction. However, construction activities could result in the death or injury of hedgehogs, if present.
<i>Recommendations</i>	<p>Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none">• 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. <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>

Appendix 1: Survey/Habitat map



Appendix 2: Location map



Appendix 3: Proposed plan

There are currently no drawn plans for the site.

Appendix 4: Photos




	<p>Figure 1: The west elevation of the building, showing some of the hardstanding paths and modified grassland surroundings.</p>
	<p>Figure 2: showing the site from the entrance of the building. Includes other hardstanding paths, the modified grassland and the base of some of the trees.</p>



Figure 3: showing the east elevation of the building being influenced by the proposed development.



Figure 4: the internal structure of the building, showing the light and the lack of void.

	<p>Figure 5: another photo of the inside of the building.</p>
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