McCarthy & Stone

BERNESLAI CLOSE, BARNSLEY

Bat Mitigation Statement

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JULY 2018

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McCarthy & Stone

BERNESLAI CLOSE, BARNSLEY

Bat Mitigation Statement

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EXECUTIVE SUMMARY

WSP UK Ltd (WSP) was commissioned by McCarthy & Stone to undertake a bat assessment and produce a mitigation statement to inform a full planning application for the development of the former District Council offices at Berneslai Close, Barnsley, as defined by the red line boundary detailed on Figure 1 (Central Grid Reference: SE 34222 06746). Hereafter, referred to as "the Site".

During June 2017, an extended Phase I habitat survey was undertaken of the Site, which classified the building within the Site as having Low Roost Suitability and further surveys were recommended. However, no internal access was gained in to the courtyard or within the building itself. A single dusk emergence survey was undertaken during September 2017 and three individual common pipistrelle bats were recorded emerging from three egress locations. Therefore, an internal assessment and further surveys were recommended.

Planning was applied for; however, the application was not determined given the recommended further surveys. Liaison with the Biodiversity Officer was undertaken, to attempt to progress the application process (WSP, 2018). Further requirements agreed included:

- Internal building inspection, including an assessment of roosting potential within the courtyard;
- Three dusk emergence and/or dawn re-entry surveys between May and August; and
- Provision of a Bat Mitigation Statement to include mitigation and compensation requirements to inform the planning application.

In total, five common pipistrelle bat egress locations were recorded over the 2017 and 2018 survey periods; three low status day roosts used during autumn and two low status non-breeding day roosts used during summer months.

Where possible, it is recommended that structures known to be used by roosting bats are retained and incorporated into the proposed development designs. This includes the retention of roost 1D- R4. Should this not be feasible, it will be necessary to mitigate potential negative effects that would otherwise result from the removal of features and provide replacement roosting opportunities.

It is assumed that the proposed development will result in the renovation of section 1D and the loss of the remaining sections, 1A, 1B, 1C and 1E. Due to the requirements of the renovation, the retention of roosts would not be possible. A Natural England EPS Licence will be required to demolish and renovate the building, to ensure compliance with the relevant protective legislation pursuant to bats and their roosts.

Mitigation and compensation requirements detailed within this mitigation statement include the:

- Provision of four tree mounted or pole mounted 'woodcrete' bat boxes, to provide roosting opportunities during the demolition and renovation of building;
- Inclusion of suitable bat features within the new build, such as the installation of six integrated bat boxes located within multiple elevations (such as but not limited to 2FR Schwegler Bat Tube).
- Use of a suitable capture and exclusion programme;
- Inclusion of a sensitive lighting design; and
- Undertaking of a single year of post-construction monitoring, should this be required by Natural England.

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1. WSP Ltd (WSP) was commissioned by McCarthy & Stone to undertake a bat assessment and produce a mitigation statement to inform a full planning application for the proposed development of the former District Council offices at Berneslai Close, Barnsley, as defined by the red line boundary detailed on Figure 1 (Central Grid Reference: SE 34222 06746). Hereafter, referred to as "the Site".

1.1.2. The proposed development includes the partial demolition of a former council office building (composed of five building subsections, labelled 1A to 1E) and the erection of Retirement Living accommodation together with communal facilities, landscaping, car parking and associated access. In addition, the proposed development includes the retention and conversion of the former red brick hospital building (see building Section 1D, Figure 1) into eight apartments with associated car parking.

1.2 ECOLOGICAL BACKGROUND

1.2.1. During June 2017 an extended Phase I habitat survey was undertaken of the Site, which classified the building on site as having Low Roost Suitability and further surveys were recommended (Environmental Services, 2018). No internal access was gained in to the courtyard or within the building itself. A single dusk emergence survey was undertaken during September 2017 and three individual common pipistrelle bats *Pipistrellus pipistrellus* were recorded emerging from three egress locations (Environmental Services, 2017). Therefore, an internal assessment and further surveys were recommended.

1.2.2. Planning was applied for; however, the application was not determined given the recommended further surveys. Liaison with the Biodiversity Officer was undertaken, to progress the application process (WSP, 2018). Further requirements agreed include:

- Internal Building inspection, including an assessment of roosting potential within the courtyard;
- Three dusk emergence and/or dawn re-entry surveys between May and August; and
- Provision of a Bat Mitigation Statement to include mitigation and compensation requirements and inform the planning application.

1.2.3. An agreement to progress the application prior to the completion of the further surveys was not met.

1.3 BRIEF AND OBJECTIVES

1.3.1. McCarthy & Stone commissioned WSP to complete bat surveys of the Site. The brief was to:

- Complete an external inspection of the internal courtyard and an internal inspection within the loft void(s), where possible, to identify the potential or otherwise for bat roosts to be present;
- Complete dusk emergence and/or dawn re-entry surveys of the building to establish the presence or likely absence of bat roosts on Site; and
- Evaluate the value of the Site for bats and make recommendations as to how proposals should account for bats with respect to legislation, planning and biodiversity policy. This includes proposed mitigation and compensation requirements.

1.3.2. The results of these surveys and subsequent recommendations are included within this mitigation statement.

2 METHODS

2.1 OVERVIEW

2.1.1. Three roost egress points were confirmed during the initial September dusk emergence survey on Site (Environmental Services, 2017), referred to as 1D-R1, 1D-R2 and 1D-R3. Further survey was therefore considered appropriate. The survey effort included undertaking:

- A desk based assessment of previous survey and desk study data;
- An internal inspection of the loft voids;
- An external inspection of the inner courtyard; and
- Three dusk emergence and/or dawn re-entry surveys.

2.1.2. These surveys were completed in line with the national survey guidelines (Collins, 2016).

2.2 DATA ASSESSMENT

2.2.1. The data assessment includes a review of the previous survey results, desk study data and results, to provide an overview to inform the mitigation statement. The assessment was undertaken during June 2018 and included a review of the:

- South Yorkshire Bat Group Data (SYBG, 2018);
- Barnsley Biological Records Centre Records (BBRC, 2017);
- Magic Map Website[1];
- Extended Phase 1 Habitat Survey Report (Environmental Services, 2018); and
- Bat Presence / Absence Survey – Buildings Report (Environmental Services, 2017).

2.2.2. All information has been provided as part of the planning application by Environmental Services; neither South Yorkshire Bat Group nor Barnsley Biological Records Centre have been contacted by WSP.

2.3 INTERNAL AND EXTERNAL BUILDING INSPECTION

2.3.1. A Preliminary Roost Assessment (PRA) was undertaken, which involved an internal and external visual inspection of the building. All accessible loft void sections of the building were inspected to enable an assessment of their potential to support bat roosts and to search for evidence indicating the current or historic use of the building by roosting bats. Each area was visually inspected by a licenced ecologist (2015-16155-CLS-CLS) with the use of a high-powered torch for evidence indicating use by roosting bats such as droppings, urine staining, and scratch marks / characteristic staining (from fur oils).

2.3.2. A visual inspection of the exterior of the building within the internal courtyard[2] using binoculars and a high-powered torch was completed to search for features which may provide potential roosting opportunities for bats. Where suitable features were noted, their location and a brief description of their character was recorded.

2.4 BAT DUSK EMERGENCE / PRE-DAWN RETURN SURVEY

2.4.1. The building was subject to further surveys to watch and listen for bats emerging from or returning to roost. The level of survey effort employed was proportional to the level of potential for roosts to be present, the number and timing of survey visits is shown in Table 1. Surveyor locations were utilised to fully cover the potential roosting features on all suitable buildings. These surveyor locations are shown on Figure 2 (surveyor locations 1 – 9).

2.4.2. The dusk emergence surveys began 15 minutes before sunset and continued until at least 90 minutes after sunset. The dawn return to roost surveys began at least 90 minutes before sunrise and finished at sunrise.

2.4.3. The surveyors used Batbox Duets with Rowland recording devices or a Song Meter 2 (SM2) for recorded purposes, Echo Meter 3 (EM3) and Wildlife Acoustics Echo Meter Touch bat detectors to listen to and record echolocation calls of bats observed. During the survey, surveyors mapped the flight-lines used by any bats observed and noted any features used by the bats to

[1] http://magic.defra.gov.uk/MagicMap.aspx
[2] Access previously not gained by Environmental Services.

exit/enter the buildings. Incidental records of bat activity near the surveyor locations was also collected.

2.5 DATA ANALYSIS

2.5.1. The recordings of bat echolocation calls collected during the surveys were analysed using specialist computer software Analook and Bat Sound. The analysis enables confirmation of species or species group based on call parameters, and the relative activity of different species of bats by counting the minimum number of bats recorded within discrete sound files. Once triggered by ultrasound, the SM2 and EM3 detectors record sound files with a duration of 15 seconds, which may contain several individual bat calls (or passes), or discrete groups of ultrasound 'pulses'.

2.5.2. It should be recognised that a series of separate sound files may represent a series of different bats commuting within the range of an automated detector, or a smaller number of bats repeatedly triggering the detector (e.g. bats making repeated foraging passes within the range of a detector).

2.5.3. Where possible, bat calls are identified to species level. Species of the genus *Myotis* are grouped together in most cases as their calls are similar in structure and have overlapping call parameters, making species identification problematic (Russ, 2013). For *Pipistrellus* bat species the following criteria based on measurements of peak frequency are used to classify calls:

- Common pipistrelle ≥ 42 and <49KHz;
- Soprano pipistrelle *Pipistrellus pygmaeus* ≥ 51KHz;
- Nathusius' pipistrelle *Pipistrellus nathusii* <39KHz;
- Common/soprano pipistrelle ≥49 and <51KHz; and
- Common/Nathusius' pipistrelle ≥39 and <42KHz.

2.5.4. In addition, the following categories are used for calls which cannot be identified with confidence due to the overlap in call characteristics between species or species groups:

- *Myotis/Plecotus* sp.;
- *Nyctalus* sp. (either Leisler's bat or noctule, *Nyctalus leisleri/ noctula*);
- Serotine *Eptesicus serotinus*/Leisler's; and
- Serotine/*Plecotus* sp.

2.6 DATES OF SURVEY AND PERSONNEL

2.6.1. The bat surveys were led by an experienced surveyor (Natural England survey licence number: 2017-28041-CLS-CLS). The lead surveyor has 11 years' experience of ecological survey, including extensive bat survey experience and has held a Natural England bat survey licence since 2008.

2.6.2. The internal and external building inspection was completed on 22nd June 2018 by an experienced surveyor (Natural England survey licence number 2015-16155-CLS-CLS).

2.6.3. The timing of other survey visits are summarised in Table 1 below.

Table 1 - Dates for Bat Dusk Emergence / Pre-dawn Return Survey Visits

Building Ref.	No. Surveyor Positions	Survey Type and Number	Dates of Survey
1 (Sections A-E)	9	Dawn – visit 1	16th May 2018
		Dusk – visit 2	30th May 2018
		Dusk – visit 3	13th June 2018

2.7 NOTES AND LIMITATIONS

2.7.1. Due to health and safety restrictions, including the presence of asbestos, access was prohibited to the cellar. Access into seven sections of the loft void (including one loft void entirely, L10, Figure 3) was not possible due to the absence of a hatch and the lack of a safe access route (sections shown in Figure 3). Except for one loft void within building section 1E (Figure 3, L1), all other accessible loft spaces (1C, 1D, 1E) had to be inspected from the hatches due to narrow access throughout the loft void and unsafe structural timbers. An asbestos surveyor was present during the internal assessment to gain safe access to as many areas as possible. Given the findings of the internal inspection and level of additional survey effort (emergence/ re-entry surveys), the restricted access to loft voids and the cellar is not considered to have presented a significant limitation to the bat roost assessment. Accessibility during the internal inspection is shown on Figure 3.

2.7.2. Access could not be gained internally to section 1A due to sealed doors and windows as part of previous security measures. A discussion between the WSP surveyor and care taker of the building (during the internal inspection visit) also could not confirm the presence of a loft void. Due to the lack of access points identified during the external inspection and the level of additional survey effort (emergence/ re-entry surveys), the lack of internal access is not considered to have impacted the accuracy of the assessment or its conclusions.

2.7.3. Due to previous security proofing of the building to prevent unwanted access, which included plywood boards fixed over windows and doors, the central courtyard could not be accessed. However, the courtyard could be viewed effectively from the windows of the adjacent taller building sections. Given the vantage points obtained and the findings of the emergence/ re-entry surveys, inhibited access into the courtyard is not considered to have impacted the survey conclusions.

2.7.4. A thick layer of dust and debris present within the loft voids was likely to have obscured any bat droppings that may have been present. Given the findings of the internal inspection, this is not considered to have impacted significantly on the survey conclusions.

2.7.5. Sporadic rain spells of varying degrees of strength occurred throughout the visit 3 dusk emergence survey (13th June 2018). However, it is considered that the survey remains valid as two common pipistrelle bats were recorded emerging from building section 1D and continued to forage throughout the survey.

3 RESULTS

3.1 OVERVIEW

3.1.1. A single complex building is located on site, which consists of a number of sections (1A, 1B, 1C, 1D, 1E) of varying size and age, which have been described and assessed within previous reports (Environmental Services, 2018).

3.1.2. No evidence of roosting bats was recorded within the loft voids during the internal assessment. The 2018 surveys of the building have confirmed an additional two egress points for common pipistrelle within the building (1D-R4 and 1D-R5). To date all egress points have been recorded within building section 1D (See Figure 4).

3.2 PREVIOUS ASSESSMENT

3.2.1. The South Yorkshire Bat Group Data (SYBG) consisted of 223 records, within 1 km of Site, ranging between 1978 and 2017. A total of 49 records were recorded within the last 10 years. The closest of which is a common pipistrelle bat roost located approximately 230 m North West of the Site.

3.2.2. Species recorded in the last 10 years include common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, Daubenton's bat *Myotis daubentonii* and unidentified species. Two records (single common pipistrelle bat roost and soprano pipistrelle bat roost) were listed as maternity roosts and both were recorded outside of the city centre location.

3.2.3. The Barnsley Biological Records Centre Records (BBRC) consisted of 32 records, within 1 km of Site. All records over 10 years between 1988 and 1998 were supplied. Species include common pipistrelle, noctule, Daubenton's bat and unidentified species. Three of these records were recorded as maternity roosts.

3.2.4. A review of the Natural England interactive mapping source (Magic Map[3]), provided information on a European Protected Species (EPS) Licence application within 2 km of Site. A single common pipistrelle bat EPS licence was in place between 2013 and 2014, which covered the destruction of a resting place, located approximately 345 m north east.

3.2.5. A single complex building is located on site, consisting of sections of variable age, structure and design, a description of which is detailed within the extended Phase I habitat survey report (Environmental services, 2018). The external assessment of the bat report (Section 5.2) concluded that the building had Low Roost Potential, therefore, a single dusk emergence survey was undertaken (Environmental services, 2017). No internal access was gained to the inner courtyard or within the building.

3.2.6. Three egress points of common pipistrelle roosts were recorded within section 1D (See Figure 4) of the building complex. The egress points recorded during the 2017 surveys included hanging tiles on the north aspect (and similar location for second bat roost egress point), plus a location on the western aspect.

3.3 INTERNAL AND EXTERNAL BUILDING INSPECTION

3.3.1. Building sections are shown on Figure 1, with the internal loft voids referenced and shown on Figure 3. Image references (plates) are shown in Appendix A. No evidence of roosting bats was recorded during the building inspection. A summary of each of the loft void assessments is detailed within Table 2.

External Inspection

Section 1A

3.3.2. A single-storey brick building (high internal ceilings visible through windows) with a pitched corrugated metal roof (Plate 1). The east and west elevations support large floor to ceiling windows and wooden fascia boards that were tightly fit to the brick wall. The northern gable is partially obstructed by the boundary fence and the southern end of the building is attached to section 1B. An internal inspection could not be undertaken as accesses had been previously sealed for security reasons. The presence of a loft void was unconfirmed.

[3] http://magic.gov.uk/home.htm

Section 1B

3.3.3. This section comprises a single-storey brick structure with a flat roof (Plate 2), connecting sections 1A and 1E, in addition to a modern conservatory connecting the brick structure to section 1C (Plate 3).

Section 1C

3.3.4. A four-storey brick structure (Plate 4) with a complex, pitched pan tile roof surrounding a central flat section (accessible from internally). There are also several flat balconies on the southern elevation (Plate 5). The external brick work appeared well sealed and the roof was in a good condition.

Section 1D

3.3.5. A three-storey brick structure (Plate 6) that appears older in its style and design to the other building sections. This section supports a complex, pitched slate tile roof with several brick chimneys protruding through. The brickwork was well sealed, although gaps were recorded around stone lintels above windows. A decorative stone eave surrounding the roof and appeared tightly constructed, with no access points into the internal loft voids recorded externally.

Section 1E

3.3.6. A modern three-storey brick structure with a complex, pitched slate tile roof. The northern section (encompassing loft void L1) is a single-pitch roof, with the southern perpendicular section (encompassing loft void L2) is a gambrel-shaped roof supporting hanging slate tiles. Mortar was missing from beneath the edge slate tiles on the western gable end of the southern section, presenting a potential access point into the loft void.

Internal Inspection

3.3.7. The accessible loft voids were of a similar design and condition, comprising tiles (slate or clay pan tile) directly affixed to the timber rafters. A roofing membrane was absent in most loft voids, except for section 1C (Figure 3, L8 and L9) that supported a non-breathable membrane or wooden sarking boarding (Plate 13).

3.3.8. Fibrous insulation was present on the floors of the loft spaces partially obstructing potential access points from the eaves. The floors were covered with a dense layer of dust and debris. There were low levels of cobwebbing within the loft voids, although this was denser along the ridge line suggesting an absence of void-dwelling species (such as brown long-eared bat *Plecotus auritus*).

3.3.9. Light was recorded where slipped or missing tiles were present, which may provide potential access points for bats. This was most prevalent in Section 1E (Figure 3, L1 and L2), although limited to approximately ten locations. In addition, light was recorded through the western gable of L2 in Section 1E where mortar is missing from beneath the edge tiles at the gable end, creating potential access routes into the loft void.

3.3.10. The loft voids of Section 1D were interconnected by gaps around brick walls creating discrete void sections or access hatches in these brick walls. The southern end of L3 was lit by a skylight and a gap large enough for a pigeon to access was present on the northwest corner of L4 (bird seen egressing building) (See Appendix A).

3.3.11. No signs of bat presence (such as droppings) was recorded internally on any accessible area of the building.

Courtyard

3.3.12. Section 1B forms a courtyard with the adjacent sections to the south (1C and 1D), although access could not be gained during the site visit. The courtyard was viewed from adjacent windows (See Appendix A Plate 16), with most of the space dominated by overgrown vegetation (including ash *Fraxinus excelsior*) breaking through a tarmac base.

Table 2 – Internal Building Inspection Results

Building Section No.	Internal features with Potential to Support Roosting Bats	Evidence of roosting bats recorded?	Overall Assessment of Potential to Support Bat Roosts	Potential for different roost types[4]		
				M	S	H
1A	Presence of a loft void (L10) unconfirmed and access not gained during internal inspection.	No evidence of roosting bats recorded externally.	Low	N	Y	N
1B	No internal loft voids present.	No evidence of roosting bats recorded externally.	Low	N	N	N
1C	Gap between internal membrane and pan tiles. L8 and L9 inspected.	No evidence of roosting bats recorded.	Moderate	N	Y	N
1D	Loft voids internally connected (L3, L4, L5, L6), although compartmentalised by partial structural walls. Potential access from several areas where tiles have slipped or are missing.	No evidence of roosting bats recorded.	High	Y	Y	Y
1E	Access routes into loft voids due to slipped tiles and missing mortar along gable edges (western gable, L2).	No evidence of roosting bats recorded.	High	Y	Y	Y

[4] M = Maternity (breeding roost); S = Summer / transitional (to include transitional, satellite, night and day roosts); and H = Hibernation.
Y = Yes; N = No

3.4 BAT DUSK EMERGENCE / PRE-DAWN RETURN SURVEY

3.4.1. Bats were recorded roosting within the building present on Site during the surveys. All bats were recorded roosting within building section 1D.

3.4.2. Individual bats were recorded emerging from a mortar gap in the stonework surrounding a window on the southern elevation of building section 1D (Figure 4, 1D-R4; Plate 17) on three occasions. This included a single emergence during visit 2 (30/05/2018) and two separate emergences recorded during visit 3 (13/06/2018). A third bat was also recorded emerging during visit 3 from an eastern elevation (Figure 4, 1D-R5); however, the exact egress point could not be seen.

Dawn Survey – Visit 1

3.4.3. Two species were recorded foraging within the area during the initial survey visit, namely noctule and common pipistrelle. A single noctule pass was recorded towards the rear of the building, approximately 63 minutes prior to sunrise. Common pipistrelle was recorded sporadically throughout the dawn survey, manly associated within the southern elevation and edge of the park. The last common pipistrelle pass was recorded approximately 37 minutes prior to sunrise circling over the trees to the south west of site.

Dusk Survey – Visit 2

3.4.4. Common pipistrelle activity during the second survey commenced approximately 16 minutes following sunset and continued throughout the survey period. As per the original survey activity was recorded across the whole of Site. However, the foraging activity was mainly associated with the park to the south and tree line to the south west.

Dusk Survey – Visit 3

3.4.5. Common pipistrelle activity during the final survey commenced approximately 21 minutes following sunset, immediately adjacent to site within gardens to the west. Activity continued throughout the survey period. Activity was recorded across the whole of Site, with a maximum of three individuals recorded.

3.5 EVALUATION OF THE SITE FOR BATS

3.5.1. Individual bats were recorded emerging from a number of egress locations within the building complex. Features include mortar gaps, hanging tiles and potentially eaves or roof tiles (exact egress locations unknown- See Figure 4). Given the separation of these features it is not considered that they are internally linked and each roost can be assessed as a single roost location. It is considered that movement between each of the roosting locations could occur as bats utilise differing roost sites on a regular basis throughout the active season April to October inclusive. The evaluation of the roosts recorded on site is detailed within Table 3.

Table 3 – Bat Roost Evaluation

Building Section No.	Species	Count/ Estimate	Site Status assessment (e.g. hibernation, maternity, feeding roosts, swarming site etc.)	Conservation Significance of Roost	Use and importance of site throughout the year
1D- R1	Common Pipistrelle	One bat	Daytime non-breeding roost	Low	Autumn use for single/low number of individuals
1D- R2	Common Pipistrelle	One bat	Daytime non-breeding roost	Low	Autumn use of single/low number of individuals
1D-R3	Common Pipistrelle	One bat	Daytime non-breeding roost	Low	Autumn use for single/ low number of individuals

Building Section No.	Species	Count/ Estimate	Site Status assessment (e.g. hibernation, maternity, feeding roosts, swarming site etc.)	Conservation Significance of Roost	Use and importance of site throughout the year
1D- R4	Common Pipistrelle	Two bats	Daytime non-breeding roost	Low	Summer use for single/ low number of individuals
1D-R5	Common Pipistrelle	One bat	Daytime non-breeding roost	Low	Summer use for single/ low number of individuals

4 IMPLICATIONS FOR DEVELOPMENT

4.1 OVERVIEW

4.1.1. In the absence of mitigation, the proposed development has the potential to affect bats, through direct and indirect effects upon confirmed bat roosts within the building on site. Building sections 1A, 1B, 1C and 1E will be demolished and section 1D will be renovated. The legislation and planning policy relevant to bats and their roosts below is therefore relevant. Recommendations as to how the legislation and planning policy may be satisfied are set out in Section 5.

4.2 LEGAL COMPLIANCE

4.2.1. Given the strict requirements required for the renovation of section 1D, it is considered that there is a potential to lose all but a single roost within the building (1D-R4). The roof of section 1D will be fully renovated, which will include the use of modern materials. Therefore, resulting in the loss of the four remaining roosts located on site.

4.2.2. Bats and their roosts are afforded a high level of protection under the Conservation of Habitats and Species Regulations 2017 (the 'Habitat Regulations'). The legislation means that it is an offence to:

- Deliberately capture, injure or kill a wild bat;
- Deliberately disturb wild bats; 'disturbance of animals includes any disturbance which is likely:
  - (a) to impair their ability —
    - (i) to survive, to breed or reproduce, or to rear or nurture their young; or
    - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
  - (b) to affect significantly the local distribution or abundance of the species to which they belong.' and
- Damage or destroy a breeding site or resting place used by this species.

4.2.3. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of animals when using places of shelter, and obstruction of access to places of shelter.

4.2.4. Due to the high level of protection afforded to bats and their habitat, mitigation for this species is governed by a strict licensing procedure administered by Natural England (normally, planning permission must be obtained before a licence can be sought). Licencing is subject to three tests, as defined under the Habitats Regulations and these must also be applied by the planning authority before granting permission for activities affecting bats. For permission to be granted the following criteria must be satisfied:

- The proposal is necessary '*to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment*';
- '*There is no satisfactory alternative*'; and
- The proposals '*will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*'.

4.3 PLANNING POLICY COMPLIANCE

4.3.1. At the national level the National Planning Policy Framework (2012) forms the basis for planning system decisions with respect to conserving and enhancing the natural environment, including bats; the ODPM circular 06/2005 also provides supplementary guidance, including confirmation that '*the presence of a protected species is a material consideration when a planning authority is considering a development proposal*'.

4.3.2. The NPPF sets out, amongst other points, how at an overview level the *'planning system should contribute to and enhance the national and local environment by:*

- *…recognising the wider benefits of ecosystem services; and*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures…'*

4.3.3. A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF, and includes the following:

- *'- if significant harm resulting from a development cannot be avoided…adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *- …opportunities to incorporate biodiversity in and around developments should be encouraged;*
- *- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland…unless the need for, and benefits of, the development in that location clearly outweigh the loss…'*

4.3.4. At a local level the Barnsley Metropolitan Borough Council Core Strategy (adopted September 2011) supports sustainable development and reducing the borough's impact on climate change, via supporting proposals that provide…..."*protection or enhancement of the quality of natural assets including water, air, soil, minerals and biodiversity*"[5].

4.3.5. Mitigation, compensation and enhancement measures are recommended in Section 5 to enable the proposed development to be compliant with the above legislation and planning policy.

4.4 INITIAL IMPACTS

4.4.1. It is considered in the absence of mitigation that unsupervised renovation and demolition of the former council building would result in the loss of five low status common pipistrelle bat roosts. These works would likely result in the killing and injury of common pipistrelle, if completed unsupervised and without mitigation.

4.4.2. A moderate negative impact at a Local level for common pipistrelle is predicted.

4.5 LONG TERM IMPACTS

Roost Loss

4.5.1. Building renovation would result in the all five low status common pipistrelle bat roosts located on site. In the absence of mitigation this would result in the death and / or injury of bats. The unmitigated works would result in a moderate negative impact at a site level for the common pipistrelle.

Fragmentation and Isolation

4.5.2. It is considered that the development of the current car park, in to associated car park and gardens would result in a Negligible impact to foraging and commuting opportunities for bats.

4.6 POST-DEVELOPMENT IMPACTS

4.6.1. A park is located immediately adjacent to the proposed development. During the 2018 surveys bats were recorded foraging and commuting within this area. In addition, bats were recorded foraging across much of the Site. Lighting within the proposed car park could result in the illumination of this foraging area and therefore an impact on the wider bat population. Therefore, it is considered that in the absence of mitigation inappropriate light would result in a low negative impact at a Local level.

[5] https://www.barnsley.gov.uk/media/3093/core-strategy.pdf

5 MITIGATION STATEMENT

5.1 AVOIDANCE AND MITIGATION MEASURES

5.1.1. Where possible, it is recommended that structures known to be used by roosting bats are retained and incorporated into the proposed development designs. This includes the retention of roost 1D- R4. Should this not be feasible, it would be necessary to mitigate potential negative effects that would otherwise result from the removal of features and provide replacement roosting opportunities.

5.1.2. When determining a planning application in relation to a proposal that would affect bats and/ or their roosts, the local planning authority must ensure that they are satisfied that three tests, as set out in Regulation 53 of the Habitat Regulations, are likely to be met. To satisfy the third test, if roosts would be directly affected by works a mitigation strategy should be prepared showing that it would be feasible to progress the proposed development and maintain the favourable conservation status of bat species identified within the Survey Area. This report is intended to meet this requirement. Once planning permission has been obtained, this strategy may then be refined and form the basis of the licence application to Natural England to permit the commencement of works affecting known bat roosts. A licence should be in place prior to any works commencing to avoid the damage, destruction or disturbance of roosting bats.

LICENSING REQUIREMENTS

5.1.3. Given that the building supports five day roosts used by non-breeding common pipistrelle bats between May and September, a European Protected Species (EPS) Licence will be required to demolish and renovate the building, in order to ensure compliance with the relevant protective legislation pursuant to bats and their roosts.

5.1.4. To minimise the potential for killing, injury or disturbance to bats and to mitigate for the loss of potential roosting opportunities for bats during both the construction and post development (operational) phases of the proposed development, the recommendations detailed below could be adopted.

BAT ROOSTS

5.1.5. The following compensation features are considered necessary:

- Provision of four tree mounted (two per tree) or pole mounted ‘woodcrete’ bat boxes (Schwegler 1FF or similar), to provide roosting opportunities during the demolition and renovation of building. These features should be installed prior to any development works commencing on site and remain in place for a minimum of five years and can only be removed after this time should there be no evidence of use during this period. However, it is recommended that the features are permanent to provide ecological enhancement and opportunities for roosting bats over an extended period; and
- Inclusion of suitable bat features within the new build, such as the provision of six integrated bat boxes to be located within multiple elevations (such as but not limited to 2FR Schwegler Bat Tube). Indicative locations are detailed on Figure 5.

5.1.6. The proposed location of these features is shown in Figure 5.

CAPTURE AND EXCLUSION

5.1.7. Subject to agreement with Natural England as part of the licence application, the capture and exclusion of bats and the removal of the roosts prior to development works should be undertaken between mid-March and mid-November (inclusive). This timeframe avoids the core hibernation period, when bats are most at risk during demolition.

5.1.8. Upon receipt of the EPS licence, any licensable works; i.e. the removal of features deemed suitable to support roosting bats, such as roofing material, fascia and barge boards; would be directly supervised by the named ecologist (or their accredited agent), if safe to do so.

5.1.9. Prior to the removal of any features across the building, a building assessment would be undertaken led by the named ecologist (or accredited agent) and the site contractor. The health and safety risks would be assessed as to what features are possible to access and remove safely, if any. A toolbox talk would be provided to the site contractor to outline the proposed works, actions to take if a bat is encountered and their legal responsibility regarding bats and their roosts.

5.1.10. Given that the roof within building section 1D supports the bat roosts, this section would be subject to a 'soft strip' supervised by the named ecologist (or accredited agent). The remainder of the pitched roof sections would be subject to assessment. If deemed high risk, other sections would also be subject to direct supervision. If considered sufficiently low risk (by the named ecologist or accredited agent), the contractor would be left to strip sections unsupervised. However, if this is the case, an emergence contact procedure would be put in place in case bats or signs of bats were recorded during the removal process. If bats or signs of bats were recorded works within this section of the building would cease until the named ecologist (or accredited agent) returned to supervise the works.

5.1.11. If possible, any external features, which could support roosting bats, would be subject to a visual inspection, by the named ecologist (or their accredited agent) using a torch and/or endoscope. A decision would be made by the named ecologist (or their accredited agent) as to whether the feature can be removed by hand or whether an exclusion device is required/appropriate.

5.1.12. Exclusion devices could be used, if appropriate. If required, the devices would remain in-situ for a minimum of five nights of suitable weather conditions. If required, a final emergence and/or dawn survey would be undertaken before demolition, to ensure bats are no longer utilising these features.

5.1.13. If deemed necessary, i.e. if it is not possible to remove features by hand for health and safety reasons, a dusk and/or dawn survey would be undertaken prior to the demolition of the buildings or building section. This would only be undertaken as a last resort, during suitable weather conditions. The survey is intended to confirm the absence of bats roosting within the building.

5.1.14. If bats are encountered during the supervised and/or licenced works, the named ecologist (or accredited agent or assistant under direct supervision) would capture the bat by hand (gloved hands) or a hand net. The bat would be carefully transferred to one of the tree/ pole mounted bat boxes on site.

SENSITIVE LIGHTING

5.1.15. Lighting both during the construction phase and operational phase of the proposed development could have a negative effect upon bat activity on Site. It is recommended that the lighting strategy for the Site would seek to:

- Use the minimum light levels necessary for the relevant task / function, this may equate to reducing light intensity, and/or using the minimum number or light sources or minimum column height;
- Use hoods, louvres or other luminaire design features to avoid light spill onto retained and newly created areas of vegetation likely to be used by foraging and commuting bats;
- Use narrow spectrum light sources where possible to lower the range of species affected by lighting, specifically avoiding shorter wave length blue light, using instead warm/neutral colour temperature <4,200 kelvin lighting (BCT, 2014b);
- Use light sources that emit minimal ultra-violet light to avoid attracting night-flying invertebrate species which in turn may attract bats to the light.
- Avoid lighting around any the bat boxes and egress features, using cowled or directional lighting;
- Restrict lighting during the summer months; and
- Retain existing dark corridors around the woodland edge and tree lines around the Site.

5.1.16. Where possible, consideration should also be given to varying the lighting levels in particularly ecologically valuable areas. For example, it may be possible to reduce lighting levels or perhaps even switch installations off after certain times e.g. between 00:00 and sunrise near tree lines of proposed landscaping. This use of "adaptive lighting" can tailor the installation to suit human health and safety as well as wildlife needs (BCT, 2014b).

MONITORING

5.1.17. The monitoring of the replacement roost would be undertaken during a single visit, two years following completion of the construction programme. Monitoring would be undertaken between May and August. The monitoring visit would comprise a dusk emergence survey or dawn re-entry survey of six integrated bat boxes and a physical check (by a suitably licenced ecologist) of the four tree/ pole mounted bat boxes.

6 CONCLUSIONS

6.1.1. In total, five common pipistrelle egress locations were recorded over the 2017 and 2018 survey periods; three of which are low status day roosts used during autumn and two which are low status non-breeding day roosts used during summer months.

6.1.2. Where possible, it is recommended that structures known to be used by roosting bats are retained and incorporated into the proposed development designs. This includes the retention of roost 1D- R4. Should this not be feasible, it would be necessary to mitigate potential negative effects that would otherwise result from the removal of features and to provide replacement roosting opportunities.

6.1.3. It is assumed that the proposed development would result in the renovation of section 1D and the loss of the remaining sections. Due to the requirements of renovation, retention of roosts would not be possible, therefore, a EPS Licence would be required to demolish the building to facilitate the proposed development in order to ensure compliance with the relevant protective legislation pursuant to bats and their roosts.

6.1.4. Mitigation and compensation requirements detailed within this mitigation statement include the:

- Provision of four tree mounted or pole mounted 'woodcrete' bat boxes, to provide roosting opportunities during the demolition and renovation of building; and
- Inclusion of suitable bat features within the new build, such as installation of six integrated bat boxes located within multiple elevations (such as but not limited to 2FR Schwegler Bat Tube).
- Use of a suitable capture and exclusion programme;
- Inclusion of a sensitive lighting design; and
- Undertaking of a single year of post-construction monitoring.

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7.1 REFERENCES

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8 FIGURES

Figure 1 - Site Location Plan

Figure 2 - Emergence Survey: Surveyor Locations

Figure 3 – Building Inspection Results

Figure 4 – Emergence Survey Results

Figure 5 - Mitigation Location

Appendix A

SITE IMAGES

Table 4 - Site Images

Plate 1. Section 1A, facing southeast	Plate 2. Section 1B, facing south from the central courtyard.
Plate 3. Section 1B (lower foreground), section 1C (background right), section 1D (background middle) and section 1E (background left), facing southeast from western courtyard	Plate 4. Northern elevation of section 1C, facing south.
Plate 5. Southern elevation of section 1C, facing north.	Plate 6. Southern elevation of section 1D, Facing northeast and location of Roost 1D-R4

Plate 7. Eastern elevations of section 1D and 1E.

Plate 8. Western elevation of section 1E.

Plate 9. Loft void L1, facing south. Gaps between tiles shown on the south pitch of the hip roof.

Plate 10. Loft void L1. Example of roofing structure found within the majority of surveyed loft voids (with the exception of L8 and L9).

Plate 11. Loft void L2. Example of the dust and debris found within all surveyed loft voids.

Plate 12. Skylight recorded on the southern end of loft void L3, with a brick wall separating this compartment from the northern end of L3.

Plate 13. Non-breathable membrane (bitumen felt) and wooden sarking found in loft voids L8 and L9.

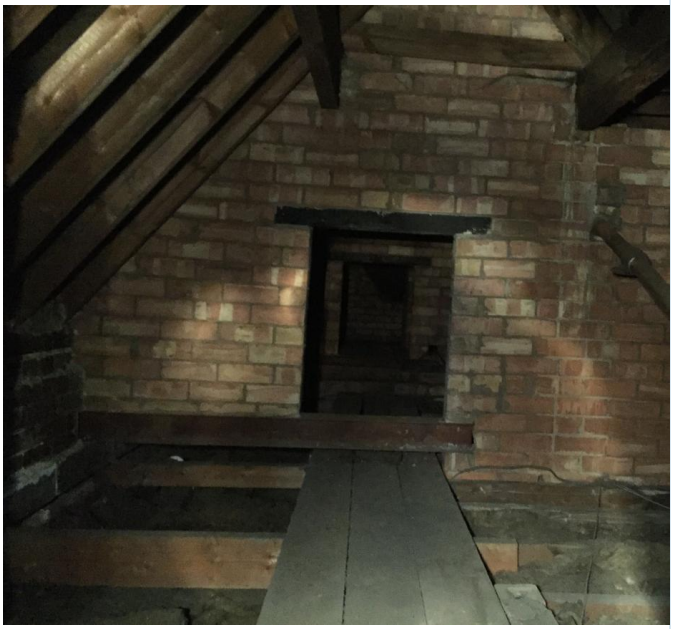

Plate 14. Brick walls compartmentalising loft voids L8 and L9.

Plate 15. Internal loft corridor between loft voids L8 and L9, providing access to the roof.

Plate 16. Courtyard between sections 1B, 1C and 1D. Dominated by overgrown vegetation.

Plate 17. Emergence point 1D-R4; gap between stonework on the southern elevation of section 1D.	

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