

**WELCOMB STREET, OPENSHAW,
MANCHESTER**

**PRELIMINARY BAT ROOST
ASSESSMENT**

A Report to: RPS Consulting

Report No: RT-MME-157730-04

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development".

Report Version	Date	Completed by:	Checked and Approved by:
Final	16/06/2022	Ellie Rickman MCIEEM (Principal Ecological Consultant)	Susan Sweetman MCIEEM (Principal Ecological Consultant)

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, it may be necessary to undertake an updated survey to allow any changes in the status of bats on site to be assessed, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

In May 2022, RPS Consulting commissioned Middlemarch Environmental Ltd to undertake a Preliminary Bat Roost Assessment at Welcomb Street, Openshaw in Manchester. This assessment is required to inform a planning application associated with the redevelopment of the former Manchester School of Building site.

To fulfil the above brief to assess the potential for the existing buildings on site to support roosting bats, a Preliminary Bat Roost Assessment was undertaken on 31st May 2022. Nine buildings were inspected externally and internally where possible for potential roost features and evidence of roosting bats. The large brick building (B5) to the south of the site was found to have high bat roost potential due to a number of potential roost features and possible dark internal voids. Building B1 to the north of the site was considered to have low bat roost potential due to the presence of a few low value features on the southern elevation. The remaining buildings (B2, B3, B4, B6, B7, B8 and B9) were all considered to have negligible bat roost potential.

Following the results of the Preliminary Bat Roost Assessment, the following recommendations have been made:

R1 Building B5

Building B5 has been identified as having high potential to support roosting bats. Bat Surveys: Good Practice Guidelines published by the Bat Conservation Trust (Collins, 2016) recommends that for structures with high bat roosting potential at least three dusk emergence and/or dawn re-entry surveys be undertaken during the bat emergence/re-entry survey season to determine the presence/absence of roosting bats within the structure.

R2 Building B1

Building B1 has been identified as having low potential to support roosting bats. Bat Surveys: Good Practice Guidelines, published by the Bat Conservation Trust (Collins, 2016), recommends for structures with low bat roosting potential that at least one survey (consisting of either a dusk emergence survey or a dawn re-entry survey) be undertaken during the peak season for emergence/re-entry surveys (May to August) to determine the presence/absence of roosting bats within the structure.

R3 Buildings B2, B3, B4, B6, B7, B8 and B9

These buildings were fully inspected and no bat roosts were identified. These buildings had negligible potential for roosting bats. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed structure have not commenced within this timeframe it will be essential to update the survey effort to establish if suitable features have developed and if bats have colonised the structures in the interim.

R4 Lighting

In accordance with best practice guidance relating to lighting and biodiversity (Miles et al, 2018; Gunnell et al, 2012), any new lighting should be carefully designed to minimise potential disturbance and fragmentation impacts on sensitive receptors, such as bat species.

R5 Habitat Enhancement

In line with the National Planning Policy Framework, the development should aim to enhance the site for bats. In particular, the boundaries of the site should remain well vegetated to provide commuting and foraging routes across the site. Bat boxes could also be installed to provide roosting habitat for species such as pipistrelle.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In May 2022, RPS Consulting commissioned Middlemarch Environmental Ltd to undertake a Preliminary Bat Roost Assessment at the former Manchester School of Building, Welcomb Street, Openshaw in Greater Manchester. This assessment is required to inform a planning application associated with the redevelopment of the site.

In addition, Middlemarch Environmental Ltd has been commissioned to undertake the following assessments:

- Preliminary Arboricultural Assessment
- Arboricultural Impact Assessment
- Preliminary Ecological Appraisal

To fulfil the above brief to assess the potential for the existing buildings/structures on site to support roosting bats, a Preliminary Bat Roost Assessment was undertaken on 31st May 2022.

All UK bat species are legally protected species and they are capable of being material considerations in the planning process. A summary of the legislation protecting bats is included within Appendix 1. This section also provides some brief information on the ecology of British bat species.

1.2 SITE DESCRIPTION AND CONTEXT

The site was located within an urban area of Openshaw, Greater Manchester, at Ordnance Survey Grid Reference SJ 87880 9721. It was approximately 1.6 ha in area and contained a number of industrial type buildings that had been used as part of a further education campus. These were surrounded by hardstanding with small areas of landscaping around the access road to the north.

The site was accessed from Welcomb Street to the North. A brick wall and fence ran along the southern boundary with a bank of dense scrub behind whilst further fencing demarcated the other boundaries. The site was surrounded by industrial development including an asphalt plant to the south and warehousing/offices to the north, east and west. A small pocket of semi-natural woodland was present immediately west of the site.

The wider landscape was dominated by industrial and residential areas with small areas of greenspace scattered throughout. A railway line with vegetated boundaries ran 80 m south of the site and a small park was located approximately 380 m north.

1.3 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Welcomb Street: Construction Skills Site Plan	Jenkins Design Services

Table 1.1: Documentation Provided by Client

2. METHODOLOGY

2.1 DESK STUDY

As part of the Preliminary Ecological Appraisal (Report RT-MME-157730-03) an ecological desk study (which included a search for records of bats) was undertaken within a 1 km radius of the site. The consultee for the desk study was the Greater Manchester Ecology Unit.

Middlemarch Environmental Ltd then assimilated and reviewed the desk study data provided by this organisation. Relevant bat data are discussed in Chapter 3. In compliance with the terms and conditions relating to its commercial use, the full desk study data are not provided within this report. The desk study included a search for statutory nature conservation sites designated for bats within a 10 km radius of the site.

2.2 FIELD SURVEY

In line with the specifications detailed in Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), a Preliminary Bat Roost Assessment of the buildings was conducted during daylight hours. A visual assessment was undertaken to determine the presence of any Potential Roost Features (PRFs), together with a general appraisal of the suitability of the site for foraging and commuting. Table 2.1 provides examples of PRFs. Any accessible PRFs were inspected using binoculars, a torch and endoscope for evidence of possible bat presence. Buildings were surveyed externally and internally apart from Building B6 to which no access was available.

Based on the PRF's present, the survey area was assessed using the suitability classes detailed within Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), as detailed in Table 2.2.

Example of Potential Roost Features	
<u>Externally</u>	
<ul style="list-style-type: none"> • Access through window panes, doors and walls; • behind peeling paintwork or lifted rendering; • behind hanging tiles; • weatherboarding; • eaves; • soffit boxes; • fascias; • lead flashing; • gaps under felt (even including those of flat roofs); • under tiles/slates; • existing bat and bird boxes; and • any gaps in brickwork or stonework permitting access into access to cavity- or rubble-filled walls. 	
<u>Internally</u>	
<ul style="list-style-type: none"> • behind wooden panelling; • in lintels above doors and windows; • behind window shutters and curtains; • behind pictures, posters, furniture, peeling paintwork; • peeling wallpaper, lifted plaster and boarded-up windows; • inside cupboards and in chimneys accessible from fireplaces. • within attic voids: • the top of gable end or dividing walls; • the top of chimney breasts; • ridge and hip beams and other roof beams; • mortise and tenon joints; • all beams (free-hanging bats); • the junction of roof timbers, especially where ridge and hip beams meet; • behind purlins; • between tiles and the roof lining; and • under flat felt roofs. 	

Table 2.1: Potential Roost Features (Adapted from Collins, 2016)

Suitability	Description
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 and surrounding habitat.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions 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 or hibernation).
Negligible	Negligible habitat features on site likely to be used by roosting bats.

Table 2.2: Classification of Structures with Bat Potential (Adapted from Collins, 2016)

3. DESK STUDY

3.1 STATUTORY NATURE CONSERVATION SITES

The site is not located within 10 km of any statutory nature conservation sites designated for the presence of bats.

3.2 SPECIES RECORDS

The data search was carried out on 23rd May 2022 by Greater Manchester Ecology Unit. Records of bat species within a 1 km radius of the survey area provided by the consultee are summarised in Table 3.1. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance?	Legislation
Common pipistrelle <i>Pipistrellus pipistrellus</i>	8	2015	680 m west *	-	ECH 4, WCA 5, WCA 6
Pipistrelle <i>Pipistrellus</i> sp.	2	2016	800 m south-east	#	ECH 4, WCA 5, WCA 6
Key: #: Dependent on species. *: Grid reference provided was six figures and as such, the record may be located within 100 m of the study site. ECH 4: Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest in need of strict protection. WCA 5: Schedule 5 of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods. Species of Principal Importance: Species of Principal Importance for Nature Conservation in England.					

Table 3.1: Bat Species Records Within 1 km of Survey Area

4. SURVEY RESULTS

4.1 INTRODUCTION

The Preliminary Bat Roost Assessment was conducted on 31st May 2022 by Ellie Rickman MSc, MCIEEM (Principal Ecological Consultant). Figure 4.1 below illustrates the layout of the buildings on site.

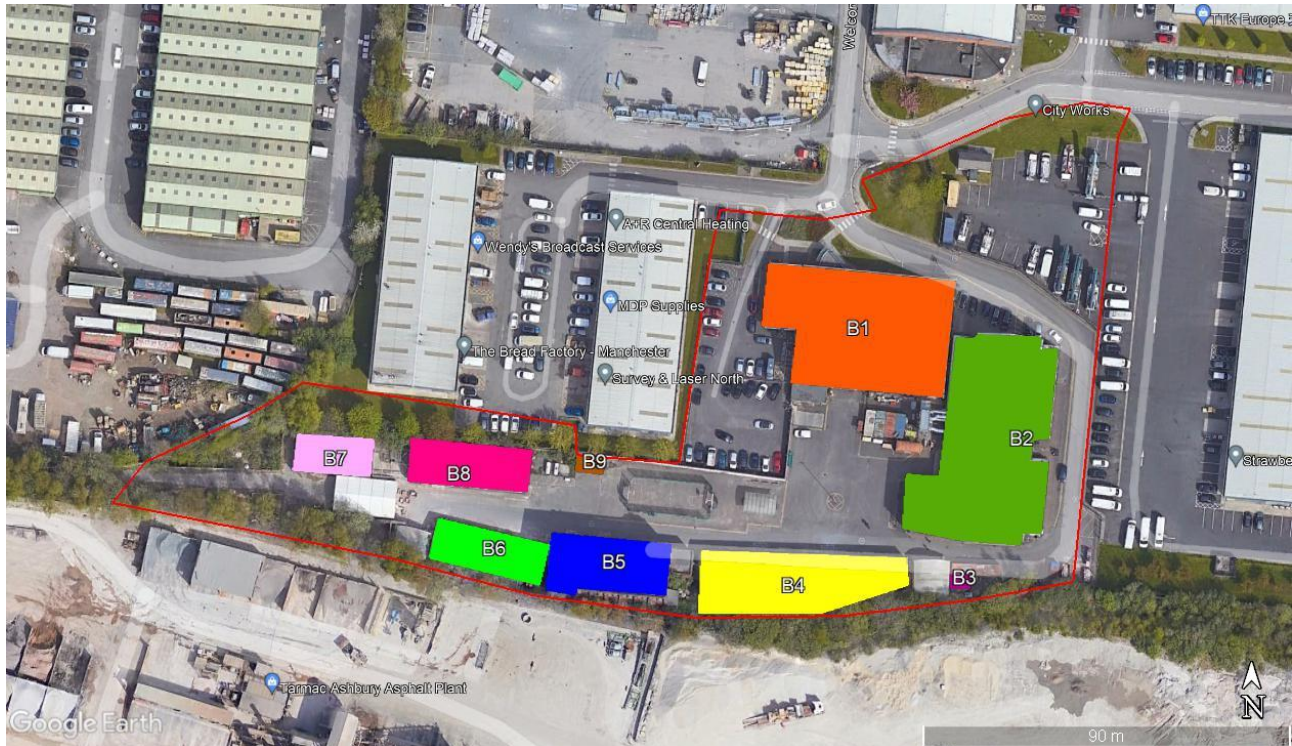


Figure 4.1: Building Layout

Weather conditions were recorded and are presented in Table 4.1.

Parameter	Conditions
Temperature (°C)	14
Cloud Cover (%)	90%
Precipitation	Showers
Wind Speed (Beaufort)	F2

Table 4.1: Weather Conditions During the Preliminary Bat Roost Assessment

4.2 CONSTRAINTS

It was not possible to fully access one building to the north-east corner of the site. This area was not in the Manchester College Compound and was in use by another organisation at the time of survey. In addition, internal access was not available for Building B3, B6 or B9. Not all of the internal areas of Building B5 could be accessed as no keys were available to a section at the eastern end.

4.3 SURVEY RESULTS

4.3.1 Building B1

External Assessment

Building B1 was of modern construction with a metal framework clad with rendered concrete and brick at the base and corrugated metal sheet walls above. The roof was also constructed of pitched corrugated metal with some translucent sections to allow light through. The rear of the building had a brick flat roofed extension. This side had a number of gaps in the walls where pipes had been removed and some appeared to lead into a wall cavity. The brick extension had a barge board along it that had a gap below. This was inspected and no evidence of bat ingress was recorded but it was found to lead into a cavity along the wall top.



Plate 1: B1 Northern Elevation



Plate 2: B1 Southern Elevation

Internal Assessment

The interior of B1 was open to the roof with the space divided into a series of rooms by internal breeze block walls on two levels, the upper level being a mezzanine floor. The internal rooms did not provide any dark loft spaces or other potential roost features. Some had no ceilings and those with ceilings were well sealed. The entire interior was well lit by the translucent panels in the roof which was unlined.

No evidence of roosting bats such as droppings, staining or scratch marks were recorded in the internal areas.

Building B1 was considered to have low bat roost potential with only a few potential roost features provided by the holes in the brickwork and under a bargeboard on the brick extension to the south of the building.



Plate 3: Building B1 Internal Area



Plate 4: Building B1- Mezzanine Floor

4.3.2 Building B2

External Assessment

This was a two-storey, long, corrugated metal building on a low brick base. Metal framed windows ran along the eastern elevation and the windows and doors were all well sealed. To the east side of the building a line of prefabricated cabins was present. The cabins were also constructed of corrugated metal and had metal framed windows and wooden doors. The southernmost cabin had an open door which led into a single room. This had some damp boarding on the ceiling but was not considered to be suitable for roosting bats. The other cabins were closed and well sealed with no potential roost features recorded.



Plate 5: Building B2 Eastern Elevation



Plate 6: Building B2 Northern Elevation

Internal Assessment

Internally, building B2 had a metal corrugated ceiling at the northern end and was open to the unlined roof to the south. It had internal breezeblock rooms that were netted above with no ceiling. A carpentry workshop was present to the west side in a single storey extension which had a boarded ceiling. This had a few small gaps next to internal beams, but there was no access recorded from the outside and no signs of bat ingress was recorded.

In the main section, some classroom areas had suspended ceilings but the space above these was very light due to translucent panels in the roof. No evidence of roosting bats such as droppings, staining or scratchmarks were recorded in the internal areas and Building B2 was considered to have negligible bat roost potential.



Plate 7: Building B2 Main Section Roof

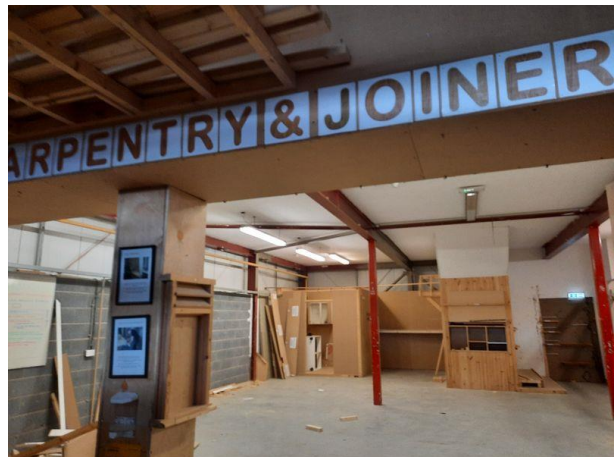


Plate 8: Building B2 Carpentry Extension to West

4.3.3 Building B3

External Assessment

This was a small metal portacabin with a flat roof. No potential roost features were present and it was considered to have negligible bat roost potential. No internal access was available, but this was not considered to be a constraint as there were no potential access points to the interior for bats.



Plate 9: Building B3

4.3.4 Building B4

External Assessment

Building B4 was a long, single storey corrugated metal building on a metal framework. It had a roller door to the north and translucent panels in the roof. No potential roost features were recorded externally and no access points were noted.

Internal Assessment

Internally the room was open to the roof which was unlined. A small mezzanine area was present that had brick and plaster rooms constructed on it. A few small potential roost features were noted between the brick and plasterboard in these rooms but no evidence of bat ingress was recorded and given the light nature of the internal areas, this building was considered to have negligible bat roost potential.



Plate 10: Building B4 Northern Elevation

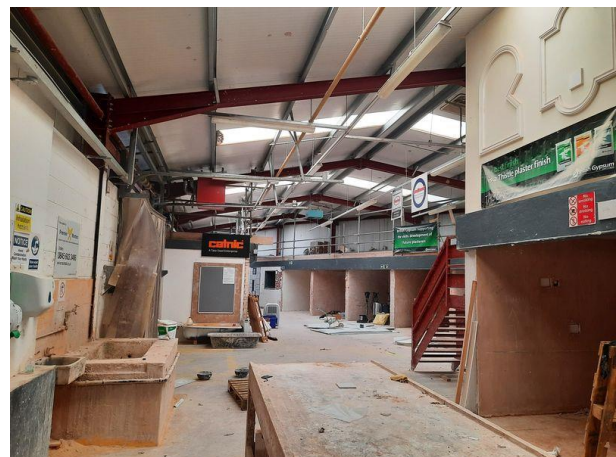


Plate 11: Building B4 Internal Area

4.3.5 Building B5

External Assessment

Building B5 was of an older construction than the other buildings on site. It had tall brick walls and a flat concrete slab roof. A line of tall, wooden framed windows ran along the northern elevation. The brickwork and window frames were in good condition, but gaps were noted at the top of the walls below the concrete roof edges. Small gaps in the brickwork were also noted on the eastern elevation.

On the western side, a modern, corrugated metal extension was present. This was tight to the wall and did not offer any potential roost features. No access was possible to the southern elevation as it was tight to the boundary wall. A line of scrub ran along this side of the building offering a potential commuting route for bats.



Plate 12: Building B5 Northern Elevation



Plate 13: Building B5 Extension on Western Elevation

Internal Assessment

Internally, building B5 had a tall central section that had a boarded ceiling. It was not possible to inspect the area between the ceiling and the roof and the potential exists for a roost feature to be present in this area. The main room was light from the windows to the north, but darker rooms were present inside constructed of plasterboard and brick. An internal area high up to the east of the building could not be accessed and could potentially provide a dark void within the building.

No bat droppings were recorded internally but butterfly wings were present on the floor of the main section which could indicate feeding by bats.

Given the presence of potential roost features at the wall tops and between the roof and boarded ceiling, plus the presence of dark internal areas that could not be fully inspected, Building B5 was considered to have High bat roost potential.



Plate 14: Building B5 Interior with Boarded Ceiling



Plate 15: Building B5 Crevice Feature at Internal Wall Top

4.3.6 Building B6, B7 and B8

External Assessment

Buildings B6, B7 and B8 were all of similar construction. These were single storey, modern corrugated metal buildings with a metal framework and metal doors. There were translucent panels within the corrugated roofs to provide interior light. External areas were well sealed and no potential roost features were recorded.



Plate 16: Building B6 Eastern Elevation (to left of photograph)



Plate 17: Buildings B7 and B8 Joined by Canopy Frame

Internal Assessment

Internally Buildings B6, B7 and B8 had unlined roofs and no ceilings, but had been divided internally into rooms of breezeblock and plasterboard. The interior areas were light and no potential roost features were recorded. No evidence of bats such as droppings, staining, feeding signs or scratch marks were recorded and the buildings were considered to have negligible bat roost potential.

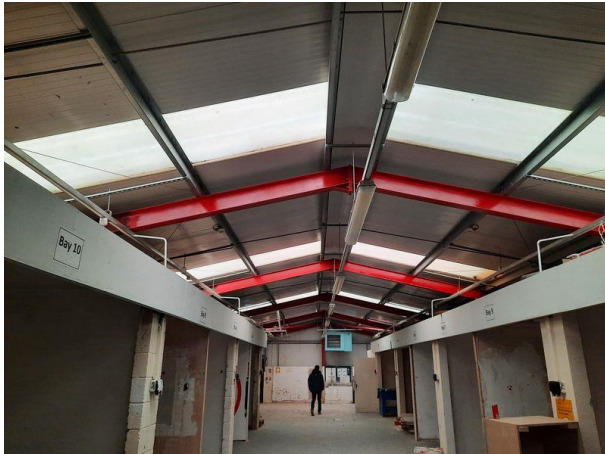


Plate 18: Building B6 Internal Area



Plate 19: Building B7 Internal Area

4.3.7 Building B9

External Assessment

This was a small brick toilet block with a concrete roof and wooden framed door and small windows. The roof was flat and felted with a wooden barge board running around the wall top. This was inspected and found to be tight to the wall. The windows and doors were all well sealed and no potential roost features or access points were recorded. No internal access to this building was possible but given the lack of access points, this was not considered a constraint. This building had negligible bat roost potential.



Plate 20: Building B9

4.4 SITE AND SURROUNDING HABITATS

The site is generally of low value to foraging bats as it is dominated by buildings and hardstanding that provide little habitat for invertebrate prey. However, the scrub-lined boundary to the south and woodland off site to the west offers better foraging habitat, and the trees and scrub lined boundaries to the north-west and south provide a potential commuting route for bats to the wider landscape.

In the surrounding area, the habitat is generally of low value for foraging and commuting bats, dominated by urban development and likely to be well lit. However, there are pockets of rough grassland, scrub and woodland including in Openshaw Park and along Parkhouse Road approximately 500 m to the north, along the railway line 180 m south, and in Gorton Park and Taylor Street playing fields, approximately 500 m to the south.

Habitats within 1 km of the site suitable for roosting, commuting and foraging include:

- Residential houses and associated gardens;
- Pockets of woodland;
- Churches, schools, hospitals and associated grounds; and,
- Railway lines with vegetated banks.

5. DISCUSSION AND CONCLUSIONS

5.1 SUMMARY OF PROPOSALS

The site is proposed to be redeveloped; however, precise details are not currently known. Therefore, a precautionary approach has been adopted when discussing the potential on roosting bats. The discussion and recommendations made in this report should be reviewed and amended, where appropriate, once the proposals are finalised.

5.2 ASSESSMENT OF BUILDINGS

Building B5, the older brick structure to the south of the site was considered to hold high bat roost potential due to a number of potential roost features identified both internally and externally. In particular the boarded roof which could support bats between the roofing and boarding.

Building B1 was considered to have low bat roost potential, mainly provided by the brick extension to the south side that had a small number of potential roost features in the brickwork, not all of which could be fully inspected.

The remaining buildings (B2, B3, B4, B6, B7, B8 and B9) were considered to have negligible bat roost potential and there are no constraints to works on these buildings with regards to bats.

5.3 POTENTIAL IMPACTS ON BATS

It is anticipated that some of the buildings on site will be demolished to facilitate redevelopment work on the site. If buildings B1 and B5 are subject to demolition or extensive works, any bats present could be disturbed, harmed or killed. Therefore these buildings will require further survey to ascertain whether they are in use by roosting bats. A recommendation regarding this has been made in Chapter 6.

No impacts on roosting bats are anticipated from any works to B2, B3, B4, B6, B7, B8 or B9.

There may also be disturbance to foraging or commuting bats on the site should the vegetated boundaries be impacted or lighting levels increased. Therefore a recommendation regarding lighting minimisation and retention/creation of habitat has also been made in Chapter 6.

6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals. As precise details of works are not currently known, a precautionary approach has been taken with regards to further survey works.

R1 Building B5

Building B5 has been identified as having high potential to support roosting bats. Bat Surveys: Good Practice Guidelines published by the Bat Conservation Trust (Collins, 2016) recommends that for structures with high bat roosting potential at least three dusk emergence and/or dawn re-entry surveys be undertaken during the bat emergence/re-entry survey season to determine the presence/absence of roosting bats within the structure. The bat emergence/re-entry survey season extends from May to September. At least two of the surveys should be undertaken during the peak season for emergence/re-entry surveys between May and August and one of the three surveys should be a dawn re-entry survey. If a roost is discovered during these surveys, a Natural England licence application may be required.

R2 Building B1

Building B1 has been identified as having low potential to support roosting bats. Bat Surveys: Good Practice Guidelines, published by the Bat Conservation Trust (Collins, 2016), recommends for structures with low bat roosting potential that at least one survey (consisting of either a dusk emergence survey or a dawn re-entry survey) be undertaken during the peak season for emergence/re-entry surveys (May to August) to determine the presence/absence of roosting bats within the structure. Should this survey confirm the presence of roosting bats, it will be necessary to undertake additional surveys in order to inform a Natural England licence application. In addition, should the survey identify the presence of significant levels of bat activity at the site, it may be necessary to undertake further survey visits to comprehensively assess the value of the site to bats.

R3 Buildings B2, B3, B4, B6, B7, B8 and B9

These buildings were fully inspected and no bat roosts were identified. These buildings had negligible potential for roosting bats. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed structure have not commenced within this timeframe it will be essential to update the survey effort to establish if suitable features have developed and if bats have colonised the structures in the interim. In the unlikely event that a bat is found during demolition works all works must immediately cease and a suitably qualified ecologist should be contacted.

R4 Lighting

In accordance with best practice guidance relating to lighting and biodiversity (Miles et al, 2018; Gunnell et al, 2012), any new lighting should be carefully designed to minimise potential disturbance and fragmentation impacts on sensitive receptors, such as bat species. Examples of good practice include:

- Avoiding the installation of new lighting in proximity to key ecological features, such as the vegetated site boundaries.
- Using modern LED fittings rather than metal halide or sodium fittings, as modern LEDs emit negligible UV radiation.
- The use of directional lighting to reduce light spill, e.g. by installing bespoke fittings or using hoods or shields. For example, downlighting can be used to illuminate features such as footpaths whilst reducing the horizontal and vertical spill of light.
- Where the use of bollard lighting is proposed, columns should be designed to reduce horizontal light spill.
- Implementing controls to ensure lighting is only active when needed, e.g. the use of timers or motion sensors.
- Use of floor surface materials with low reflective quality. This will ensure that bats using the site and surrounding area are not affected by reflected illumination.

R5 Habitat Enhancement

In line with the National Planning Policy Framework, the development should aim to enhance the site for bats. In particular, the boundaries of the site should remain well vegetated to provide commuting and foraging routes across the site. Bat boxes could also be installed to provide roosting habitat for species such as pipistrelle. In general, bats seek warm places and for this reason boxes should be located where they will receive full/partial sun, although installing boxes in a variety of orientations will provide a range of climatic conditions. Position boxes at least 4 m above ground to prevent disturbance from people and/or predators. The planting of species which attract night flying insects is encouraged as this will be of value to foraging bats, for example: evening primrose *Oenothera biennis*, goldenrod *Solidago virgaurea*, honeysuckle *Lonicera periclymenum* and fleabane *Pulicaria dysenterica*.

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APPENDIX 1

LEGISLATION

Bats and the places they use for shelter or protection (i.e. roosts) receive legal protection under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, or *obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CROW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The reader should refer to the original legislation for the definitive interpretation.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*. Species of Principal Importance for Nature Conservation in England are material considerations in the planning process. The list of species is derived from Section 41 list of the Natural Environment and Rural Communities (NERC) Act 2006.

ECOLOGY

At present, 18 species of bats are known to live within the United Kingdom, of which 17 species are confirmed as breeding. All UK bat species are classed as insectivorous, feeding on a variety of invertebrates including midges, mosquitoes, lacewings, moths, beetles and small spiders.

Bats will roost within a variety of different roosting locations, included houses, farm buildings, churches, bridges, walls, trees, culverts, caves and tunnels. At different times of the year the bats roosting requirements alter and they can have different roosting locations for maternity roosts, mating roosts and hibernation roosts. Certain bat species will also change roosts throughout the bat activity season with the bat colony using the site to roost for a few days, abandoning the roost and then returning a few days or weeks later. This change can be for a variety of reasons including climatic conditions and prey availability. Bats are known live for several years and if the climatic conditions are unfavourable at a particular roost, they may abandon it for a number of years, before returning when conditions change. Due to the matriarchal nature of bat colonies, the locations of these roosts can be passed down through the generations.

Bats usually start to come out of hibernation in March and early April (weather dependent), when they start to forage and replenish the body weight lost during the hibernation period. The female bats then start to congregate together in maternity roosts prior to giving birth and a single baby is born in June or July. The female then works hard to feed her young so that they can become independent and of a sufficient weight to survive the winter before the weather gets too cold and invertebrate activity reduces. Males generally live solitary lives, or in small groups with other males, although in some species the males can be found living with the females all year. The mating season begins in the autumn. During the winter bats hibernate in safe locations which provide relatively constant conditions, although they may venture outside to forage on warmer winter nights.