Preliminary Ecological Appraisal and Preliminary Roost Assessment

Rosedale College, Wood End Green Road, Hayes, Middlesex, UB3 2SE

Simon Saul

Status	Issue	Name	Date
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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Simon Saul to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Rosedale College, Wood End Green Road, Hayes, Middlesex, UB3 2SE (hereafter referred to as "the site"). The survey was required to inform a planning application for the demolition of two buildings (EFAB & EFAE) and construction of two new buildings, as well as the construction of two temporary buildings during construction phases (hereafter referred to as "the proposed development").

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 8 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Habitats and flora	The site contains hardstanding, grass playing fields, a hedgerow and scattered trees. There are no notable habitats within the site but three habitats are present within 2km of the site, the closest being lowland mixed deciduous woodland located ~315m from the site. No protected or notable plant species were recorded during the survey.	The proposed development will result in the demolition of B2 and B5. Two temporary buildings (including a temporary school block and site office) will be erected on the school playing fields, resulting in a temporary loss of ~0.16Ha modified grassland. These areas will be reinstated as school playing fields post-development. There is also likely to be a significant disturbance of ~0.59Ha of modified grassland during development, due to vehicle access and construction activities. Two new permanent school buildings will be erected: one on hardstanding car park and one on sealed-surface Multi-Use Games Area (MUGA). Both of which have negligible ecological value. The footprint of B2 will largely be replaced with hardstanding playground, with some new areas of landscaping (~0.05Ha). A new ~0.39Ha playing field will be created covering the footprint of B5. ~0.10Ha of hardstanding playground will be replaced with landscaped areas during the development. No impacts to any notable habitats are anticipated due to the and distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.	Retained trees and hedgerows should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012). Best practice measures to minimise the possibility of pollution must be implemented during construction.

Roosting bats (B2)	In line with Good Practice Guidelines (Collins, J. (Ed) 2016), B2 has low value for roosting bats due to a small number of features present on the exterior of the building, including crumbling render, vent holes, cladding gaps and soffit gaps. These could provide roosting sites for small numbers of crevice-dwelling bats.	The proposed development will result in the demolition of this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	One bat emergence or re-entry survey is required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely-absence of a bat roost in the building. Further details are included in Table 8.
Roosting bats (B5)	In line with Good Practice Guidelines (Collins, J. (Ed) 2016), B5 has negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on roosting bats as a result of the demolition of this building.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Roosting bats (T1-T4)	In line with Good Practice Guidelines (Collins, J. (Ed) 2016), T1-T4 have negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within these trees and as such, there are not anticipated to be any impacts on roosting bats as a result of the felling of these trees.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Foraging and commuting bats	**Foraging and commuting habitat** Scattered trees around the site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site. They are, however poorly connected to the wider landscape and therefore are likely to be suboptimal as commuting features.	**Foraging and commuting habitat** The proposed development will result in the loss of four trees located within a school playground. Given their sub-optimal location, within an expansive area of hardstanding and the presence of more extensive areas of foraging and commuting habitat in the locality, their loss is likely to be inconsequential for bats. **Artificial lighting** The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	**Foraging and commuting habitat** None. **Artificial lighting** A low impact lighting strategy will be adopted for the site during and post-development. Further details are included in Table 8.
Hedgehog	There may be sheltering and foraging opportunities for hedgehogs within areas of long grass and hedgerow on-site.	Modified 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.	A precautionary working method will be implemented during construction. Further details are included in Table 8.

Birds	B2 and B5 did not appear to provide any nesting opportunities for nesting birds. B1, B4 and B5 were not inspected for nesting opportunities as they will not be impacted under the proposed development. All trees on-site (including T1 – T4) provide nesting resources and nesting opportunities for birds.	Four trees will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the trees should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Simon Saul to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Rosedale College, Wood End Green Road, Hayes, Middlesex, UB3 2SE (hereafter referred to as "the site"). The survey was required to inform a planning application for the demolition of two buildings (EFAB & EFAE) and construction of two new buildings, as well as the construction of two temporary buildings during construction phases (hereafter referred to as "the proposed development"). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author's knowledge, by any other consultancy.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference TQ 09075 81316 and has an area of approximately 6.1Ha comprising five school buildings (B1 – B5), hardstanding, astroturf sports pitches, playing fields and scattered trees. It is surrounded by suburban dwellings to the east, south and west, and allotments to the north. Hayes End Methodist Church is located ~0.30km to the north and the Beck Theatre is located ~0.45km to the east. The wider landscape comprises suburban dwellings, allotments, parks and golf courses, with the A4020 ~0.25km to the north. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of this report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.

- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 2km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

2.2 Field Survey

The survey was undertaken by Benjamin Newbery (Accredited Agent to Natural England Bat Licence Number: 2019-41480-CLS-CLS) on 4th July 2023.

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in *UK Habitat Classification User Manual* (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA focussed on two built structures (B2 and B5, labelled EFAB and EFAE in the provided plans [Appendix 1]) and four trees (T1 – T4) which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

<u>For any surveyed buildings</u>:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the buildings was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

<u>For any surveyed trees</u>:

A visual inspection was undertaken from ground level using binoculars and, where accessible and safe to do so, an internal inspection of any features which bats could use for roosting was completed using an endoscope, torch and ladders.

Suitability Assessment

Built structures and trees were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 and Table 2 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	***Feature of building and its context***
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

Table 2: Features of a tree that are correlated with use by bats

Classification	***Feature of tree and its context***
Moderate to high	A tree 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. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators.
Negligible	Unsuitable for use by bats.

2.3 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.

There were no specific limitations to the survey.

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

This limitation has been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

Details of any statutory and non-statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 3a and 3b below.

Table 3a: Statutory designated sites within 2km radius of the site

Designated site name	Distance from site	Reasons for notification from Natural England
Yeading Meadows Local Nature Reserve (LNR)	~1.22km northeast	The hundred-year-old oak plantation over hazel coppice which forms Ten Acre Wood adjoins the flower rich Yeading Brook Meadows. The woodland is mostly oak, planted in the late 19th Century with an understory of mainly hawthorn and hazel. Hobby occasionally nest in summer, kingfisher can be seen along the Yeading Brook, Roesel's bush cricket and long winged conehead are found in the meadows as well as gatekeeper butterflies.

Table 3b: Non-statutory designated sites within 2km radius of the site taken from Greenspace information for Greater London (GiGL) data.

Designated site name	Distance from site
St Mary's, Wood End Site of Importance for Nature Conservation (SINC)	~0.33km east
Uxbridge Road Scrub, Hayes SINC	~0.34km north
Lake Farm Country Park SINC	~0.44km south
Hayes Shrub SINC	~0.75km north
Bolingbroke Way Sunken Pasture SINC	~0.67km southwest
London Canal's SINC	~1.07km south
Stockley Business Park Lakes & Meadows SINC	~1.17km southwest
Yeading Brook Meadows SINC	~1.22km northeast
Yeading Brook, Minet Country Park and Hitherbroom Park SINC	~1.57km southeast
Carp Ponds and Broad Dock SINC	~1.71km southwest
Home Covert, Lowdham Field and Pole Hill Open Space SINC	~1.78km north
Iron Bridge Road Railsides SINC	~1.82km southwest

3.2 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 4.

Table 4: Weather conditions during the survey

Date	04/07/2023
Temperature	17°C
Humidity	64%
Cloud Cover	80%
Wind	10mph
Rain	None

Habitats and Flora

The following habitats are present within and adjacent to the site:

- **u1b5** – Buildings
- **u1b6 89** – Car park
- **u1b6 512** – Sports pitch
- **u1b6 11 612** – Children's play space, non-permeable; scattered trees
- **u1e 69** - Fences
- **g4 11 66 511 611** – Modified grassland; scattered trees; frequently mown; natural sports pitches; children's play space, natural
- **h2b** – Other hedgerow

A description and photographs of each habitat are provided in Table 5.

No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site.

Table 5: Description and photographs of habitats within and adjacent to the site

Habitat type	Habitat description	Photograph
u1b5 – Buildings *Figure 1*	There are five school buildings within the curtilage of the site. Buildings are assessed for their suitability for roosting bats in the Table 6 below.	
u1b6 89 – Car park *Figure 2*	There is a hardstanding car park in the northeast corner of the site, which is of negligible ecological value.	

u1b6 512 – Sports pitch *Figure 3*	There are astroturf sports pitched on the site, which are of negligible ecological value.	
u1b6 11 612 – Children's play space, non-permeable; Scattered trees *Figure 4*	There are areas of hardstanding children's playground on site, which are of negligible ecological value. Some young hornbeam trees were present within the playground, four of which will be affected by the proposed development. These are assessed in Table 6 below. The remainder of the trees in the playground will not be affected.	

u1e 69 – Fences *Figure 5*	There are a combination of metal and timber fences around the site boundaries. Some of which are overgrown with ivy, bindweed and brambles. As shown in the adjacent photo.	
g4 11 66 511 611 – Modified grassland; scattered trees; frequently mown; natural sports pitches; children's play space, natural *Figure 6*	School playing fields make the largest proportion of the site. These comprise expansive areas of frequently mown grass have a sward length of ~3cm, although some corners of the field have been left unmown. Grass species include perennial rye (D), false oat grass (A) and wall barley (O). There is also a suite of accompanying herbaceous species, including daisy (A), dandelion (A), white clover (F), yarrow (F), nettles (O), English cinquefoil (O), smooth cat's ear (O), small flowered cranesbill (O), greater plantain (O), ribwort plantain (O), garlic mustard (O), nipplewort (O), common groundsel (O), cow parsley (O), mallow (R), bristly oxtongue (R), ragwort (R), pink sorrel (R) willowherb (R), sow thistle (R) and bird's foot trefoil (R). Scattered trees were present within the field and along the boundaries. Species include ash, oak, elder, hornbeam, yew, wild cherry, aspen, horse chestnut and black locust. None of these trees are to be affected by the proposed development.	

h2b – Other hedgerow *Figure 7*	There is a laurel (D) hedgerow in the northwest corner of the site. The hedgerow measures ~2m tall and ~1-1.5m wide. Judging by the shape of the hedge, it is well-maintained. Brambles (O) and bindweed (O) were also present within the hedgerow.	

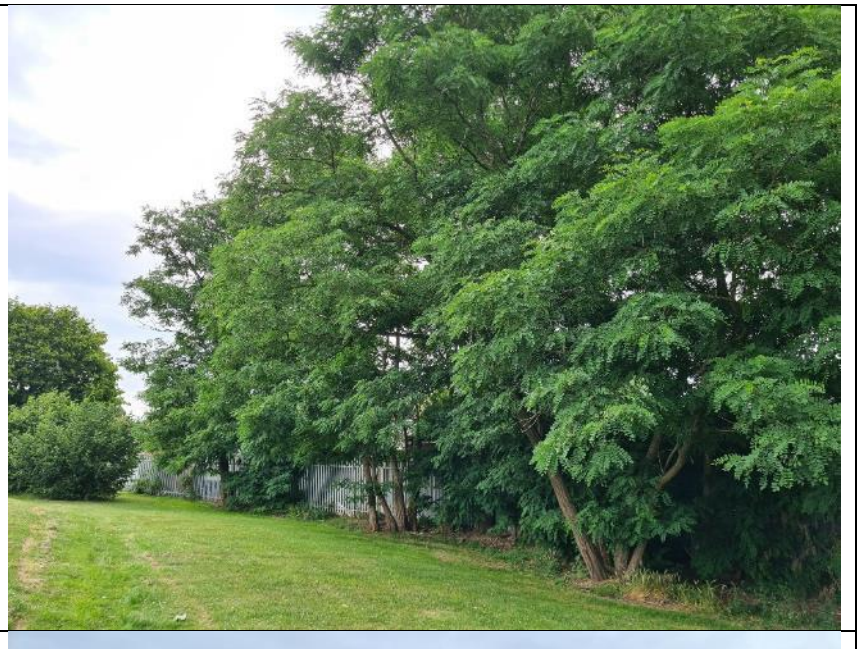
Fauna

Bats

The results of the PRA are provided in Table 6. No evidence of roosting bats was identified during the survey.

Table 6: Assessment of the suitability of the site for bats

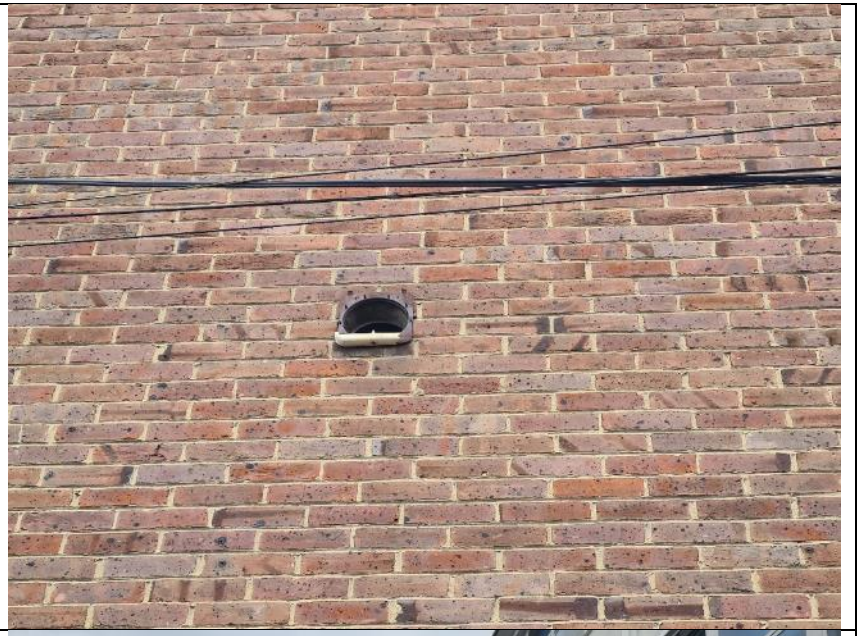
Feature	Description	Photographs
Historical records	A search of the MAGIC database returned no granted EPSLs for bats within 2km of the site.	N/A

Bat foraging and commuting habitat *Figure 8*	The scattered trees on site provide some foraging and commuting opportunities, however the trees are sparse and have poor connectivity to the wider landscape. The site is deemed to provide **low** habitat value for foraging and commuting bats. The site is surrounded by suburban dwellings and gardens, as well as allotments to the north. There are sparsely scattered trees in the surrounding land which again provide some foraging and commuting opportunities. In the wider landscape there are parks and golf courses. Parklands and golf courses generally provide excellent opportunities for foraging and commuting bats, due to the mosaic of habitats present and the lack of artificial light.	
B1 – Overview *Figure 9*	B1 is not being impacted under the proposed development and therefore was not subjected to a detailed PRA.	

B2 – Overview *Figure 10*	B2 is due to be completely demolished under the proposed development. B2 is a three-storey, brick-built building with render and weatherboards on some of the external facades. The brickwork was largely in good condition, however there were some unsealed vent holes (yellow arrow Figure 10, Figure 11 & 16), cladding gaps (Figure 15) and crumbling render (Figure 13) which create gaps that may provide roosting sites or access points for bats. There are flat roofs across the building which were inspected both from ground level and from the roof top. They are large clad in bitumen felt (with some bare concrete roofs). The felt appears well-sealed across the roof structure and provides no roosting sites for bats. There are timber soffits and fascias around the east wing of B2. One soffit gap and an area of lifted fascia board were identified, these could provide roosting sites for bats. The remainder of the building had no soffits or eaves as the exterior walls join directly to the flat roof. The windows and doors are a combination of metal and timber-framed. They are all well-sealed and tight-fitting to the surrounding structure, providing no roosting sites for bats.	
B2 – Eastern elevation *Figure 11*	Vent holes identified in a third-floor, rooftop section of B2 may provide access into cavity walls or the interior of B2.	

B2 – Eastern elevation *Figure 12*	The adjacent photo shows the eastern elevation of B2. Areas of crumbling render are indicated by a red arrow.	
B2 – Eastern elevation *Figure 13*	A close-up of areas of crumbling render. Gaps were present behind the render which may provide roosting sites for bats	

B2 – Northern and western elevations *Figure 14*	The adjacent photo shows the northern and western elevations of B2. Corrugated cladding on the northern elevation (indicated by a red arrow) was poorly sealed and may provide roosting sites for bats. A unsealed vent hole is present on the western elevation (yellow arrow) which may provide an access point or roosting site for bats.	
B2 – Northern elevation *Figure 15*	Gaps present around the cladding are indicated by red arrows in the adjacent photo.	

B2 – Western elevation *Figure 16*	A close-up of the unsealed vent gap on the western elevation.	
B2 – Western elevation *Figure 17*	The western elevation is shown in the adjacent photo. No bat roosting features were identified here.	

B2 – East wing *Figure 18*	There is weatherboard cladding on the northern elevation of the East Wing. No bat roosting features were identified here.	
B2 – East wing, western elevation *Figure 19*	There appeared to be a soffit gap in the northeast corner of the East Wing. This could provide a rooting site for bats.	

B2 – East wing, southeast corner *Figure 20*	The fascia boards in the southeast corner of the east wing appeared slightly lifted and may provide roosting sites for bats.	
B2 – Interior *Figure 21*	There are no loft spaces with B2 due to the flat roofs, however two small rooms are present on the roof which provide roof access. The interior of one was inspected, it is constructed with smooth concrete walls and a flat concrete ceiling. There were no roosting opportunities for bats within.	

B2 – Suitability assessment	Overall, it is assessed that B2 provides **low** habitat value for roosting bats. The small number of features present (i.e. vent holes, crumbling render, gaps under cladding and fascia gaps) may provide roosting opportunities for a small number of bats. No bat evidence of identified internally or externally on B2.	N/A
B2 - Breeding birds and other incidental observations	No evidence of breeding birds was identified on or within B2. B2 provides negligible nesting opportunities for birds.	N/A
B3 – Overview *Figure 22*	B3 is not being impacted under the proposed development and therefore was not subjected to a detailed PRA.	

B4 – Overview *Figure 23*	The roof structure and exterior of B4 is not being impacted under the proposed development and therefore was not subjected to a detailed PRA.	
B5 – Overview *Figure 24*	B5 is due to be completely demolished under the proposed development. B5 is a single-storey, prefabricated, temporary teaching block. It is constructed from prefabricated sheets covered with a pea-shingle render. There are no gaps in the exterior walls of the building. There are flat roofs across the building which are clad in bitumen felt. The felt appears well-sealed across the roof structure and provides no roosting sites for bats. There are pea-shingle rendered fascias around the building. These are well-sealed and provide no roosting sites for bats. There are metal windows and doors. These are all well-sealed and tight-fitting to the surrounding structure, providing no roosting sites for bats.	

B5 – Suitability assessment	Overall, it is assessed that B5 provides **negligible** habitat value for roosting bats due to a lack of identifiable roosting features. No bat evidence was identified internally or externally on B5.	N/A
B5 - Breeding birds and other incidental observations	No evidence of breeding birds was identified on or within B5. B5 provides negligible nesting opportunities for birds.	N/A
T1-T4 – Suitability assessment *Figure 25*	There are four young hornbeam trees in the playground adjacent to B2 and B3 which are due to be removed under the proposed development (grid reference: TQ 09032 81310). No roosting features were identified on any of the trees, therefore they are deemed to provide **negligible** habitat value for roosting bats.	

Scattered trees – Overview *Figure 26*	No other trees on-site are to be impacted under the proposed development, however several trees appeared old and mature enough that roosting features may be present and therefore these trees may provide roosting sites for bats.	
All trees – breeding birds and other incidental observations	No evidence (i.e. nests) was identified in any of the trees on site, however the trees do provide nesting resources and opportunities for breeding birds.	N/A

Other Species

An assessment of the suitability of the site for protected or notable species is provided in Table 7.

Table 7: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability	Biological records data
Amphibians	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 et al. 2001). There are no ponds present within the site boundary, however a review of aerial imagery indicates the presence of two ponds within 500m of the site, located 380m and located 410m to the east. These ponds are separated from the site by urban infrastructure including tarmac roads, buildings, walls and fences. These landscape features are suboptimal for great crested newts due to a lack of refuge from predation. As a result, these landscape features are likely to represent a significant barrier to dispersal eliminating connectivity to the site for great crested newts. Some areas of grass on the school playing fields had been left unmown and provide a small number of foraging opportunities for common amphibians but there are no features on the site which could be utilised for shelter or hibernation.	A review of the MAGIC database returned three granted EPSL records for great crested newts within 2km of the site. The closest record is located ~1.63km to the southeast. The other two are located ~1.75km to the northwest.
Reptiles	The site largely consists of hardstanding and fields of frequently mown grass with a short sward. These areas are sub-optimal for reptiles due to a lack of refuge from predation. Some foraging, basking and sheltering opportunities may be afforded to reptiles in a patch of unmown grassland at the western site boundary and within the hedgerows in the northwest corner. The site provides no opportunities for hibernation. The site is isolated from other areas of suitable reptile habitat in the wider landscape by manmade infrastructure, such as roads and buildings.	A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site.
Hedgehog	As for reptiles, the hardstanding and mown grassland is sub-optimal for hedgehogs due to a lack of shelter. Opportunities for foraging and sheltering are afforded to hedgehogs within the longer grass and hedgerow. There are no hibernation opportunities on-site. The metal fences around the site had gaps large enough that hedgehogs can access the site from neighbouring gardens.	Records data for hedgehogs are not held on the MAGIC database.
Birds	B2 and B5 provide no identifiable nesting opportunities for birds. B1, B2 and B4 were not inspected for evidence of nesting activity as they won't be affected. All trees present on-site (including T1-T4) provide nesting opportunities and nest-building resources for birds.	Records data for birds are not held on the MAGIC database.
Invertebrates	The vegetation (trees, shrubs hedgerows, grassland) provide foraging and sheltering opportunities for common invertebrates.	Records data for invertebrates are not held on the MAGIC database.
Other mammals	**Badger** No evidence of badgers (e.g. latrines, snuffle holes, hairs, mammal trails) or badger setts were identified on or within influencing distance (30m radius) of the site. The site is not suitable for future sett excavation due to a largely level topography throughout and lack of wooded areas where badgers prefer to live.	**Badger** Records data for badgers are not held on the MAGIC database.

	Hazel dormouse There are no tree lines or hedgerows with connectivity to areas of suitable dormouse habitat in the wider landscape. The site is, therefore, not suitable for hazel dormice. **Otter and Water vole** There is no connectivity to water courses or riparian habitats in the wider landscape. The site is, therefore, not suitable for otters or water voles.	**Hazel dormouse** A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the sites. **Otter and Water vole** A review of the MAGIC database returned no granted EPSL records for otters within 2km of the sites. Records data for water voles are not held on the MAGIC database.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 8 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the demolition of two buildings (EFAB & EFAE) and construction of two new buildings, as well as the construction of two temporary buildings during construction phases.

Table 8: Evaluation of the site and any ecological constraints

Feature	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities[1]
Designated sites	There is one statutory site within 2km of the site: Yeading Meadows LNR is located ~1.22km northeast from the site. Data available from Greenspace Information for Greater London (GiGL) indicates the presence of 12 non-statutory sites within 2km of the site, the closest being St Mary's, Wood End SINC located ~0.33km east from the site.	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.	None.	None.

[1] The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

Habitats and flora	The site contains hardstanding, grass playing fields, a hedgerow and scattered trees. There are no notable habitats within the site but three habitats are present within 2km of the site, the closest being lowland mixed deciduous woodland located ~315m from the site. No protected or notable plant species were recorded during the survey.	The proposed development will result in the demolition of B2 and B5. Two temporary buildings (including a temporary school block and site office) will be erected on the school playing fields, resulting in a temporary loss of ~0.16Ha modified grassland. These areas will be reinstated as school playing fields post-development. There is also likely to be a significant disturbance of ~0.59Ha of modified grassland during development, due to vehicle access and construction activities. Two new permanent school buildings will be erected: one on hardstanding car park and one on sealed-surface Multi-Use Games Area (MUGA). Both of which have negligible ecological value. The footprint of B2 will largely be replaced with hardstanding playground, with some new areas of landscaping (~0.05Ha). A new ~0.39Ha playing field will be created covering the footprint of B5. ~0.10Ha of hardstanding playground will be replaced with landscaped areas during the development.	Retained trees and hedgerows should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012). Best practice measures to minimise the possibility of pollution must be implemented during construction.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development: • Green roofs on new buildings. • Creation of a wildlife pond containing submerged and marginal plants. These should be native UK species, such as native flag iris (*Iris pseudacorus*), marsh marigold (*Caltha palustris*) and hornwort (*Ceratophyllum demersum*). • Planting of wildflower grassland. • Planting of native shrubs to create sheltering areas for wildlife. Species-specific enhancement opportunities are detailed later in this table.

		No impacts to any notable habitats are anticipated due to the and distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.		
Amphibians	There are no suitably connected ponds within 500m of the site, therefore it is not considered suitable for great created newts. There may be sheltering and foraging opportunities for common amphibians within areas of long grass and hedgerow on-site.	No impacts are anticipated on great crested newt, as a result of the proposed development as this species is considered to be absent from the site. There will be no impacts to areas of suitable amphibian habitat on-site.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for amphibians: • Creation of a wildlife pond, as stated above.
Reptiles	There may be sheltering and foraging opportunities for reptiles within areas of long grass and hedgerow on-site.	No impacts are anticipated on reptiles as a result of the proposed development.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for reptiles: • Creation of a wildlife pond, as stated above. • Creation of reptile hibernacula using rubble from site clearance. Information on how to contract a reptile hibernaculum can be found here: https://www.wiltshire-wildlife.org/hibernacul-um • Planting of areas of scrub to create foraging opportunities.

Roosting bats (B2)	In line with Good Practice Guidelines (Collins, J. (Ed) 2016), B2 has low value for roosting bats due to a small number of features present on the exterior of the building, including crumbling render, vent holes, cladding gaps and soffit gaps. These could provide roosting sites for small numbers of crevice-dwelling bats.	The proposed development will result in the demolition of this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	One bat emergence or re-entry survey is required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely-absence of a bat roost in the building. Infra-red cameras should be used as an aid. Eight surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building two additional surveys may be required to characterise the roost and to inform an EPSL application to Natural England. Surveys should be a minimum of two weeks apart. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	To be confirmed upon completion of the surveys.
Roosting bats (B5)	In line with Good Practice Guidelines (Collins, J. (Ed) 2016), B5 has negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on roosting bats as a result of the demolition of this building.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	To be confirmed upon completion of the surveys.
Roosting bats (B1, B3 and B4)	B1, B4 and B5 were not surveyed for bat roosting features as they are not being impacted under the proposed development.	As is understood, B1, B3 and B4 are not being impacted under the proposed development. If plans change and these are to be affected then a full PRA will be required.	None.	To be confirmed upon completion of the surveys on B2 and B5.
Roosting bats (T1-T4)	In line with Good Practice Guidelines (Collins, J. (Ed) 2016), T1-T4 have negligible value for	Bats are very unlikely to be roosting within these trees and as such, there are not anticipated to be any impacts on roosting bats	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	To be confirmed upon completion of the surveys on B2 and B5.

	roosting bats due to a lack of potential roost features.	as a result of the felling of these trees.		
Roosting bats (Scattered trees)	The remaining trees on-site were not surveyed for bat roosting features as they are not being impacted (felled or pruned) under the proposed development.	As is understood, no other trees are being impacted under the proposed development. If plans change and these are to be affected then a full PRFA will be required.	None	To be confirmed upon completion of the surveys on B2 and B5.
Foraging and commuting bats	**Foraging and commuting habitat** Scattered trees around the site could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site. They are, however poorly connected to the wider landscape and therefore are likely to be suboptimal as commuting features.	**Foraging and commuting habitat** The proposed development will result in the loss of four trees located within a school playground. Given their sub-optimal location, within an expansive area of hardstanding and the presence of more extensive areas of foraging and commuting habitat in the locality, their loss is likely to be inconsequential for bats. **Artificial lighting** The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	**Foraging and commuting habitat** None. **Artificial lighting** A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Light spill on to retained trees and hedgerows should be avoided. • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: • Creation of a wildlife pond, as stated above. • Planting of native tree, shrub and hedgerows to increase foraging opportunities.

			• Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.	
Hedgehog	There may be sheltering and foraging opportunities for hedgehogs within areas of long grass and hedgerow on-site.	Modified 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.	A precautionary working method will be implemented during construction, including the following measures: • A staged approach will be adopted for vegetation clearance (i.e. grassland and shrubs), whereby the vegetation will be strimmed to 30cm and left overnight to allow any hedgehogs to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter hedgehogs from the working area. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: • Planting of wildflower grassland to increase foraging opportunities. • Planting of native shrubs to provide sheltering opportunities. • Creation of log piles using materials from site clearance.

			• 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.	
Birds	B2 and B5 did not appear to provide any nesting opportunities for nesting birds. B1, B4 and B5 were not inspected for nesting opportunities as they will not be impacted under the proposed development. All trees on-site (including T1 – T4) provide nesting resources and nesting opportunities for birds.	Four trees will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the trees should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.	The installation of six sparrow terraces (e.g. Vivara Pro WoodStone House Sparrow Nest Box or similar alternative brand) at the site will provide additional nesting habitat for birds. Three sparrow terraces will be installed on each of the new buildings. Sparrow terraces can be integrated into the fabric of the building during construction and should be positioned close together as sparrows prefer to nest communally. The boxes are best placed 3m above ground level, on a north or east elevation, where they will be sheltered from prevailing wind, rain and strong sunlight.

Invertebrates	The site likely supports common invertebrate species.	No impacts are anticipated on notable species or populations of invertebrates as a result of the proposed development.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates: • Creation of deadwood piles using materials from site clearance. • Incorporation of bee bricks into the fabric of new buildings. These should be installed ½m above ground level on a south-facing elevation with no obscuring vegetation. • Creation of a wildlife pond, as stated above. • Planting of native wildflower species, to provide foraging opportunities for pollinators.
Other mammals	The site does not provide suitable habitat for badger, hazel dormouse, otter or water vole.	No impacts are anticipated on badgers, hazel dormice, otters or water voles as a result of the proposed development.	None.	None.

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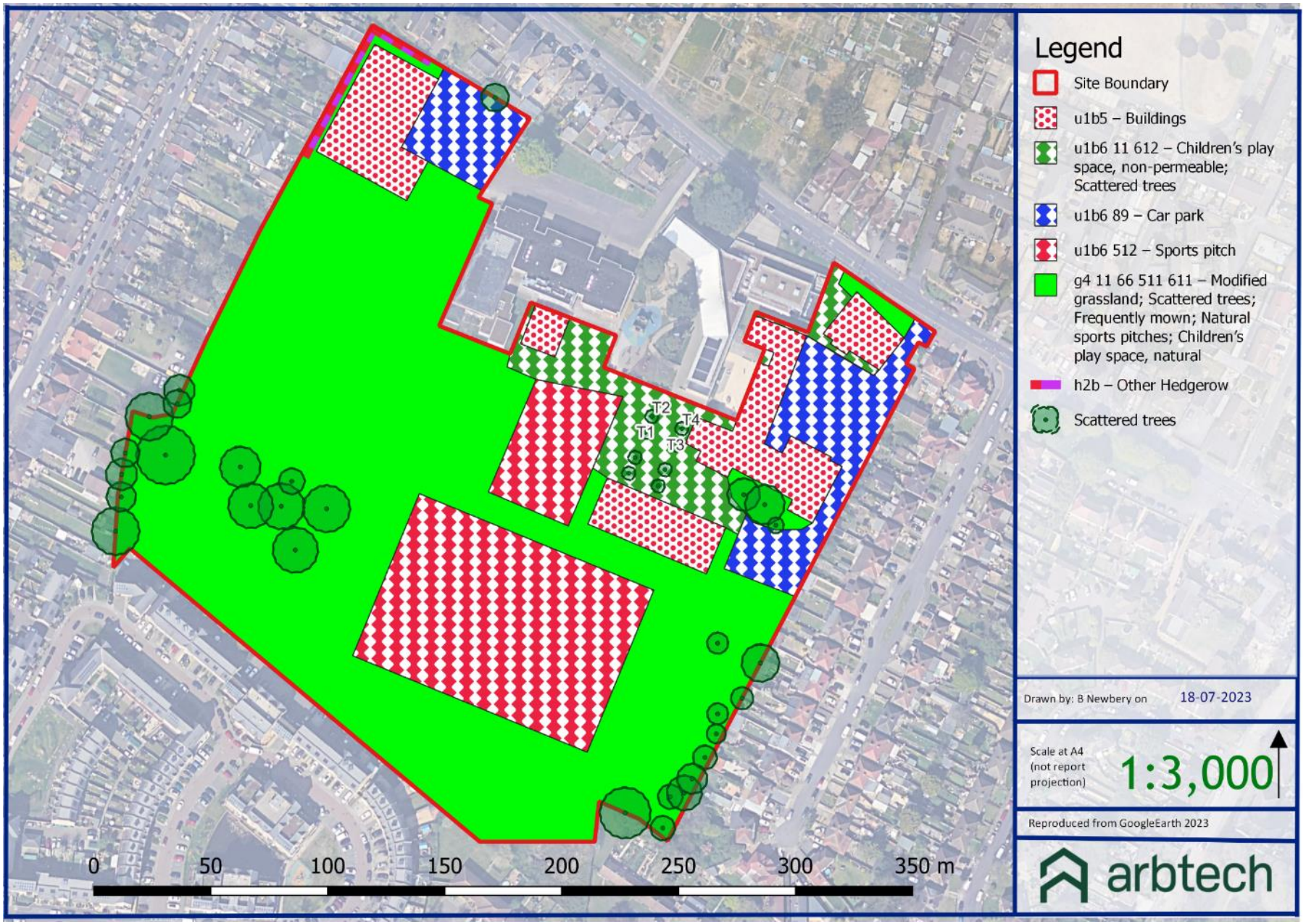
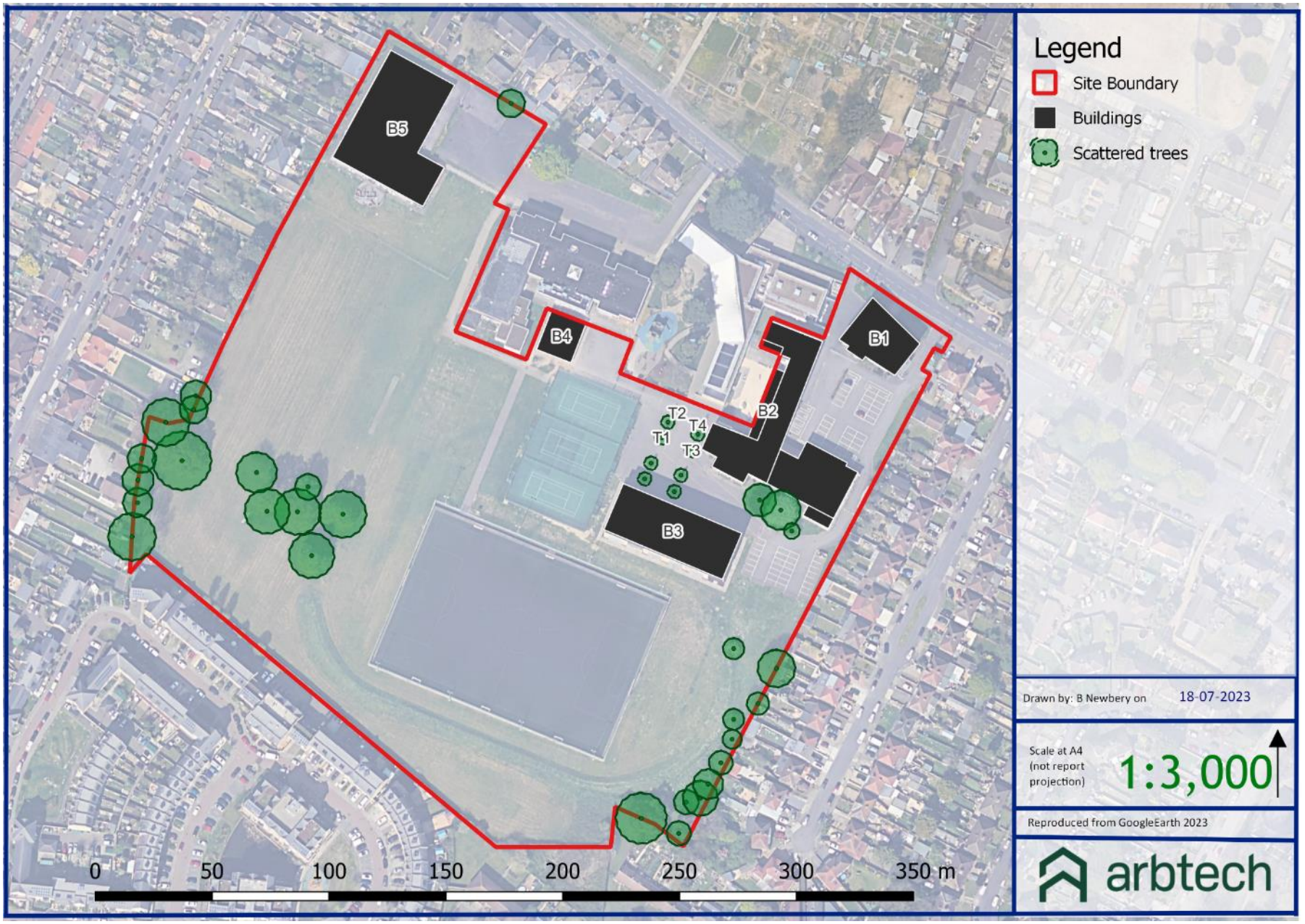
Appendix 1: Proposed Development Plan

Appendix 2: Site Location Plan

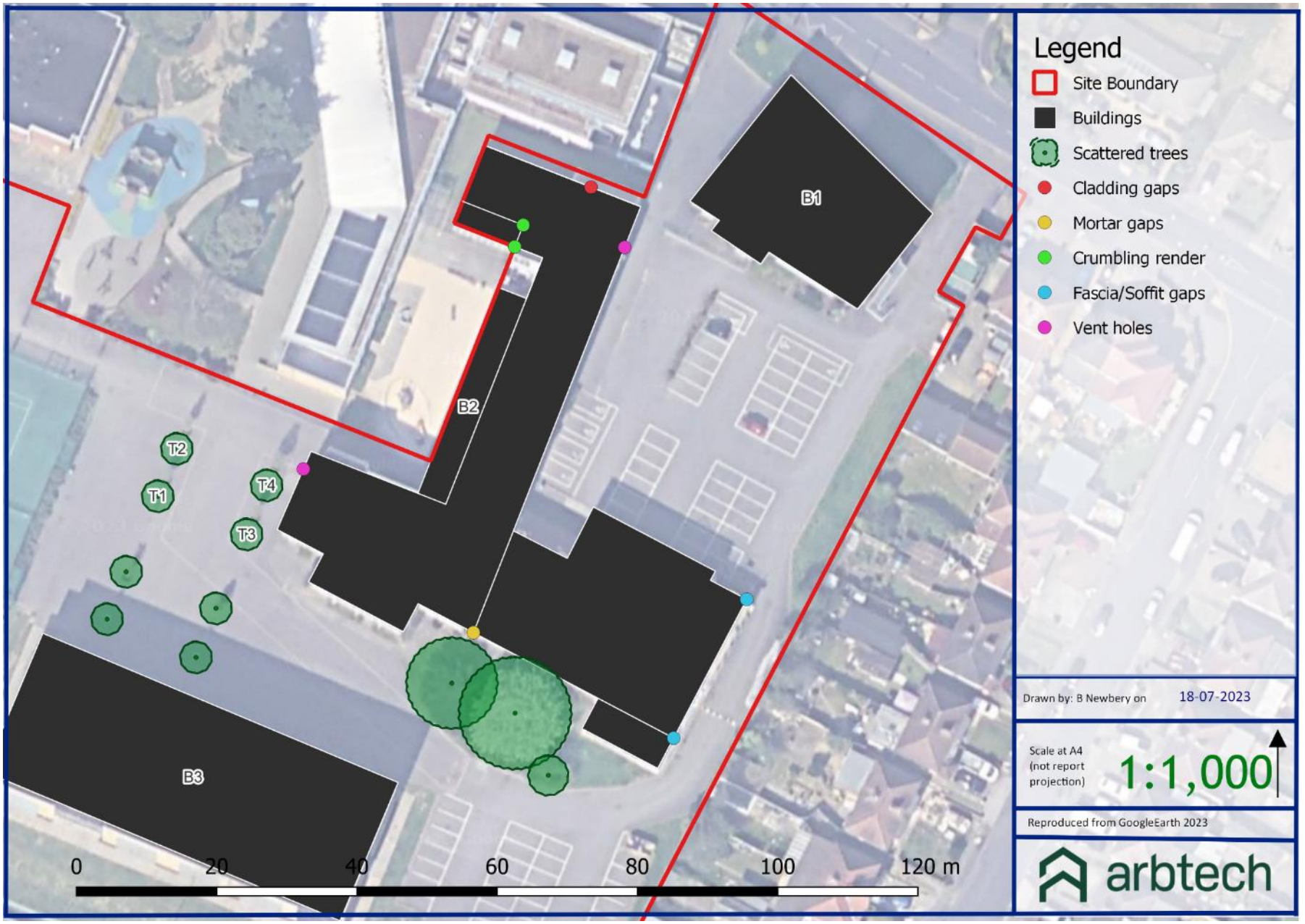
Appendix 3a: Habitat Survey Plan



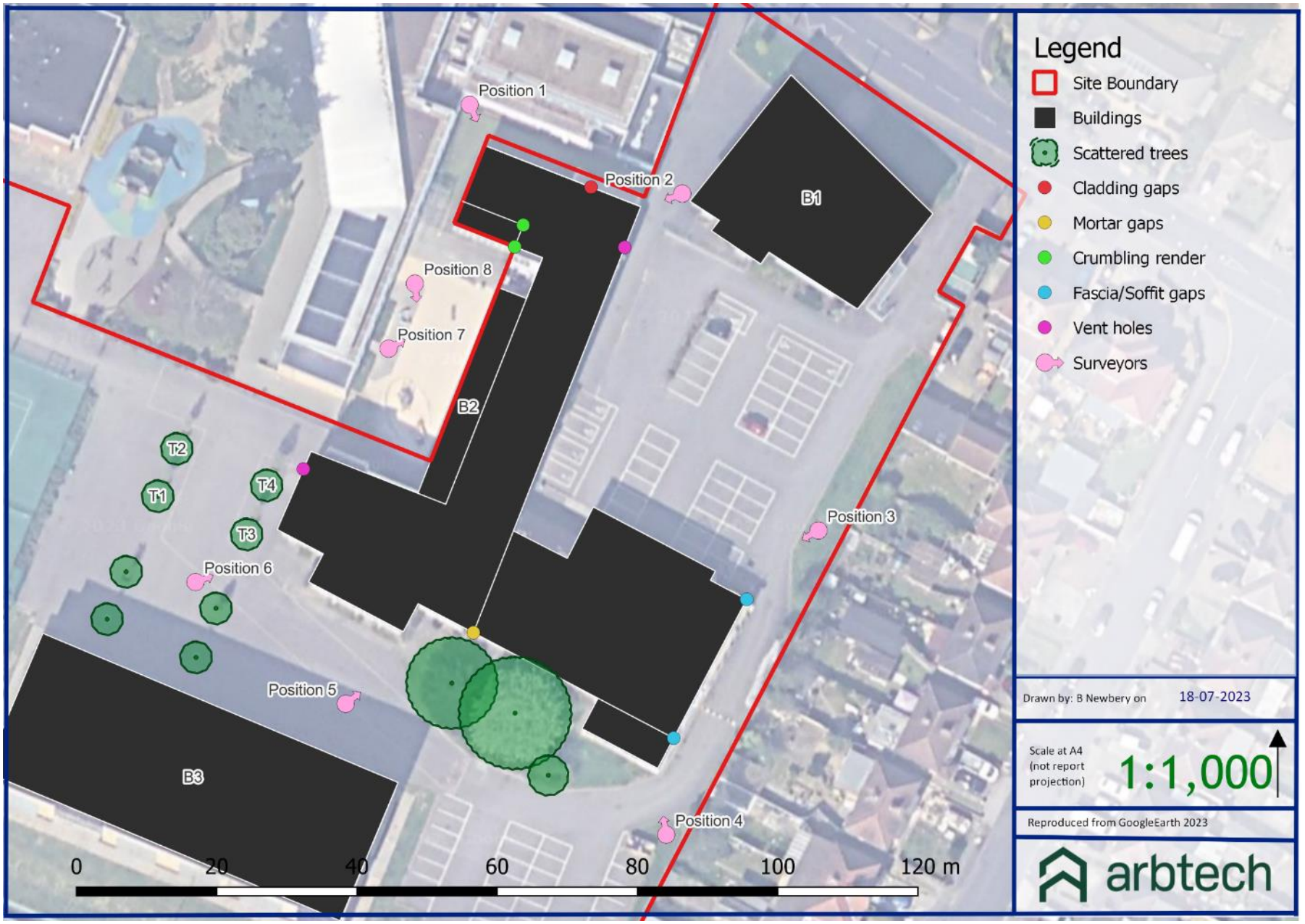
Appendix 3b: PRA Plan (Overview)



Appendix 3c: PRA Plan (B2)



Appendix 3d: Proposed BERS Plan (B2)



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

Annex V species (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as "*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*". However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect ‘important’ countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof

- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A development licence will be required from the relevant countryside agency (i.e. Natural England) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence 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 an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Amphibians and Reptiles

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSL. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

The relevant countryside agency (i.e. Natural England) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and

executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY

Environment Act 2021

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

LOCAL PLANNING POLICY

Hillingdon Local Plan: Part 1 - Strategic Policies (Adopted November 2012)

The Hillingdon Local Plan can be viewed here: https://www.hillingdon.gov.uk/media/3080/Local-Plan-Part-1---Strategic-Policies/pdf/npLocal_Plan_Part_1_Strategic_Policies_15_feb_2013_a_1_1.pdf?m=1598370401647

The following planning policies have implications in relation to biodiversity and the proposed development:

- EM1: Climate Change Adaptation and Mitigation - Promoting the use of living walls and roofs, alongside sustainable forms of drainage to manage surface water run-off and increase the amount of carbon sinks
- Policy EM7: Biodiversity and Geological Conservation:
    - The protection and enhancement of populations of protected species.
    - The provision of biodiversity improvements from all development, where feasible.
    - The provision of green roofs and living walls which contribute to biodiversity and help tackle climate change.
    - The use of sustainable drainage systems that promote ecological connectivity and natural habitats.
- SO8: Protect and enhance biodiversity to support the necessary changes to adapt to climate change. Where possible, encourage the development of wildlife corridors.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to ‘local populations’ of EPS and not individuals/site populations.