

PRELIMINARY ECOLOGICAL APPRAISAL

OCTOBER 2024

Wythenshawe Hospital

Southmoor Road

Wythenshawe

Manchester

M23 9LT

U R B A N
G R E E N



QUALITY MANAGEMENT

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Project:	Wythenshawe Hospital				
Location:	Wythenshawe Hospital, Southmoor road, Wythenshawe, M23 9LT				
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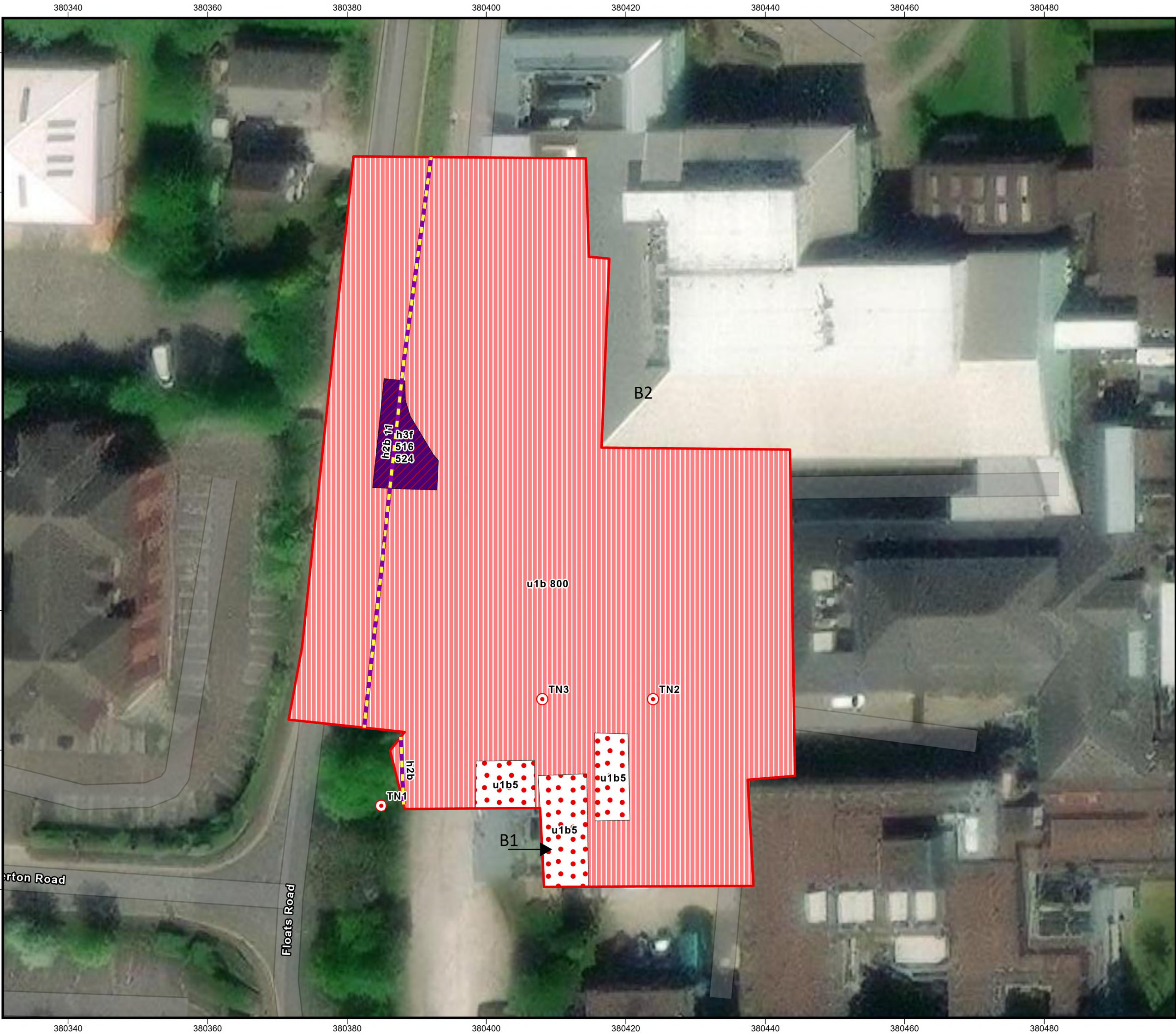
1 Executive Summary

- 1.1.1.1 DAY Architectural Ltd. is proposing to develop land at Wythenshawe Hospital in Wythenshawe (hereafter referred to as ‘the site’). The proposals include installation of three modular-relocatable units linked to the existing building adjacent to Entrance 4. These units will provide entrance, reception, consulting area, treatment and recovery area, and CT scanning facilities. Additionally, there will be connection and entrance back to the existing Trust circulation areas, services distribution area, storage facilities and waste/disposal areas.
- 1.1.1.2 Urban Green has been appointed to complete a Preliminary Ecological Appraisal of the site. The objectives of the assessment are to identify habitats on site and determine the suitability for any ‘protected and/or notable’ species that may occur on site. Further ecological surveys and mitigation are recommended to aim to minimise potential impacts on ecology, due to the proposed development.
- 1.1.1.3 Following the survey work, the key recommendations are summarised in the following table:

Current Site Use and Adjacent Site Use	Currently, the site primarily comprises a vegetation-lined car park located to the west of the main Wythenshawe Hospital building. A mix of temporary and permanent buildings are present within the car park.
Potential Impacts on Designated Sites	No potential impacts on designated sites nearby to the site are anticipated to occur due to the proposed development. The site is located at a sufficient distance from nearby designated sites, and the proposed development activities have been considered.
Habitats	The site comprised predominantly hardstanding and buildings, surrounded by scrub and tall ruderal vegetation.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: • Building 1 and building 2 was assessed as having low bat roosting potential. • Low foraging and commuting potential for bats. • T1 was assessed as having PRF-I. • A single mammal hole is located within the western hedgerow. • Suitable habitats for nesting bird species.
Recommended Ecological Mitigation	The following mitigation measures are recommended to minimise potential impacts due to the proposed development: • Protective fencing for retained trees and vegetation. • A Precautionary Method of Works document is produced, considering the species of limited protection and that have a low chance of occurring on-site.
Recommended Further Surveys and Reports	The following ecological surveys and reports are recommended to further assess the site’s suitability for protected/notable fauna and/or flora: • To enable the commencement of an important NHS development, a Precautionary Method of Works document should be produced for the works to proceed.



Legend: Red Line Boundary		0.85 Kilometers		N
Client: DAY Architectural		Issue: 01	Figure: 01	URBAN GREEN A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF T: +44 (0) 161 312 3131 weareurbangreen.co.uk
Project: Wythenshawe Hospital		Scale @ A4 1:10,000		
Title: Site Context		Approved by: OJ	Checked by: OS	
Drawing Ref: UG_2700_SITE_CONTEXT		Author: CL	Date: 13/09/2024	



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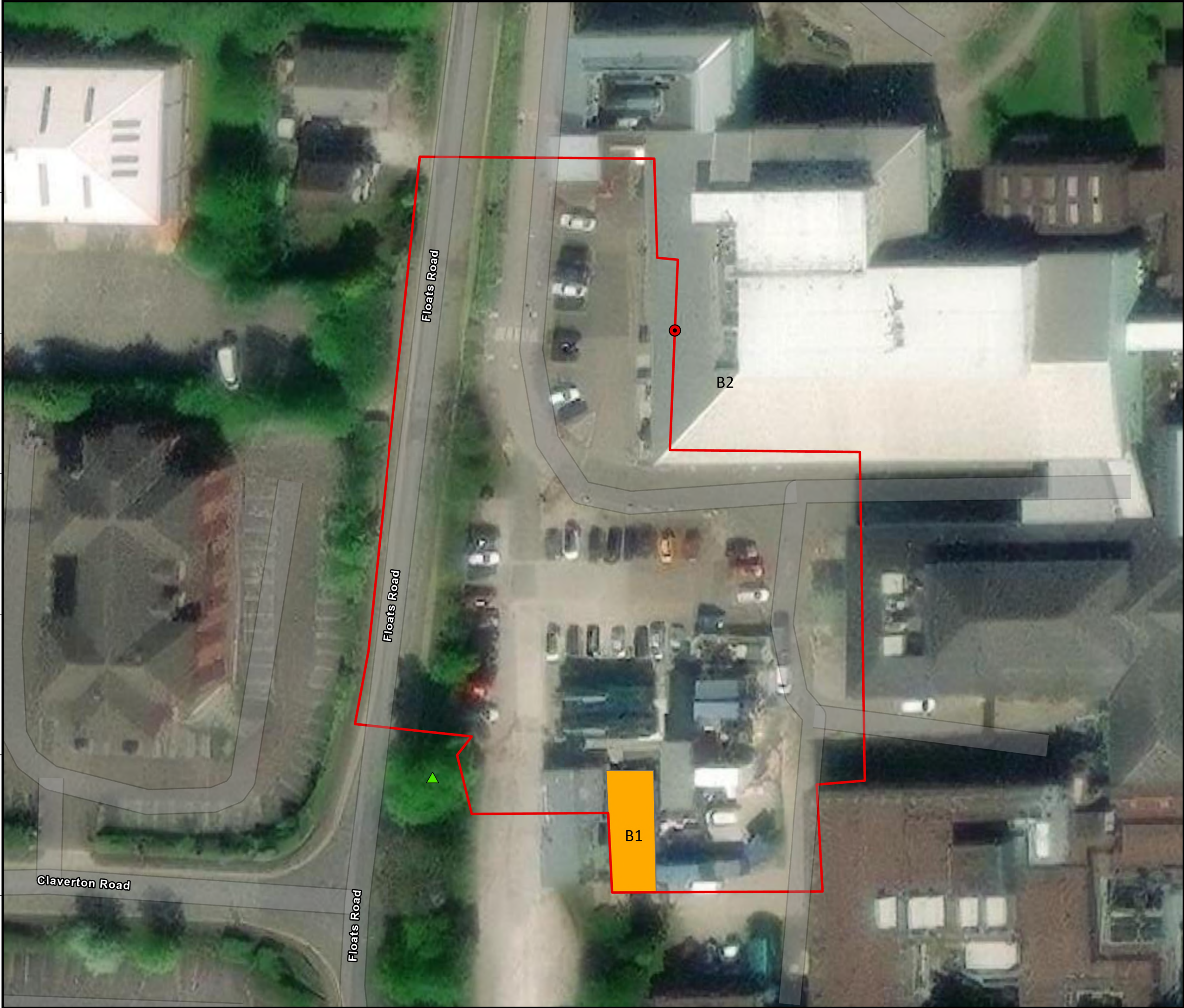
Legend

- Red Line Boundary
- Non-native and ornamental hedgerow
- Buildings
- Developed land - sealed surface
- Hawthorn scrub
- Target Note
 - TN1 - Mammal hole
 - TN2 - Shipping container
 - TN3 - Industrial equipment



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Client: DAY Architectural		
Project: Wythenshawe Hospital		
Title: UKHAB Habitat Map		
Issue: 01	Figure: 00	
Drawn: CL	Checked: OJ	Approved: OS
Project: UG2700	Scale @ A3: 1:500	Date: 25/09/2024
Dwg No: UG_2700_ECO_HM_01		Revision: 01



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Legend

Red Line Boundary

Building Roost Suitability

Low

PRF-I Tree

PRF Building Feature

N

0 5 10 20 Meters

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Client: DAY Architectural		
Project: Wythenshawe Hospital		
Title: PRA Results		
Issue: 01	Figure: 00	
Drawn: CL	Checked: OJ	Approved: OS
Project: UG2700	Scale @ A3: 1:500	Date: 25/09/2024
Dwg No: UG_2700_ECO_PRA_01		Revision: 01

Figure 4. Photographs of the Site



Photograph 1: Northern section of road into the carpark



Photograph 2: Eastern area of road and carpark



Photograph 3: Main building (B2) of the hospital



Photograph 4: Western line of hedgerow lining a pavement



Photograph 5: Wall cotoneaster found within the western hedgerow



Photograph 6: Small section of mixed scrub in front of the western hedgerow



Photograph 7: Trees within the hedgerow



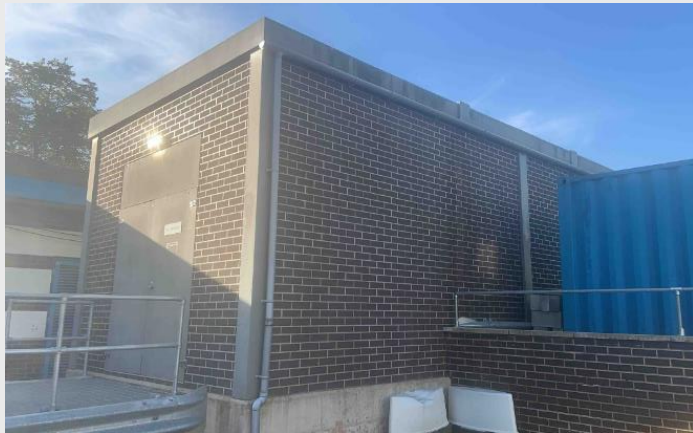
Photograph 8: Two ventilation structures within the centre of the site



Photograph 9: A well-sealed building in the centre of the site



Photograph 10: Example of the current temporary modular buildings



Photograph 11: Another well-sealed building in the centre of the site.



Photograph 12: View of B1, assessed as low bat potential



Photograph 13: View of B2 which has also been assessed as low bat potential.

2 Introduction

2.1 Scope

- 2.1.1.1 Urban Green has been instructed by DAY Architectural Ltd. to carry out a Preliminary Ecological Appraisal to British Standard 42020:2013 guidelines at Wythenshawe Hospital and produce our findings in a report.
- 2.1.1.2 The proposals include the installation of three modular-relocatable units linked to the existing building adjacent to Entrance 4 via a 3m tall permanent link built by traditional build-up and installation of underground utilities. These units will provide entrance, reception, consulting area, treatment and recovery area, and CT scanning facilities. Additionally, there will be connection and entrance back to the existing Trust circulation areas, services distribution area, storage facilities and waste/disposal areas. Transportation of the units and other associated construction material will be made through the western main road 'Floats Road'.

2.2 Site Context

- 2.2.1.1 The site is located at National Grid Reference SJ 80415 88025 and comprises a total area of approximately 0.6ha (see Figure 1).
- 2.2.1.2 The site is located in a densely urban area of Wythenshawe as part of Wythenshawe Hospital. Fairywell wood is located approximately 160m west of the site, which hosts Fairywell Brook located approximately 200m from the red line boundary. The immediate vicinity comprises a mixture of commercial and residential buildings and leisure fields.

2.3 Purpose of Report

- 2.3.1.1 This report has been produced to set out the methods, results, and conclusions of a PEA. The purpose of the PEA report is to identify habitats on site and determine the sites potential value for protected and/or notable fauna and flora, with the addition of potential impacts on designated sites. This will inform the need for any further ecological surveys and/or mitigation to minimise the potential impacts on ecology on site and within the local area.
- 2.3.1.2 Further information and details of UK legislation for those species which are formally protected is defined in Appendix 1, which are considered throughout the assessment.
- 2.3.1.3 The National Planning Policy Framework (NPPF) (2023) and other Local Planning Policies are considered with the PEA. Ecological enhancements are advised to be in line with relevant Planning Policies.

3 Methods

- 3.1.1.1 The PEA assessment and Report follows the good practice methodology as detailed within the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2019).

3.2 Desk Study

3.2.1 Online Resources and Local Records Centre

- 3.2.1.1 Due to the size and low impact of the proposed development and being located within a predominantly urban area of Wythenshawe, a 1km Local Data Search was conducted as it is deemed an appropriate distance for the Zone of Influence.
- 3.2.1.2 Sources of information used in the desk study are presented in Table 1.

Table 1: Desk study sources of information

Source	Date Consulted	Information Sought
MAGIC website (www.magic.gov.uk)	02/10/2024	Locations of statutory designated sites within 1km of the site boundary. Locations of Natura 2000 sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites.naturalengland.org.uk/)	02/10/2024	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	02/10/2024	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
Greater Manchester Ecology Unit	27/09/2024	Locally designated wildlife sites within 1km of site boundary. Records of protected and notable species within 1km of the site boundary.
Greater Manchester Local Biodiversity Action Plans	02/10/2024	Species and habitats which are given special conservation status at the local level.

3.3 Field Survey

3.3.1 Vegetation

- 3.3.1.1 The site was subject to a field survey on 16/09/2024, by Oliver Silver, Director of Ecology and Olivia Jones, Assistant Ecologist of Urban Green. The weather conditions were 17°C, scattered clouds (2/8 oktas), wind speed 1 Beaufort scale.
- 3.3.1.2 The methods were based on the standard methodology as detailed by The UK Habitat Classification User Manual (UKHab Ltd. 2023). A UKHab Habitat Plan has been produced to demonstrate habitats within the proposed development and the surrounding area. The mapping techniques are based on The UK Habitat Classification User Manual (Butcher et al, 2020) guidance.
- 3.3.1.3 Flora species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and/or uncommon habitats, were searched for during the survey.
- 3.3.1.4 Species abundance is described using the DAFOR scale as shown in Table 2. Percentages are an approximate indication rather than a quantitative measure.

Table 2: Key to species abundance

		Description	Indicative Percentage Ranges
D	Dominant	Covers most of the area	90% or greater
A	Abundant	Very common throughout the area.	50 – 90%
F	Frequent	Common or with many individuals.	20 – 50%
O	Occasional	Occurs in several places but not throughout. Populations are not large.	5 – 20%
R	Rare	Occurs in low numbers in relation to size of area.	Less than 5%
“L” will be used to indicate abundance in a localised area, e.g. LA = Locally abundant			

- 3.3.1.5 Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were noted during the field survey when sighted.

3.3.2 Fauna

- 3.3.2.1 A site search for field signs of protected and notable fauna was undertaken, and incidental sightings are detailed. The searches completed were as follows:
- Suitability of any ponds to support notable and protected amphibians, and the suitability of the site’s terrestrial habitats to support amphibians.
 - Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
 - Search of any watercourses for signs or suitability for white-clawed crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts, and foraging signs.

- Suitability of the site to support notable bird species. Bird nests and droppings of notable and protected bird species.
- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.
- Badger (*Meles meles*) field signs such as setts, mammal, paths, snuffle holes and latrines.
- Suitability of the site to support notable terrestrial mammals including harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*).

3.4 Bat Assessment

3.4.1 Preliminary Roost Assessment (PRA)

- 3.4.1.1 A Preliminary Roost Assessment was carried out on the site buildings using close-focussing binoculars.
- 3.4.1.2 The PRA methodology is based on information contained within the Bat Conservation Trust (BCT) guidelines, 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 3, which is used as a basis for determining the requirement for further surveys.

Table 3: Suitability of buildings for roosting bats (adapted from Collins, 2023)

Category of Suitability	Typical Characteristics
High Roost Suitability	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat.
Moderate Roost Suitability	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but are unlikely to support a roost of high conservation status.
Low Roost Suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate condition and/or suitable surrounding habitat to be used on a regular basis by larger numbers of bats.
Negligible Suitability	Negligible habitat features on site likely to be used by roosting bats.

3.4.2 Ground Level Tree Assessment (GLTA)

- 3.4.2.1 A GLTA was carried out on the site trees using close-focussing binoculars.
- 3.4.2.2 The GLTA methodology is based on information contained within the Bat Conservation Trust (BCT) guidelines, 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 4 which is used as a basis for determining the requirement for further surveys.

Table 4: Suitability of trees for roosting bats (adapted from Collins, 2023)

Category of Suitability	Description	Further Survey Requirements
NONE	Either no Potential Roosting Features (PRFs) in the tree or highly unlikely to be any.	No further survey work required
FAR	Further assessment required to establish if PRFs are present in the tree.	Further PRF inspection surveys required with the aim of re-assessing suitability of PRFs.
PRF	A tree with at least one PRF present.	

3.4.3 Commuting and Foraging Bats

- 3.4.3.1 The site was assessed for its suitability for use by commuting and foraging bats.
- 3.4.3.2 The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 5, which is used as a basis for determining the requirement for further surveys.

Table 5: Suitability of site for foraging and commuting Bats (adapted from Collins, 2023)

Category of Suitability	Typical Characteristics
High Suitability	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
Low Suitability	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or Isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Negligible Suitability	No features on site suitable for use by commuting and foraging bats.

3.5 Habitat Suitability Index

- 3.1.1.1 No ponds were present on site or identified within 250m of the site boundary. As great crested newts' upper dispersal limit is generally considered to be up to 250m from a waterbody (though occurrence of greater distances does exist), ponds beyond this distance were not assessed due to limited connectivity (English Nature, 2001).
- 3.1.1.2 Fairywell Brook is located approximately 200m west of the site, however with the presence of Floats Road and various commercial buildings, it is expected that there are enough anthropogenic barriers to prevent newts commuting to the site.

3.6 Constraints to the Survey

- 3.6.1.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.
- 3.6.1.2 This PEA does not constitute a full botanical survey. The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat.
- 3.6.1.3 It should not, however, be taken as providing a full and definitive survey of any protected species group.
- 3.6.1.4 Where a lack of records is found during the desk search for a defined geographical area, it does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.
- 3.6.1.5 The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.
- 3.6.1.6 The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

3.7 Lifespan of Report

- 3.7.1.1 In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. until 16th March 2026). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

3.8 Definitions

3.8.1.1 For the purposes of this report, the term ‘protected and notable species’ relates to:

- Species included on Schedules 2 and 4 of *The Conservation of Habitats and Species Regulations 2017*;
- Species included on Schedules 1, 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding species that are only protected in relation to their sale (see section 9[5] and 13[2]);
- Invasive non-native species included on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended);
- Species of principal importance for the conservation of/maintaining and enhancing biodiversity as required under: Section 41 of the *Natural Environment and Rural Communities Act 2006* (England), Section 7 of the *Environment (Wales) Act 2016*, Section 2[4] of the *Nature Conservation (Scotland) Act 2004*;
- Local species of importance as identified within various local biodiversity action plans; and,
- Badgers, which are protected under the *Protection of Badgers Act 1992*.

4 Baseline Ecological Conditions

4.1 Site Context

- 4.1.1.1 The site is located in a densely urban area of Wythenshawe as part of Wythenshawe Hospital. Fairywell wood is located approximately 160m west of the site, which hosts Fairywell Brook located approximately 200m from the red line boundary. The immediate vicinity comprises a mixture of commercial and residential buildings and leisure fields.
- 4.1.1.2 It is anticipated that some of these habitats will provide suitable foraging, resting, and commuting resources within the local area for a variety of wildlife, such as birds, bats, and other terrestrial mammals.
- 4.1.1.3 Habitats on site are limited to modified hedgerow, scrub, young, planted trees, and one mature tree.

4.2 Designated Sites

- 4.2.1.1 No sites that form part of the National Site Network were located within 5km of the site boundary. No statutory sites and one non-statutory designated site was located within 1km of the site and are detailed within Table 6.

Table 6: Designated sites within the search areas

Designated Site	Approx. Distance from Site	Details
Statutory designated sites		
Cotteril Clough (SSSI)	3.7km South	Clotteril Clough has been classified as a SSSI for its ancient semi-natural woodland, diverse species indicative of ancient woodland, and notable faunal importance.
Rostherne Mere (SSSI, NNR)	6.3km Southwest	Rostherne Mere SSSI, located in Cheshire, is the largest and deepest natural lake in the area, formed during the last Ice Age. It is nationally significant for its rich birdlife, particularly as a wintering site for wildfowl such as teal, tufted duck, and pochard. The mere is surrounded by diverse habitats like wet woodland and reedbeds, supporting a variety of plant species, invertebrates, and mammals. As part of the Rostherne Mere National Nature Reserve, the site is carefully managed for conservation, protecting its ecological and geological importance as a prime example of a glacial lake.
Non-statutory designated sites		
Ponds at Davenport Green	1.1km southwest	The ponds are important for supporting a range of wildlife, particularly amphibians. These ponds are key habitats for species such as frogs, newts (including great crested newt, and other pond-associated invertebrates. The surrounding vegetation and aquatic plants provide shelter, breeding areas, and a food source for these species. The ponds play a crucial role in the area's biodiversity, contributing to its ecological value.

- 4.2.1.2 Based on consultation with MAGIC, the site also falls within the Impact Risk Zone of Cotteril Clough SSSI and Rostherne Mere (SSSI) (Description in Table 6).

4.3 Flora and Fauna

- 4.3.1.1 The following section summarises protected and/or notable species records that have been recorded in the last 10 years within 1km of the site.

4.3.1 Invertebrates

- 4.3.1.1 Five records of invertebrates were returned within 1km of the site, comprising cinnabar (*Tyria jacobaeae*) and small heath (*Coenonympha pamphilus*) with the closest record located 90m north of the site from 2016, attributing to small heath.
- 4.3.1.2 Both species are listed on Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006.

4.3.2 Birds

- 4.3.2.1 Two records of protected or notable birds were returned within 1km attributing to song thrush (*Turdus philomelos*) and starling (*Sturnus vulgaris*). Both records were located approximately 985m north of the site in 2014.

4.3.3 Bats

Roosting Bats

- 4.3.3.1 Two records of common pipistrelle (*Pipistrellus pipistrellus*) roosts from 2015 were returned in the data search within 1km of the site. The closest record attributed to one location approximately 420m southwest of the site.

Field Signs

- 4.3.3.2 Six records of bats were returned during the data search, including records of Pipistrelle bat species (*Pipistrellus* sp), brown long-eared bat (*Plecotus auritus*) and noctule (*Nyctalus noctula*). The closest record was that of a brown long-eared bat present approximately 325m north of the site in 2022.
- 4.3.3.3 All species of bat returned are listed as Priority species on the Greater Manchester Biodiversity Action Plan (LBAP), and Schedule 2 of the Habitats and Species Regulations Act (2017). Noctule and brown long-eared bat are listed on Section 41 of the NERC Act (2006).
- 4.3.3.4 MAGIC returned no records of granted EPSL within 1km of the site concerning bats.

4.3.4 Hedgehog

- 4.3.4.1 Three records of hedgehog were returned with 1km of the site, with the closest record located approximately 720m northeast of the site from 2018. Hedgehog are listed on Section 41 of the NERC Act (2006).

4.3.5 No Records Returned

- 4.3.5.1 The data search returned no records for:
- Invasive, non-native species
 - Reptiles
 - Amphibians
 - Badger
 - Great crested newt
 - Harvest Mouse

- Brown Hare
- Hazel dormice (*Muscardinus avellanarius*)
- Otter
- Red squirrel (*Sciurus vulgaris*)
- Water vole
- White-clawed crayfish
- Vascular Plants

4.4 Field Survey

- 4.4.1.1 The site habitats and accompanying Target Notes are presented in the UKHab Habitat Map in Figure 2.
- 4.4.1.2 Secondary codes are added to confirm the identity of a habitat (when necessary) and also to provide information on management and the environment relating to that habitat parcel. The number and type of secondary codes added to a primary habitat will vary depending on the habitats present. There is no limit to the number of secondary codes that can be used for a single parcel. More details regarding the secondary codes used can be found in Appendix 3.

4.4.2 Developed Land – Sealed Surface (u1b)

- 4.4.2.1 Sealed, developed land dominates the majority of the site, making up a carpark, road and pavement. Moveable construction barriers, concrete bollards and pedestrian crossings make up a small carpark area adjacent to the main hospital building.

4.4.3 Buildings (u1b5)

- 4.4.3.1 Six modular corrugated metal buildings and two brick permanent buildings lie within the southern area of the site. A small area to the east of the main hospital building is also within the redline boundary, forming a current entrance.

4.4.4 Other Developed Land (u1b6)

- 4.4.4.1 The entire western border of the site comprises hardstanding road, known as Floats Road, separated from the site by a modified hedgerow.

4.4.5 Non-native and ornamental hedgerow (h2b)

- 4.4.5.1 A managed, ornamental hedgerow lines the boundary of Floats Road and the site. Species within this hedgerow include turkey oak (*Quercus cerris*), Norway maple (*Acer platanoides*), hawthorn (*Crataegus monogyna*), garden privet (*Ligustrum ovalifolium*) and box-leaved honeysuckle (*Lonicera pileata*). Young planted trees are implemented throughout the hedgerow with species including ash (*Fraxinus excelsior*) and large-leaved lime (*Tilia platyphyllos*). One mammal hole was located within this hedgerow (TN1), it is unclear whether this belonged to badger.

4.4.6 Hawthorn scrub (h3f)

- 4.4.6.1 A small area of managed hawthorn scrub lies northwestern centre of the hedgerow comprising hawthorn and willow-leaved cotoneaster (*Cotoneaster salicifolius*).

4.5 Site Suitability for Protected and Notable Species

4.5.1 Species Discounted from Assessment

- 4.5.1.1 Water vole, otter and white-clawed crayfish have been discounted from assessment as no aquatic habitats are located on site or within proximity. The closest aquatic habitat is located approximately 200m west of the site, relating to Fairywell Brook. The site is separated from this brook by anthropogenic barriers such as roads, buildings and fencing. Alongside the general hardstanding nature of the site, it is thought to be unlikely that these species will commute to the site.
- 4.5.1.2 Hazel dormouse mainly occur in southern counties, especially in Devon, Somerset, Sussex and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews *et al.*, 2018). The species are not generally known to be present within the area (Wembridge *et al.*, 2016). The habitats on site are of limited value due to limited areas of extensive woodland and scrub. As such, the species are reasonably discounted from site.
- 4.5.1.3 Red squirrel have been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel (*Sciurus carolinensis*) are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).
- 4.5.1.4 Reptiles have been discounted from the assessment. The site comprises dominantly hardstanding land. What habitat remains is managed vegetation, which feature no notable microhabitats to support basking, hunting, or cover, aside minimal ornamental shrubbery. Furthermore, no records of reptiles were returned for the wider area, and the site is situated within a densely urban landscape with abundant dispersal barriers.

4.5.2 Vascular Plants

- 4.5.2.1 No notable vascular plants were identified on site. With vegetative habitats being limited to managed, planted vegetation, it is unlikely that the site holds suitable habitat to support notable plant species.
- 4.5.2.2 Notable vascular plants are reasonably discounted from assessment.

4.5.3 Invertebrates

- 4.5.3.1 No deadwood, aquatic habitats or high floristic diversity was located on site which would provide an important resource for invertebrates during their life cycle. It is anticipated common species will be present on site due to the forestry and fields to the west of the wider environment.
- 4.5.3.2 Overall, the presence of notable invertebrates within the site is reasonably discounted

4.5.4 Amphibians

- 4.5.4.1 No ponds were located within site or within 250m of the site boundary. As great crested newts' upper dispersal limit is generally considered to be up to 250m from a waterbody (though occurrence of greater distances does exist), great crested newts are not anticipated to be present on site (English Nature, 2001).
- 4.5.4.2 The site is located near Fairywell Brook, which may provide suitable foraging and breeding resources and cover for common amphibians such as common toads.

- 4.5.4.3 Although unlikely, common amphibians may occasionally commute through the on-site hedgerow.

4.5.5 Birds

Passerine –

- 4.5.5.1 The site offers some suitable habitats for nesting birds within the hedgerow and trees. Several bird species were observed during the site visit within the site extent, including robin (*Erithacus rubecula*) and house sparrow (*Passer domesticus*). As a result, it is likely that birds use these habitats to nest in during the nesting season.

4.5.6 Bats

Preliminary Roost Assessment and Ground Level Tree Assessment

- 4.5.6.1 A PRA was completed on all modular and permanent buildings located on site and a GTLA on all trees located on site. Please refer to Appendix 2 for the results of the PRA and imagery of Potential Roosting Features (PRF) identified during the survey.
- 4.5.6.2 In summary, the following features and trees were assessed as having bat roosting potential:
- T1 was assessed to have PRF-I features.
 - B1 was assessed to have low roosting potential.
 - A PRF above the entrance to the eastern main building (B2) was assessed to have low roosting potential.

Commuting and Foraging Bats

- 4.5.6.3 Fairywell Forest, Fairywell Brook, and other various lines of trees and fields provide suitable habitat for commuting and foraging bats. The trees within the hedgerow, and the hedgerow itself, provide a linear feature for commuting bats to utilise. Therefore, it is likely that commuting bats may occasionally traverse the site.
- 4.5.6.4 The constant 24-hour lighting and noise disturbance at the interface between the hospital and the neighbouring road creates a heavily disturbed environment, resulting in low suitability for foraging and commuting bats.

4.5.7 Hedgehog

- 4.5.7.1 The hedgerow and scrub habitats will provide suitable cover and foraging habitats for the species in an urban environment.
- 4.5.7.2 Hedgehogs are potentially present within the site.

4.5.8 Badger

- 4.5.8.1 A mammal hole was identified within the hedgerow, which could not be confirmed whether or not this belonged to badger.
- 4.5.8.2 The wider landscape was assessed as having suitability for the species based on the areas of woodland which connect the site to the wider area.
- 4.5.8.3 Badger could occasionally traverse the onsite.

4.6 Invasive Species

4.6.1 Flora

- 4.6.1.1 Willow-leaved cotoneaster was present on the site during the field survey within the onsite hedgerow. This species is listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) as (an) invasive non-native species.

5 Ecological Constraints and Recommended Mitigation

5.1 Proposed Development

- 5.1.1.1 The proposals include the installation of three modular-relocatable units linked to the existing building adjacent to Entrance 4 via a 3m tall permanent link built by traditional build-up and installation of underground utilities. These units will provide entrance, reception, consulting area, treatment and recovery area, and CT scanning facilities. Additionally, there will be connection and entrance back to the existing Trust circulation areas, services distribution area, storage facilities and waste/disposal areas. Transportation of the units and other associated construction material will be made through the western main road 'Floats Road'.

5.2 Designated Sites

- 5.2.1.1 The site is located within the impact risk zone for one SSSI within 5km of the site, attributing to Rostherne Mere (SSSI, NNR) approximately 6.3km southwest and Cotteril Clough (SSSI) approximately 3.7km south of the site.
- 5.2.1.2 Due to the size and scale of the proposed urban redevelopment, it is anticipated that the designated sites are a sufficient distance away and separated by anthropogenic barriers such as residential areas, commercial buildings and roads, such that no impacts as a result of development are anticipated.

5.3 Habitats

- 5.3.1.1 The site contained limited and low value habitat for local wildlife albeit showing evidence of mammal and bird utilisation.

5.3.2 Broadleaved Trees

- 5.3.2.1 According to the proposals, all trees are to be retained as part of the construction.
- 5.3.2.2 It is recommended that the protection measures of retained trees be carried out through the use of temporary protective demarcation fencing to protect the trees, shrub and hedgerow. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.
- 5.3.2.3 The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.

5.4 Flora and Fauna

5.4.1 Amphibians

- 5.4.1.1 Great crested newts were deemed unlikely to be present on site and no further consideration for the species is required. However, there is a small possibility that common amphibians such as common toads may be present on site.
- 5.4.1.2 It is recommended that Reasonable Avoidance Measures are to be followed during site clearance. All site contractors are to be inducted to the potential presence of the species. Any debris is to be cleared by hand, and any common amphibians located moved carefully, by hand, to outside of the development area.

5.4.2 Birds

- 5.4.2.1 The site has been assessed as providing low suitability habitat for nesting birds. The proposals intend to retain the current vegetation and trees on site, as well as utilising the existing access roads to prevent disturbance to the vegetation during construction.
- 5.4.2.2 Based on the current proposals, precautionary working methods are not required during construction.

5.4.3 Bats

Roosting Bats

- 5.4.3.1 As stated in Section 4.5.6, T1, B1, and B2 were assessed as having bat roosting potential. As T1 is expected to be retained within the proposals, no further surveys are required in respect to this tree to facilitate development.
- 5.4.3.2 A permanent link between the main hospital building and the proposed buildings will be positioned within proximity to the PRF found in B2. The proposed link will be approximately 3m tall, compared to the approximate 10m tall building. A gap of 7m will be between the PRF and the link, however, the assumed use of construction equipment and lighting may significantly disturb the potential roost, thereby precautionary lighting measures should be followed.
- 5.4.3.3 B1 is expected to not be affected by the construction, however, will be in close proximity to construction works and is likely to be indirectly affected.
- 5.4.3.4 Please refer to Section 6 for recommendations.

5.4.4 Badgers

- 5.4.4.1 A mammal hole (TN1) was identified within the hedgerow onsite. It could not be unequivocally verified as a badger sett; however, the small size, circular shape, and absence of further badger signs suggest the hole is likely fox.
- 5.4.4.2 Furthermore, the hole displayed evidence of disuse, with twigs and debris covering the entrance. This hole is likely disused, and the hedgerow is expected to be retained within the proposals, therefore does not require further surveying.
- 5.4.4.3 The following Precautionary Working Methods will be adhered to during the construction phase to ensure that no badgers are impacted by the proposed development (See Section 5.4.7)

5.4.5 Invasive Species

- 5.4.5.1 Non-native invasive flora species willow-leaved cotoneaster was identified during the site walkover. As such, it is recommended, prior to the development, that an invasive species specialist should be contracted to map the extent of invasive species present within the site and produce a detailed management plan for the removal and eradication of such species onsite.

5.4.6 General

- 5.4.6.1 There are several species or groups that could occur on-site that receive varying levels of protection under wildlife legislation. These species and groups include:
- Amphibians
 - Birds
 - Badger, and
 - Hedgehog
- 5.4.6.2 Notwithstanding this, the likelihood of these species and groups being recorded on-site is low.
- 5.4.6.3 To mitigate for this, it is recommended that a Precautionary Method of Works (PMoW) document is produced in advance of the construction phase of the development, covering the aforementioned species and groups. In addition, it is recommended that this document is implemented by an Ecological Clerk of Works (ECoW) to ensure these species and groups are safeguarded throughout the construction phase of the development.

6 Further Surveys

6.1 Bats

- 6.1.1.1 The proposed development is a vital medical addition to Wythenshawe Hospital, addressing essential healthcare needs. Given the unique public health objectives of NHS projects, it is crucial to maintain strict timelines and budgets to ensure resources are efficiently directed towards patient care and community health benefits.
- 6.1.1.2 B1 and B2 were identified as having low bat roosting potential due to the presence of possible access points within the structures. Since this initial assessment was conducted outside the optimal survey season, further surveying would delay the development at least until the next suitable season. Therefore, it is recommended that a PMoW document be produced to manage potential risks in place of additional surveys.

Justification for Precautionary Working Methods over Further Bat Surveying

- 6.1.1.3 A risk-based approach identified a low likelihood of bat roosts within the areas directly affected by the development. However, to responsibly manage any potential, albeit low, risk to bats, production of a PMoW document is recommended in place of additional surveys. This approach aligns with the NHS project's objectives of maintaining efficient timelines and budgets while ensuring ecological compliance. This adaptive method safeguards protected species, addresses regulatory requirements and ensures minimal disruption, supporting the project's public health priorities.

Further Surveying

- 6.1.1.4 Should a bat roost be identified during the development works, an ecologist should be notified immediately, and development works should be paused until further notice.
- 6.1.1.5 Further surveying to confirm emergence locations would involve situating two suitably qualified surveyors to cover the buildings to monitor for bats emerging from potential roost locations (dusk emergence survey) for a specified amount of time. This can be done in one dusk emergence survey. The survey should be completed between May – September (inclusive).
- 6.1.1.6 If bats are identified roosting within the buildings on site, a minimum of three further surveys will be required to inform a Natural England EPSL. The surveys will identify what bat roosts are present and will in turn clarify what mitigation will be required as part of the ESPL. Roost provision, lighting and timescales will be considered as part of the licence.
- 6.1.1.7 An EPSL can only be submitted once full planning permission has been granted and all wildlife conditions have been discharged.

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Appendix 1 – Relevant Legislation

Legislation relating to European Protected Species (e.g. bats, otter, great crested newt)

European Protected Species and their resting places (e.g. bat roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000, and the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 transpose the European Union's 'Habitats Directive' (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into UK law. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
- to impair their ability:
 - to survive, to breed or reproduce, or to rear or nurture their young, or;
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
- to affect significantly the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a SoPI under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Legislation for white-clawed crayfish

White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this act it is an offence to:

- Intentionally take white-clawed crayfish from the wild; and,
- Sell or attempt to sell, any part of a white-clawed crayfish, alive or dead, or advertise that one buys or sells, or intends to buy or sell any part of a white-clawed crayfish.

The white-clawed crayfish is listed under Annex II and V of the EC Habitats Directive. The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. Annex II requires that Special Areas of Conservation (SAC) are established specifically to conserve this and other listed species. In a SAC designated for white-clawed crayfish a precautionary principle must be applied when considering the potential impacts of any operations that may affect white-clawed crayfish and their habitat.

White clawed crayfish are listed as a SoPI under Section 41 of NERC Act 2006.

Legislation for amphibians (other than great crested newt)

Under the Wildlife and Countryside Act 1981 (as amended) the four widespread amphibian species, smooth newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*), common toad (*Bufo bufo*) and common frog (*Rana temporaria*) receive limited protection through section 9(5) only which makes selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative) an offence.

Common toad is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to reptiles

All native reptile species have some degree of protection in the UK, through section 9(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). There are two different levels of protection afforded to reptiles through this legislation according to species and this is described in more detail below.

Full Protection

Sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) are afforded protection under The Conservation of Habitats and Species Regulations 2010 (are species of European importance) and are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the CRow Act (2000). The Conservation of Habitats and Species Regulations 2010 implements the European Union's 'Habitats Directive' (Council Directive 92/43/EEC (a) on the Conservation of Natural Habitats and of Wild Fauna and Flora) in Great Britain. The relevant sections of this legislation make it an offence to:

- Intentionally kill, injure or capture or take a reptile;
- Possess or control (live or dead animal, part or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a reptile;
- Disturb whilst the reptile is occupying such a structure or place; and

- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Sand lizard and smooth snake are listed as a SoPI under Section 41 of the NERC Act 2006.

Protection against killing, injuring and trade

This level of protection under section 9 (parts 1 and 5) applies to the four widespread species of reptile, namely the common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and adder (*Viper berus*). Only part of sub-section 9(1) applies, which make it an offence to:

- Intentionally kill or injure, and
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Grass snake, slow-worm and adder are all listed as SoPI under Section 41 of the NERC Act 2006.

Legislation relating to breeding birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird; and
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (*Falco peregrinus*), barn owl (*Tyto alba*), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence.

A number of bird species are listed as SoPI under Section 41 of the NERC Act 2006.

Conservation status - Birds of Conservation Concern (Eaton et al. 2015)

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2011. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 4: 2015.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25 years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria): Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25 years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria are green listed. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Legislation relating to badger

Badgers are protected under the Protection of Badgers Act 1992 (as amended) which makes it an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so;
- intentionally or recklessly damage, destroy or obstruct access to a badger sett; and
- disturb a badger when it is occupying a sett.

These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

Legislation relating to water vole

The water vole is fully protected under Section 9 of the Wildlife & Countryside Act 1981 (as amended) through its inclusion in Schedule 5. The legal protection makes it an offence to:

- Intentionally kill, injure or capture or take a water vole;
- Possess or control (live or dead animal, part or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a water vole;
- Deliberately (intentionally) or recklessly disturb a water vole whilst occupying such as structure or place, and
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Water vole is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to invasive plant species

Several non-native invasive plant species such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), Japanese rose (*Rosa rugosa*), variegated yellow archangel

(*Lamiastrum galeobdolon*), rhododendron (*Rhododendron ponticum*) and Japanese knotweed (*Reynoutria japonica*) are listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to ‘...plant or otherwise cause the species to grow in the wild’. This includes spreading or transferring contaminated soil from one area to another.

Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks. Under the Natural Environment and Rural Communities Act 2006 (NERC), subsection 14ZA (1), makes it an offence to sell, offer or expose for sale, or to have in one’s possession or transport for the purpose of sale, any Schedule 9 animal or plant or anything from which such an animal or plant can be propagated, including rhizomes of Japanese knotweed. Under subsection 14ZA (2) it is also an offence to publish or cause to be published any advertisement for the purchase or sale of these animals and plants.

The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste. Any Japanese knotweed contaminated soil or plant material that is intended for discard is likely to be classified as controlled waste.

The Environmental Protection (Duty of Care) regulations 1991 also imposes a ‘duty of care’ on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

Waste leaving the site must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Additional legislation regarding the transport of Japanese knotweed contaminated materials is covered by the Hazardous Waste Regulations 2005 (HWR 2005). This contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which includes details about the hazardous waste properties and any handling requirements. Untreated Japanese knotweed is not classed as hazardous waste, but material containing knotweed which has been treated with certain herbicides, may be classified as hazardous waste.

If any waste soil or knotweed is sent for landfill either before or after treatment, it must go to a landfill that is authorised to receive it.

The Hedgerows Regulations 1997

The Hedgerows Regulations 1997 were introduced to protect hedgerows of importance from destruction. However, the legislation does not apply to any hedgerow (even if it is within the list above) which is within or marking the boundary of the curtilage of a dwelling house.

For the Regulations to be applicable, the hedgerow must be at least 20 metres in length or, if less than 20 metres, it must meet another hedgerow at each end. A hedgerow is deemed to be important if it is more than thirty years old and meets at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

If a hedgerow which qualifies under the Regulations is to be removed, the landowner must contact the Local Planning Authority (LPA) in writing by submitting a hedgerow removal notice. The LPA then has a period of 42 days to decide whether or not the hedgerow meets the importance criteria of the regulations.

Appendix 2 – Preliminary Roost Assessment

Building Reference	Description	Evidence	Category of Suitability
T1	A mature common lime tree (<i>Tilia x europaea</i>) hosting various knots in the trunk.		PRF-I
B1	A small brick building to the south of the site featuring a pitched roof with a continuous gap in the soffit box. It is assumed this leads into a small void area within the roof.		Low

Building Reference	Description	Evidence	Category of Suitability
B2	An otherwise well-sealed, modern building with a small section of lifted panelling within the soffit box of the roof creating an opening into the roof void.		Low

Appendix 3 – Habitat Map and Target Notes

Hierarchical code	Code	Meaning
Primary Code	H2b	Non-native and ornamental hedgerow
	H3f	Hawthorn scrub
	U1b	Developed land, sealed surface
	U1b5	Building
Secondary Code	11	Hedgerow with trees
	516	Active management
	524	Invasive non-native species
	800	Road