

Preliminary Ecological Appraisal and Roost Assessment

Survey site:

St Aidens Church, Adswood Road, Huyton, Liverpool, Merseyside, L36 7XR

Client:

Tracey Wood

Survey date:

20th November 2025

Project:

This report is prepared to inform a planning application with the Knowsley Metropolitan Borough Council. The proposal is described as: The renovation of the former church and the creations of a new car park with associated landscaping.

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.](#)

Site Location and Context

The survey site is centred on National Grid Reference SJ 44622 91521 and has an area of approximately 0.31ha with the wider areas of site ownership increasing to 0.67ha. The site comprises the former St Aidens Church with surrounding habitats including grasslands, bramble scrub and woodland with scattered trees. The site is situated within an urban context, ~10.5km east of Liverpool City Centre. As a result, the site is surrounded by both residential and commercial buildings with along Adswood road, with areas of vegetated garden and grassland with King George V Playing Fields ~30m northeast of the site and comprises areas of woodland and grassland. Similar habitats continue into the wider landscape. Such features likely enhance the area for a variety of species, including bats, amphibians and reptiles.

Survey Details

The site survey was undertaken by David Hill-Chambers MSc, BSc (Hons), Graduate Ecologist, Accredited agent of Natural England Bat Licence Number 2024-12491-CL18-BAT

Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (mph)	Rain(mm)
21/11/2025	6	93	10	6	0

Executive Summary

The survey identified several habitats including other neutral grassland, modified grassland, broadleaved woodland, and bramble scrub. The woodland qualifies as a Habitat of Principal Importance under Section 41. These habitats offer value for a range of wildlife including bats, common birds, hedgehogs, widespread reptiles, and invertebrates. The church building (B1) was assessed as having low suitability for roosting bats, with no evidence found, and the single tree scheduled for removal (T4) was assessed as negligible for roosting bats. No constraints were identified for great crested newts, dormouse, badger, barn owl, or riparian species. The proposed development will result in the loss of some grassland and one tree, though woodland, scrub and most trees will be retained. No impacts to statutory or non-statutory sites are anticipated.

To ensure compliance with relevant legislation and planning policy, several mitigation and enhancement measures are required. Works to B1 should follow a Bat Mitigation Plan to manage noise and vibration impacts, and a low-impact lighting strategy should be adopted to maintain dark corridors. Vegetation clearance must be undertaken outside the nesting bird season or be preceded by an ecologist's inspection. Precautionary working methods are required for reptiles, hedgehogs, and common amphibians, including staged vegetation clearance, covering excavations, and pollution prevention measures. A pre-commencement badger check within 4–6 weeks of works is recommended. Retained trees must be protected in accordance with BS 5837:2012, and best-practice pollution

controls should be implemented to protect the onsite woodland. The development must be supported by a full biodiversity net gain assessment and long-term management plan to demonstrate delivery of the mandatory 10% net gain.

Survey limitations

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

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

Due to seasonal limitations, further survey within the optimal season for surveying vegetation would normally be required to obtain accurate habitat classification and condition assessment data. However, in the case of this site, the delays involved would likely be disproportionate to the predicted likely value of the habitats.

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, pond map in appendix 3, proposal plan in appendix 4 and photos in appendix 5). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
Summary of Survey Findings <	

- Tufted vetch – *Vicia cracca* (F)
- Creeping thistle – *Cirsium arvense* (O)
- Wild carrot – *Daucus carota* (O)
- Toadflax – *Linaria vulgaris* (R)
- Yarrow – *Achillea millefolium* (F)
- Horsetail – *Equisetum spp.* (O)
- Broadleaved dock – *Rumex obtusifolius* (R)
- Bramble – *Rubus fruticosus (agg.)* (R)

The parcel is assessed to be a strong representation of its habitat type, supporting a high proportion of key indicator species throughout. Sward structure is suitably varied, with taller stands exceeding 1 m interspersed with shorter areas below 20 cm, providing good structural diversity. No bare ground or bracken was recorded. Species indicative of suboptimal conditions accounted for less than 5% of the total area, and no invasive non-native species were identified. Less than 10 vascular plant species were present per square metre. Therefore, the parcel is assessed to be in **moderate condition** (passes criterion A, B, C, D & E but fails essential criterion F).

Also present within the grassland of two scattered trees as detailed below:

			Condition Criteria						Condition Score
Number	Size	Species	A	B	C	D	E	F	
T1	Large	Norway maple – <i>Acer platanoides</i>	X	✓	✓	✓	X	✓	Moderate
T2	Medium	Silver birch – <i>Betula pendula</i>	✓	✓	X	✓	X	✓	Moderate

h3d – Bramble scrub

A strip of bramble-dominated scrub is present towards the southern boundary of the site. This scrub extends into the wider areas of site ownership.

	Local notable habitats Parcels of lowland fen are present within the wider landscape, with the nearest located approximately 1.8 km to the southeast. Multiple areas of deciduous woodland also occur nearby, primarily to the north and east of the site, with the closest woodland situated around 0.8 km to the northeast. Although these habitats are not immediately adjacent, they contribute to the wider ecological network and may support species that utilise both wetland and woodland features. Both lowland fen and deciduous woodland are priority habitats under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, and additional Section 41 habitats are present within 2 km of the site, further reinforcing the ecological value of the surrounding landscape.
<i>Foreseen Impacts</i>	On-site habitats The proposed development will result in the loss of areas of other neutral grassland and scattered trees. This could result in a net loss in biodiversity at the site. Notable habitats No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the present of broadleaved woodland on site, indirect effects (e.g. pollution, dust, litter, surface run off, etc.) could occur during construction.
<i>Recommendations</i>	On-site habitats 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). Notable habitats Best practice measures to minimise the possibility of pollution affecting the broadleaved woodland must be implemented during construction. A Construction Environment Management Plan (CEMP) may be required for this.

	Biodiversity net gain The Environment Act (2021) requires all developments (excluding exemptions) to deliver a 10% net gain in biodiversity. Therefore, the planning application must be accompanied by a landscaping/habitat creation and enhancement strategy, biodiversity net gain calculations and a habitat management and monitoring plan to ensure the proposed development delivers a 10% net gain.
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 no known statutory sites within 2km of the site. The site lies within the impact risk zone for Mersey Estuary (Site of Special Scientific Interest (SSSI). Non-statutory designated sites The presence of non-statutory designated sites within 2km of the site cannot be established without data from Merseyside BioBank.
<i>Foreseen Impacts</i>	On-site designations No impacts foreseen. Statutory and non-statutory designated sites No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.
<i>Recommendations</i>	On-site designations None required.

	Statutory and non-statutory designated sites None required.
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 grassland, scattered trees and scrub with the wider area of site ownership including areas of woodland, grassland, scrub and scattered trees, 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>	Areas of grassland and scattered trees will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.
<i>Recommendations</i>	No further surveys. Suggested biodiversity enhancements The incorporation of bee bricks (e.g. Ibstock BeeHabitat or similar alternative brand) into the fabric of the building would provide sheltering opportunities for pollinators. These should be installed 0.5m above ground level on a south-facing elevation with no obscuring vegetation. The site could be further enhanced via the provision of native wildflowers or wildflower turf, which would provide foraging opportunities for invertebrates.
Bats	
<i>Summary of Survey Findings</i>	EPSL data and local records 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 two EPSLs within a 2km radius of site as detailed below:

EPSL reference	Bat species affected	Distance from site	Impacts allowed by licence
2017-28690-EPS-MIT-1	Brown Long-eared & Common Pipistrelle	~1.1km north	Destruction of a resting place
2018-38343-EPS-MIT	Common Pipistrelle	~1.2km north	Destruction of a resting place

Foraging and commuting habitat

Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of grassland, shrub and trees. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Notably, the trees on site may form part of connected pathway or stepping stones by local bat populations to commuting within the surrounding areas. Bats are well known to utilise linear features to aid navigation whilst travelling between foraging resources and roost sites. As such the site is assessed to provide **moderate suitability** for foraging and commuting bats.

Roosting habitat

Buildings and trees to be impacted by the proposed development are assessed for their suitability to support roosting bats below. There is a total of 1 building on site: the former St Aidens Church (B1). In addition, T4 is scheduled to be felled. No evidence of roosting bats was identified on or within B1 or any of the surveyed trees on-site.

Building One (B1) – Overview and Assessment

B1 is a multi-block structure constructed primarily from red brickwork with a flat and shallow-pitched roof profile. The upper sections feature rendered panels set beneath wide roof eaves, with uPVC or timber-framed windows fitted throughout. Roof coverings include concrete tiles on the pitched sections and bitumen-based coverings on the flat elements, with plastic rainwater goods installed along the eaves. The structure is arranged across several interconnected blocks, creating a varied footprint with both single- and

two-storey elements. Doors and access points are set within brick-built elevations, and the building incorporates multiple gable ends, enclosed yard spaces and projecting sections that form a complex overall layout.



Internally, only a single loft void was present. 4.1m high, 2.6m wide and 13.2m in length with internal temperature of 5.8°C and 73% relative humidity. The loft space was constructed of exposed brick walls with timber roof supports coated in thin steel sheets, with fibreboard panels forming the underside of the roof structure. A thin layer of straw insulation is present directly beneath the fibreboard, but no additional lining or internal subdivision occurs within the space. No evidence of bats was identified during the survey, with no droppings, feeding remains, or staining, identified. All exposed brickwork was in good condition, as to was the fibreboards. Only one access point was identified, a small uPVC pipe present within the brick work leads directly outside. This pipe is large enough in diameter and short enough to provide a suitable access point for crevice dwelling bats. Internally, roosting location are limited as the roof supports are flush with the rest of the roof structure.



The external assessment recorded no suitable bat roosting features across any elevation of the building. The structure is built from solid brick and rendered walls with tight mortar joints and no visible cracks, voids or crevices that would allow access. The roofline comprises flat and shallow-pitched sections with intact eaves, boxed fascias and uPVC rainwater goods, all of which are well-sealed with no lifted edges or gaps. Soffits and bargeboards are flush-fitting, and no openings were noted around window or door frames. Service attachments and cabling are fixed tightly to the brickwork and do not create recesses or sheltered entry points. Overall, the exterior offers no features capable of supporting roosting bats.



Given the lack of physical evidence, the limited access into the loft space with no external features identified, B1 is assessed to provide **low suitability** for roosting bats. The loft space is not considered suitable to support large numbers of bats or roosts of higher conservation value.

Tree Two (T2) – Overview and Assessment

T2 is a small Silver Birch *Betula pendula*, located within the area of other neutral grassland and has been identified to be felled to facilitate the proposed development. Given the age and species of the tree, no ecological niches such as lifted bark, knotholes or broken limbs are present which could provide suitable roosting sites for bats. T2 is therefore assessed to be of **negligible condition** for roosting bats.

<i>Foreseen Impacts</i>	Roosting habitat [Buildings] The proposed development primarily involves internal refurbishments with addition walls created. External works will involve repairs to the flat roof sections to the rear of the building due to water ingress in addition to new windows and doors. No alterations to the roof structure or internal loft space are planned. Therefore, the proposed development will not affect any of the features that could be used by roosting bats which were noted on B1 during the survey and therefore no impacts to bat roosts are anticipated. However, the proposed development could result in disturbance to any bats present in the building at the time of the works due to noise, vibration or lighting. Roosting habitat [Trees] T2 will be felled to facilitate the development. No features were identified on this tree and as such there are unlikely to be any impact to bats as a result of felling. Foraging and commuting habitat The proposed development will result in the loss of an area of other neutral grassland and a single small tree (T2). However, given that a proportion of this grassland will be retained, and that higher-value habitats such as bramble scrub and woodland will remain unaffected, the overall impact on bats is expected to be negligible. 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] As the feature(s) that could be used by roosting bats are to be retained, further Bat Emergence and Re-entry Surveys (BERs) are not required at this time. However, given the extent of the internal renovation's indirect effects such as noise and vibration disturbance is likely. Therefore, the works should be accompanied by a Bat Mitigation Plan which outlines appropriate timing, precautionary working methods and contingency measures to ensure that any residual risk to bats is effectively managed during the development.

	Roosting habitat [Trees] 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 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 Suggested biodiversity enhancements The installation of three bat boxes at the site will provide additional roosting habitat for bats. The bat boxes should be incorporated into the fabric of the building. 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 grassland, woodland, scattered trees or bramble scrub on-site and within the wider area of site ownership; however, they all offer nesting opportunities and nest-building resources for birds. Both the other neutral grassland and the bramble scrub provide suitable opportunities for nesting birds. The grassland's varied sward height offers cover for ground-nesting species such as skylark (<i>Alauda arvensis</i>) and meadow pipit (<i>Anthus pratensis</i>), while the dense, tangled structure of the bramble scrub provides secure nesting sites for species like wren (<i>Troglodytes troglodytes</i>) and dunnock (<i>Prunella modularis</i>). Together, these habitats create a mosaic of nesting opportunities across the 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 The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests. Barn owls None foreseen. Overwintering birds None foreseen.

<i>Recommendations</i>	Buildings/trees Any vegetation removal 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. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged. Barn owls None required. Overwintering birds None required. Suggested biodiversity enhancements The installation of a minimum of two bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g. • Schwegler No 17 Swift Nest Box (buildings) • Schwegler 1SP Sparrow Terrace (buildings) • Schwegler 1B Nest Boxes (trees) • Schwegler 2H Robin Boxes (trees) • Woodstone Nest Box (buildings or trees) Or a similar alternative brand.
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	Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.
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 Habitats recorded on site and within the wider area of site ownership are assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The woodland and scrub provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging opportunities. The site is dominated by managed grassland and hardstanding of limited value to reptiles. These habitats are suboptimal due to an absence of notable habitat structure and diversity, which significantly limits refuge, foraging, and commuting opportunities, albeit they do provide some basking opportunities when located adjacent to potential refugia. The site has reasonable connectivity to further reptiles habitats in the wider landscape with King George V Playing fields. The presence of reptiles on site cannot be discounted, albeit likely limited to low numbers within peripheral scrub. Wider landscape The adjacent sections of the woodland and scrub found with King George V playing fields and habitats found within Huyton Wetlands, located ~100m south of the site are of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. These adjacent habitats provide optimal foraging, commuting, and refuge opportunities for reptiles and are well connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these adjacent habitats cannot be discounted.

<i>Foreseen Impacts</i>	Areas of grassland and scattered trees will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present.
<i>Recommendations</i>	A precautionary working method will be implemented for widespread reptiles during construction, including the following measures: • 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. 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. Further, no positive class survey licence return or DLL historic survey data (2017 – 2019) were present within 2km of the site.

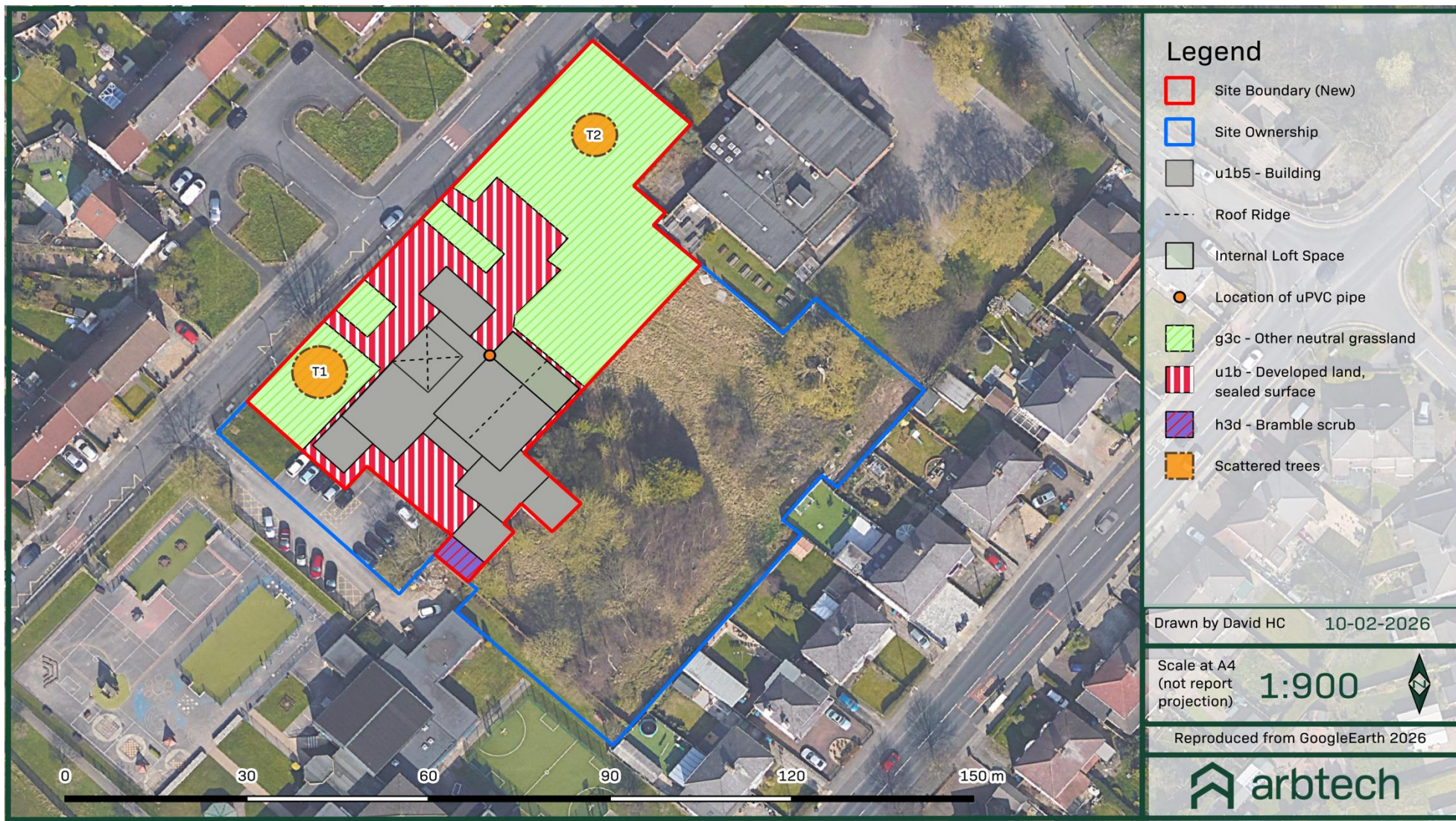
	Aquatic habitat suitability (including ponds within 500m) Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001). There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of a singular pond within 500m; the pond (P1) is located ~180m south of the site and is situated within Huyton Wetlands of the far side of Huyton Lane. 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. A pond map showing approximate pond locations is provided in Appendix 3. Terrestrial habitat suitability The site in addition to the wider area of site ownership contains extensive bramble scrub and grassland with a varied sward height, both of which can offer suitable terrestrial habitat for amphibians by providing shelter, foraging opportunities and protection from predators. Small areas of woodland and scattered trees add pockets of leaf litter and shaded microhabitats that could also be used intermittently. However, while these features offer some potential for amphibians, no suitable hibernation opportunities were identified during the survey. In addition, the wider landscape is heavily urbanised and dominated by hardstanding and roads, which act as barriers to dispersal. As a result, although the onsite habitats could support occasional amphibian use, the likelihood of great crested newts or other amphibians regularly migrating onto or being present within the site remains low.
<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>	Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures: • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area. • Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians 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 common amphibians are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. • In the unlikely event that a great crested newt is identified, works must cease and advice must be sought from a suitably qualified ecologist. 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 identified on site or within 30 m of the site boundary in addition to within the wider area of site ownership, and no signs such as latrines, paths or foraging pits were recorded during the survey. However, the woodland and the dense bramble scrub offer suitable cover and ground stability that could support sett excavation if badgers were to occupy the area in the future.

	These habitats also provide foraging opportunities and natural movement routes, meaning occasional use of the site by dispersing or commuting individuals cannot be entirely ruled out.
<i>Foreseen Impacts</i>	No works will be undertaken within 30m of a badger sett. Other neutral grassland and individual trees will be removed during 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 on site. However, construction activities could result in the death or injury of badgers, if present. In addition, given the suitability of the woodland and bramble, there remains a risk that a sett may be created before the development begins.
<i>Recommendations</i>	Although no badger setts were identified on site during the survey, badgers are a mobile species, and their distribution can change over relatively short periods of time. There remains a risk that new setts could be excavated within the site, or immediately adjacent to it, before development commences. To ensure compliance with the Protection of Badgers Act 1992 and to avoid the risk of disturbance or damage to a newly established sett, it is recommended that a pre-commencement ecological walkover survey is undertaken by a suitably qualified ecologist. This survey should be completed no more than 4–6 weeks prior to the start of works to confirm the continued absence of badger setts and ensure that the risk to this species remains low. Precautionary working methods may need to be implemented following the ecological walkover survey. 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. Habitat suitability The site lies outside of the know current range for hazel dormice and there are no suitable habitats within the development area. As such it is considered likely that hazel dormice are absent from site. Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low.
<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>	The combination of varied-height grassland, dense bramble scrub and adjacent woodland within the wider area of site ownership creates a structurally diverse mosaic that offers foraging, shelter and movement routes for hedgehogs and other urban-tolerant species such as fox. The mix of open ground, cover and edge habitat supports invertebrate prey and provides safe refuges for resting and commuting.
<i>Foreseen Impacts</i>	Area of other neutral grassland and scattered trees 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.
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Appendix 1: Survey/Habitat map

Appendix 2: Location map



Appendix 3: Pond Map



Appendix 4: Proposed plan



Appendix 5: Habitat Photos



Image: 1 Rear, flat roof section along the southern elevation of B1



Image 2: Rear, flat roof section along the southern elevation of B1



Image 3: Southwestern elevation of B1



Image 4: Northwestern elevation of B1



Image 5: Barge board and soffit along the southwestern elevation, intact.



Image 6: Fascia boarding along the northwestern elevation sitting flush with the brickwork.



Image 7: Soffit boards along northeastern elevation, in fact and flush with the brickwork.



Image 8: Barge board and soffit along the northwestern elevation, intact.

Tracey Wood



Image 9: Modified grassland (wider area of site ownership)



Image 11: Other neutral grassland

St Aidens Church, Adswood Road, Huyton, Liverpool, Merseyside, L36 7XR



Image 10: Other neutral grassland



Image 12: Bramble scrub

Tracey Wood



Image 13: Other broadleaved woodland (wider area of site ownership)



Image 15: Developed land, sealed surface

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Image 14: Other broadleaved woodland (wider area of site ownership)



Image 16: Developed land, sealed surface



Image 17: Example of the scattered trees on site
and within the wider area of site ownership

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