

# Chalk Road, Higham

## Ecological Impact Assessment (EcIA)



Client:

Richborough

Report Reference:

RSE\_8983\_R2\_V2\_EcIA

Issue Date:

October 2025

## PROJECT

Client: Richborough

Project: Chalk Road, Higham

Reference RSE\_8983\_R2\_V2\_EcIA

Report Title Ecological Impact Assessment

## DOCUMENT CONTROL

|             |                      |                  |            |
|-------------|----------------------|------------------|------------|
| Originated: | <b>ST</b> BSc (Hons) | Senior Ecologist | 14/10/2025 |
|-------------|----------------------|------------------|------------|

|                     |                      |                     |            |
|---------------------|----------------------|---------------------|------------|
| Technical Reviewed: | <b>CS</b> BSc (Hons) | Principal Ecologist | 21/10/2025 |
|---------------------|----------------------|---------------------|------------|

|                     |                       |          |            |
|---------------------|-----------------------|----------|------------|
| Approved for Issue: | <b>OJR</b> BSc MCIEEM | Director | 30/10/2025 |
|---------------------|-----------------------|----------|------------|

|         |                      |                  |            |
|---------|----------------------|------------------|------------|
| Issued: | <b>ST</b> BSc (Hons) | Senior Ecologist | 31/10/2025 |
|---------|----------------------|------------------|------------|

|            |                                                                              |  |  |
|------------|------------------------------------------------------------------------------|--|--|
| Revisions: | ST - 04/11/2025 – adding caveats and limitations to GCN and riparian mammals |  |  |
|------------|------------------------------------------------------------------------------|--|--|

East Midlands | West Midlands | Yorkshire | North West

☎ 0115 930 2493 | 📧 @rammsanderson | 📧 [info@rammsanderson.com](mailto:info@rammsanderson.com) | 🌐 [rammsanderson.com](http://rammsanderson.com)

## DISCLOSURE:

The information provided within this report has been prepared and provided as true and in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. It is intended for the sole use of the Client and their agents in accordance with the agreement under which our services were performed. Unauthorised communication, reproduction or usage of this report by any party other than the aforementioned is prohibited. No warranty, express or implied, is made as to the advice in this report or any other service provided by RammSanderson Ecology Ltd. This report has been prepared by an ecological specialist and does not purport to provide legal advice. RammSanderson is a trading name of RammSanderson Ecology Limited, as registered in England & Wales (Company No.: 8999992).



## EXECUTIVE SUMMARY

- i RammSanderson Ecology Ltd were commissioned by Richborough to undertake an Ecological Impact Assessment (EclA) to support the outline planning application for a proposed residential housing development (the Scheme) located north of Chalk Road, Lower Higham.
- ii The land within the Scheme Boundary (hereafter referred to as the Application Site) is approximately 1.65ha in area.
- iii The Scheme will result in the loss of 0.8395ha of modified grassland, 0.0285ha of individual trees as well as 0.75ha of urban habitats, including vegetated garden, developed land sealed surface and artificial unsealed, unvegetated surface. The proposed Scheme is due to create further habitats, including other neutral grassland, modified grassland and scattered individual trees. Native hedgerows and lines of trees are also present, with the majority of the linear habitats due to be retained, with additional linear habitat in the form of native hedgerow due to be planted to compensate the Scheme.
- iv This equates to a gain of 0.95 (31.15%) area-based units and a gain of 0.08 (10.12%) linear units in the Statutory Biodiversity Metric. The mandatory requirement for 10% uplift has been met for both area and linear based habitats on site.
- v Retained habitats (biodiversity protection zones) within the Application Site will be fenced during construction phase, informed by Ecologist and Arboriculturist input. Appropriate control of construction waste, pollution and storage of construction materials will be followed as captured in a Construction Ecological Management Plan (CEMP) secured through condition pursuant to a Reserved Matters Application.
- vi Common and widespread species of birds were found within the Application Site during breeding bird surveys. There is potential for impacts to nesting birds where vegetation removal is required during nesting bird season (March to August inclusive) to facilitate the Scheme construction. As some foraging and nesting habitat will be lost within the Application Site, bird boxes will be installed on retained trees and within the new building designs to provide further nesting opportunities. Foraging opportunities will be improved through the enhancement of retained habitats within the Application Site.
- vii One artificial pond, noted as P1, was recorded within the Application Site and was subject to Habitat Suitability Index (HSI) in March 2025, which scored below average following assessment in relation to suitability for support great crested newt. During the eDNA collection in June 2025, the pond was recorded as dry which concluded no sample could be collected. A further pond was recorded within 250-meters of the Site, noted as P2. An eDNA survey conducted for great crested newts (GCN) which was conducted on pond P2 in June 2025 which returned a negative sample for presence of great crested newt. Ditch D1 was recorded dry at the time of site survey confirming that no eDNA could be conducted. Furthermore, D2 was inaccessible due to the presence of a railway to the north, further restricting survey effort. Other off-site ponds within 500m were not assessed, either due to being scoped out based on dispersal barriers, or due to lack of access from private landowners. The onsite pond (P1) is due to be retained within the Scheme design.
- viii No field signs for badger were recorded within the site during any surveys undertaken. However, the surrounding habitats were considered suitable to support badger populations. A precautionary methodology as detailed for badger will be captured within a CEMP during detailed design.
- ix No records of hazel dormouse were returned in the desk study. Furthermore, as no boundary habitats are due to be removed as part of the Scheme, retaining connectivity and available foraging and commuting habitat, impacts to hazel dormouse are deemed negligible. However, as absence of other notable mammals cannot be ruled out due to suitable habitats being present within the Application Site, a precautionary methodology as detailed for badger will be captured within a CEMP during detailed design.

- x Multiple trees within the Application Site were highlighted as having Potential Roosting Features (PRFs) for bats present. The trees were identified with PRF-I (Individual) features. It is understood that T1 (PRF-I) is due to be removed, and will therefore require soft felling. The majority of the trees are to be retained and will be subject to Heras fencing Biodiversity Protection Zones to prevent any accidental impacts. An artificial lighting strategy for the Scheme will be in place during construction and operational phases. The details of mitigation measures for bats will be captured in a CEMP for the Scheme, secured through condition pursuant to a Reserved Matters Application.
- xi Two buildings were recorded within the Application Site which were subject to a potential bat roost assessment (PBRA). The structures were assessed and presented multiple potential roosting features (PRF's) which could support roosting bats. The buildings were both initially inspected and assessed as having moderate potential for roosting bats, in line with current BCT Guidelines (Collins, 2023). The buildings were subject to dusk emergence surveys in order to further assess for presence of bats, with building B1 recording an emergence of a common pipistrelle on the western elevation. The emergence of the single bat confirms the structure as a roost and will require a European Protected Species License (EPSL) to facilitate the legal closure of the roost and subsequent demolition of the building.
- xii Transect surveys and static detector deployment in relation to bat activity within the Application Site was also conducted to ascertain local bat populations and their interaction within the Application Site. It was identified that bat populations within the Application Site were low and of common and widespread species. Furthermore, the assessment confirmed that no major commuting or foraging habitats were present within the Application Site.



## CONTENTS

|                                                                                             |           |
|---------------------------------------------------------------------------------------------|-----------|
| <b>EXECUTIVE SUMMARY</b>                                                                    | <b>3</b>  |
| <b>1 INTRODUCTION</b>                                                                       | <b>7</b>  |
| <b>2 METHODOLOGY</b>                                                                        | <b>8</b>  |
| <b>3 BASELINE CONDITIONS AND NATURE CONSERVATION IMPORTANCE</b>                             | <b>13</b> |
| <b>4 IMPACT ASSESSMENT, AGREED MITIGATION MEASURES AND SIGNIFICANCE OF RESIDUAL EFFECTS</b> | <b>30</b> |
| <b>5 BIODIVERSITY IMPACT ASSESSMENT</b>                                                     | <b>37</b> |
| <b>6 CONCLUSION</b>                                                                         | <b>38</b> |
| <b>7 FIGURES</b>                                                                            | <b>39</b> |
| <b>8 REFERENCES</b>                                                                         | <b>58</b> |
| <b>9 APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY</b>                               | <b>60</b> |
| <b>10 APPENDIX 2: METHODOLOGY</b>                                                           | <b>64</b> |
| <b>11 APPENDIX 3:: SURVEY RESULTS</b>                                                       | <b>69</b> |
| <b>12 APPENDIX 4:: BIODIVERSITY IMPACT ASSESSMENT</b>                                       | <b>73</b> |

## FIGURES

|                                                           |    |
|-----------------------------------------------------------|----|
| FIGURE 1: BIODIVERSITY IMPACT ASSESSMENT HEADLINE RESULTS | 37 |
| FIGURE 2: SITE LOCATION AND CONTEXT PLAN                  | 40 |
| FIGURE 3: UKHABS PLAN                                     | 41 |
| FIGURE 4: WATERBODY PLAN                                  | 42 |
| FIGURE 5: BAT GROUND LEVEL TREE ASSESSMENT RESULTS        | 43 |
| FIGURE 6: BAT BUILDING ASSESSMENT RESULTS                 | 44 |
| FIGURE 7: SURVEYOR LOCATIONS DURING BAT EMERGENCE SURVEYS | 45 |
| FIGURE 8: NIGHTTIME BAT WALKOVER SURVEY 1                 | 46 |
| FIGURE 9: NIGHTTIME BAT WALKOVER SURVEY 2                 | 47 |
| FIGURE 10: NIGHTTIME BAT WALKOVER SURVEY 3                | 48 |
| FIGURE 11: WINTERING BIRD SURVEY RESULTS – 21/01/2025     | 49 |
| FIGURE 12: WINTERING BIRD SURVEY RESULTS – 26/02/2025     | 50 |
| FIGURE 13: BREEDING BIRD SURVEY RESULTS – 03/06/2025      | 51 |
| FIGURE 14: BREEDING BIRD SURVEY RESULTS – 17/06/2025      | 52 |
| FIGURE 15: BREEDING BIRD SURVEY RESULTS – 01/07/2025      | 53 |

---

|                                                      |    |
|------------------------------------------------------|----|
| FIGURE 16: BREEDING BIRD SURVEY RESULTS – 15/07/2025 | 54 |
| FIGURE 17: GREAT CRESTED NEWT EDNA RESULTS           | 55 |
| FIGURE 18: BIA ON-SITE BASELINE VISUALISATION        | 56 |
| FIGURE 19: BIA ON-SITE PROPOSED VISUALISATION        | 57 |

## TABLES

|                                                                     |    |
|---------------------------------------------------------------------|----|
| TABLE 1. BACKGROUND RECORDS AND FIELD SURVEYS STUDY AREAS           | 9  |
| TABLE 2. FIELD SURVEYS UNDERTAKEN TO INFORM ECIA                    | 10 |
| TABLE 3. DESIGNATED SITES WITHIN STUDY AREA                         | 13 |
| TABLE 4: HABITATS OF PRINCIPAL IMPORTANCE                           | 14 |
| TABLE 5: HABITATS WITHIN SURVEY AREA                                | 16 |
| TABLE 6. SUMMARY OF NOTABLE BREEDING BIRD SPECIES WITHIN STUDY AREA | 23 |
| TABLE 7: STATIC BAT DETECTOR SURVEY RESULTS SUMMARY                 | 26 |
| TABLE 8. SUMMARY OF NATURE CONSERVATION IMPORTANCE                  | 29 |
| TABLE 9: HSI SCORING CRITERIA                                       | 66 |
| TABLE 10: CRITERIA FOR BAT ROOST POTENTIAL ASSESSMENT OF BUILDINGS  | 66 |
| TABLE 11: CRITERIA FOR BAT ROOST POTENTIAL ASSESSMENT OF TREES      | 67 |
| TABLE 12: HSI RESULTS                                               | 69 |
| TABLE 13: SUMMARY OF BAT BUILDING ASSESSMENT                        | 70 |
| TABLE 14: SUMMARY OF GROUND LEVEL TREE ASSESSMENT                   | 71 |
| TABLE 15: STATIC MONITORING RESULTS STATIC 1                        | 72 |
| TABLE 16: HABITAT DESCRIPTIONS                                      | 73 |

## APPENDICES

|    |                                                            |    |
|----|------------------------------------------------------------|----|
| 9  | APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY ..... | 60 |
| 10 | APPENDIX 2: METHODOLOGY.....                               | 64 |
| 11 | APPENDIX 3:: SURVEY RESULTS .....                          | 69 |
| 12 | APPENDIX 4:: BIODIVERSITY IMPACT ASSESSMENT .....          | 73 |

## 1 INTRODUCTION

### 1.1 Terms of Reference

- i RammSanderson Ecology Ltd (RS) were commissioned by Richborough (the Applicant) to undertake an Ecological Impact Assessment (EclA) to support the outline planning application for the proposed residential development (hereafter referred to as the Scheme), located north of Chalk Road, Higham. All land situated within the red line of the Scheme is hereafter referred to as the Application Site and is shown on Figure 1.
- ii The purpose of this EclA is to demonstrate how the Scheme accords with relevant national and local planning policy and legislation. Further details on relevant planning policy and legislation are provided in Appendix 1.
- iii This EclA details the methodology followed to undertake the assessment, describes the ecological baseline relevant to the Scheme and evaluates the nature conservation importance of ecological features present within the Study Area (see Section 2). The EclA characterises the impacts (both positive and negative) of the Scheme on Important Ecological Features (IEF)<sup>1</sup>, and where necessary, sets out appropriate and proportionate avoidance, mitigation and compensation measures that will be delivered by the Applicant. The significance of any residual effects (both positive and negative) of the Scheme on the IEFs has been assessed, and opportunities for enhancement are identified with the overall aim of achieving biodiversity net gain through the Scheme.
- iv This EclA forms part of the supporting technical documentation for the planning application submitted for the Scheme and has been undertaken with reference to current good practice<sup>2</sup> and is consistent with the requirements of British Standard 42020:2013 *Biodiversity. Code of Practice for Planning and Development*.

### 1.2 The Scheme

- i The Scheme comprises an outline application for a residential development of up to 40 dwellings, with associated infrastructure. Access will be through a new entry point, east of the existing entry into the Site. Existing buildings within the Site will be demolished as part of the Scheme. Within the development sustainable urban drainage features are to be proposed towards the north-eastern extent of the Site as well as green spaces proposed.

### 1.3 The Application Site

- i The Application Site is located just north of Chalk Road, within the village of Higham in Kent at Ordnance Survey national grid reference TQ 71124 73004 and is approximately 1.65ha in size.
- ii The Application Site comprises modified grassland in use for livestock pasture, artificial pond, hedgerows, buildings and developed surfaces. The Site is bounded by a railway on the eastern side, pasture and arable fields to the north and west, and Chalk Road and the urban areas of Lower Higham to the south. The wider area consists of largely arable landscape and pasture and the Thames and Medway Canal immediately beyond the railway line to the east.

---

<sup>1</sup> Important Ecological Features are habitats, species, ecosystems and their functions and processes that are of conservation importance and could potentially be affected by the Scheme. Various characteristics contribute to a feature's importance including its rarity, diversity, size, population trend, distinctiveness, naturalness, fragility, typicalness, recorded history, potential value and intrinsic appeal.

<sup>2</sup> CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

## 2 METHODOLOGY

### 2.1 Scope of the EclA

i The EclA has been undertaken as follows:

- Define the Study Area for the assessment, which considers the Zone of Influence<sup>3</sup> (Zol) of the Scheme.
- Undertake desk and field-based assessments for designated sites, habitats and species to determine the ecological baseline for the Scheme within the Study Area.
- Determine the nature conservation importance of each ecological feature recorded during the desk and field-based assessments to determine which of those features are IEFs in the context of the EclA.
- Assess the potential impacts on IEFs because of the Scheme.
- Design suitable avoidance and mitigation measures to address potential impacts.
- Determine the significance of any residual effects and design suitable compensation measures to address significant residual effects; and,
- Identify opportunities for biodiversity enhancements including delivery of Biodiversity Net Gain.

### 2.2 Important Ecological Features

i The EclA has focused on the potential impacts to ecological features (habitats, species, ecosystems and their functions/ processes) that are considered important and potentially affected by the Scheme. The EclA has not carried out detailed assessments of features that are sufficiently widespread, unthreatened and resilient to impacts and which will remain viable and sustainable should the Scheme proceed as detailed in Section 1.

ii For this EclA, the following are considered IEFs requiring detailed assessment:

- Statutory designated sites.
- Non-statutory designated sites.
- Habitats and species of principal importance (HoPI / SoPI) for the conservation of biodiversity in England<sup>4</sup>.
- Irreplaceable habitats including ancient woodland and veteran trees.
- Individual habitat types or mosaics that may not qualify as HoPI but form an important part of ecosystems and their function.
- Legally protected species<sup>5</sup>
- Kent Nature Partnership Biodiversity Strategy 2020-2045<sup>6</sup>.
- Species of conservation concern, Red Data Book (RDB) species – UK<sup>7</sup>.
- Birds of Conservation Concern – UK<sup>8</sup>.

<sup>3</sup> The Zone of Influence is the area over which ecological features may be affected by biophysical changes because of the Scheme and associated activities.

<sup>4</sup> Listed under S41 of the Natural Environment and Rural Communities Act 2006.

<http://publications.naturalengland.org.uk/publication/4958719460769792>.

<sup>5</sup> Legally protected species are those listed on the Wildlife and Countryside Act 1981, The Conservation of Habitats and Species Regulations 2018, Protection of Badgers 1992.

<sup>6</sup> Kent Nature Partnership Biodiversity Strategy 2020-2045, 2020

<sup>7</sup> Species Status Assessment project published by Joint Nature Conservation Committee (JNCC) in 1999.

<http://jncc.defra.gov.uk/default.aspx?page=3352>.

<sup>8</sup> (Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man.

- iii The EclA has also considered legally controlled plant species listed as invasive on Schedule 9 of the Wildlife and Countryside Act 1981 in Britain (e.g., Japanese knotweed, Himalayan balsam, giant hogweed).

## 2.3 Study Area

- i Desk and field-based studies have been undertaken to establish the biodiversity baseline that may be impacted by the Scheme. The scale of the Study Areas varies dependent upon the ecology of the feature being assessed and its vulnerability to change resulting from construction and operation of the Scheme. Ecological features outside of the Study Area are unlikely to be affected by the Scheme and are not considered in this EclA.
- ii Table 1 summarises the Study Area for the Scheme.

**Table 1. Background Records and Field Surveys Study Areas**

| Ecological Feature                  | Background Records Study Area <sup>9</sup> | Field Survey Study Area <sup>10</sup>       |
|-------------------------------------|--------------------------------------------|---------------------------------------------|
| Designated Sites and Habitats       | 2km                                        | Within and adjacent to the Application Site |
| Bats                                | 2km                                        | Within and adjacent to the Application Site |
| Birds                               | 2km                                        | Within and adjacent to the Application Site |
| Great crested newt                  | 2km                                        | 500m                                        |
| Otter                               | 2km                                        | 100m                                        |
| Badger                              | 2km                                        | Within and adjacent to the Application Site |
| Other Protected and notable species | 2km                                        | Within and adjacent to the Application Site |

## 2.4 Desk Study

### 2.4.1 Background Records

- i A desk study has been undertaken to obtain background records relevant to the Scheme and the EclA, including records of statutory and non-statutory designated sites and protected and notable species within the Study Areas detailed above in Table 1. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage has not been possible.
- ii Data has been obtained from the following organisations in January 2025:
- The Multi-Agency Geographic Information for the Countryside (MAGIC) ([www.magic.gov.uk](http://www.magic.gov.uk)) website
  - Kent and Medway Biological Records Centre

<sup>9</sup> Distance measured from the Application Site Boundary.

<sup>10</sup> Distance measured from the Application Site Boundary.

## 2.4.2 Planning Policy

- iii To demonstrate how the Scheme accords with relevant national and local planning policy, the following have been reviewed as part of this assessment:
- Gravesham Borough Council Local Plan
  - Kent Nature Partnership Biodiversity Strategy 2020-2045

## 2.5 Field Surveys

- i Field surveys have been designed to collect information on the habitats and species present that may be affected by the Scheme. The geographical areas across which field surveys have been undertaken are the areas over which ecological features are likely to be subject to impacts from the construction or operation of the Scheme if they are present and accounting for the Scheme design measures detailed in Section 1.
- ii Table 2 summarises the field surveys that have been undertaken to inform the EclA.
- iii Detailed methodologies for collection of field survey data, and any specific limitations and deviations encountered during these surveys, are presented in Appendix 2.

**Table 2. Field Surveys undertaken to inform EclA**

| Ecological Feature | Survey Type                                                | Date(s) of Survey(s)    |
|--------------------|------------------------------------------------------------|-------------------------|
| Biodiversity       | UK Habs Assessment and Habitat Condition Assessment        | January 2025            |
| Birds              | Wintering Bird Survey                                      | January – February 2025 |
|                    | Breeding Bird survey                                       | June-July 2025          |
| Great crested newt | Habitat Suitability Index Assessment and eDNA              | March and June 2025     |
| Bats               | Ground Level Tree Assessments and Bat Building Assessments | May 2025                |
|                    | Bat Activity Surveys                                       | June-September 2025     |
|                    | Bat Emergence Surveys                                      | August-September 2025   |

- iv No other field surveys have been undertaken to support this EclA as they were considered disproportionate (see Section 3).

## 2.6 Assessment criteria

- i This EclA follows CIEEMs Guidelines for Ecological Impact Assessment in the United Kingdom with the following clarifications specific to the Scheme.

### 2.6.2 Nature conservation evaluation

- ii Several criteria have become accepted as a means of assessing the nature conservation importance of a defined area of land which are set out in *A Nature Conservation Review*<sup>11</sup> and include diversity, rarity and naturalness.
- iii For this EclA, the nature conservation importance or potential value of an ecological feature is determined within the following geographic context:
  - International (Europe): such as Special Areas of Conservation (SAC) or Special Protection Areas (SPA).
  - National (England): such as Sites of Special Scientific Interest (SSSI);
  - Regional <sup>12</sup>: such as populations of species which enrich biodiversity on a regional scale and whose loss would significantly affect the species national distribution.
  - County (Kent): such as Local Nature Reserves (LNR) or populations of species which qualify for Local Wildlife Site (LWS) designation.
  - Local (Gravesham): undesignated ecological features such as old hedges, woodlands, ponds;
  - Site: the feature has some ecological importance, but is not of a scale warranting consideration outside of the boundaries of the Site itself; and
  - Negligible: the feature either has little or no importance for biodiversity, or is considered sufficiently widespread, unthreatened, and resilient to impacts and will remain viable and sustainable.
- iv Ecological features of Local or higher nature conservation importance are considered IEFs requiring detailed assessment. In addition, for the EclA to demonstrate how the Scheme will comply with statutory requirements and policy objectives for biodiversity, some ecological features are considered IEFs even if they are not of Local or higher nature conservation importance. These are features that are protected by national legislation and include:
  - Badgers, legally protected through the Protection of Badgers Act, 1992;
  - All nesting birds, legally protected through the Wildlife and Countryside Act, 1981; and,
  - Non-native invasive plant species, listed on Schedule 9 of the Wildlife and Countryside Act, 1981;
  - Bats, Great Crested Newts and Otter, legally protected through the Conservation of Habitats and Species Regulations 2019
  - Common native reptiles, protected through the Wildlife and Countryside Act, 1981.

### 2.6.3 Temporal scope

- v Potential impacts on IEFs have been assessed in the context of how the predicted baseline conditions might change between the surveys and the start of construction.
- vi Long-term trend information was used to make judgements about the significance of an impact or effect on the conservation objectives or condition of a designated site, or the conservation status of a habitat or species (for example a species with a long term, national population decline may be more susceptible to impacts attributable to the Scheme). Where this information was available it is referenced in Section 4.
- vii A high-level construction programme for the Scheme is outlined in Section 1. Once construction is complete, this EclA has assumed that the operational phase of the Scheme will last for the foreseeable future.

---

<sup>11</sup> Ratcliffe, D. (1977). *A Nature Conservation Review*.

<sup>12</sup> A geographical area for Regional importance has not been defined. A feature is of Regional importance when it is of greater geographical importance than within the County but does not reach the threshold to be of National importance.



#### 2.6.4 Approach to mitigation

- viii Where impacts on IEFs are predicted, the approach to mitigation engages the following hierarchy:
- Avoid features where possible.
  - Minimise impact by design, method of working or other measures, for example by enhancing existing features; and,
  - Compensate for significant residual impacts (e.g., by providing suitable habitats elsewhere).
- ix The highest level of the hierarchy has been applied where possible. Only where this cannot reasonably be adopted have lower levels been considered. The rationale for the proposed level of mitigation has been detailed in Section 4, including sufficient detail to show that these measures are feasible and will be provided by the Applicant.
- x NPPF (2024) states that “development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate”.
- xi Throughout this EclA, the potential to secure biodiversity enhancement, and therefore overall net gain, has been considered.

#### 2.7 Limitations to the Assessment

- i The ecological surveys undertaken to support this EclA have not produced a complete list of plants and animals and the absence of evidence of any species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. However, the results of these surveys have been reviewed and are considered to be sufficient to undertake this EclA.
- ii It should be noted that whilst every effort has been made to provide a comprehensive description of the Application Site, no investigation could ensure the complete characterisation and prediction of the natural environment.

### 3 BASELINE CONDITIONS AND NATURE CONSERVATION IMPORTANCE

- i The following sections provide a summary of the baseline conditions relevant to the Scheme and the assessment of potential impacts of the Scheme on biodiversity. The baseline is based on the results of the desk and field-based studies undertaken within the Study Area to inform this EclA.
- ii Regarding background data, 'recent' records are considered to be those no older than 10 years from the date of the desk study. Records outside of this period are historical and have only been reported where more recent records do not exist. Exceptions to this are detailed in the appropriate sections below.
- iii Ecological features which are present or considered likely to be present within the Study Area have been assigned a geographical scale of nature conservation importance in line with the criteria detailed in Section 2.
- iv Where it has not been possible to achieve 100% survey coverage for a habitat or species, the baseline conditions have been based on a reasonable precautionary approach, supported by the results of the desk study.

## 3.2 Designated Sites

### 3.2.1 Desk Study

- i Table 3 summarises the designated sites situated within the Study Area.
- ii The Application Site has been identified as falling within the zone of influence (ZOI) of the Thames Estuary and Marshes Special Protection Area (SPA) and its associated Wetlands of International Importance under the Ramsar Convention (Ramsar Site). Direct impacts to these designated sites from the proposed development are currently not anticipated due to the north of the Site being outside the developmental area, and the internationally designated site is buffered further from the Site by the existing railway. However, impacts from increased recreational pressure are anticipated. As such, a proportionate financial contribution into the North Kent Strategic Access Management and Monitoring Strategy (SAMMS) (currently quoted at £169.45 per dwelling in line with 25/26 tariff) will be secured between the developer and the LPA based on the net number of dwellings proposed. The internationally designated Sites are assigned an international level of conservation value.

**Table 3. Designated Sites within Study Area**

| Site Names.                      | Designations                               | Distance from site | Conservation Importance |
|----------------------------------|--------------------------------------------|--------------------|-------------------------|
| Thames Estuary and Marshes       | Ramsar, Special Protection Area (SPA)      | 15m NE             | International           |
| South Thames Estuary and Marshes | Site of Special Scientific Interest (SSSI) | 15m NE             | National                |
| Canal and Grazing Marsh, Higham  | Local Wildlife Site (LWS)                  | 50m E              | County                  |
| Nr Queens Farm                   | Roadside Nature Reserve (RNR)              | 1.5km NW           | County                  |
| Telegraph Hill, Higham           | LWS                                        | 1.6km SE           | County                  |
| Court Wood etc., Shorne          | LWS                                        | 1.7km SW           | County                  |

### 3.2.2 Field Survey

iii No designated sites were identified within the Application Site. As such, no further surveys were undertaken.

## 3.3 Habitats

### 3.3.1 Desk Study

i There were records of HoPI<sup>13</sup> and ancient woodlands within the Study Area. The nearest HoPI was coastal and floodplain grazing marsh 0.2km north of the Application Site, which has been assigned local conservation importance. The full results are shown in Table 4 below.

**Table 4: Habitats of Principal Importance**

| Habitat/Flora Feature                | Reason for Conservation Interest                                                                                                 | Location <sup>1</sup>                                                          | Desk study comments                                            |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------|
| Unnamed woodland                     | Ancient Woodland                                                                                                                 | 1.1km SW                                                                       | Ancient Replanted Woodland to north of Gadshill                |
| Peartree Wood                        | Ancient Woodland                                                                                                                 | 1.7km SW                                                                       | Quite large, extends out of search radius                      |
| Coastal and floodplain grazing marsh | Priority Habitat, Local Biodiversity Action Plan Habitat                                                                         | Closest located 0.2km N; additional 32 located north-east and north-west       | All parcels in one area which creates a large habitat          |
| Deciduous woodland                   | Priority Habitat                                                                                                                 | Closest located 0.2km N; additional 25 located north, south, east, and west    | Small parcels, a few parcels to the SE border the railway line |
| Traditional orchard                  | Priority Habitat, Local Biodiversity Action Plan Habitat                                                                         | Closest located 0.3km SE; additional 8 located south, east, and west           | Small parcels, closest located on other side of railway line   |
| Chalk rivers (low certainty)         | Priority Habitat, Local Biodiversity Action Plan Habitat                                                                         | Closest located 0.8km NE; additional 21 located north-east                     | Network, 9 are classified as 'drains' on MAGIC                 |
| Additional habitats                  | May contains Priority Habitats including deciduous woodland, traditional orchard, reedbeds, coastal and floodplain grazing marsh | Closest located 15m E; additional 12 located north, north-west, and south-west | Closest parcel is part of Thames and Medway Canal              |
| Open mosaic habitat                  | Can be extremely diverse and can support a rich assemblage of invertebrates                                                      | Closest located 0.6km SE; additional 6 located north, south, east and west     | 2 parcels (1 to NW, 1 to SE) border the railway line           |
| Good quality semi-improved grassland | May be botanically species-rich                                                                                                  | Closest located 1.1km N; additional 6 located north-east and north-west        | Most parcels in one area which creates a large habitat         |

<sup>13</sup> Priority habitats are taken as principal habitats for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006.

| Habitat/Flora Feature                           | Reason for Conservation Interest                                                         | Location <sup>1</sup>                           | Desk study comments |
|-------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------|
| Nuttall's waterweed ( <i>Elodea nuttallii</i> ) | Listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)               | 7 records; closest record was located 1.24km NW |                     |
| Water fern ( <i>Azolla filiculoides</i> )       | Listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)               | 2 records; closest record was located 1.55km N  |                     |
| Bluebell ( <i>Hyacinthoides non-scripta</i> )   | Listed on Schedule 8 Section 13(2) of the Wildlife and Countryside Act 1981 (as amended) | 2 records; closest record was located 1.75km S  |                     |
| Japanese knotweed ( <i>Fallopia japonica</i> )  | Listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)               | 1 record located 1.92km W                       |                     |

### 3.3.2 Field Survey – UKHabs Survey

- ii Table 5 summarises the results of the UKHabs survey undertaken within the Application Site. Habitats are shown on Figure 2.

Table 5: Habitats within Survey Area

| Habitat                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Area/length<br>(m <sup>2</sup> / m) | Proportion<br>of site (%) | Photograph                                                                                                                                                               | Nature Conservation Importance |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Other native hedgerow - H2a6<br>Secondary code – 116:<br>Flailed | <p>Three species-poor native hedgerows are present within the Application Site.</p> <p>A hedgerow (H1) was located towards the south western extent of the Application Site and was comprised of dominant hawthorn, abundant ivy and bramble plus occasional alder.</p> <p>A further hedgerow (H2) was located on the southern boundary of the Application Site and was comprised of dominant elder and abundant ivy.</p> <p>A third hedgerow (H3) was located on centrally within the Application Site boundary and was comprised of dominant hawthorn plus abundant ivy and bramble.</p> <p>Hedgerows located on the southern boundary had recently been flailed.</p> <p>A final hedgerow (H4) was recorded centrally spanning east to west which was dominated by bramble.</p> | 147m                                | N/A                       |   | Site                           |

| Habitat                                                                                                        | Description                                                                                                                                                                                                                                                                                                                                                              | Area/length<br>(m <sup>2</sup> /m) | Proportion<br>of site (%) | Photograph                                                                           | Nature Conservation Importance |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------|--------------------------------------------------------------------------------------|--------------------------------|
| Modified Grassland – G4<br>Secondary codes –<br>102 (Sheep Grazed)<br>103 (Horse Grazed)<br>104 (Other Grazed) | Modified grassland habitat was located throughout the Application Site and was comprised of dominant perennial rye-grass, abundant Yorkshire fog, frequent meadowsweet, occasional broadleaved dock, common nettle and dandelion plus rarely abundant ribwort plantain.<br><br>Two mature crack willow trees and two young alder trees were present within this habitat. | 8396                               | 54.85                     |   | Negligible                     |
| Other standing water – R1g<br>Secondary Code – 41:<br>Pond (non-priority)                                      | A pond was present towards the north eastern extent of the Application Site. This habitat's water level fluctuated naturally with artificial pipework absent. The pond also had high turbidity and was surrounded by modified grassland. Macrophytes were absent.                                                                                                        | 421                                | 2.76                      |  | Site                           |

| Habitat                                              | Description                                                                                                                                              | Area/length<br>(m <sup>2</sup> /m) | Proportion<br>of site (%) | Photograph                                                                           | Nature Conservation Importance |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------|--------------------------------------------------------------------------------------|--------------------------------|
| Other<br>broadleaved<br>woodland –<br>W1g            | An area of other broadleaved woodland was present towards the north eastern boundary of the Application Site comprised of young self-seeded downy birch. | 137.17                             | 0.9                       |   | Site                           |
| Secondary<br>Code – 202:<br>Young Trees,<br>self set | A line of semi-mature alder trees was also present on the eastern boundary of the Application Site.                                                      |                                    |                           |  |                                |

| Habitat                                     | Description                                                                                                                                                                                                                                                                                                                                 | Area/length<br>(m <sup>2</sup> / m) | Proportion<br>of site (%) | Photograph                                                                           | Nature Conservation Importance |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------|--------------------------------------------------------------------------------------|--------------------------------|
| Buildings –<br>u1b5                         | <p>A collection of small agricultural/commercial buildings were present within the centre of the Application Site. These are all currently in use.</p> <p>The buildings were mostly comprised of corrugated metal cladding or brick structures with pitched roofs. Some buildings were open structures for storage and vehicle parking.</p> | 1215                                | 7.96                      |   | Site                           |
| Developed<br>Land, Sealed<br>Surface<br>u1b | <p>Developed land was recorded within the Application Site which was present to facilitate access for both vehicular and foot traffic.</p>                                                                                                                                                                                                  | 4934.83                             | 29.96                     |  | Negligible                     |



| Habitat                                                | Description                                                                                                                | Area/length<br>(m <sup>2</sup> /m) | Proportion<br>of site (%) | Photograph                                                                           | Nature Conservation Importance |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------|--------------------------------------------------------------------------------------|--------------------------------|
| Suburban mosaic of developed and natural surface – u1d | Small areas of mosaic habitat, comprising of both hard and soft landscaping are scattered throughout the Application site. | 1122.72                            | 6.82                      |   | Negligible                     |
| Artificially unsealed, unvegetated surface – u1c       | This habitat was present throughout the Application Site in the form of access roads and vehicle parking areas.            | 272                                | 1.78                      |  | Negligible                     |

### **3.4 Great Crested Newt (and other amphibians)**

#### **3.4.1 Desk Study**

- i There were no recent records of great crested newt (GCN).
- ii A total of 7 waterbodies and 5 ditches were identified within the survey area. P1 was recorded within the Application Site with P2 and D1 recorded within 250 meters of the Application Site. D2 was inaccessible at the time of the survey due to access issues with railway sections between the waterbody and the Application site.
- iii P3-7 and D3-5 were scoped out of further survey due to dispersal barriers and access issues for survey being present between them and the Application Site, such as WC1 or the urban developments of Higham. All waterbodies within the Study Area are shown on Figure 4.

#### **3.4.2 Field Survey**

- iv Detailed methodologies for the field surveys undertaken are provided in Appendix 2. Detailed survey results are provided in Figure 12.
- v A total of 3 waterbodies; 2 ponds P1 and P2 and 1 ditch, D1, were scoped into further surveys based on their connectivity to the Application Site. D2, although not surveyed, was subject to assessment in relation to connectivity to the wider environment.
- vi P1 and D1 were dry at the time of survey, concluding eDNA surveys were not possible. An eDNA sample of P2 was taken at the same time and analysed by SureScreen Scientifics, which returned a negative result for GCN, suggesting absence of GCN from this waterbody (Figure 16).
- vii P1 was subject to an HSI survey which classified the pond as below average when considering its suitability for supporting GCN (Table 12).
- viii As P1 and D1 were dry, and GCN were shown to be absent from P2, it is considered that GCN are likely absent from the Application Site. However, as D2 was not surveyed at the time of the field assessment due to access issues, with the data records returning recent records of the species within the search radius, it is deemed further mitigation is required.
- ix D2 was inaccessible during the survey due to the presence of a railway. However, , it is considered that the habitats within the Site and the ongoing management from livestock grazing, reduces the likelihood of occurrence for GCN within the Site. P1 and D1 were considered to be seasonal which would also factor as a deterrent for GCN. GCN aquatic habitats for breeding to allow for the larvae to thrive. As such, the lack of aquatic habitat is deemed restrictive when considering supporting GCN.
- x P3-7 and D3-5 had been scoped out from further assessment due to the presence of WC1 (Figure 3). GCN are considered highly unlikely to enter watercourses which contain flow rates as GCN are unable to swim against quick flow rates. Furthermore, the watercourse is likely to contain fish which would likely predate on the species.
- xi The conservation importance of GCN in relation to the Application Site is deemed local. However, due to the lack of suitable aquatic and terrestrial habitats within the Application site, it is deemed proportionate for a precautionary method statement to be created to facilitate the works and mitigate for great crested newt.

### **3.5 Common Reptiles**

#### **3.5.1 Desk Study**

- i There were eight recent records of reptiles within the Study Area, including common lizard, slow worm and grass snake. The closest/most relevant of these records is associated with grass snake which is approximately 0.6km from the Application Site boundary.

#### **3.5.2 Field Survey**

- ii The Application Site presented limited suitability for reptiles due to the predominance of livestock grazed paddocks and developed areas within the Application Site, presenting little opportunity for foraging and refuge.

- The highest quality habitat observed was associated with those that bordered the Application Site on the railway line, such as the woodland and line of trees, which are currently due to be retained as part of the proposals.
- iii Due to the limited habitat available that would have suitability for reptiles, the Application Site is not considered to be able to support a significant reptile population. If reptiles were to be present within the Application Site, it would be within a transient capacity, most likely commuting into the wider landscape via the railway line. As such, reptiles have been classified as being of Site level conservation importance.

## 3.6 Birds

### 3.6.1 Desk Study

- i There are recent records for 80 notable<sup>14</sup> bird species within the Study Area. These include twenty species listed on Annex I of the EC Birds Directive 1994, 27 species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), six Species of Principal Importance (SPI), seventeen species on the Conservation Concern 5 (BoCC5) Red list (Stanbury, 2021) and 31 species on the BoCC5 Amber list. The records also include one species of bird (sandwich tern) that is a priority species in Kent as listed on the Kent BAP.
- ii 12 species listed as qualifying species within the Thames Estuary and Marshes SPA were recorded within the Desk Study. 11 of these species; pintail, shoveler, teal, gadwall, pochard, tufted duck, dunlin, black-tailed godwit, grey plover, avocet and shelduck were all recorded 0.9km S of the Application Site. Hen Harrier, the remaining species, was recorded 1.88km N of the Application Site.

### 3.6.2 Field Survey – Breeding birds

- iii The main habitats on the Application Site identified as having suitability for breeding birds were the boundary habitats, with the core habitats of developed land and grassland paddocks presenting limited opportunities. Trees and buildings within the Application Site were also assessed for barn owl. No trees or buildings were highlighted with the potential to support barn owl roosts.
- iv Four breeding bird surveys were conducted between June and July to identify the breeding bird assemblage utilising the Application Site. A total of 31 bird species were recorded within the Application Site boundary (and within 50m of the Application Site) during the four surveys. Of these 31 species, one species is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (WCA), five species are listed as species of principal importance (SPI) under section 41 of the Natural Environment and Rural Communities (NERC) act, five were red listed on the birds of conservation concern (BoCC) and seven were amber listed BoCC.
- v During the breeding bird surveys, none of the birds listed as qualifying species for the Thames Estuary and Marshes SPA were recorded within the Application Site, or within 50m of the Application Site Boundary.
- vi Cetti's Warbler, a Schedule 1 species, was noted singing across multiple visits from the north of the Site, suggesting that this species is probably breeding within, or in close proximity to the Application Site. It is confirmed in line with the Scheme design, the habitats which recorded Cetti's warbler are to be retained and enhanced, with a suitable buffer present between the habitat and the closest proposed residential dwelling.
- vii Table 6 provides a summary of the notable bird species recorded within the Application Site and adjacent areas during the breeding bird surveys, along with their likely breeding status. Results of the bird surveys are summarised in Figures 6-11.

<sup>14</sup> Notable bird species are taken as those listed: on Annex I of the EC Birds Directive (2009/147/EC); on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); as Species of Principal Importance (SPI) for the Conservation of Biodiversity in England listed in Section 41 of the Natural Environment and Rural Communities Act 2006; as Red or Amber in the Birds of Conservation Concern (BoCC) 4 (Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708-746); bird species or groups listed under the Kent BAP.

Table 6. Summary of Notable Breeding Bird Species within Study Area

| Bird Species                | Legal/<br>Conservation<br>Status | Breeding<br>Status | Confirmed Number of<br>Breeding Pairs/ Territories<br>within Application Site <sup>15</sup> | Primary Breeding Habitat <sup>16</sup>                             |
|-----------------------------|----------------------------------|--------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Blackbird                   |                                  | Possible           | 1                                                                                           | Scrub, Arable Farmland,<br>Pasture Farmland, Deciduous<br>Woodland |
| Blackcap                    |                                  | Probable           | 1                                                                                           | Parkland, Deciduous Woodland,<br>Scrub                             |
| Blue tit                    |                                  | Possible           | 1                                                                                           | Deciduous Woodland, Pasture<br>Farmland                            |
| Carrion Crow                |                                  | Possible           | 0                                                                                           | Towns, Pasture Farmland,<br>Villages, Deciduous Woodland           |
| Cettis Warbler              | WCA Sch 1                        | Probable           | 1                                                                                           | Scrub, Reedbeds                                                    |
| Chiffchaff                  |                                  | Probable           | 1                                                                                           | Deciduous Woodland, Scrub                                          |
| Collared Dove               |                                  | Probable           | 1                                                                                           | Towns, Villages                                                    |
| Common Gull                 | BoCC Red                         | Non-<br>breeding   | 0                                                                                           | Coastal                                                            |
| Dunnock                     | NERC SPI, BoCC<br>Amber          | Possible           | 0                                                                                           | Villages, Scrub, Arable and<br>Pasture Farmland, Towns             |
| Feral Pigeon                |                                  | Possible           | 0                                                                                           | Towns, Villages                                                    |
| Goldfinch                   |                                  | Probable           | 1                                                                                           | Villages, Reedbed                                                  |
| Great Spotted<br>Woodpecker |                                  | Possible           | 0                                                                                           | Deciduous Woodland                                                 |
| Great Tit                   |                                  | Possible           | 1                                                                                           | Deciduous Woodland, Villages                                       |
| Greylag Goose               | BoCC Amber                       | Non-<br>breeding   | 0                                                                                           | Reedbed, Marsh                                                     |
| Green<br>Woodpecker         |                                  | Possible           | 0                                                                                           | Deciduous Woodland                                                 |
| House sparrow               | NERC SPI, BoCC<br>Red            | Probable           | 5                                                                                           | Towns, Villages, Pasture, Arable                                   |

<sup>15</sup> This is the minimum number of breeding pairs/territories recorded during the breeding bird surveys. Where '0' is stated, this denotes that a species was recorded; however, there were insufficient registrations to enable the number of breeding pairs/territories to be assigned.

<sup>16</sup> Broad habitats have been used for simplicity and have been taken from British Trust for Ornithology online resources (BirdFacts and BirdTrends 2017) (<https://www.bto.org/>)

| Bird Species             | Legal/<br>Conservation<br>Status | Breeding<br>Status | Confirmed Number of<br>Breeding Pairs/ Territories<br>within Application Site <sup>15</sup> | Primary Breeding Habitat <sup>16</sup>                                      |
|--------------------------|----------------------------------|--------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Jackdaw                  |                                  | Possible           | 0                                                                                           | Villages                                                                    |
| Kestrel                  | BoCC Amber                       | Non-breeding       | 0                                                                                           | Scrub, Arable Farmland                                                      |
| Lesser black-backed gull | BoCC Amber                       | Non-breeding       | 0                                                                                           | Towns                                                                       |
| Linnet                   | NERC SPI, BoCC Red               | Possible           | 0                                                                                           | Coastal, Arable, Villages, Reedbeds, Scrub, Pasture                         |
| Magpie                   |                                  | Possible           | 0                                                                                           | Towns, Villages                                                             |
| Pheasant                 |                                  | Possible           | 0                                                                                           | Arable Farmland, Deciduous Woodland                                         |
| Pied Wagtail             |                                  | Possible           | 0                                                                                           | Villages, Pasture, Reedbed, Arable, Towns, Grass/Heath, Moorland            |
| Reed Warbler             |                                  | Confirmed          | 1                                                                                           | Reedbed, Estuaries                                                          |
| Robin                    |                                  | Possible           | 1                                                                                           | Deciduous and Coniferous Woodland, Scrub, Pasture Farmland, Villages, Towns |
| Song Thrush              | NERC SPI, BoCC Amber             | Probable           | 1                                                                                           | Deciduous and Coniferous Woodland, Scrub, Villages                          |
| Starling                 | NERC SPI, BoCC Red               | Possible           | 0                                                                                           | Towns, Villages, Pasture                                                    |
| Swallow                  |                                  | Possible           | 0                                                                                           | Villages, Pasture, Arable, Coastal                                          |
| Swift                    | BoCC Red                         | Non-breeding       | 0                                                                                           | Towns, Villages                                                             |
| Woodpigeon               | BoCC Amber                       | Probable           | 1                                                                                           | Deciduous Woodland, Scrub, Arable and Pasture Farmland, Villages, Towns     |
| Wren                     | BoCC Amber                       | Probable           | 3                                                                                           | Deciduous and Coniferous Woodland, Scrub, Pasture Farmland, Villages, Towns |

- viii Breeding bird populations within the Application Site are of Local nature conservation importance, due to the species assemblage being comprised of relatively common, widespread and adaptable bird species, associated with a range of habitats available in the wider landscape. Furthermore, abundance was low across all 4 surveys, with the majority of birds being restricted to boundary habitats, or outside the Application Site development area. However, mitigation will be required due to the presence of a probable Schedule 1 breeding bird, Cettis warbler, and the presence of other notable birds which may be possible or probable breeders, such as house sparrow, wren and song thrush.

### **3.7 Badger**

#### **3.7.1 Desk Study**

- i There were 2 recent records of badger within the Study Area, the closest being 1.2km away from the Application Site.

#### **3.7.2 Field Survey**

- ii No evidence of badger was recorded within the Application Site and within 30m of the boundaries, where accessible, during the initial walkover. Furthermore, habitats within the Application Site were deemed to be largely sub-optimal for badger sett building, due to the predominance of hard standing and grazed paddocks. The core habitats noted for suitability were the boundary habitats, providing foraging and commuting habitats.
- iii As there is no current evidence of badgers persisting on the Application Site, but suitable habitat is present, absence cannot be ruled out for transient individuals. As such, this species has not been assigned Site level nature conservation importance.

### **3.8 Bats**

#### **3.8.1 Desk Study**

- i There were 26 recent records of bats within the Study Area, with the closest records being 0.71km E of the Application Site, pertaining to brown long-eared, long-eared species, common pipistrelle, noctule, serotine and soprano pipistrelle.

#### **3.8.2 Preliminary Bat Roost Assessment (PBRA)**

##### **Bat Building Assessment (BBA)**

- ii Buildings within the Application Site were subject to a BBA to identify potential roosting features Potential Roosting Features (PRFs) for bats. As shown on Figure 5.
- iii Building 1, a large agricultural building was classified as having 'Moderate' potential to support roosting bats. There were multiple PRFs identified, which could provide multiple roosts for single crevice dwelling bats, and features with the potential to support a bat roost for crevice dwelling species.
- iv Building 2, a small structure to the southwest of the Application Site was classified as having 'Moderate' potential to support roosting bats. A few PRFs were identified, which had the potential to support smaller roosts for crevice dwelling species.
- v Detailed descriptions of the buildings and PRFs are provided within figure 6 and Table 13.
- vi No evidence of bats was identified during the BBA. Further nocturnal emergence surveys were conducted to determine the presence/likely absence of roosting bats within Buildings 1 and 2.

#### **Trees**

- vii All trees within the Application Site and within 10m of the boundary were subject to ground level tree assessment (GLTA); full results of these surveys are shown in Table 14 visualised on Figure 5. The trees were identified with PRF-I potential, all of which were located within the Application Site. Trees T1, T3, T4, and T6 are due to be removed in line with the application, with trees T3, T4 and T6 offering negligible roosting habitat and T1 offering PRF-I suitability.
- viii Trees with PRF-I's<sup>17</sup> did not require further survey, since this is deemed ineffective due to the transient nature of individual/opportunistic bats during the warmer summer months. Only one tree identified with PRF-I is due

---

<sup>17</sup> PRF-I - potential roosting features for individual bats

to be removed from the Scheme. The remaining trees are due to be retained as part of proposals and can be buffered from works by a minimum of 10m. As such, no further inspections were deemed necessary.

#### Activity

- ix Transect surveys and static deployment was conducted within the Application Site to ascertain activity levels and population densities/diversity within the Application Site. Transect surveys were conducted within June, August and September and yielded low activity across all surveys. Species recorded was dominated by common and soprano pipistrelle, with infrequent passes of noctule and serotine present. No roosts were recorded during the transect surveys.
- x A single static detector was also deployed to further the data collection within the site pertaining to bat activity. The deployment was conducted over 5 consecutive nights seasonally in line with current guidance (Collins 2023). Deployment was conducted in June, August and September.
- xi Table 7 provides a summary of the static detector monitoring results. The figures in the table are the total passes for each species recorded across the entire monitoring period from June to September. The location of the static detector is shown on figure 15, and more detailed results are detailed in Appendix 3 tables 11 and 12.

**Table 7: Static bat detector survey results summary**

|                                 | Common<br>Pipistrelle | Soprano<br>Pipistrelle | Noctule | Leisler's | <i>Myotis</i> Sp. | <i>Serotine</i> | Brown <i>long-eared</i> |
|---------------------------------|-----------------------|------------------------|---------|-----------|-------------------|-----------------|-------------------------|
| Total<br>passes /<br>species    | 97                    | 15                     | 1       | 1         | 4                 | 1               | 1                       |
| % of bat<br>passes /<br>species | 80.83                 | 12.5                   | 0.83    | 0.83      | 3.33              | 0.83            | 0.83                    |

- xii Two buildings were recorded within the Application Site noted as B1 and B2. Both buildings were assessed as having moderate potential for supporting roosting bats and were subject to additional bat emergence surveys during 2025. The surveys yielded low activity; however, a single emergence was recorded from building B1, noted as a common pipistrelle on the western elevation. The emergence of the single bat confirms the structure as a roost and will require a European Protected Species License (EPSL) to facilitate the legal closure of the roost and subsequent demolition of the building. However, as only two surveys were conducted during the season, a third emergence survey will be required in the 2026 season to classify the roost and secure the EPSL from Natural England.
- xiii It is deemed likely, although unconfirmed, that the roost is a day roost for common and widespread species, however, further survey and appropriate mitigation is deemed necessary to facilitate the destruction of the building.

#### 3.8.3 Nocturnal Bat Emergence Surveys

- xiv As per the Bat Conservation Trust Guidelines (2023), two nocturnal emergence surveys of Buildings 1 and 2 were conducted.
- xv The results of these surveys (described in further detail below) concluded there to be a roost within building B1, with a single common pipistrelle emerging from the western elevation on the 11<sup>th</sup> September 2025 (second survey).
- xvi The result of the second survey of B1, confirms that a third survey will be necessary in line with BCT Guidance (Collins 2023), to classify the roost and obtain a European Protected Species Mitigation License from Natural England.

**Building 1 – 20<sup>th</sup> August 2025**

- xvii Four surveyors plus five cameras and detectors were optimally positioned to survey Building 1.
- xviii No roosting bats were recorded emerging from the building.
- xix Sunset was at 20:11, the survey began at 19:56, and the survey concluded at 22:11. A low level of activity was recorded throughout the survey, with the majority of activity recorded as commuting or 'heard not seen'. Noctules were noted to be foraging and commuting and both common and soprano pipistrelle were recorded to socialise and commute over the Application Site on several occasions. The first recorded bat was a noctule commuting heard not seen at 20:42. The last recorded bat was a common pipistrelle, which was heard and not seen, at 22:01.

**Building 1 – 11th September 2025**

- xx Four surveyors plus five cameras and detectors were optimally positioned to survey Building 1.
- xxi A single roosting bat, identified as common pipistrelle, emerged from the western elevation of the building from underneath the eave. The emergence was recorded at 19:24. The emergence was recorded and analysed from night time visual aid footage, but not seen by the surveyors on Site.
- xxii Sunset was at 19:21, the survey began at 19:06, and the survey concluded at 20:51. A low level of activity was recorded throughout the survey, with the majority of activity recorded as commuting or 'heard not seen'. Noctules were noted to be foraging and commuting and both common and soprano pipistrelle were recorded to socialise and commute over the Application Site on several occasions. The first recorded bat was a soprano pipistrelle which was heard not seen at 19:58. The last recorded bat was noted as serotine, however, analysis confirmed as a noctule. This was recorded at 20:42.
- xxiii The emergence of the single common pipistrelle confirms that a roost is present. In line with BCT guidelines (Collins, 2023), an additional emergence survey is required to classify the roost. The timing of the second survey concluded that the third survey could not be conducted within the same season, as surveys must be spaced 3-weeks apart.

**Building 2 – 21<sup>st</sup> August 2025**

- xxiv Two surveyors plus two standalone cameras and detectors were optimally positioned to survey Building 2.
- xxv No roosting bats were recorded emerging from the building.
- xxvi Sunset was at 20:07, the survey began at 19:53, and the survey concluded at 22:10. A low level of activity was recorded throughout the survey, with activity recorded as foraging and commuting for common pipistrelles, soprano pipistrelles and noctules. The first recorded bat was a noctule at 20:36. The last recorded bat was a common pipistrelle at 22:08.

**Building 2 – 16<sup>th</sup> September 2025**

- xxvii Two surveyors plus two standalone cameras and detectors were optimally positioned to survey Building 2.
- xxviii No roosting bats were recorded emerging from the building.
- xxix Sunset was at 19:07, the survey began at 18:55, and the survey concluded at 21:10. A low level of activity was recorded throughout the survey, with all activity recorded as 'heard not seen' for common pipistrelles, soprano pipistrelles and noctules. The first recorded bat was a noctule at 19:19. The last recorded bat was a common pipistrelle at 20:39.

**Night-time bat walkover survey 1**

- xxx The first transect survey was conducted in optimal conditions and in line with the current guidelines at the time of the survey (Collins, 2023). The survey commenced at 21:10 which was the same time as sunset and started with a 30-minute static assessment, with surveyors noting any activity at the start point. Activity pertained to common and widespread species, including common and soprano pipistrelle, myotis and noctule between 21:46 and 22:49.



**Night-time bat walkover survey 2**

- xxxi The second transect survey was conducted in optimal conditions and in line with the current guidelines at the time of the survey (Collins, 2023). The survey commenced at 20:39 which was the same time as sunset and started with a 30-minute static assessment, with surveyors noting any activity at the start point. The survey recorded common and soprano pipistrelles, myotis and noctules between 20:57 and 22:17. The survey concluded at 22:40.

**Night-time bat walkover survey 3**

- xxxii The final transect survey was conducted in optimal conditions and in line with the current guidelines at the time of the survey (Collins, 2023). The survey commenced at 21:10 which was the same time as sunset and started with a 30-minute static assessment, with surveyors noting any activity at the start point. The survey recorded common and soprano pipistrelles, noctules, Leisler's, myotis and a single serotine between 20:01 and 23:23. The survey concluded at 21:27.

**Summary of Nature Conservation Importance**

- xxxiii All surveys and data analysis conducted in accordance with the Application Site over the 2025 season, when considering the BCT Mitigation Guidelines, table 3.3 for *Southern England*, confirm that the site supports mostly common and widespread species, with widespread in many geographies, but not as abundant in all also recorded. It was however noted that a single serotine was also recorded during the static analysis (table 15) during the August collection period and a single serotine recorded during the third transect survey, which is considered a rarer species. Although present, it is not considered a significant population within the site but has still been considered and assessed. It is therefore concluded that the Application Site and wider area, in relation to bats have been assigned a Local level of conservation importance (18 out of 45 – 40%).

**3.9 Riparian Mammal****3.9.1 Desk Study**

- i There were no recent records of otter, with 11 records of water vole within the Study Area.
- ii Linear watercourses including ditches and canals were recorded within 100 meters of the Application Site. These were not subject to survey for riparian mammal as permanent barriers are present, including the railway to the northeast, between the watercourses and the Application Site (which will sever connectivity). Furthermore, no suitable habitats were recorded within the Application Site which would support riparian mammals.
- iii As such, riparian mammals were scoped out of further consideration.

**3.10 Other Mammals****3.10.1 Desk Study**

- i No records for Hazel Dormice were returned within the Study Area. Furthermore, habitats recorded within the Application Site were deemed to offer limited suitability to support hazel dormouse within the Application Site. Therefore, it is considered that the presence of hazel dormouse within the Application Site is highly unlikely. Current proposals also aim to retain all suitable boundary habitats for hazel dormouse, with no severance to connectivity expected.
- ii There is one record for other notable species, hedgehog, located 90m from the Application Site boundary.

**3.10.2 Field Survey**

- iii No specific further survey for these species was undertaken. Limited suitable habitat for hazel dormouse and hare was recorded on the Application Site in areas of hedgerows, lines of trees and modified grassland. As such best practice guidelines for mammals should be adhered to for the duration of the construction phase of

the Scheme. Based on the evidence outlined, other mammal species have been assigned Site level nature conservation importance.

### 3.11 Future Baseline

- i The Application Site baseline is due to change to accommodate a residential scheme, which will provide a biodiverse area to the north to include further modified grassland and trees. The level of proposed habitat creation is due to deliver in excess of a 10% net gain in relation to biodiversity net gain for area habitats, however, an additional 0.03 units are required to achieve a 10% net gain for hedgerows.

### 3.12 Summary of Nature Conservation Importance

- i Table 7 summaries the IEFs that have been recorded or have the potential to be impacted by the Scheme in the Study Area and their nature conservation importance.

**Table 8. Summary of Nature Conservation Importance**

| Ecological Feature  | Geographical Scale of Nature Conservation Importance |
|---------------------|------------------------------------------------------|
| Designated Sites    | County to International                              |
| Habitats            | Site                                                 |
| Great Crested Newts | Local                                                |
| Reptiles            | Negligible                                           |
| Birds               | Local                                                |
| Badger              | Site                                                 |
| Bats                | Local                                                |
| Other Mammals       | Site                                                 |

## 4 IMPACT ASSESSMENT, AGREED MITIGATION MEASURES AND SIGNIFICANCE OF RESIDUAL EFFECTS

- i This Section characterises the impacts of the Scheme on IEFs during the construction and operation phases, sets out agreed avoidance and mitigation measures, and assesses the significance of the residual effects (both positive and negative) of the Scheme on these features. Where significant residual effects will occur, appropriate compensation measures are identified to offset those effects.
- ii The Scheme assessed in this section is derived from the submitted Illustrative Masterplan.
- iii Mitigation and compensation measures identified in Section 4.1 onwards will be incorporated into the detailed design parameters for the Scheme and implemented as part of the overall development of the Application Site pursuant to a Reserved Matters application.
- iv The Applicant has agreed that the general mitigation measures identified in Section 4.1 onwards will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the Application Site.

### 4.1 Designated Sites

#### 4.1.1 Construction Impacts and Mitigation

- i The proposed Scheme will not result in any direct habitat loss from the non-statutory designated sites within 1km of the Application Site, or from the international designated Sites identified roughly 5km from the Application Site. The closest Site, Thames Estuary and Marshes, approximately 15 meters east of the Application Site, separated by the existing urban road of Canal road.
- ii Following further consultation with Magic Maps, the SSSI risk zone confirms that:

**All Consultations:** *All planning applications (except householder applications) where the proposed development is outside or extends outside existing settlements/urban areas and will increase lighting levels or affect greenspace, farmland, semi natural habitats, trees/woodland, waterbodies, rural buildings/structures (manmade or natural) or linear landscape features such as hedgerows, streams and rivers through direct loss, fragmentation or change of use.*

- iii It is therefore concluded that further assessment is made by the local authority and Natural England to determine whether a Habitat Regulation Assessment is deemed necessary in line with the proposed development, and what the perceived risks to the internationally important site are.

#### 4.1.2 Operation Impacts and Mitigation

- iv The proposed Scheme is highly likely to increase the levels of artificial lighting within the area which following consultation with Natural England, is a perceived risk which would cause potential impacts on the Thames Estuary and Marshes Ramsar.
- v It is therefore considered necessary that appropriate mitigation for lighting is addressed within a CEMP which can be secured at condition.
- vi In addition, a Habitat Management and Monitoring Plan (HMMP) will be essential for the Scheme to meet mandatory Biodiversity Net Gain requirements.

#### 4.1.3 Residual Effects and Compensation Measures

- vii By undertaking the above measures, residual effects of the proposed Scheme are deemed negligible.

### 4.2 Habitats

#### 4.2.1 Scheme Design

- i The Scheme will result in the loss of 0.8395ha of modified grassland, 0.0285ha of individual trees as well as 0.75ha of low scoring urban habitats, including vegetated garden, developed land sealed surface and artificial

unsealed, unvegetated surface. To compensate for the permanent loss of these habitats, the Scheme design will incorporate the following features:

- Landscape design to include native tree planting of 87 trees. Where whips fail these will be replaced;
  - Sustainable Urban Drainage features, located towards the northwest extent of the Application Site, will be planted with native aquatic and marginal plant species as specified within detailed landscape design, and placement of log piles around water body edges to provide suitable foraging and refuge habitat for invertebrates, amphibians, reptiles and small mammals. Furthermore, a pond recorded in the northeast within the baseline is due to be retained within the Scheme;
  - Other neutral grassland will be created and planted around the existing pond and proposed SuDS to increase biodiversity within the Application Site and improve the Sites habitat distinctiveness;
  - Native hedgerows have also been proposed within the Scheme, despite no loss of hedgerow expected which further includes the retention of the line of trees to the east of the Application Site.
- ii A Biodiversity Impact Assessment (BIA) has been undertaken to determine the biodiversity performance of the Scheme at this current outline design stage. The BIA is presented in Section 5.

#### 4.2.2 Construction Impacts and Mitigation

- iii There is the potential for negative, indirect and temporary impacts to retained Site habitats during construction, arising from operations such as ground level changes, the movement of construction plant, the creation of dust, the storage of construction materials and chemical spillages.
- iv To prevent negative impacts to these habitats during construction, mitigation measures would include (but not limited to):
- 'Toolbox talks' delivered by qualified ecologist to site managers and construction workers;
  - Control of construction artificial lighting to prevent disturbance and displacement of nocturnal ecological receptors (such as bats);
  - Appropriate control of construction waste, noise, and airborne particles; and
  - Appropriate storage and use of construction materials, fuels and machinery.
  - Incorporation of Heras fenced biodiversity protection zones along and around retained habitats, informed by Arboriculturist's report and Ecologist's advice for general tree and scrub protection
- v The detail of construction mitigation measures for these sites will be captured in a Construction Ecological Management Plan (CEMP) secured through condition pursuant to a Reserved Matters Application.

#### 4.2.3 Operation Impacts and Mitigation

- vi There is the potential for negative impacts to retained habitats, particularly the boundary areas of hedgerow, scrub and trees on the Application Site as well as the area of retained and created neutral grassland, as a result of increased anthropogenic presence arising from the Scheme causing damage to these features, such as from vandalism and increased footfall. To mitigate these impacts, the following measures would be developed and incorporated into the detailed design stage of the Scheme:
- As part of the detailed landscaping design, fencing should be incorporated to limit access to areas of other neutral grassland, to assist in achieving the desired condition, and waymarking to channel recreational/anthropogenic activities outside of tree protection areas and to avoid grassland degradation; and
  - The installation of interpretative boards at strategic locations, educating residents and visitors of the nature conservation value of the habitats within the Application Site, and within the adjacent northern parcel, and sensitivity to anthropogenic disturbance and the need for long term protection.

#### 4.2.4 Residual Effects and Compensation Measures

- vii No residual effects or compensation measures are deemed necessary at this stage as a result of the design Scheme.

### 4.3 Great crested newt

#### 4.3.1 Construction Impacts and Mitigation

- i One pond was subject to an HSI assessment during the survey period of 2025, with P1 scoring below average. Furthermore, P2 was subject to an eDNA survey which returned a negative/absent result. P1 and D1 were dry at the time of the sample collection, concluding that no eDNA survey could be undertaken. Additional ponds and waterbodies were recorded within a 500-meter radius, with D2 present to the north offering potential connectivity which was inaccessible at the time of the survey due to the presence of a railway.
- ii It is concluded that as multiple recent records of GCN are present within the search radius and the presence of waterbodies within a 500-meter radius, a precautionary method statement is deemed necessary to mitigate GCN during the construction phase. The ECoW will be responsible for:
- It is deemed appropriate for a licensed Ecological Clerk of Works (ECoW) to be present on-site during vegetation clearance conducted within the site.
  - Undertake a hand search of the habitat for presence of great crested newt and other amphibians.
  - The habitat will then be immediately strimmed by the Principal Contractor to no less than 150mm from ground level and left for 24hrs to allow potential animals to disperse.
  - The habitat can then be strimmed by the Principal Contractor to ground level and construction works can proceed.
  - Any excavations made within the site, must implement a means of escape eg, mammal ladder, to allow for any amphibians that fall into the excavations opportunity to escape.
  - If great crested newt is recorded at any point during the works, all works must cease and further mitigation will be required in the form on an EPSML.
- iii Further details regarding the methodologies for great crested newts and other amphibians can be secured within a CEMP during detailed design, which can be secure via condition .

#### 4.3.2 Operation Impacts and Mitigation

- iv Both P1 and P2 are due to be retained within the Scheme. P1 is due to be subject to additional habitat creation and enhancements with other neutral grassland and tree planting to be incorporated. Although the proposed Scheme is to be residential and potential increase levels of disturbance, the enhancement to the existing pond should incorporate great crested newt when considering habitats. The *Great Crested Newt Mitigation Guidelines* (English Nature, 2001) and *Great Crested Newt Conservation Handbook* (Langton, 2001) will be utilised during detailed design for the new pond creation. Although not its primary function, the proposed SUDs in the northwest may also provide suitable habitat for GCN once it is operational.
- v Although some terrestrial habitat will be lost within the developable area, the proposed enhancements to retained habitats in the rest of the Application Site will provide further foraging, commuting and refuge opportunities for GCN once implemented.

#### 4.3.3 Residual Impacts and Mitigation

- vi No residual impacts or mitigation for great crested newt are foreseen/required.

## **4.4 Birds**

### **4.4.1 Construction Impacts and Mitigation**

- i Clearance of vegetation during the nesting bird season (taken to be March to August, though with some seasonal and species variation) would risk damaging or destroying active birds' nests. To prevent this, clearance of vegetation would be undertaken outside of the nesting bird season. If this isn't possible, a check of vegetation to be cleared would be undertaken within 24 hours of the clearance taking place. If any active birds' nests were discovered, they would be left in place with a buffer of vegetation surrounding them, at a distance deemed suitable by the on-Site ecologist, until such time as the young had fledged or the nest was no longer active.
- ii Schedule 1 bird species, identified as Cetti's warbler, has been identified as probably breeding within the Application Site. It is confirmed within the plans that boundary habitats which recorded Cetti's is to be retained in full and enhanced, concluded negligible impacts are predicted. However, if plans are to change within the design and works that encroach within 5-meters of the hedgerow are to occur, a targeted pre-commencement survey will be conducted to identify any potential active Cetti's warbler nest within the Application Site. Where nests are identified, a buffer will be established from works to prevent disturbance, at a distance deemed appropriate by the on-site ecologist. This buffer will need to remain in place until it can be proven that the nest is no longer active and the chicks have fully fledged. If the buffer distance is not possible to retain, further mitigation measures should be considered, such as acoustic and visual barrier fencing. At this stage, disturbance is anticipated to be limited due to the potential territory being identified within the north of the Application Site, and the development area is restricted further south, with a habitat buffer between.
- iii The detail of mitigation measures for birds are expected to be captured in a CEMP for the Scheme, secured through condition pursuant to a reserved Matters Application. Most of the habitat that will be lost to the Scheme is considered to be of low-quality breeding bird suitability, with the more suitable habitats in the north and on the eastern boundary being retained. Therefore, habitat loss on the Application Site is not considered to impact local bird populations significantly.

### **4.4.2 Operation Impacts and Mitigation**

- iv There may be operational impacts as a result of the Scheme due to the increased anthropogenic pressures, including potential pets which could increase predation pressure on birds within the Application Site. However, the bird species recorded within the Application Site are common and widespread which are generally resilient to anthropogenic pressure and are already subject to anthropogenic pressure due to the Application Sites proximity to existing residential areas, and the current operation of the Application Site. The more suitable habitats within the north of the Application Site will be retained and enhanced as part of the Scheme, and therefore connectivity with other suitable habitat within the local area is also being retained.
- v As the Application Site is within close proximity to the Thames Estuary and Marshes SPA, impacts are also anticipated to this designated site through anthropogenic pressures such as dog walking and other recreational activities. To mitigate for this, a proportionate financial contribution is required, into the North Kent Strategic Access Management and Monitoring Strategy (SAMMS) (currently quoted at £169.45 per dwelling in line with 25/26 tariff) which will be secured between the developer and the LPA based on the net number of dwellings proposed.

### **4.4.3 Residual Effects and Compensation Measures**

- vi Most of the valuable habitat for birds, such as the boundary habitats and grassland in the north of the Application Site, are being retained and enhanced as part of the proposals. Therefore, the losses to the breeding bird assemblage are currently anticipated to be minimal. Furthermore, the enhancement and habitat creation within the Application Site as part of BNG measures will also improve the availability of breeding and foraging habitat for many of the bird species currently utilising the Application Site, within the local area. In

addition, a variety of bird nest boxes focused on species identified within the Application Site, such as swift, house sparrow and starling, to be installed throughout the Application Site, which will be included at the detailed design of the Scheme. No significant negative residual effects are expected to occur to birds and no compensation is proposed.

## 4.5 Bats

### 4.5.1 Construction Impacts and Mitigation

- i Building B1 which is due to be demolished to facilitate the Scheme, was recorded as a day roost to a single common pipistrelle, recorded on the 11<sup>th</sup> September 2025. To facilitate the legal demolition of the structure, a third survey, in accordance with BCT Guidelines (Collins 2023), will be required to classify the roost and level of conservation. This will also be required to inform an EPSL, to be obtained from Natural England which will be required prior to any works conducted on the Application site. This is to be secured via planning condition.
- ii Multiple trees were recorded within the Application Site which contain PRF-I in relation to roosting bats, with one due to be removed (T1). In line with current guidance (Colins 2023), T1 is not required to undergo further assessment, however, the tree must undergo soft felling to ensure no impacts on bats occur. The tree must be cut into sections and lowered to the ground. The feature identified, must be laid horizontally to the ground to allow emergence of any bat present. The limbs must stay in situ overnight before they can be removed. Prior to felling, the single feature must be replaced at a ration of 1:1. This can be through the introduction of a single bat box placed on a tree that is to be retained within the Application Site. This must be done prior to felling T1.
- iii In order to mitigate negative construction impacts to these trees such as the potential for direct impact strikes and disturbance, trees would be incorporated into Heras fenced Biodiversity Protection Zones informed by the Arboriculturist's report and Ecologist's advice. Furthermore, linear habitats which offer suitable commuting and foraging habitats are also due to be retained, with suitable buffers placed to ensure no impacts occur on the habitats during construction phases.
- iv Artificial lighting utilised during construction would have the potential to cause displacement impacts to foraging and commuting bats, where directed towards the boundary habitats and individual trees with PRFs. Night working and artificial lighting during construction would be in the first instance avoided where possible. Where artificial lighting is required, lighting would strictly be focused on the works area only and away from boundary habitats and individual trees.
- v The detail of mitigation measures for bats are expected to be captured in a CEMP for the Scheme, secured through condition pursuant to a reserved Matters Application.

### 4.5.2 Operation Impacts and Mitigation

- i Artificial lighting built into the Scheme would have the potential to cause displacement impacts to foraging and commuting bats, where directed towards boundary habitats and individual trees with PRFs.
- ii The artificial lighting strategy for the Scheme would therefore follow the recommendations set out within the following best practice document: Institution of Lighting Professionals and Bat Conservation Trust (2023) - Bats and Artificial Lighting in the UK – Bats and the Built Environment Series Guidance Note 08/23. Measures to reduce the impact of artificial lighting on woodlands, hedgerows, scrub and broadleaf trees would include:
  - Avoid lighting wherever possible;
  - Install lamps and the lowest permissible density;
  - Lamps positioned to direct light to avoid upward spill onto any green corridors that could be used by commuting bats or features with bat roost potential;
  - LED lighting – with no/low UV component is recommended;
  - Lights with a warm colour temperature – 3000K or 2700K have significantly less impact on bats;
  - Light sources that peak higher than 550nm also reduce impacts to bats; and
  - The use of timers and dimmers to avoid lighting areas of the site all night is recommended.

- iii An Artificial Lighting Strategy to mitigate impacts to roosting and foraging bats will be secured by condition pursuant to a Reserved Matters application.
- iv The Scheme proposes to retain all green corridors currently within the Application Site, primarily focused on the Application Site boundary. The main commuting and foraging habitats on the Application Site as well as habitat connectivity within the locality are being retained. As such, no negative impacts on bat activity is expected during the operation of the Scheme.

#### **4.5.3 Residual Effects and Compensation Measures**

- v Due to the retention of boundary habitats maintaining habitat connectivity for foraging and commuting bats, and large areas of suitable foraging habitat within the Application Site, such as the grasslands and trees, will be retained and enhanced, no significant residual effects are expected. Bat boxes will be incorporated into the detailed design stage of the Scheme, to be positioned on retained trees and buildings where appropriate to compensate the loss of roosting habitats known within the Application Site.

### **4.6 Badger**

#### **4.6.1 Construction Impacts and Mitigation**

- i No setts or evidence of badger activity were identified within the Application Site, despite the presence of suitable habitat within the Application Site.
- ii Prior to construction, due to the mobile nature of badgers, and the suitability of habitats within the Application Site and wider area, there is the potential for setts to be created. Pre-commencement badger surveys would therefore be undertaken prior to the start of construction to identify whether the status of the Application Site in respect to badgers has changed. If new setts are identified, appropriate avoidance and/or mitigation measures would be implemented, including mitigation licence from Natural England if required.
- iii The following precautionary method of works would be undertaken to prevent harm to badgers and disturbance impacts during construction:
  - Requirements for 'toolbox talks' delivered by qualified ecologist to site managers and construction workers;
  - The installation of Heras fencing around Biodiversity Protection Zones along retained habitats;
  - Ramps would be created (mammal ladders) by edge-profiling excavations or by using planks to allow mammals to escape;
  - Open pipework greater than 200mm external diameters would be capped off at the end of each working day;
  - Artificial lighting used during construction would be directed away from boundary habitats and focused on internal work areas only;
  - Chemicals to be stored in secure compounds; and
  - Spillages would immediately be treated with spill kits.
- iv Mitigation measures in regard to artificial lighting during construction phase will also protect commuting badger from disturbance, as detailed in paragraph 2, section 4.5.1.
- v The detail of mitigation measures for badger will be captured in a CEMP for the Scheme, secured through condition pursuant to a reserved Matters Application.

#### **4.6.2 Operation Impacts and Mitigation**

- vi No impacts are expected to occur to badger as a result of the operation of the Scheme as artificial lighting strategy as outlined in paragraph 1 of section 4.5.2 will also protect badger commuting and foraging from disturbance. Boundary habitats are to be retained as part of the Scheme, maintaining connectivity around the Application Site and out into the wider landscape, where other suitable habitats exist.



#### **4.6.3 Residual Effects and Compensation Measures**

- vii No significant residual effect will occur to badger as a result of the Scheme, no compensation required.

### **4.7 Other Mammal**

#### **4.7.1 Construction Impacts and Mitigation**

- i There is a risk that during construction phase, in absence of mitigation, mammals could be killed/injured. This could occur through vegetation clearance, removal of refugia/hibernacula (i.e rubble/log piles) for small mammals or through entrapment within open excavations.
- ii The mitigation measures outlined in Section 4.6.1 for badger will also protect small mammals in the very unlikely event they pass through the works area. Any small mammals discovered will be allowed to disperse of their own accord.
- iii The detail of mitigation measures for small mammals are expected to be captured in a CEMP for the Scheme, secured through condition pursuant to a reserved Matters Application.

#### **4.7.2 Operation Impacts and Mitigation**

- iv All green corridors, primarily boundary habitats, currently within the Application Site are to be retained. Any mammals which currently use the Application Site for commuting routes are unlikely to be disrupted. To further reduce the operational risk to small mammals (hedgehogs in particular), the creation of hedgehog highways within private gardens to allow passage and create foraging opportunities within the residential area will be included at detailed landscape design stage.

#### **4.7.3 Residual Effects and Compensation Measures**

- v No significant residual effect will occur to small mammals as a result of the Scheme, no compensation required.

### **4.8 Proposed Enhancement Measures**

- i The following enhancement measures are proposed to comply with national and local planning policy, current legislation and good practice, the detail of which is expected to be secured through planning condition, pursuant to a Reserved Matters application.
- The installation of a variety of bat, bird and insect boxes on retained trees.
  - The creation of hedgehog highways within private gardens, to allow passage for these mammals and create foraging opportunities within the residential area.
  - The installation of swift, house sparrow, starling and other bird boxes and bat bricks on appropriate aspects of dwellings within the residential area.

## 5 BIODIVERSITY IMPACT ASSESSMENT

- i RammSanderson has worked with the design team throughout the master planning process, to minimise ecological losses and maximise Biodiversity Net Gain within the Application Site, following the Biodiversity Net Gain hierarchy.
- ii A biodiversity impact assessment (based on the current Scheme details) has been undertaken for the Scheme. This involves making a comparison between the biodiversity value of habitats present within the Application Site prior to development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the Scheme (i.e. 'post development'). The comparison is undertaken in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.
- iii The biodiversity value of the Application Site is as follows:
  - 3.05 units of Area based habitats; and
  - 0.78 units of Linear based habitats
- iv Post development, the Scheme would result in the following:
  - A gain of 0.95 units of Area based units. This equates to a 31.15% gain; and
  - A gain of 0.08 units of Linear based units. This equates to a 10.12% gain
- v The required net gain in Area and Linear based units will be achieved through a mixture of onsite habitat retention and creation.
- vi The methodology for undertaking the assessment is provided in Appendix 2. Headline results for the assessment calculations are provided below in Figure 1.

**Figure 1: Biodiversity Impact Assessment Headline Results**

| FINAL RESULTS                                                                                                |                          |        |
|--------------------------------------------------------------------------------------------------------------|--------------------------|--------|
| <b>Total net unit change</b><br>(Including all on-site & off-site habitat retention, creation & enhancement) | <i>Habitat units</i>     | 0.95   |
|                                                                                                              | <i>Hedgerow units</i>    | 0.08   |
|                                                                                                              | <i>Watercourse units</i> | 0.00   |
| <b>Total net % change</b><br>(Including all on-site & off-site habitat retention, creation & enhancement)    | <i>Habitat units</i>     | 31.15% |
|                                                                                                              | <i>Hedgerow units</i>    | 10.12% |
|                                                                                                              | <i>Watercourse units</i> | 0.00%  |
| <b>Trading rules satisfied?</b>                                                                              | Yes ✓                    |        |

### 5.1.2 Additional Requirements

- vii Compliance with BNG requirements as enacted through the Environment Act 2021 should be determined through the standard pre-commencement biodiversity gain planning condition (the 'biodiversity gain condition'). This would require prior to the start of construction:
  - The submission of a Biodiversity Gain Plan to the LPA;
  - A planning mechanism to secure the on-site BNG for the minimum 30-year period required by the Environment Act 2021; and
  - The submission of a Habitat Management and Monitoring Plan to the LPA, to secure the management of on-site habitats for the minimum 30-year period, including all habitats with biodiversity value to be retained, created or enhanced.

## 6 CONCLUSION

- i This EclA is based on a desk study and ecological surveys undertaken between January 2025 to September 2025. The scope of the surveys was based on the Zol of the Scheme and included habitat surveys and condition assessments, as well as bat, breeding bird, habitat and GCN HSI/eDNA surveys.
- ii Avoidance, mitigation, and compensation measures identified in this EclA will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the Scheme. The Scheme has maximised opportunities to incorporate and enhance biodiversity within the proposals wherever possible.
- iii The potential to maximise net gain within the redline boundary of the Scheme has been explored, at this outline stage, based on the Scheme's design parameters and targeting realistic and deliverable habitats as part of the Scheme's soft landscaping. The mandatory requirement for 10% BNG will be feasible to achieve within the redline boundary for area and linear habitats.
- iv Taking avoidance, mitigation and compensation measures into account, the Scheme conforms in respect of biodiversity to The Environment Act 2021 requirement for mandatory biodiversity net gain, the National Planning Policy Framework 2024 Section 15 (Conserving and enhancing the natural environment) and Gravesham Borough Council Approved Local Plan.

7 FIGURES



| RammSanderson                             |                            |               |
|-------------------------------------------|----------------------------|---------------|
| Title: Site Context Plan                  |                            |               |
| Project: Chalk Road, Higham               |                            |               |
| Client: Richborough Estates Limited       |                            |               |
| Date: 07/08/2025                          | Fig:                       | Author: EN/LE |
| A4 Scale: 1:1000                          | ID: RSE_8983_STC_0825_V3R1 |               |
| EPSG:27700 OSGB36 / British National Grid |                            |               |





- Key**
- Site Boundary
  - g4: Modified grassland
  - r1g: Other standing water
  - u1b: Developed land; sealed surface
  - u1b5: Buildings
  - u1c: Artificial unvegetated, unsealed surface
  - u1d: Suburban mosaic of developed and natural surface
  - w1g: Other broadleaved woodland
  - h2a: Native hedgerow
  - g4 200: Tree (Large rural tree)
  - g4 200: Tree (Small rural tree)
  - Target Notes
  - TN1 Log pile - Some GCN hibernation potential



|                                     |                            |            |
|-------------------------------------|----------------------------|------------|
| Title: UKHabs Habitat Plan          |                            |            |
| Project: Chalk Road, Higham         |                            |            |
| Client: Richborough Estates Limited |                            |            |
| Date: 07/08/2025                    | Fig:                       | Author: EN |
| Habitat MMU: 25m <sup>2</sup>       | Linear MMU: 5m (length)    |            |
| A4 Scale: 1:1000                    | ID: RSE_8983_UKH_0825_V2R1 |            |



- Key**
- Site Boundary
  - 10m Buffer
  - 100m Buffer
  - 250m Buffer
  - 500m Buffer
  - Pond Location
  - Canal
  - Ditch/Drain

| Pond | Area (m2) |
|------|-----------|
| P1   | 421.28    |
| P2   | 1601.92   |
| P3   | 805.28    |
| P4   | 1371.59   |
| P5   | 48.34     |
| P6   | 260.16    |
| P7   | 2082.38   |



**RammSanderson**

Title: Waterbody Plan

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 07/08/2025

Fig:

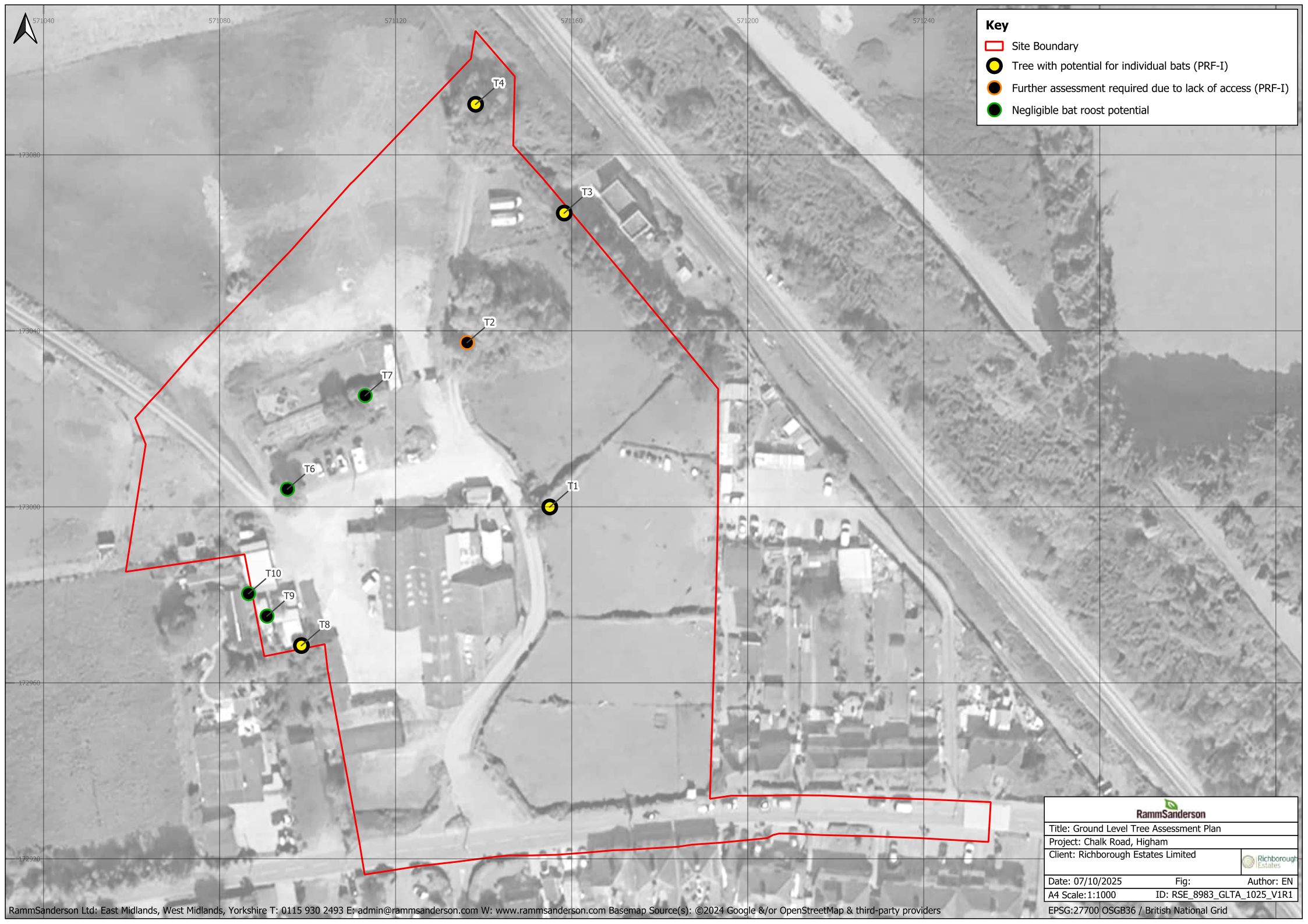
Author: EN/LE

A4 Scale: 1:6500

ID: RSE\_8983\_WBY\_0825\_V3R1

EPSG:27700 OSGB36 / British National Grid





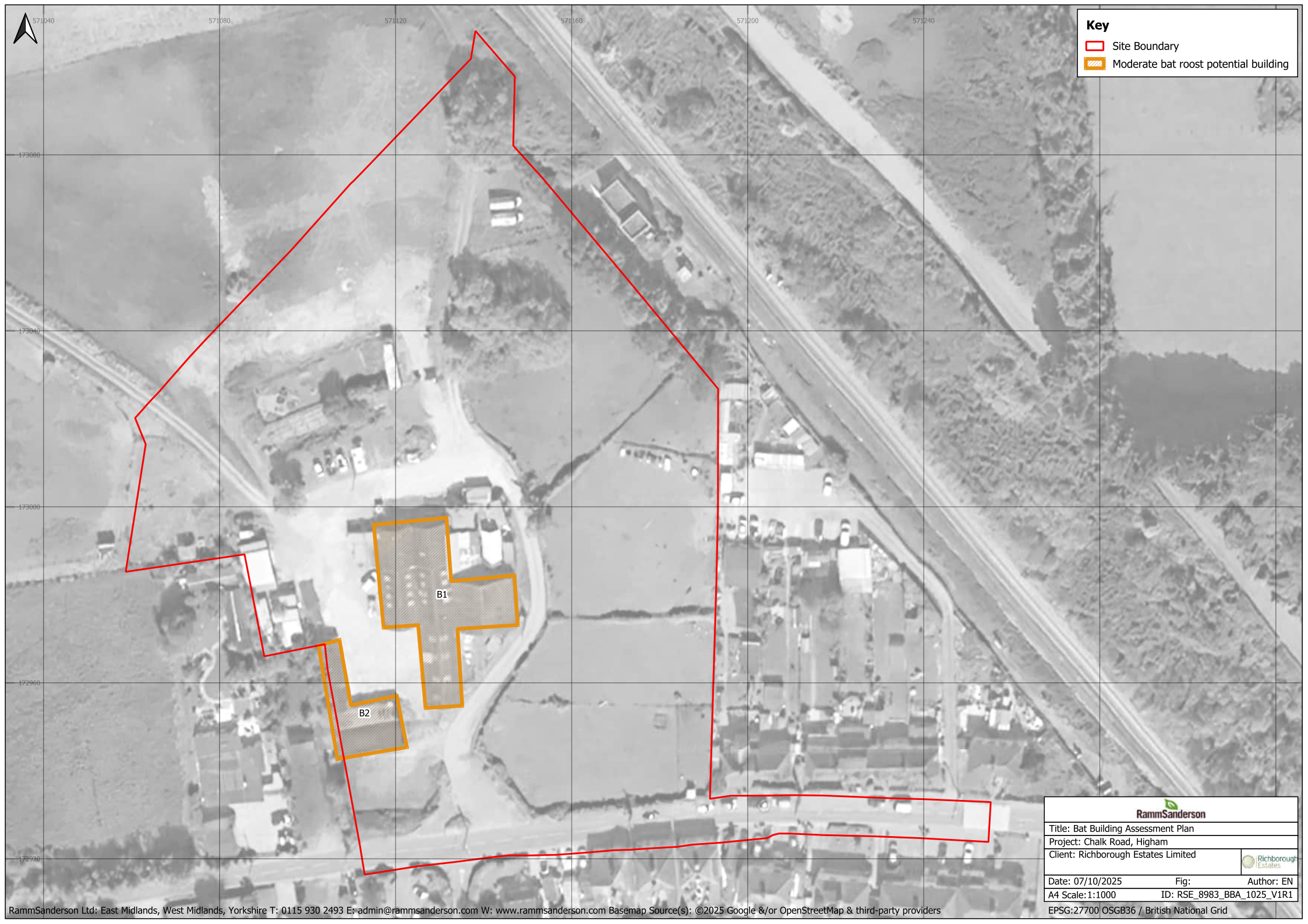
**Key**

- Site Boundary
- Tree with potential for individual bats (PRF-I)
- Further assessment required due to lack of access (PRF-I)
- Negligible bat roost potential



|                                           |                             |                                                                                       |
|-------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
| Title: Ground Level Tree Assessment Plan  |                             |                                                                                       |
| Project: Chalk Road, Higham               |                             |                                                                                       |
| Client: Richborough Estates Limited       |                             |  |
| Date: 07/10/2025                          | Fig:                        | Author: EN                                                                            |
| A4 Scale: 1:1000                          | ID: RSE_8983_GLTA_1025_V1R1 |                                                                                       |
| EPSG:27700 OSGB36 / British National Grid |                             |                                                                                       |





**Key**

-  Site Boundary
-  Moderate bat roost potential building



Title: Bat Building Assessment Plan

Project: Chalk Road, Higham

Client: Richborough Estates Limited



Date: 07/10/2025

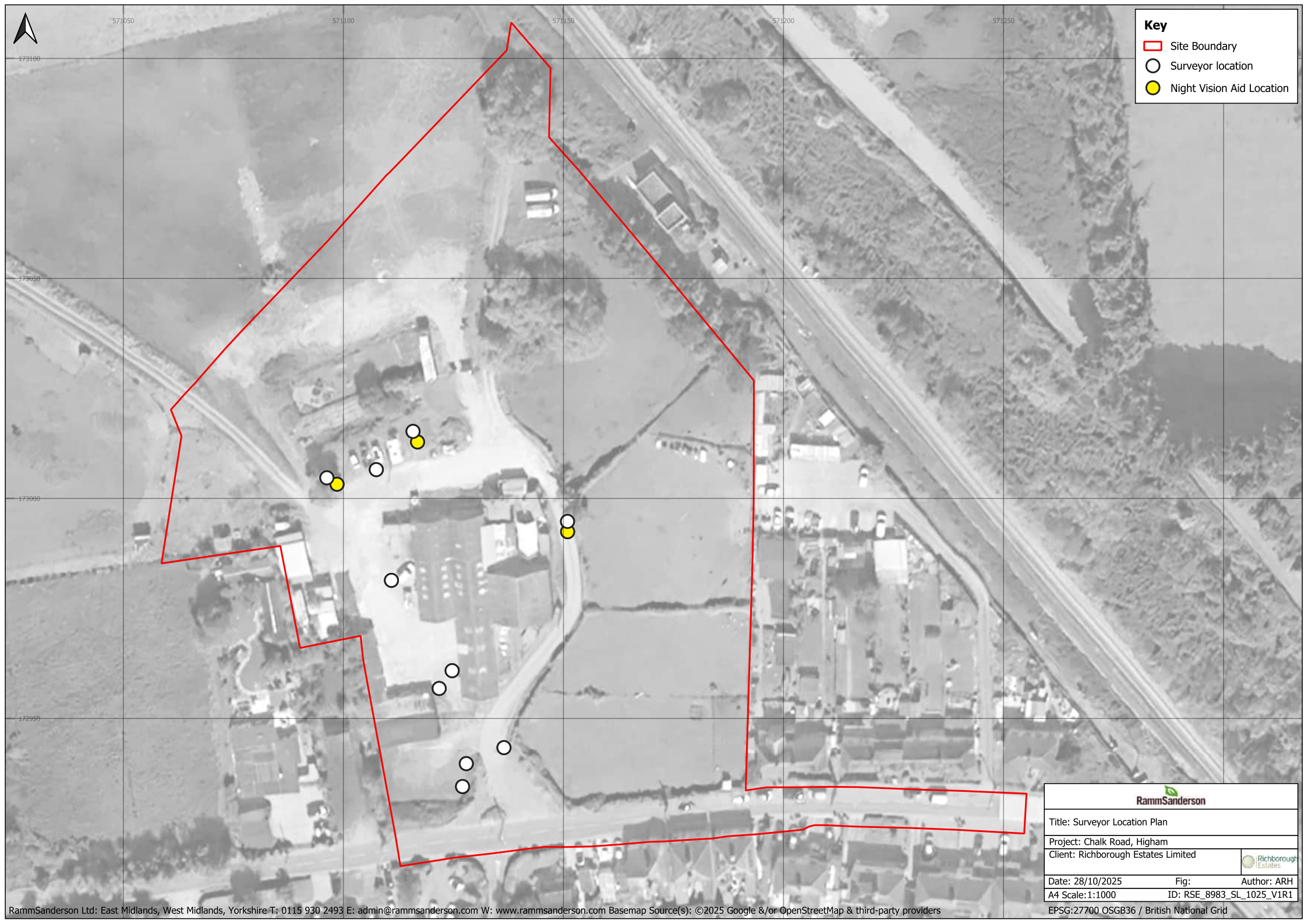
Fig:

Author: EN

A4 Scale:1:1000

ID: RSE\_8983\_BBA\_1025\_V1R1

EPSG:27700 OSGB36 / British National Grid



Key

Site Boundary

Surveyor location

Night Vision Aid Location

RammSanderson

Title: Surveyor Location Plan

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 28/10/2025

Fig:

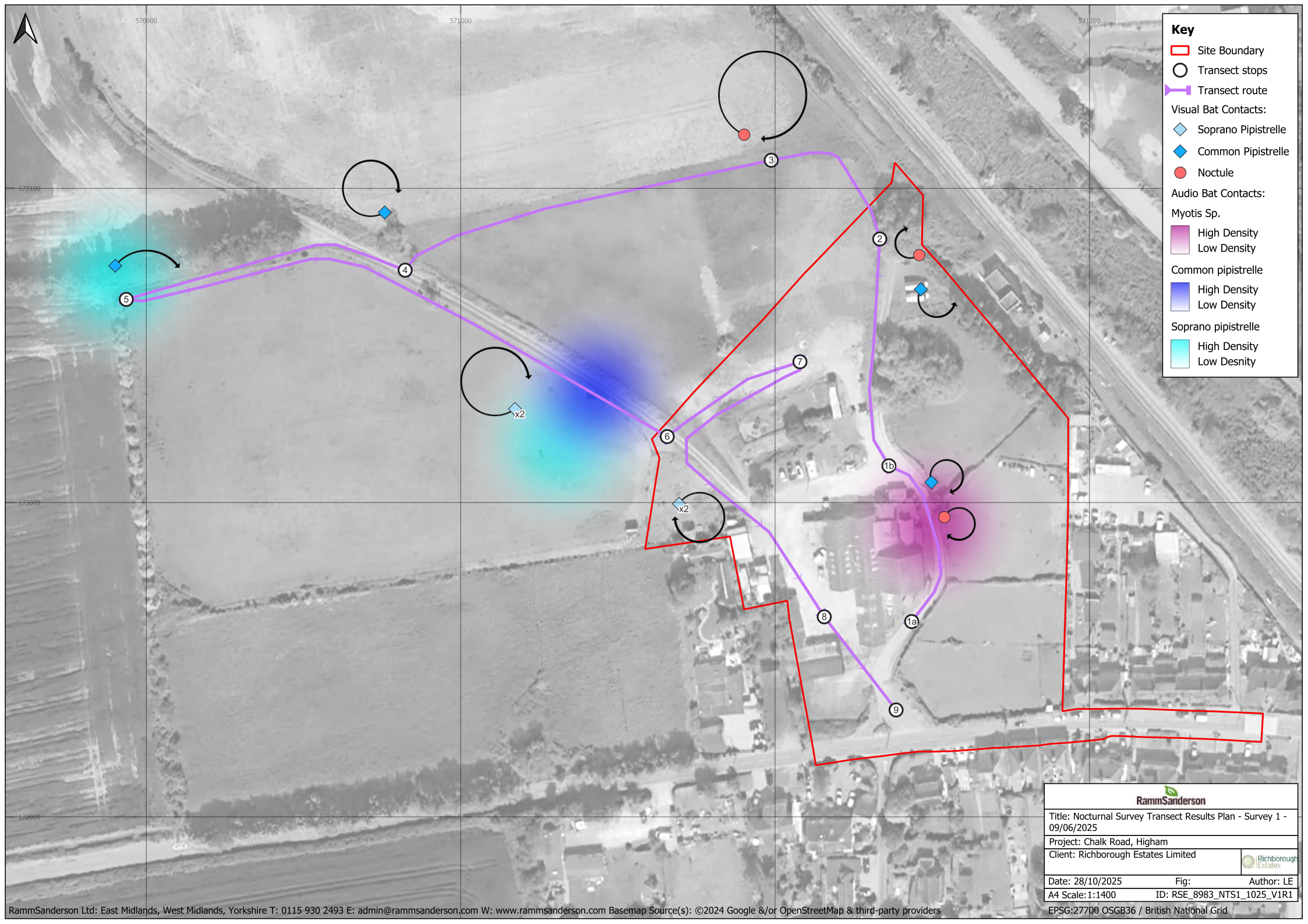
Author: ARH

A4 Scale:1:1000

ID: RSE\_8983\_SL\_1025\_V1R1

Richborough Estates





**Key**

- Site Boundary
- Transect stops
- Transect route
- Visual Bat Contacts:
  - Soprano Pipistrelle
  - Common Pipistrelle
  - Noctule
- Audio Bat Contacts:
  - Myotis Sp.
    - High Density
    - Low Density
  - Common pipistrelle
    - High Density
    - Low Density
  - Soprano pipistrelle
    - High Density
    - Low Desnity



**RammSanderson**

Title: Nocturnal Survey Transect Results Plan - Survey 1 - 09/06/2025

Project: Chalk Road, Higham

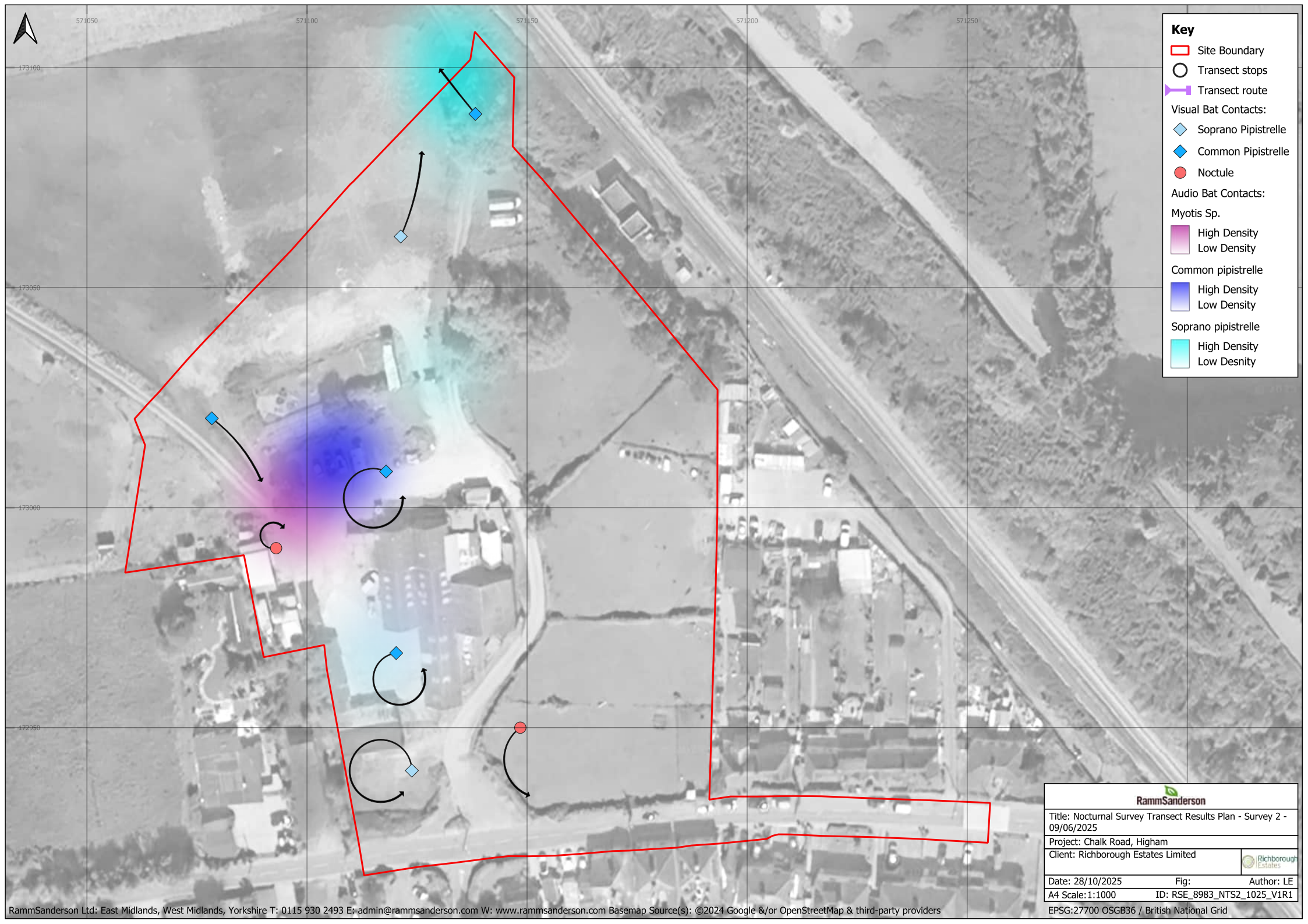
Client: Richborough Estates Limited

Date: 28/10/2025      Fig:      Author: LE

A4 Scale: 1:1400      ID: RSE\_8983\_NTS1\_1025\_V1R1

EPSG:27700 OSGB36 / British National Grid





**Key**

Site Boundary

Transect stops

Transect route

Visual Bat Contacts:

Soprano Pipistrelle

Common Pipistrelle

Noctule

Audio Bat Contacts:

Myotis Sp.

High Density

Low Density

Common pipistrelle

High Density

Soprano pipistrelle

High Density

Title: Nocturnal Survey Transect Results Plan - Survey 2 - 09/06/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Richborough Estates

Date: 28/10/2025

Fig:

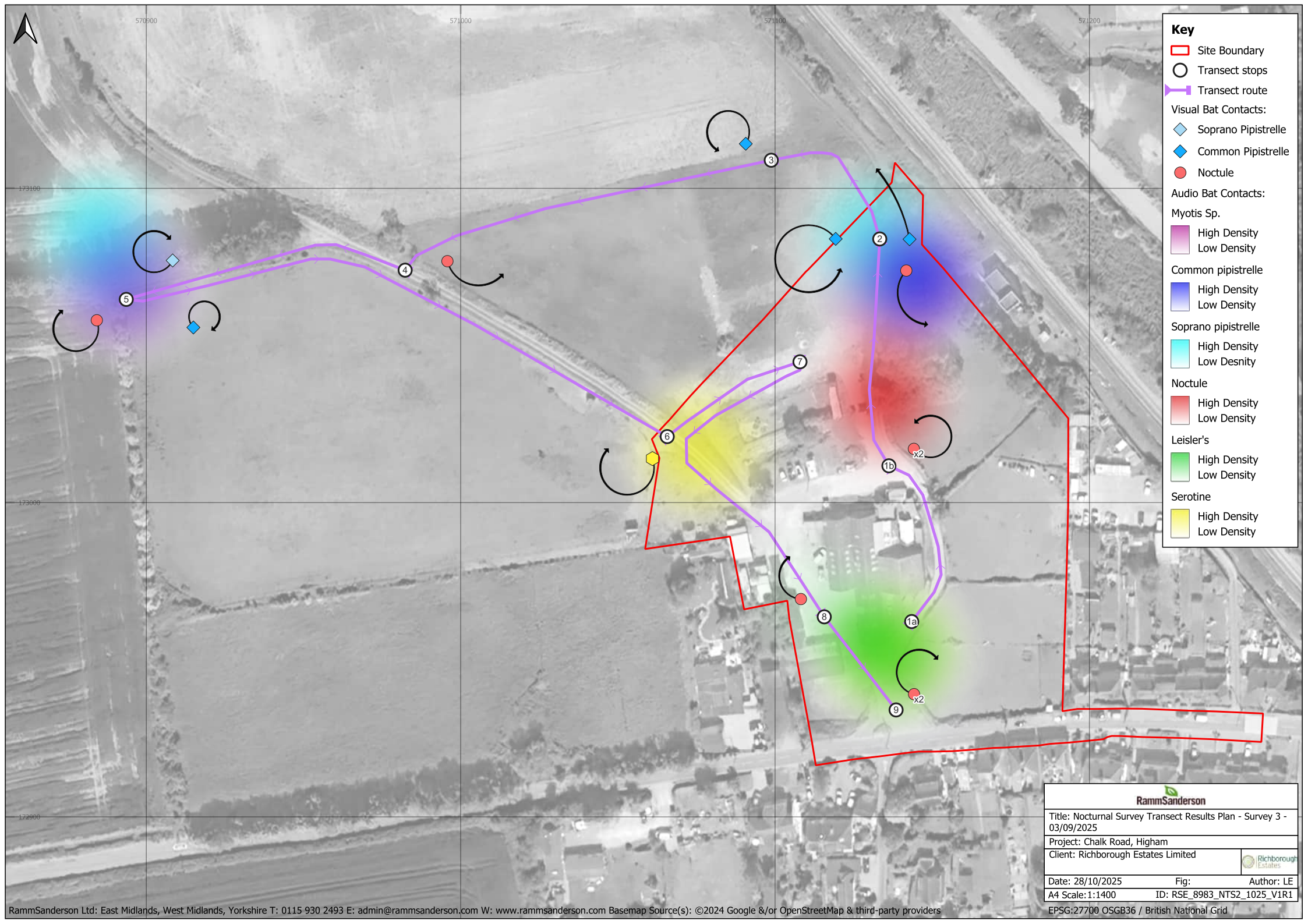
Author: LE

A4 Scale:1:1000

ID: RSE\_8983\_NTS2\_1025\_V1R1

EPSSG:27700 OSGB36 / British National Grid





**Key**

Site Boundary

Transect stops

Transect route

Visual Bat Contacts:

Soprano Pipistrelle

Common Pipistrelle

Noctule

Audio Bat Contacts:

Myotis Sp.

High Density

Low Density

Common pipistrelle

High Density

Low Density

Soprano pipistrelle

High Density

Low Density

Noctule

High Density

Low Density

Leisler's

High Density

Low Density

Serotine

High Density

Low Density

Title: Nocturnal Survey Transect Results Plan - Survey 3 - 03/09/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Richborough Estates

Date: 28/10/2025

Fig:

Author: LE

A4 Scale:1:1400

ID: RSE\_8983\_NTS2\_1025\_V1R1

EPSSG:27700 OSGB36 / British National Grid



- Key**
- Site Boundary
  - Flying in and landing
  - Flying away (from being perched)
  - Flying over
  - Two separate birds singing
  - Same bird registration
  - Call
  - Alarm Call
  - Song
  - Foraging/Circling Behaviour

| sp_abbrev | species           |
|-----------|-------------------|
| B.        | Common Blackbird  |
| BH        | Black-headed Gull |
| C.        | Carrion Crow      |
| CW        | Cetti's Warbler   |
| HG        | Herring Gull      |
| JD        | Eurasian Jackdaw  |
| M.        | Mistle Thrush     |
| MG        | Magpie            |
| MH        | Common Moorhen    |
| MP        | Meadow Pipit      |
| PW        | Pied Wagtail      |
| R.        | European Robin    |
| WP        | Common Woodpigeon |
| WR        | Wren              |





|                    |                         |
|--------------------|-------------------------|
| Survey Start Time: | 02:30pm                 |
| Survey End Time:   | 06:00pm                 |
| Precipitation:     | 0                       |
| Cloud:             | 4 as per Okta scale     |
| Temperature:       | 8° C                    |
| Wind:              | 2 as per Beaufort scale |

Key

Site Boundary

Flying in and landing

Flying away (from being perched)

Flying over

Two separate birds singing

Same bird registration

Call

Alarm Call

Song

Foraging/Circling Behaviour

| sp_abbrev | species           |
|-----------|-------------------|
| BH        | Black-headed Gull |
| C.        | Carrian Crow      |
| CW        | Cetti's Warbler   |
| FP        | Feral Pigeon      |
| JD        | Eurasian Jackdaw  |
| R.        | European Robin    |
| WP        | Common Woodpigeon |
| WR        | Wren              |

RammSanderson Ltd: East Midlands, West Midlands, Yorkshire T: 0115 930 2493 E: admin@rammsanderson.com W: www.rammsanderson.com Basemap Source(s): ©2025 Google &/or OpenStreetMap & third-party providers

RammSanderson

Title: Wintering Bird Survey Plan - Survey 2 - 26/02/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 07/08/2025

Fig:

Author: EN

A4 Scale:1:1200

ID: RSE\_8983\_WBS2\_0825\_V2R1

EPSG:27700 OSGB36 / British National Grid



|                    |                         |
|--------------------|-------------------------|
| Survey Start Time: | 04:50                   |
| Survey End Time:   | XX:XX                   |
| Precipitation:     | X%                      |
| Cloud:             | 3 as per Okta scale     |
| Temperature:       | 11° C                   |
| Wind:              | 2 as per Beaufort scale |

**Key**

- Site Boundary
- Flying in and landing
- Flying away (from being perched)
- Flying over
- Two separate birds singing
- Same bird registration
- Call
- Alarm Call
- Song
- Foraging/Circling Behaviour

| sp_abbrev | species                |
|-----------|------------------------|
| B.        | Common Blackbird       |
| BC        | Blackcap               |
| BT        | Blue Tit               |
| C.        | Carrion Crow           |
| CD        | Eurasian Collared Dove |
| CW        | Cetti's Warbler        |
| D.        | Dunnock                |
| GJ        | Greylag Goose          |
| GO        | European Goldfinch     |
| GT        | Great Tit              |
| HS        | House Sparrow          |
| JD        | Eurasian Jackdaw       |
| PH        | Common Pheasant        |
| PW        | Pied Wagtail           |
| R.        | European Robin         |
| ST        | Song Thrush            |
| WP        | Common Woodpigeon      |
| WR        | Wren                   |



**RammSanderson**

Title: Breeding Bird Survey Plan - Survey 1 - 03/06/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 07/08/2025

Fig:

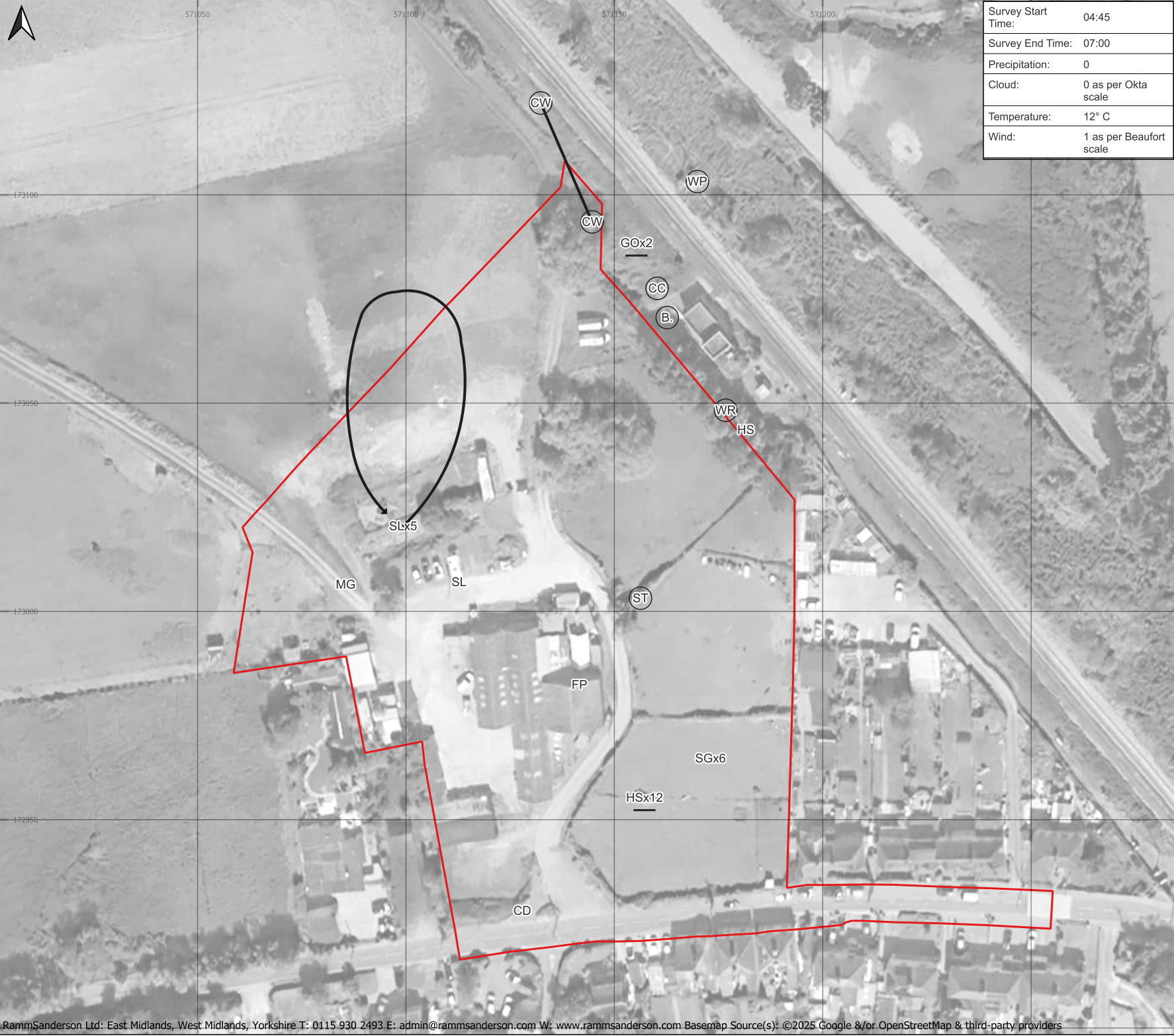
Author: EN

A4 Scale: 1:1200

ID: RSE\_8983\_BBS1\_0825\_V2R1

EPSSG:27700 OSGB36 / British National Grid





|                    |                         |
|--------------------|-------------------------|
| Survey Start Time: | 04:45                   |
| Survey End Time:   | 07:00                   |
| Precipitation:     | 0                       |
| Cloud:             | 0 as per Okta scale     |
| Temperature:       | 12° C                   |
| Wind:              | 1 as per Beaufort scale |

Key

Site Boundary

Flying in and landing

Flying away (from being perched)

Flying over

Two separate birds singing

Same bird registration

Call

Alarm Call

Song

Foraging/Circling Behaviour

| sp_abbrev | species                |
|-----------|------------------------|
| B.        | Common Blackbird       |
| CC        | Common Chiffchaff      |
| CD        | Eurasian Collared Dove |
| CW        | Cetti's Warbler        |
| FP        | Feral Pigeon           |
| GO        | European Goldfinch     |
| HS        | House Sparrow          |
| MG        | Maggie                 |
| SG        | Common Starling        |
| SL        | Barn Swallow           |
| ST        | Song Thrush            |
| WP        | Common Woodpigeon      |
| WR        | Wren                   |

Title: Breeding Bird Survey Plan - Survey 2 - 17/06/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 07/10/2025

Fig:

Author: EN

A4 Scale:1:1200

ID: RSE\_8983\_BBS2\_1025\_V2R2

EPSG:27700 OSGB36 / British National Grid



|                    |                         |
|--------------------|-------------------------|
| Survey Start Time: | 04:45                   |
| Survey End Time:   | 06:15                   |
| Precipitation:     | 0                       |
| Cloud:             | 2 as per Okta scale     |
| Temperature:       | 22° C                   |
| Wind:              | 1 as per Beaufort scale |

Key

Site Boundary

Flying in and landing

Flying away (from being perched)

Flying over

Two separate birds singing

Probable registration of the same bird

Call

Alarm Call

Song

Foraging/Circling Behaviour

| sp_abbrev | species                |
|-----------|------------------------|
| B.        | Common Blackbird       |
| BC        | Blackcap               |
| BT        | Blue Tit               |
| CC        | Common Chiffchaff      |
| CD        | Eurasian Collared Dove |
| CW        | Cetti's Warbler        |
| GJ        | Greylag Goose          |
| HS        | House Sparrow          |
| JD        | Eurasian Jackdaw       |
| K.        | Common Kestrel         |
| PW        | Pied Wagtail           |
| R.        | European Robin         |
| SG        | Common Starling        |
| SL        | Barn Swallow           |
| ST        | Song Thrush            |
| WP        | Common Woodpigeon      |
| WR        | Wren                   |

RammSanderson

Title: Breeding Bird Survey Plan - Survey 3 - 01/07/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Richborough Estates

Date: 07/10/2025

Fig:

Author: EN

A4 Scale:1:1300

ID: RSE\_8983\_BB53\_1025\_V2R2

EPSG:27700 OSGB36 / British National Grid

RammSanderson Ltd: East Midlands, West Midlands, Yorkshire T: 0115 930 2493 E: admin@rammsanderson.com W: www.rammsanderson.com Basemap Source(s): ©2025 Google &/or OpenStreetMap & third-party providers





|                    |                         |
|--------------------|-------------------------|
| Survey Start Time: | 05:00                   |
| Survey End Time:   | 08:30                   |
| Precipitation:     | 0                       |
| Cloud:             | 2 as per Okta scale     |
| Temperature:       | 12° C                   |
| Wind:              | 1 as per Beaufort scale |

Key

→(S)

→(S)

→(S)

(S)...(S)

(S)→(S)

\* on

—

==

○

⦿

⚡

Site Boundary

Flying in and landing

Flying away (from being perched)

Flying over

Two separate birds singing

Same bird registration

Nesting nest

Call

Alarm Call

Song

Foraging/Circling Behaviour

Agressive encounter

| sp_abbrev | species                  |
|-----------|--------------------------|
| B.        | Common Blackbird         |
| BC        | Blackcap                 |
| BT        | Blue Tit                 |
| C.        | Carrian Crow             |
| CC        | Common Chiffchaff        |
| CD        | Eurasian Collared Dove   |
| CM        | Common Gull              |
| CW        | Cetti's Warbler          |
| FP        | Feral Pigeon             |
| G.        | Green Woodpecker         |
| GO        | European Goldfinch       |
| GS        | Great Spotted Woodpecker |
| GT        | Great Tit                |
| HS        | House Sparrow            |
| JD        | Eurasian Jackdaw         |
| LB        | Lesser Black-backed Gull |
| LI        | Common Linnet            |
| MG        | Magpie                   |
| PH        | Common Pheasant          |
| PW        | Pied Wagtail             |
| R.        | European Robin           |
| RW        | Eurasian Reed Warbler    |
| SG        | Common Starling          |
| SI        | Common Swift             |
| SL        | Barn Swallow             |
| ST        | Song Thrush              |
| WP        | Common Woodpigeon        |
| WR        | Wren                     |

RammSanderson

Title: Breeding Bird Survey Plan - Survey 4 - 15/07/2025

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 07/10/2025

Fig:

Author: EN

A4 Scale:1:1200

ID: RSE\_8983\_BBS4\_1025\_V2R2

Richborough Estates

EPSSG:27700 OSGB36 / British National Grid



Figure 17: Great Crested Newt eDNA results

Folio No: 2066-2025  
Purchase Order: PO 22236 RSE\_9218a  
Contact: RammSanderson  
Issue Date: 24.06.2025  
Received Date: 03.06.2025



# GCN eDNA Analysis

## Summary

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analyzing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

## Results

| Lab ID        | Site Name       | OS Reference | Degradation Check | Inhibition Check | Result   | Positive Replicates |
|---------------|-----------------|--------------|-------------------|------------------|----------|---------------------|
| GCN25<br>6738 | Chalk Road - P1 | TQ 710 731   | Pass              | Pass             | Negative | 0/12                |

Matters affecting result: none

Reported by: Amy Bermudez

Approved by: Lauryn Jewkes





**Key**

- Site Boundary
- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Modified grassland
- Other woodland; broadleaved
- Ponds (non-priority habitat)
- Vegetated garden
- Native hedgerow
- Line of trees
- Existing Large Rural Tree
- Existing Medium Rural Tree
- Existing Small Rural Tree



|                                           |                             |                                                                                       |
|-------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
| Title: BIA Baseline Habitat Plan          |                             |                                                                                       |
| Project: Chalk Road, Higham               |                             |                                                                                       |
| Client: Richborough Estates Limited       |                             |  |
| Date: 28/10/2025                          | Fig:                        | Author: LE/LG                                                                         |
| A4 Scale:1:950                            | ID: RSE_8983_BIAB_1025_V2R2 |                                                                                       |
| EPSG:27700 OSGB36 / British National Grid |                             |                                                                                       |





Key

Site Boundary

Developed land; sealed surface

RammSanderson

Title: BIA Proposed Habitat Plan

Project: Chalk Road, Higham

Client: Richborough Estates Limited

Date: 30/10/2025

Fig:

Author: LE/LG

A4 Scale:1:950

ID: RSE\_8983\_BIAP\_1025\_V2R3

EPSG:27700 OSGB36 / British National Grid

Richborough Estates

## 8 REFERENCES

- Wildlife and Countryside Act . (1981 (as amended)). *Schedule 9*.
- Chanin, P. (2003). *Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No 10*. Peterborough: English Nature.
- Collins, J. (Eds.). (2023). *Bat Surveys for Professional Ecologists: Good Survey Guidelines (Collins, J. Eds. 2023)*, . London: Bat Conservation Trust.
- Dean, M. S. (2016). *The Water Vole Mitigation Handbook (The Mammal Society Guidance Series) Eds Mathews, F. and Chanin, P.* London: The Mammal Society.
- Department of Communities & Local Government. (2024). *The National Planning Policy Framework (NPPF)*.
- English Nature. (2001). *The Great Crested Newt Mitigation Guidelines*. Peterborough.
- English Nature. (2004). *Reptiles: Guidelines for Developers*. Peterborough: English Nature.
- English Nature. (2006). *The Dormouse Conservation Handbook, 2nd edition*.
- Froglife. (1999). *Reptile Survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10.* . Halesworth.
- Froglife. (2001). *The Great Crested Newt Conservation Handbook*. Halesworth.
- Harris, S. C. (1989). *Surveying Badgers*. The Mammal Society.
- Joint Nature Conservation Committee. (2003). *Herpetofauna Workers Manual*.
- Joint Nature Conservation Committee. (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. Peterborough.
- Langton, T. B. (2001). *Great Crested Newt Conservation Handbook*.
- Multi-Agency Geographic Information for the Countryside (MAGIC) ([www.magic.gov.uk](http://www.magic.gov.uk)) . (n.d.).
- National Parks and Access to the Countryside Act. (1949).
- Natural England. (2004). *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt (ENRR576)* . Peterborough: <http://publications.naturalengland.org.uk/publication/134002>.
- Natural England. (2009). *Interpretation of 'Disturbance' in relation to badgers occupying a sett*. Peterborough.
- R. S. Oldham, J. K. (2000). Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *The Herpetological Journal*, pp.143-155.
- RammSanderson. (2025). *Preliminary Ecological Appraisal*.
- RammSanderson. (2025). *Biodiversity Impact Assessment*.
- Rodwell, J. (1992). *British Plant Communities VOLUME 3, Grasslands and montane communities*. New York: Cambridge University Press.
- Scottish Natural Heritage. (2018). *Surveying for Badgers: Good Practice Guidelines. Version 1*.
- Stace, C. E. (2019). *New Flora of the British Isles, 4th Edition*. Cambridge University Press.
- Stanbury, A. E. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, 114:723-747.
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations*. (2019).
- The Hedgerow Regulations*. (1997).



Ward, D. H. (1994). *The New Rivers and Wildlife Handbook*. Bedfordshire: Royal Society for the Protection of Birds.

## 9 APPENDIX 1: RELEVANT LEGISLATION AND PLANNING POLICY

- i The UK is no longer a member of the European Union (EU). EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation. EU legislation which applied directly or indirectly to the UK before 11.00 p.m. on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.
- ii The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant and are now referred to as The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (the 2019 Regulations).

### Designated Sites

#### Special Protection Areas (SPA) / Special Areas of Conservation (SAC)

These Sites in the UK no longer form part of the EU's Natura 2000 ecological network. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations, 2019, have created a national Site network on land and at sea, including both the inshore and offshore marine areas in the UK.

The national Site network includes:

- existing SACs and SPAs
- new SACs and SPAs designated under these Regulations

Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national Site network.

Formal Appropriate Assessment is required to be undertaken by the competent authority before undertaking, or giving consent, permission or other authorisation for any work which are likely to have a significant effect on such a Site.

#### Sites of Special Scientific Interest

Under the Wildlife and Countryside Act 1981 (as amended), it is an offence to carry out or permit to be carried out any operations likely to damage the Site of Special Scientific Interest (SSSI). These operations are listed in the SSSI notification.

Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 of the Wildlife and Countryside Act 1981 (as amended), before undertaking operations likely to damage a SSSI.

#### Locally Designated Sites

- iii Local Wildlife Sites are sites with 'substantive nature conservation value'. They are defined areas, identified and selected for their nature conservation value, based on important, distinctive and threatened habitats and species with a region.
- iv They are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.
- v The LWS selection panel, select all sites that meet the assigned criteria, unlike SSSIs, which for some habitats are a representative sample of sites that meet the national standard. Consequently, many sites of SSSI quality are not designated and instead are selected as LWSs. Consequently, LWSs can be amongst the best sites for biodiversity.

## Protected Species

### Bats / Hazel Dormouse / Otter / Great Crested Newt

- vi These species, known as European Protected Species, are protected under Regulation 43 of the 2017 Regulations as amended by the 2019 Regulations. This makes it an offence to deliberately capture, injure or kill an animal; deliberately disturb an animal; or damage or destroy a breeding site or resting place used by an animal.
- vii Deliberate capture or killing is taken to include “accepting the possibility” of such capture or killing. Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.
- viii Where development works are at risk of causing one or more of the offences listed above, a mitigation licence from Natural England can be obtained to facilitate the works that would otherwise be illegal.
- ix These species are also protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb an animal in such a place.
- x Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

### Nesting Birds

- xi All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), with some species afforded greater protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the protection from killing or taking that all birds receive, Schedule 1 birds and their young must not be disturbed at the nest.
- xii There are no licensing purposes that explicitly cover development activities affecting wild birds.

### Common Species of Reptile (common lizard, slow worm, grass snake and adder)

- xiii Common species of reptile are protected against intentional killing and injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). There is no requirement for a licence where development works affect common species of reptiles. Instead, Natural England (English Nature, 2004) advise that where reptiles are present, they should be protected from any harm that might arise during the development works through appropriate mitigation.

### Badger

- xiv Badgers and their setts are protected under the Protection of Badgers Act 1992 (as amended). This makes it an offence to wilfully kill, injure or take a badger; or intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger in its sett.
- xv It is not illegal to carry out disturbance activities near setts that are not occupied, i.e. those that do not show signs of current use.
- xvi Where required, licences for development activities involving disturbance or sett interference or closure are issued by Natural England. Licences for activities involving watercourse maintenance, drainage works or flood defences are issued under a separate process.
- xvii When assessing the requirement for a licence in respect of development, Natural England (Natural England, 2009) state that badgers are relatively tolerant of moderate levels of noise and activity around their setts, and

that a low or moderate level of apparent disturbing activity at or near to badger setts does not necessarily disturb the badgers occupying those setts.

- xviii Licences are normally not granted from December to June inclusive (the badger breeding season) because dependent cubs may be present within setts.

### **Species and Habitats of Principal Importance for the Conservation of Biodiversity**

- xix Section 40 of the Natural Environment & Rural Communities Act (NERC) 2006 sets out the duty for public authorities to conserve biodiversity in England.
- xx Habitats and species of principal importance for the conservation of biodiversity are identified by the Secretary of State for England, in consultation with Natural England, are referred to in Section 41 of the NERC Act for England. The list, known as the 'England Biodiversity List', of habitats and species can be found on the Natural England web site.
- xxi The 'England Biodiversity List' is used as a guide for decision makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006 to have regard to the conservation of biodiversity in England when carrying out their normal functions. The habitats and species on the List, are material considerations of planning, where present on an application site.

### **Non-native Invasive Plant Species**

- xxii Under the Wildlife and Countryside Act, 1981 (as amended), it is an offence to plant or otherwise cause these species to grow in the wild.
- xxiii Any contaminated soil or plant material is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the Environmental Protection Act 1990.

### **Planning Policy**

#### **National Planning Policy Framework, 2024**

- xxiv The National Planning Policy Framework (NPPF) (Department of Communities & Local Government, 2024) sets out the Governments planning policies for England and how these are expected to be applied by Local Authorities within their Local Development Frameworks (LDF).
- xxv Regarding the NPPF, the most pertinent paragraphs are:

*8.c) "to protect and enhance our natural, built and historic environment, including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy"*

*187.d) "minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

*192.b) "promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

*193.a) "if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused."*



193.c) “development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons 63 and a suitable compensation strategy exists.”

## 9.2 Local Planning Policy

i Policy CS12 of the Gravesham Local Strategy Core Plan (2014) states:

*‘Sites designated for their biodiversity value will be protected, with the highest level of protection given to internationally designated Special Protection Areas, Special Areas of Conservation and Ramsar sites, followed by nationally designated Sites of Special Scientific Interest, followed by Local Wildlife Sites and then by other areas of more local importance for biodiversity.*

*There will be no net loss of biodiversity in the Borough, and opportunities to enhance, restore, re-create and maintain habitats will be sought, in particular within the Biodiversity Opportunity Areas shown on the Strategic Green Infrastructure Network map and within new development’.*

## 10 APPENDIX 2: METHODOLOGY

### Desk Study

#### Background Records Search

- i The preliminary ecological assessment includes a desk study to obtain background records relevant to an Application Site and the Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible.
- ii The Study Area is dependent upon the nature, timing and scale of the Scheme, as well as the location of the Application Site and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (Zol) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.
- iii In January 2025 the Kent and Medway Biological Records Centre was contacted to obtain the following ecological data:
  - Records of non-statutory designated sites (LWS, potential LWS, Ecosites) within 2 km of the Application Site boundary;
  - Records of legally protected and notable species (fauna and flora) within 1 km of the Application Site boundary, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 in the England Biodiversity List<sup>18</sup>.
- iv The Multi-Agency Geographic Information for the Countryside (MAGIC) ([www.magic.gov.uk](http://www.magic.gov.uk)) website was reviewed for the following information:
  - Designated sites of nature conservation importance (statutory sites only) within 1km of the Application Site. This was extended to 1km for internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs); and,
  - Notable habitats within 1km of the Application Site, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List.

#### Great Crested Newt Pond Search

- v Ordnance Survey maps and the Where's the Path website (<https://wtp2.appspot.com/wheresthepath.htm>) have been used to identify the presence of water bodies within 250m of the Application Site boundary, in order to help establish if the land within and immediately surrounding the Application Site could be used by great crested newts. This species can use suitable terrestrial habitat up to 500 m from a breeding pond (English Nature, 2001), though there is a notable decrease in great crested newt abundance beyond 250 m from a breeding pond (Natural England, 2004).

---

<sup>18</sup> Section 40 of the Natural Environment & Rural Communities Act 2006 requires that very public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. The Secretary of State has drawn up, in accordance with Section 41 of the Act and in consultation with Natural England, a list of habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

## Field Survey

- vi The preliminary ecological assessment includes a walkover survey of the Survey Area (all land within the Application Site), broadly following the Phase 1 habitat survey methodology as set out in Joint Nature Conservation Committee guidance (Joint Nature Conservation Committee, 2010). This survey method records information on habitat types and is 'extended' to record any evidence of and potential for protected or notable species to be present. Plant names recorded during the survey follow (Stace, 2019).
- vii During the walkover survey, the following protected or notable species are considered:
- **Badger:** the survey involves searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in (Scottish Natural Heritage, 2018) and (Harris, 1989).
  - **Bats:** the survey involves searching for potential roosting sites for bats within trees and structures (such as buildings, bridges or underground features such as mines) and categorising the potential of those trees or structures to support roosting bats (negligible to high, or confirmed roost), in accordance with Bat Conservation Trust (BCT) (Collins, J. (Eds.), 2016) guidance.
  - **Hazel dormouse:** the survey involves assessing the potential of habitats within the Survey Area to support hazel dormouse, following English Nature guidance (English Nature, 2006);
  - **Otter:** the survey involves assessing the potential of watercourses and water bodies, and adjacent terrestrial habitat within the Survey Area to support otter, following RSPB (Ward, 1994) and (Chanin, 2003) guidance;
  - **Water vole:** the survey involves assessing the potential of watercourses and water bodies within the Survey Area to support water vole, following The Mammal Society (Dean, 2016) guidance;
  - **Birds:** the survey involves assessing the potential of habitats within the Survey Area to support breeding, wintering or migrating birds, either individually notable species or assemblages of both common and rarer species;
  - **Great crested newt:** the survey involves assessing the potential of habitats within the Survey Area to support great crested newt, following English Nature (English Nature, 2001) and Froglife (Froglife, 2001) guidance;
  - **Reptiles:** the survey involves assessing the potential of habitats within the Survey Area to support reptiles (typically adder, grass snake, common lizard and slow worm only, though in some locations and habitat types (most notably heathland) may also include smooth snake and sand lizard), following Froglife (Froglife, 1999) and JNCC (Joint Nature Conservation Committee, 2003) guidance;
  - **Notable species of invertebrate:** the survey involves assessing the potential of habitats within the Survey Area to support notable species of invertebrates, both terrestrial and aquatic (including white-clawed crayfish);
  - **Protected or Notable species of plants:** the survey involves recording protected or notable plant species;
  - **Other notable species:** the survey involves assessing the potential of habitat within the Survey Area to support other Notable Species, such as hedgehog, brown hare, polecat or common toad;
  - **Non-native invasive plant species:** the survey involves recording evidence of the presence of invasive plants listed on (Wildlife and Countryside Act, 1981 (as amended)) and subject to strict legal control.

## Great Crested Newt Habitat Suitability Assessment

Waterbodies within 250m (where accessible) were evaluated against the great crested newt HSI criteria (R. S. Oldham, 2000). The HSI provides a measure of the suitability of a water body to support great crested newt by assigning an overall score of between 0 and 1, which is based on ten key criteria as follows:

- SI1 Geographic location
- SI2 Pond area

- SI3 Pond drying
- SI4 Water quality
- SI5 Shade
- SI6 Presence of water-fowl
- SI7 Presence of fish
- SI8 Number of local ponds
- SI9 Terrestrial habitat quality
- SI10 Plant coverage

In general, ponds with a higher score are more likely to support great crested newt than those with lower score.

Suitability for great crested newt is determined in accordance with the scale outlined in Table 8 below.

**Table 9: HSI Scoring Criteria**

| HSI Score  | Pond Suitability |
|------------|------------------|
| <0.5       | Poor             |
| 0.5 – 0.59 | Below average    |
| 0.6 – 0.69 | Average          |
| 0.7 – 0.79 | Good             |
| >0.8       | Excellent        |

### Tree and Building Bat Roost Suitability Assessment

Buildings, trees and other structures were graded as to their suitability for supporting roosting bats using Collins, J. ed (2023), an extract of which is provided interpreted in Table 9 below.

**Table 10: Criteria for bat roost potential assessment of buildings**

| Roost Potential | Description                                                                                                                                                          | Further Surveys Required (Buildings) |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Confirmed roost | Evidence of roosting bats found during initial daytime inspection.                                                                                                   | 3 surveys between May - September    |
| High *          | Structures with one or more features suitable for bat roosting, with obvious suitability for larger numbers of bats.                                                 | 3 surveys between May - September    |
| Moderate        | Structure with one or more potential roost Sites that could be used due to size, shelter and protection but unlikely to support a roost of high conservation status. | 2 surveys between May - September    |



| Roost Potential | Description                                                                                                                                                                   | Further Surveys Required (Buildings) |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Low             | Structure with one or more potential roosting Sites used by individual bats opportunistically. Insufficient space, shelter or protection to be used by large numbers of bats. | 1 Survey between May - September     |
| Negligible      | No or negligible features identified that are likely to be used by roosting bats                                                                                              | None                                 |

Table 11: Criteria for bat roost potential assessment of trees

| Roost Potential | Description                                                                                                            | Surveys Required (Trees)                                                                                                                                                 |
|-----------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Confirmed roost | Evidence of roosting bats found during initial daytime inspection.                                                     | Roost characterisation surveys followed by EPS licensing (for loss) or PWMS (for disturbance where buffers are required).                                                |
| PRF-M           | Feature suitable for multiple bats and may therefore be used by a maternity colony.                                    | 3 – between May and September, with at least two between May and August. Where aerial inspection is not possible, emergence surveys supported by NVA's will be required. |
| PRF-I           | Feature suitable for individual bats or very small numbers either due to size or lack of suitable surrounding habitat. | Precautionary Mitigation Approach, some instances may require further survey. Appropriate compensation for all PRF-Is in advance of impacts.                             |
| Negligible      | No or negligible features identified that are likely to be used by roosting bats                                       | None                                                                                                                                                                     |

## Biodiversity Accounting

- viii The biodiversity net gains assessment involves making a comparison between the biodiversity value of habitats present within the Application Site prior to a development (i.e. the 'baseline') and the predicted biodiversity value of habitats following the completion of the Scheme (i.e. 'post development'). The comparison is undertaken in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.
- ix The metric assesses and generates separate outputs for area-based habitats and linear based habitats (with rivers reported separately to other habitats like hedgerows). A development cannot claim to achieve net gain until biodiversity net gains are predicted across all area-based, linear based and river based habitats.
- x The calculation for area-based and linear (non-river) habitats calculates biodiversity units as follows:

- Before Works = Distinctiveness Score x Condition Assessment x Area/Length x connectivity x strategic significance
- After Works = ((Distinctiveness Score x Condition Score x Area/ Length x connectivity x strategic significance) / Time to Target Condition) / Difficulty of Creation/Restoration

xi The five factors are determined as set out below:

- Distinctiveness Score – High, Medium or Low, based on UK habitat classifications.
- Condition Score – Good, Fairly good, Moderate, Fairly poor or Poor, based on habitat condition assessment.
- Area/Length – hectares (ha)/ length (km) of habitat type.
- Connectivity – High, Medium and Low.
- Strategic significance – High (Within area formally identified in local strategy), Medium (Location ecologically desirable but not in local strategy) and Low (Area/compensation not in local strategy/ no local strategy).
- Time until target condition – time period (in years) until the target condition will be achieved.
- Difficulty of creation/restoration – a score applied to account for risk associated with creating/restoring different types of habitat.

xii Habitat categories associated distinctiveness and condition scores are approached differently for rivers. In line with current guidance, a desk study was undertaken to identify all river habitats present within the Application Site using the 'Discovering Priority Habitat in England' river data map. Following this, where data was available, river habitats were assigned a habitat category and distinctiveness using a combination of Priority Habitat descriptions, and River Naturalness Assessment class scores.

## Limitations

xiii The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

xiv An ecological survey represents a 'snapshot' in time of the ecological condition of an Application Site. The ecological character of an Application Site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats potential to support protected species.

11 APPENDIX 3:: SURVEY RESULTS

Table 12: HSI Results

| Score         | Pond | Location | Area (m2) | Drying          | Water quality | % shade | Waterfowl | Fish     | Ponds within 1km | Terrestrial Habitat | Macrophyte cover (%) | HSI category  |
|---------------|------|----------|-----------|-----------------|---------------|---------|-----------|----------|------------------|---------------------|----------------------|---------------|
| Score: 0.5095 | P1   | A        | 120       | Sometimes dries | Poor          | 50      | Minor     | Possible | 3                | Poor                | 0                    | Below Average |

Table 13: Summary of bat building assessment

| Feature | Description                                                                                                                                                                                | Grading  | Photographs                                                                          |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------|
| B1      | Large structure with ancillary building attached situated centrally withing the Application Site. Holes in Roof, Missing Bricks, Open Doors, under corrugated roof, hole in fascia at rear | Moderate |   |
| B2      | Brick built structure situated in the southwest of the Application Site. Access deemed possible under roof potentially in to loft space that couldn't be accessed.                         | Moderate |  |



Table 14: Summary of Ground Level Tree Assessment

| Feature | Species      | Description                                                                     | Grading                                                                         | Photographs                                                                          |
|---------|--------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| T1      | Alder        | Has ivy cover that doesn't allow the observation of potential roosting features | FAR<br>(Further Assessment Required)                                            |    |
| T2      | White Willow | Tree can't be fully assessed as there was no access to site                     | FAR<br>(Further Assessment Required)                                            |   |
| T4      | White Willow |                                                                                 | FAR<br>(Further Assessment Required)                                            |  |
| T8      | Ash          | Has ivy cover that doesn't allow the observation of potential roosting features | Has ivy cover that doesn't allow the observation of potential roosting features |  |

Table 15: Static Monitoring Results Static 1

| Static dates                  | Common Pipistrelle       | Soprano Pipistrelle | Nathusius' Pipistrelle | Noctule | Leisler's | Myotis Sp. | Serotine | Brown long-eared | Total No. of passes | Total no. of nights | Average passes per night (all species) |
|-------------------------------|--------------------------|---------------------|------------------------|---------|-----------|------------|----------|------------------|---------------------|---------------------|----------------------------------------|
| 13/06/2025<br>-<br>20/06/2025 | 22                       | 0                   | 0                      | 0       | 0         | 0          | 0        | 1                | 23                  | 5                   | 4.6                                    |
| 06/08/2025<br>-<br>09/08/2025 | 75                       | 15                  | 0                      | 1       | 1         | 4          | 1        | 0                | 97                  | 5                   | 19.4                                   |
| 03/09/2025<br>-<br>09/09/2025 | No Data, Files Corrupted |                     |                        |         |           |            |          |                  |                     |                     |                                        |
| Total passes / species        | 97                       | 15                  | 0                      | 1       | 1         | 4          | 1        | 1                | 12                  | 5                   | 3.43                                   |
| Average passes / species      | 2.77                     | 0.43                | 0                      | 0.03    | 0.03      | 0.11       | 0.03     | 0.03             |                     |                     |                                        |
| % of bat passes / species     | 80.83                    | 12.5                | 0                      | 0.83    | 0.83      | 3.33       | 0.83     | 0.83             |                     |                     |                                        |

## 12 APPENDIX 4:: BIODIVERSITY IMPACT ASSESSMENT

**Table 16: Habitat Descriptions**

| Broad Habitat                               | Area (hectares) /<br>Baseline Biodiversity<br>Units | Condition<br>Assessment                  | Habitat Condition Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|-----------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Modified grassland                          | 0.8395ha / 1.68 units                               | Poor                                     | <p>4 parcels of modified grassland present across most of the application site. 1 parcel is located towards the centre of the application site. The habitat has been assessed as in poor condition as it achieves the following criteria in the condition assessments:</p> <p>C. Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.</p> <p>F. Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.</p> <p>G. There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).</p> <p>The other three parcels have been assessed as in poor condition as they only achieve the following criteria in the condition assessments:</p> <p>F. Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.</p> <p>G. There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p> |
| Vegetated Garden                            | 0.112ha / 0.22 units                                | No Condition<br>Assessment<br>Applicable | Vegetated gardens present to the west. Condition assessments not required. Habitat deemed not strategically significant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Artificial Unsealed,<br>Unvegetated Surface | 0.0282ha / 0.00 units                               | No Condition<br>Assessment<br>Applicable | Artificial; unvegetated land present towards the centre of the application site. Condition assessments not required. Habitat deemed not strategically significant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Developed Land<br>Sealed Surface            | 0.6136ha / 0.00 units                               | No Condition<br>Assessment<br>Applicable | Developed land present as roads and buildings within the application site. Condition assessments not required. Habitat deemed not strategically significant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Broad Habitat                  | Area (hectares) /<br>Baseline Biodiversity<br>Units | Condition<br>Assessment | Habitat Condition Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|-----------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pond (Non Priority)            | 0.0421ha / 0.17 units                               | Poor                    | <p>Pond present in the east of the application site. The habitat has been assessed as in poor condition as it achieves the following criteria in the condition assessments:</p> <p>C. Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.</p> <p>D. The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.</p> <p>E. Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework.</p> <p>F. There is an absence of listed non-native plant and animal species.</p> <p>G. The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>              |
| Other Woodland,<br>Broadleaved | 0.0137ha / 0.05 units                               | Poor                    | <p>Broadleaved woodland located along the eastern boundary of the application site. It has been assessed as in poor condition as it achieves a woodland score of 19 and meets the following criteria in the condition assessments:</p> <p>A. One age-class present.</p> <p>B. No significant browsing damage evident in woodland.</p> <p>C. No invasive species present in woodland.</p> <p>D. Two or less native tree or shrub species across woodland parcel.</p> <p>E. &lt;50% of canopy trees and &lt;50% of understory shrubs are native.</p> <p>F. &lt;10% or &gt;40% of woodland has areas of temporary open space. But if woodland &lt;10ha has &lt;10% temporary open space, please see Good category</p> <p>G. No classes or coppice regrowth present in woodland.</p> <p>H. 11% to 25% mortality and/or crown dieback or low-risk pest or disease present.</p> <p>I. No recognisable woodland NVC plant community at ground layer present.</p> <p>J. One or less storey across all survey plots.</p> |



| Broad Habitat | Area (hectares) /<br>Baseline Biodiversity<br>Units | Condition<br>Assessment | Habitat Condition Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|-----------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                                                     |                         | <p>K. No veteran trees present in woodland.</p> <p>L. Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.</p> <p>M. Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Rural Tree    | 0.0336ha / 0.44 units                               | Good                    | <p>1x large rural tree located along the eastern boundary of the application site. It has been assessed as in good condition as it achieves the following criteria in the condition assessments:</p> <p>A. The tree is a native species (or at least 70% within the block are native species).</p> <p>B. The tree canopy is predominantly continuous, with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide (individual trees automatically pass this criterion).</p> <p>C. The tree is mature (or more than 50% within the block are mature).</p> <p>D. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain &gt;75% of expected canopy for their age range and height.</p> <p>E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.</p> <p>F. More than 20% of the tree canopy area is oversailing vegetation beneath.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p> |
| Rural Tree    | 0.0336ha / 0.29 units                               | Moderate                | <p>1x large rural tree located towards the east of the application site. It has been assessed as in moderate condition as it achieves the following criteria in the condition assessments:</p> <p>A. The tree is a native species (or at least 70% within the block are native species).</p> <p>B. The tree canopy is predominantly continuous, with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide (individual trees automatically pass this criterion).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Broad Habitat | Area (hectares) /<br>Baseline Biodiversity<br>Units | Condition<br>Assessment | Habitat Condition Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|-----------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                                                     |                         | <p>C. The tree is mature (or more than 50% within the block are mature).</p> <p>E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>                                                                                                                                                                                                                                                                                     |
| Rural Tree    | 0.0163ha / 0.13 units                               | Moderate                | <p>x1 medium rural tree.</p> <p>The condition has been defaulted to moderate due to access.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>                                                                                                                                                                                                                                                                                                                                                                                                                |
| Rural Tree    | 0.0041ha / 0.03 units                               | Moderate                | <p>x1 small rural tree.</p> <p>The condition has been defaulted to moderate due to access.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Rural Tree    | 0.0081ha / 0.03 units                               | Poor                    | <p>2x small rural trees located towards the centre of the application site. Each has been assessed as in poor condition as they achieve the following criteria in the condition assessments:</p> <p>A. The tree is a native species (or at least 70% within the block are native species).</p> <p>B. The tree canopy is predominantly continuous, with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide (individual trees automatically pass this criterion).</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p> |

| Broad Habitat   | Length (Linear KM)<br>Baseline Biodiversity Units | Condition Assessment | Habitat Condition Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|---------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line of Trees   | 0.063km / 0.25 Units                              | Moderate             | <p>Line of trees located along the eastern boundary of the application site. It has been assessed as in moderate condition as it achieves the following criteria in the condition assessments:</p> <p>A. At least 70% of trees are native species.</p> <p>B. Tree canopy is predominantly continuous with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide.</p> <p>C. One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark.</p> <p>E. At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>                                                                                                                   |
| Native Hedgerow | 0.087km / 0.35 units                              | Moderate             | <p>2x native hedgerows located within the application site. Both have been assessed as in moderate condition. H1 is located along the western boundary of the application site and achieves the following criteria in the condition assessments:</p> <p>A1. Height &gt;1.5m average along length.</p> <p>A2. Width &gt;1.5m average along length.</p> <p>B1. Gap - hedge base - Gap between ground and base of canopy &lt;0.5 m for &gt;90% of length</p> <p>B2. Gap - hedge canopy continuity - Gaps make up &lt;10% of total length; and No canopy gaps &gt;5 m</p> <p>D1. Invasive and neophyte species - &gt;90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.</p> <p>D2. Current damage - &gt;90% of the hedgerow or undisturbed ground is free of damage caused by human activities.</p> <p>H2 is located towards the south of the application site and achieves the following criteria in the condition assessments:</p> <p>A1. Height &gt;1.5m average along length.</p> <p>A2. Width &gt;1.5m average along length.</p> <p>B1. Gap - hedge base - Gap between ground and base of canopy &lt;0.5 m for &gt;90% of length</p> |

| Broad Habitat   | Length (Linear KM)<br>Baseline Biodiversity<br>Units | Condition<br>Assessment | Habitat Condition Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 |                                                      |                         | <p>B2. Gap - hedge canopy continuity - Gaps make up &lt;10% of total length; and No canopy gaps &gt;5 m</p> <p>D1. Invasive and neophyte species - &gt;90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p>                                                                                                                                                                       |
| Native Hedgerow | 0.06km / 0.12 units                                  | Poor                    | <p>H3 has been assessed as in poor condition as it achieves the following criteria in the condition assessments:</p> <p>A1. Height &gt;1.5m average along length.</p> <p>B2. Gap - hedge canopy continuity - Gaps make up &lt;10% of total length; and No canopy gaps &gt;5 m</p> <p>D1. Invasive and neophyte species - &gt;90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.</p> <p>Reviewing the Draft Local Nature Recovery Strategy for Kent and Medway and the local plans and policies for Gravesham Borough Council, the habitat isn't within a strategic site, hence strategic significance.</p> |