FUTURESECOLOGY

Modernistiq (Harrogate) Ltd

123 Westgate Road, Belton

POTENTIAL ROOST ASSESSMENT

AND NESTING BIRD SURVEY

Report Reference Number: FE139/PEA01

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REV	Issue Status	Author or Reviewer	Name & Qualifications	Position	Date
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1.0 EXECUTIVE SUMMARY

1.1 The site included a small outbuilding (B2) with negligible potential for use by bats and a large brick building (B1) considered to be of only low potential for use by bats given the identification of limited potential access points and/or roosting features.

1.2 As such, a single nocturnal survey was recommended to further assess the use of the building B1. No bats were seen emerging from the building during this nocturnal activity survey completed in September 2021. Bat activity within the vicinity of the building was low and limited to the area adjacent to the southern aspect of the building. As such, bats are not currently a constraint to the demolition of the buildings and no further surveys are considered necessary.

1.3 Records of bats within 1km of the site were noted during the desktop study. Given the presence of bats in the local area and that the building offers low potential for bats, demolition should proceed with caution. If bats or bat droppings are found during demolition then all work should stop immediately, and a licensed bat Ecologist should be contacted for further advice. The building should be resurveyed if demolition is delayed for over 12 months from the date of the nocturnal survey detailed within this report. Any proposed lighting scheme should be sympathetically designed to avoid impacts on bat activity within and adjacent to the site.

1.4 No evidence of nesting birds was noted during the building survey. However, given the presence of crevices above the front access door on the northern aspect, the building should be demolished outside the bird breeding season considered to be between March and September inclusively. Alternatively, the building should be checked by an Ecologist immediately prior to demolition to ensure nesting birds continue to be unaffected.

1.5 Further ecological enhancements are provided within this report to enhance and maximise biodiversity in line with relevant local planning policy and National Planning Policy 2019 (NPPF). These include planting with native species and provision of bird and bat boxes on new built structures.

2.0 INTRODUCTION

2.1 The following report has been prepared by Futures Ecology Ltd on behalf of Modernistiq (Harrogate) Ltd in respect of proposals for demolition of buildings on land at 123 Westgate Road, Belton DN9 1PZ hereafter referred to as 'the site'.

SITE LOCATION AND CONTEXT

2.2 The site consisted of a large building currently used for storage and a small outbuilding located on the western side of the main building. Both were located along the main road between the village of Belton to the east and Westgate to the west (Central OS grid Ref: SE 774074).

2.3 The buildings within the site formed part of a larger development site with new housing currently being constructed on adjacent land immediately to the east and south.

2.4 The site was set in a residential area with houses on either side of Westgate Road and Carrhouse Road to the south. Beyond the strip of housing to the north and south was pastoral and arable farmland spilt into small field compartments.

DEVELOPMENT PROPOSALS

2.5 The proposals for the site include the demolition of the two existing buildings to allow for construction of new housing as part of the wider development site.

BACKGROUND

2.6 A Potential Roost Assessment and survey for evidence of nesting birds was completed on 8th September 2021 by Futures Ecology on behalf of the client. The objective of the survey was to:

- Identify the presence, or the potential for the presence, of any protected species whose disturbance may require consent under the Wildlife and Countryside Act, 1981 (as amended) or the Conservation of Habitats and Species Regulations 2010 (as amended) with particular focus on bats within the buildings on site;
- Identify any further, specialist surveys that may be required to support a planning application.

2.7 This report contains the results of the assessment including the potential of the buildings to support bats and breeding birds.

3.0 METHODOLOGY

DESK STUDY

3.1 Prior to the field survey, aerial photographs and mapping tools were reviewed using online mapping resources at a minimum scale of 1:25,000; Google Maps[1]; and the Multi Agency Geographic Information for the Countryside (MAGIC)[2] to assess the landscape context of the survey area and surrounding areas.

3.2 The MAGIC website was used to obtain information about approved European Protected Species Mitigation (EPSM) licences for bats within 2km.

3.3 To support the field survey and compile baseline information of relevance to the site, bat records from up to 2km of the site were sought from Lincolnshire Bat Group.

FIELD SURVEY – FAUNA

Bats

Building Assessment

3.4 All buildings within the site boundary were assessed for their potential to support roosting bats using statutory guidance (Natural England[3]) and best practice survey methodology[4]. The survey was undertaken by an ecologist with a Natural England level 2 class licence to survey for bats (reference number: 2015-12340-CLS-CLS) on the 8th of September 2021.

3.5 The buildings were inspected internally and externally (where possible) using close focussing binoculars, a high-powered torch where appropriate. Features such as small gaps around or under barge/soffit/fascia boards, windows, lintels, flashing, external pipework and or raised or missing roof/ridge tiles or gaps at gable ends, which have the potential for use as access points, were noted. Evidence that bats actively used such features included: staining within and around the gaps or bat droppings / urine staining under gaps. The presence of cobwebs and or general detritus within and around potential access points was used as an indicator that bats had not recently used the area to access the building.

3.6 An assessment was made on the level of bat roosting potential offered by the structures, based on the presence of the features detailed above. Table 1 below broadly classifies the potential categories and discusses the relevance of such features, where present.

[1] www.google.com/maps

[2] www.magic.defra.gov.uk

[3] https://www.gov.uk/guidance/bats-surveys-and-mitigation-for-development-projects (accessed March 2020)

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

Table 1 - Bat Roost Potential Classification Buildings - Based on Table 4.1 and Table 7.3 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016).

Classification / Suitability	Description of Roosting Habitat within Buildings	Likely Further Survey Work
Negligible	Negligible or no habitat features likely to be used by roosting bats.	None.
Low	A structure with one or more potential roost sites or features (PRF) that could be used opportunistically by small numbers or individual bats. These features do not provide enough space, shelter, suitable conditions and or surrounding suitable habitat to be used on a more regular basis or by larger numbers of bats. The feature is unlikely to be suitable for hibernation or maternity roosts.	Nocturnal presence / absence surveys are likely to be required to give confidence in a negative result. At least one dusk emergence or dawn re-entry survey during the appropriate survey period. Further roost characterisation surveys would be required should a roost be confirmed that will be affected by development proposals.
Moderate	A structure with one or more potential roost sites or features that could be used by bats due their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (in respect to roost type only and not species conservation status).	At least two nocturnal presence / absence required to give confidence in a negative result. One dusk emergence and a separate dawn re-entry survey during the appropriate period. Should a roost be confirmed, further roost characterisation surveys would be required. Surveys should be evenly spread throughout the season, a minimum of at least 2 weeks apart.
High	A structure with one or more potential roost sites that are obviously suitable for use by large numbers or bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat.	At least three nocturnal presence / absence surveys required to give confidence in a negative result. At least one dusk emergence and a separate dawn re-entry survey. The third survey could be either a dusk or dawn nocturnal survey.
Confirmed Roost	Evidence of roosting bats in the form of live or dead bats, droppings, urine staining, mammalian fur oil staining etc.	At least three nocturnal surveys to ascertain the status of the roost during appropriate survey period. At least one dusk emergence and a separate dawn re-entry survey. The third survey could be either a dusk or dawn nocturnal survey. A precautionary good practice method statement may still be required if the roost is unaffected directly by the proposed works.

Nocturnal Presence / Absence Survey

3.7 An assessment of the buildings was first undertaken on 8th September 2021 to identify evidence of and potential for use by roosting bats. Following this initial assessment B1 was considered to provide 'Low' potential for use by roosting bats.

3.8 In line with current survey guidance a single nocturnal bat survey was recommended focussing on these buildings, to determine the presence / likely absence of roosting bats. This survey was undertaken on the evening of 23rd September 2021.

3.9 The nocturnal bat survey was completed in line with standard guidance (Bat Surveys: Good practice guidelines, 3rd edition, Bat Conservation Trust, 2016).

3.10 During this survey ecologists were positioned such that all aspects of the buildings with potential to support bats could be observed. The dusk survey commenced 15 minutes prior to sunset and continued at least 1.5 hours following sunset. During the nocturnal surveys, the species and location of any bat activity was recorded using Echo Meter Touch® bat detectors.

3.11 The survey was conducted in appropriate conditions, i.e., ambient temperatures above 10˚C and with little wind and no rain (Table 1). It was completed by experienced bat workers and co-ordinated on site by James Eales a licensed bat ecologist (License Reference Number: 2015-17861-CLS).

Table 2: Nocturnal survey date and conditions

Survey Date	Survey Time	Conditions
23rd September 2021 Dusk survey	18:50 to 20:32 (sunset 19:02)	16°C, 20-40% cloud cover, light breeze, no rain.

Survey Limitations

3.12 A roof void was present between the ceiling and roof within B1 but no internal access hatch was present so this space could not be fully inspected for evidence of roosting bats during the building inspection. However, limited potential access points were noted on the exterior which would allow bat access into this void. Also, as a precaution a nocturnal presence/absence survey was completed to ensure that no bats were roosting within the roof void itself.

4.0 RESULTS

DESK STUDY

Protected / Notable Species Records

4.1 Records of protected and notable bat and bird species was provided by desk study consultees and detailed in Table 3 below. The species records have been filtered to comprise relevant protected and / or notable bird species within 1km (and bats within 2km) of the survey area from the last 20 years. Additional species records which are older than 20 years or considered to be unaffected by development proposals have not been presented here. All supplied data can be provided on request.

Table 3: Summary of Relevant Protected and Notable Species Records

Species	Latin	Conservation Status	Total No. of Records	Location / Minimum distance of records from site centroid (m)
Birds				
House sparrow	*Passer domesticus*	BoCC Bird_RedList_GB, NERC	3	735
Song thrush	*Turdus philomelus*	BoCC Bird_RedList_GB, NERC	2	300
Starling	*Sturnus vulgarus*	BoCC Bird_RedList_GB, NERC	2	778
Bats				
Common pipistrelle	*Pipistrellus pipistrellus*	HSD4, WCA_Sch5	6	689
Brown long eared bat	*Plecotus auritus*	HSD4, WCA_Sch5, NERC	1	1326

Status Key: HSD4 - The Conservation of Habitats and Species Regulations 2017. WCA – The Wildlife and Countryside Act 1981 (as amended). Sch5 – Schedule 5. Sch9_part2- Schedule 1, Part 2. NERC = England Natural Environment and Rural Communities Act (2006) Section 41. BoCC - Birds of Conservation Concern. Bird_RedList_GB_post2001 – Red Data Book

4.2 According to data from www.magic.gov.uk no European Protected Species Licenses for disturbance to bats have been granted within 2km of the site boundary. The closest was located at a property 2.9km to the south east of the site and was issued in 2017 to legitimise destruction of a common pipistrelle bat roost.

FAUNA

Bats

4.3 The site included a large building (B1) which was open plan internally and used for storing building materials and as a site office for the adjacent construction site. Another

unconnected and much smaller outbuilding was present adjacent to the south west corner (B2). The location of the buildings has been included in Figure 1.

Negligible Roosting Potential Buildings

Building B2

4.4 A small brick outbuilding was also present adjacent to the south eastern corner of B1 but unconnected to the larger building. It featured a pitched roof covered with slate tiles although some of the tiles had slipped or were missing leaving a hole in the roof.

4.5 B2 did not contain a roof void and the interior was open to the elements due to the damaged roof and open access door on the eastern side.

4.6 Potential access points included the open doorway and slipped/missing roof tiles. However, given the size, nature and poor condition of this structure it was considered unsuitable for use by roosting bats. No evidence of bats was found associated with B2 externally or internally.

Photograph 1: B2 exterior

Low Roosting Potential Buildings

Building B1

4.7 This large brick building was currently being used to store building materials to supply the housing development works on adjacent land.

4.8 B1 featured a gable roof covered with slate roof and ridge tiles. A large industrial access door was located on the northern aspect adjacent to Westgate Road. A smaller access door was located on the small single storey lean-to section attached to the eastern aspect.

Photo: B1 northern and western aspects

4.9 Windows were present along both eastern and western aspects with a single window also on the southern gable. All had wooden frames, and some were covered with wooden security boards where panes of glass had been broken. Wooden soffit boxes were present at the eaves level on part of the two-storey section, but these appeared to be in good condition and tightly fitted. No barge boards or soffits were present on either of the gable ends of the building. A small wooden shutter/hatch door was present on the southern gable end.

4.10 Most of the brickwork and mortar was in good condition . However, there were some localised areas of brickwork on the southern gable where the mortar between bricks had degraded although the resulting crevices appeared to be superficial and too shallow to support roosting bats.

4.11 Externally, potential access points on B1 included an occasional gap created by a lifted roof tile. There were also gaps above the metal door on the northern aspect and between the wooden lintel and a warped cladding board also above this door. Two large gaps were also noted in the brickwork above this doorway which may lead to cavities above, but this could not be confirmed during the building assessment. A small gap was noted around the wooden hatch on the upper storey of the southern gable wall.

4.12 No evidence of use by bats was found associated with any of these potential access points/roosting features or anywhere else on the exterior of the building.

4.13 Internally, the building was divided into a small office area and a larger main section used for storage. The interior walls and ceiling were plastered and decorated with only superficial cracks in the plaster.

Photo: B1 interior

4.14 No potential roosting features or evidence of use by bats was found within the building. A roof void was present between the ceiling and roof although no internal access hatch was present so this void could not be inspected for evidence of roosting bats.

Nocturnal Surveys

4.15 Given that some potential opportunities for roosting bats were identified within B1 during the building assessment a single nocturnal activity survey was recommended in line with current survey guidance.

4.16 This survey was undertaken on 23rd September 2021. The building had only 'Low' potential for use and no evidence/potential was found to suggest that the building would support any more than a day roost for an individual/small number of bats. In this case the survey effort was considered sufficient to identify the presence of this type of bat roost.

4.17 During the dusk survey bat activity was limited to occasional bat passes with three species recorded by surveyors. The most prevalent activity within the vicinity of the building was by common pipistrelle bats passing across the southern aspect of the building from half an hour after sunset and then occasionally up until the end of the survey. Common pipistrelle bats were the only species to be visually recorded within the vicinity of the building and only along the southern aspect. The timing of these observations suggest that the same individual bat was heard but not seen by surveyors on the north west corner and eastern aspect of the building.

4.18 A noctule bat was heard by the surveyor positioned on the north west corner of the building but this bat was not observed near the building. A brown long eared bat was recorded briefly between 20:21 and 20:27 by the same surveyor but again no visual contact was made suggesting this bat may have been flying in the adjacent garden.

4.19 No bats were seen emerging from the building during the survey. Bat activity within the vicinity of the building was low and limited to a small number/individual common pipistrelle bat(s) passing the building adjacent to the southern aspect.

Breeding Birds

4.20 In general, the buildings contained limited opportunities for use by breeding birds. However, there were holes in the brickwork above the large access door on the northern aspect which may offer a potential location for nest building. No evidence of historical use such as abandoned nests, nesting material or bird droppings were noted within the buildings on site during the surveys.

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Bats

5.1 No evidence of bats was found associated within the two buildings during the external/internal building assessment and no bats were seen emerging from B1 during the nocturnal survey also undertaken in September 2021. Therefore, bats are not currently considered to be a constraint to the demolition of these buildings.

5.2 However, bats are transient in nature and evidence of occasional use by crevice dwelling species can be obscured. Therefore, demolition should proceed with caution and if bats or bat droppings are found during demolition then all work should stop immediately, and a licensed bat Ecologist should be contacted for further advice.

5.3 As B1 was considered to offer some, albeit limited, potential for use by bats, it is recommended that surveys are repeated if there is a delay to the start of demolition of more than 12 months from the nocturnal survey.

5.4 As part of the development proposals any lighting scheme should be sympathetically designed and managed during and post development to prevent negatively affecting commuting/foraging bat species using the site. The following are standard recommendations to consider when developing a site:

- Unnecessary lighting should be avoided
- All luminaires should lack UV elements when manufactured. Metal halide, 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 spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component and poor facial recognition, and their use should only be as directed by the lighting professional.
- Column heights should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of obtrusive Light.
- Luminaires should always be mounted on the horizontal, i.e., no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1min) timers.

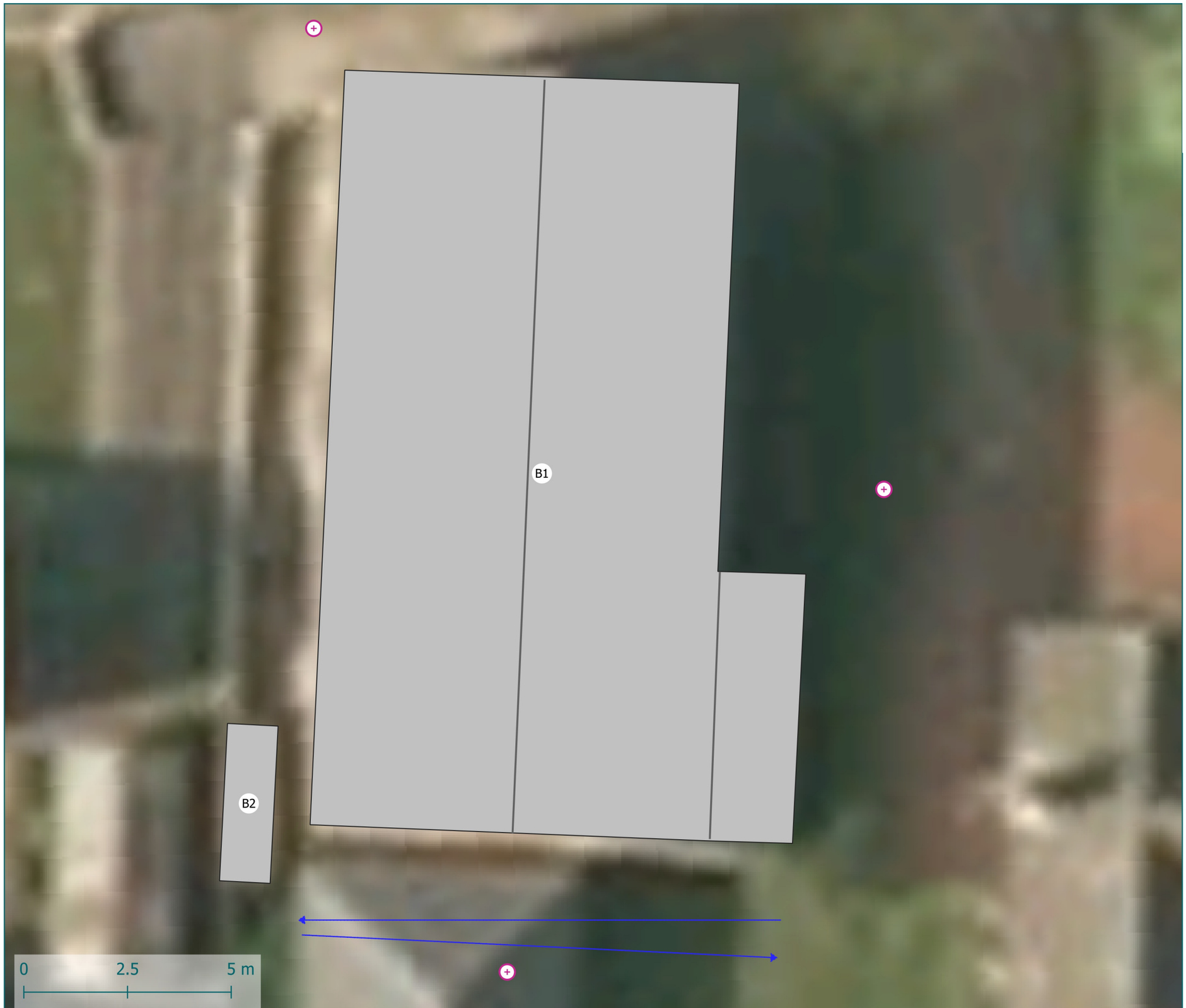
Breeding Birds

5.5 No historic evidence of nesting birds was recorded during the building survey. However, localised areas that could be used by nesting birds were identified and as all birds are protected whilst on the nest under the Wildlife and Countryside Act 1981 (as amended) the demolition of the buildings should take place outside of the bird breeding season (considered to be March – September inclusive). If this is not possible then they should be checked by a qualified ecologist prior to removal. Active bird's nests are nests which are in the process of being built, or contain eggs, chicks or fledglings. If any active bird's nests are found, they should be left in place with an appropriate buffer (minimum 5m) until fledglings have left the nest.

BIODIVERSITY ENHANCEMENTS

5.6 The provision of a bird box and a bat box/brick on the proposed built structure is considered sufficient replacement given the low potential provided for birds and bats within the demolished building. This would increase the availability of nesting/roosting opportunities within the site and the locality.

The provision of such features as detailed above would be in accordance with relevant national and local planning policy helping to achieve net gain in biodiversity within the site and local area post development.



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Key

- Buildings
- Roof lines
- Surveyor
- Common pipistrelle flight lines

Client:	Modernistiq (Harrogate) Ltd	Plan Reference:	FE139_01	Author:	JW
Project:	123 Westgate Road, Belton	Project Reference:	FE139	Date:	4/10/2021
Title:	Figure 1 - Bat Survey Plan (04.10.21)	Report Reference:	PEA01	Scale:	1:93.174@A3

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