



Update Ecological Appraisal and Bat Report

The Christie Hospital,
Manchester

Prepared on behalf of
The Christie Foundation Trust



CONTENTS

1.0 SUMMARY

2.0 INTRODUCTION

- 2.1 Background and Scope of Survey
- 2.2 Proposed Development Works and Expected Zone of Influence
- 2.3 Aims of the Survey
- 2.4 Site Description and Context

Plan 1: Site Location (not to scale)

Plan 2: Site Survey Boundary (not to scale)

3.0 SURVEY AND EVALUATION METHODOLOGIES

- 3.1 Pre-survey data search
- 3.2 Field survey: Phase 1 Habitat and Building Assessment
- 3.3 Field survey: Bat survey
 - Table 1: Survey Dates, Surveyors, Weather Conditions*
- 3.4 Survey personnel
- 3.5 Survey limitations
- 3.6 Survey/ Evaluation Methodologies

4.0 SURVEY RESULTS AND EVALUATION

4.1 Desk study

- 4.1.1 Designated sites
- 4.1.2 Standing water inside 500 m search area
- 4.1.3 Relevant historical ecological surveys in local area

4.2 Field Survey: Phase 1 Habitat Survey

- 4.2.1 Site Context and Connectivity
- 4.2.2 Habitat compartments

J3.6: Buildings

4.3 Field survey: Species and species groups

- 4.3.1 Plants
- 4.3.2 Great crested newt
- 4.3.3 Bats
- 4.3.4 Otter
- 4.3.5 Water vole
- 4.3.6 Badger
- 4.3.7 Reptiles
- 4.3.8 Breeding birds
- 4.3.9 Invertebrates
- 4.3.1 Other notable species recorded by survey

Table 9: Value summary table of protected/notable species

4.4 Field survey: Bat survey

- 4.4.1 Building assessment for bat roosting potential
- 4.4.2 Dusk Emergence Survey– 26th June 2019

5.0 CONCLUSION AND RECOMENDATIONS

FIGURES

FIGURE 1: EXTENDED PHASE ONE HABITAT PLAN

FIGURE 2: BAT-ROOST POTENTIAL OF BUILDINGS, BAT SURVEY RESULTS AND SURVEYOR LOCATIONS

PHOTOGRAPHS

Photograph P1: Building B01

Photograph P2: Building B02

APPENDICES

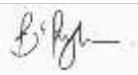
APPENDIX 1: UK Legal Protection and Planning Guidance

APPENDIX 2: Specification for bird nest boxes (examples)

APPENDIX 3: BCT guidelines for assessing potential suitability of buildings for bats

APPENDIX 4: References and Bibliography

QUALITY MANAGEMENT

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This report has been prepared with all reasonable skill, care and diligence, within the terms of the contract with the client. This report is confidential to the Client. Biora Limited accepts no responsibility of whatever nature to third parties to whom this report may be made known.

This report is based on survey data gathered in June 2019 at this site at The Christie NHS Foundation Trust, Former Nurse Accommodation, Cotton Lane, Withington M20 4QL.

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1.0 SUMMARY

- 1.1 Biora Ltd was commissioned in June 2019 by The Christie Foundation Trust to undertake an Update Ecological Appraisal of The Christie NHS Foundation Trust, Former Nurse Accommodation, Cotton Lane, Withington, M20 4QL. Survey was commissioned to update a previous Preliminary Ecological Appraisal undertaken in May 2017, to identify any immediately identifiable ecological constraints prior to the demolition of the buildings on-site. This PEA report was not available to Biora during the time of writing this report, however the results are briefly outlined in the Christie Trust Environmental Standards Statement (ARUP, 2017).
- 1.2 This site lies approximately 5.5 km south of Manchester city centre, located in Withington, Greater Manchester; centred on OS grid reference **SJ 85202 92469**. It comprises two building blocks, previously used as student accommodation, set within amenity grassland and planting. The site is surrounded to the north and south by car-parking, with an access road to the west, all forming part of The Christie complex. Cotton Lane bounds the north of the complex, with residential areas immediately beyond this. Residential areas dominate the wider landscape to the north, east and south, with the Christie Hospital lying to the west.
- 1.3 PEA was conducted on 7th June 2019 by Dr David Hackett (Director) and Bethany Phythian (Ecologist) of Biora and employed Extended Phase 1 Habitat Survey methodology. Survey involved a walkover of all accessible land within and adjacent to the site. The buildings on site were also monitored during survey for signs of emerging bees and birds (including droppings), as information provided by the client suggested that birds and bees had been seen emerging from some of the features present. Surveyors carried out static observation with binoculars of those features suitable for these species to check for the coming or going of wildlife, birds in particular.
- 1.4 The survey area (red-line boundary) consisted of two buildings, which were set within amenity grassland and hardstanding (both outside of the survey area). Phase 1 habitat assessment within the red-line boundary found that the two buildings, B01 and B02, had low potential to support roosting bats. Surveyors did not have access to the roof voids or either buildings due to the presence of asbestos in the buildings, however surveyors could inspect the outside of the building for its suitability, and no evidence of bats was found. Based on the suitability of the application building for roosting bats and in accordance with the most recent good practice guidelines, one emergence survey was completed over June. **No bats were observed emerging from either building during survey.**
- 1.5 The following recommendations are suggested from surveys at this site:
- R1 To encourage foraging bats at this location, it is recommended that planting native, scented scrubs and herbaceous species wherever possible will provide the bats with foraging opportunities.** Examples of suitable plant species are provided in the Appendices at the end of this report.
- R2 There were opportunities for bats to roost at this location, but there was no evidence of use. It is recommended, however, that in addition to enhancing the landscape to encourage foraging that roosting opportunities should also be provided in the provision of 2 no general purpose bat roost boxes (e.g., Schwegler 2F or similar) set in the adjacent mature trees.**
- R3 As the buildings on-site provide some, albeit limited, nesting opportunities, it is recommended that the proposed development provides bird-nesting opportunities, to be located on the adjacent mature trees out of artificial light.** Suitable nest box specifications are given in the Appendices at the end of this document.
- R4 All building demolition (and any vegetation clearance) works should be undertaken outwith the core British bird breeding season (ie March-August inclusive).** Where this is not possible, all vegetation to be cleared/ buildings to be altered must be checked for active nests by a suitably experienced ecologist immediately before undertaking such works. Works should only proceed once the ecologist is satisfied that no active nests will be destroyed.
- 1.6 For further information on this survey report, contact:
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2.0 INTRODUCTION

2.1 Background and Scope of Survey

2.1.1 Biora Ltd was commissioned in June 2019 by The Christie Foundation Trust to undertake an Update Ecological Appraisal of The Christie NHS Foundation Trust, Former Nurse Accommodation, Cotton Lane, Withington, M20 4QL. Survey was commissioned to update a previous Preliminary Ecological Appraisal undertaken in May 2017, to identify any immediately identifiable ecological constraints prior to the demolition of the buildings on-site. This PEA report was not available to Biora during the time of writing this report, however the results are briefly outlined in the Christie Trust Environmental Standards Statement (ARUP, 2017).

2.2 Proposed Development Works and Expected Zone of Influence

2.2.1 There are currently no design layout masterplans available for this site, so a proposed development plan is unavailable. Our current understanding is that the proposed re-development project would involve:

- Demolition of all existing buildings
- Construction of a new tiered staff car-park.

2.3 Aims of the Survey

2.3.1 Preliminary Ecological Appraisal survey aimed to:

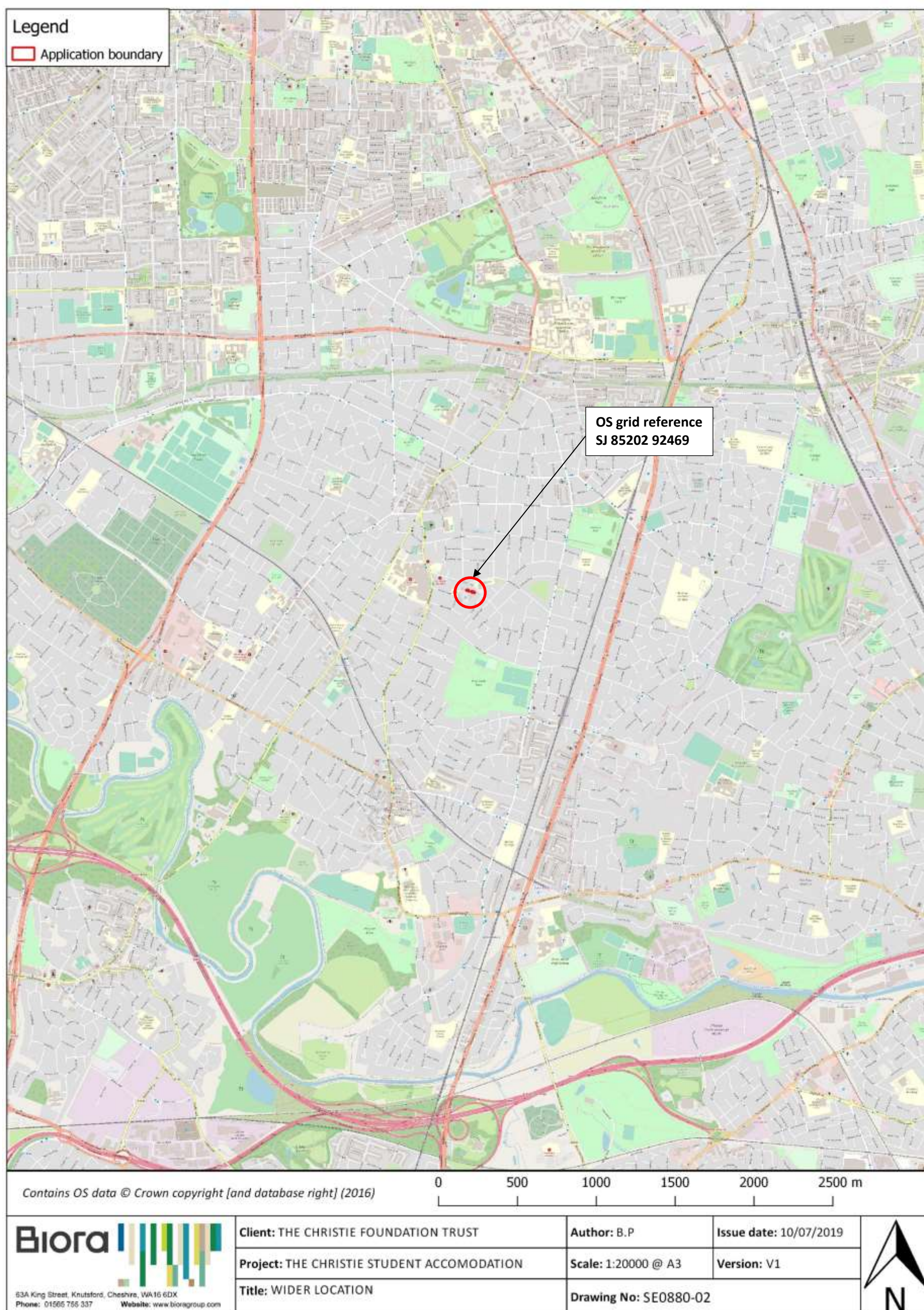
- Determine the potential of the site to support protected habitats or species
- Assess the current ecological value of the site
- Identify potential ecological constraints and opportunities to the proposed re-development of the site
- Assess the likely impacts of the proposed development on protected habitats and species
- Advise on the requirement for further survey, mitigation, compensation or licensing should the proposed re-development be considered likely to result in adverse impacts on biodiversity or fail compliance with current ecological legislation and/or planning policies.

2.4 Site Description and Context

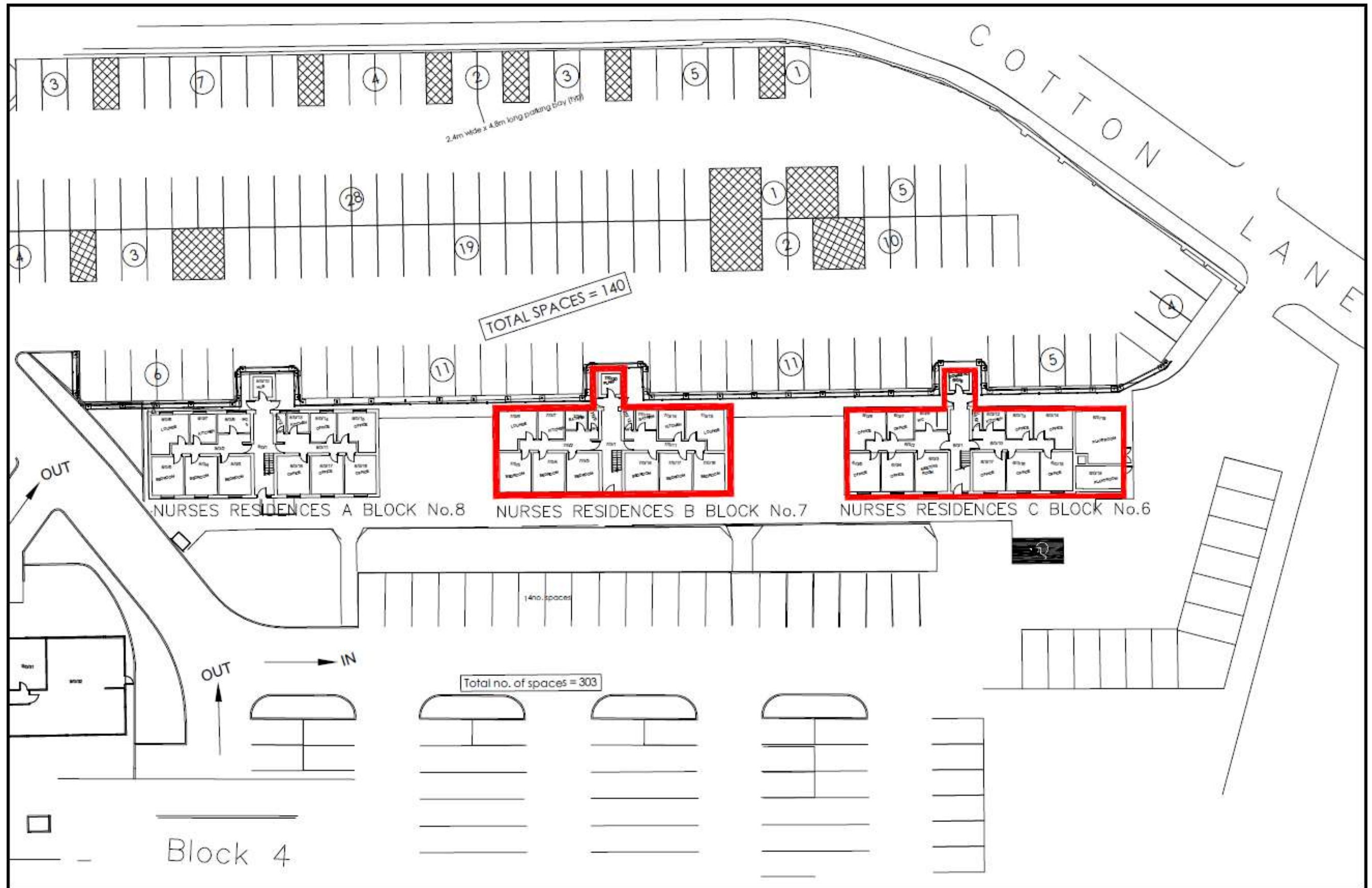
2.4.1 This site lies approximately 5.5 km south of Manchester city centre, located in Withington, Greater Manchester; centred on OS grid reference [SJ 85202 92469](#). It comprises two housing blocks, previously used as student accommodation, set within amenity grassland and planting. The site is surrounded to the north and south by car-parking, with an access road to the west, all forming part of The Christie complex. Cotton Lane bounds the north of the complex, with residential areas immediately beyond this. Residential areas dominate the wider landscape to the north, east and south, with the Christie Hospital lying to the west.

2.4.2 The location of the site within the wider landscape is presented in [Plan 1](#); the application boundary is presented as a red line at [Plan 2](#).

Plan 1: Site Location



Plan 2: Site Survey Boundary (red line, supplied by client, not to scale)



3.0 SURVEY AND EVALUATION METHODOLOGIES

3.1 Pre-survey data search

- 3.1.1 This was undertaken as part of the full Preliminary Ecological Appraisal in May 2017 for the wider site boundary and did not need to be repeated for the update of the two buildings. The original PEA found no protected species constraints to development; it did note, however, the foraging of a small number of Common Pipistrelle bats around the buildings due for demolition.

3.2 Field survey: Phase 1 Habitat and Building Assessment

- 3.2.1 UEA was conducted on 7th June 2019 by Dr David Hackett (Director) and Bethany Phythian (Ecologist) of Biora and employed Extended Phase 1 Habitat Survey methodology. Survey involved a walkover of all accessible land within and adjacent to the site. Broad habitat-compartments were mapped and the potential of each to support protected and notable species assessed. Target notes and photographs were taken of any points of ecological interest, including the presence of invasive or injurious species.
- 3.2.2 Phase 1 Habitat Survey followed guidance outlined in the *Handbook for Phase 1 Habitat Survey* (JNCC 2010). Every parcel of land within and immediately adjacent to the application boundary was classified, described, and mapped in accordance with a list of ninety specified habitat types using standard colour codes to allow rapid visual assessment of the extent and distribution of different habitat types.
- 3.2.3 This basic survey methodology was extended to provide further details in relation to notable or protected species present within the survey area, or in relation to habitats present that have the potential to support them. The potential of terrestrial, aquatic, and manmade habitats to support protected or notable species was assessed and any field evidence that confirmed or suggested their presence recorded. Field survey followed standard recognised methodologies outlined in current best practice guidance, details of which are given in section 3.5 of this report.
- 3.2.4 The buildings on site were also monitored during survey for signs of emerging bees and birds, as information from the client had suggested that birds and bees were seen emerging from some of the features present. Surveyors sat and watched areas with features suitable for these species for 1.5 hours to check for emerging individuals.
- 3.2.5 Details of field survey date(s), time, personnel and weather conditions are presented in [Table 1](#).

3.3 Field survey: Bat survey

- 3.2.1 All field survey relating to bats followed appropriate methodologies set out in the most recent Bat Conservation Trust (BCT) *“Good Practice Guidelines”* (2016)¹.
- 3.2.2 The subsequent roost surveys conducted followed best practice guidelines, as set out by the Bat Conservation Trust and Natural England. The dusk surveys began fifteen minutes before and continued for 1.5 hours after sunset. Surveys were led by an experienced Bat Ecologist, working with an Ecological Assistant and/or experienced freelance bat surveyors. During this survey, any bats observed or heard were recorded along with their location and direction of flight. Surveyors were distributed around the building, ensuring that all potential emergence/entry points from the building were visible throughout survey; the location of surveyors during survey is illustrated in the [Figures](#) section at the end of this report.
- 3.2.3 Surveyors used a Bat Box Duet (with tuneable heterodyne frequency), an iPad using Echometer Touch software and an Anabat Walkabout. Any bats observed or heard during survey were recorded along with their location, activity and direction of flight. Bat activity was recorded as three separate categories, specified as:
- Foraging contact – Bat(s) observed and/or recorded (through bat detectors) foraging in one location
 - Commuting contact – Bat(s) observed commuting through/within survey area without stopping to feed
 - Pass – Bat(s) recorded briefly through detector but not seen
- 3.2.4 Details of these survey dates, start/end times and weather conditions are presented below in [Table 1](#). The survey effort on buildings within the application site was proportionate to the level of bat roost potential assigned to them during the earlier preliminary roost assessment.

¹ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

Table 1: Survey Dates, Surveyors, Weather Conditions

Survey Type	Date & Time of Survey	Personnel	Weather Conditions
PHASE 1 HABITAT SURVEY / BUILDING ASSESSMENT	Date: 07/06/2019 Start time: 10.45	D. Hackett B. Phythian	Air temperature: 15° C Wind speed: 15 km/h Wind direction: E Cloud cover: 30% light cover Precipitation: Light rain at 12.50
BAT DAWN SURVEY	Date: 26/06/2019 Start time: 21.30 End time: 23.15 Sunset: 21.45	B. Phythian D.Hackett S.Nixon	Air temperature: 14° C Wind speed: 13 km/h Wind direction: ENE Cloud cover: 30% Precipitation: None

3.4 Survey personnel

3.4.1 **Dr David Hackett BSc MLD PhD MCIEEM CEnv** has been a Director and Senior Ecological Project Manager at Biora for the past ten years. David is a highly-experienced ecologist, project manager and landscape architect with over 20 years' professional experience, who regularly project manages and co-ordinates teams of ecologists conducting surveys for multiple protected species to inform planning applications, Environmental Impact Statements, Natural England and Scottish Natural Heritage licences and conditions discharge. For the past ten years David has project managed ecology for a 1000-ha redevelopment site in Bishopton, Renfrewshire, during a fifteen-year phased re-development of a contaminated brownfield site to a new village with approximately 3,000 houses. As part of this role David is responsible for co-ordinating all surveys, reporting, GIS spatial mapping, SNH licence applications and conditions discharge and habitat creation and management for this highly ecologically-complex site, which supports several bat roosts, natal otter holts, three pairs of breeding Barn Owl and 12 badger clans in over 60 active setts. In recognition of the effective management of protected species at this site, SNH have recently awarded a series of five-year licences to cover mitigation and monitoring works at this site. David is a full member of the Chartered Institute of Ecology and Environmental Management, a Chartered Environmentalist and a member of Cheshire Bat Group. He is highly experienced in designing and conducting bat surveys and in preparing bat mitigation packages for licence applications.

3.4.2 **Bethany Phythian BSc GradCIEEM** is an Ecologist at Biora and is experienced in conducting habitat and protected species surveys. She has also has over three years' experience of surveying for Preliminary Ecological Appraisal, bats, great crested newts, breeding birds and reptiles.

3.4.3 **Steve Nixon BSc** is a freelance ecological assistant, experienced in conducting bat roost surveys. He has surveyed for multiple species, including bats, with the Biora team for over seven years.

3.5 Survey limitations

3.5.1 Surveyors were not able to access the roof voids of buildings B01 and B02 due to the presence of asbestos in these buildings. Other than this, all survey was carried out under optimal conditions and no other constraints were noted.

3.6 Survey/ Evaluation Methodologies

3.6.1 Evaluation of the suitability of habitats to support protected or notable species was based on professional judgement and standard recognised methodologies outlined in current best practice guidance (see below). Within [Section 4.3](#), each species/species group is ultimately assigned a 'value score' based on the applications sites habitats and their likelihood to provide suitable value to said species, when also considering the site's location at the landscape scale. These value scores range from **NEGLIGIBLE** to **HIGH**. A score of negligible indicates that there is near certain likelihood that this species is not using the site, and therefore species assigned this score are scoped out of further assessment. Any species assigned low value and above are submitted to further assessment at [Section 5.3](#), where the proposed development works and 'zone of influence' is cross-referenced with the likelihood and/or extent of each species presence to determine impact assessment, and subsequent need for further, more detailed survey, mitigation, and licensing. Notable habitats, species and other ecological features of note are also discussed here where relevant.

3.6.2 The Chartered Institute of Ecology and Environmental Management (CIEEM) Ecological Impact Assessment (EclA) guidelines (2016) recommend that the value or potential value of an ecological resource or feature should be determined within a defined geographical context. Therefore, when assigning a value score, this is also referred to at a specific scale, which gives a further indication of the sites potential importance for the given species group. Where too little information on a given species is provided from initial survey, the highest potential value and geographical context is assumed, and

further survey effort subsequently recommended. CIEEM recommend that the following frame of reference be used (or adapted to meet local circumstances):

- International and European;
- National;
- Regional;
- County (or Metropolitan); or
- Local.

- 3.6.3 **Great Crested Newt:** Survey followed best-practice methodologies set out by Froglife and Natural England. An assessment was made of terrestrial habitat within and immediately adjacent to the application site to provide shelter, dispersal, and foraging opportunities for GCN and other amphibians. During terrestrial habitat assessment, any suitable refugia that could be lifted were also examined for amphibians.
- 3.6.4 The suitability of any waterbody within the survey area to support great crested newt (GCN) was assessed using selected indices of the Habitat Suitability Index (HSI) developed by Oldham et al. (2000). An HSI is a numerical index, between 0 and 1. 0 indicates unsuitable habitat, 1 represents optimal habitat. The HSI for the great crested newt incorporates ten suitability indices, all of which are factors thought to affect great crested newts. HSI is not a substitute for GCN presence/absence survey but can assist in determining the requirement for further survey effort.
- 3.6.5 **Bats:** The potential for buildings and trees to support roosting bats, and the potential value of the site for foraging and commuting, was categorised as **NEGLIGIBLE**, **LOW**, **MODERATE**, or **HIGH** based on the presence of suitable habitat features outlined in The Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (2016).
- 3.6.6 **Otter:** The suitability of land within the survey area to support Otter *Lutra lutra* was based on the presence of habitat features along or around any watercourses or waterbodies that could provide a place of shelter for this species. Factors that could affect the potential foraging value of these water features to otter, e.g. water quality and the likely presence of fish, and the connectivity of watercourses to the wider environment were also used to determine the potential for otter using land within the survey area.
- 3.6.7 **Water Vole:** Assessment of the suitability of watercourses and waterbodies within the survey area to support water vole *Arvicola amphibius* was based on guidance presented in third edition of *The Water Vole Conservation Handbook* (Strachan et al. 2011). Assessment of habitat suitability was guided by the presence of habitat conditions considered to influence the presence of water vole, i.e. water depth and flow, bankside cover, suitable food plants, bank gradient and suitable burrowing substrate, the presence of predators and/or competitors, e.g. brown rat, and the connectivity of the site to the wider environment.
- 3.6.8 **Badger:** If badger *Meles meles* is or has been present within a survey area then signs of activity, e.g. setts, paths, latrines, foraging, etc., are usually evident. In addition to these field signs, an assessment of the suitability of the habitats within the survey area to support badger was made based on topography, substrate, land use and the quality of available foraging habitat.
- 3.6.9 **Reptiles:** The presence of habitat features outlined in the *Herpetofauna Workers' Manual* (JNCC 2003) as those favoured by reptiles, i.e. dry, species-rich undisturbed open ground with a mix of sparse and dense vegetation, sunny banks, gullies and hollows and south-facing banks with mammal burrows suitable for hibernation, was used to assess the suitability of land within the survey area to support this species group. The habitat conditions of the surrounding landscape, including the presence of both potential habitat corridors that might provide connectivity with the site and potential barriers to dispersal, e.g. busy roads, were also considered in the overall assessment.
- 3.6.10 **Breeding Birds:** The potential of the habitats within the survey area were assessed for their potential to support breeding birds based on surveyor experience and species breeding habitat requirements described in *A Field Guide to Monitoring Nests* (Ferguson-Lees et al. 2011).

4.0 SURVEY RESULTS AND EVALUATION

4.1 Desk study

4.1.1 Designated sites

- 4.1.1.1 The MagiC site check returned results of one statutory designated site within 2 km which is Heaton Mersey Common, a Local Nature Reserve located approximately 1.68km to the southeast of the site.

4.1.2 Standing water inside 500 m search area

- 4.1.2.1 Desk study identified no waterbodies within the 500 m search area, with the exception of Shaw Brook in between 250 and 500 m north of the site, however due to the urban/residential nature of the site setting, the houses and roads act as a significant barrier for wildlife.

4.1.3 Relevant historical ecological surveys in local area

- 4.1.3.1 There were no relevant ecological surveys in the local area that are associated with this report.

4.2 Field survey: Phase 1 Habitat Survey

4.2.1 Site Context and Connectivity

- 4.2.1.1 The site is set within an urban/residential setting, and has very limited ecological connectivity for wildlife dispersal. Outside of The Christie complex there are more residential areas with associated gardens which provide some connectivity, however these areas are interrupted by a series of roads interlinking the areas, which will severely limit wildlife dispersal.

4.2.2 Habitat Compartments

- 4.2.2.1 The survey area (red-line boundary) consisted of two buildings, which were set within amenity grassland and hardstanding (both outside of the survey area). Planted shrubs surrounding the building were predominantly roses *Rosa sp.* and bramble *Rubus fruticosus agg.* with occasional oak sapling, sycamore saplings, buddleia *Buddleja davidii* and other amenity shrubs.

J3.6: Buildings

- 4.2.2.2 Two buildings were recorded on site, excluding storage containers on site and a wooden shed with the entirety of the roof missing. Images of each building can be found at the [Photographs](#) section, at the end of this report. More detail of the buildings' potential to support roosting bats is provided at Section 4.3.3 below. An extract from the 'Good Practice Guidelines' from the Bat Conservation Trust, upon which these assessments is based, is provided at [Appendix 4](#) at the end of this report. A description of each building and an assessment of its potential to support roosting bats is provided below.

B01/ NURSES RESIDENCE B BLOCK NO.7.

Three-storeys with a tiled pitched roof, and a one-storey porch located centrally on the northern aspect, which held a flat roof. Walls of the building appear in good condition, with the occasional purposely built holes/vents were present around the building. Roof was of modern construction material, and held some gaps in the verges due to missing plastic verge caps, located on the westerly gable end.

The block did provide some suitable areas for low numbers of crevice-dwelling bats, however surveyors could not access the inside of the buildings and therefore the roof void could not be checked for its ability to support larger roosts or colonies. Cover from nearby trees was negligible, therefore the suitability for bats would be lower. The surveyors did not see any evidence of bats on or around the building.

BAT ROOST POTENTIAL: LOW

B02/ NURSES RESIDENCE C BLOCK NO.6.

Three-storeys with a tiled pitched roof, and a one-storey porch located centrally on the northern aspect, which held a flat roof. Purposely built holes/vents were present around the building: 2 small holes were located on the southern aspect on the western side (from which the client had reported of seeing bees and birds entering/exiting), 4 holes on the eastern aspect on the westerly side, a larger hole and missing plastic verge caps on the northern gable end and 2 holes on the southern gable end on the westerly side.

No direct evidence of bats found, although there were many features capable of supporting bat roosts, however the cover from trees was negligible, therefore this would be undesirable to bats.

BAT ROOST POTENTIAL: LOW

- 4.2.2.3 There were no target notes taken by surveyors during this survey that have not already been discussed in this report in their dedicated sections.

4.3 Field survey: Species and species groups

4.3.1 Plants

4.3.1.1 None of the flora recorded during survey was of conservation concern or listed under any Schedule of the WCA 1981 for their value.

4.3.1.2 No invasive species listed under Schedule 9 of the Wildlife and Countryside Act (WCA9) were noted within the survey area.

4.3.2 Great Crested Newt

4.3.2.1 Field survey identified no habitat with the potential to support this species within the site therefore the value of the site for this species is considered to be **Negligible**, and this species is therefore **scoped out of further assessment**.

4.3.3 Bats

4.3.3.1 The survey area comprised two buildings both of which had **LOW** bat roost potential. Due to their modern, approximately 1980's, build style and materials, and the fact that all the entrance features surveyors noted were exposed without tree cover, the building was recognised as having low potential for roosting bats. There was some light-spill from nearby streetlamps, which might be undesirable to these animals, and would certainly modify feeding activity. Both buildings had gaps in the gable verges due to missing verge caps, which would provide access points to the rood voids. The internal roof voids could not be accessed by surveyors due to the presence of asbestos. There were no trees within the survey area.

4.3.3.2 It is stated in the Christie NHS Trust Environmental Standards Statement (ARUP, 2017), bat surveys undertaken in August 2017 found on evidence of bats roosting within any of the buildings, but bats were recorded foraging and commuting along the vegetated eastern area of the Christie Complex.

4.3.3.3 Bats at this site are considered to be of **Low** concern at the **Local level**, as the buildings on-site provides some potential for bats to use it for roosting. A single survey was carried out in order to dismiss this species groups' use of the buildings, and no bats were found emerging during survey. See section 4.4 for full results of this survey.

4.3.3.4 All British bats are European Protected Species (EPS) and are fully protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2010 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under the legislation, it is an offence to intentionally capture, kill, disturb, or injure a bat; to damage or destroy a breeding or resting place (whether in use or not); to obstruct access to their resting or sheltering places; or to possess, sell, control or transport live or dead bats, or parts of a bat.

4.3.3.5 All species of British bat are also the subject of a UK-wide Biodiversity Action Plan (BAP); Noctule *Nyctalus noctula*, Soprano pipistrelle *Pipistrellus pygmaeus*, and Brown long-eared *Plecotus auritus* bats are also listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act.

4.3.4 Otter

4.3.4.1 Field survey identified no habitat with the potential to support this species within the site therefore the value of the site for this species is considered to be **Negligible**, and this species is therefore **scoped out of further assessment**.

4.3.5 Water Vole

4.3.5.1 Field survey identified no habitat with the potential to support this species within the site therefore the value of the site for this species is considered to be **Negligible**, and this species is therefore **scoped out of further assessment**.

4.3.6 Badger

4.3.6.1 Field survey identified no habitat with the potential to support this species within the site therefore the value of the site for this species is considered to be **Negligible**, and this species is therefore **scoped out of further assessment**.

4.3.7 Reptiles

4.3.7.1 Field survey identified no habitat with the potential to support this species within the site therefore the value of the site for this species is considered to be **Negligible**, and this species is therefore **scoped out of further assessment**.

4.3.8 Breeding birds

4.3.8.1 No evidence of active birds' nests was apparent during field survey, even though the survey was carried out in the active breeding bird season. Buildings on site have potential provide some nesting opportunities for species such as House Sparrow *Passer domesticus*, swallow *Hirundo rustica* and House Martin *Delichon urbica*, however these opportunities were not extensive, and the surrounding habitat provided much more valuable habitat for birds nesting. It can be concluded that there is **Low** value for nesting birds at the **local** level of scale.

4.3.8.2 All wild British bird species and their nests are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence under the Act to intentionally or recklessly destroy any active bird nest or to remove its contents. Any

development activity within the survey area, including the clearance of vegetation or the demolition of buildings, conducted within the core breeding season (March-August inclusive) has the potential to damage or destroy bird nests and so breach legislation. Any site clearance activity should, therefore, be timetabled outwith this period. Where this is not possible, development works should be preceded by a sufficiently licensed professional ecologist who can confirm the presence/absence of breeding birds on site immediately before works begin.

- 4.3.8.3 It is possible that birds could make their nests within habitats on site before works commence however, and so demolition of the buildings should either be carried out outside breeding bird nesting season (March to September inclusive). If carried out during the core British bird breeding season of March to August inclusive, such activities have a high chance of destroying active nests, which would constitute an offence under the Wildlife & Countryside Act. If it not possible to time the works within this timeframe then the buildings should instead be checked immediately prior to demolition by a suitably qualified ecologist.

4.3.9 Invertebrates

- 4.3.9.1 Survey found foraging bees outside of the building, particularly on roses and brambles, however no evidence of bees travelling/nesting inside the building were present during survey, therefore this species group can be dismissed.

4.3.10 Other fauna recorded by survey

- 4.3.10.1 No other species were recorded by field survey.

Table 9: Value summary table of protected/notable species

Species	Local	County-wide	Regional	National	International
Breeding Birds	Low				
Badger					
Bats	Low				
Reptiles					
GCN					
Otter					
Water Vole					
Invertebrates	Low				

KEY: Blue fill represents scale at which value/potential value of species is relevant. Unshaded boxes represent negligible value impacts.

4.4 Field survey: Bat survey

Building assessment for bat roosting potential

- 4.4.1 Phase 1 habitat assessment within the red-line boundary found that the two buildings B01 and B02 had low potential to support roosting bats. Surveyors did not have access to the roof voids or either buildings due to the presence of asbestos in the buildings, however surveyors could inspect the outside of the building for its suitability, and no evidence of bats was found. Based on the suitability of the application building for roosting bats and in accordance with the most recent good practice guidelines, one emergence survey was completed over June.

Dusk Emergence Survey– 26th June 2019

- 4.4.2 **No bats were observed emerging from either building during survey.** Activity was recorded from 22.03 until 23.15, and only one species, Common pipistrelle, was observed by surveyors throughout the night. The first bat was seen foraging to the southeast of B01, at the trees present behind the surveyors. Foraging and calls were identified throughout the night in the same area, thought to be from the same bat. The second bat of the night was seen flying in-between the buildings at 22.11, and commuting back and forth occasionally after this, stopping at 23.15.
- 4.4.3 Full results of this survey are illustrated in the *Figures* section at the end of this report.

5.0 CONCLUSION AND RECOMENDATIONS

- 5.1 Field surveys at this site determined that the survey area had potential ecological value for a limited number of protected species, however no evidence of this was seen during either survey.
- 5.2 **Bats**
Bats at this site are considered to be of **Low** concern at the **Local level**, as the buildings on-site provides some potential for bats to use it for roosting. A single survey was carried out in order to dismiss this species groups' use of the buildings, and **no bats were found emerging from either building during survey**. Foraging activity around the building by low numbers of Common pipistrelles was noted however, so bats are using the site for this reason.
- R1 To continue encouraging bats at this location, native, scented scrubs and herbaceous species should be planted wherever possible to provide the bats with foraging opportunities.** Examples of suitable plant species are provided in the Appendices at the end of this report.
- R2** There were opportunities for bats to roost at this location, but there was no evidence of use. It is recommended, however, that in addition to enhancing the landscape to encourage foraging that **roosting opportunities should also be provided in the provision of 2 no general purpose bat roost boxes (e.g., Schwegler 2F or similar) set in the adjacent mature trees.**
- 5.3 **Breeding birds**
No evidence of active birds' nests was apparent during field survey, even though the survey was carried out in the active breeding bird season. Buildings on site have potential provide some nesting opportunities for species such as House Sparrow *Passer domesticus*, swallow *Hirundo rustica* and House Martin *Delichon urbica*, however these opportunities were not extensive, and the surrounding habitat provided much more valuable habitat for birds nesting. It can be concluded that there is **Low** value for nesting birds at the **local** level of scale
- R3 As the buildings on-site do provide some, albeit limited, nesting opportunities, it is recommended that the proposed development seeks a gain on the bird roosting opportunities on-site to be located on mature trees out of artificial light.** Suitable nest box specifications are given in the Appendices at the end of this document.
- R4 All building demolition (and any vegetation clearance) works should be undertaken outwith the core British bird breeding season (ie March-August inclusive).** Where this is not possible, all vegetation to be cleared/ buildings to be altered must be checked for active nests by a suitably experienced ecologist immediately before undertaking such works. Works should only proceed once the ecologist is satisfied that no active nests will be destroyed.

FIGURES

FIGURE 1: EXTENDED PHASE ONE HABITAT PLAN (NOT TO SCALE)

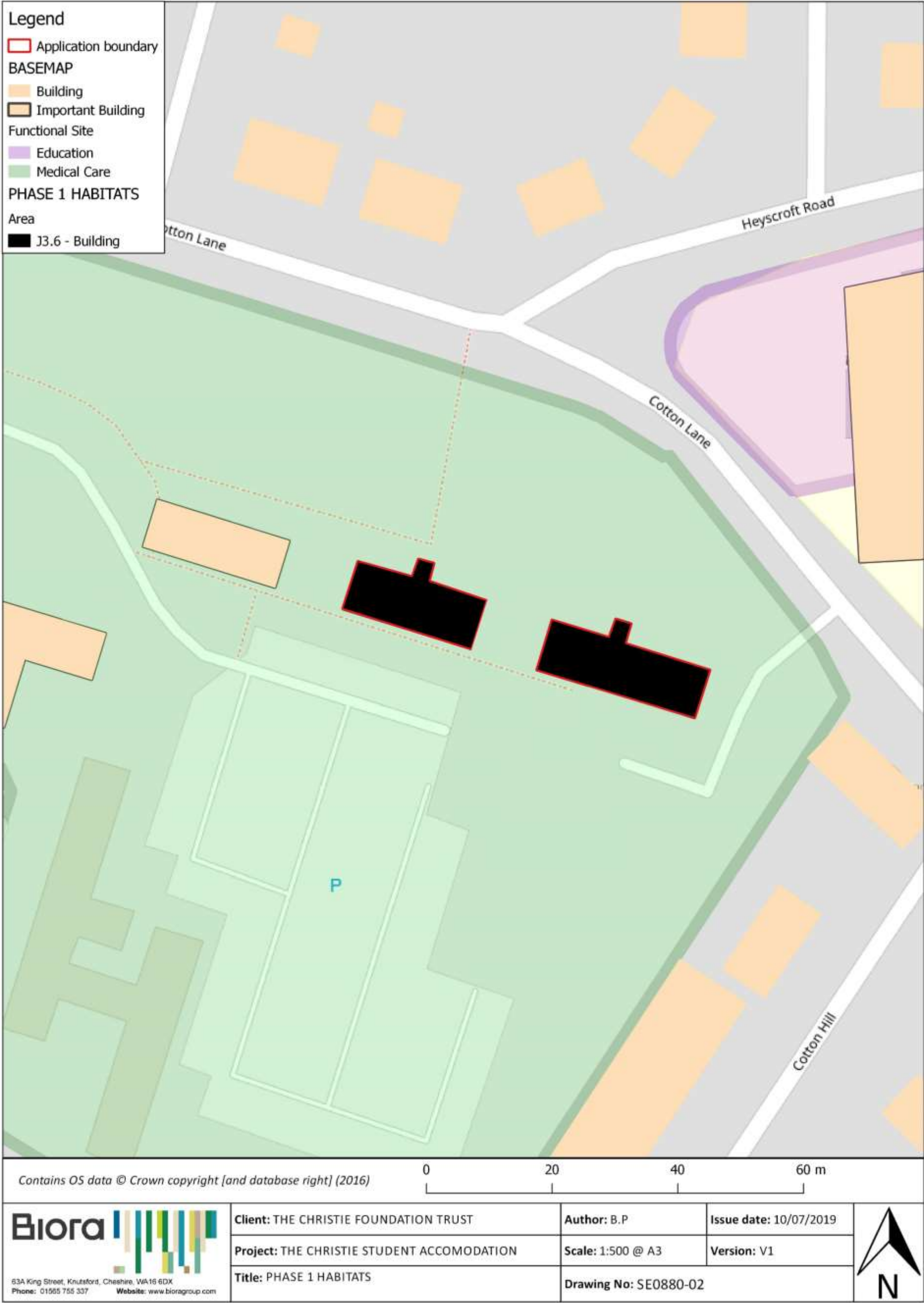
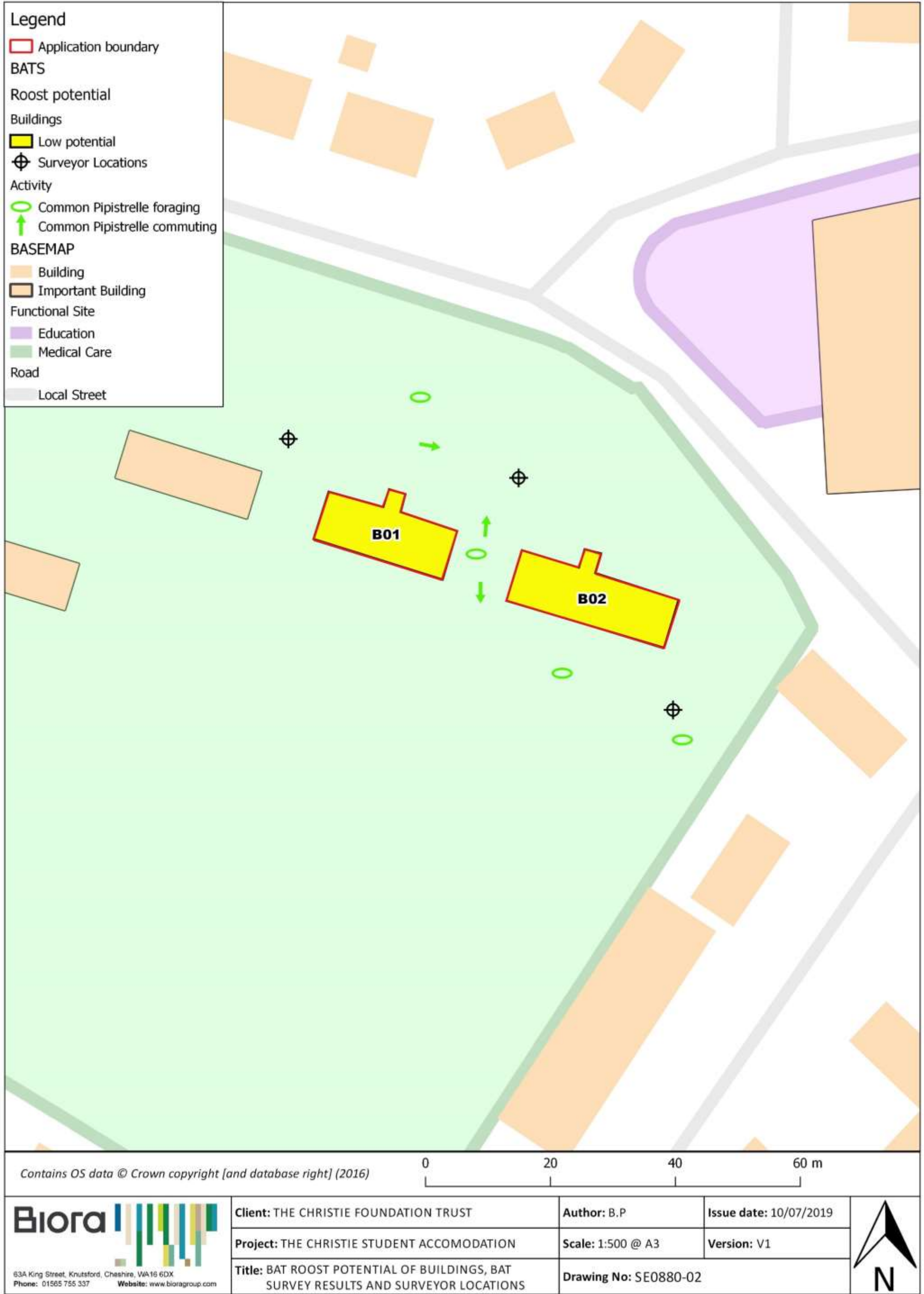


FIGURE 2: BAT-ROOST POTENTIAL OF BUILDINGS, BAT SURVEY RESULTS AND SURVEYOR LOCATIONS (NOT TO SCALE)



PHOTOGRAPHS

Photograph P1: Building B01



Photograph P2: Building B02



APPENDIX 1: UK Legal Protection and Planning Guidance

A1 National Planning Policy Framework (NPPF)

The NPPF came into force in March 2012. It sets out the Government's planning policies for England and how these are expected to be applied. It gives guidance to local planning authorities on the content of their local plans but is also a material consideration in determining planning applications. **The NPPF states that the planning system should provide a net gain for biodiversity wherever possible.** The NPPF replaces much of the previous planning policy guidance, including PPS9: Biodiversity and Geological Conservation. However, the Government Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System (which accompanied PPS9) remains valid.

A2 Biodiversity Action Plans

UK Biodiversity Action Plans: The **UK Biodiversity Action Plan (UKBAP)** was established in response to the **Convention on Biological Diversity 1992**, signed by 150 members at the Rio Earth Summit, which aimed to promote sustainable development amongst all signatories. Specific action plans have been prepared for highly protected species. As well as a national Biodiversity Action Plan, local Biodiversity Action Plans identify species of note at local level throughout the UK.

A3 Priority Habitats and Species

Under the terms of the Natural Environment and Rural Communities Act 2006, all public bodies are required to have regard to the conservation of biodiversity when carrying out their activities. This means that efforts must be made to consider priority and protected species and habitats in particular. There would be a presumption in the land-use planning process against any development that would result in loss to an area of priority habitat or harm to the population of any priority species.

A4 Vegetation

The Wildlife and Countryside Act 1981 (as amended) lists plants which are statutorily protected. In relation to development these plants are rare and are not often encountered. The bluebell is scheduled, with commercial bulb-picking from the wild being prohibited. There is also a category of plants which it is an offence to introduce to the wild. This category includes Japanese knotweed, which is often found on brownfield sites. Care is needed to avoid spreading the species around the site during earthworks, and to ensure that any removal of infested soils off-site is to a licensed tip. Giant hogweed and Himalayan balsam are also listed in this category of invasive alien plant species. In addition, the Ragwort Control Act came into force on 20 February 2004 and enables the Secretary of State to make a Code of practice to prevent the spread of common ragwort.

A5 Hedgerows

As a priority habitat for conservation concern, hedgerows also receive further protection under the Hedgerow Regulations 1997. Under the Hedgerows Regulations 1997 it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Local planning authority permission is normally required before removing hedges that are at least 20 metres (66 feet) in length, more than 30 years old and contain certain plant species. The authority will assess the importance of the hedgerow using criteria set out in the regulations. The local planning authority is also the enforcement body for offences created by the Regulations. If a hedgerow is removed without permission, there may be an unlimited fine and the hedgerow may have to be replaced.

A6 Great crested newt

A European Protected Species (EPS) and fully protected under the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). Under the legislation it is an offence to:

- *Intentionally or deliberately capture, kill or injure great crested newts (GCNs).*
- *Intentionally or recklessly disturb them in a place used for shelter or protection.*
- *Damage or destroy a breeding site or resting place.*
- *Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.*
- *Possess a great crested newt, or any part of it, unless acquired legally.*
- *Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.*

Where Great crested newts (GCNs) are present at a proposed development site it is usually possible to continue with the project, re-locating the animals in advance of development, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified GCN-specialist ecologist. Each licence application must be supported by:

- Full optimal-season great crested newt survey results and analysis;
- A suitable mitigation strategy that ensures that the favourable conservation status of the GCN population will be maintained (this usually involves the provision by the developer of additional land with ponds as compensation for

loss of habitat and breeding sites). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and

- A method statement explaining how GCNs will be accommodated legally if found during the development process.

A7 Bats

All species of bats are European Protected Species and their breeding and nesting sites (roosts) are given a high degree of legal protection under the terms of the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. In addition, all bats are the subject of a UK-wide Biodiversity Action Plan (BAP). This combined legislation offers bats, their roost sites and resting places strict protection from intentional or reckless disturbance (see wording of GCN legislation above). It should be noted that, under the legislation, a bat roost is defined as any structure or place which is used by bats to shelter, breed or perch whilst feeding. As bats tend to reuse the same roosts, the roost is legally protected, whether the bats are present at the time or not.

Where bats are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified bat-specialist ecologist. Each licence application must be supported by:

- Full optimal-season bat survey results and analysis;
- A suitable mitigation strategy that ensures that the favourable conservation status of the bat population will be maintained (this usually involves the provision by the developer of replacement permanent bat roosts, additional bat boxes and both bat-friendly planting and lighting within the development site). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- A method statement explaining how bats will be accommodated legally if found during the development process.

A8 Otter

Otters are a European Protected Species (EPS) and fully protected under the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). Otters and their resting places are fully protected, it is an offence to deliberately, capture, injure or kill them or to damage, destroy or obstruct their breeding or resting places. It is also an offence to disturb otters in their breeding or resting places.

Where otters are present at a proposed development site it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified otter-specialist ecologist. Each licence application must be supported by:

- Full optimal-season otter survey results and analysis;
- A suitable mitigation strategy that ensures that the favourable conservation status of the otter population will be maintained (this usually involves the provision by the developer of replacement waterbodies and holts within the development site). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- A method statement explaining how otters will be accommodated legally if found during the development process.

A9 Badger

All badgers are protected from harm under the Protection of Badgers Act (1992). Under this act it is an offence:

- To kill, injure or take a badger, or to attempt to do so;
- To use badger tongs in the course of killing or taking, or attempting to kill or take, any badger;
- To kill or take a badger with a firearm which does not fall within the specifications laid down in the Act;
- To dig for a badger;
- To cruelly ill-treat a badger;
- To possess or control a live badger;
- To sell or offer for sale a live badger;
- To mark, or attach any ring, tag or marking device to a badger;
- To possess or control any dead badger, any part of one, or anything derived from one;
- To interfere with a badger sett by (a) damaging a sett or any part of one; (b) destroying a sett; (c) obstructing access to or any entrance of a sett; (d) causing a dog to enter a sett; or (e) disturbing a badger when it is occupying a sett.

Where badgers are present at a proposed development site, it is usually possible to continue with the proposed project, but only upon receipt of a site-specific licence from Natural England. A licence is always required to shut down a badger sett or for works within 30m of a badger sett. The licence application process can be complex and can only be conducted by a suitably qualified badger-specialist ecologist. Each licence application must be supported by:

- Full optimal-season badger survey results and analysis;
- A suitable mitigation strategy that ensures that the favourable conservation status of the badger population will be maintained (this usually involves the provision by the developer of replacement artificial setts, planting of suitable

fruit-bearing shrubs, erection of badger gates and underpasses within the development site). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and

- A method statement explaining how badgers will be accommodated legally if found during the development process.

A10 Water vole

From 6th April 2008, water voles and their resting places gained full protection under the Wildlife and Countryside Act (1981). It is an offence to deliberately, capture, injure or kill them or to damage, destroy or obstruct their breeding or resting places. It continues to be an offence to disturb them in their breeding or resting places.

Where water voles are present at a proposed development site it is usually possible to continue with the project, re-locating the animals in advance of development, but only upon receipt of a site-specific licence from Natural England. The licence application process can be complex and can only be conducted by a suitably qualified water vole-specialist ecologist. Each licence application must be supported by:

- Full optimal-season water vole survey results and analysis;
- A suitable mitigation strategy that ensures that the favourable conservation status of the water vole population will be maintained (this usually involves the provision by the developer of additional land with ponds as compensation for loss of habitat and breeding sites). This mitigation strategy should usually be agreed by the ecologist through liaison with Natural England; and
- A method statement explaining how water voles will be accommodated legally if found during the development process.

A11 Reptiles

The four widespread species of reptile in the UK (i.e. common lizard, slow-worm, grass snake and adder) are all protected under the terms of the Wildlife and Countryside Act 1981 (as amended), however they are not fully protected under European law. This level of protection prohibits the intentional killing and injuring and trade of these reptiles. Where a survey identifies potential habitat for reptiles at a development site, a reptile survey may be needed prior to submission of a planning application and mitigation may be required by Natural England for any loss of reptile habitat as a result of a site's re-development

A12 Breeding birds

All wild birds, their nests and their eggs are protected by the Wildlife & Countryside Act 1981 (as amended). It is an offence (with certain exceptions), to intentionally or recklessly kill, injure or take any wild bird (this includes chicks); to take, damage or destroy any wild bird's nest while it is use or being built; and to take or destroy the egg of any wild bird. The definition of a wild bird is 'any bird of a kind which is resident in or a visitor to Great Britain in a wild state'.

Species named in Schedule 1 of the Act are given special protection and it is an offence to disturb these species at the nest or while they are caring for dependant young. The RSPB and the UK's leading bird conservation organisations work together to regularly review the status of birds within the UK. A total of 246 species are assessed against a set of objective criteria to place each on one of three lists - green, amber and red – indicating an increasing level of conservation concern. These lists provide a tool for guiding conservation actions for birds in the UK and for setting priorities for action on individual species. The last review of these lists was completed in May 2009.

For certain species, e.g. Feral Pigeon, general licences are available for an authorised person to lawfully carry out the actions outlined above providing that it is in the overriding interest of public health or air safety and that all other attempts to prevent the problem caused by the species have failed.

The Barn Owl has seen significant declines in recent history primarily due to habitat loss and the destruction, removal or renovation of traditional nesting sites. It is currently included in the amber-list of species of medium conservation concern, having been classified as a Species of European Conservation Concern (SPEC). In Great Britain it is listed on Schedule 1 of the Wildlife & Countryside Act (1981) as amended. It is an offence to disturb any wild bird included in Schedule 1 while it is building a nest or is at, on or near a nest containing eggs or young; or disturbs dependent young of such a bird. Note that if any of the above resulted from a person being reckless, even if they had no intention of committing the offence, their action would still be considered an offence. A person is not guilty of an offence if it can be shown that the act was 'the incidental result of a lawful operation and could not have been reasonably avoided'; only a court can decide what is 'reasonable' in any set of circumstances.

APPENDIX 2: Specification for bird nest boxes (examples)

WoodStone® Seville 32mm Nest Box



Ark Wildlife

For House Sparrow

Height: 31 cm

Width: 20.5 cm

Depth: 20 cm

Entrance hole: 32 mm

Approximate unit cost: £22.00

Attach to building; guaranteed for 10 years

Also available in brown (code 90730)

For House Martin

Approximate cost for single unit: £13.00

Approximate cost for double unit: £20.00



WoodStone® Starling Nest Box



For Starling

Height: 38.5 cm

Width: 22 cm

Depth: 21.5 cm

Entrance hole: 45 mm

Approximate unit cost: £30.00

Attach to building; guaranteed for 10 years

APPENDIX 3: BCT Guidelines for Assessing the Potential Suitability of Buildings for Bats

POTENTIAL	ROOSTING HABITATS	COMMUTING AND FORAGING HABITATS
NEGLIGIBLE	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by foraging and commuting bats.
LOW	A structure with one or more potential roost sites that could be used by individual bats opportunistically. These potential roost sites do not, however, provide enough space, shelter, protection, appropriate conditions¹ and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as gappy hedgerow or unvegetated stream, but is isolated, i.e. not very well connected to the surrounding landscape by other habitats. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
MODERATE	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
HIGH	A structure or tree with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

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- NATURAL ENGLAND *Standing Advice Species Sheet: Otters*
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On-line resources:

- British Trust for Ornithology (BTO) website www.bto.org.uk
- UK BAP www.ukbap.org.uk