

# TOLLGATE, GRAVESEND, KENT

## Bat Survey Report

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### DRAWINGS

#### DRAWING 1: BUILDINGS AND SURVEYOR LOCATION

## Summary

SLR Consulting Ltd was commissioned by RAPLEYS LLP in July 2022 to undertake surveys of the existing buildings in respect of the proposed redevelopment of a proposed development site (hereafter 'the Site'), which comprised a Preliminary Roost Assessment (PRA) and a suite of presence/absence bat surveys.

The results were used to inform this report, which seeks to establish baseline conditions and determine how bats use the Study Area and its likely importance to this group of species.

The Site comprises four disused, derelict buildings, previously used as a public house, motel, shop and office. Within the northwest of the Site there is a small, vegetated area (circa. 0.2 ha), which comprises mostly immature trees and mixed scrub.

The surveys, were undertaken in August and September 2022, including a desk top study. Three of the four buildings were assessed as offering **moderate potential** for roosting bats.

**No bats** were observed emerging from or re-entering the buildings. Very limited commuting and foraging activities were observed.

The Site is considered to be of **negligible value to bats** at both the site level and local level. The very low bat activity and likely absence of roosts recorded on site indicates that the Site is currently not favoured by bats. Therefore, the Site is **considered not to be critical** for the maintenance of the local bat population.

The local area (5 km) does not support large numbers of bats and is lacking sites designated for nature conservation for bats. Therefore, it is predicted that the development of the Site would be **unlikely** to have any **direct or indirect impacts** or produce any **residual impacts**, which might affect bats, their roosts or the local environ used by bats

The surveys undertaken in 2022 will count as pre-demolition surveys for any of the buildings to be demolished in the next 24 months. After that, these buildings should be subject to a pre-demolition survey and the other mitigation measures.

Commuting and foraging activity was observed in very low numbers of mainly more common bat species, common pipistrelle and noctule, and the value of the Site is considered to be of negligible value at site level. Therefore, **no mitigation is required** prior to the commencement of demolition works or during the construction stage

Retention and/or enhancement of any onsite trees and/or scrub would benefit local wildlife and increase biodiversity in an urban environment, as found on site and in the wider landscape. Roosting opportunities in the form of bat boxes could be provided on trees away from light spill. Reducing noise and light on the site as part of the development may be of benefit to bats; however, the benefits are likely to be minor.

## 1.0 Introduction

### 1.1 Background

RAPLEYS is proposing to redevelopment the Site and will require clearance of the existing buildings.

### 1.2 Scope of this Report

SLR Consulting Ltd was commissioned by RAPLEYS LLP in July 2022 to undertake surveys of the existing buildings in respect of the proposed redevelopment of the Site, which comprised a Preliminary Roost Assessment (PRA) and a suite of presence/absence bat surveys. The vegetation on the Site was excluded from the scope.

The results were used to inform this report, which seeks to establish baseline conditions and determine how bats use the Study Area and its likely importance to this species.

### 1.3 Study Area & Description

The Site comprises all land within redline boundary, as shown in Drawing 1.

The Site is located on the southwest edge of Gravesend town with the main entrance from Wrotham Road on the western boundary. The Site is adjacent to the southbound carriageway of the very busy A2 (Watling Street), which produces high levels of traffic noise and increased levels of illumination within the surrounding areas. Within the wider environ, to the north is urban areas, most of which are dominated by residential dwellings, commercial and retail units. To the south, adjacent to the A2, is a railway line and areas dominated by agricultural fields and hedgerows.

The proposed development site itself comprises four disused, derelict buildings, previously used as a public house, motel, shop and office. Within the northwest of the proposed development site there is a small, vegetated area (circa. 0.2 ha), which comprises mostly immature trees and mixed scrub.

### 1.4 Description of Development

The proposed development of the Site comprises the demolition of all former Tollgate hotel/restaurant buildings and construction of a petrol filling station and forecourts, sales building, ATM, underground fuel tanks, refuse/recycling, AC/refrigeration units, vehicular access, substation, parking and all associated works and services on part of site.

### 1.5 Purpose of this Report

This report addresses potential occupation of bats within the proposed development. In summary, the purpose of this bat survey report is to:

- Describe the baseline data collection and assessment methodologies used;
- Assess the bat roost potential of the buildings and habitats on site;
- Assess the likelihood of any bats roosting in the buildings on site;
- Identify, if required, how licensing, mitigation, and enhancement measures will be delivered; and
- Provide an assessment of the significance of any residual effects on biodiversity and the legal and policy implications.

## 1.6 Technical Competence and Experience

Blake Perkins, who undertook the preliminary bat roost assessment and bat surveys, is a Graduate Ecologist, with an MSc in Plant and Fungal Taxonomy, Diversity and Conservation. He has over a years' experience in ecological studies, monitoring, and reporting.

Darcey Haldar, who undertook the preliminary bat roost assessment and the bat surveys, is a Graduate Ecologist, has a master's degree in Conservation Ecology and over a years' experience working within ecological consultancy.

Ruth Holland, who wrote this report and undertook a bat survey, has Bachelor's degree in Ecology and Conservation Management and a Master's degree in Biological Recording and is an Associate member of CIEEM. Ruth has over nine years of experience as a professional ecological consultant, during which time she has worked on many development projects. She also holds a Natural England Level 2 Survey Licence for bats.

This report has been subject to Quality Assurance review as per SLR's policies by Richard Arnold, Technical Director – Ecology at SLR Consulting. Richard has over 24 years' experience as a consultant ecologist and has undertaken numerous ecological assessments of this type. He is a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management

## 1.7 Relevant Legislation

### 1.7.1 Bats

All native UK species of bat are listed on Annex II and IV of the EEC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. This Directive was transposed into law in England through The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which provides strict protection for all bat species. This legislation lives on following the UK's exit from the EU. All bats are also listed on Schedule 5 of Wildlife & Countryside Act 1981 (as amended) and are afforded some further protection under Section 9 of this Act. This legislation makes it offence to:

- deliberately kill, injure or take a bat;
- deliberately disturb a bat or bats in such a way as to be likely to impair their ability
  - to survive, breed, or rear or nurture their young;
  - to hibernate or migrate; or to affect significantly the local distribution or abundance of that species;
- damage or destroy the breeding or resting place of a bat;
- intentionally or recklessly obstruct access to a place that bats use for shelter or protection; and
- intentionally or recklessly disturb a bat whilst it is occupying a place which it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations. Section 41 of this document requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog *Erinaceus europaeus*, and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan (UK BAP). This list includes the following bat species:

- Barbastelle *Barbastella barbastellus*;

- Bechstein's *Myotis bechsteinii*;
- Soprano pipistrelle *Pipistrellus pygmaeus*;
- Brown long-eared bat *Plecotus auritus*;
- Greater horseshoe bat *Rhinolophus ferrumequinum*; and
- Lesser horseshoe bat *Rhinolophus hipposideros*.

A Mitigation Licence may be required for any activity which will damage, destroy or obstruct access to bat roost or disturb a bat whilst it is occupying a roost.

## 2.0 Methodology

### 2.1 Bat Surveys

The survey methods described below are based on published good practice guidelines<sup>1</sup>.

#### 2.1.1 Preliminary Roost Assessment

A PRA of the buildings within the Site boundary was undertaken on 9<sup>th</sup> August 2022. The PRA entailed an external inspection of the building to identify potential bat roost locations and to assess the building's potential to support roosting bats. The exterior of the buildings were searched for characteristic signs of occupation by bats, such as droppings on walls, windows and windowsills, and urine staining, aided by the use of a torch. The interior of the buildings was not searched during this survey due to the presence of asbestos. The potential of the buildings to support roosting bats was assessed using criteria detailed in Table 2-1.

**Table 2-1**  
**Criteria of Building Suitability to Support Bat Roosts**

| Category<br>(Bat Potential) | Description                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible potential        | Building where surveyor has not identified any suitable potential roosting features, or where those that are present are of such poor quality or condition <sup>2</sup> , such that bats are highly unlikely to use them.                                                                                                                                                                            |
| Low potential               | Building with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.                                                                               |
| Moderate potential          | Building with one or more potential roost site that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but which are 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). |
| High potential              | Building with one or more potential roost sites that are obviously suitable for use by larger 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.                                                                                                                                         |

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

<sup>2</sup> For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

This is a preliminary assessment only and is used to inform the level of survey effort for the bat emergence/re-entry surveys. The preliminary assessment of potential is superseded by the results of the bat emergence/re-entry surveys which indicates the presence or likely absence of a bat roost.

### 2.1.2 Bat Emergence/Re-entry Surveys

Emergence surveys commence 15 minutes prior to sunset and continued for 1.5 hours after sunset. The standard approach is that buildings with (i) high potential require a minimum of three surveys including at least one dusk emergence and a separate dawn re-entry survey between May and September, with at least two of the surveys between May and August; (ii) moderate potential require a minimum of two surveys between May and September, with at least one of the surveys between May and August and (iii) buildings with low potential require a single survey as a minimum, which can be a dusk or a dawn re-entry survey between May and August.

All surveyors would be equipped with a full spectrum, ultrasonic, echolocation bat detection equipment, such as, Batlogger M detectors, to hear, visualize and record bat calls and identify bats to species level. During the re-entry survey undertaken on 29<sup>th</sup> September infrared and thermal imaging devices were used to aid the surveyors' observations. This comprised four Canon XA40 camcorders coupled with two Nightfox XC5 IR 850 illuminator torches and three Guide TrackIR PRO 25 thermal imaging monocular. There was also significant light spill from the adjacent highway lamps that aided the visual observations made by the surveyors. Bat emergence surveys were undertaken in August and September 2022 to determine the presence or likely absence of bat roosts within the buildings. Table 2-2 shows the dates, times, weather information and staff details undertaking for the emergence surveys.

**Table 2-2**  
**Bat Survey Timings and Weather Conditions**

| Visit | Date               | Start/End Time (hrs) | Sunset/Sunrise time (hrs) | Weather Conditions                                 | Surveyors                                                                                                                                                  |
|-------|--------------------|----------------------|---------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | 09/08/2022<br>Dusk | 20:18/22:03          | 20:33                     | 19°C,<br>1/8 cloud cover,<br>3/6 wind,<br>No rain. | Blake Perkins<br>Darcey Haldar<br>Marsha Perera<br>Aaron Bailey<br>Edmund Austin<br>Eleanor Tew<br>Ethan Westmerland<br>Harry Sunter<br>Peter Wigglesworth |
| 2     | 10/08/2022<br>Dawn | 04:06/05:51          | 05:36                     | 16°C,<br>0/8 cloud cover,<br>5/6 wind,<br>No rain. | Blake Perkins<br>Darcey Haldar<br>Aaron Bailey<br>Edmund Austin<br>Eleanor Tew<br>Ethan Westmerland<br>Harry Sunter                                        |

| Visit | Date               | Start/End Time (hrs) | Sunset/Sunrise time (hrs) | Weather Conditions                                                    | Surveyors                                                                                                                                     |
|-------|--------------------|----------------------|---------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|       |                    |                      |                           |                                                                       | Peter Wigglesworth                                                                                                                            |
| 3     | 24/08/2022<br>Dusk | 19:47/21:32          | 20:02                     | 27°C,<br>7/8 cloud cover,<br>1/6 wind,<br>No rain.                    | Blake Perkins<br>Fiona Davis<br>Marsha Perera<br>Peter Brookes<br>Eleanor Davies<br>Deqa Mohamed                                              |
| 4     | 14/09/2022<br>Dusk | 18:55/20:45          | 19:15                     | 19°C,<br>1/8 cloud cover,<br>1/6 wind,<br>No rain.                    | Darcey Haldar<br>Blake Perkins<br>Marsha Perera<br>Eleanor Davies<br>Fiona David                                                              |
| 5     | 15/09/2022<br>Dawn | 04:55/06:33          | 06:33                     | 13°C,<br>8/8 cloud cover<br>2/6 wind,<br>No rain.                     | Darcey Haldar<br>Blake Perkins<br>Marsha Perera<br>Eleanor Davies<br>Fiona David                                                              |
| 6     | 21/09/2022<br>Dusk | 18:45/20:30          | 19:00                     | 17°C,<br>2/8 cloud cover,<br>2/6 wind,<br>No rain.                    | Blake Perkins<br>Darcey Haldar<br>Eleanor Davies<br>Fiona Davis<br>Marsha Perera<br>Richard Arnold                                            |
| 7     | 29/09/2022<br>Dawn | 05:40/06:55          | 06:55                     | 8°C,<br>Sunset temp 11°C<br>2/8 cloud cover,<br>2/6 wind,<br>No rain. | Blake Perkins<br>Darcey Haldar<br>Eleanor Davies<br>Fiona Davis<br>Dean Cordelle<br>Marsha Perera<br>Ruth Holland<br>Carl Platt<br>Chris Hall |

| Building Number | Visit 1       | Visit 2       | Visit 3       |
|-----------------|---------------|---------------|---------------|
| 1               | 09/08/22Dusk  | 14/09/22 Dusk | 29/09/22 Dawn |
| 2               | 10/08/22 Dawn | 24/08/22 Dusk | 21/09/22 Dusk |
| 3               | 09/08/22 Dusk | 15/09/22 Dawn | 29/09/22 Dawn |

## 2.2 Limitations

### 2.2.1 Field Survey

An ecological study provides only a “snapshot” of the conditions prevailing at the time of survey. Lack of evidence of any one protected species does not necessarily preclude them from being present on site at a later date. For example, some species, such as bats, are highly mobile and can move between roosts in response to changes in environmental factors; the activity level of an identified roost may therefore fluctuate during the year.

The Preliminary Roost Assessment (PRA) assessment included a number of buildings which could not be entered, mainly due to them being structurally unsafe and asbestos. As searches for evidence of usage by bats could not be carried out the likelihood of usage by bats or type of roost is more difficult to establish. This includes indications of maternity roosts or other roost types that would help plan timings for emergence or re-entry surveys.

On the dawn survey undertaken on 29<sup>th</sup> September, the survey commenced 15 minutes late due to access issues and was below the optimal temperature; however, the results were similar to the previous surveys undertaken and therefore not seen as a true limitation.

## 3.0 Results

The results of the bat surveys are reported below and describe the baseline conditions at the Site and within the surrounding area.

### 3.1 Statutory Designated Sites for Nature Conservation

The MAGIC website confirms that there are no statutory sites designated for bats within 2 km of the Site.

### 3.2 Non-statutory Sites for Nature Conservation

Kent and Medway Biological Records Centre confirms there are no Local Wildlife Sites designated specifically for bats within 1 km of the Site.

### 3.3 Pre-Existing Data

The MAGIC website indicates that there are no European Protected Species Licences in respect of bats that have been issued within 2 km of the Site.

Kent and Medway Records Centre confirmed that ten species of bat of the 15 species recorded in Kent, have been recorded within 5 km of the Site. The closest was recorded in 2017 and located 1.1 km northeast of the Site for soprano pipistrelle, which included 28 non-roost records and one roost record.

### 3.4 Preliminary Roost Assessment

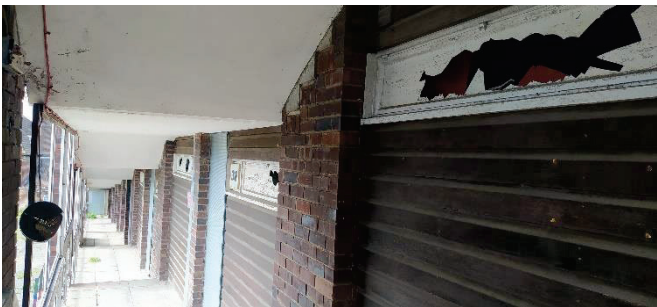
#### 3.4.1 Site Context

As previously mentioned, the Site is adjacent to the southbound carriageway of the very busy A2 (Watling Street) and is constantly impacted by high levels of traffic noise and increased levels of illumination from the highway lamps. Historic records have shown that the Site has been impacted in a similar way for many decades. The hotel was constructed on the southern side of the original A2 and was surrounded by an arable field. The new A2 was constructed on the southern boundary of the hotel/site c. 2007 to 2011 and much of the arable field was lost. To the east of the Site the arable field was temporarily used as the main construction compound. The old A2 to the north was decommissioned in 2011 and some areas were allowed to rewild and enhanced with additional planting. The short strip of vegetation that runs east from the Site is what remained of the old road verge and lacked connectivity to the wider environ until quite recently. The additional planting along the new A2 has gradually matured and in time will offer much more connectivity to bats and other native fauna.

## 3.4.2 Buildings

**Table 3-1**  
**Building Survey Photographs and Details**

| Building Photo                                                                                                                                                                                                                                                                                                                                                                     | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Building 1 – northwest aspect</p>  <p>Building 1 – northern aspect, western end</p>  <p>Building 1 southwest aspect</p> | <p><b>Moderate Potential</b> for roosting bats. No internal access gained. Building 1 was a large complex shaped with a two-storey central section and three single storey wings (two located at the south-eastern end and one at the north-western end). The majority of the building was constructed of red brick. There were a few holes within the brickwork. All roofs were pitched with clay tiles, including all dormers and ground-floor bay windows and porches. Many tiles were either missing or damaged. There were multiple windows and doors, which were singled glazed. Many of which were severally damaged and/or covered with security wire mesh. There was also sections of wooden tongue and grove panelling with damaged areas.</p> |

| Building Photo                                                                                                                                                                                                                                                                                               | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Building 1 – eastern aspect</p>  <p>Building 1 – southeast aspect</p>                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|  <p>Building 2 – southwest aspect, northern section</p>  <p>Building 2 – southwest aspect, northern section, under covered walkway</p> | <p><b>Moderate potential</b> for roosting bats. No internal access gained. Building 2 comprised two long and narrow, two-storey sections, which were joined in the middle. Each level had a covered walkway which was part of the building construction. The main building material was red brick. The roof was flat throughout. Most of the windows and doors were boarded up and not visible. The windows which were visible were single-glazed and damaged. There were large sections of wooden tongued and grooved panelling. Some wood was missing and/or damaged.</p> |

| Building Photo                                                                                                                                                                                                                                              | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Building 2 – southern aspect</p>  <p>Building 2 – northeast aspect, northern end</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|  <p>Building 3 – northwest corner</p>                                                                                                                                    | <p><b>Moderate potential</b> for roosting bats. No internal access gained. Building 3 was a small, single storey, flat roofed building. The main construction was red brick, which was rendered over the majority of the surface with wooded tongue and groove cladding over the upper areas. Some of the wood was missing and/or damaged and there was at least one hole present in the brickwork. The main entrance had a pitched roof porch section, which had clay tiles. Some tiles were missing. The northwest aspect (main frontage) has large, single-glazed windows.</p> |

| Building Photo                                                                                                                                                                                                                                | Notes                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Building 3 – southeast aspect</p>  <p>Building 3 – northwest aspect</p> |                                                                                                                                                                                                                                                                                                                                                                         |
|  <p>Building 4 – northeast aspect</p>                                                                                                                      | <p><b>Negligible potential</b> for roosting bats. No internal access gained. Building 4 was a small, single storey prefab building with a flat roof. The construction materials were mainly plywood panelling with a rendered finish, which had small amounts of damage. There were several double-glazed uPVC windows and two doors, which were in good condition.</p> |

| Building Photo                                                                                                         | Notes |
|------------------------------------------------------------------------------------------------------------------------|-------|
|  <p>Building 4 – southeast corner</p> |       |

An overview of results from the buildings can be seen in Table 3-2 below.

**Table 3-2**  
**Building Survey Overview**

| Building Name | Description                                                                                                                                                                                | Access gained? | Roosting potential |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|
| B1            | Derelict public house. Large, complex shaped building over two-storeys and single storey wings. Broken windows, missing wooden cladding, missing/broken roof tiles and holes in brickwork. | N              | Moderate           |
| B2            | Derelict motel. Long, narrow building with sections. Two-storey and flat roof. Broken windows and missing wooden cladding.                                                                 | N              | Moderate           |
| B3            | Derelict shop. Small single storey building with damaged wooden cladding, missing roof tiles and holes in brickwork.                                                                       | N              | Moderate           |
| B4            | Derelict office. Small, single storey prefab building with minor damage to plywood panelling.                                                                                              | N              | Negligible         |

### 3.5 Bat Emergence Survey Results

Details of the bat emergence surveys are detailed in Table 3-3 below.

**Table 3-3**  
**Bat Emergence Survey Summary**

| Survey Date/<br>Dusk/Dawn             | Building<br>ID | Number of<br>Surveyors | Bats Seen<br>to<br>emerge<br>or return<br>to roost? | Species<br>observed<br>(number<br>observed<br>together)                                  | Notes (time in hrs)                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------|----------------|------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9 <sup>th</sup> August<br>Dusk        | B1             | 6                      | No                                                  | Common<br>Pipistrelle<br>Noctule                                                         | No bats were seen. Noctule was heard between 21:47 and 21:58 and common pipistrelle heard between 21:33 and 22:02. There was very limited activity from both species during the survey.                                                                                                                                                                                                                                                                                          |
| 9 <sup>th</sup> August<br>Dusk        | B3             | 3                      | No                                                  | Common<br>Pipistrelle<br>Noctule                                                         | No bats were seen. Noctule was heard between 21:19 and 21:58 and common pipistrelle heard between 21:37 and 21:51. There was very limited activity from both species during the survey.                                                                                                                                                                                                                                                                                          |
| 10 <sup>th</sup> August<br>Dawn       | B2             | 6                      | No                                                  | Soprano<br>pipistrelle                                                                   | A single soprano pipistrelle was seen and heard at 04:45 flying along the front of the building (southwest aspect). No other activity was recorded during the survey.                                                                                                                                                                                                                                                                                                            |
| 24 <sup>th</sup> August<br>Dusk       | B2             | 6                      | No                                                  | Common<br>pipistrelle<br>Soprano<br>pipistrelle<br>Noctule<br>Serotine<br>Long-<br>eared | One bat was seen but not heard at 20:54, mostly likely a brown long-eared, foraging around northern end of building. One common pipistrelle was seen and heard between 21:10 and 21:32 foraging under lamp post at southern end of building. Noctule and serotine were heard between 20:33 and 21:21. Common pipistrelle heard between 20:53 and 21:32, and soprano pipistrelle foraging between 21:06 and 21:23. There was limited activity from all species during the survey. |
| 14 <sup>th</sup><br>September<br>Dusk | B1             | 4                      | No                                                  | Common<br>pipistrelle                                                                    | One common pipistrelle was seen and heard between 19:47 and 19:48 flying over roof northeast end of building and along southern aspect. Common pipistrelle heard between 19:43 and 20:15. There was very limited activity during the survey.                                                                                                                                                                                                                                     |

| Survey Date/<br>Dusk/Dawn             | Building<br>ID | Number of<br>Surveyors | Bats Seen<br>to<br>emerge<br>or return<br>to roost? | Species<br>observed<br>(number<br>observed<br>together) | Notes (time in hrs)                                                                                                                                                                     |
|---------------------------------------|----------------|------------------------|-----------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15 <sup>th</sup><br>September<br>Dawn | B3             | 3                      | No                                                  | Common<br>pipistrelle                                   | A single common pipistrelle was heard at 05:55. No other activity was recorded during the survey.                                                                                       |
| 21 <sup>st</sup><br>September<br>Dusk | B2             | 5                      | No                                                  | Common<br>Pipistrelle<br>Noctule                        | No bats were seen. Noctule was heard between 19:12 and 19:54 and common pipistrelle heard between 19:49 and 19:50. There was very limited activity from both species during the survey. |
| 29th<br>September<br>Dawn             | B1             | 6                      | No                                                  | N/A                                                     | No bats were seen or heard during the survey.                                                                                                                                           |
| 29th<br>September<br>Dawn             | B3             | 3                      | No                                                  | N/A                                                     | No bats were seen or heard during the survey.                                                                                                                                           |

No bats were observed emerging from or re-entering any buildings during surveys. Therefore, no evidence of roosting bats was recorded during the surveys suggesting likely absence from the buildings on site. However, commuting and foraging activity of a low number of bats was recorded within the Site boundary.

## 4.0 Evaluation

When considering the Site in respect of the value it offers to the bat population, its value overall is considered to be negligible at both the site level and local level. The derelict state of the existing buildings on site offers multiple potential roost features; however, the Site's location adjacent to a very busy network of roads means that it is very well lit and has a high level of traffic noise. The very low bat activity and likely absence of roosts recorded on site indicates that the Site is currently not favoured by this group of species. Therefore, the Site is considered not to be critical for the maintenance of the local bat population.

Within the local area (5 km), a total of 173 bat records were provided by Kent and Medway Records Centre, many of which were over ten years old, indicating that the area does not support large numbers of bats. The area is also lacking with regards to sites designated for nature conservation for bats.

## 5.0 Predicted Impacts

It is predicted that the development of the Site would be unlikely to impact bats or their roost sites directly or indirectly.

## 6.0 Proposed Mitigation and Enhancement

### 6.1 Mitigation

No bats were seen to emerge from, or return to roost in any of the buildings, indicating that these buildings are currently not being used by roosting bats.

The surveys undertaken in 2022 will count as pre-demolition surveys for any of the buildings to be demolished in the next 24 months. After that, these buildings will be subject to a pre-demolition survey.

Commuting and foraging activity was observed in very low numbers of mainly more common bat species, common pipistrelle and noctule, and the value of the Site is considered to be of negligible value at site level. Therefore, no mitigation is required prior to the commencement of demolition works or during the construction stage.

### 6.2 Enhancement

Retention and/or enhancement of any onsite trees and/or scrub would benefit local wildlife and increase biodiversity in an urban environment, as found on site and in the wider landscape.

Given the closure of the old A2 and the recent development of semi-natural habitat on the former arable fields between the new A2 and the old A2, the environment is improving for bats in the locality; however, remains challenging due to the level of noise and light spill. Therefore, it may be worth including bat boxes in suitable locations as part of the new development, despite the low levels of bat activity at the Site currently.

Roosting opportunities in the form of bat boxes could be provided on trees as far away from the A2 as possible to limit their exposure to the traffic noise and light spill. We recommend using WoodStone products that utilise a mix of concrete and wood fibres, creating a strong, long lasting and sustainable product. The Habibat 003 Bat Box Range<sup>3</sup> is a suitable product.

## 7.0 Residual Impacts

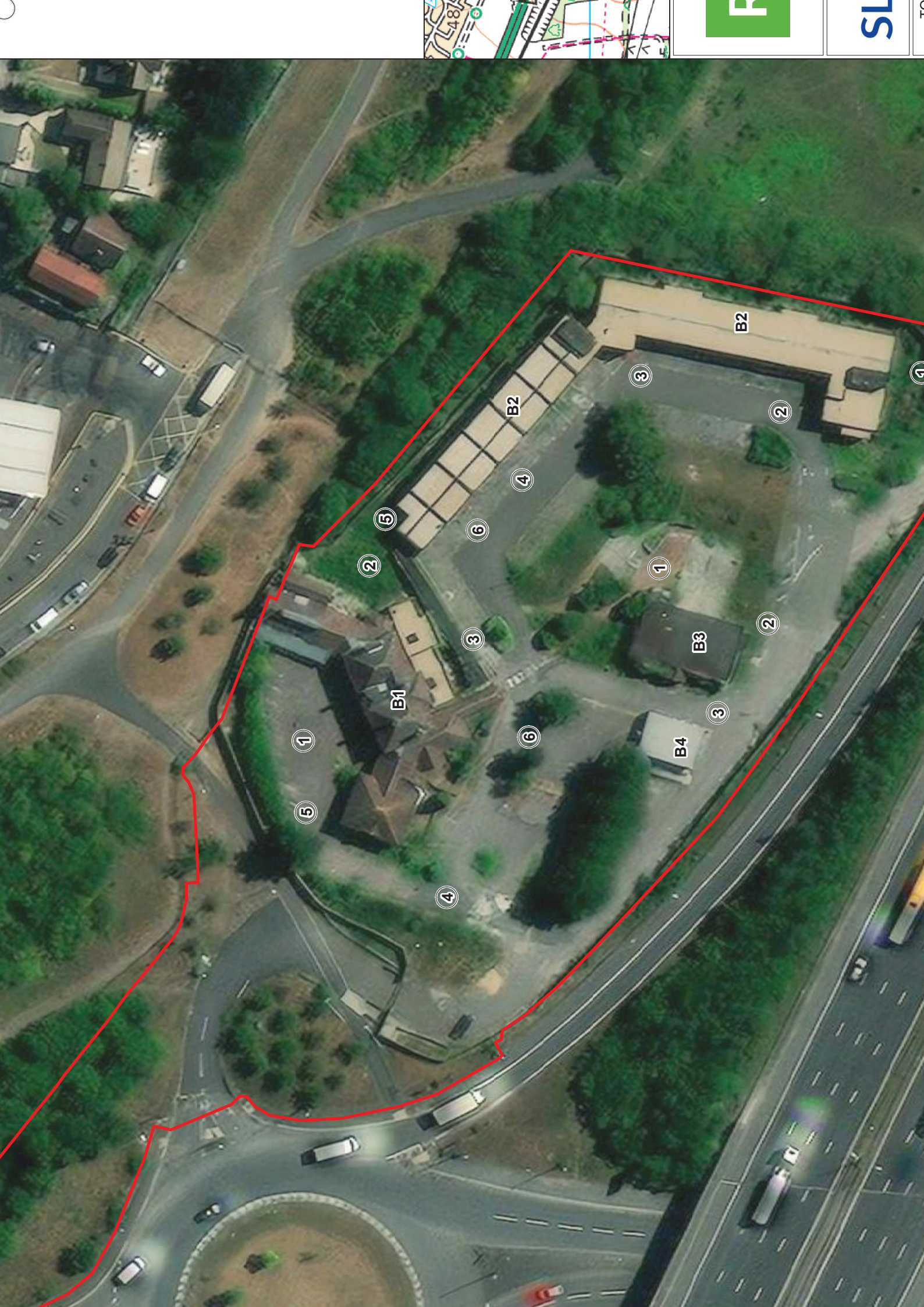
Due to the historic use of the Site and that the proposed development will be of a similar footprint and usage, and that the evidence suggests that bats are likely to be absent from the Site, it is predicted that the development of the Site would be unlikely to produce any residual impacts to bats or their roosts.

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<sup>3</sup> Habibat 003 Bat Box Range, available at URL: <http://www.habibat.co.uk/category/bat-boxes/habibat-003-bat-box-range>

## DRAWING 1

### Buildings and Surveyor Location



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