



WE KNOW SERVICES

Bat Survey Report

Site

Land off Sewell Street, Prescott

Client

Knowsley Metropolitan Borough Council

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Version

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A photo showing some of the premises on Sewell Street.

Quality Assurance

The information which the author has prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Summary

A Bat survey was commissioned in July 2021 by Knowsley MBC, of the Sewell Street site located in Prescot town centre, Knowsley, Merseyside. The survey was commissioned to inform future development plans for this site.

A Preliminary Ecological Appraisal survey (We Know Services, 2021) resulted in the buildings on site being assessed as having “low potential” (Collins (ed) 2016) to support bat roosts. However, internal access to the buildings for inspection was not possible and as such 3x emergence and re-entry surveys were required to complete the assessment and assess the current status of the site in relation to bats.

Following the scoping survey, no evidence to suggest the presence of bat roosts was identified in association with the buildings. Emergence and re-entry surveys conducted in July - September 2021 identified no bat roosts in association with the buildings and only limited activity (foraging) within or in the vicinity of the site. No other activity to indicate the presence of bat roosts was observed during the surveys.

In view of the results of the survey, the site is not of any notable value for bats currently. As such there is unlikely to be any significant affect upon the conservation status of bats as a result of re-development or refurbishment.

However, any development of the site provides an opportunity to enhance the site for bats (and biodiversity in general) by comparison to the current state.

In order to enhance the site for bats in the long-term, it is recommended that consideration is given to the use of bat bricks or bat boxes upon existing buildings or trees. In addition, where possible, any the lighting scheme associated with the site should be designed to ensure that it is sensitive to wildlife, including bats foraging and commuting through the site.

In view of the results of assessment, no further survey is considered necessary where works affecting the buildings are commenced prior to April 2023 (before the active season for bats begins). Where works take place beyond this date the results of this assessment should be reviewed.

1. Introduction

A Bat survey was commissioned in July 2021 by Knowsley MBC, of the Sewell Street site located in Prescott town centre, Knowsley, Merseyside. The survey was commissioned to inform future development plans for this site.

A Preliminary Ecological Appraisal survey (We Know Services, 2021) resulted in the buildings on site being assessed as having “low potential” (Collins (ed) 2016) to support bat roosts. However, internal access to the buildings for inspection was not possible and as such 3x emergence and re-entry surveys were required to complete the assessment and assess the current status of the site in relation to bats.

1.1. Site Description

The site is located close to Prescott town centre, Knowsley, Merseyside (Grid Reference: SJ466926) and currently consists of areas of previously developed hardstanding, two buildings and a footpath adjacent to Sewell St. The site is situated in an urban area comprised of a mix of residential and commercial properties with the nearest open green space being the grounds and cemetery associated with St Marys/Prescot Parish Church to the west.



Figure 1. Site and surrounding landscape character.

1.2. Proposed Development

No details development plans were available at the time of assessment and writing this report but it is assumed that the buildings would be retained and re-developed but that there is potential for the complete redevelopment of the previously developed hardstanding areas.

1.3. Personnel & Quality Assurance

Rob Nicholson BSc (Hons) MCIEEM is a Class 2 Bat licence holder (Natural England), has over 13 years' relevant experience as an ecologist and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Rob has been 'named ecologist' on numerous European Protected Species Licences (EPSL) for bats for a range of species and roost types in both England and Wales.

Sharon Blackhurst is an assistant bat surveyor with 5 years' experience carrying out bat surveys in both England and Wales including preliminary roost assessments, emergence and re-entry surveys, activity surveys and EPSL monitoring surveys.

All field work and assessment was led by the above surveyors supported by assistant surveyors, and was undertaken in accordance with current best practice guidelines (Collins, J. (Ed) 2016).

2. Legal Status

Bats

In England, all British bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

These pieces of legislation combine to give substantial protection to bats and their roost sites, making it an offence to:

Deliberately or intentionally kill, injure or take a bat;

Damage, destroy or intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not);

Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

3. Methodology

The bat scoping survey and desk-based assessment were conducted on the 20th July 2021. The 'Emergence and Re-entry' surveys were conducted between July and September 2021 (within the optimum period for this survey type).

3.1. Desk Study

To inform the survey, a desk study was conducted using available ecological information relating to bats for the area surrounding the site (taken from the PEA for the site completed by We Know Services in 2021).

Online resources, including Multi-Agency Geographic Information Centre (MAGIC), were consulted in relation to the presence of sites and habitats of importance for bats in the wider context.

A data request to the Local Records Centre (LRC) for the area (Merseyside Biobank) was made for full species records including for Bats within 2 km of the site (full details available upon request).

3.2. Pre-development Bat Survey

Habitat Survey

A broad habitat survey was conducted of the site to inform the assessment of the suitability of the site for bats. Broad habitat descriptions were assigned and their values with respect to bats at site level and in the wider context assessed.

Bat Scoping Survey

The bat scoping survey comprises of a buildings inspection which was limited to the buildings subject of the planning application (as indicted in red on Figure 1).

The building was inspected using close-focusing binoculars (Pentax Papilio 8.5 x 21) to determine possible access points such as cavities in brickwork and the roof structure.

Using ladders, all accessible features were closely inspected using *Lenzer H14* and X21 cool light torches.

Where possible, any cracks, crevices and likely access points or potential roost features were checked for signs of use by bats e.g., droppings, scratch marks and staining.

An endoscope was used to inspect cavities that could be accessed safely via ladders.

Emergence & Re-entry and Static Activity Surveys

One dusk emergence survey was undertaken on 28th July 2021 followed by a dawn re-entry survey on 12th August 2021 and a final dawn re-entry survey on 2nd September 2021. (in line with Bat Survey Guidelines for buildings of 'Low Potential' but where access for internal inspection is limited).

The dusk surveys commenced 30 minutes before sunset and continued for 2 hours after sunset. The dawn survey commenced 2 hours before sunrise and 15 minutes after.

During the surveys, four surveyors were strategically positioned, focusing on features identified as potential access points for bats during the bat scoping survey, to ensure observations could be made of any bats leaving or entering potential roost locations.

All observed bat passes were recorded; noting the time, the location and, where possible, the direction of flight, species and behaviour of the bat (i.e., commuting, foraging, social calling).

After completion of each survey session, digital recordings of bat echolocation taken during the survey were analysed using Anabat Insight sound analysis software for full spectrum recordings taken using Anabat Scout detectors and Analook software was used for recordings taken using a Wildlife Acoustics Song Meter SM2+ Bat detector (recording in Zero Crossing format).

During the surveys, the following details were noted as appropriate:

- Weather and temperature;
- Time bat detected/observed;
- Frequency at which the bat was detected;
- Location within the survey area;
- Whether bats emerged from a potential roost location;
- Direction of flight;
- Number of bats observed; and
- Whether the bats appeared to be foraging or commuting.

Temperature, wind speed and cloud cover were recorded at the beginning and end of the survey, along with any significant weather changes during the survey.

3.3. Evaluation Methods

The 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' (3rd edition) (Collins, J. (Ed) 2016) are used as a basis to evaluate the value of features for their potential to support bats. In addition, the Bat Mitigation Guidelines (Mitchell-Jones, 2004) was referred to specifically in terms of evaluating the need for an EPS Licence (EPSL).

The potential impacts on bats, bat habitat or their roosts as a result of the proposals are assessed within this report using the above criteria, together with an ecological judgement by an experienced bat surveyor.

4. Constraints

Internal access to the buildings was not possible, as such this has been accepted as a limitation to the roost assessment and addressed via increased survey effort during the emergence and re-entry survey element of the assessment.

Some features with potential for supporting bat roosts (e.g., roof tiles) could not be accessed for physical inspection due to the height and position at which they are located. As such, these features were limited to visual inspection from ground level using close-focussing binoculars to inspect for field signs of bats around the exterior of the cavities.

External field signs of bats can be lost over time due to weathering and damp conditions. Droppings and other field signs are not always visible through routine, non-invasive inspection surveys as bat species associated with buildings roost in crevices that may not be fully accessible to survey.

This survey does not cover every month of the active and hibernation seasons.

5. Results

5.1. Desk Study

There are 265 records (various types of record) of bats within 2 km of the site within the last 10 years. Species include:

- Common Pipistrelle (*Common Pipistrelle*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Brown Long-eared Bat (*Plecotus auritus*)
- Nathusius Pipistrelle (*Pipistrellus nathusii*)
- Daubenton's Bat (*Myotis daubentonii*)
- Whiskered Bat (*Myotis mystacinus*)
- Noctule Bat (*Nyctalus noctula*)

The vast majority of these are associated with Knowsley Park Estate and Knowsley Safari Park. The nearest record

The nearest of these records is for a Common Pipistrelle bat roost (count not specified) located within a residential property ~510m north west of the site.

According to MAGIC website, there is one record of granted European Protected Species Licences for bats within 2 km of the site. This is for a Common Pipistrelle resting place (non-breeding), dated 2017-2018, located 475m west of the site, associated with a residential property.

5.2. Field Survey

Broad Habitat Survey

The site is located close to Prescott town centre, Knowsley and currently consists of areas of previously developed hardstanding, two buildings and a footpath adjacent to Sewell St. The site is situated in an urban area comprised of a mix of residential and commercial properties with the nearest open green space being the grounds and cemetery associated with St Marys/Prescot Parish Church to the west.

Foraging habitat in the immediate vicinity of the site is present in the form of scrub habitat and scattered trees associated with the site. In the wider context

the nearby church grounds and cemetery will provide highly suitable and historic habitat to the west of the site.

Roost Survey

The objective of the roost survey was to identify and assess for the presence of bat roosts at any potential roost locations which may be anticipated to be affected by the proposed development.

Building

The buildings were subject to a full external inspection and assessment for potential to support bat roosts, and any evidence thereof. Internal inspection was not possible at the time of survey.

Table.1 Building Inspection Results

Photo	Description
 Northern aspect of Prescott Community Church	<u>Exterior</u> The Prescott Community Church building is a large Edwardian former Cinema building (built circa 1912) comprising three-storeys with a central auditorium with vaulted ceiling and stage, which has remained disused since 2016. It is glazed to all aspects and has a pitched, slate roof which has minor damage in places. The roof to the north comprises a parapet wall with gable ends to the south, east and west. There are eaves to the east and west of the southern elevation to the building. The building is relatively historic but appears to be in reasonable condition, with no significant damage (slight lifting of tiles/mortar loss only). However, the roof structure possesses some potential roost features (PRFs) for bats, though limited in number and diversity given the size of the building.



Dense scrub to south west of Prescot Community Church site / South East of 17-18 Kemble St.



Southern Aspect of Prescot Community Church

No evidence (field signs) of the presence of bats was recorded at the time of survey.

Potential Roost Features:

Small number of gaps associated with slate/tile roofing and roof edges.

Evidence: None

Bat Roost Assessment: "Low Potential".

Low potential to support crevice dwelling species such as Common Pipistrelle.



Northern Aspect of 17-18 Kemble St. (Corner of Sewell St.)



Southern Western Aspect of 17-18 Kemble St. (Corner of Sewell St.)

Exterior

There is a second building to the north west corner of the site, on the corner of Kemble St and Sewell St. (adjacent to Market Place).

This building comprises a short terrace of two properties housing a café to the ground floor. The upper two storeys appear to be residential properties.

This building is of brick construction with glazing to all floors to the north and south but not to the eastern and western gable ends. The roof of this building is pitched and part slate/part tile.

It was evident that there is significant artificial lighting associated with the buildings from the street lighting along Kemble Street/Market Place/Sewell Street and lighting to the north of the nearby Tesco supermarket.

Potential Roost Features:

The brick work appears to be intact but there are features associated with the roof in the form of gaps in between tiles and slates.

In view of this, there is considered to be limited potential PRFs associated with the building.

Evidence: None.

Bat Roost Assessment: "Low potential".

The site is overall of low suitability for supporting foraging bats, with roosting and foraging habitats present limited and affected by high levels of artificial lighting.

The buildings associated with the site were assessed being of low potential for supporting bat roosts as per (Collin, J. (Ed), 2016).

Note: Internal access to both buildings was not possible at the time of survey, as such this has been accepted as a limitation to the roost assessment and addressed by increasing the number of survey visits to 3 (instead of a single survey usually required for low potential buildings).

Emergence & Re-entry and Static Activity Surveys

The emergence and re-entry surveys were informed by the visual inspection and assessment of buildings as detailed above.

The emergence surveys were conducted with the aim of recording any bat activity associated with features identified upon the building in order to assess the status of any bat roosts present.

Each of the surveys was undertaken under suitable weather conditions with temperatures greater than 10°C.

A plan indicating the locations of the surveyors in relation to the building is provided in Appendix 3 and full results of the survey are provided in Appendix 2.

Emergence Survey – 28th July 2021

The emergence survey commenced at 20.46hrs, sunset was at 21.15hrs and the survey ended at 23.16hrs. The survey lasted two and a half hours in total and was uninterrupted.

No bats were observed emerging from the building during the survey. A short period of foraging amongst scrub and trees to the south of the buildings was recorded at ~22.05hrs (Common Pipistrelle). This continued intermittently until ~22.22hrs before the single bat exited the site to the west.

Dawn re-entry survey – 8th August 2021

The dawn re-entry survey commenced at 03.38hrs, sunrise was at 05.38hrs and the survey ended at 05.53hrs. The survey lasted two hours and fifteen minutes in total.

No bats were observed re-entering the building during the survey and no foraging or other activity was recorded.

Dawn Re-Entry Survey – 2nd September 2021

The dawn re-entry survey commenced at 04.23hrs, sunrise was at 06.23hrs and the survey ended at 06.38hrs. The survey lasted two hours and fifteen minutes in total.

No bats were observed re-entering the building during the survey and no foraging or other activity was recorded.

5.3. Roosts and Habitat

Following the scoping survey, no evidence to suggest the presence of bat roosts was identified in association with the buildings.

Emergence and re-entry surveys conducted in July - September 2021 identified no bat roosts in association with the buildings and very limited activity in the vicinity of the site, with only occasional foraging (Common Pipistrelle) observed.

Other distant passes were picked up during the surveys but were not distinguishable for identification in the field or sound analysis (due to the weakness of the signal). These were not associated with the site itself.

No other activity to indicate the presence of bat roosts was observed during the surveys.

5.4. The Value of the Site for Bats

The site is overall of low suitability for supporting foraging bats due to the limited habitat present for foraging and presence of artificial lighting in the vicinity of the site.

In view of the results of the bat survey the site is not considered to currently support bat roosts and the site is considered to be of low value for bats in the local context (Mitchell-Jones, 2004).

6. Impacts

The details of the proposed development are currently unknown.

In view of the results of the survey, the site is not of any notable value for bats currently. As such there is unlikely to be any significant affect upon the conservation status of bats as a result of re-development or refurbishment.

However, any development of the site provides an opportunity to enhance the site for bats (and biodiversity in general) by comparison to the current state.

7. Advice and Recommendations

It is advised that bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended).

It is advised that it is illegal to deliberately/intentionally or recklessly: kill, injure or take a bat; damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not); and disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

7.1. Enhancement Measures

Bats

In order to enhance the site for bats in the long-term, it is recommended that consideration is given to the use of bat bricks or bat boxes upon existing buildings or existing mature trees.

Bat bricks/boxes would need to be installed at a height of >4m, with a southerly aspect, and be unobstructed by lighting, windows or other features. This is to enhance the site by providing potential roost features for bats in the long term.

Chillon Woodstone Bat boxes (or similar) (<https://www.wildcare.co.uk/vivara-pro-chillon-woodstone-11245.html>) are hardwearing and can be mounted in trees.

Where possible any the lighting scheme associated with the site should be designed to ensure that it is sensitive to wildlife, including bats foraging and commuting through the site.

This would include low-level lighting or similar solutions to prevent artificial light levels from deterring bats from the site (please see ¹*Bats and artificial lighting guidance note (2018)* for further information).

7.2. Further Survey

In view of the results of assessment, no further survey is considered necessary where works affecting the buildings are commenced prior to April 2023 (before the active season for bats begins). Where works take place beyond this date the results of this assessment should be reviewed.

8. Conclusions

In view of the above, where the recommendations are followed, it is considered the appropriate level of assessment has been completed (as per Collin, J (Ed) 2016), and the conservation status of the bats will not be adversely affected by the proposed development but the site could in fact be enhanced for bats and wildlife in general, above the current state of the site.

9. References

Bat Conservation Trust (2000). *Distribution atlas of bats in Britain and Ireland 1980-1999*. Bat Conservation Trust, London.

Bat Conservation Trust website: <http://www.bats.org.uk/>

<https://www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-coated-roofing-membranes>

Collins, J (Ed). (2016). *Bat Surveys for Professional Ecologists - Good Practice Guidelines*, 3rd edition. Bat Conservation Trust.

ILP (2018) Bats and artificial lighting guidance note.

Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature

Multi-Agency Geographic Information Centre: <http://magic.defra.gov.uk/>

We Know Services (2021) Preliminary Ecological Appraisal: Sewell St., Prescot.

APPENDIX I –SITE LOCATION

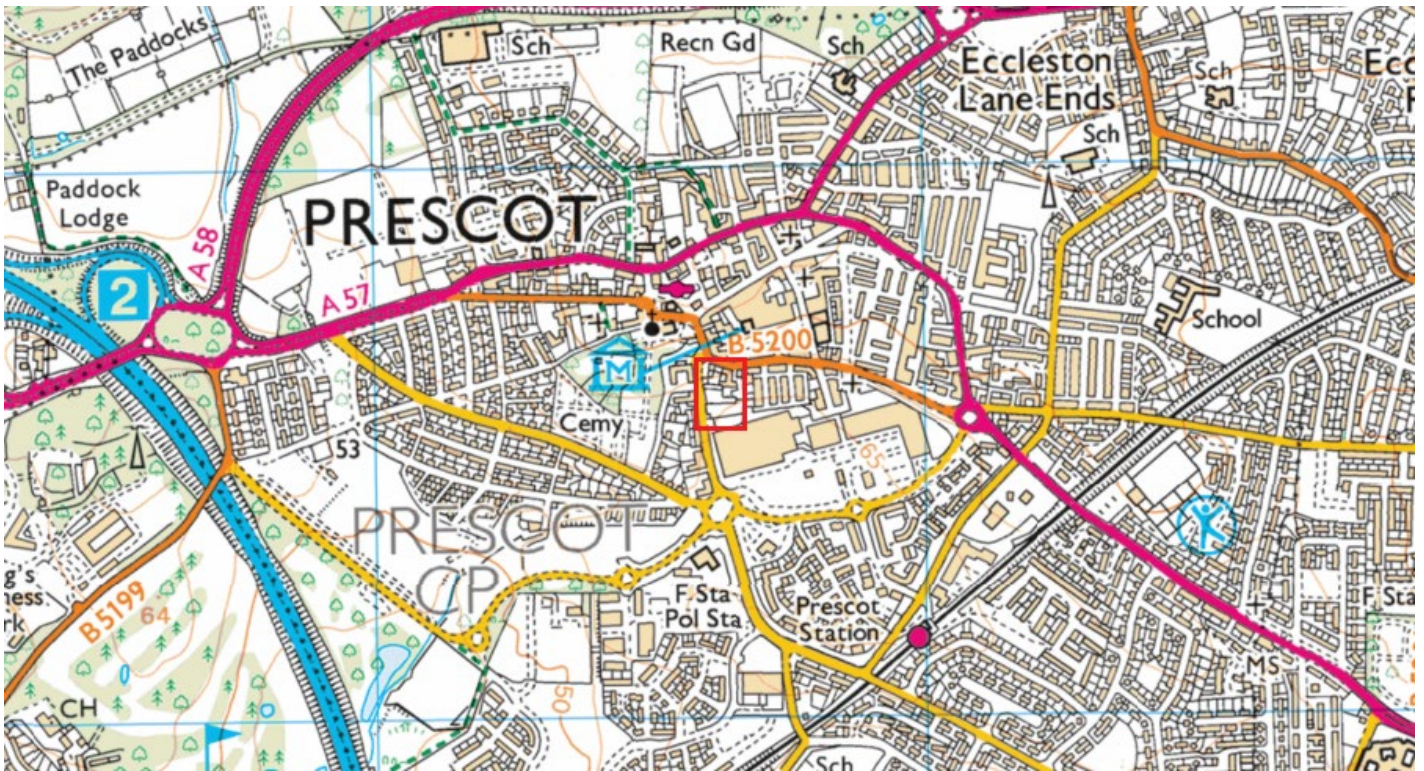


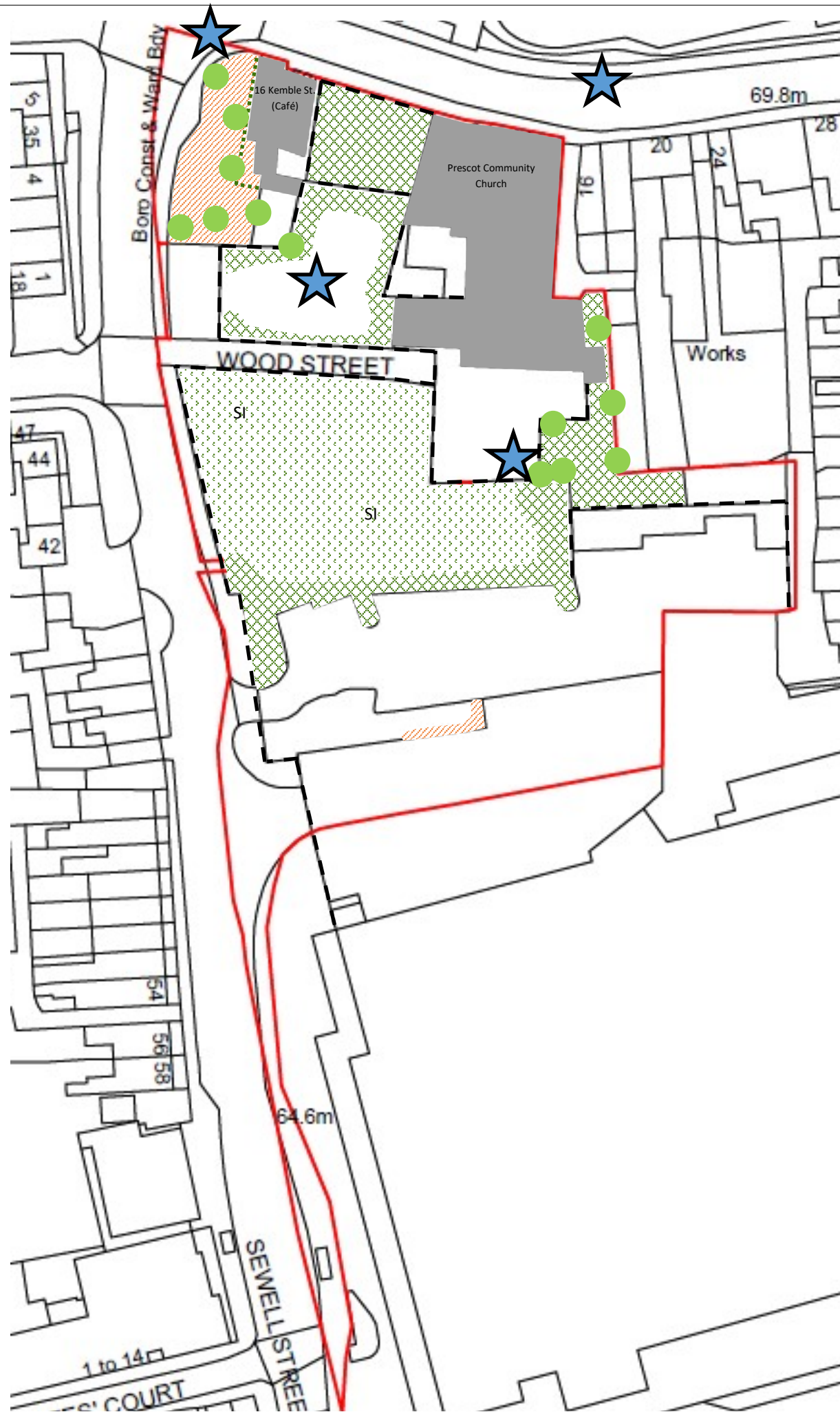
Image courtesy of Ordnance Survey accessed via Bing Maps ©Microsoft 2021

APPENDIX 2 – SURVEY DATA

Date	Start /End	Structure Reference / Location	Equipment Used	Weather Conditions (Start /End temps, precipitation, Beaufort wind-scale.
28/07/2021	20.46hrs 23.16hrs	Prescot Community Church & 17-18 Kemble St.	Anabat Scout, SM2+	20C – 16C, Cloud 20%, Precipitation 0, Wind 0
08/08/2021	03.38hrs 05.53hrs	Prescot Community Church & 17-18 Kemble St.	Anabat Scout, SM2+	17C – 15C, Cloud 50%, Precipitation 0, Wind 0
02/09/2021	04.23hrs 06.38hrs	Prescot Community Church & 17-18 Kemble St.	Anabat Scout, SM2+	17C – 15C, Cloud 5%, Precipitation 0, Wind 0

Date	Start/End	Species	Roost Type	Structure Reference	Roost Location	Access Points	Dimension of existing roosts/ Explanation of where the roost is
28/07/2021	20.46hrs 23.16hrs	n/a	n/a	n/a	n/a	n/a	n/a
Notes/observations: C.pipistrelle foraging amongst trees and scrub ~22.05hrs intermittently. No further activity after 22.22hrs.							
08/08/2021	03.38hrs 05.53hrs	n/a	n/a	n/a	n/a	n/a	n/a
Notes/observations: No activity recorded throughout.							
02/09/2021	04.23hrs 06.38hrs	n/a	n/a	n/a	n/a	n/a	n/a
Notes/observations: No activity recorded throughout.							

APPENDIX 3 - SURVEYOR LOCATION PLAN



Bat Survey Plan

Sewell St., Prescott, Knowsley

November 2021

Client: Knowsley MBC

Key:

-  Hardstanding
-  Scrub (dense)
-  Scattered Trees
-  Building
-  Redline Boundary
-  Tall Ruderals
-  Fence line
-  Ornamental hedge
-  Semi-Improved Grassland (poor) with scattered scrub & Tall ruderals
-  Surveyor Location

APPENDIX 4 - BAT ENHANCEMENT MEASURES

CHILLON WOODSTONE BAT BOX

SPECIFICATIONS



This FSC certified black cavity bat box is designed so that you can accommodate bat species that naturally roost in cavities. You can be confident in the design of this box as it takes into account 12 years of experience and has been developed as a result of customer feedback, expert advice, and scientific thinking.

Key Features:

Wood supplied from FSC certified source

Easy fixing point on the back

Wide entrance hole

Well-sized bat ladder inside and outside of the box

Internal heat sink ensuring good thermal properties

Ceramic heat sinks

Apex roof with internal grooves

DIMENSIONS: 290 x 440 x 90; 80 x 300 x 50 (INNER)

WEIGHT (KG): 4

BUILDINGS: Common pipistrelle, Nathusius's pipistrelle and Soprano pipistrelle

TREES: Common pipistrelle, Nathusius's pipistrelle, Soprano pipistrelle, Whiskered bat, Brandt's bat, Common noctule, Lesser noctule, and Brown Long-Eared bat

ATTICS/STABLES: Common pipistrelle, Whiskered bat, Brown Long-Eared Bat, Daubenton's bat, and Natterers bat

SITING: The bat box can be placed on both a tree or a façade. Preferably choose a sunny spot but do not place under or in artificial light and avoid placing where the rain can directly access the box. Hang the bat box with the supplied screws. In the back of the box, there is a "keyhole" where the mounted screw can be hooked. The pre-drilled hole in the landing board allows you to secure the bat box.

Preferably hang several boxes together. When placing in attics and stables, place the boxes as high as possible against the façade or posts - they should be hung at a minimum height of 3 meters (approx. 10 feet).

MAINTENANCE: The front panel can be removed for cleaning and inspection.