

Preliminary Ecological Appraisal and Roost Assessment

Survey site:

Oaklands Farm, Slaugham Land, Haywards Heath, West Sussex RH17 5TJ

Client:

AGM Limited.

Survey date:

10th December 2024

Project:

This report is prepared to inform a planning application with the Mid Sussex District Council. The proposal is described as: “Re-positioning and minor amendments to the owners/ managers house, already permitted under planning application (Reference No: DM/18/2071).”

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

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

Site Location and Context					
The survey site is located to the west of Slaugham village, centred on National Grid Reference TQ 25047 27771 with an area of approximately 0.5 ha. The development site comprises one dwelling (B1), a livestock shelter (B2), large areas of grassland, bare soil with piles of manure, a gravel driveway and some bramble scrub in the northwest corner. It is located within Oaklands Farm. The site is immediately surrounded by arable land, used as horse paddocks and as cropland. There are several sections of woodland, including immediately west of the site. Three large ponds (Mill Pond, Furnace Pond and Ashfold Pond) are found in the surrounding landscape. The River Ouse is found south of the site, connected to Mill Pond and splitting into several small streams as it heads east to west across the landscape. There are several small residential areas, including Slaugham village, though the surrounding area is primarily dominated by agricultural land.					
Survey Details					
The site survey was undertaken by Rachel Wick MSci, Graduate Ecologist.					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
10/12/2024	7	75	100	16	None
Executive Summary					
• A Preliminary Roost Assessment will be required on B1 and B2 to determine the suitability for roosting bats • Precautionary working methods will be required for reptiles, badgers and hedgehogs • A CEMP may be required to minimise potential pollution to the nearby deciduous woodland • A low impact lighting strategy will be required to minimise disturbance of commuting bats. • Phase 2 surveys will be required for amphibians to determine their presence or absence on the site. A licence will be required if the presence of protected amphibians is confirmed.					
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.					

The PEA was undertaken outside of the optimal survey period for vegetation assessments. No further surveys are required, because the habitat is a common and widespread one of low conservation value and it was determined that an adequate assessment of the sites community and condition could be drawn from a single optimal season visit.

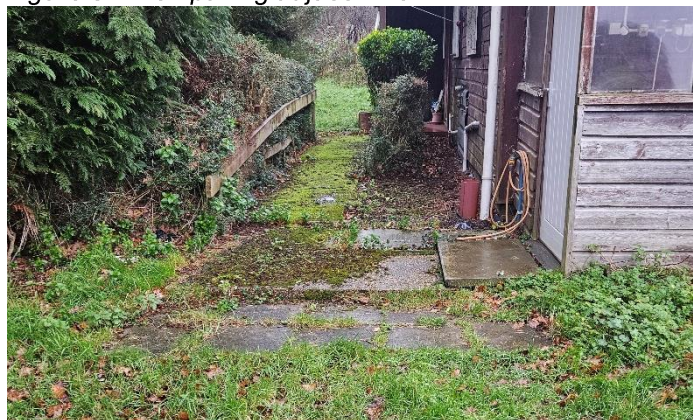
Ecological Survey Factor Conclusion, Impact or Recommendations	Detailed using desk study and site survey. Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.
Habitats and plants (see location map in appendix 1, habitat maps in appendix 2, proposal plan in appendix 3, and pond and river map in appendix 4). Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).	
<i>Summary of Survey Findings</i> <i>(UKHab codes used)</i>	The site does not contain any habitats listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Other habitats within the site are common and widespread and have low ecological value. Notable habitats are present within 2km. On-site habitat descriptions <u><i>u1b5 – Buildings</i></u> There are two buildings on site, including B1 which is a single-storey timber and corrugated metal residential dwelling. The second building on site is B2, a livestock shelter located in the northeast corner of the site. It is constructed of metal, and inside there are some piles of hay. <i>Figure 1 and 2. Building B1, the residential dwelling (left). Building B2, a livestock shelter found in the northeast corner of the site (right).</i>



u1b – Developed land: sealed surface

Associated with B1, there is a concrete parking spot to the south and brick paving adjacent to the west leading up to the entrance of B1.

Figure 3. Brick paving adjacent to B1.



u1c – Artificial unvegetated, unsealed surface, with some bare ground [510] and vehicle tracks [839]

There is a long driveway leading up to B1, formed of compressed gravel. Vegetation covers less than 5% of the gravel area, formed of encroaching grassland species from the adjacent modified grassland habitat. The central strip of grassland is classified under the modified grassland habitat below.

Between B1 and B2, there is a mud track formed by frequent agricultural vehicle usage. This track leads up to a large round area of bare soil with multiple piles of manure. Vegetation cover ranges between 0 and 10%, with **rare** perennial ryegrass, creeping buttercup and ribwort plantain found compacted at the sides of the mud tracks. No vegetation was found within the large soil section or within the manure and soil piles, and vegetation did not encroach more than 30cm onto either side of the tracks. Areas of the mud track featuring more than 10% vegetation were classified under separate habitats.

Figure 4 and 5. The gravel driveway leading from the site entrance to B1.



Figure 6 and 7. The mud tracks formed by regular vehicle access (left). The large piles of manure and soil at the northern end of the site (right).



g4 – Modified grassland

	Across the development site there are several areas of modified grassland, with some variation in condition and species content. Starting at the southern end of the site, near the entrance and on either side of the gravel driveway, are two long strips of short modified grassland. There is also a small strip found in the middle of the tyre tracks of the long gravel driveway. Species present include dominant perennial ryegrass, abundant creeping buttercup, frequent Yorkshire-Fog and clover, and occasional dandelion and ribwort plantain. The sward height is varied, with 20% of the area less than or equal to 7cm and 80% more than 7cm. Less than 5% of the total area is bare ground, and there are no obvious signs of physical damage. The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in good condition. These areas of modified grassland are labelled as G01 in Appendix 2. Further north, above B1 and bordering the mud tracks on either side, is the second area of modified grassland. This grassland is also the same as another section further north, surrounding the bare ground and piles of manure and soil. The sward is varied, with 30% less than or equal to 7cm and 70% more than 7cm. Bare ground covers approximately 10% of the area, and there are signs of physical damage likely caused by frequent access by farm machinery. Species include dominant perennial ryegrass, abundant Yorkshire-Fog, clover and creeping buttercup, occasional ribwort plantain and bramble, and rare selfheal and fiddle dock. Bramble covers less than 10% of the entire area. The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in moderate condition. This area of modified grassland is labelled as G02 in Appendix 2. This area connects to more modified grassland bordering and inside a field used as a horse paddock. This area appears to be regularly grazed, with a smaller average sward height. About 60% of the sward is less than or equal to 7cm, and 40% is more than 7cm. Perennial ryegrass dominates the area, with occasional creeping buttercup, Yorkshire-Fog, dandelion and clover, and rare bramble and ribwort plantain. Bare ground covers less than 10% of the total area, with no signs of physical damage. The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in good condition. This area of modified grassland is labelled as G03 in Appendix 2. Another distinctive area of modified grassland is to the west of B2, a small section dominated by creeping buttercup. There is less than 10% cover of Yorkshire-Fog and perennial ryegrass, with abundant broad-leaved dock, frequent nettle, and occasional bramble and lawn leaf. Bare ground covers approximately 10% of the total area. The sward height is formed of 90% less than or equal to 7cm, and 10% more than 7cm. Bramble is present but covers less than 10%. The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in moderate condition. This area of modified grassland is labelled as G04 in Appendix 2. The final area of modified grassland is located on and around a mound of dirt at the western border above B1. There is no dominant species, but there is abundant perennial ryegrass and nettle, with frequent Yorkshire-Fog, bramble, climbing nightshade, creeping buttercup, and clover, occasional thistle, sticky willy, lamb's quarters, broad-leaved dock, and dandelion, and rare ribwort plantain. Bare ground forms over 40% of the total area, and bramble covers less than 5%. There are signs of physical damage from frequent vehicle access, covering over 5% of the total area. The sward height is varied, with 70% of the
--	---

vegetation less than or equal to 7cm and the remaining 30% over 7cm. The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in **moderate condition**. This area of modified grassland is labelled as **G05** in Appendix 2.

Figure 8 and 9. Two areas of moderate condition modified grassland found on site.



Figure 10 and 11. Two areas of good condition modified grassland found on site.



g3c – Other neutral grassland, with some vegetated garden [828]

Adjacent to the northern and eastern elevations of B1, and adjacent to the southern elevation of B2 are two areas of other neutral grassland. The area adjacent to B1 is slightly tussocky and formed of **dominant** Yorkshire-Fog, **abundant** creeping buttercup, **occasional** perennial ryegrass, clover, cinquefoil, nettle, yarrow, hybrid dock, and ribwort plantain. The sward is varied, with less than 30% less than or equal to 7cm, and 70% over 7cm. There is less than 10% bare ground, and no signs of

physical damage. However, the cover of species indicative of suboptimal condition (creeping buttercup, nettle, and clover) is high: over 20% cover. This area of grassland is a poor representative of its habitat type, and the species count is low at less than 10 species per m². A small section of this area, 10m², falls within the garden area of B1. The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in **poor condition**.

The second area of other neutral grassland, found next to B2, is more tussocky and **dominated** by Yorkshire-Fog, with **frequent** creeping buttercup and nettle, **occasional** dandelion, and **rare** ribwort plantain, clover, hybrid dock and perennial ryegrass. The sward height is varied between 10 and 40cm, with less than 5% bare ground. There are no signs of physical damage, however the cover of suboptimal species is more than 5%. This area of grassland is a poor representative of its habitat type, and the species count is low at less than 10 species per m². The Statutory Biodiversity Metric Condition Assessment tool finds this habitat to be in **poor condition**.

Figure 12 and 13. The area of other neutral grassland found adjacent to B1 (left). The area of other neutral grassland found next to B2 (right).



h3d – Bramble scrub

There is a narrow strip of bramble scrub located in the northwest corner of the site. The **dominant** species is bramble, but there is also **occasional** nettle and Yorkshire-Fog.

Figure 14. Bramble scrub found in the northwest corner of the site.

	 Local notable habitats There are several small patches of Lowland Heathland to the north and northwest of the site, with the nearest being ~700m north. One small area of Lowland Fens is found ~310m southeast. The site lies almost adjacent to a section of deciduous and ancient woodland, ~20m west over Slaugham Lane. Many more patches of both deciduous and ancient woodland can be found across the surrounding landscape. Several small areas of traditional orchard can also be found north, east and south of the site. The closest traditional orchard is found ~1.2km northeast.
<i>Foreseen Impacts</i>	On-site habitats The proposed development will result in the loss of modified grassland, B1, other neutral grassland, the gravel driveway and bare soil to facilitate the placement of the new driveway, made of gravel. Bramble scrub will be cleared and replaced by a wildflower and grass seed mix. Modified grassland, other neutral grassland, B2, and bare soil will be replaced with amenity lawn, paving, parking areas, and two new buildings including a dwelling and garage. These changes 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 proximity of the site to ancient woodland (~20m west), indirect effects (e.g. pollution, dust, litter, surface run off, etc.) could occur during construction.
<i>Recommendations</i>	On-site habitats To compensate for the proposed habitat losses at the site, the following habitat creation measures should be incorporated: Planting of individual native trees such as fruit bearing trees like crab apple, cherry or pear.

	The creation of a wildlife pond to include native plant species and no fish. Notable habitats Best practice measures to minimise the possibility of pollution affecting the nearby ancient 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) The site is located within High Weald Area of Outstanding Natural Beauty (AONB) but is not located within and other statutory designated sites. Furthermore, there are no known statutory designated sites within 2km of the development site. The development site lies within the impact risk zones for Cow Wood and Harry's Wood SSSI and St. Leonard's Forest SSSI. Non-statutory designated sites The presence of non-statutory designated sites within 2km of the site cannot be established without data from Sussex Biodiversity Records Centre (SxBRC).
<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. The site lies within the impact risk zone for Cow Wood and Harry's Wood SSSI and St. Leonard's Forest SSSI. The proposed development type is not listed as a possible high risk for this designation.

<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>	No significant impacts foreseen.
<i>Recommendations</i>	No further surveys but remain vigilant.
Invertebrates	
<i>Summary of Survey Findings</i>	The habitats present on-site, including grassland and scrub, 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>	Grassland and scrub 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 new buildings 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	

Summary of Survey Findings	EPSL data A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. There are five EPSLs within a 2km radius of site as detailed below:																				
	<table><tr><th>EPSL reference</th><th>Bat species affected</th><th>Approximate distance from site</th><th>Impacts allowed by licence</th></tr><tr><td>2018-34194-EPS-MIT</td><td>Common pipistrelle Brown long-eared bat</td><td>840m southeast</td><td>Destruction of a resting place</td></tr><tr><td>2018-33253-EPS-MIT</td><td>Brown long-eared bat</td><td>1.4km southeast</td><td>Destruction of a resting place</td></tr><tr><td>2018-33463-EPS-MIT</td><td>Common pipistrelle Brown long-eared bat</td><td>1.7km southwest</td><td>Damage to and destruction of a resting place</td></tr><tr><td>2019-42581-EPS-MIT 2019-42581-EPS-MIT-1</td><td>Common pipistrelle Soprano pipistrelle Brown long-eared bat Whiskered bat</td><td>1.9km northeast</td><td>Destruction of a resting place</td></tr></table>	EPSL reference	Bat species affected	Approximate distance from site	Impacts allowed by licence	2018-34194-EPS-MIT	Common pipistrelle Brown long-eared bat	840m southeast	Destruction of a resting place	2018-33253-EPS-MIT	Brown long-eared bat	1.4km southeast	Destruction of a resting place	2018-33463-EPS-MIT	Common pipistrelle Brown long-eared bat	1.7km southwest	Damage to and destruction of a resting place	2019-42581-EPS-MIT 2019-42581-EPS-MIT-1	Common pipistrelle Soprano pipistrelle Brown long-eared bat Whiskered bat	1.9km northeast	Destruction of a resting place
	EPSL reference	Bat species affected	Approximate distance from site	Impacts allowed by licence																	
	2018-34194-EPS-MIT	Common pipistrelle Brown long-eared bat	840m southeast	Destruction of a resting place																	
	2018-33253-EPS-MIT	Brown long-eared bat	1.4km southeast	Destruction of a resting place																	
	2018-33463-EPS-MIT	Common pipistrelle Brown long-eared bat	1.7km southwest	Damage to and destruction of a resting place																	
2019-42581-EPS-MIT 2019-42581-EPS-MIT-1	Common pipistrelle Soprano pipistrelle Brown long-eared bat Whiskered bat	1.9km northeast	Destruction of a resting place																		
There are no Special Areas of Conservation designated for bats within 10km of the site.																					
Foraging and commuting habitat Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of grassland and scrub, which are bordered by trees and hedgerow. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Most notably, the hedgerows just offsite extend beyond the site adding to the continuity of vegetated linear features present in the wider landscape. Bats are well known to utilise linear features to aid navigation whilst travelling between foraging resources and roost sites. The trees also connect to woodland, including ancient woodland across Slaugham Lane. There are several large ponds and the River Ouse, which provide further foraging opportunities for bats.																					
Roosting habitat There are two buildings within the development boundary, B1 and B2. B1 is a single-storey residential building with a clay tile gable roof. B2 is a single-storey livestock shelter built of metal with an exposed opening. A roost assessment was not performed on these buildings.																					
Foreseen Impacts	Roosting habitat																				

	The proposed development will result in the demolition of B1 and B2. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats. Foraging and commuting habitat The proposed development will result in the loss of grassland habitats and bramble scrub. This could reduce the availability of foraging or commuting resources in the locality and could also disrupt dispersal corridors for bats leaving or returning to roosts in the wider area. 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 A preliminary survey undertaken in June 2017 by CSM Ecology assessed buildings, including B1 but not B2, on Oaklands Farm. The survey found no “significant crevices or egresses were found within any structures of any of the properties and no evidence such as faeces, scratch marks, urine staining, feeding remains were found during the site visit”. Further surveys will be required to determine the current suitability of B1 and B2 to roosting bats, as the previous report is more than three years old. Further surveys/mitigation may be required and will be determined by the findings of the updated PRA surveys. 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: Artificial Lighting Guidance - Buildings, planning and development - Bat Conservation Trust (bats.org.uk) Suggested biodiversity enhancements Enhancements are dependent on the outcome of further surveys.
Birds	
<i>Summary of Survey Findings</i>	Buildings

	No evidence of nesting birds was identified on or within B1 or B2. Both buildings are 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 scrub on-site; however, it will offer nesting opportunities and nest-building resources for birds. Furthermore, the hedgerows, woodland and trees bordering the site will provide nesting and nest-building opportunities. Barn owls The development 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 and vegetation 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 and vegetation Removal of the bramble scrub 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 new 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. 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 are assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The mixed sward grassland and scrub provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging and commuting opportunities. The site has good connectivity to further suitable reptile habitat in the wider landscape via woodland and riparian vegetation associated with the River Ouse and nearby ponds. Regularly managed modified grassland at the southern end of the site is deemed unsuitable for reptiles but could provide basking opportunities and connectivity to more suitable habitat on site. The presence of reptiles on site cannot be discounted, albeit likely limited to low numbers within the scrub, grassland, and peripheral scrub and hedgerow. Wider landscape The wider landscape is formed of a mosaic of agricultural fields and woodland, interspersed with several ponds, the River Ouse, and some residential properties. These habitats are well connected by an extensive network of hedgerows, which greatly increase the connectivity between habitats as well as provide suitable habitat for foraging and sheltering reptiles. The presence of reptiles utilising these adjacent and nearby habitats cannot be discounted.

<i>Foreseen Impacts</i>	Bramble scrub and grassland 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 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 one granted EPSL record for great crested newts within 2km of the site, EPSM2011-3779. This licence, located ~2km northeast, allows for the destruction of a resting place for great crested newts. Furthermore, the MAGIC database also returned evidence indicating the presence of great crested newts resulting from historic pond surveys undertaken in 2015 and 2017. These records are located ~1.6km and ~1.8km northeast, and ~1.7km southeast. Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). As such, the great crested newt metapopulations known to be present over 1.6km, 1.7km, 1.8km and 2.0km in both northern and southern directions. are not suitably connected to the site. Aquatic habitat suitability (including ponds within 500m) There are no ponds found within the development boundary however there nine ponds located within 500m of it, including one pond located within Oaklands Farm, P1, approximately 80m southeast at the closest point. P1 is located within a private garden, and therefore likely to be ornamental and surrounded by regularly mown grassland which is suboptimal for

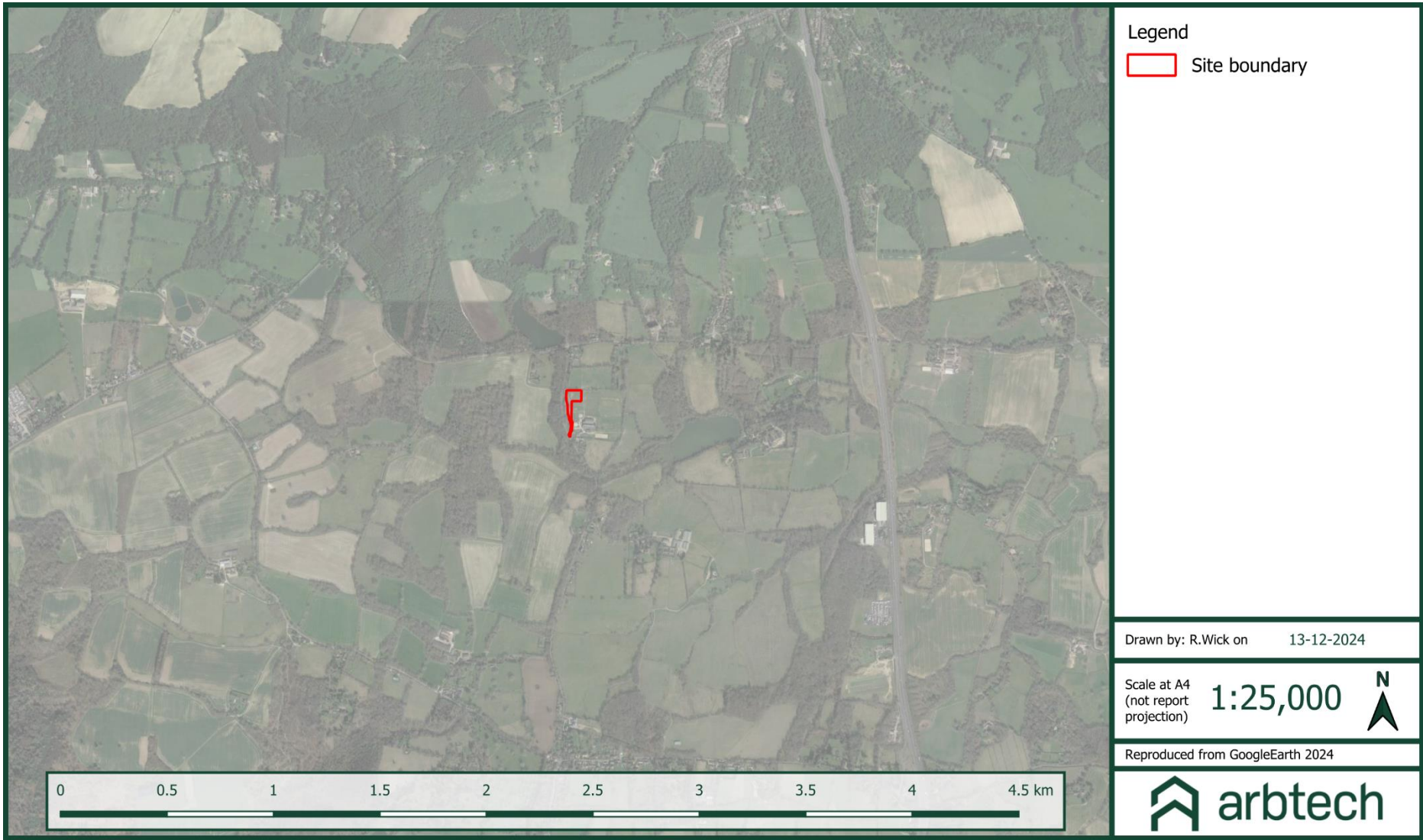
	amphibians. The area between the pond and site is a mixture of grassland of various lengths, small sections of hedgerow and trees, residential buildings and gardens, farm buildings, and frequently disturbed bare ground tracks. More suitable terrestrial access between P1 and the site is provided via the hedgerows on the farm and the large section of woodland nearby to the west of the site and P1. Slaugham Lane creates a divide between the wider site and most of the woodland strip, but this is unlikely to be a significant barrier to dispersal due to the lack of steep curbs and low level of traffic. Pond P2 is a large pond located ~210m northwest of the site. P2, known as 'Furnace Pond', has held fish since its creation and is now maintained as a fishery. The current usage as a fishery decreases its value to great crested newts (GCN) but does not render the pond unsuitable for GCN. The area from P2 to the site begins with two lines of hedgerow on short grassland bordering Hampshire Hill. Hampshire Hill is a quiet road with low traffic levels and no curb. It is unlikely to be a significant barrier to dispersal. Across Hampshire Hill, the hedgerow connects to a long strip of woodland that eventually runs parallel and adjacent to the development site. P3, P4 and P5 are small ponds located between ~300m and ~360m south of the site, within a field and surrounded by a small section of woodland. These are likely to be suitable for GCN and have connectivity to the site via woodland and hedgerow. Additionally, Slaugham Lane lies between these three ponds and the site. P6 is known as Mill Pond, located ~410m east of the site. It is a large pond, covering over 5 ha, and connects with the River Ouse. It is surrounded by a woodland border and connected to the site via the River Ouse and agricultural land with hedgerows bordering each field. P7, P8, P9 and P10 can be found ~450m east within a parcel of woodland. They are well connected to each other and connected to the site via some woodland and several agricultural fields, each bordered with hedgerow. A pond map showing approximate pond locations is provided in Appendix 4. Terrestrial habitat suitability The bramble scrub on site may provide hibernation opportunities for amphibians. Areas of grassland on site subject to more relaxed management provide foraging and commuting opportunities for terrestrial amphibians. Surrounding habitats such as hedgerow and woodland are also suitable for terrestrial amphibians. There is a chance of commuting amphibians using the site.
<i>Foreseen Impacts</i>	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 large sections of grassland and bramble scrub. If great crested newts are present within the ponds 250m of the site (including P1 and P2) when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a RED risk score, which states: Offence Highly 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)	0.5 - 1 ha lost or damaged	0.7
	Land 100-250m from any breeding	0.5 - 1 ha lost or damaged	0.3
	Land >250m from any breeding pond(s)	0.5 - 1 ha lost or damaged	0.03
	Individual great crested newts	No effect	0
			Maximum: 0.7
	Rapid risk assessment result:	RED: OFFENCE HIGHLY LIKELY	
Recommendations	Environmental DNA (eDNA) surveys will be required of any ponds within 250m 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). The surveys are likely to be required before planning permission can be granted. 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			
Summary of Survey Findings	No badger setts were noted on site or within a 30m radius of the site. The site features large areas of mown and grazed modified grassland as well as bramble scrub, which provide good foraging habitat for badgers. Furthermore, the woodland directly adjacent to the site and in the immediate landscape also provides foraging opportunities. The surrounding landscape is likely to also provide multiple opportunities for sett excavation, due to the low density of residential properties and the lack of associated hardstanding. The site itself also provides some suitability for sett excavation in the form of grassland and scrub. There is a possibility of badgers being present to commute across the site.		
Foreseen Impacts	No works will be undertaken within 30m of a badger sett. Grassland and bramble scrub 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 locally. However, construction activities could result in the death or injury of badgers, if present.		

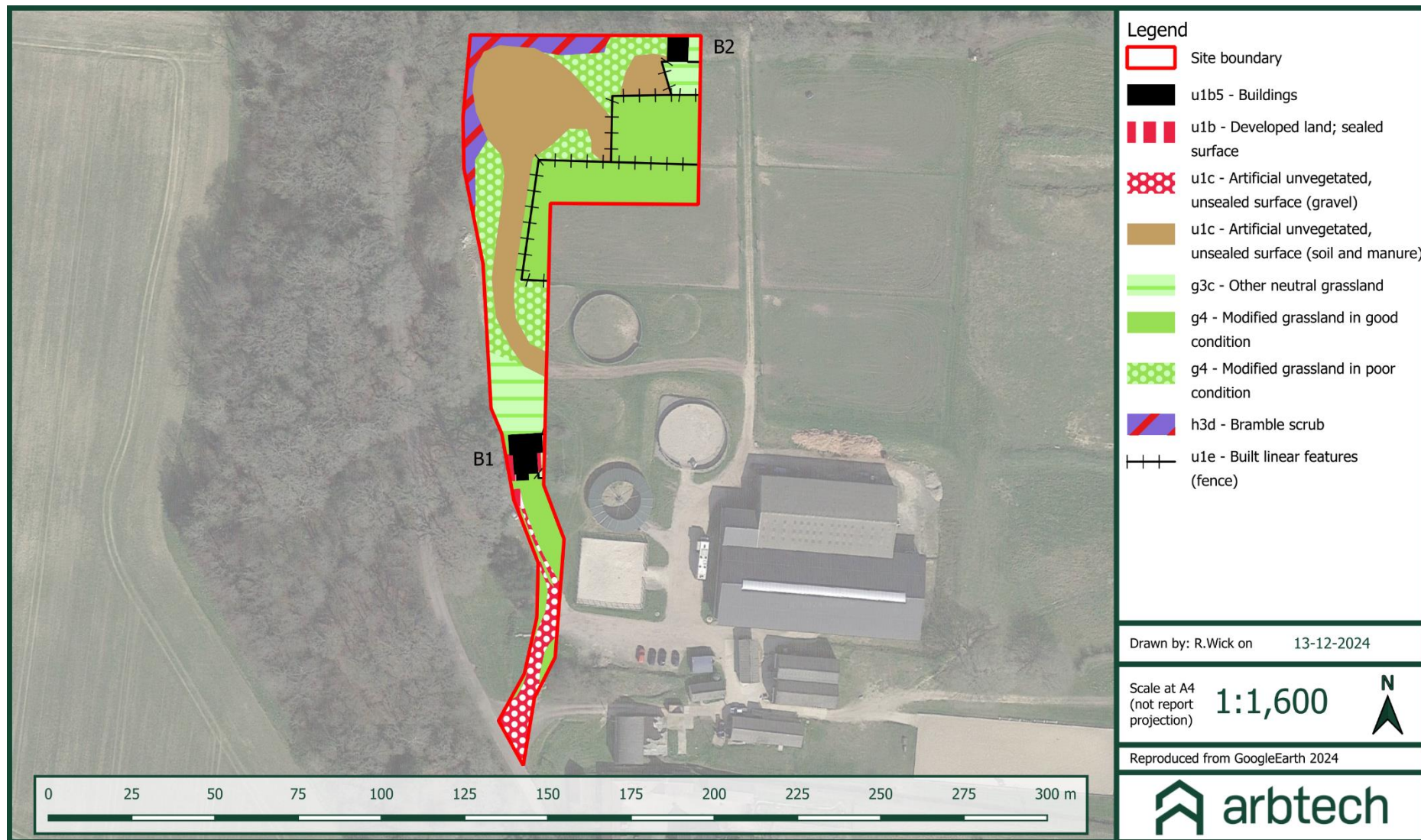
<i>Recommendations</i>	Owing to the nature of the proposed development and the low potential for impacts to badgers, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures: • A toolbox talk will be given to contractors regarding the possible presence of badgers at the site. • A pre-commencement inspection of the site will be undertaken for any new badger activity if works do not commence within three months. • Heras fencing will be erected around the working area to prevent encroachment into retained habitats where badger setts could be present. • 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 badgers could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. In the unlikely event that a badger sett is identified, works must cease and advice must be sought from a suitably qualified ecologist. 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

	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 bramble scrub and grassland onsite provide limited foraging and commuting opportunities for hedgehogs, with woodland habitat nearby.
<i>Foreseen Impacts</i>	Bramble scrub and grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.
<i>Recommendations</i>	A precautionary working method will be implemented during construction, including the following measures: • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. Suggested biodiversity enhancements The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: • Planting fruit bearing trees and species-rich grassland to increase foraging opportunities. • Creation of brash piles or installation of hedgehog houses in shady areas. • Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

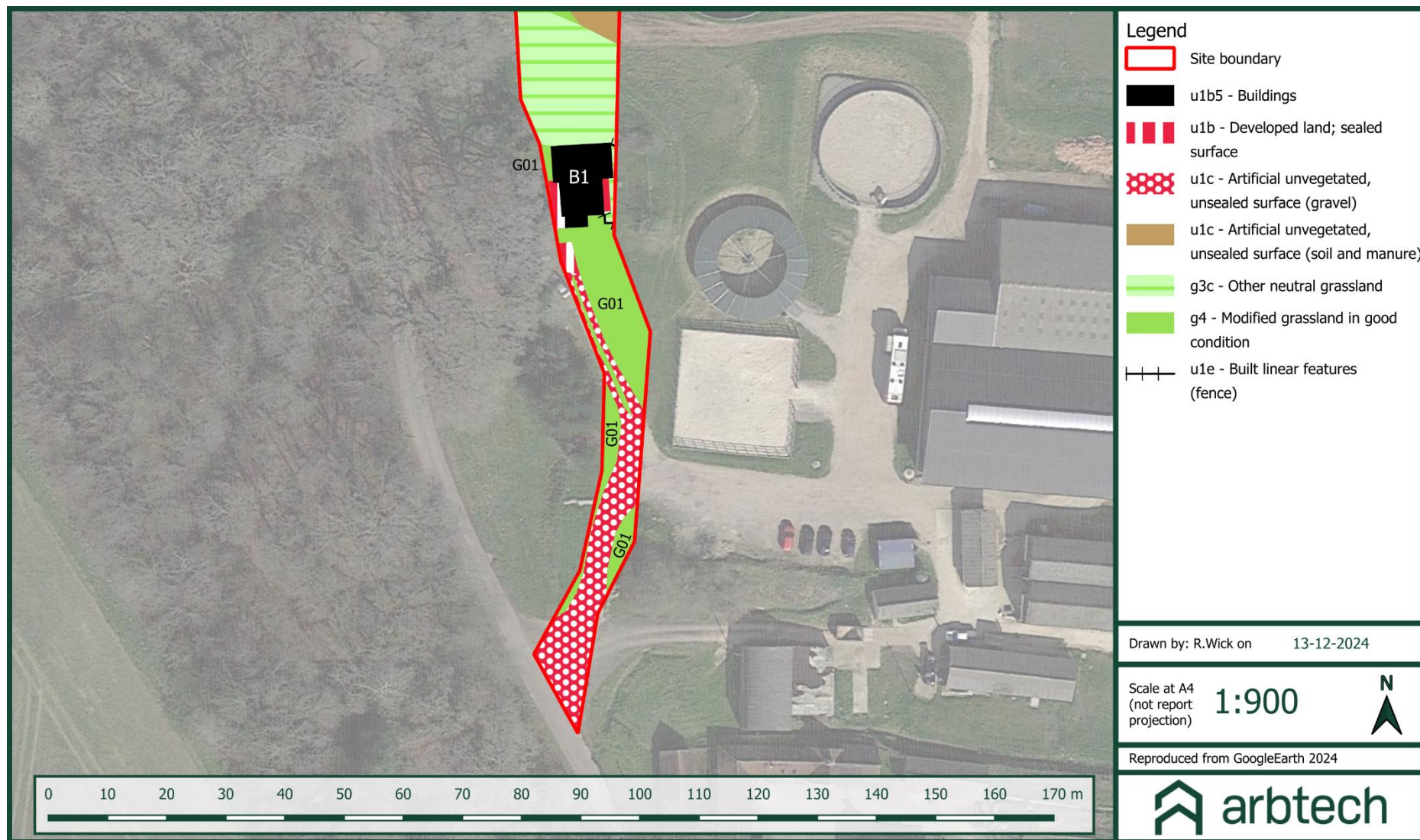
Appendix 1: Location map



Appendix 2a: Habitat map, overview



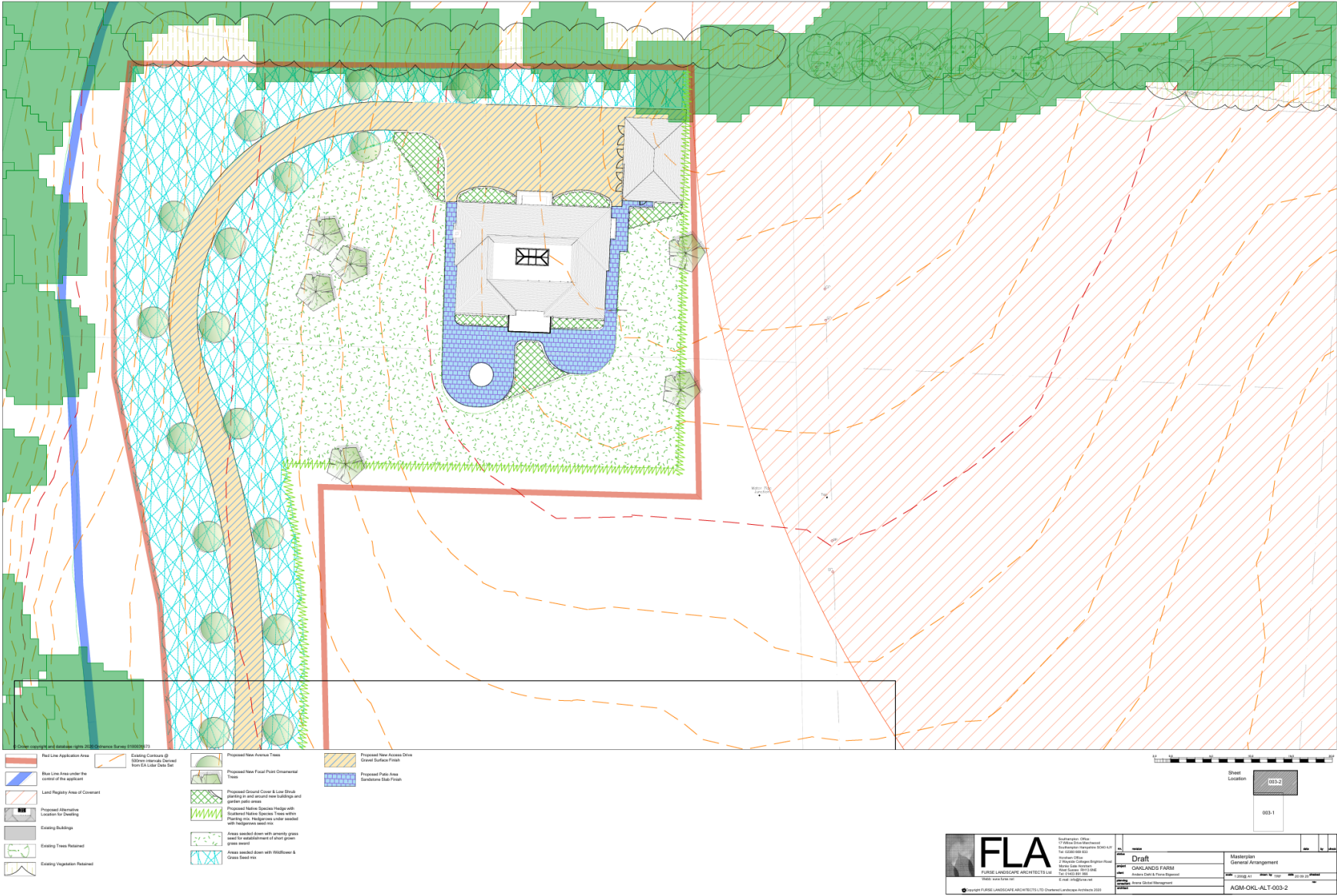
Appendix 2b: Habitat map, southern half

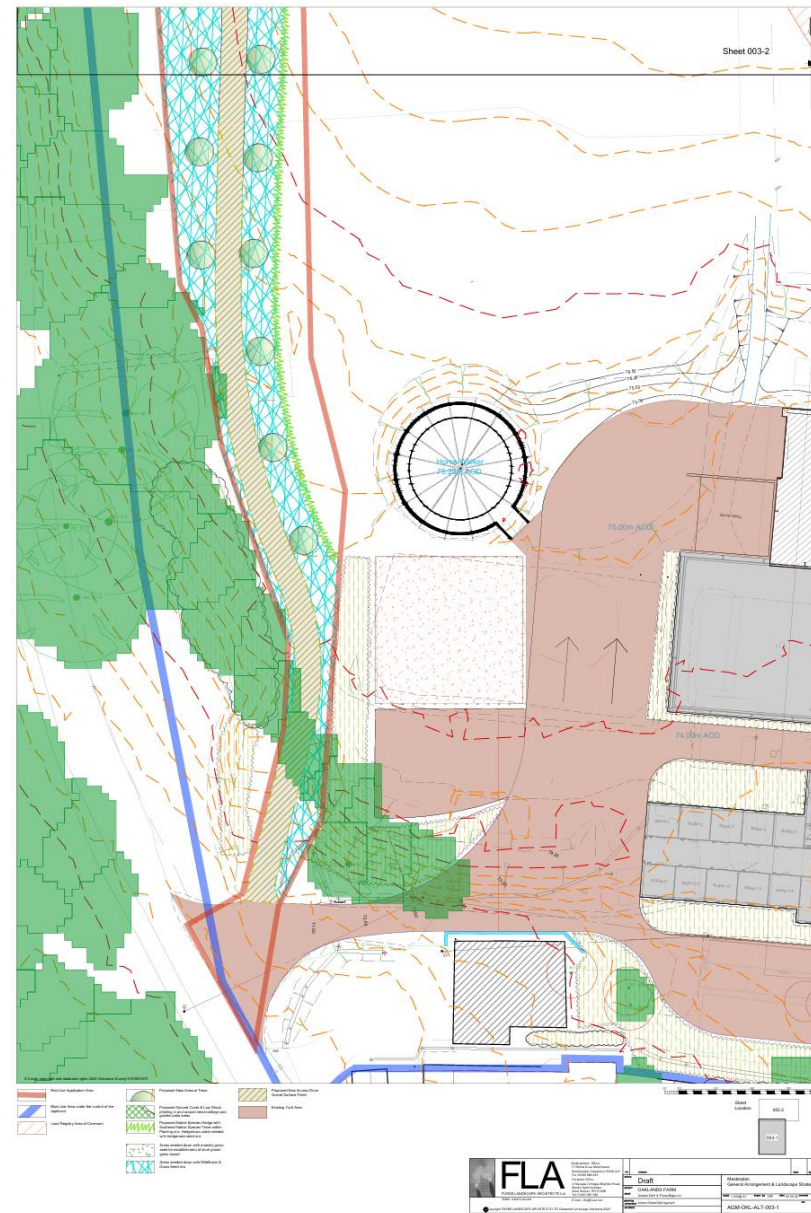


Appendix 2c: Habitat map, northern half

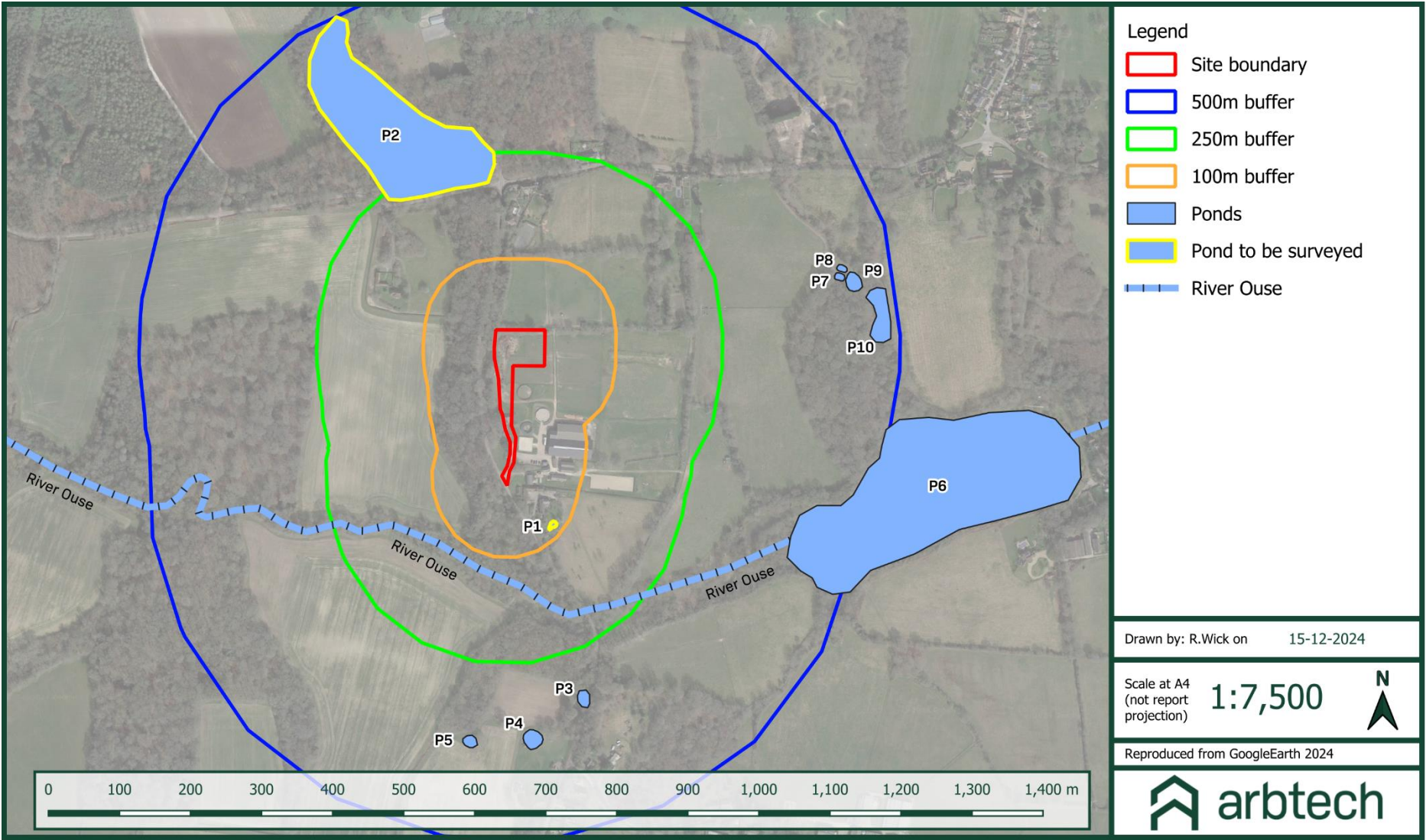


Appendix 3: Proposed plan





Appendix 4: Pond and River Map



Limitations and Copyright

Legal

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

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

Version control			
Status	Issue	Name	Date
Draft	0.1	Rachel Wick MSci, Graduate Ecologist	15/12/2024
Proof	0.2	Callum Taylor MSc, Senior Ecologist	16/12/2024
Draft	1.0	Rachel Wick MSci, Graduate Ecologist	16/12/2024
Proof	1.1	Callum Taylor MSc, Senior Ecologist	17/12/2024
Final	2.0	Rachel Wick MSci, Graduate Ecologist	17/12/2024