

# 76 Commerce Street Melbourne Derbyshire

## Bat Survey Report

Client: Loughborough Building Society

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JJH Consulting Ltd  
[T] 07914 876170  
[E] [info@jennywheeldon.co.uk](mailto:info@jennywheeldon.co.uk)

Registered in England: 07343219

## **NON-TECHNICAL EXECUTIVE SUMMARY**

This report contains details and results of the surveys undertaken to assess the potential for, and presence/absence of bats at a disused factory site located at 76 Commerce Street, Melbourne, South Derbyshire.

This was to identify any statutory constraint posed by bats as European Protected Species, to the demolition of the buildings as part of plans to redevelop the site.

The site included a relatively small factory unit with an office building attached, an adjacent car park and loading bay at the rear. The buildings were unoccupied at the time of the surveys but were in a reasonable state of repair. An initial external and internal inspection of the buildings was undertaken to identify potential roosting features and access points which could be used by roosting bats. This included a search for evidence of use in the form of bat droppings, dead bats and/or staining.

No evidence of bats was found during the building inspection and the buildings themselves were considered to have low potential for use by bats. However the presence of two bat boxes erected on the exterior of the east facing wall was considered to improve the status to moderate potential. In line with current guidance two nocturnal surveys were undertaken in May/June 2019.

During the first nocturnal emergence survey completed on 13<sup>th</sup> May 2019 two common pipistrelle bats were seen emerging from the western aspect of building B1. However no bats were seen re-entering the building at this or any other location during the second nocturnal survey undertaken on 1<sup>st</sup> June 2019.

This section of Building B1 has therefore been identified as an occasional roost for a small number of common pipistrelle bats. All bat species and their roost sites are protected under the Wildlife and Countryside Act (WCA) 1981 as amended and the Conservation of Habitats and Species Regulations 2017. Therefore a European Protected Species License (EPSL) will be required from Natural England before any works including proposed demolition of this section of building B1 can commence.

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### **FIGURE 1: Buildings Plan**

## **1.0 INTRODUCTION**

- 1.1 This report has been prepared on behalf of Loughborough Building Society by Jenny Wheeldon, an Ecologist who is a full member of Chartered Institute of Ecology and Environmental Management (CIEEM) with over 14 years experience in the field of Ecological Consultancy and who holds a protected species license for bats.
- 1.2 Field surveys and reporting work has been conducted in accordance with the CIEEM: Code of Professional Conduct and Report Writing Guidance. The relevant best practice guidelines for surveys and mitigation have also been adhered to wherever relevant and any deviations from these have been explained and/or justified by the author.
- 1.3 The surveys and report were completed on behalf of The Loughborough Building Society in respect of proposals to demolish disused factory buildings at 76 Commerce Street, Melbourne, South Derbyshire (Central OS grid Ref: SK 380254).
- 1.4 A preliminary building assessment was undertaken on 23<sup>rd</sup> April 2019. As the buildings were considered to have moderate potential for use by roosting bats two nocturnal surveys were also completed in May/June 2019. This report contains the results of these surveys and outlines recommendations for further survey work and mitigation as required.
- 1.5 The objective of the surveys as detailed in this report was to identify the presence, or the potential for the presence, of bats and also breeding birds whose disturbance may require consent under the Wildlife and Countryside Act, 1981 (as amended) or the Conservation of Habitats and Species Regulations 2017 (as amended).

### **Site Description and Context**

- 1.6 The site was located on Commerce Street on the western edge of the town of Melbourne, South Derbyshire. The site contained factory/office buildings and hard standing and was situated within an otherwise residential area.
- 1.7 Beyond the site to the north, south and east were residential properties but also with an area of amenity grassland and allotments to the south. To the west beyond the edge of Melbourne were pastoral and arable fields with associated farm buildings.
- 1.8 Melbourne Pool, a large water body with associated habitats was located approximately 0.5km to the south east of the site on Commerce Street.

**Relevant Legislation**

- 1.9 All British bat species and their roost sites are protected under the Wildlife and Countryside Act (WCA) 1981 as amended and are included in Schedule 2 of the Conservation of Habitats and Species (Amendment) Regulations 2017. Combined, this legislation means that it is illegal to:
- Deliberately or intentionally kill, injure or take a bat.
  - Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not)
  - Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- 1.10 All birds are protected whilst on the nest under the Wildlife and Countryside Act 1981 (as amended).

## **2.0 METHODOLOGY**

### **Impact Assessment**

2.1 In the production of this report consideration has been given to the mitigation hierarchy as follows:

- Avoid: provide advice on how the development may proceed by avoiding impacts to protected species by alteration of the development plans;
- Mitigate: where avoidance is not possible mitigation proposals are suggested to minimise impacts;
- Compensate: where avoidance cannot be achieved any mitigation strategy will consider compensatory measures;
- Enhance: identify appropriate and proportionate ecological enhancement in line with both national and local policy.

### **Desk Study**

2.2 A request for existing ecological data regarding bats up to 1km from the site was sent to the Derbyshire Bat Conservation Group (DBCG).

2.3 Further inspection, using colour 1:25 000 OS base maps ([www.ordnancesurvey.co.uk](http://www.ordnancesurvey.co.uk)) and aerial photographs from Google Earth ([www.maps.google.co.uk](http://www.maps.google.co.uk)), was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

### **Potential Roost Assessment**

2.4 The buildings were assessed for the potential to provide suitable roosting for bats in accordance with the Bat Surveys: Good Practice Guidelines (Hundt et al, 2016).

#### External / Internal Building Assessment

2.5 The external features of the buildings were assessed to determine the potential for roosting bats. Structural features and suitable access points such as small gaps under eaves/soffit boards, raised or missing ridge tiles, gaps through degraded mortar and gaps at gable ends were recorded.

2.6 Where potential access points were identified evidence of bat usage was searched for including urine staining and the presence of bat droppings within or beneath the potential access points. The presence of heavy cob-webbing and general detritus around or within potential access points was considered as an indicator that bats had not recently used the area.

- 2.7 An internal inspection of the building consisted of a search for potential roosting features (PRFs), access points and evidence of bats inside the buildings. Evidence of a roost was determined by the presence of a dead or live bat(s), concentrated piles or scattered droppings, food remains such as insect wing fragments as well as scratch marks and/or staining on internal beams etc.
- 2.8 None of the buildings contained roof voids although part of the office building (B2) featured a false ceiling. Therefore the internal inspection of the building consisted of a search for potential roosting features within the buildings themselves, potential access points whereby bats could gain entry to the interior and evidence of presence. Evidence of a roost was determined by the presence of a dead or live bat(s), concentrated piles or scattered droppings, food remains such as insect wing fragments as well as scratch marks and/or staining on internal beams etc.
- 2.9 In addition to bats the surveys also took into account any presence of nesting birds or evidence of use such as droppings and nesting material.

#### Nocturnal Surveys

- 2.10 The buildings were considered to have moderate potential for use by roosting bats and therefore additional nocturnal surveys were recommended in accordance with current survey guidance (Bat Surveys: Good Practice Guidelines, 3rd edition, Bat Conservation Trust (2016)).
- 2.11 The nocturnal surveys were completed at dusk on 13<sup>th</sup> May 2019 and at dawn on 1<sup>st</sup> June 2019 by experienced surveyors including licensed bat workers Jenny Wheeldon (NE Licence CL18 2015-12340-CLS-CLS), and Shoshanah Crookes (NE Licence CL18 2016-23528-CLS-CLS).
- 2.12 The surveyors were positioned such that all aspects of the building B1 and B2 which contained potential for use by bats were observed.
- 2.13 The dusk emergence survey started approximately 15 minutes before sunset at 20:37 and finished at least 90 minutes after sunset at 23:07. The dawn survey started approximately 1.5 hours before sunrise at 03:15 and finished 15 minutes after sunrise at 05:02.
- 2.14 During the nocturnal surveys the location and species of any bat observed emerging from/entering the buildings was recorded and the level of activity within the vicinity was also noted. To aid species identification ultrasonic bat detectors (Petterson M500-384, Anabat Walkabout and Bat Box Duet) were used.
- 2.15 The surveys were conducted in appropriate conditions, i.e. ambient temperature 10°C with little wind and no rain.

- 2.16 This methodology takes into account the statutory guidance from English Nature<sup>1</sup> (now Natural England) and further guidelines introduced by the Bat Conservation Trust<sup>2</sup> (BCT).

### **Constraints**

- 2.17 An internal inspection of the bat boxes on the eastern wall of B1 could not be undertaken at the time of the building assessment given the height at which they had been installed. The presence of a garden shed below the boxes made access with a ladder impossible. However these boxes were observed from ground level with binoculars and also covered by the two nocturnal surveys to identify presence of roosting bats within them.
- 2.18 Given the size and design of the building not all areas of the external roof could be observed from the ground during nocturnal surveys. However surveyors were positioned such that the timing of bat encounters could be used to establish whether bats had emerged from the building itself or if they had flown right over the building from beyond the site.

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<sup>1</sup> Jones AJ (2004) Bat Mitigation Guidelines, English Nature

<sup>2</sup> Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust

### 3.0 RESULTS

#### Desk Study

- 3.1 The Derbyshire Bat Conservation Group provided records of bat roosts and encounters within a 1km radius of site.
- 3.2 The data search included several records of bats including common pipistrelles *Pipistrellus pipistrellus*, noctules *Nyctalus noctula* brown long eared *Plecotus auritus* and *Myotis* sp bats. The majority of recorded activity was of foraging bats at Melbourne Pool, a water body located approximately 0.5km to the south east of the site on Commerce Street.
- 3.3 As for known bat roosts in the area, two had been recorded within 1km of the site boundary. A *Pipistrellus* sp. maternity roost was recorded at a property approximately 320m to the east of the site with the last recorded count in 2004 suggesting numbers of over 70 individual bats at this location.
- 3.4 A large Soprano pipistrelle *Pipistrellus pygmaeus* roost had also been found at a building in Melbourne approximately 750m to the north east of the site. The record entry was dated 2014 and described 'hundreds' of bats in a gable roost.
- 3.5 Records and anecdotal evidence suggested that nocturnal surveys had already been completed on the buildings at, or immediately adjacent to, the site on Commerce Street. The surveys completed in August 2007 and again in May 2016 found no bats emerging from the buildings on site but commuting and foraging common pipistrelles and one pass by a brown long eared bat were noted during these surveys.

#### Potential Roost Assessment

- 3.6 The site consisted of a warehouse/factory building B1 and attached office building with loading bay B2 (Figure 1: Buildings Plan).

#### External Building Assessment

- 3.7 Building B1: the factory section was brick built and featured a northern light roof covered with skylights on the northern pitches and corrugated asbestos sheets on the southern pitches. The building was single storey at the front but had a basement under it which led out to a loading bay at the rear.



**Photo: factory building B1 western aspect taken from the adjacent car park**

- 3.8 This building featured windows and access doors along the southern wall and on the northern wall above the loading bay. At the end of each pitched section was a vent covered with wooden slats and in some instances also with wire mesh.
- 3.9 A brick chimney stack was noted on the western side adjacent to the car park. This was currently being used as a communications tower and featured mobile communications equipment.
- 3.10 The section of B1 that was located along Commerce Street itself was a brick building with a flat roof, several windows and large wooden doors. The rear of this section also featured a wooden fascia board and a small box feature on the roof which had a flat top covered with roof felt. This feature was located opposite the chimney stack also adjacent to the western car park (Figure 1: Buildings Plan – Target Note 2).
- 3.11 The eastern wall of B1 formed a shared boundary with an adjacent residential property and garden. On the exterior of this wall the neighbouring landowner had erected several wooden bird boxes and also two wooden bat boxes which were fixed high up on the factory/boundary wall.
- 3.12 Within B1 potential access points which could be used by bats were limited given the design and nature of the building. However occasional damage to brick work, particularly where pipes had been removed, was noted as potential access points into the building. Some of the wooden slats over the vents had warped or slipped providing suitable access points where the vents had not been covered internally by wire mesh.

- 3.13 Damage to the roof felt on the western aspect of B1 was also noted as a PRF along with suitable gaps under the top of the box structure on the roof of B1 (Figure 1: Buildings Plan – Target Note 2 and photos below). Gaps under the fascia board in the same location were also noted.



**Photos: potential access points where roof felt damaged and on box structure (indicated by red arrows).**

- 3.14 The two wooden bat boxes positioned on the eastern wall of B1 provided suitable external PRFs (Figure 1: Buildings Plan – Target Note 1). Although these could not be reached by ladder in order to carry out an internal inspection, binoculars were used to identify evidence of use such as droppings below the boxes. No evidence of use by bats was observed during the building assessment.



**Photo: Wooden bat boxes on eastern wall of B1**

- 3.15 Building B2: this building occupied the eastern part of the site but was attached to B1 and linked internally. B2 was also brick built but featured a pitched roof covered also covered with asbestos sheets.
- 3.16 The gable ends of the building featured barge boards which were formed by the asbestos roof covering and also window and door frames on the front which were PVCu.



**Photo: Front of office building B2**

- 3.17 Potential external access points and PRFs within B2 were limited to potential gaps under the barge boards at the gable ends of the pitched roof. A smashed window on the western aspect may have allowed bat

access to the interior of the building but no internal evidence of use by bats was found in this location.

#### Internal Building Assessment

- 3.18 Both buildings B1 and B2 lacked a permanent roof void although a false ceiling was present within B2. The pitched roof on B1 featured skylights and the windows in B2 both allowed significant daylight into the buildings making the interior very light.
- 3.19 The under side of each southern pitch on the roof of B1 was covered with sarking boards. This may have created a crevice between the boards and the asbestos sheets covering the roof. If so then these could be suitable voids for roosting bats providing external access points were available within the roof. However it was considered likely that these crevices would have been filled with insulation which would limit the potential for use by bats.
- 3.20 The basement loading bay at the rear of B2 featured windows with frosted glass along the northern wall. This allowed some daylight into the basement in this area. However no other basement windows were noted making the rest of the lower floor much darker than the upstairs factory/warehouse. The basement was simple in structure designed as a storage area and lacked internal features and access points which could be used by roosting bats.



**Photo: Basement leading to rear loading bay**

- 3.21 Given the design and nature of the buildings there was a lack of suitable access points available for use by bats and certainly no evidence of use such as bat droppings was found internally or externally during the building assessment.

### Nocturnal Survey Results

- 3.22 The first of the two nocturnal surveys was an evening emergence survey undertaken on the 23<sup>rd</sup> May 2019.
- 3.23 During this survey two common pipistrelles were observed emerging from a gap in the box structure on the roof of B2. The first of these bats was noted at 20:57 only 4 minutes after sunset (20:53). The second bat emerged from the same point 11 minutes later at 21:08.
- 3.24 No other bats were seen emerging from the building or the bat boxes on the eastern wall during this survey. However two common pipistrelles were noted by surveyors on all aspects of the building during the survey. The majority of bat activity was animals commuting across the site but also some recorded foraging intermittently within the vicinity of the buildings.
- 3.25 The only other bat species recorded during this survey was a noctule *Nyctalus noctula* bat heard briefly at 21:23 but this bat was not observed on site within the vicinity of the buildings.
- 3.26 No bats were seen re-entering the buildings during the second nocturnal survey undertaken on the morning of 1<sup>st</sup> June 2019. Activity during this pre-dawn survey was lower than during the previous emergence survey with two species common pipistrelle and a Soprano pipistrelle *Pipistrellus pygmaeus* recorded commuting adjacent to the site with only brief commuting activity noted adjacent to the buildings.
- 3.27 One common pipistrelle bat was recorded foraging for several minutes over an adjacent garden to the west of the site. This bat was first observed at 03:23 and was observed until 04:09 when it flew away to the west after which no bat activity was recorded again during the survey.

### Breeding Birds

- 3.28 Several wooden bird boxes were noted on the eastern wall of section B1 attached to the boundary wall and facing into the adjacent residential garden. However no birds were seen entering these boxes during any of the survey visits and no evidence of breeding birds was noted within the buildings themselves.

## **4.0 SUMMARY & RECOMMENDATIONS**

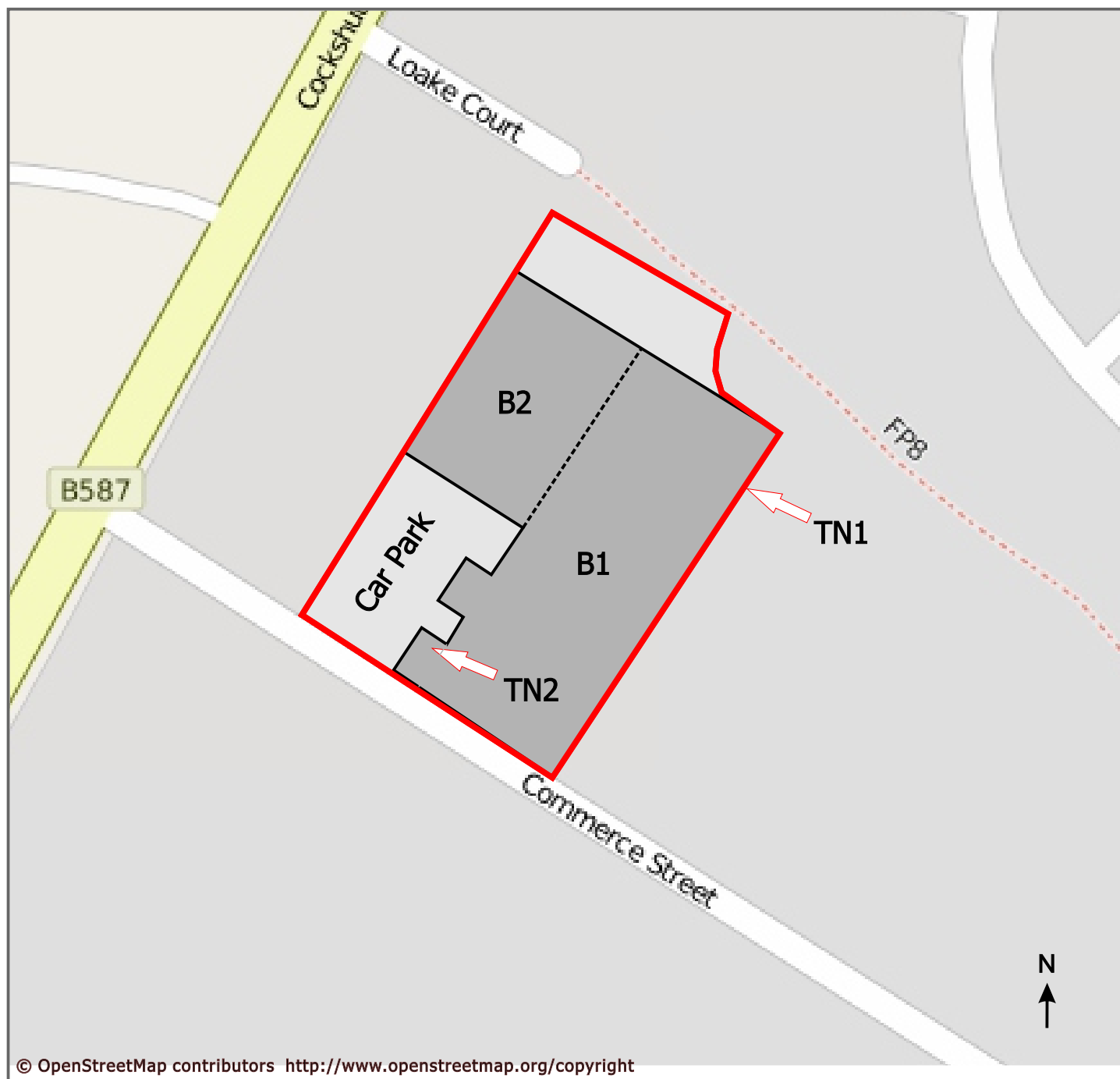
- 4.1 No evidence of bats was found during the building assessment in April 2019 but some PRFs and potential access points into the buildings were indentified.
- 4.2 Two common pipistrelle bats were seen emerging from a box feature on the roof of B1 during the emergence survey on 23<sup>rd</sup> May 2019. This section of B1 has therefore been identified as an occasional roost for a small number of common pipistrelle bats.
- 4.3 All bat species and their roost sites are protected under the Wildlife and Countryside Act (WCA) 1981 as amended and are included in Schedule 2 of the Conservation of Habitats and Species (Amendment) Regulations 2017. Therefore a European Protected Species License (EPSL) will be required from Natural England before the demolition of the building B1 can commence.
- 4.4 A third nocturnal survey is likely to be required in addition to the two surveys undertaken in May/June 2019. This will confirm the status of the bat roost and is a requirement of an EPSL application.
- 4.5 A detailed method statement will also be required as part of the application. This will need to include timings and procedures to be followed during demolition works in order to avoid/minimise harm to any bats that may be present within the buildings.
- 4.6 In addition this method statement should also contain details of the mitigation that will be required including the provision of a replacement bat roost. This may take the form of several bat boxes on new buildings/structures onsite and should be suitable to accommodate pipistrelle bats. The mitigation will need to be in place prior to the destruction of the existing bat roost.
- 4.7 The survey results as detailed in this report remain valid for 12 months. After which time they will be considered out of date and will need to be repeated as bats are transient in nature and may begin roosting elsewhere within the buildings.

### **Nesting Birds**

- 4.8 Although no evidence of nesting birds was found within the buildings or the bird boxes on the eastern aspect, several building features were identified that could potentially be used.
- 4.9 All birds are protected whilst on the nest under the Wildlife and Countryside Act 1981 (as amended). Therefore any works to the buildings or removal of the bird boxes 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 an experienced Ecologist prior to removal.

### **Habitat Creation, Improvement & Enhancement**

- 4.10 Where feasible within the development design, consideration should be given to the provision of replacement/additional bird and bat boxes on any new structures once works are completed. This would increase the availability of nesting/roosting opportunities within the local area.
- 4.11 Any planting within the proposed development scheme should use native plant species of local provenance wherever possible.
- 4.12 These provisions would be in accordance with Planning Policy helping to enhance biodiversity within the local area.



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## KEY

-  Site boundary
-  Hard standing
-  Buildings with reference
-  Target note 1 - location of bat boxes
-  Target note 2 - box feature on roof of B1



**76 Commerce Street  
Melbourne  
Derbyshire**

**BUILDINGS PLAN**

**Date:** June 2019