

**LAND BOUND BY JOHN DALTON
STREET, RIDGEFIELD, BOW STREET
AND SOUTH KING STREET,
MANCHESTER**

**PRELIMINARY BAT ROOST
ASSESSMENT**

A Report to: Island Site (General Partner) Limited

Report No: RT-MME-151575 Rev B

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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 24 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

On 13th May 2020, Middlemarch Environmental Ltd carried out a Preliminary Bat Roost Assessment for Island Site (General Partner) Limited, at the land bound by John Dalton Street, Ridgefield, Bow Street and South King Street, Manchester. This assessment has been prepared to support a planning application for the demolition of the existing buildings on site and erection of an office building. A Preliminary Ecological Appraisal was subsequently carried out at this site on 17th February 2021, and as the results of the Preliminary Roost Assessment were nearing expiry, an updated assessment of the buildings was undertaken, to determine if there had been any significant changes in the interim.

The assessment found the site to consist of three conjoined buildings (Old Colony House, 5 Ridgefield and Grange House) which were constructed from 1924 onward. All three buildings were found to be in good condition with very few potential roost features present either internally or externally and no obvious access points from the outside to internal areas. The buildings were considered to be of negligible value to roosting bats. The updated assessment on 17th February 2021 confirmed that there had been no significant changes to the buildings.

The surrounding area is highly urbanised and well lit, with very little greenspace within 1 km. The River Irwell was located approximately 300 m north-west of the site, but there was little connectivity between the site and this watercourse which is highly modified and also surrounded by urban development.

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

R1 Old Colony (B1), 5 Ridgefield (B2) and Grange House (B3)

These buildings were considered to have negligible potential for roosting bats. The survey data obtained for the site is valid for 24 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.

R2 Habitat Enhancement

In line with the National Planning Policy Framework, the development should aim to enhance the site for biodiversity.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

On 13th May 2020, Middlemarch Environmental Ltd carried out a Preliminary Bat Roost Assessment for Island Site (General Partner) Limited, at land bound by John Dalton Street, Ridgefield, Bow Street and South King Street, Manchester. This assessment has been prepared to support a planning application for the demolition of the existing buildings on site and erection of an office building.

A Preliminary Ecological Appraisal was subsequently carried out at this site, also for the Island Site (General Partner) Limited, on 17th February 2021 (Report: RT-MME-151575-02). As the results of the original Preliminary Bat Roost Assessment (RT-MME-151575) were nearing expiry, an updated assessment was undertaken, to identify if there had been any significant changes to the building in the interim period.

All UK bat species are European 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 comprised three adjoining buildings which together formed a square block, centred at OS Grid Reference SJ 8371 9826. Two of the buildings surveyed; Grange House and Old Colony, were flat-roofed high-rise buildings with 6/7 floors, whilst the building present in between them; 5 Ridgefield, was two-storey and also flat-roofed. Small hardstanding courtyards with pipework associated with the buildings were recorded in three locations during the survey; one in between Grange House and 5 Ridgefield, and two in between 5 Ridgefield and Old Colony.

The buildings were bounded immediately by South King Street to the north, Bow Street to the east, John Dalton Street to the south and Ridgefield to the west. Beyond these roads, further commercial buildings were present, and this was the dominant habitat present within the surrounding landscape.

The River Irwell was located approximately 300 m north-west of the site, and small pockets of greenspace including Parsonage Gardens and St John's Gardens were situated approximately 170 m to the north-west and 450 m to the south-west, respectively. However, connectivity to these areas was limited due to the lack of potential foraging/commuting features present in the intervening distance.

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.

2. METHODOLOGY

2.1 DESK STUDY

A desktop search for statutory nature conservation sites designated for bats and granted European Protected Species License Applications for bats was undertaken using the Multi Agency Geographic Information System for the Countryside (MAGIC). Relevant bat data is discussed in Chapter 3.

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.

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>	• 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>	• 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

Reference to the MAGIC website revealed records of eleven Granted European Protected Species (Bat) Applications within a 1 km radius of the site. The closest of these to the site were of brown long-eared *Plecotus auritus* and common pipistrelle *Pipistrellus pipistrellus* applications, which were from approximately 330 m to the south-west of the study site. The remaining applications within a 1 km radius were in relation to common and/or soprano pipistrelle *Pipistrellus pygmaeus* bats.

As a part of the Preliminary Ecological Appraisal undertaken at this site in February 2020, an ecological desk study was undertaken. The data search was carried out in February 2021 by Greater Manchester Local Record Centre (GMLRC), and relevant bat records are summarised in Table 3.1, below.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance?	Legislation / Conservation Status
Brown long-eared bat <i>Plecotus auritus</i>	1	2013	480 m north-west *	✓	ECH 4, WCA 5, WCA 6, Local
Common pipistrelle <i>Pipistrellus pipistrellus</i>	96	2018	110 m east +	-	ECH 4, WCA 5, WCA 6, Local
Daubenton's bat <i>Myotis daubentonii</i>	2	2009	460 m north *	-	ECH 4, WCA 5, WCA 6, Local
Pipistrelle <i>Pipistrellus sp.</i>	12	2017	20 m north +	#	ECH 4, WCA 5, WCA 6, Local
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	7	2019	380 m south-east +	✓	ECH 4, WCA 5, WCA 6
Unidentified bat <i>Chiroptera sp.</i>	3	2014	155 m south-east +	#	#, Local

Key:

#: Dependent on species.

*: Grid reference provided was eight figures or more.

+: 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.

Local: Greater Manchester Biodiversity Action Plan.

Note. This table does not include reference to the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats), the Bonn Convention on the Conservation of Migratory Species of Wild Animals or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

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 13th May 2020 and the updated assessment was completed on 17th February 2021. Both assessments were undertaken by Charlotte Richardson MSc (Ecological Consultant – Natural England Bat Licence Reference: 2015-9325-CLS-CLS). The weather conditions recorded at the time of the assessments are presented in Table 4.1 and an aerial image illustrating the building sections surveyed is presented in Figure 4.1.

Parameter	13/05/20	17/02/21
Temperature (°C)	12	9
Cloud Cover (%)	70	100
Precipitation	None	Dry
Wind Speed (Beaufort)	F2	F1-2

Table 4.1: Weather Conditions During the Preliminary Bat Roost Assessment

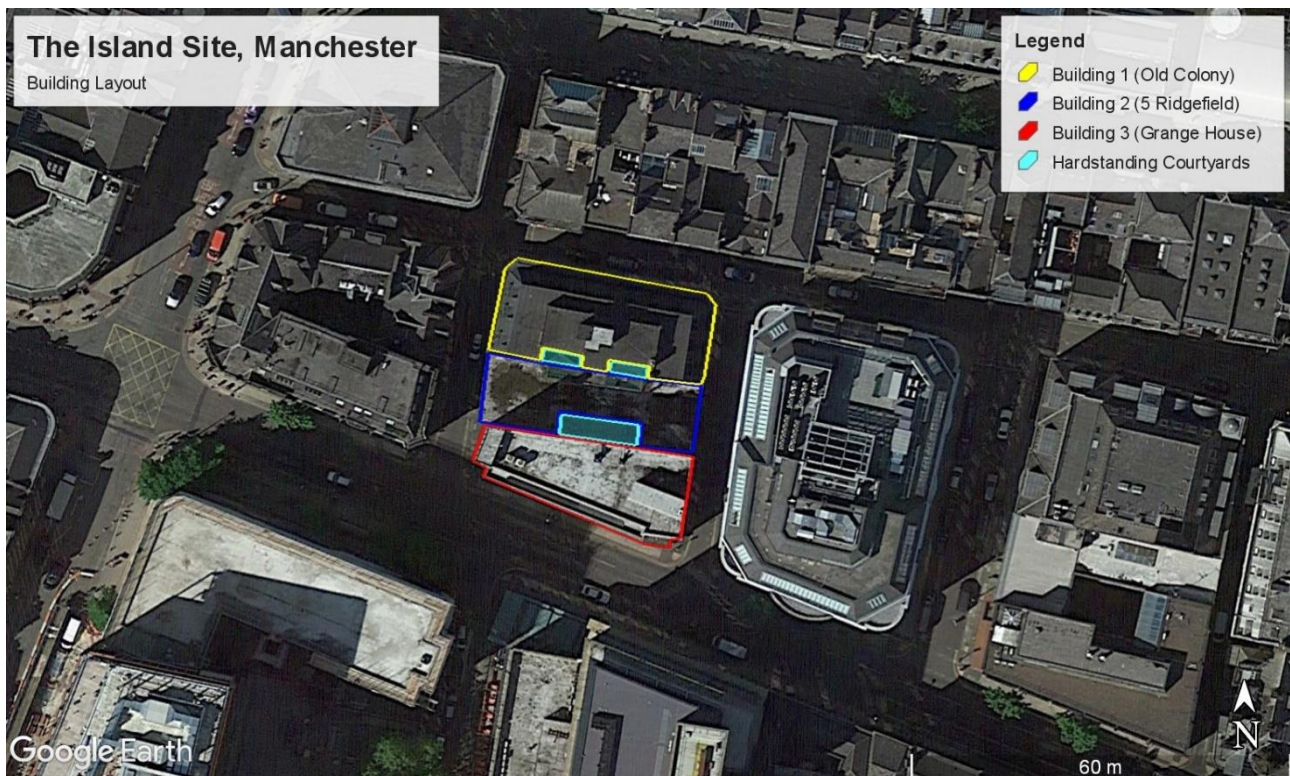


Figure 4.1: Existing Layout of Buildings and Courtyards.

4.2 CONSTRAINTS

Due to the ongoing Covid-19 pandemic, it was not possible to undertake ladder inspections of the buildings as this could not be undertaken while maintaining social distancing. However, as all buildings were flat-roofed and all potential roost features could be inspected with binoculars, this was not considered to be a significant constraint to a robust site assessment.

4.3 SURVEY RESULTS (13/05/20)

Three buildings were surveyed which were connected to one another. Building 1 (Old Colony) was located to the north, Building 3 (Grange House) was located to the south and Building 2 (5 Ridgefield) was situated in between.

4.3.1 Building 1 (Old Colony)

External Assessment

Old Colony was situated in the north of the survey area, and was a 6/7 storey structure which was of smooth stone construction with carved embellishments to the north, east and west (Plate 4.1). The windows were wooden framed, intact and tight-fitting, whilst the doors had been blocked off with steel shutters. The southern elevation of the building was of red-brick construction with white brick-style tiling on some of the frontages (Plate 4.2). Some of the white tiling had come away in places, exposing the render below, whilst occasional missing mortar was noted between some sections of the brickwork (Plate 4.3). However, these features were not considered significant enough to support roosting bats. Overall, the brickwork was in good condition, and the uPVC windows located on the southern elevation were intact and well-sealed. The building was flat-roofed and no fascia or soffit boards were noted on any elevation. However, concrete style parapets were recorded along the wall tops in some areas to the south, which were tight-fitting.

A small flat-roofed lift motor room was present on the roof of Old Colony (Plates 4.2 and 4.4). It had rendered walls, intact uPVC windows and a mix of wooden and metal fascias which were intact and tight-fitting.

No suitable bat roost features were recorded during the external inspection of Old Colony.



Plate 4.1: Northern and Western Elevations of Old Colony.



Plate 4.2: Southern Elevation of Old Colony, with Motor Room on Roof.



Plate 4.3: Minor Missing Mortar which did not Extend.



Plate 4.4: External View of Lift Motor Room on Roof of Old Colony.

Internal Assessment

Internally, Old Colony comprised a pipe room which occupied a small proportion of the basement (Plate 4.5), a former restaurant which occupied the remainder of the basement and the ground floor (Plate 4.6), a workspace on the first floor (Plate 4.7) and office units on the remaining floors. No loft spaces were present within this building and the interior was generally in good condition.

No access points for bats to the internal areas were recorded. No evidence of bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the internal inspection of the building.

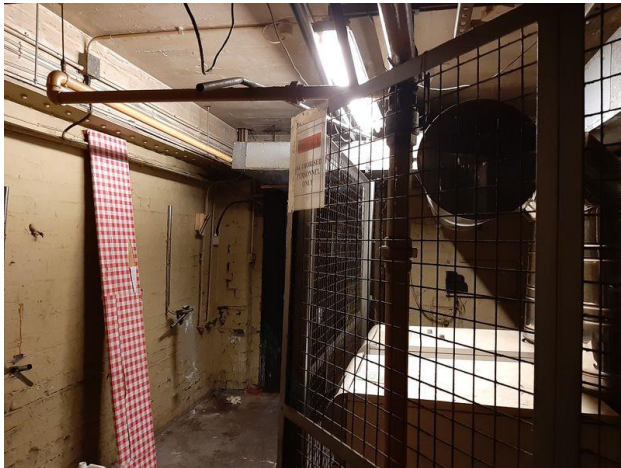


Plate 4.5: Pipe Room in Basement of Old Colony.



Plate 4.6: Former Restaurant on Ground Floor of Old Colony.



Plate 4.7: Workspace on First Floor of Old Colony.

4.3.2 Building 2 (5 Ridgefield)

External Assessment

5 Ridgefield was a flat-roofed, two-storey structure which was situated in between Old Colony and Grange House. The roof top could be seen from the roof of Grange House, and it appeared to comprise flat concrete (Plate 4.8). Although the majority of the northern and southern elevations could not be seen, as they adjoined other buildings, three small hardstanding courtyards were present in between which allowed some of the external walls to be viewed (Plate 4.9). The walls to the north and south had brick-style tile frontages which were in good condition. The eastern elevation of the building was viewable from Bow Street, while the western elevation was viewable from Ridgefield (Plate 4.10). At first glance, the walls appeared to comprise brick. However, some of this had broken on the eastern side, revealing that it was actually a brick-style panel frontage with concrete behind (Plate 4.11). Although some of the frontage and mortar had come away in places, these gaps did not extend sufficiently for roosting bats. Some broken vents were also noted on the eastern side of the building, but these were not considered to provide suitable roosting opportunities for bats. The windows were intact and comprised a mix of wooden and metal frame. The accessible doors on the ground floor were of metal construction, but the remainder had been sealed with metal panels.

No suitable bat roost features were recorded during the external inspection of 5 Ridgefield.



Plate 4.8: Roof of 5 Ridgefield.



Plate 4.9: Courtyard in between 5 Ridgefield (Left) and Grange House (Right).



Plate 4.10: Western Elevation of 5 Ridgefield.



Plate 4.11: Broken Brick-style Panel to the East with Concrete Behind.

Internal Assessment

5 Ridgefield comprised a restaurant on the basement level and ground floor (Plate 4.12) and a combination of office space (Plate 4.13) and a dance studio (Plate 4.14) on the first floor. The basement level was partially open plan, allowing visual access to the ground floor. Some sections of the office space on the first floor had suspended ceilings. The building smelt strongly of damp, and evidence of this was apparent on the walls and around some of the floors. No loft spaces were present within this building and no potential access points or roost features were identified.



Plate 4.12: Basement Level with Ground Floor Above (Top Right).



Plate 4.13: Office Space on First Floor.



Plate 4.14: Dance Studio on First Floor with Degraded Flooring.

No evidence of bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the internal inspection of the building.

4.3.3 Building 3 (Grange House)

External Assessment

Grange House was situated on John Dalton Street and was a 6-storey structure comprising commercial shops on the ground floor with offices above. The majority of the southern elevation comprised a mix of windows and grey panelling which was in good condition, with concrete panels (also intact) towards the wall tops (Plate 4.15). The ground floor shops had glass frontages with metal shutters also present on occasion. The eastern and western elevations comprised intact brick with a mix of metal and wooden framed windows present (Plate 4.16). Occasional holes were noted in the brickwork to the east, where pipework appeared to have been removed, but these were cobwebbed and showed no signs of bat ingress.

A lift motor room was present on the roof of Grange House, towards the eastern side (Plate 4.17). This was flat-roofed and of brick construction with intact metal framed windows and a wooden door. Small amounts of mortar was missing in between some sections of the brickwork, but the gaps created by this were considered too small for roosting bats. The lift motor room had a mix of metal and wooden fascia boards, which were intact and largely well-sealed. However, one small gap was noted around the north-west corner, which upon closer inspection was found to be cobwebbed (Plate 4.18).



Plate 4.15: Southern Elevation of Grange House.



Plate 4.16: Eastern Elevation of Grange House.



Plate 4.17: Motor Room on Roof of Grange House.



Plate 4.18: Small Cobwebbed Gap Below North-west Section of Fascia Board.

Internal Assessment

Grange House had a glass-fronted spiral stairwell to the east of the southern elevation, and the rest of the building comprised individual office units on each floor (Plate 4.19). The offices were all of similar construction with suspended ceiling tiles present. Some of these tiles had become damaged which exposed a 30 cm void with insulation in metal cages above (Plate 4.20). This void was light and not likely to provide suitable roosting conditions for bats.

The loft motor room on the roof had painted walls internally and a flat concrete roof with metal exposed beams (Plate 4.21). A small mezzanine with brick walls and a concrete roof was noted towards the eastern side (Plate 4.22), which was separated from the remainder of the motor room by an internal wall and hatch. No evidence of bats was identified here, and the building was well-sealed.

A car port was identified at basement level and was accessible from the eastern side of Grange House. This had an automatic shutter door with lights installed internally and was well-sealed with no suitable bat roost features identified.



Plate 4.19: Office Space on 6th Floor of Grange House.



Plate 4.20: Broken Suspended Ceiling Tile with Insulation Cages Above.



Plate 4.21: Lift Motor Room on Roof of Grange House.



Plate 4.22: Mezzanine Area within Lift Motor Room.



Plate 4.23: Car Port at Basement Level of Grange House.

No evidence of bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the internal inspection of the building and no potential access points from outside were recorded.

4.4 SURVEY RESULTS (17/02/21)

An updated assessment was undertaken on all three buildings alongside the Preliminary Ecological Appraisal, completed on 17th February 2021 (see Report: RT-MME-151575-02 for further details). During this assessment, there had been no significant changes to any of the buildings (see Plates 4.24 – 4.26), and as such, the buildings were still considered to be of negligible value to roosting bats.



Plate 4.24: Building B1 (Old Colony) 17.02.21.



Plate 4.25: Building B2 (5 Ridgefield) 17.02.21.



Plate 4.26: Building B3 (Grange House)
17.02.21.

4.5 SITE AND SURROUNDING HABITATS

The site is located in a highly built-up area of central Manchester and was surrounded on all sides by further commercial properties, many of which were high-rise. Apart from occasional street trees, there is very little greenspace within 1 km. Two very small parks, Parsonage Gardens and St John's Gardens are located approximately 170 m to the north-west and 450 m to the south-west, respectively, but the nearest significant area of greenspace is Peel Park, located 1.3 km west. The urban surroundings provide low value foraging and no clear commuting lines for bats.

The River Irwell runs 300 m west of the site at its closest point. This provides a potential commuting and foraging area for bats. It is lined in places by trees, but the banks are highly modified and concreted, reducing its value for invertebrates and therefore for foraging bats. It is also surrounded by urban development and likely to be well lit.

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

- Large Buildings with potential roosting features
- Running water and standing waterbodies;
- Churches, schools, hospitals and associated grounds; and,
- Small urban parks and street trees

Some of the buildings around the site were considered to provide potential roosting opportunities but the site and surrounding areas are all subject to high levels of lighting at night and have little connectivity to better habitat. Therefore the site and surrounding areas were considered to be of low value to bats and likely only to support low numbers of common species.

5. DISCUSSION AND CONCLUSIONS

5.1 SUMMARY OF PROPOSALS

This assessment has been prepared to support a planning application for the demolition of the existing buildings on site and erection of an office building.

5.2 ASSESSMENT OF BUILDINGS

The buildings on site were built from 1924 onwards and were generally in good condition and well-sealed with very few potential roost features or access points for bats. All the features noted were small crevice-type features and were either cobwebbed or too small to provide roosting opportunities. Internally the buildings did not contain loft-voids and were well-sealed and light.

The buildings were well-lit at night and were located in a highly urbanised area with poor connectivity to greenspace or other higher-quality foraging habitat. Although records of bats were identified within 500 m, the likelihood of bats commuting to the buildings was considered low due to lack of connecting features and roosting opportunities.

Given the lack of potential roost features coupled with the very low quality habitat for bats surrounding the site, the buildings were all considered to have negligible potential for roosting bats.

5.3 POTENTIAL IMPACTS ON BATS

Although records of bats were identified within a 1 km radius of the site through the desk study, the majority of these records were concentrated around the River Irwell or small pockets of greenspace located within the urban environment. The buildings on site are unlikely to support roosting bats due to a lack of potential roost features and no suitable foraging or commuting habitat within the immediately surrounding area. Therefore, no impacts to bats are anticipated as a result of the proposed works.

6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

R1 Old Colony (B1), 5 Ridgefield (B2) and Grange House (B3)

These buildings were considered to have negligible potential for roosting bats. The survey data obtained for the site is valid for 24 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.

R2 Habitat Enhancement

In line with the National Planning Policy Framework, the development should aim to enhance the site for biodiversity. Bat boxes could be installed to provide roosting habitat for species such as pipistrelle.

REFERENCES AND BIBLIOGRAPHY

Altringham, J (2003). *British Bats*. New Naturalist. HarperCollins.

Collins, J. (ed). (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

English Nature (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

Gunnell, K., Grant, G. and Williams, C. (2012) *Landscape and urban design for bats and biodiversity*. Bat Conservation Trust.

Joint Nature Conservation Committee (2012). *UK Post-2010 Biodiversity Framework*. Available:
http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf

Jones, K and Walsh, A (2006). *A Guide to British Bats*. The Mammal Society, London.

Middlemarch Environmental Ltd (2021). *Land Bound by John Dalton Street, Ridgefield, Bow Street and South King Street, Manchester – Preliminary Ecological Appraisal* (Report: RT-MME-151575-02).

Miles, J., Ferguson, J., Smith, N. and Fox, H. (2018) *Bats and artificial lighting in the UK. Bats and the Built Environment Series*. Bat Conservation Trust and Institution of Lighting Professionals.

Ministry of Housing, Communities and Local Government (2019) *National Planning Policy Framework*. Available: <https://www.gov.uk/government/collections/revised-national-planning-policy-framework>

Mitchell-Jones, A.J. & McLeish, A.P. (2004). *The Bat Workers' Manual (3rd Ed.)*. JNCC, Peterborough.

The Conservation of Habitats and Species Regulations 2017.

APPENDIX 1

LEGISLATION

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). 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.

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 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*.

Bats are also priority species in the Greater Manchester Biodiversity Action Plan.

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

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.