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Inspection & Assessment in relation to Bats & Breeding Birds

November 2024

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Woodville Sure Start and Children's Centre

Shirley Road
Cheetham
Manchester
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Executive Summary

As part of a proposed planning application with Manchester City Council concerning Woodville Sure Start and Children's Centre in Cheetham, Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in October 2024.

The survey was commissioned by Drees & Sommer; proposals entail the decarbonisation of the site through the incorporation of an Air Source Heat Pump (ASHP), which is understood to be placed on an existing landscaped area, and the installation of a PV solar panel on a pitched section of the roof.

Detailed methods, findings, conclusions and recommendations are presented throughout the report; however, the reader should be aware of the following **Key** points:

Biodiversity Gain

Based on the information gathered during the diurnal assessment, the site is host to the following biodiversity value:

- Habitat: **4.32**
- Hedgerow: **0.08**
- Watercourse: **0.00**

However, based upon the information provided at the time of writing, it is understood that the ASHP to be installed at the site, which will be placed within an area of modified grassland, is smaller than 25m^2 in size.

*As such Woodville Sure Start and Children's Centre is likely **exempt** from the Biodiversity Gain Planning Condition under the de minimis exemption; the proposals do not impact on any priority habitats, and less than 25m^2 of area habitat onsite will be affected.*

Bats:

Based upon the findings of the DBW and associated GLTA, covered through sections 5.0 – 6.0 of the report and supported by **Appendix I**, Woodville Sure Start and Children's Centre is determined to pertain to a bat roost suitability of '**Moderate**', in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey[a] (structures). No further surveys required (trees).	Two separate dusk emergence survey visits[b].	Three separate dusk emergence survey visits[b].

While this would normally lead to the requirement of two dusk emergence surveys within the active season of bats (May – August inclusive), close analysis of the proposals provided to the author suggests that surveys are not necessary. The only works proposed to the structure entail the installation of a PV solar panel onto the roof pitch; as such, this will not have any effect on any PRFs located on the building, which are all located at the soffits and as such will

be retained in full. However, the PRFs located at the soffits could feasibly offer access to the roof lining at the wall-plate level, and thus the installation of the solar panel, which is likely to extend into the loft void, could impact upon any bats roosting within the space.

In considering the above, impacts to bats can be conclusively avoided at the site by timing the installation of the solar panel within the bat hibernation season of November – March.

In addition to the above, on a purely precautionary basis, it is recommended that a suitably qualified Ecologist supervises any part of the solar panel installation process that extends into the loft void.

It is considered that, despite the 'Moderate' categorisation of the building in relation to bat roost suitability, by incorporating the above timings and supervision methods, impacts to bats can be conclusively ruled out from the development.

Breeding birds:

No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as peregrine, and no further surveys or recommendations are necessary in relation to specially protected birds, with no viability of nesting within the site boundary. No recommendations are necessary in relation to wider breeding birds, with the areas of potential suitability on the soffits of the building, alongside the numerous trees onsite, not to be affected by the proposals, and no suitability for nesting on the roof pitch where the PV panel will be placed.

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1.0 Introduction & Reasons for Survey

1.1 As part of a proposed planning application with Manchester City Council concerning Woodville Sure Start and Children's Centre in Cheetham, Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in October 2024.

1.2 The survey was commissioned by Drees & Sommer; proposals entail the decarbonisation of the site through the incorporation of an Air Source Heat Pump (ASHP), which is understood to be placed on an existing landscaped area, and the installation of a PV solar panel on a pitched section of the roof. See **Figure 1.1** for a site location plan.

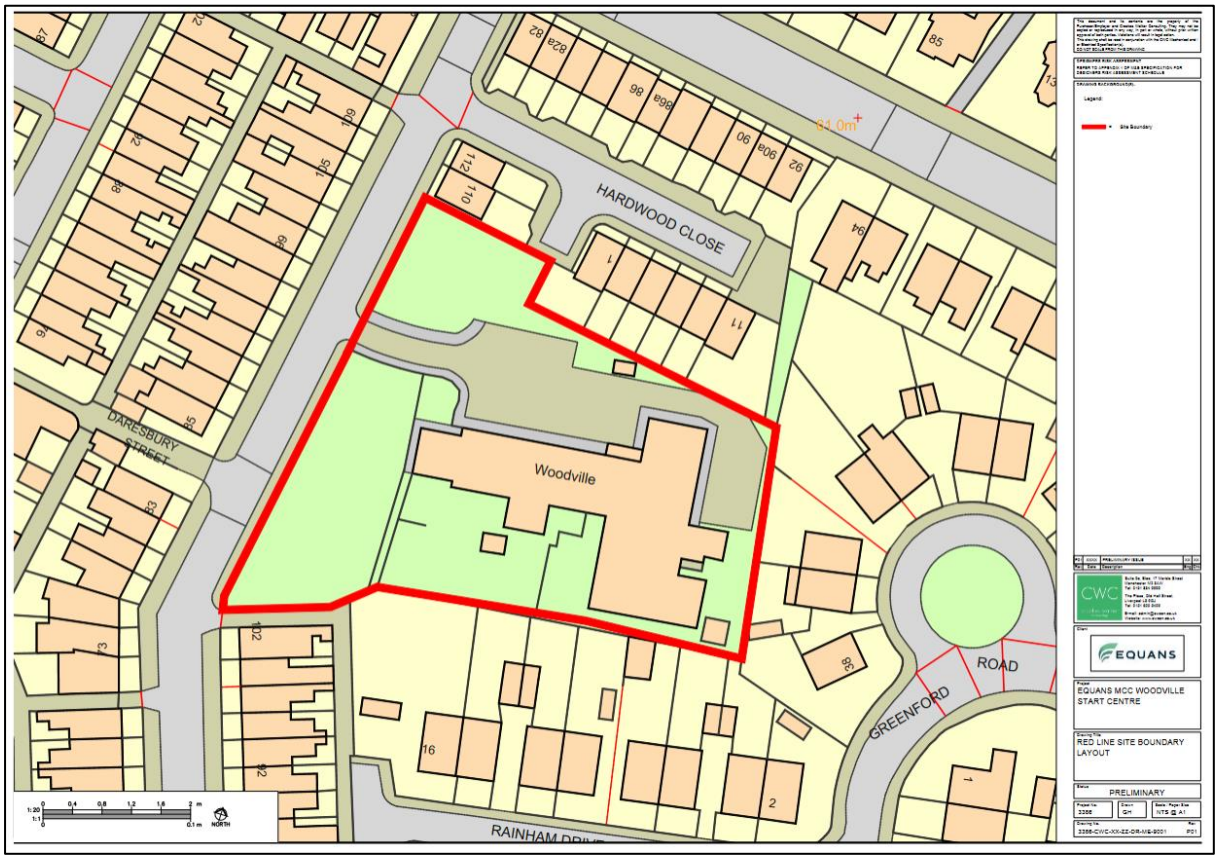


Figure 1.1 – *Site location plan © Crookes Walker Consulting*

1.3 The aim of the survey was to ascertain if the structure is of value to bats, whilst an assessment of nesting and general suitability for birds was also carried out. If any potential roost features (PRFs) were found to be suitable for bats, or signs of use were observed, where suitable habitats and / or bat records exist in the locality, then more detailed surveys would be recommended i.e. dusk emergence surveys during the main active season of bats which is May – August (extending into September).

1.4 If additional surveys are required following the initial site visit, this report will outline the details of those further requirements, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).

1.5 If it was determined that bat(s) or their roost / place of rest / shelter will be subsequently impacted by the works then a European Protected Species (EPS) licence would be legally required to proceed with the development.

1.6 If evidence indicated breeding birds may be impacted by proposals, tailored recommendations would be made accordingly, species pending.

1.7 As part of the local authority's planning policies and obligations to the Planning Framework, ecological surveys are generally required prior to planning permission being granted where protected / priority habitats and species are, or may be present, that could be affected by the proposals for which the application seeks consent. Where more detailed surveys are recommended by the ecologist, following an initial daytime investigation, then Local Planning Authorities (LPA), on the advice of their ecological advisors, will not grant permission until such time that all relevant information is gathered.

Biodiversity Gain

1.8 In addition to the above, the survey aimed to ascertain the baseline value of the habitats on site, to allow for the completion of a 'Biodiversity Statement'. Habitats would thus be identified, measured and mapped using UK Habitat Classification – Habitat Definitions Version 2.0 (2023), before they would be condition assessed in accordance with Biodiversity Net Gain Principles and Rules (DEFRA, July 2024) covered in the most recent User Guide.[1]

[1] See: https://assets.publishing.service.gov.uk/media/669e45fba3c2a28abb50d426/The_Statutory_Biodiversity_Metric_-_User_Guide__23.07.24_.pdf

2.0 Protected Species & Their Requirements

Bats

2.1 All British bats and their **roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2019) (EU Exit). When dealing with cases where an EPS (all UK bats) may be affected, a planning authority is a competent authority within the meaning of Regulation 7 of the Regulations, and therefore has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Uses of Buildings by Bats

a) Summer breeding roost (May – August)
b) Hibernation roost (October – March)
c) Transitional or temporary roost (other months)

2.3 Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance; climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

*** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to "a breeding site or resting place of such an animal" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.*

2.4 Up to ten bat species have been recorded within Greater Manchester to date, most of which use built structures, notably occupied residential buildings, for roosting. The most frequently encountered bat species is the common pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Manchester is reflected throughout the UK.

Breeding birds

2.5 All wild birds, no matter how common, their eggs, young and nests, whilst being built or occupied, are protected under both the Wildlife and Countryside Act (WCA 1981) and Natural Environment and Rural Communities Act (NERC Act 2006).

2.6 Any work that would damage an occupied nest, eggs or young of breeding birds, regardless of priority status, must be avoided; any damage to nests that may occur as a result of the development should be outside of the main breeding bird season (March – August). On occasions nests can become unoccupied during the breeding season but the status of the nest(s) should be determined by a suitably experienced ecologist / ornithologist.

2.7 Birds listed on Schedule 1 (Sch.1) of the WCA 1981, for example peregrine (*Falco peregrinus*) are afforded a greater level of protection and are safeguarded also from disturbance. This raptor is known to inhabit urban environments, where suitable nesting sites, such as churches, cathedrals and other taller structures, coincide with an abundance of prey items in the form of urban bird species, including feral pigeon.

Policy

2.8 Paragraph 186 of the National Policy Planning Framework (as revised in December 2023) states:

"When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

2.9 Policy EN 15 of the Manchester City Council Core Strategy 2012 – 2027 entitled 'Biodiversity and Geological Conservation' echoes this national focus on preserving and enhancing biodiversity for the benefit of protected species, and says:

"The Council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given to:

- *priority habitats found within Manchester, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP);*
- *protected and priority species, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP);*
- *the Council's objective to protect and conserve the City's existing trees and woodlands and the aim for a net increase in trees across the City.*

Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially valuable habitat areas where appropriate, with reference to:

- *the Manchester Biodiversity Strategy, which provides further details of priority habitats within Manchester and opportunities for biodiversity enhancement including corridors such as the Mersey, Medlock and Irk river valleys, the canals and disused railway lines and areas of managed greenspace particularly in parks;*
- *the Green Infrastructure Framework for Greater Manchester, which encompasses an ecological framework that seeks to guide and inform habitat creation and repair, including identifying large 'biodiversity opportunity areas' including the Moston Brook Corridor and Nutsford Vale;*
- *the Open Space, Sport & Recreation Study, which identifies areas where there is a deficit of natural and semi-natural greenspace, opportunities for green corridors and other linkages;*
- *Manchester's Climate Change Action Plan;*
- *the Strategic Flood Risk Assessment (SFRA) for Manchester;*
- *the Habitats Regulations Assessment (HRA) for Manchester, which gives detailed consideration to Special Areas of Conservation (SACs), including the Rochdale Canal SAC just outside the district boundary;*

- *the River Basin Management Plan for the North West;*
- *the Manchester Tree Strategy.*

Any adverse impacts on biodiversity will need to be justified against the wider benefits of the proposal, assessed against other LDF policies. Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation.

Development should wherever possible seek to maintain, enhance or restore existing geology."

Biodiversity Gain

2.10 The National Planning Policy Framework (NPPF), revised in December 2023, legislates net gain in biodiversity through paragraphs 180(d), 185(b) and 186(d). An effort should be made, therefore, through the development design to provide ecological enhancement in order to deliver an overall increase in biodiversity, and opportunities to incorporate biodiversity in and around developments should be encouraged.

2.11 The Environment Act 2021 ('The Act') came into force in November 2021. Aspects of the Act relating to BNG came into force on the 12th February 2024, whereby BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

2.12 The Act is supported by secondary legislation, consisting of six statutory instruments laid within law, of which the relevant legislation includes:

- The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024[2]
- The Biodiversity Gain Site Register Regulations 2024[3]
- The Biodiversity Gain Site Register (Financial Penalties and Fees) Regulations 2024[4]
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024[5]
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024[6]
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 [7]

Priority Habitats & Species

2.13 In the United Kingdom, legal protection and otherwise legislative recognition is afforded to particular habitats and species based on a variety of ecological factors. These are typically referred to as priority habitats and species, and can be identified under a variety of legislation and local policy, notably the UK Biodiversity Action Plan (UKBAP), Section 41 (s.41) of the NERC Act as well as under Local Biodiversity Action Plans (LBAPS).

[2] https://www.legislation.gov.uk/uksi/2024/44/contents/made
[3] https://www.legislation.gov.uk/uksi/2024/45/contents/made
[4] https://www.legislation.gov.uk/uksi/2024/45/contents/made
[5] https://www.legislation.gov.uk/uksi/2024/47/contents/made
[6] https://www.legislation.gov.uk/uksi/2024/48/contents/made
[7] https://www.legislation.gov.uk/uksi/2024/50/contents/made

3.0 Survey Methodology

3.1 As part of the Inspection & Assessment in relation to Bats & Breeding Birds report, a desk-top and field-based study is conducted. Methods for both components of the appraisal are given below.

Desktop study

3.2 Prior to a site visit, a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations for nature conservation within 2.0 kilometres of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGiC – provided by DEFRA) was accessed to gather such information; this particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSML) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.

3.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2023/24) to help establish past use of the land and determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.

3.4 In addition, the Manchester City Council 'Planning – Public Access' online function was utilised to help inform the desktop study by analysis of existing publicly accessible ecological survey results that have been carried out locally within the previous five years.

3.5 A commercial data request to the Local Environment Records Centre serving the area – in this case Greater Manchester Local Record Centre (GMLRC) – has not been sourced and is justified through application of the following recent guidance:

1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states:

"*It is generally expected that a desk study, including a data search, will be a key part of the ecological surveys or reports produced to inform a planning application. Freely available web-based sources of data and contextual information should always be used; in some cases, it may be acceptable to not undertake a data search with the LERC or other relevant NSS or local interest groups, for example:*

ii) Situations where the ***data search would be extremely unlikely to provide information needed to inform the assessment, due to the scale and location of the proposed development****. The appropriateness of excluding a data search will need to be judged on a case-by-case basis as, in most situations, it will be essential to carry out such a search even if the development is very small or is likely to have a low impact. It can be very difficult to demonstrate that a data search would not have provided relevant information without obtaining and reviewing those data.*

iii) In some cases for Preliminary Roost Assessments of buildings in ***low impact / small-scale scenarios,*** *such as an extension to a residential property, loft conversions (full or partial), installation of Velux/dormer windows, single modern agricultural or similar building conversion or demolition; however, it should not be assumed that data searches are never required for such scenarios and this must be judged on a case by case basis and justified accordingly.*

3.6 As exemptions as made **bold** above can be applied at the site, whilst following best practice, it is considered unnecessary to conduct a commercial data request following the desk study effort and daytime assessment at this time, which offers a proportionate level of survey effort. If, however, a data search is considered necessary by the Local Authority advisory body to inform the ecological impact assessment following any further surveys recommended in this report, a proportionate data search should be commissioned with results interpreted into the conclusions and recommendations of a re-issued / updated report.

Field survey

3.7 In context with the above, a diurnal inspection and assessment of the building and the immediate environment in relation to bats and breeding birds was conducted on 22nd October 2024 in overcast conditions (10ºC), wind 1/12 (Beaufort scale), 50% cloud, by the following surveyor (see **Table 3.1**):

Table 3.1 – Site surveyor credentials

Name	Description of most relevant credentials
Mr. H. Mulligan Qualifying CIEEM	• Consultant Ecologist with 2 years training and experience, • MBiolSci in Biological Sciences (Zoology), • Accredited agent on the Natural England Class 2 bat license of Mrs K Wilding CEnv MIEMA ACIEEM (CLS-14227), • Holder of a FISC Level 3 (2023) (Botanical competency), • Meets the requirements of CIEEM's Competency Framework Section S (Surveying) to Capable level.

Bats

3.8 Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023), states:

"*The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. The questions should not be whether the guidelines were followed, but were the defined objectives of the surveys met? Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

3.9 The site was assessed for bats; a daytime bat walkover (DBW) was undertaken to observe, assess and record any habitats or features suitable for usage by bats, either as commuting, foraging or roosting provision. Wider connectivity to other habitats was also considered during the DBW.

3.10 Buildings and other permanent / semi-permanent structures (where present) were subject to a preliminary roost assessment (PRA), to identify potential areas which may be of value to bats and to determine evidence of use. This typically involves a systematic search of the external aspects of any structure(s), comprising an investigation of features known to be used by bats (for example roofing material, soffits, fascia, lead flashing hanging tiles) using a high-powered torch and close-focus binoculars, where necessary. An internal assessment of the structure(s) was also carried out, with the aid of a high-powered torch and endoscope, where necessary, to identify any evidence of bat use of a structure. Field signs of bats typically comprise bat droppings, urine splashing, fur-oil staining, incidental animal presence, dead specimens and / or the presence of prey items, such as moth wings.

3.11 Trees (where present) would be subject to a ground level tree assessment (GLTA) using equipment such as close-focus binoculars and a high powered-torch. Potential roost features (PRFs) can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached climbing species with stem diameters in excess of 50mm or pre-existing bat / bird boxes. These PRFs can then be determined as PRF-I or PRF-M, dependent on their suitability for individual / low numbers of bats or their capability to host multiple bats.

3.12 Criteria for roost assessment are based upon the determinants given in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023): (see **Figures 3.1 – 3.3** overleaf).

3.13 Factors considered during the preliminary roost assessment include:

- Practical experience of the surveyor,
- Knowledge of bat species relevant to the site location and geographical range,
- Nature of the immediate / surrounding habitat in relation to foraging opportunities,
- Presence / absence of roost potential,
- Value and types of roost potential, if present (i.e. – maternity, hibernation, transitional).

Birds

3.14 The site and any built structure(s) on site were inspected for evidence of nesting and suitability for relevant species. Bird species observed and heard were recorded on site, and a search was made for nest material, or areas suitable for nesting – this can take the form of searching structures, woody vegetation, semi-aquatic vegetation such as reeds and / or ground flora. Elevations of any buildings or structures on site were inspected for evidence of birds that show a high dependency upon built structures, many of which are in a state of decline. These might include the following species for example (list non-extensive):

- **Starling** (*Sturnus vulgaris*): Birds of Conservation Concern (BoCC) red status
- **House sparrow** (*Passer domesticus*): BoCC red status
- **House martin** (*Delichon urbica*): BoCC red status
- **Swift** (*Apus apus*): BoCC red status

3.15 Additional to the site's capacity to support generally common species for breeding, the area was also subject to an assessment for wider capacity to support species with extra protection under Sch.1 of the Wildlife & Countryside Act (1981) (as amended), as well as those listed in s.41 of the NERC Act and on the Greater Manchester BAP.

Biodiversity Gain

3.16 Assessment of baseline Area Habitat / Hedgerow / Watercourse units have been carried out and assessed separately in accordance with the guidance, principles, and rules – where present on site.

3.17 Measurement of habitats was carried out using a combination of desktop software – QGIS, Google Earth and MAGiC Maps 2023/24, whilst physical habitat measurements were also taken in the field during ground truthing, where necessary.

3.18 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, the Director of Tyrer Ecological Consultants Ltd, and her assessment is consistent with that of the surveyor Mr. H. Mulligan.

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	**Potential flight-paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible[a]	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[c]).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[b] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	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[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Figure 3.1 – *BCT guidelines extract*

Table 4.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.

Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

Figure 3.2 – *BCT extract on tree roost suitability criteria*

Table 6.2. Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats, to be applied using professional judgement.

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Figure 3.3 – *BCT extract on tree roost categorisation criteria*

4.0 Limitations

4.1 The survey took place at a time when bats are outside of their active season and birds are outside of their breeding season; as such, there is less chance of encountering direct evidence of these groups. However, suitability for these groups can be readily identified at any time of the year, and thus survey timing is not considered to be a significant constraint in this instance.

4.2 The optimal time of the year to carry out a UK Habitats survey is April to October; the survey was therefore carried out within an optimal period.

4.3 All areas were accessible internally, and there were no external visual constraints. In considering all potential survey constraints, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

5.0 Desk Study Results

5.1 The site of the proposed works (referred to in-part as "the application site" and "the site") is situated to the east of Shirley Road in Cheetham, approximately 3.2km north of Manchester city centre (see **Figure 5.1** below). The site broadly comprises a large children's centre with landscaped areas, a playground, and hardstanding parking and access.



Figure 5.1 – *Location of the red line boundary within the landscape, with coloured dots denoting Tyrer data records © Google Earth Pro 2023/24*

5.2 The immediate environment is largely sub-urban in all directions, with land use dominated by semi-detached and terraced housing with associated gardens and scattered urban trees. A railway line passes 0.2km to the east, which is lined by woodland reaching north and south-east through the development, and beyond this land use becomes more semi-natural, with a large area of urban green space comprised of grassland and woodland.

Relevant planning history

5.3 No previous planning applications have been undertaken at the site in the past 10 years. A number of applications have been undertaken within the neighbouring development, though no ecological documentation has been provided / is readily available as part of any of the applications.

Designated sites

5.4 A search of MAGiC Maps revealed that three statutory designated sites for nature conservation are present within a 2.0km search radius of the site (see **Table 5.1** for further information and **Figure 5.2** overleaf for a visual aid).

Table 5.1 – Statutory designation types and reasons for designation within 2.0km buffer

Site name	Designation type	Interest features
Blackley Forest (1.9 kilometres north-east)	Local Nature Reserve (LNR)	Natural England Citation states: "The forest makes up most of the reserve along with grassland. The River Irk flows through the park and is a main feature. There are a variety of plants and animals to see. Habitats include broadleaved and plantation woodland, grassland, lake, marsh and a river."
Boggart Hole Clough (0.5 kilometres north)	LNR	Natural England Citation states: "The site is the largest woodland clough in Manchester and part is ancient woodland."
The Cliff / Kersal Dale (1.7 kilometres west)	LNR	Natural England Citation states: "The site is also known as Kersal Dale. Habitats include woodland 70%, open water 5%, marsh 5% and semi-natural grassland 20%. Home to a variety of spectacular wildlife such as woodpeckers and kingfishers which can be regularly spotted along the river."

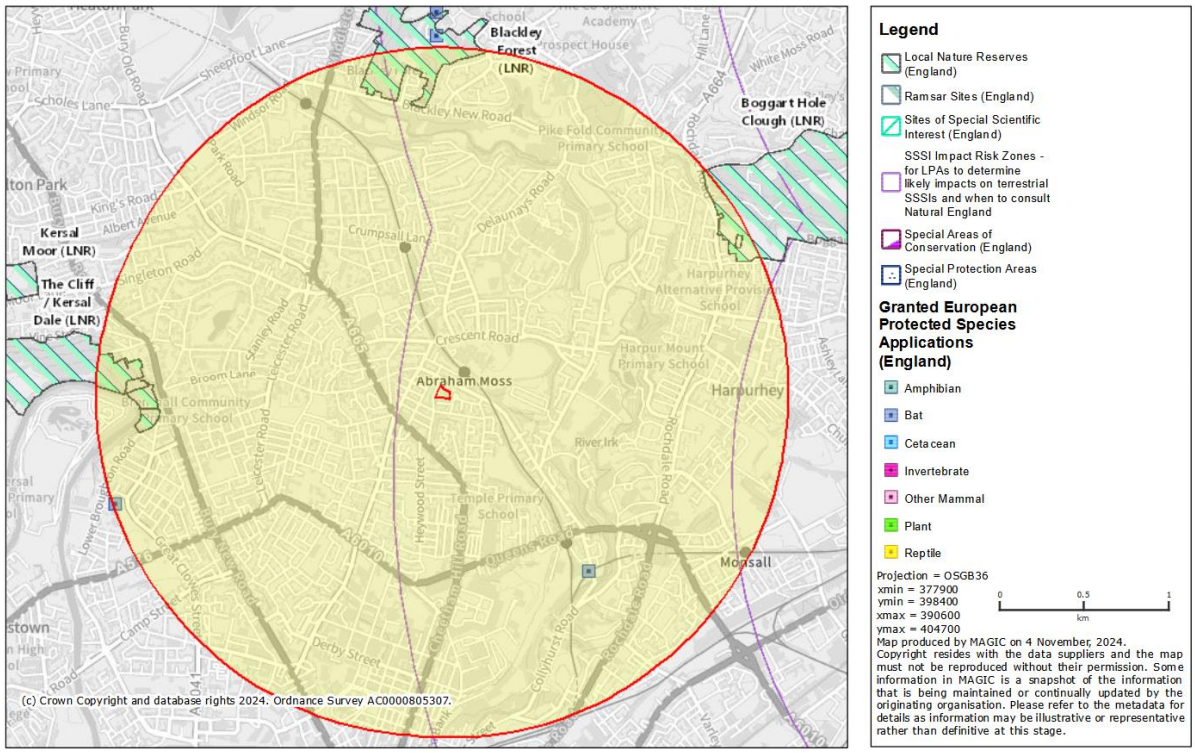


Figure 5.2 – *Designated site and EPSML data for the area within 2.0km of application site © MAGiC Maps 2024*

5.5 The site is also positioned within the Impact Risk Zone (IRZ) for a number of Sites of Special Scientific Interest (SSSI), including Rochdale Canal at a distance of approximately 5.2km to the east. Based on the IRZ – Threshold Checker[8] available on MAGiC Maps 2024, the

[8] See: https://irz.geodata.org.uk/IRZ/step2.html?irzcode=3111221502000&notes=&location=351359,399223%20(IRZ%20polygon%20centre)

proposals do not present a likely risk of having a harmful effect on the surrounding terrestrial SSSIs and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

5.6 Where no impact to SSSI's is predicted, NE issue the following advice within their standing guidance on SSSI impact zones (NE, 2019):

"*It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.*"

Habitats

5.7 An online search of MAGiC Maps identified the following priority habitats within a 2.0km search radius (see **Table 5.2** below).

Table 5.2 – Priority habitats located within 2.0km buffer

Habitat Type	Designation	Distance to site
Ancient & semi-natural woodland	Ancient woodland	1.9km north-east
Deciduous woodland	Priority Habitat Inventory	0.2km east
Lowland fens	Priority Habitat Inventory	2.0km west
Open mosaic habitat	National Land Use Database	0.3km north-east
Woodpasture and parkland	BAP Priority Habitat	1.0km south-east

Bats

5.8 An online search of MAGiC Maps revealed that two European Protected Species Mitigation Licenses (EPSMLs) for bats have been granted within a 2.0km radius of the site boundary, see **Figure 5.2** and **Table 5.3** for further details.

Table 5.3 – EPSML data records from MAGiC Maps

Licence Number	Distance from Site	Context (where relevant)
EPSM2010-1888	1.3km south-east	Common pipistrelle and soprano pipistrelle; destruction of resting place
EPSM2013-6051	2.0km west	Common pipistrelle; destruction of resting place

5.9 Tyrer Ecological Consultants Ltd have previous and ongoing projects involving bats within the 2.0-kilometre area surrounding the site – as such, the following biological data (see **Table 5.4** overleaf) is readily available to the Ecologist from the company database – all data has been previously submitted to the local ecological records centre (LERC) serving the area, which, in this case, is Greater Manchester Local Record Centre (GMLRC).

Table 5.4 – LERC submitted biological data records collected by Tyrer Ecological Consultants Ltd

Year	Distance from Site	Context (where relevant)
2015	1.8km east	Activity by common pipistrelle bats during dusk surveys
2021	1.7km north-west	Activity by common pipistrelle bats during dusk surveys

5.10 Habitats in the immediate vicinity of the site provide relatively low value foraging opportunities for bats, with only scattered urban trees and gardens offering any suitability; however, these areas afford loose connectivity toward wider semi-natural habitats, particularly the areas of woodland lining the nearby railway line and beyond. The habitats present are considered most likely to support species associated with roosting in occupied dwellings such as the common pipistrelle.

NB: *Where quality habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available and vice versa.*

Birds

5.11 The nature of the surrounding habitat means that the species most likely to be present in proximity are species adapted to urbanisation and common garden species, such as house sparrow (*Passer domesticus*), house martin (*Delichon urbicum*) and swallow (*Hirundo rustica*), though the green spaces in proximity and associated woodland likely also act as stepping-stone habitats and offer connectivity to the wider semi-natural habitats in proximity.

Biodiversity Gain

5.12 The Greater Manchester Local Nature Recovery Strategy Pilot (Draft) provides information pertaining to the application of strategic significance to areas and habitats within Greater Manchester. Based upon this, the site does not appear to fall within any areas designated for nature recovery.

5.13 The Manchester City Council 'Interactive Proposals Map', which displays spatial data for policies and land use priorities in accordance with the Core Strategy and Unitary Development Plan, was also accessed and used to assess the strategic significance of habitats present within the site; based upon this data, the site lies within no areas specially designated for nature or biodiversity.

5.14 The Greater Manchester Biodiversity Action Plan (GMBAP) was also accessed to assist with determining the strategic significance of on-site habitats.

6.0 Field Study Results

Bats

6.1 The main structure onsite is an actively used children's centre, and is a two storey, brick-built structure with a multi-pitched, tiled roof, to approximate maximum dimensions of 54m x 34m x 8m (length x width x height). Structural components include timber soffits, UPVC windows and doors, and flat-roofed single storey extensions to the west and south-east. While the surveyor is not qualified to assess structural integrity of buildings, it was considered to be in a fair aesthetic condition, with most elements being tight-fitting but with evident deterioration noted to the soffits.

6.2 Internally, a loft space covers the entire footprint of the building; this space is of a trussed beam construction with rockwool insulation on the floor and piping throughout, with an apex height of approximately 2.0 metres, and was noted to be warm but relatively draughty, and generally dark but with some minor light ingress from the floor beneath.

6.3 It is therefore considered that the building is broadly suitable for the breeding requirements of loft-dwelling bats such as the brown long-eared; this species prefers warm, dark, undisturbed and dry loft spaces with room for free flying when selecting maternity roosts, though no evidence was observed. The surrounding landscape is, however, considered to provide minimal suitability for these species, which generally favour broadleaved woodland as a foraging habitat.

6.4 Throughout the loft space, a traditional bitumen 1f underlining is present beneath the roof tiles; where present, this underfelt or other such roof lining typically improves a building's value to bats, notably for crevice-dwelling bats, whilst a lack of a lining can reduce the value of a structure for members of this genus. No evidence of these species was located by the surveyor; however, this does not necessarily indicate absence of roosting behaviour owing to the crevice-dwelling nature of these bat species, whereby evidence is often located in areas which are inaccessible to the surveyor.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

6.5 Externally, the building was noted to feature a number of potential roost features (PRFs); while the roof and ridge tiles were all noted to be tight, with none raised, slipped or missing, the soffits were noted to be in a poor condition throughout, with degraded timber creating gaps in several areas that could provide ingress to the soffits or to the roof at wall-plate level.

6.6 In considering the above, given the number of PRFs at the soffits throughout the structure, the building is duly categorised as pertaining to a bat roost suitability of '**Moderate**', in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).

6.7 While several other outbuildings and structures are present onsite, alongside numerous individual trees, none of these are to be affected by the proposals, and as such were not subject to any PRAs.

Breeding birds

6.8 In relation to WCA Schedule 1 specially protected bird species such as peregrine (*Falco peregrinus*), the site provides no suitable nesting platforms, direct evidence, or evidence of historic nesting, with favourable hunting habitat largely absent within the surrounding area.

Direct impacts to specially protected bird species can likely be ruled out as a result of the proposals.

6.9 While no direct evidence of nesting birds was located on site, it is considered that some of the PRFs previously mentioned at the soffits could feasibly be large enough for use by urbanised bird species during the nesting bird season of March – August inclusive. While the trees and shrubbery within the landscaped areas are also likely to support breeding common passerine species during the nesting bird season, these areas will not be affected by the proposals.

BNG Baseline Summary

6.10 See **Table 6.1** (below) for baseline information and habitat descriptions; refer to **Appendix I** for any supporting imagery. Refer to **Appendix III** for condition assessment criteria and **Appendix IV** – UK Habitats Map for the location of described habitats.

Table 6.1 – UK Habitat types within the survey area

Area habitat	Sec. Codes	Description
g4 Modified grassland **Habitat Ref.: 1**	-	Several patches of modified grassland are present throughout the site, to the north, west and south-east, each with similar character and species composition; approximately four species are present per m^2, and are largely limited to those typical of enriched grasslands, with forbs such as creeping buttercup, white clover and dandelion, alongside graminoids including red fescue and perennial rye-grass. Small, scattered stands of scrub are also present within these parcels, with hawthorn and bramble observed.
		Condition: Poor **Habitat Area:** 0.1498 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
u1 Built up areas and gardens **Habitat Ref.: 2**	**828** Vegetated garden	To the south of the building is a small playground area, which features a small mosaic of habitat types including hardstanding, amenity grassland, raised planters and introduced shrubbery. Given the mixture of habitat types in small, interconnected parcels, this habitat type has been entered within the Metric as 'Vegetated garden'.
		Condition: N/A **Habitat Area:** 0.0641 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
u1b5 Buildings	**-**	The children's centre structure located in the centre of the site alongside several outbuildings.

Habitat Ref.: 3		**Condition:** N/A **Habitat Area:** 0.0948 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
u1b6 Other developed land **Habitat Ref.: 4**	-	Areas of hardstanding parking, access and pathways onsite. **Condition:** N/A **Habitat Area:** 0.1114 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
Individual trees **Habitat Ref.: 5**	-	Nine individual trees that have been condition assessed as 'Good' are located throughout the site, including four large ash (**T1, T12, T15 & T16**), a medium ash (**T9**), and four large non-native acer sp. (**T2, T3, T4 & T13**). See **Appendix IV** for tree locations. **Condition:** Good **Habitat Area:** 0.3094 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
Individual trees **Habitat Ref.: 6**	-	Four small individual trees that have been condition assessed as 'Moderate' are located throughout the site, two wild cherries (**T5 & T6**) and two silver birches (**T7 & T14**). See **Appendix IV** for tree locations. **Condition:** Moderate **Habitat Area:** 0.0163 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
Individual trees **Habitat Ref.: 7**	-	Three small individual trees that have been condition assessed as 'Poor' are located throughout the site, a silver birch (**T8**) and two ash (**T10 & T11**). See **Appendix IV** for tree locations. **Condition:** Poor **Habitat Area:** 0.0122 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy

Linear habitat	Sec. Codes	Description
h2b Non-native and ornamental hedgerow **Hedge Ref.: 1**	-	Several stretches of hedgerow are present throughout the site, each located at the site boundary and comprised entirely of garden privet.
		Condition: N/A **Habitat Length:** 0.0812 km **Strategic Significance:** Area / compensation not in local strategy / no local strategy

7.0 Conclusions & Recommendations

Bats

7.1 Based upon the findings of the DBW and associated GLTA, covered through sections 5.0 – 6.0 of the report and supported by **Appendix I**, Woodville Sure Start and Children's Centre is determined to pertain to '**Moderate**' bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023). See **Figure 7.1** below for a BCT guidelines extract.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey[a] (structures). No further surveys required (trees).	Two separate dusk emergence survey visits[b].	Three separate dusk emergence survey visits[b].

Figure 7.1 – *BCT extract on 'Moderate' suitability criteria*

7.2 While this would normally lead to the requirement of two dusk emergence surveys within the active season of bats (May – August inclusive), close analysis of the proposals provided to the author suggests that surveys are not necessary. The only works proposed to the structure entail the installation of a PV solar panel onto the roof pitch; as such, this will not have any effect on any PRFs located on the building, which are all located at the soffits and as such will be retained in full. However, the PRFs located at the soffits could feasibly offer access to the roof lining at the wall-plate level, and thus the installation of the solar panel, which is likely to extend into the loft void, could impact upon any bats roosting within the space.

7.3 In considering the above, impacts to bats can be conclusively avoided at the site by timing the installation of the solar panel within the bat hibernation season of November – March. While the installation of the panel will extend into the loft void, this space is considered to be entirely unsuitable for the hibernation of bats; this group requires spaces which are cool, undisturbed, dark and non-draughty for their hibernation roosts.

7.4 In addition to the above, on a purely precautionary basis, it is recommended that a suitably qualified Ecologist supervises any part of the solar panel installation process that extends into the loft void, in order to minimise any impacts in the highly unlikely event that any bats are found to be hibernating in the space.

7.5 It is considered that, despite the 'Moderate' categorisation of the building in relation to bat roost suitability, by incorporating the above timings and supervision methods, impacts to bats can be conclusively ruled out from the development.

7.6 In the highly unlikely event that bat(s), or evidence of bat(s), are found during the proposed works, then, as a legal requirement, the work at the site should immediately cease and an Ecologist should be contacted for further advice. If bat(s) or their roost(s) will be affected, then an EPSML may be required to legally commence with the works. See **Figure 7.2** for indicative evidence of bats.



Figure 7.2 – *Evidence of bats – droppings on the left / a common pipistrelle bat on the right – indicative*

7.7 No further surveys or supervisory works are required in relation to the other buildings or trees onsite, with it understood that none will be affected by the proposals.

7.8 Installation of overly harsh artificial lighting as part of any development that exceeds current levels may have a negative impact upon foraging / commuting bats in the landscape, subject to their presence, particularly if increased light spillage occurs in areas of that are currently free from illumination, particularly including the trees at the site boundaries. A bat-sensitive lighting plan is therefore recommended in order to avoid potential impacts to bats that may use the surrounding treelines. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information.

Appropriate luminaire specifications: Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.

- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

Birds

7.9 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as peregrine, and no further surveys or recommendations are necessary in relation to specially protected birds, with no viability of nesting within the site boundary.

7.10 No recommendations are necessary in relation to wider breeding birds, with the areas of potential suitability on the soffits of the building, alongside the numerous trees onsite, not to be affected by the proposals, and no suitability for nesting on the roof pitch where the PV panel will be placed.

8.0 Biodiversity Statement

8.1 Based on the information gathered during the diurnal assessment, the site is host to the following biodiversity value:

- Habitat: **4.32**
- Hedgerow: **0.08**
- Watercourse: **0.00**

8.2 However, based upon the information provided at the time of writing, it is understood that the ASHP to be installed at the site, which will be placed within an area of modified grassland, is smaller than 25m^2 in size.

8.3 As such Woodville Sure Start and Children's Centre is likely **exempt** from the Biodiversity Gain Planning Condition under the de minimis exemption; the proposals do not impact on any priority habitats, and less than 25m^2 of area habitat onsite will be affected.

8.4 This should be read in conjunction with the hard copy of the Statutory Biodiversity Metric tool – see external Appendix.

9.0 Bibliography

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Appendix I: Site Photographs



Plate 1 – *Northern aspect of the main structure, with associated car park, note tight nature of tiles*



Plate 2 – *Scattered acer sp. (T2 – T4) at north-east of site within modified grassland*



Plate 3 – *Privet hedgerow*



Plate 4 – *Northern boundary of site with scattered trees*



Plate 5 – *Example of gap in soffit providing PRF*



Plate 6 – *Further gaps in soffits*



Plate 7 – *Area at east of site, with grassland and scattered scrub alongside the building*



Plate 8 – *Large ash tree (T12) at south of site, alongside vegetated garden area and hedgerow*



Plate 9 – *Further example of area mapped as vegetated garden*



Plate 10 – *Grassland, T14 – T16, and hedgerow at west of site*



Plate 11 – *Character of loft space*



Plate 12 – *Bitumen lining within loft space*

Appendix II: Biodiversity Enhancement: General Recommendations

Bats

Externally fitted boxes

The 2F is the standard and most popular Schwegler bat box. It is ideal as a starter box to see if there are bats in your area or to provide much needed secure roosting space. It has been designed as a summer roosting space for bats and has a simple entrance hole at the front.

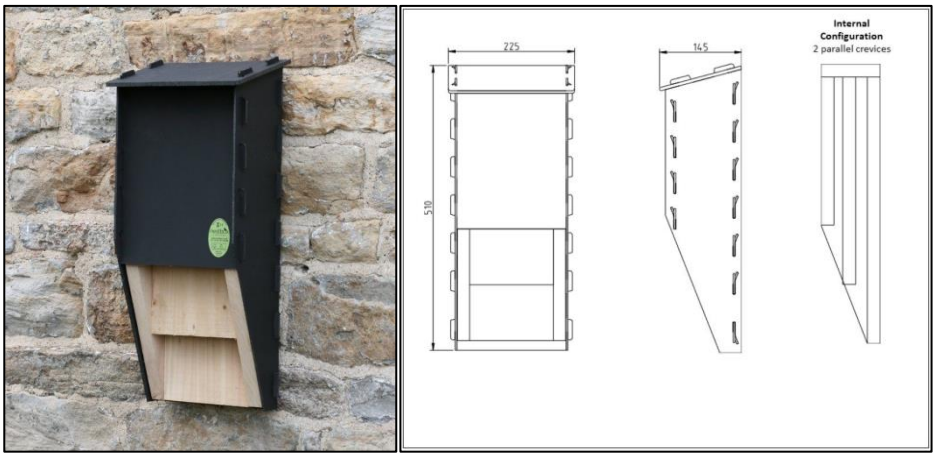
The 2F is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects. Woodcrete is breathable and maintains a stable temperature inside the box and the 2F is painted black to absorb warmth. It also provides a rough surface for bats to cling to and climb up.

The 2F bat box can be sited on a tree or building and is best positioned at a height of between 3m to 6m in an open sunny position. A group of 3 to 5 boxes facing in different directions will provide a variety of micro-habitats.



An alternative to the above is the Eco Kent Bat Box, which is suitable for crevice-dwelling species. The two crevices inside the box are approximately 18mm wide, ideal for common and soprano pipistrelles. The FSC-certified spruce wood is rough on the inside providing good grip for bats once inside the box. This box is self-cleaning and does not require any maintenance, as the droppings fall straight down out of the bottom entrance.

These bat boxes can be mounted on either a tree or building using the 3 concealed keyhole fixings located at the top of the box. If possible, site the box at a height of between 4m and 6m in a sheltered sunny place, away from artificial light sources. The box should not be positioned in direct sunlight. Ideally, several boxes should be placed facing different directions, as this provides a choice for roosting bats. A clear path to the entrance of the box is essential



Breeding Birds – House Sparrow



The sparrow terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of buildings.

Breeding Birds – Starling



Starling populations have declined dramatically in recent years and are now on the Red List of birds of high conservation concern. Loss of habitat is one of the major pressures on this species and household renovations and new buildings offer much fewer nesting sites than have previously been available. Providing these birds with a safe and secure habitat and nesting environment is a great way to help ensure their future survival.

This Vivara Pro WoodStone® Starling Nest Box has a 45mm diameter entrance hole which makes it ideal for starlings. It should be sited on an external wall or tree at a height of at least 1.5m using an aluminium nail or screw and wall plug (not included). Site near to vegetation if possible as this will provide additional protection and cover.

Breeding Birds – Other



This traditional design has proved to be highly effective in attracting Robins, as well as other small species such as Black Redstart, Spotted Flycatcher and Wren. It is designed to be installed on the walls of houses, barns, garden sheds or other buildings and should be hung so that the entrance is to one side (at an angle of 90° to the wall). The front panel can be easily removed for cleaning.

This type of box should not be made conspicuous on a tree or bush because small predators can enter through the unprotected opening. By hanging on a wall, predators won't be able to reach the box. Alternatively hide the box in Ivy, Honeysuckle or other climbing plants.

Invertebrates – Bee bricks



The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used.
Available in a choice of four colours: white grey, dark grey, yellow and red.

Specification:

* Material: Concrete
* Origin: Cornwall, UK
* Dimensions: W 215mm x D 105mm x H 65mm

* Weight: 2.9kg
* Colours: White grey, yellow, dark grey and red

Native Planting and/or Landscaping

New feature landscaping should incorporate native woody plants as opposed to non-native species that are of significantly less benefit to biodiversity. Species such as Blackthorn (*Prunus spinosa*), Honeysuckle (*Lonicera periclymenum*), Rowan (*Sorbus aucuparia*), Guelder-rose (*Vibernum opulus*) and Hawthorn (*Crataegus monogyna*) are native and will provide a valuable resource for a myriad of wildlife as opposed to non-native, exotic species which are generally much less effective, particularly to pollinator groups including bees, butterflies and moths.

Suitable Trees	Suitable Woody Shrubs
English Oak (*Quercus robur*)	Hawthorn (*Crataegus monogyna*)
Rowan (*Sorbus aucuparia*)	Honeysuckle (*Lonicera periclymenum*)
Wild Service Tree (*Sorbus torminialis)*	Guelder Rose (*Vibernum opulus*)
Silver Birch (*Betula pendula*)	Elder (*Sambucus nigra*)
Ash (*Fraxinus excelsior*)	Wild Privet (*Ligustrum vulgare*)
Goat Willow (*Salix capraea*)	Blackthorn (*Prunus spinosa*)
Beech (*Fagus sylvatica*)	
Wild Cherry (*Prunus avium*)	

Appendix III: Condition Assessment Sheets

*Condition Assessment Score – Grassland (Low) (**Habitat ref.: 1**)*

Condition Assessment Criteria		Ref: 1
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs. **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	**N**
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	**N**
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	**Y**
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	**N**
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	**Y**
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	**Y**
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	**Y**
	Total Score	**4**

Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 criteria including passing essential criterion A	Good
Passes 4 or 5 criteria including passing essential criterion A	Moderate
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor

*Condition Assessment Score – Individual Trees (**Habitat refs. 5, 6 & 7**)*

Condition Assessment Criteria		1	2	3	4	5	6	7	8
A	The tree is a native species (or at least 70% within the block are native species).	**Y**	**N**	**N**	**N**	**Y**	**Y**	**Y**	**Y**
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
C	The tree is mature (or more than 50% within the block are mature).	**Y**	**Y**	**Y**	**Y**	**N**	**N**	**Y**	**N**
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**Y**	**Y**	**Y**	**Y**	**Y**	**N**	**N**	**N**
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	**Y**	**Y**	**Y**	**Y**	**N**	**N**	**N**	**N**
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**N**
	Total Score	**6**	**5**	**5**	**5**	**4**	**3**	**4**	**3**

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria	Good – **T1, T2, T3 & T4**
Passes 3 or 4 criteria	Moderate – **T5, T6 & T7**
Passes 2 or fewer criteria	Poor – **T8**

*Condition Assessment Score – Individual Trees continued (**Habitat refs. 5, 6 & 7**)*

Condition Assessment Criteria		9	10	11	12	13	14	15	16
A	The tree is a native species (or at least 70% within the block are native species).	**Y**	**Y**	**Y**	**Y**	**N**	**Y**	**Y**	**Y**
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
C	The tree is mature (or more than 50% within the block are mature).	**Y**	**N**	**N**	**Y**	**Y**	**N**	**Y**	**Y**
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**Y**	**N**	**N**	**Y**	**Y**	**Y**	**Y**	**Y**
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	**Y**	**N**	**N**	**Y**	**Y**	**N**	**Y**	**Y**
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	**N**	**N**	**N**	**Y**	**Y**	**Y**	**Y**	**Y**
	Total Score	**5**	**2**	**2**	**6**	**5**	**4**	**6**	**6**

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria	Good – **T9, T12, T13, T15 & T16**
Passes 3 or 4 criteria	Moderate – **T14**
Passes 2 or fewer criteria	Poor – **T10 & T11**

Appendix IV: UK Habitats Map

