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# FENWICK SOLAR FARM

**Fenwick Solar Farm  
EN010152**

## **Environmental Statement**

**Volume III Appendix 8-3: Bat Report**

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## Executive Summary

- ES1 Between March and April 2023, AECOM (on behalf of Fenwick Solar Project Limited) undertook a Preliminary Ecological Appraisal (PEA) for the proposed Fenwick Solar Farm (hereafter referred to as the 'Scheme'). The PEA identified features such as trees, woodlands and buildings within the Scheme, and surveys were therefore undertaken to determine the suitability of these features as potential bat roosts and to establish the activity of bats using the habitat within the Order limits.
- ES2 All bat species and their roosts are legally protected in the UK under the Conservation of Habitats and Species Regulations 2017 (as amended) (Ref. 8), which implements the EC Directive 92/43/EEC (the Habitats Directive) (Ref. 7). In addition, Barbastelle (*Barbastella barbastellus*), Lesser and Greater Horseshoe bats (*Rhinolophus hipposideros*) and (*Rhinolophus ferrumequinum*) and Bechstein's bat (*Myotis bechsteinii*) are listed in Annex II of the Habitats Directive (Ref. 7), which requires sites to be designated in member states for their protection. Bats and their roosts are also protected under the Wildlife and Countryside Act 1981 (as amended) (Ref. 4).
- ES3 The Order limits were assessed to determine the potential suitability of features for roosting bats (a Daytime Bat Walkover (DBW)) and surveys for bat activity, comprising bat activity transect and static detector surveys in accordance with good practice guidelines at the time of survey (Ref. 1, Ref. 2). Field surveys were supported by a desk study of existing bat records within 2 km of the Order limits.
- ES4 There were 12 desk study records of bats within 2 km of the Order limits, comprising the following species: Brown Long-eared bat (*Plecotus auritus*), Common Pipistrelle (*Pipistrellus pipistrellus*), Noctule (*Nyctalus noctula*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*). Bat activity surveys undertaken recorded at least eight species; Common Pipistrelle, Soprano Pipistrelle, Nathusius' Pipistrelle, Pipistrelle species, Noctule bat, *Nyctalus* species, Leisler's bat, Myotis species, Daubenton's bat, Barbastelle bat and Brown Long-eared bat. No roosts were recorded within the Order limits.
- ES5 The DBW of 253 trees found that, seven were recorded as having no features suitable for roosting bats (NONE), 154 were classified as further assessment required (FAR), and 92 trees had potential roost features that could be suitable for roosting bats (PRF). All trees within the Order limits were surveyed, but not all 'NONE' trees were recorded on mapping.
- ES6 Based on the field data collected from the DBW and bat activity surveys, there are likely to be roosts within or close to the Order limits of common and Soprano Pipistrelle, Noctule, and Daubenton's bat and potentially other myotis species. This is based on habitat features such as suitable trees for roosting bats and the timing of observations (from static and transect data) in relation to expected bat emergence times indicating roosts nearby. As a precautionary approach, based on the data collected, potential breeding/non-breeding bat roosts of Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared bat and Nathusius' Pipistrelle (*Pipistrellus nathusii*) have been assigned of up to District Importance and roosts of Daubenton's bat (and potentially other Myotis species) and Noctule up to County Importance.

- ES7 There is foraging and commuting activity by bats with high reliance on habitats by Common Pipistrelle as demonstrated by regular use by larger<sup>1</sup> numbers of bats; moderate reliance on habitats by Soprano Pipistrelle and Noctule bats as showed by regular use by smaller<sup>2</sup> numbers of bats; and low reliance on habitats by Brown Long-eared bats, Myotis sp. and Nathusius' Pipistrelle as demonstrated by limited evidence or irregular use and generally by small numbers of bats.
- ES8 Small pockets of woodland across and around the Order limits form a relatively rare resource for foraging bats. Hedges and wider field margins provide habitat connectivity to habitats within and outside of the Order limits. Woodlands and other habitats of value are connected via hedges, but relatively few regularly used commuting routes are apparent.
- ES9 Based on the reliance of the habitats, habitat features and potential roosts within the Order limits, habitat features are considered to be of District Importance to commuting and foraging bats.

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<sup>1</sup> As defined in the evaluation method in Section 3.3.

<sup>2</sup> As defined in the evaluation method in Section 3.3.

# 1. Introduction

## 1.1 Background

- 1.1.1 This report forms a technical appendix to the **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**. This report provides information on the presence and distribution of bats relevant to the Fenwick Solar Farm Project (hereafter referred to as the 'Scheme').

## 1.2 The Scheme

- 1.2.1 The proposed Scheme includes three locations (collectively referred to as the 'Order limits'):
- a. The land located east of Fenwick and immediately south of the River Went (hereafter referred to as the 'Solar PV Site');
  - b. The land between the Solar PV Site and the existing compound for Thorpe Marsh Substation (hereafter referred to as the 'Grid Connection Corridor'); and
  - c. The land located within the existing compound for Thorpe Marsh Substation (hereafter referred to as the 'Existing National Grid Thorpe Marsh Substation').
- 1.2.2 The Scheme comprises the installation of Solar PV Panels, On-Site Cables, associated Battery Energy Storage System (BESS) Containers, an On-site Substation, a cable or line drop connecting the On-Site Substation to the Existing National Grid Thorpe Marsh Substation and other supporting infrastructure including fencing, access tracks, drainage, and biodiversity and landscaping enhancements.

## 1.3 The Order limits

- 1.3.1 The Solar PV Site is located near the village of Fenwick, approximately 12 kilometres (km) north of Doncaster, at Ordnance Survey national grid reference SE 60658 16767. It is approximately 407 hectares (ha) in size.
- 1.3.2 The Grid Connection Corridor is approximately 95 ha in size and 6.3 km in length, stretching from NGR SE 60264 14924 to the Existing National Grid Thorpe Marsh Substation at NGR SE 60605 10009.
- 1.3.3 The Existing National Grid Thorpe Marsh Substation is approximately 6 ha in size and centred on the approximate NGR SE 60537 09736.
- 1.3.4 The Solar PV Site comprises arable (c. 70%) and pasture fields (c. 25%), and small patches of broadleaved woodlands, with the River Went delineating the northern Order limits, and two large drains running through the eastern part of the Solar PV Site (Fenwick Common Drain and Fleet Drain).
- 1.3.5 The Solar PV Site is bounded by further arable and pasture fields to the east, west and south, and the wider area consists of a landscape that is much the same in terms of land use. The small town of Askern is located approximately 3 km to the southwest of the Solar PV Site and nearby rural

villages Moss and Skyhouse are present within a few kilometres to the south and east, respectively.

- 1.3.6 The Order limits also includes a section of highway at the junction of the A19 and Station Road in the town of Askern to allow for abnormal indivisible load (AIL) vehicle access and escort. As the works would be limited to temporary traffic signal and banksman control for the period of AIL delivery, no impacts on bats are anticipated, and therefore this area is not assessed further.

## **1.4 Scope of this Report**

- 1.4.1 The objective of the bat surveys reported in this document is to determine the presence and assemblages of roosting, foraging and commuting bat species within the Order limits. Note that for roosting bats only an initial Daytime Bat Walkover (DBW) Survey and desk study were undertaken to inform the Scheme design and that the Scheme will avoid roosts/potential roosts.

- 1.4.2 This report includes the following information:

- a. Relevant legislation and policy;
- b. Methods for desk and field-based assessments undertaken in 2023 and 2024;
- c. Limitations to the surveys undertaken and any assumptions made as a result of incomplete data;
- d. Survey results; and
- e. Conclusions and recommendations.



## 2. Relevant Legislation and Biodiversity Action Plan

### 2.1 Relevant legislation

2.1.1 The following wildlife legislation is relevant to bats in relation to the Scheme:

- a. Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats and Species Regulations) (Ref. 3);
- b. Wildlife and Countryside Act 1981 (as amended) (WCA) (Ref. 4);
- c. Natural Environment and Rural Communities (NERC) Act 2006 (Ref. 5); and
- d. Countryside and Rights of Way (CRoW) Act 2000 (Ref. 6).

2.1.2 The above legislation has been considered when planning and undertaking the commissioned survey work detailed in this report. Compliance with legislation may require the attainment of relevant protected species licences prior to the implementation of the Scheme.

### 2.2 European Legislation and Wildlife and Countryside Act

2.2.1 All bat species and their roosts are legally protected in the United Kingdom (UK) under European legislation through the Habitats and Species Regulations (Ref. 3), which implements the EC Directive 92/43/EEC (the Habitats Directive) (Ref. 7) through the provisions of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (Ref. 8). Four bat species are further listed under Annex II of the Habitats Directive which implies that sites must be designated for their protection. These bat species are Barbastelle, Lesser Horseshoe, Greater Horseshoe and Bechstein's. Under the WCA (Ref. 4), bats and roosts are also protected through the designation of protected areas including Sites of Special Scientific Interest (SSSIs) and by promoting protections for such designated areas.

2.2.2 Taken together, the Habitats and Species Regulations (Ref. 3) and the WCA (Ref. 4) make it illegal to:

- a. Deliberately capture or intentionally take a bat;
- b. Deliberately or intentionally kill or injure a bat;
- c. Be in possession or control of any live or dead bat or any part of, or anything derived from a bat;
- d. Damage or destroy a breeding site or resting place of a bat;
- e. Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection;
- f. Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection; and
- g. Deliberately disturb bats, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to

hibernate or migrate; or (ii) affect significantly the local distribution or abundance of the species to which they belong.

- 2.2.3 A bat roost is defined as any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to reuse the same roost sites, current legal opinion is that a bat roost is protected regardless of whether or not the bats are present at a specific point in time.

## 2.3 The Countryside and Rights of Way Act

- 2.3.1 The CRoW Act 2000 (Ref. 6) introduced the offence of 'reckless' disturbance of threatened species protected under the WCA. It added extended powers relating to the protection and management of SSSIs as well, including powers for entering management agreements, placing a duty on public bodies to further the conservation and enhancement of SSSIs, increasing penalties for conviction, and appeal processes for the notification, management and protection of SSSIs.

## 2.4 Natural Environment and Rural Communities Act

- 2.4.1 In addition to the above legislation, seven bat species are listed as being Species of Principal Importance for conservation in England under section 41 of the NERC Act 2006 (Ref. 5). These include Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Lesser Horseshoe and Greater Horseshoe. Section 41 of the NERC Act 2006 requires the Secretary of State to publish a list of habitats and species which are of Principal Importance for the conservation of biodiversity in England. The list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act, to have regard to the conservation of biodiversity in England when carrying out their normal functions.

## 2.5 Local Biodiversity Action Plan

- 2.5.1 The Scheme is located within the county of South Yorkshire. Formerly, the Doncaster Biodiversity Action Plan (BAP) (Ref. 9) provided context to inform identification of threatened or uncommon species of local relevance, alongside priorities for conservation and enhancement targeted at a local level in South Yorkshire. However, under the Environment Act 2021 (Ref. 10), these are being replaced by Local Nature Recovery Strategies (LNRSs), which are a system of spatial strategies for nature which will support delivery of biodiversity net gain (BNG) and provide more focussed action for nature recovery. Whilst this is still being developed for South Yorkshire and with no specific habitat or species plans currently in place, this report references the Doncaster BAP, for which Brandt's (*Myotis brandtii*), Daubenton's, Whiskered (*Myotis mystacinus*), Natterer's (*Myotis nattereri*), Noctule, Common and Soprano Pipistrelle and Brown Long-eared are all listed, but with no specific action plans in place (Ref. 9).

## 3. Methods

### 3.1 Desk Study

- 3.1.1 Records of bat species within a 2 km radius of the Order limits were obtained through Doncaster Local Records Centre (DLRC) in February 2023 as part of the Preliminary Ecological Appraisal (PEA) (Ref. 20).
- 3.1.2 Only records up to ten years old were considered within the assessment, as any records older than ten years are unlikely to be still representative of bat species in the local area.
- 3.1.3 A freely available online resource 'Multi-Agency Geographic Information for the Countryside' (MAGIC) (Ref. 11) was used to search for Special Areas of Conservation (SACs) within 30 km of the Order limits where bats are cited as one of the qualifying features. Granted licences (European Protected Species Mitigation Licences (EPSMLs)) in relation to bats within 2 km of the Order limits were also searched for.

### 3.2 Field Survey

- 3.2.1 All field surveys were led by competent ecologists (as defined by the Chartered Institute of Ecology and Environmental Management (CIEEM) Technical Guidance (Ref. 12)) familiar with bat ecology and surveying.

#### Survey Area

- 3.2.2 The survey area included all habitat within the Order limits which comprises of mostly low value suitability habitats for foraging and commuting bats and is dominated by open intensively managed arable fields. Hedgerows, woodland blocks, numerous mature trees and woodland are also present. In accordance with the bat survey guidelines (Ref. 1), habitats assessed as being of low value for foraging and commuting bats require three activity transects surveys within one season capturing spring, summer and autumn.

#### Daytime Bat Walkover Survey

- 3.2.3 A small number of trees were initially subject to a ground level tree assessment (GLTA) in early 2023, but this data was superseded by the follow on DBW surveys.
- 3.2.4 A DBW survey was carried out on accessible features identified within the Order limits. Where access was permitted, this assessment of relevant woodland blocks and trees was undertaken externally at ground level for their suitability for roosting bats in June to August 2024.
- 3.2.5 The aim of the survey was to undertake a rapid assessment to identify where further survey effort may be required where impacts are likely, to determine roost presence/likely absence.
- 3.2.6 The DBW was undertaken in accordance with recently updated guidance in the Bat Surveys: Good Practice Guidelines for Professional Ecologists 4th Edition (Ref. 1). A global positioning system (GPS) was used to accurately record the location of individual trees, treelines, woodlands along with photographs and notes on each feature.

- 3.2.7 Based on the overall suitability for use as a bat roost, in accordance with good practice guidelines (Ref. 1) each woodland/tree was classified as:
- NONE - no features;
  - FAR - further assessment required; or
  - PRF - potential roost feature.
- 3.2.8 These assessments were carried out to identify if any trees to be potentially impacted by the Scheme had potential suitability for roosting bats.
- 3.2.9 No buildings within the Order limits are expected to be impacted by the Scheme, and have not been included in this assessment.

### **Bat Activity Survey**

- 3.2.10 Bat activity surveys were undertaken in 2023 and 2024 using six transect routes covering representative habitats across the Scheme. Each transect route (see Figure 8-3-3: Bat Activity Overview, Annex A) was surveyed in spring, summer and autumn. The transect routes were chosen based on potential flight paths or foraging areas within the Order limits and between such areas and potential roost sites.
- 3.2.11 Prior to the start of the nighttime surveys in each new location, a daytime site visit was undertaken for each location by the lead surveyor in order to plan the works, assess any health and safety issues, and record the context of the survey locations.
- 3.2.12 In 2023, three surveys (transects 1, 2, and 3) were completed in line with the survey guidelines available at the time (Ref. 2). Each activity survey involved two surveyors walking a transect route which included a series of counts at pre-determined points along the transect (presented as 'stopping points' (see, Annex A) was surveyed in spring, summer and autumn. The transect routes were chosen based on potential flight paths or foraging areas within the Order limits and between such areas and potential roost sites.
- 3.2.13 Prior to the start of the nighttime surveys in each new location, a daytime site visit was undertaken for each location by the lead surveyor in order to plan the works, assess any health and safety issues, and record the context of the survey locations.
- 3.2.14 In 2023, three surveys (transects 1, 2, and 3) were completed in line with the survey guidelines available at the time (Ref. 2). Each activity survey involved two surveyors walking a transect route which included a series of counts at pre-determined points along the transect (presented as 'stopping points' (see Figure 8-3-3: Bat Activity Overview, Annex A). These points were located at potentially higher value features with regards to foraging and or commuting bats such as woodland edges and hedgerows. At each point, surveyors stopped and recorded bat activity for one minute using bat echolocation detectors. All bat activity encountered whilst walking between points was also noted. The direction of the transects was varied during each survey visit to ensure different areas of the transect were walked at different times.
- 3.2.15 In 2024, three night-time bat walkover (NBW) surveys (transects 4, 5 and 6) were completed in line with the survey guidelines available at the time (Ref. 1). Each activity survey involved two surveyors starting at a pre-determined location, which was selected along a potential flight line. Surveyors waited at

the pre-determined location from sunset until 30 to 60 minutes post-sunset, depending on detected activity levels. On transect 4 and 5, surveyors walked a pre-determined route around the Order limits and, on transect 6, surveyors drove between three and five miles per hours along the route. All bat activity encountered whilst walking or driving was noted. The direction of the transects was varied during each survey visit to ensure different areas of the transect were covered at different times.

- 3.2.16 Surveyors carried full spectrum bat echolocation detectors (Batlogger M) to determine which species were present. In accordance with survey guidelines current at the time of the surveys (Ref. 1, Ref. 2), dusk surveys were carried out from sunset to at least two hours after sunset. The time, location, numbers, species (where practicable) and direction of flight were recorded for each bat pass (a discrete burst of echolocation heard, or bat activity observed) during the survey. Echolocation calls detected were analysed with specialist software (BatExplorer) to verify bat calls. Survey visits were conducted in this way where weather conditions allowed, with surveys scheduled to avoid nights with cold (<7 °C), wet or windy conditions.
- 3.2.17 In addition to the transect surveys, eleven automated static bat detectors (SM4BAT-Full Spectrum) were placed across the Order limits in representative habitats to record bat activity over a longer period of time (i.e. a minimum of five nights per season). The locations of the static detectors are presented on Figure 8-3-2, Annex A.
- 3.2.18 All microphones were located at least one metre above the ground on trees, so they were clear of vegetation between the adjacent habitats and the microphone. All detectors were set on default settings to record in zero-crossing format. The static detectors were set up to record bat calls from sunset to sunrise for the recommended minimum of five consecutive nights per season in spring, summer and autumn (see deployment dates and weather conditions in Annex D). All calls detected were analysed with specialist software (KaleidoscopePro) to identify bat calls.
- 3.2.19 Weather conditions were recorded using the temperate log files on each static detector and rain/wind conditions were recorded at the nearest weather station using online resources (Ref. 13). Weather data were taken into consideration in the analysis. Where any prolonged period of strong wind >25 mph or rain was experienced, the static detectors were left for longer within the Order limits to obtain sufficient data during optimum weather conditions for bat activity.

### **3.3 Bat Data Analysis**

#### **Activity Surveys**

- 3.3.1 The transect/NBW data were described in relation to species, number of passes (and where practicable number of bats), observed behaviour, temporal and spatial trends. The static bat detector data collected were analysed to determine the total number of bat passes for each species or species group (depending on the level of identification possible from the recordings made) and then used to derive a metric (the Bat Activity Index (BAI)) for the bat activity at each survey location.
- 3.3.2 These analyses provide an indication of:

- a. Seasonal variation in species activity and composition at each survey location;
- b. Relative levels of bat activity across the Order limits; and
- c. Potential roosting sites, important foraging areas and commuting routes.

### **Bat Activity Index (BAI)**

- 3.3.3 BAI values were calculated by averaging the total number of bat passes per hour for each static bat detector unit at each location per survey period. The term 'pass' is defined as a single file made up of bat pulses of a single species i.e. this may be one bat in a recorded sound file or many bats in a single file.
- 3.3.4 Limited guidance is available on what constitutes low to high bat activity on a site based on number of passes. As such, a relative scale is used by AECOM that follows the protocol used by Ecobat (Ref. 14) in this report where:
  - a. Low activity: 0-20<sup>th</sup> percentiles;
  - b. Low to moderate activity: 21<sup>st</sup>-40<sup>th</sup> percentiles;
  - c. Moderate activity: 41<sup>st</sup>-60<sup>th</sup> percentiles;
  - d. Moderate to high activity: 61<sup>st</sup>-80<sup>th</sup> percentiles; and
  - e. High activity: 81<sup>st</sup>-100<sup>th</sup> percentiles.
- 3.3.5 For transect data, relative bat activity levels were described to aid the discussion. No guidance is available on what constitutes low, moderate or high bat activity based on number of passes during a transect (based on a transect survey time of one and a half to three hours). As such a relative scale is used by AECOM in this report where:
  - a. Very low activity is up to 5 passes per survey;
  - b. Low activity is 6 to 25 passes per survey;
  - c. Moderate activity is 26 to 99 passes per survey; and
  - d. High activity is 100 passes per survey.
- 3.3.6 Reference to surveyor observations, including numbers of individual bats seen, flight routes and behaviour and detectability of individual species are also made to inform the overall evaluation.

### **Biodiversity Importance**

- 3.3.7 An essential prerequisite step to allow ecological impact assessment of the Scheme was an evaluation of the relative biodiversity importance of the Order limits for bats. This is necessary to set the terms of reference for the subsequent ecological impact assessment.
- 3.3.8 The method of evaluation that was utilised to assign biodiversity importance (i.e. sensitivity) of any bat roosts, foraging and commuting habitat has been developed with reference to the CIEEM Guidelines (Ref. 19). This gives guidance on scoping and carrying out environmental assessments and places appraisal in the context of relevant policies and at a geographical scale at which feature matters (i.e. international, national, regional, county,

district, local or site). Data received through desk study and field-based surveys were used to identify the importance of the species addressed in this report. Professional judgement was also applied, where necessary. Relevant published national and local guidance and criteria can be used, where available, to inform the assessment of biodiversity importance and to assist consistency in evaluation.

- 3.3.9 For further details on the method used to determine biodiversity importance, please refer to Annex E.
- 3.3.10 Reference has also been made, where required, to:
- a. CIEEM Bat Mitigation Guidelines (Ref. 15);
  - b. Natural England Joint Publication JP025: A Review of the Population and Conservation Status of British Mammals (Ref. 16);
  - c. NERC Act section 41 list of species of principal importance (Ref. 5);
  - d. Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-Care and Ecology Professionals (Ref. 17); and
  - e. The State of the UK's Bats 2017: National Bat Monitoring Programme Populations Trends (Ref. 18).

## 3.4 Assumptions and Limitations

### Desk Study

- 3.4.1 The aim of the desk study was to help characterise the baseline context of the Order limits and provide valuable background information that would not be captured by site surveys alone. Information obtained during the desk study was dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular species does not necessarily mean that the species does not occur in the Study Area. Likewise, the presence of records of species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Scheme.

### Daytime Bat Walkover

- 3.4.2 Due to access limitations, it was not possible to survey the area at the south of the Grid Connection Corridor, around Thorpe Marsh Power Station. The only trees with the potential to be impacted in this area run adjacent to the road. The trees were assessed from the road as having no suitability to support roosting bats due to their age, size and health. As a result of the above, not fully accessing this area is not deemed to impact the assessment made in this report.

### Bat Activity Field Survey

- 3.4.3 Transect 1 is situated near the River Went, there were several survey constraints around the bat activity transects due to flooding in the upper half of the transect during the second visit. The designated listening points were not accessible, and the route was diverted. This is not a significant limitation as there are not expected to be impacts to the River Went as it is retained

and buffered from the Scheme, and a survey of representative habitats throughout the Order limits was undertaken.

- 3.4.4 Livestock were present in all fields for Transect 3 during the first and second bat activity transect visit. This resulted in the extension of Transect 3 route to divert around these fields and the route followed is reflected in Figure 8-3-6 Figure 8-3-12 and Figure 8-3-18 (Annex A).
- 3.4.5 In Spring 2024, static detectors 24A, 24B and CR2 failed to record data. The detectors were deployed late in the season due to weather constraints so there was no opportunity for these to be re-deployed in Spring. This is not a significant limitation as there are not expected to be any direct impacts or vegetation removal in these areas, the NBW in these areas were completed for Spring and survey of representative habitats throughout the Order limits was undertaken.
- 3.4.6 In Spring and Autumn 2024, static detector CR4 could not be deployed for health and safety purposes due to the presence of livestock in the field. This is not a significant limitation as there are not expected to be any direct impacts or vegetation removal in these areas, and the NBW in these areas were completed for Spring and Autumn.
- 3.4.7 NBW 6 was completed as a driving survey due to the length of the route, whilst the majority of the road route aligns with the Order limits, there are some areas where the NBW route is outside of the Order limits. Where access allowed, static detectors have been used in areas where the cable route will cross linear features that may be utilised by foraging/commuting bats that were not covered by the NBW route.

### **Data Interpretation Limitations**

- 3.4.8 It is accepted that *Myotis* bat species are difficult to identify with any degree of certainty from echolocation alone. These species are often aggregated as 'Myotis species'. Noctule and Leisler's, and Common Pipistrelle and Soprano Pipistrelle can be difficult to separate. Therefore, *Nyctalus* species and *Pipistrellus* species are used respectively unless identification is certain. These aggregations, where undertaken, are widely accepted and does not affect the evaluation of the results of activity surveys. Where further details are required, roost inspections or bat trapping surveys may be undertaken to identify these species with certainty.
- 3.4.9 The DBW surveys undertaken were aimed at determining the presence or likely absence of potential roosting features (PRFs), therefore there would be a need for further surveys on PRFs if they are likely to be impacted by the Scheme. At the time of writing this report it is understood that no trees with PRFs present are to be impacted.
- 3.4.10 Bats are highly mobile and may roost in different locations each year where suitable roost features are present. Where required, a precautionary approach for mitigation would be proposed for trees or structures assessed with roost suitability but where roosts were not found.
- 3.4.11 None of these limitations affect the conclusions of this report.
- 3.4.12 Ecological data in relation to these species are valid for 18 months from the date of survey based on good practice guidance (Ref. 2). After this time, update surveys are likely to be required.



## 4. Results

### 4.1 Desk Study

- 4.1.1 There are no sites statutorily designated for international value for bats within 30 km of the Order limits. There are no national statutory sites designated for bats within 10 km of the Order limits or relevant non-statutory sites within 2 km of the Order limits.
- 4.1.2 DLRC holds 16 records of bats within the Study Area in the last ten years, including two roosts. All records are in the same location 1.7 km northwest of the Order limits and are from 2014. The closest of the two bat roosts is located 1.2 km east of the Order limits in 2015.
- 4.1.3 A further search of the MAGIC data showed that three Natural England bat mitigation licences were issued for the destruction of a Brown Long-eared and Common Pipistrelle non-breeding roost (2015-15069-EPS-MIT, 2020-49789-EPS-MIT and 2020-49789-EPS-MIT-1) between 2015 and 2020. The closest of these records is located 1.6 km north of the Order limits and was granted in 2015.

### 4.2 Field Survey

#### Daytime Bat Walkover Survey

- 4.2.1 In summary, an assessment of 253 trees found that:
- Seven were recorded as having no features suitable for roosting bats (NONE);
  - 154 were classified as further assessment required (FAR); and
  - 92 trees that had features that were potentially suitable for roosting bats (PRF).
- 4.2.2 Detailed results of the DBW survey are presented in Annex B. The locations of all features surveyed are presented in Figure 8-3-1 (Annex A).
- 4.2.3 In 2024, no 'NONE' trees were mapped. The 'NONE' trees have been carried over from 2023.

#### Bat Activity Survey

- 4.2.4 The results of these surveys and the BAI (as per the method in Section 3.3) are summarised below, with full results presented in Annex C Bat Activity Survey Results and Annex D Static Survey Results. Transect mapping is presented in Figure 8-3-4 to Figure 8-3-15 (Annex A Figures).

#### Transect Surveys

- 4.2.5 Transect surveys were carried out in 2023 and 2024 to provide a representative coverage of the habitats within the Order limits. This comprised six transects; Transect 1, Transect 2, Transect 3 (split into parts 3a and 3b), Transect 4, Transect 5 and Transect 6 as presented in Figure 8-3-4 to Figure 8-3-21 (Annex A). Transects 1, 2 and 3 were surveyed in the spring, summer and autumn of 2023, apart from Transect 3a that was re-

routed in the spring and summer surveys due to livestock in the fields. Transects 4, 5 and 6 were surveyed in the spring, summer and autumn of 2024. The transects sampled representative habitats within the Order limits, comprising hedges/tree lines, woodland edge, roadside verges, and arable field margins.

- 4.2.6 At least seven species were recorded during the bat transect surveys Common Pipistrelle, Soprano Pipistrelle, Pipistrelle species, Brown Long-eared bat, Noctule, Daubenton's bat, Leisler's bat and Myotis species (Daubenton's and/or other unknown Myotis species).

### **Spring Surveys**

- 4.2.7 Three transects were surveyed between 10 May 2023 and 11 May 2023 and three transects were surveyed on 30 May 2024. Bat activity is shown on Figure 8-3-4 to Figure 8-3-9 (Annex A).
- 4.2.8 Transect 2 had very low activity levels with six passes by Common Pipistrelle.
- 4.2.9 Transect 1 and 3b had low activity levels, with 13 and 11 passes respectively. Common Pipistrelle activity was dominate with occasional Myotis species passes.
- 4.2.10 Transect 4 had high activity, with 225 passes, dominated by Common Pipistrelle with occasional Soprano Pipistrelle, Myotis and Brown Long-Eared passes.
- 4.2.11 Transect 5 had high activity, with 205 passes, dominated by Common Pipistrelle with occasional Soprano Pipistrelle, Myotis and Brown Long-Eared passes.
- 4.2.12 Transect 6 had moderate activity, with 70 passes, dominated by Common Pipistrelle passes with occasional Soprano Pipistrelle and Myotis passes.

### **Summer Surveys**

- 4.2.13 Three transects were surveyed between 25 July 2023 and 27 July 2023 and three transects were surveyed on 29 July 2024. Bat activity is shown on Figure 8-3-10 to Figure 8-3-15 (Annex A).
- 4.2.14 Transect 1, 2 and 3b had 18 passes, 17 passes and 24 passes, respectively, which is low activity. Dominated by Common Pipistrelle. Other species recorded were Soprano Pipistrelle, Myotis species, Daubenton's bat, BrownLong-Eared bat and Noctule.
- 4.2.15 Transect 4, 5 and 6 had a total of 56, 34 and 29 passes respectively, which is moderate activity. Dominated by Common Pipistrelle. Other species recorded were Soprano Pipistrelle, Noctule, Myotis species, Brown Long-Eared bat and Leisler's bat.

### **Autumn Surveys**

- 4.2.16 Three transects were surveyed between 19 September 2023 and 21 September 2023, and three transects were surveyed between 9 September 2024 and 12 September 2024. Bat activity is shown on Figure 8-3-16 to Figure 8-3-21 (Annex A).

- 4.2.17 Transect 1 had moderate activity level with 29 passes of Soprano Pipistrelle, Pipistrelle species, Myotis species and Noctule.
- 4.2.18 Activity levels for Transect 2, 3a and 3b were low with 16 passes, 17 passes and six passes, respectively, dominated by Common Pipistrelle. Other species recorded were Soprano Pipistrelle, Myotis species and Noctule.
- 4.2.19 Transect 4 and 5 had high activity level with a total of 136 and 205 passes, respectively, comprising Common Pipistrelle, Soprano Pipistrelle, Myotis species and Noctule.
- 4.2.20 Transect 6 had moderate activity level with a total of 59 passes. Common Pipistrelle were dominant with occasional passes from Soprano Pipistrelle, Noctule, and Myotis species.

### Static Bat Detector Survey

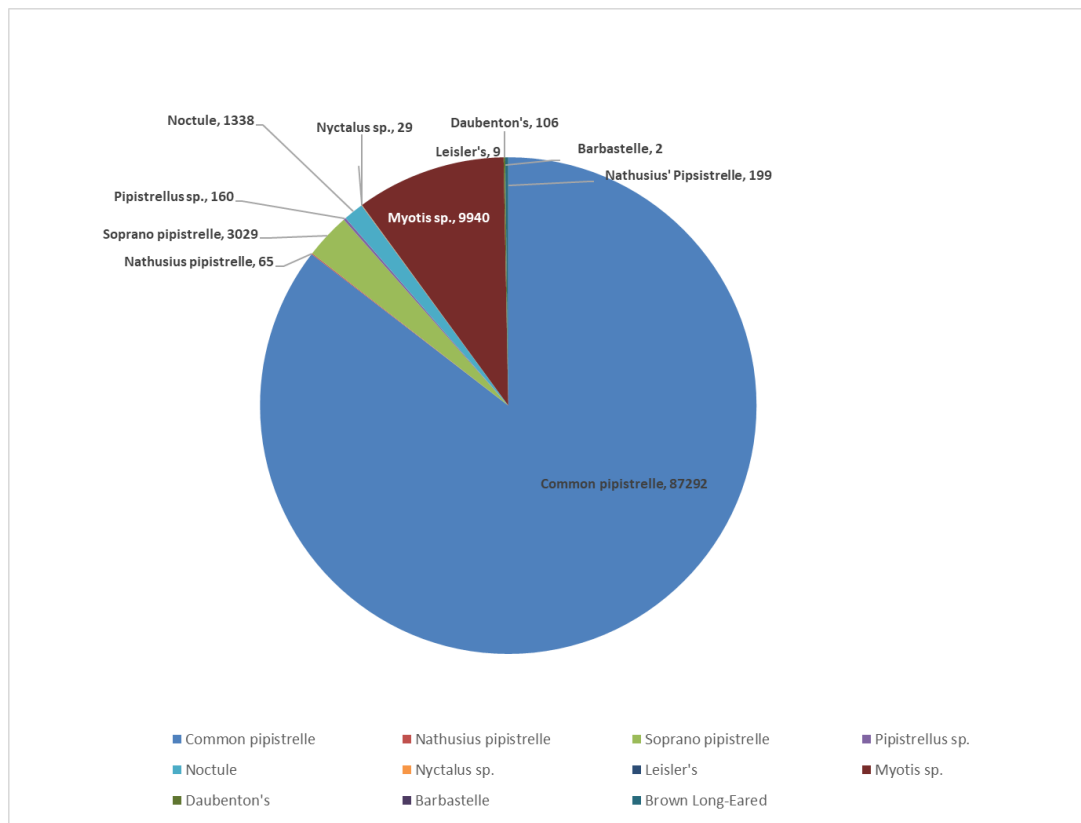
- 4.2.21 Full results of the static bat detector surveys are provided in Annex D with static detector locations presented on Figure 8-3-2 in Annex A. A total of 154 nights of data were analysed from eleven statics located across the Scheme, resulting in 102,169 records of bats. Species recorded comprised of the following species: Common Pipistrelle, Soprano Pipistrelle, Nathusius' Pipistrelle, Pipistrelle species, Noctule bat, *Nyctalus* species, Leisler's bat, Myotis species, Daubenton's bat, Barbastelle bat and Brown Long-eared bat. Common Pipistrelle was the most frequently recorded species by far with 87,292 passes (see Plate 1). The highest overall activity was at T1 and CR1 in spring, and T1, T3 and CR1 in (see Table 1 and Plate 1).

**Table 1: Summary of Bat Activity Index (BAI) from Static Bat Detector Surveys**

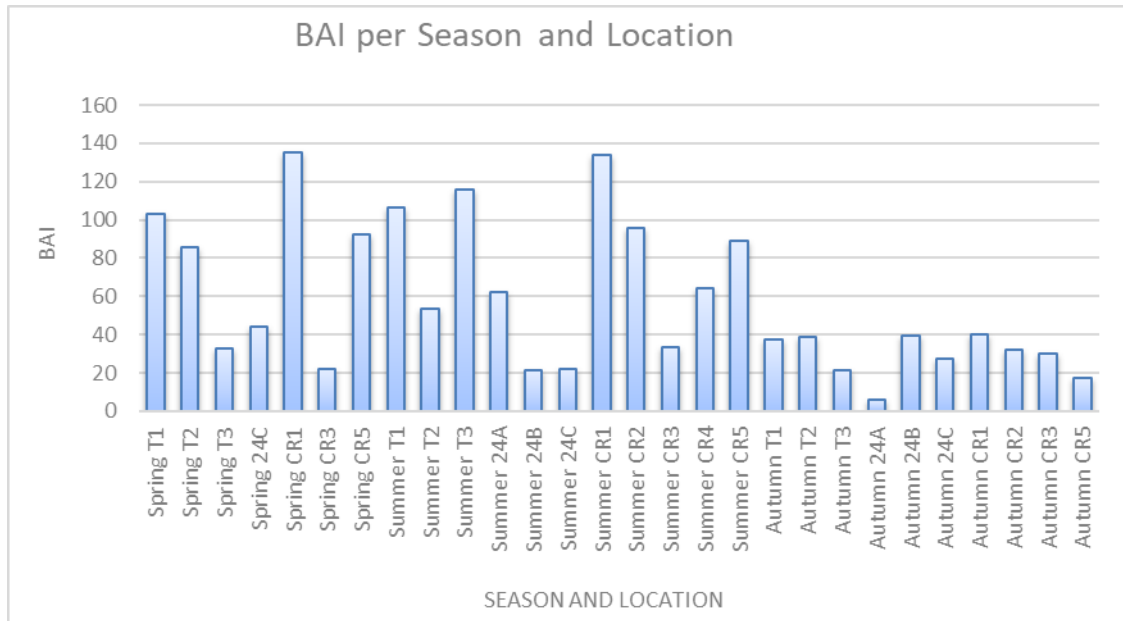
| Location   | BAI* per hr | Activity Level    | BAI* per hr | Activity Level         | BAI* per hr | Activity Level        |
|------------|-------------|-------------------|-------------|------------------------|-------------|-----------------------|
|            | Spring      |                   | Summer      |                        | Autumn      |                       |
| <b>T1</b>  | 103.27      | Moderate-high     | 106.45      | High Activity          | 37.24       | Moderate Activity     |
| <b>T2</b>  | 85.99       | Moderate-high     | 53.35       | Moderate Activity      | 38.95       | Moderate Activity     |
| <b>T3</b>  | 32.47       | Low               | 115.83      | High Activity          | 21.32       | Low Activity          |
| <b>24A</b> | -           | -                 | 62.00       | Moderate-high Activity | 5.90        | Low Activity          |
| <b>24B</b> | -           | -                 | 21.25       | Low Activity           | 39.47       | Moderate Activity     |
| <b>24C</b> | 43.98       | Moderate Activity | 21.98       | Low-moderate Activity  | 27.48       | Low-moderate Activity |
| <b>CR1</b> | 135.38      | High Activity     | 134.16      | High Activity          | 40.18       | Moderate Activity     |

| Location | Spring      |                        | Summer      |                        | Autumn      |                       |
|----------|-------------|------------------------|-------------|------------------------|-------------|-----------------------|
|          | BAI* per hr | Activity Level         | BAI* per hr | Activity Level         | BAI* per hr | Activity Level        |
| CR2      | -           | -                      | 95.95       | Moderate-high Activity | 32.04       | Low-moderate Activity |
| CR3      | 21.80       | Low Activity           | 33.27       | Low-moderate Activity  | 30.17       | Low-moderate Activity |
| CR4      | -           | -                      | 64.12       | Moderate-high Activity |             |                       |
| CR5      | 92.04       | Moderate-high Activity | 89.15       | Moderate-high Activity | 17.14       | Low Activity          |

\*BAI = Bat Activity Index (overall number of bat passes per hour)



**Plate 1: Total Number of Passes per Species**



**Plate 2: BAI per Season and Location**

## 5. Evaluation

### 5.1 Sites Designated for their Biodiversity Value including for Bats

5.1.1 No designated sites of relevance to bats were identified within the Study Area and therefore are not considered further.

### 5.2 Roosts

5.2.1 The data search returned records of at least four bat species (Noctule, Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared bat and unknown Pipistrelle species), all of which were from the same location, 1.7 km north west of the Order limits.

5.2.2 Two roosts were identified in the desk study within the Study Area.

5.2.3 Based on the field data collected from the DBW and bat activity surveys, there are likely to be roosts within or close to the Order limits of Common and Soprano Pipistrelle, Noctule, Daubenton's bat and potentially other Myotis species. This is based on suitable habitat features such as suitable trees for roosting bats and the timing of observations (from static and transect data) in relation to expected bat emergence times indicating roosts nearby.

5.2.4 All potential roosts currently identified are within retained features (due to avoidance of potential roosting features). As such, no detailed roost presence/absence or characterisation has been undertaken to determine roost importance and, therefore, an estimated biodiversity importance to individual species has been assigned based on desk study data and activity surveys.

5.2.5 As a precautionary approach, based on the data collected, potential breeding and non-breeding bat roosts of Common Pipistrelle, Soprano Pipistrelle, Brown Long-eared bat and Nathusius' Pipistrelle have been assigned of up to District Importance and roosts of Daubenton's bat (and potentially other Myotis species) and Noctule up to County Importance (see Table 2).

### 5.3 Commuting and Foraging Habitats

5.3.1 Biodiversity importance of commuting and foraging bats is based on species rarity, activity, presence of nearby roosts and habitat type/complexity of community/foraging features (see Annex E). This also considers the lower detectability on bat detectors of species such as Brown Long-eared bat and Myotis species compared to species such as Common and Soprano Pipistrelle and Noctule (Ref. 1). It is not possible to adopt the same matrix-based approach for valuing commuting routes and foraging areas. It is inherently more difficult to assess them and requires a higher degree of professional judgement. For example, some routes may be used only at certain times of year, and hence show low numbers of bat passes, but they may be critical routes to hibernation sites. As such, the importance of commuting and foraging areas are not interpreted in isolation and are judged

on the overall knowledge of bat activity in the area using the desk study and survey data collected.

- 5.3.2 Species recorded on the activity surveys (combined activity transects and static bat detectors) comprised of at least eight species; Common Pipistrelle, Soprano Pipistrelle, Nathusius' Pipistrelle, Pipistrelle species, Noctule bat, *Nyctalus* species, Leisler's bat, Myotis species, Daubenton's bat, Barbastelle bat and Brown Long-eared bat. The surveys identified a range of activity (including foraging, commuting and social calling) with multiple bats often recorded.
- 5.3.3 Most of the areas with highest activity were located along linear features such as hedgerows/tree lines and woodland edges, with very limited foraging and commuting observed over open fields or crops (see Figure 8-3-4 to Figure 8-3-21, (Annex A).
- 5.3.4 As presented in Table 2, there is high reliance on habitats mentioned in Paragraph 5.3.3 by Common Pipistrelle as demonstrated by regular use by larger numbers of bats; moderate reliance on habitats by Soprano Pipistrelle and Noctule bats as shown by regular use by smaller numbers of bats; and low reliance on habitats by Brown Long-eared bats, Myotis species and Nathusius' Pipistrelle as demonstrated by limited evidence or irregular use and generally by small numbers of bats.
- 5.3.5 Small pockets of woodland across and around the Order limits form a relatively limited resource for foraging bats. Hedges and wider field margins provide habitat connectivity to habitats within and outside of the Order limits.
- 5.3.6 Woodlands and other habitats of value are connected via hedges, but relatively few regularly used commuting routes are apparent.
- 5.3.7 Taking the above into account, the habitats within the Order limits are of District Importance to commuting and foraging bats.

**Table 2: Summary of Conservation Importance of Bats**

| Species   | Importance of Roosts   | Importance of Commuting and Foraging Habitat (summary of justification)  | Importance of Assemblage  |
|---|--|--|---|
| <p><b>Widespread:</b><br/>                     Common Pipistrelle<br/>                     Soprano Pipistrelle<br/>                     Brown Long-eared bat</p>                        | <p>Evidence of roosts for all these species including breeding roosts and other non-breeding roosts within the Order limits.<br/>                     Does not exceed <b>District importance</b> for each species.</p>   | <p>There is foraging and commuting activity by diverse assemblage of bats with high reliance on habitats by Common Pipistrelle as demonstrated by regular use by larger numbers of bats; moderate reliance on habitats by Soprano Pipistrelle and Noctule bats as showed by regular use by smaller numbers of bats; and low reliance on habitats by Brown Long-eared bats, Myotis species, Barbastelle and Nathusius' Pipistrelle as demonstrated by limited evidence or irregular use and generally by small numbers of bats.</p> | <p>(1 point per species)<br/>                     Score 3 for this part of the assemblage (of a maximum of 3)</p>   |
| <p><b>Widespread in many geographies but not as abundant in all:</b><br/>                     Daubenton's bat and potentially other Myotis species<br/>                     Noctule</p> | <p>Possible breeding and non-breeding roosts of Daubenton's bat within the Order limits. Does not exceed <b>County importance</b>.<br/>                     Evidence of likely breeding and non-breeding roost/s of Noctule. Does not exceed <b>County importance</b>.</p> | <p>Small pockets of woodland across and around the Order limits form a relatively rare resource for foraging bats. Hedges and wider field margins provide habitat connectivity to habitats within and outside of the Order limits.<br/>                     Breeding roosts are likely to be present (e.g. Common and Soprano Pipistrelle and Noctule) in woodland and trees within Study Area.</p>  | <p>(2 points per species)<br/>                     Score 4 for this part of the assemblage (of a maximum of 10)</p> |
| <p><b>Rarer or restricted distribution:</b><br/>                     Nathusius' Pipistrelle<br/>                     Leisler's</p>  | <p>No evidence of roosts of these species, an unlikely with the Order limits, though possible within wider Study Area.</p>   | <p>Woodlands and other habitats of value are connected via hedges, but relatively few</p>  | <p>(3 points per species)<br/>                     Score 6 for this part of the assemblage (of a maximum of 9)</p>  |



| Species  | Importance of Roosts  | Importance of Commuting and Foraging Habitat (summary of justification)  | Importance of Assemblage  |
|--|---|--|---|
|  | For this species if present, unlikely to exceed <b>District importance.</b>   | regularly used commuting routes are apparent.<br>Taking the above into account, the habitats within the Order limits are considered to be of <b>District Importance.</b> |   |
| <b>Rarest Annex II species and very rare:</b><br>Barbastelle                                     | No evidence of roosts of these species, unlikely with the Order limits due to lack of suitable roosting habitat, though possible within the wider Study Area. For this species if present, unlikely to exceed <b>County importance.</b> |  | (4 points per species)<br>Score 4 for this part of the assemblage (of a maximum of 4) |
| Overall score: Assemblage score 17/26 = 65 %; meets the threshold for <b>Regional Importance</b> |   |  |   |

## 6. Conclusions and Recommendations

- 6.1.1 The Order limits has been determined to provide a foraging/commuting resource for Common Pipistrelle, Soprano Pipistrelle, Myotis species, Daubenton's bat, Noctule, Brown Long-eared bats, Nyctalus species and Leisler's bats. Two single passes of Barbastelle were detected on one detector in Autumn 2024. Barbastelle were not recorded within the Order limits in 2023.
- 6.1.2 The Order limits is considered to be of District Value for foraging/commuting bats, but does have an assemblage of bat species considered to be of Regional importance. This has increased from District value due to the two barbastelle passes detected in 2024. Given that there were only two passes of Barbastelle on one occasion, this change is not deemed to cause any change to the assessment made in this report, as impacts to bats are minimal.
- 6.1.3 All species recorded were mostly recorded commuting along the hedgerows present within the Order limits.
- 6.1.4 The Scheme design retains and avoids the majority of habitats of value to bats, including hedgerows, as well as woodland, watercourses/ditches, and all trees suitable for use by bats.
- 6.1.5 No buildings or structures are to be affected by the Order limits.
- 6.1.6 Trees classified as 'FAR' or 'PRF' have and will continue to be avoided through design.
- 6.1.7 Should additional features be identified for removal/reduction which are suitable for roosting bats, then further surveys will be completed as necessary, which may identify the requirement for additional mitigation and/or a Natural England mitigation licence, where impacts to roosting bats cannot be avoided.
- 6.1.8 As detailed in Section 8.10 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**, works will be restricted to daylight hours wherever practicable to remove the need for artificial lighting, with focussed task specific lighting provided where this is not possible. For example, Horizontal Directional Drilling (HDD) operations, unless directed by authorities or areas requiring road closures.
- 6.1.9 Within construction compounds and at welfare areas, Passive Infra-Red (PIR) controlled lights (motion sensors) will be used outside of core working hours. Task specific and general lighting may be required in winter periods due to reduced daylight hours (early mornings and up to 19:00 for general workforce) to meet safety requirements. Additionally, lighting would be used by the security teams during their regular checks and emergency visits if an alert is triggered. Outside of core working hours PIR controlled lights (motion sensors) will be used at construction compounds and at welfare areas. The CCTV will also use Infrared (IR) lighting to provide night vision functionality meaning that no visible lighting will be needed for the security system. Further details on lighting design are found in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**.

6.1.10 Where lighting is required, it will conform to good practice guidelines with respect to minimising light spill into adjacent habitats and preventing disturbance to bats and other nocturnal species, including Institute of Lighting Professional Guidance Notes (in particular GN08/23 Bats and Artificial Lighting at Night (Ref. 21)). With reference to **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**, the following such measures will be taken:

- a. Lights installed will be of the minimum brightness and/or power rating capable of performing the desired function;
- b. Light fittings will be used that reduce the amount of light emitted above the horizontal (reduce upward lighting);
- c. Light fittings will be positioned correctly, inward facing and directed downwards;
- d. Direction of lights will seek to avoid spillage onto neighbouring properties, habitats, highway, or waterway; and
- e. PIR controlled lights (motion sensors) will be used except where temporary focussed task specific lighting is required.

6.1.11 During operation and maintenance, the Solar PV Site will not require artificial lighting other than during temporary periods of maintenance/repair. All routine maintenance activities, except panel cleaning, will be scheduled for daylight hours as far as is practicable, and therefore it is anticipated that focussed task specific lighting should only be required in the event of emergency works/equipment failure requiring night-time working or panel cleaning operations. The current preferred solution for cleaning operations, which is assumed to take place once every two years, would be lit by tractor mounted lighting which is akin to that used during night-time arable harvesting operations which are currently undertaken within the Order limits.

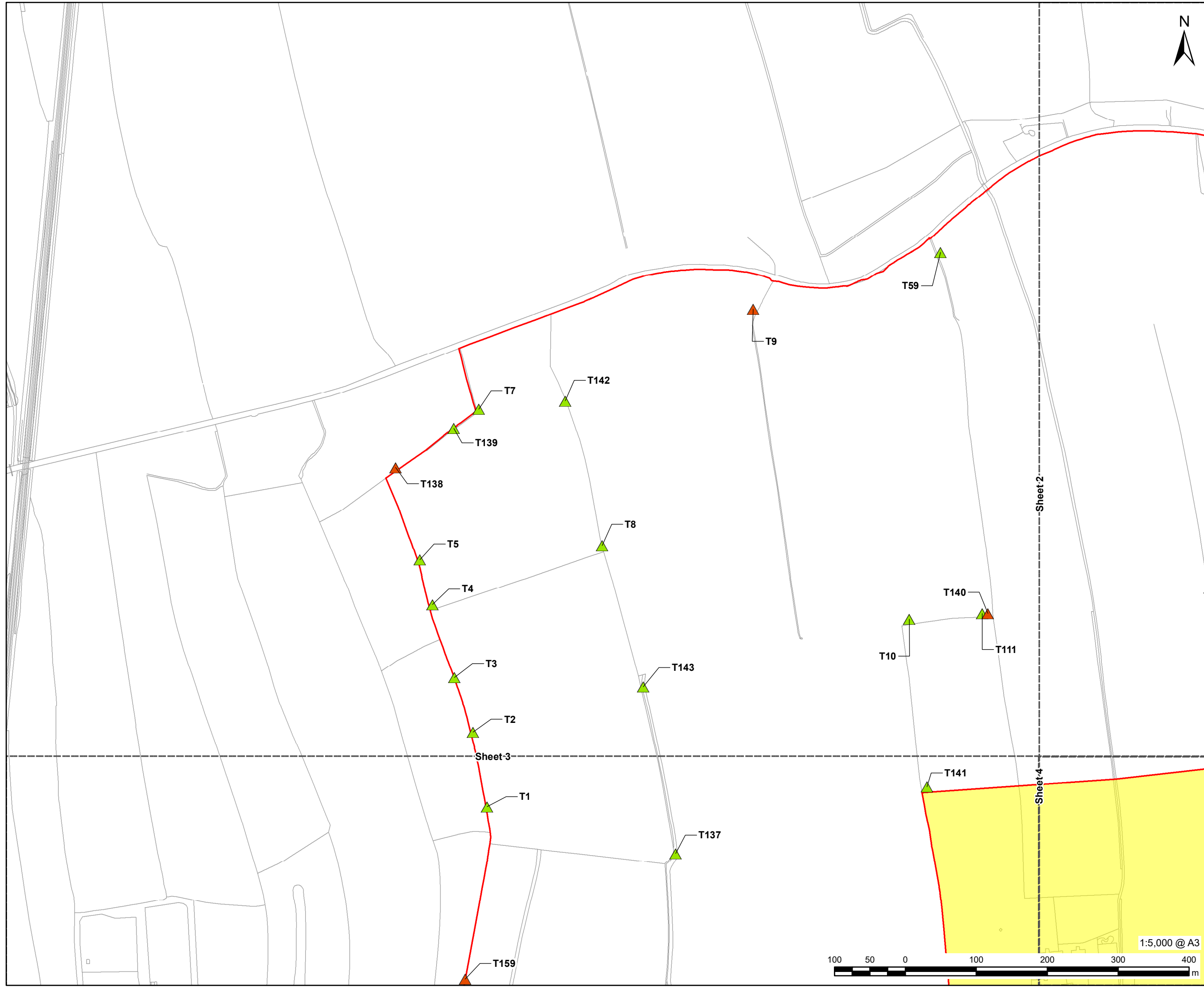
6.1.12 Outside of core working hours, PIR controlled lights (motion sensors) will be used. Any compounds for the On-Site Substation will have inward facing PIR controlled security lighting installed at each corner of the compound. Field Station Units and the control buildings for the On-Site Substation will likely require some internal lighting (to be manually activated when needed), but light spillage would be minimal (through doorways when open). Further details on lighting design are found in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**.

## 7. References

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# Annex A Figures

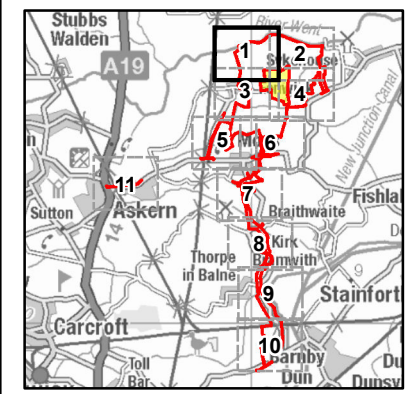


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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - Daytime Bat Walkover Potential Suitability**
  - ▲ PRF
  - ▲ FAR



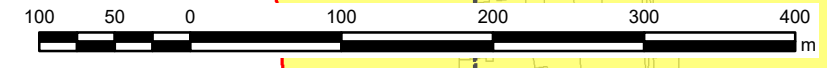
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**ISSUE PURPOSE**  
Environmental Statement

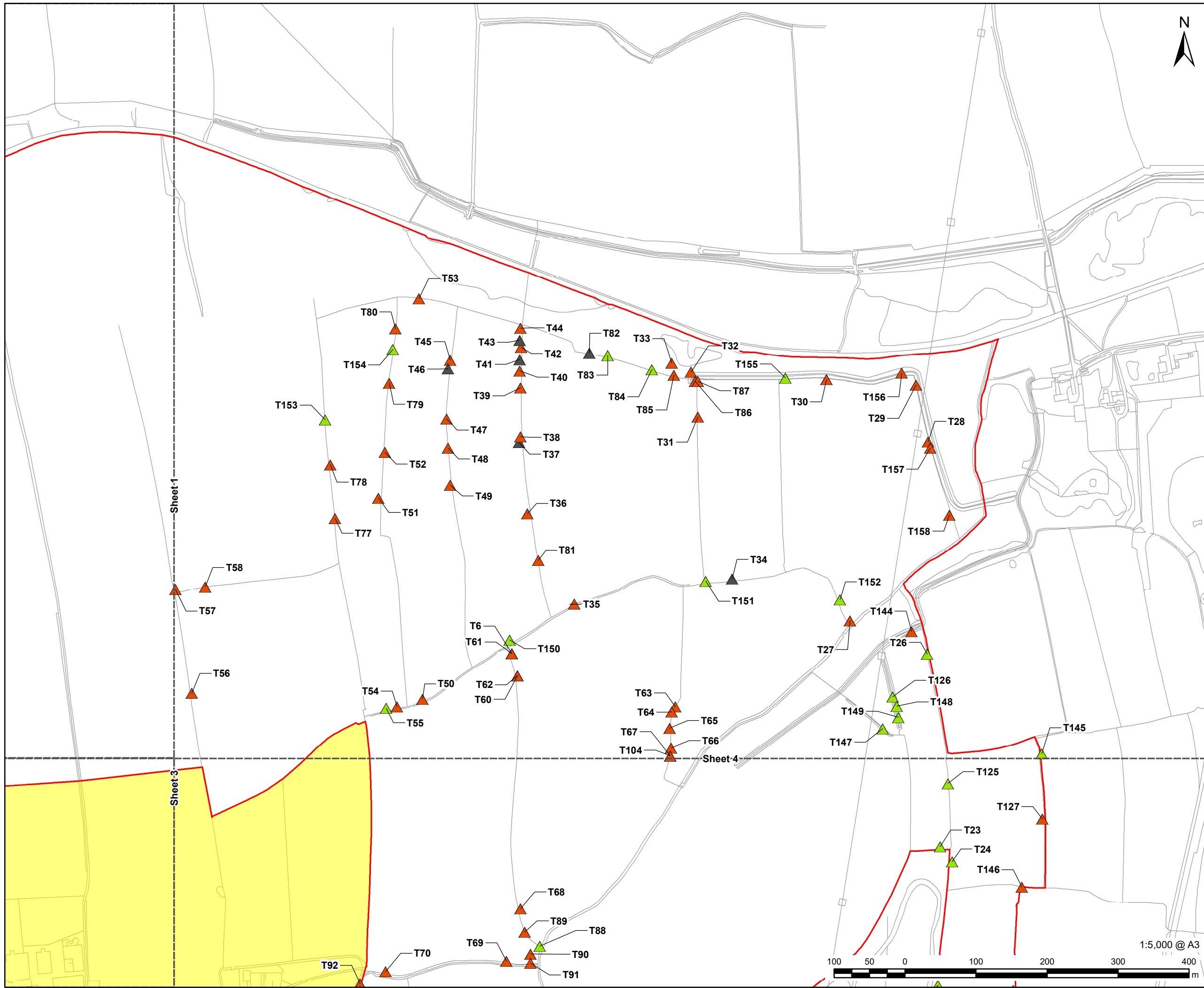
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 1 of 11

**FIGURE NUMBER**  
Figure 8-3-1



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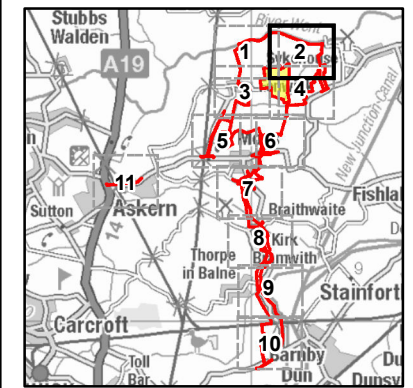


**LEGEND**

- Order limits
- Land not included in the Order limits

**Daytime Bat Walkover Potential Suitability**

- ▲ PRF
- ▲ FAR
- ▲ NONE



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**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

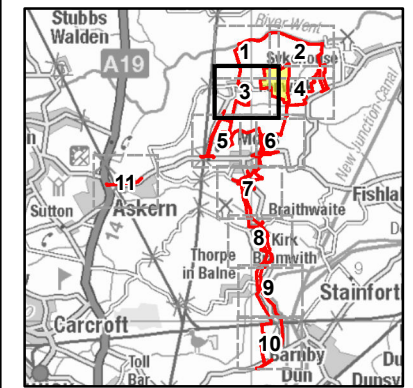
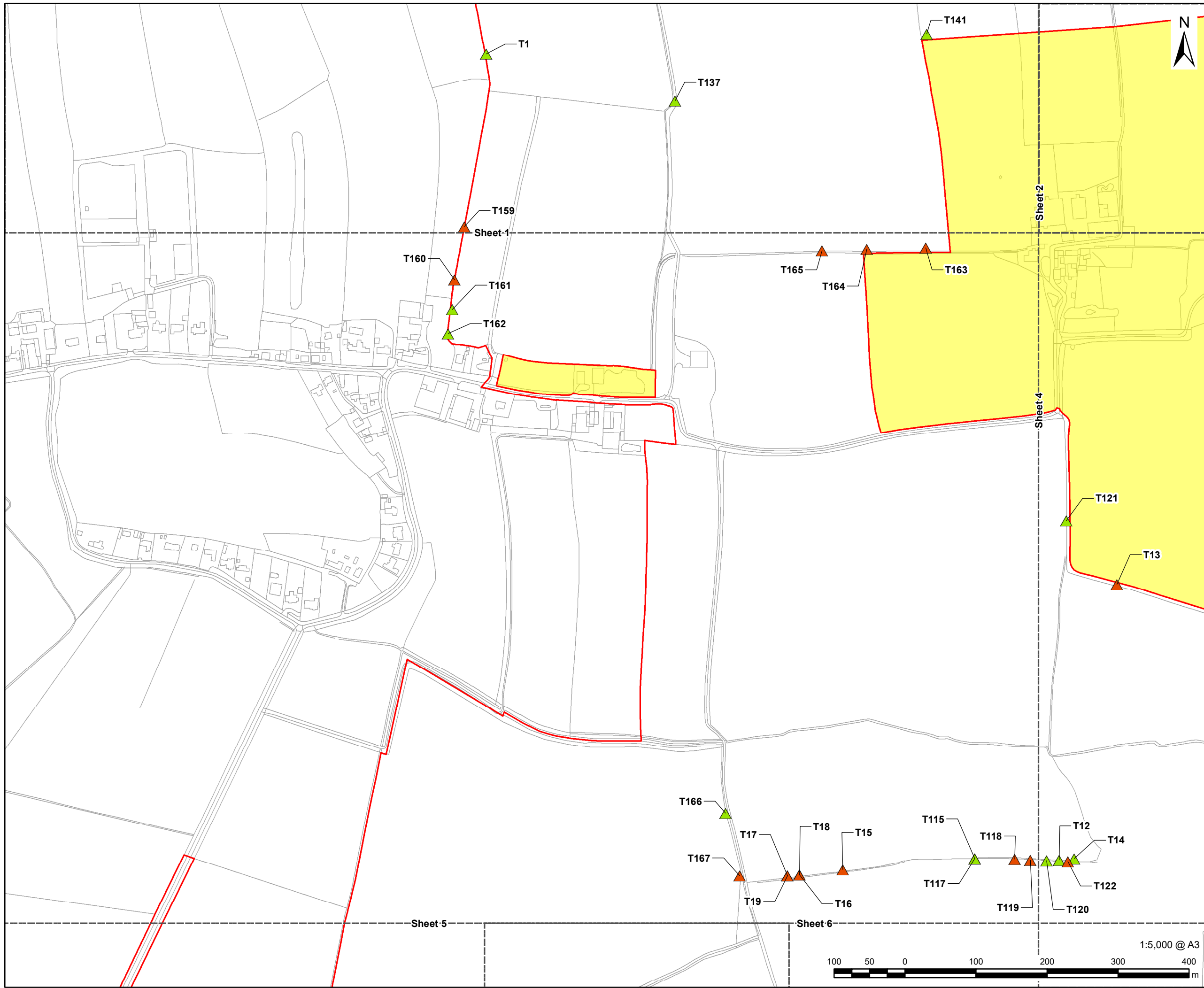
**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 2 of 11

**FIGURE NUMBER**  
Figure 8-3-1



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Environmental Statement

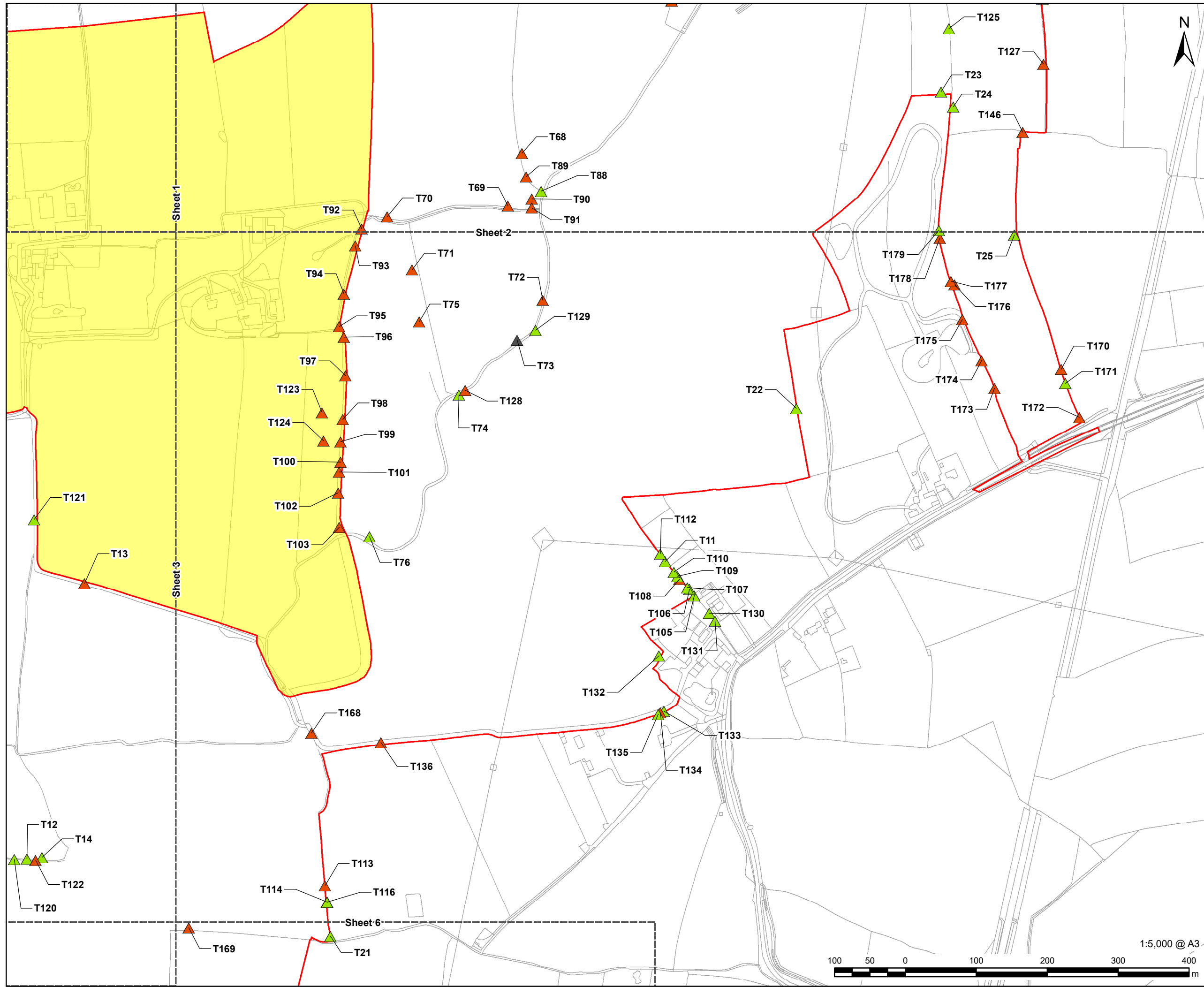
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 3 of 11

**FIGURE NUMBER**  
Figure 8-3-1



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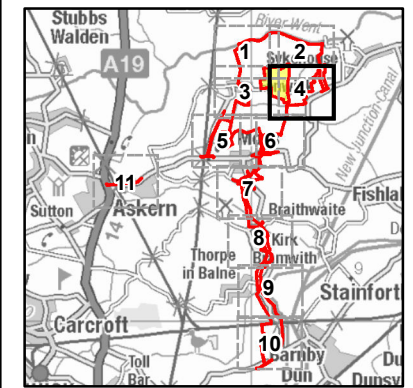


**LEGEND**

- Order limits
- Land not included in the Order limits

**Daytime Bat Walkover Potential Suitability**

- ▲ PRF
- ▲ FAR
- ▲ NONE



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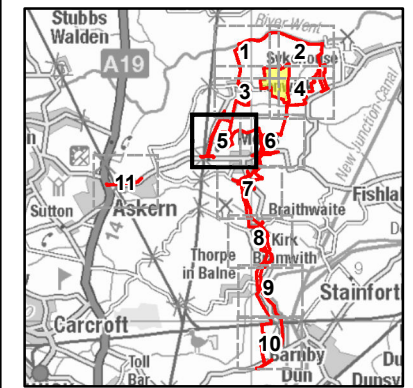
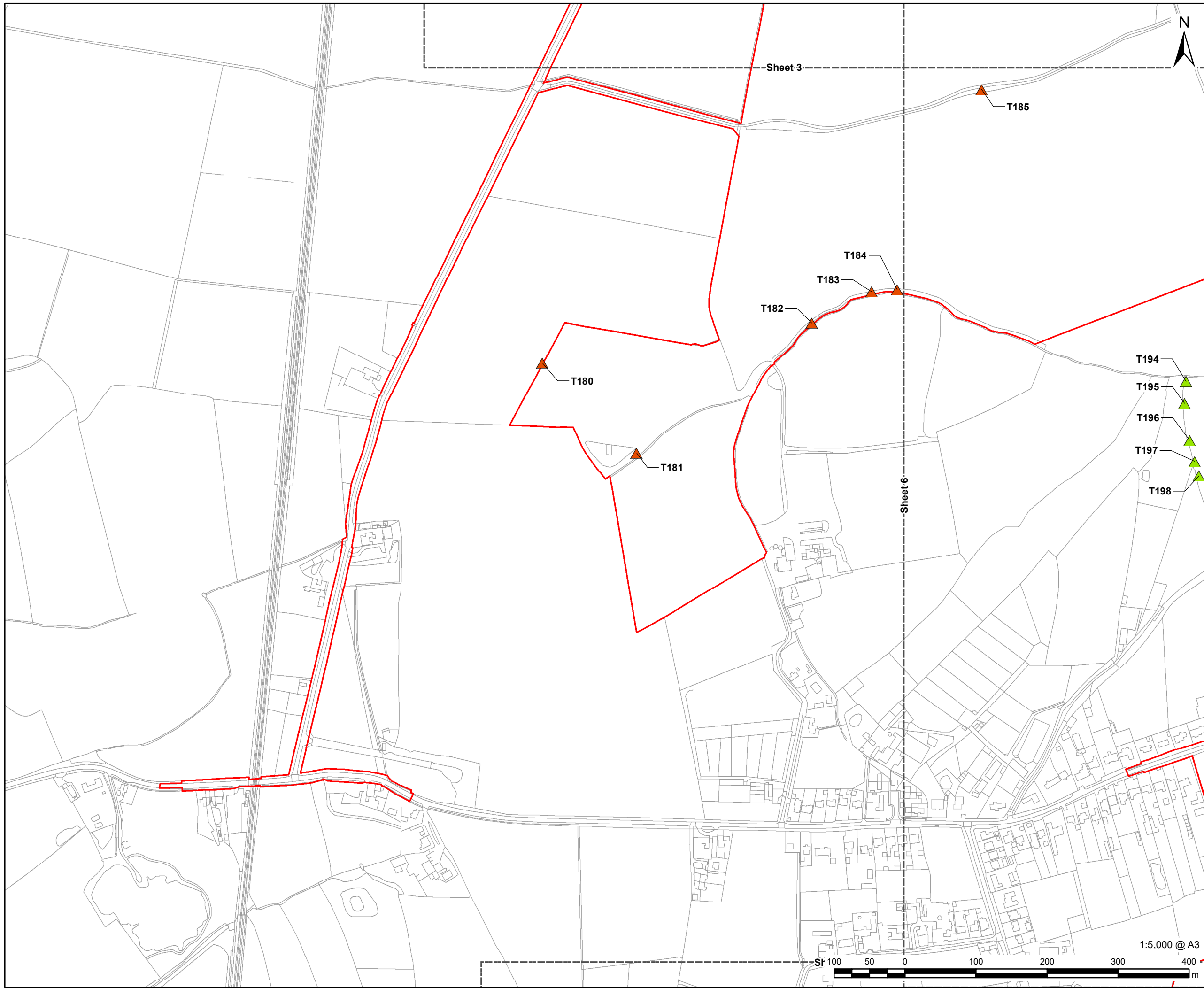
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 4 of 11

**FIGURE NUMBER**  
Figure 8-3-1

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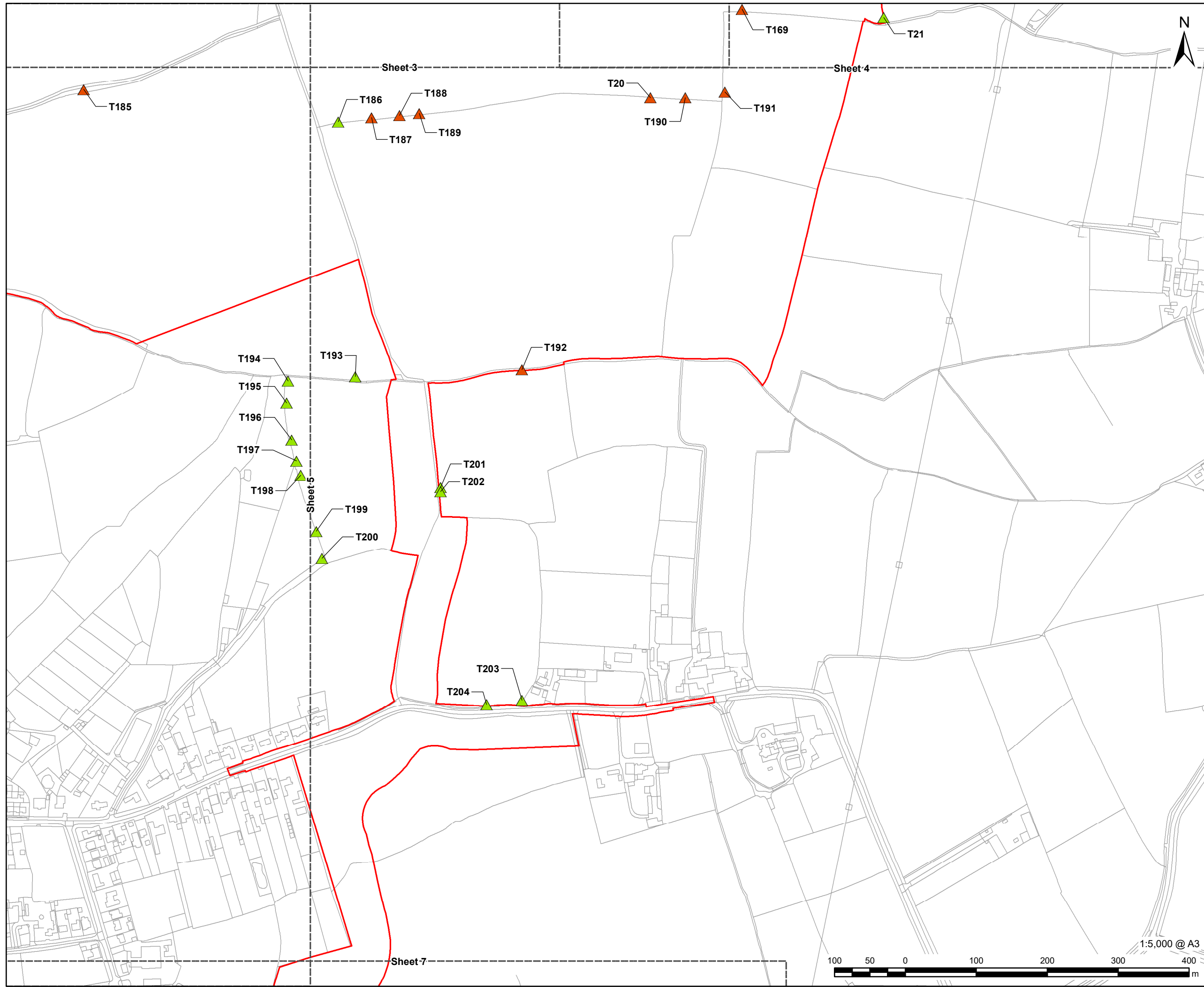
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 5 of 11

**FIGURE NUMBER**  
Figure 8-3-1

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PROJECT  
Fenwick Solar Farm

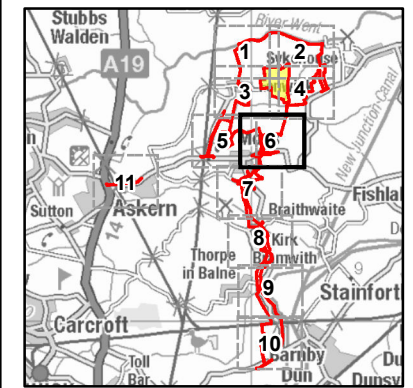
CLIENT  
Fenwick Solar Project Limited

CONSULTANT  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

LEGEND

- Order limits
- ▲ PRF
- ▲ FAR

**Daytime Bat Walkover Potential Suitability**



NOTES

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ISSUE PURPOSE  
Environmental Statement

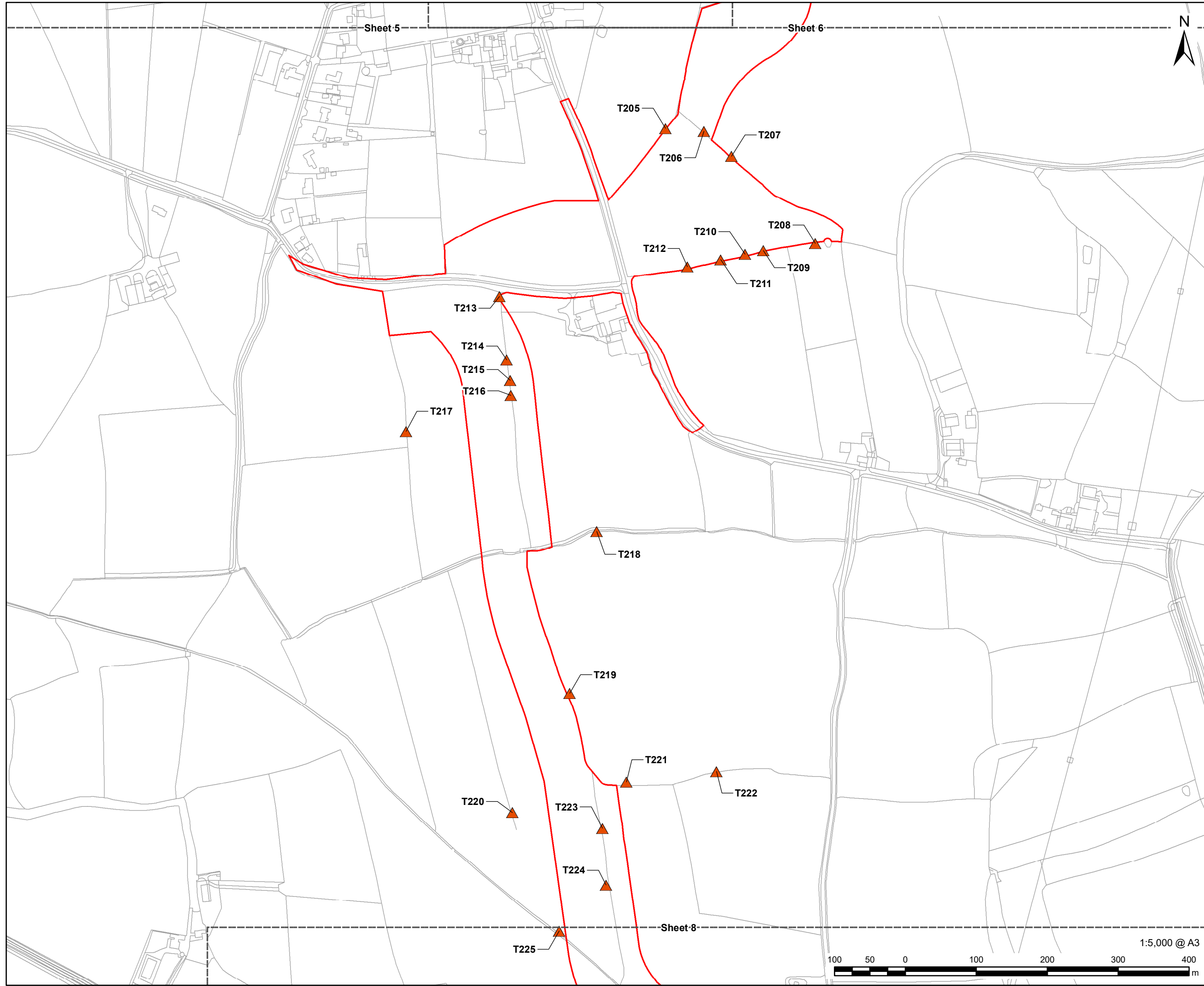
PROJECT NUMBER  
60698207

FIGURE TITLE  
Daytime Bat Walkover Results  
Sheet 6 of 11

FIGURE NUMBER  
Figure 8-3-1



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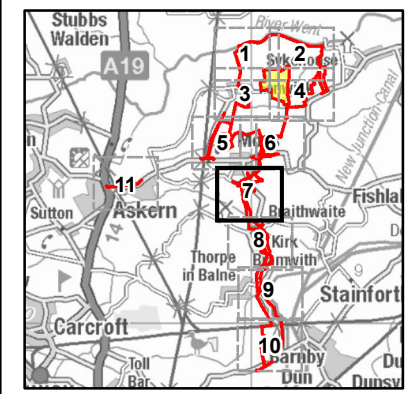
**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

**LEGEND**

- Order limits
- Daytime Bat Walkover Potential Suitability**
- ▲ FAR



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Environmental Statement

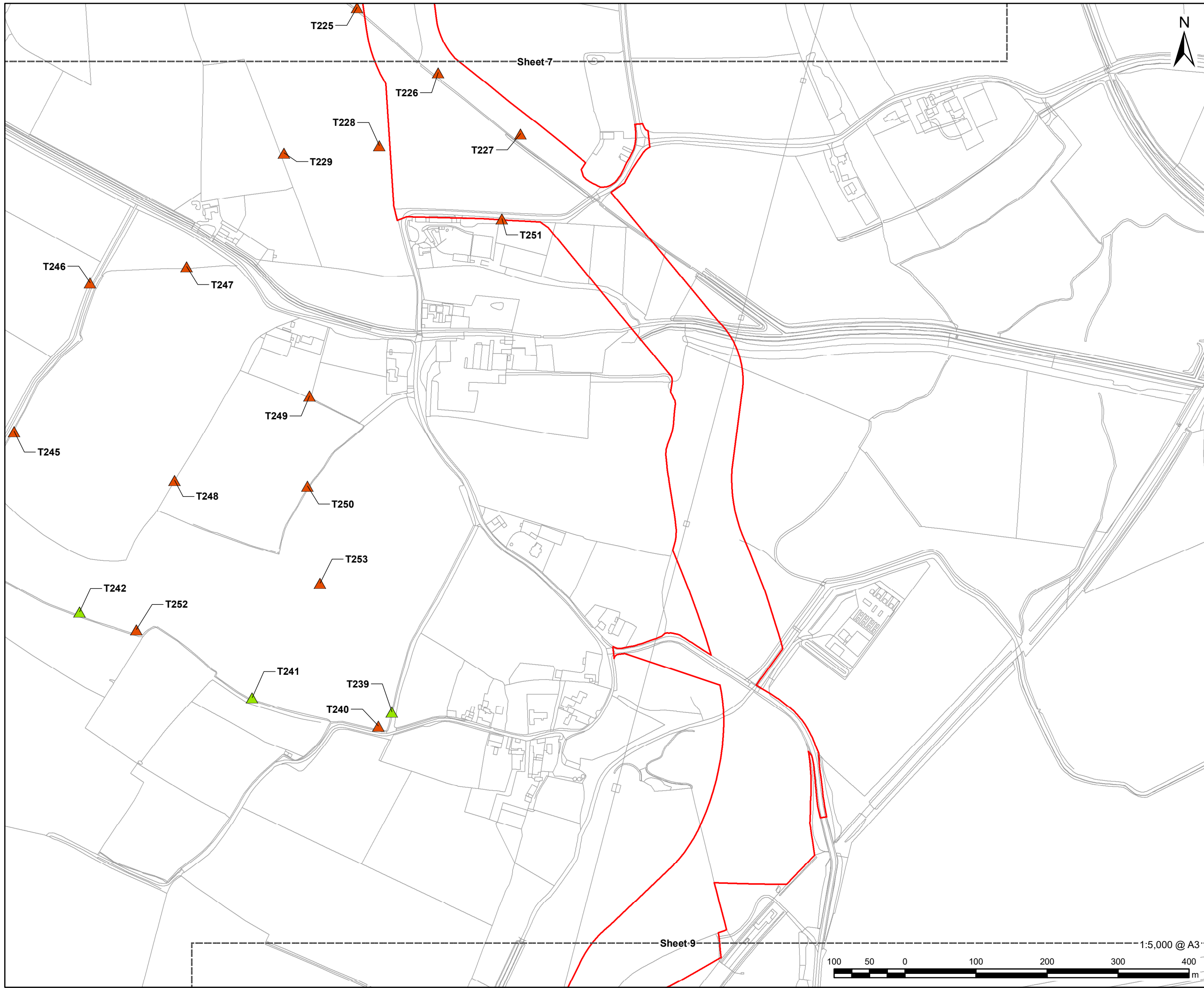
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 7 of 11

**FIGURE NUMBER**  
Figure 8-3-1



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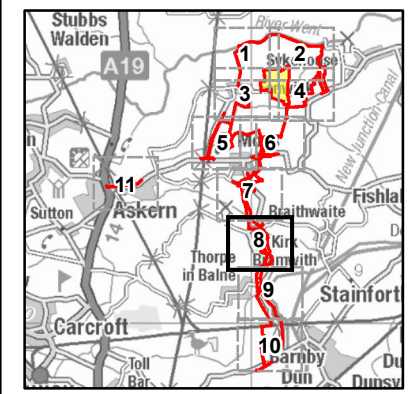
**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

**LEGEND**

- Order limits
- Daytime Bat Walkover Potential Suitability**
- ▲ PRF
- ▲ FAR



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Environmental Statement

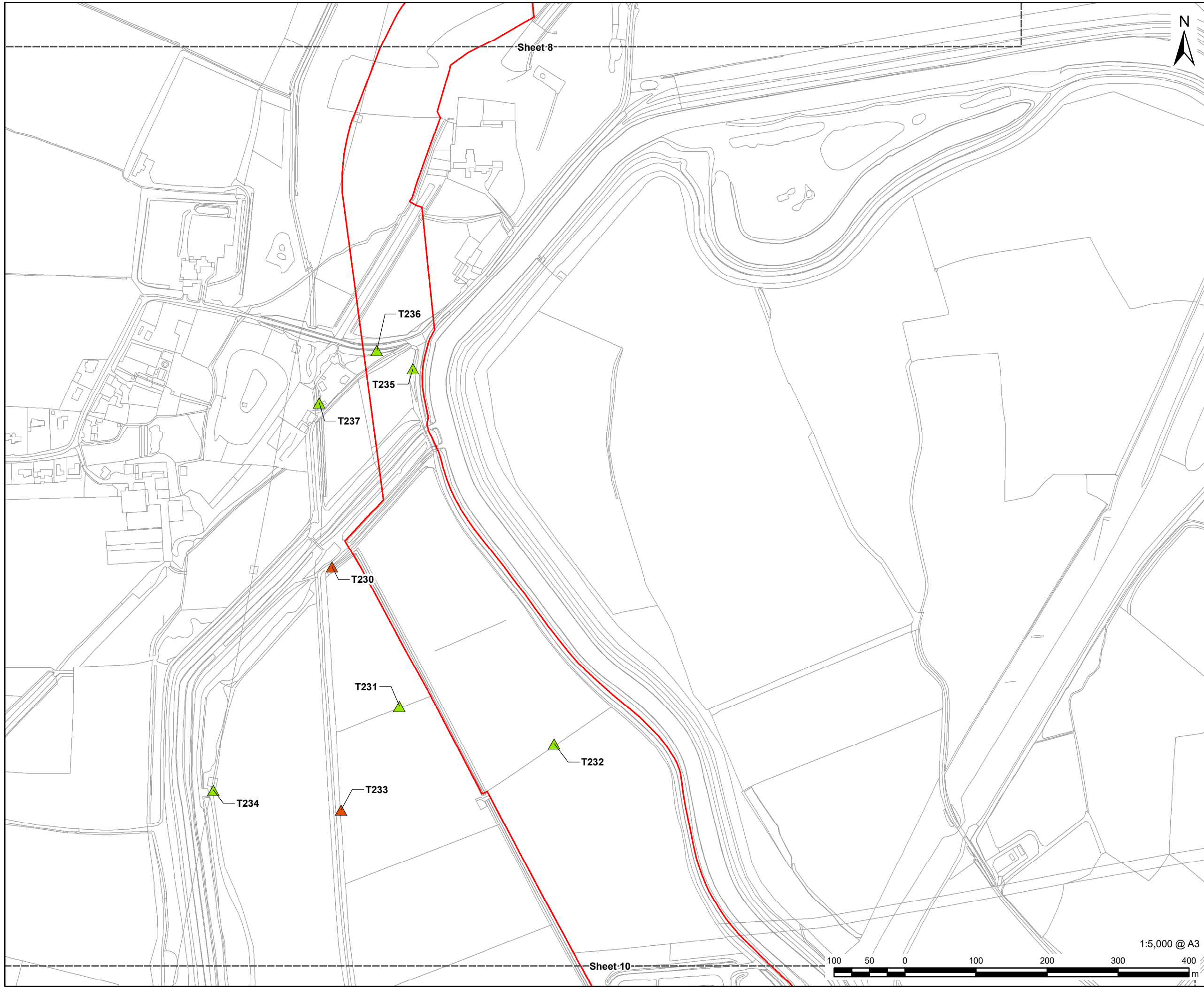
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 8 of 11

**FIGURE NUMBER**  
Figure 8-3-1



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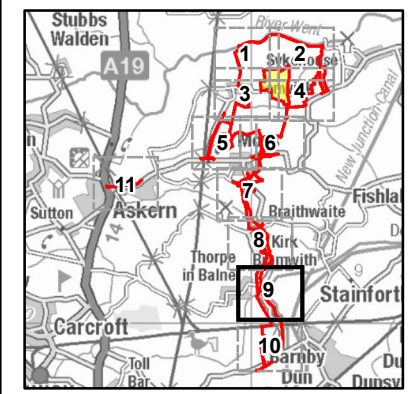
**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
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**LEGEND**

- Order limits
- Daytime Bat Walkover Potential Suitability**
- ▲ PRF
- ▲ FAR



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**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 9 of 11

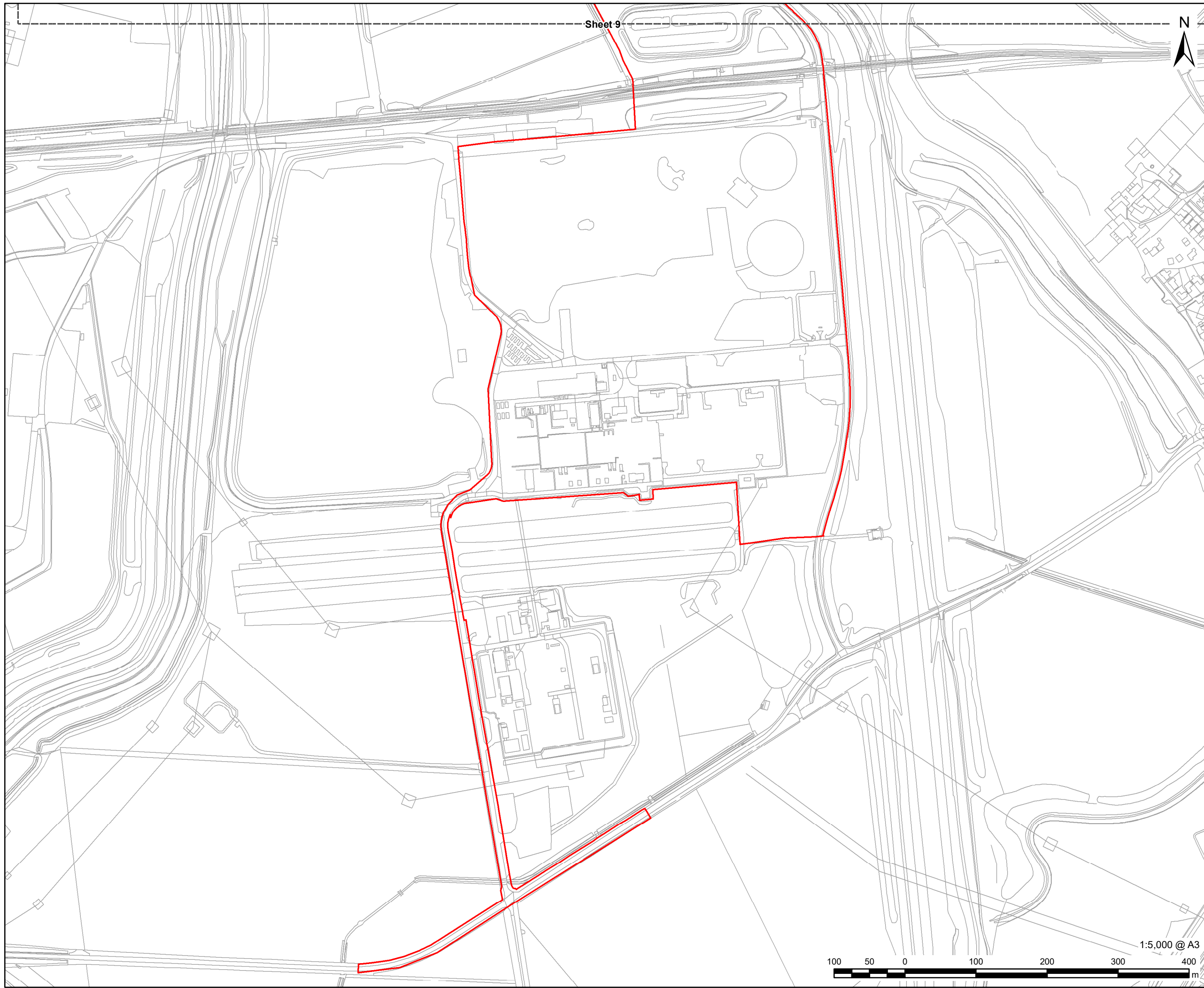
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Figure 8-3-1



Sheet 8

Sheet 10

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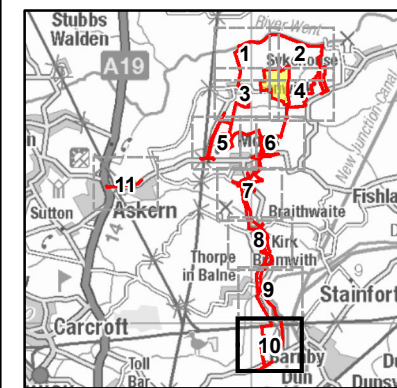


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**LEGEND**  
Order limits



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Environmental Statement

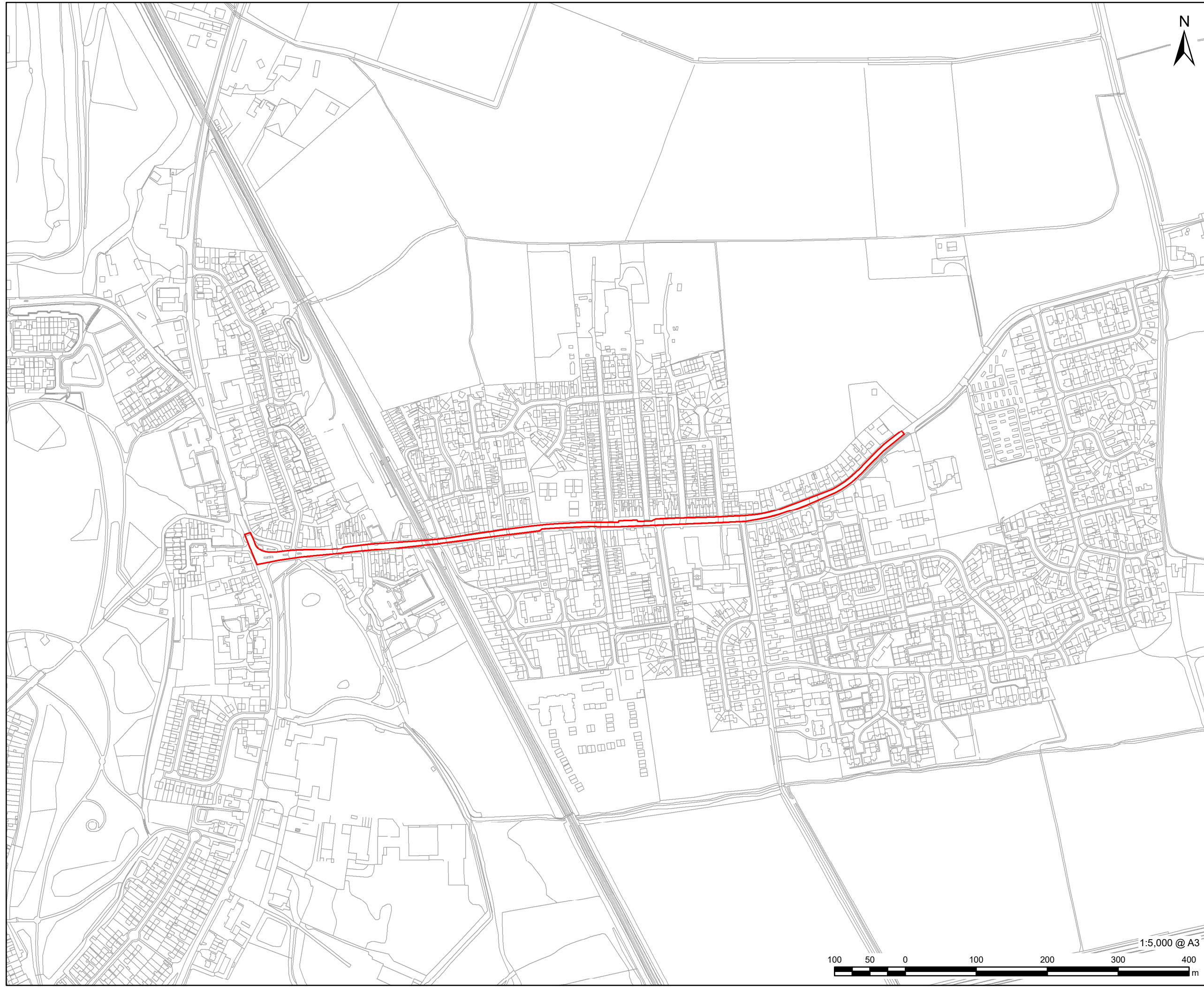
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 10 of 11

**FIGURE NUMBER**  
Figure 8-3-1

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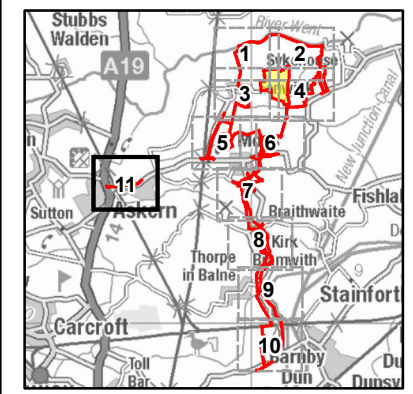
**AECOM**

**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
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**LEGEND**  
Order limits



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Environmental Statement

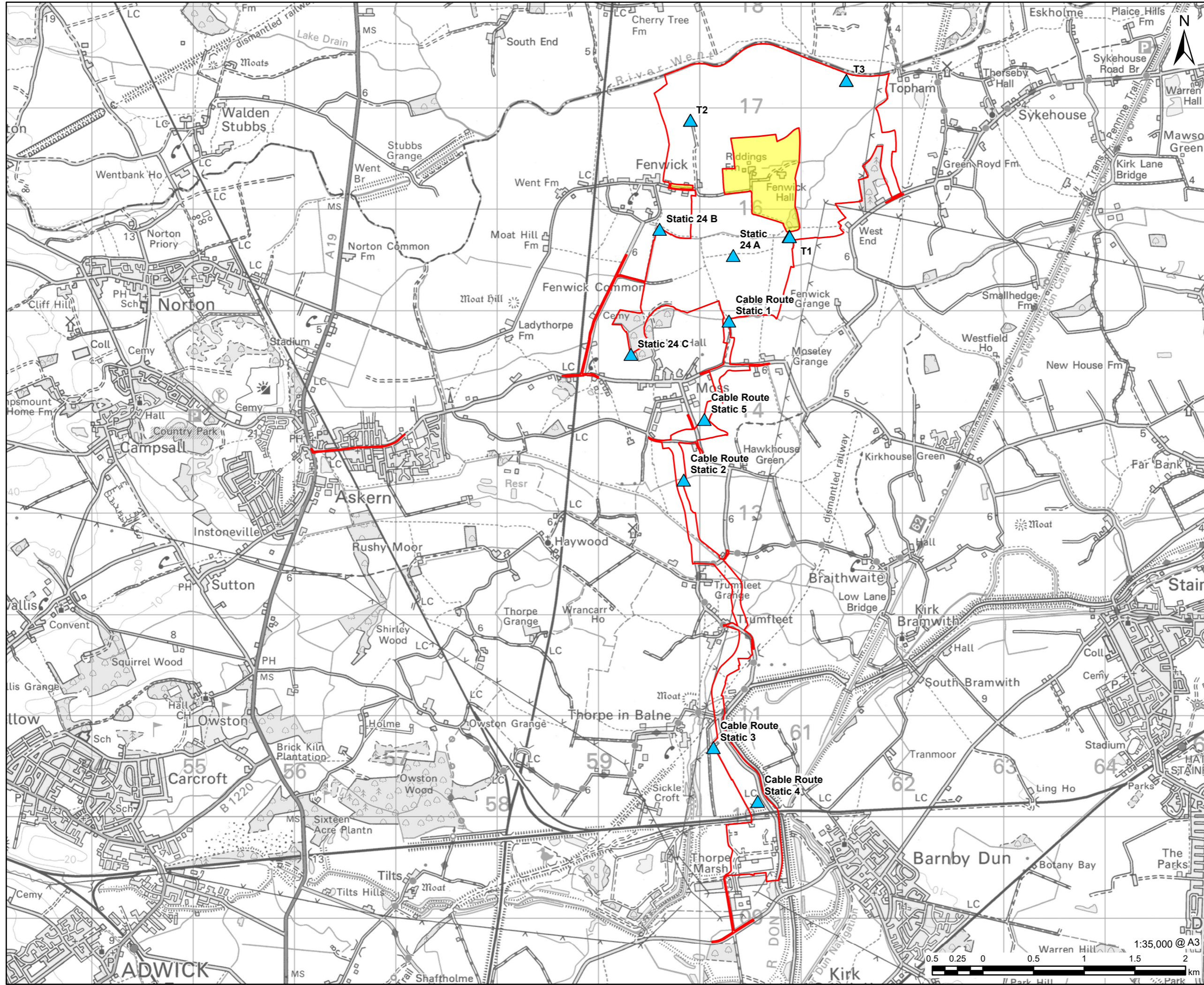
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Daytime Bat Walkover Results  
Sheet 11 of 11

**FIGURE NUMBER**  
Figure 8-3-1



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**CONSULTANT**  
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Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ▲ Static Detector Location

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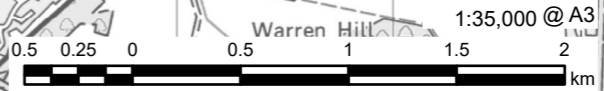
**ISSUE PURPOSE**  
Environmental Statement

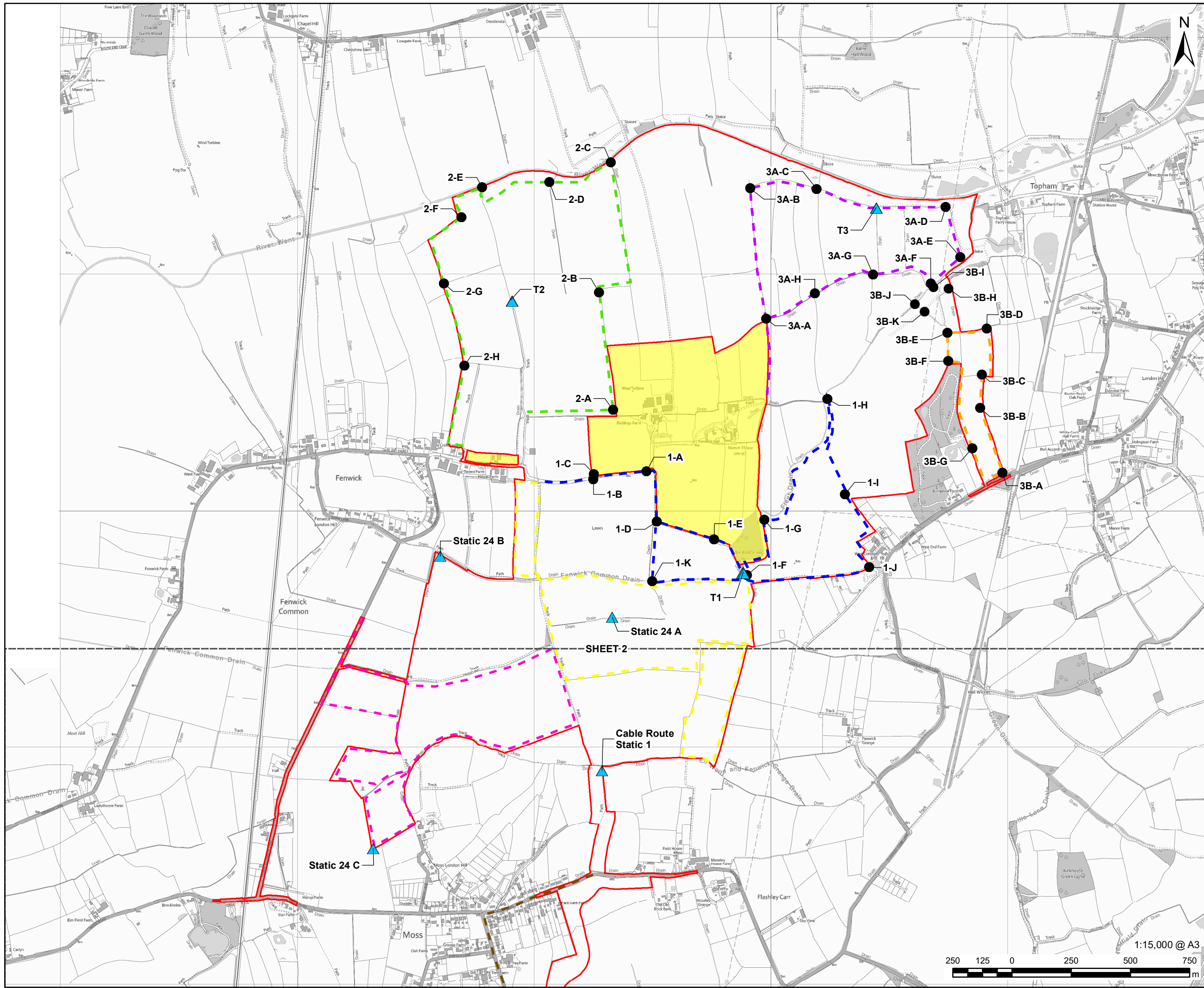
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Static Detector Locations

**FIGURE NUMBER**  
Figure 8-3-2

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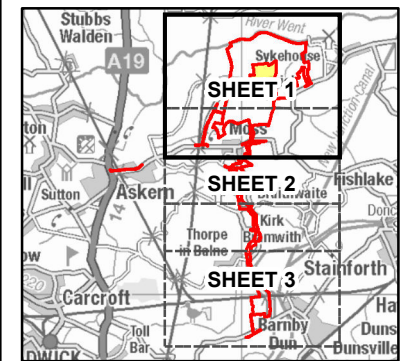


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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ▲ Static Detector Location
  - Stopping Point Location
  - Transect 1
  - Transect 2
  - Transect 3a
  - Transect 3b
  - Transect 4
  - Transect 5
  - Transect 6



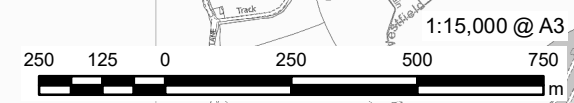
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Environmental Statement

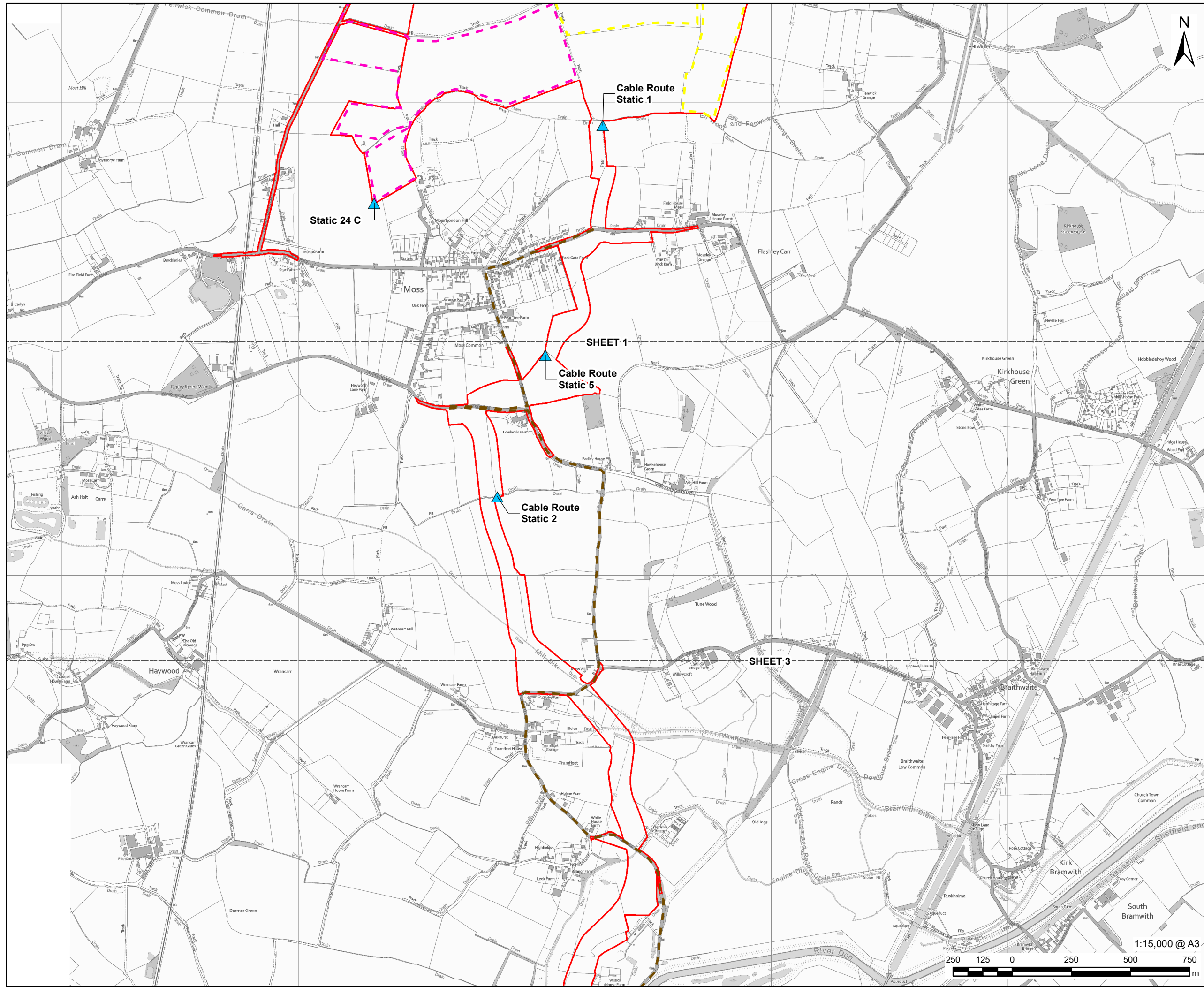
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Overview  
Sheet 1 of 3

**FIGURE NUMBER**  
Figure 8-3-3

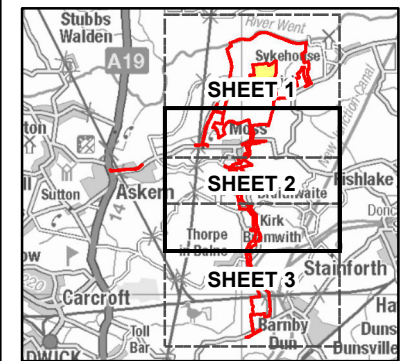


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**LEGEND**

|  |                          |
|--|--------------------------|
|  | Order limits             |
|  | Static Detector Location |
|  | Transect 4               |
|  | Transect 5               |
|  | Transect 6               |



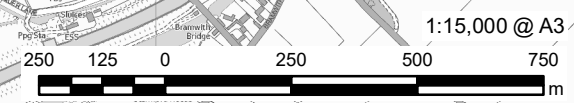
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Environmental Statement

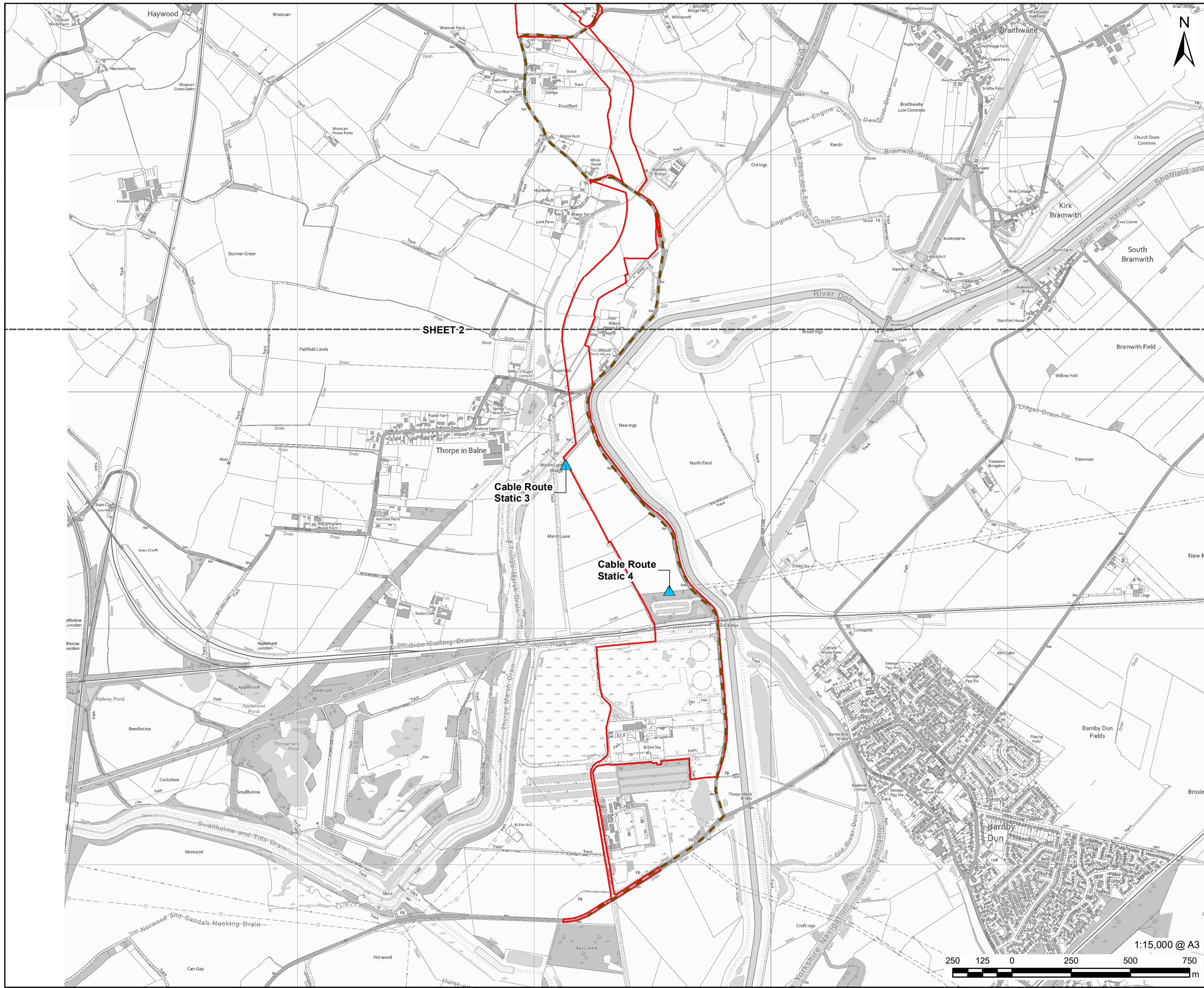
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Overview  
Sheet 2 of 3

**FIGURE NUMBER**  
Figure 8-3-3



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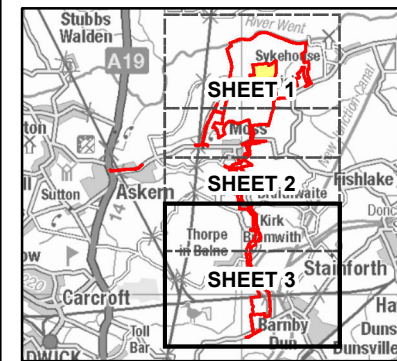


**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - ▲ Static Detector Location
  - Transect 6



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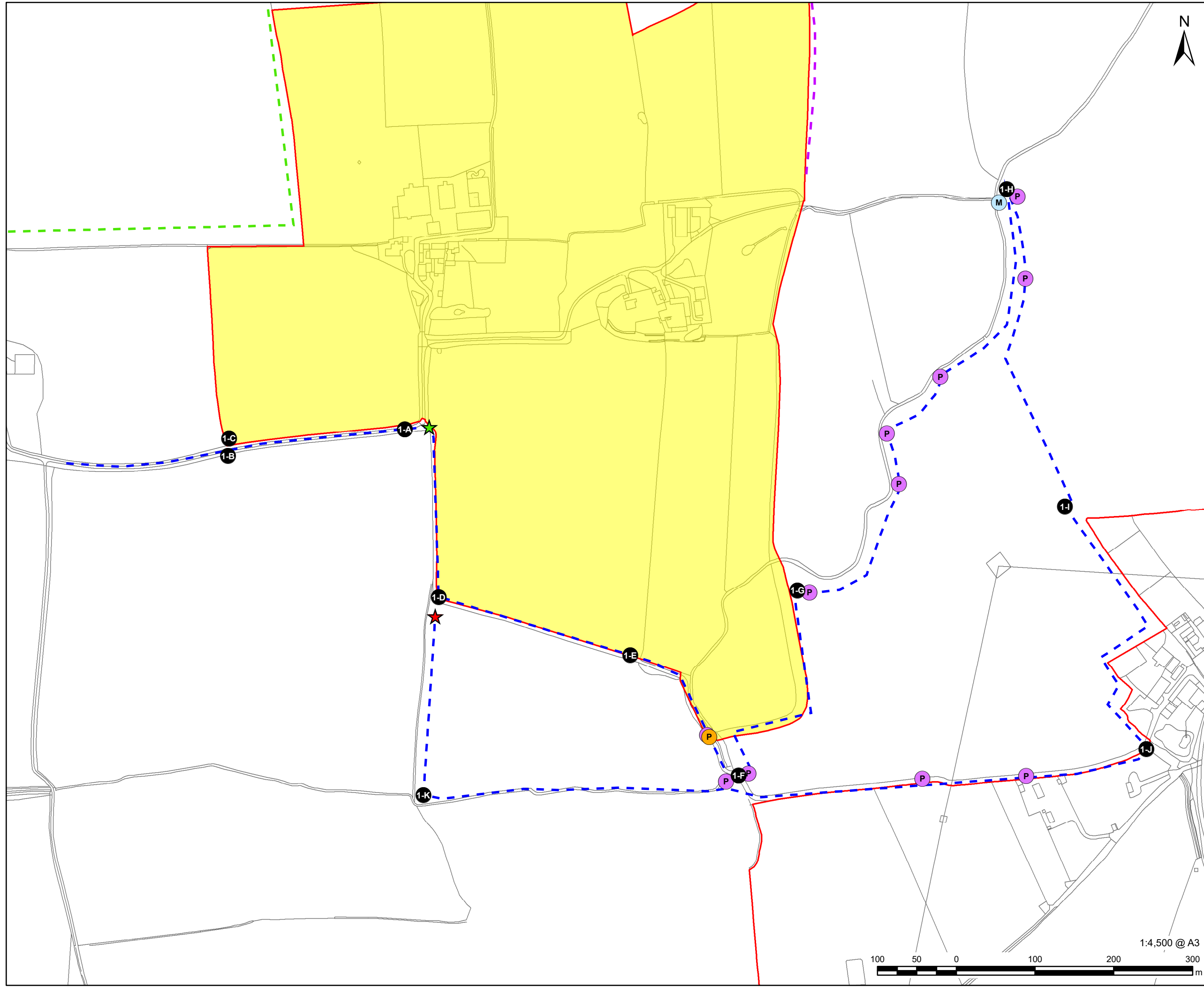
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

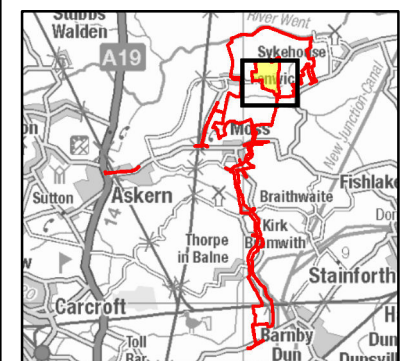
**FIGURE TITLE**  
Bat Activity Overview  
Sheet 3 of 3

**FIGURE NUMBER**  
Figure 8-3-3

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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Transect 1
  - Transect 2
  - Transect 3a
- Bat Record**
- M Myotis sp.
  - P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus



**NOTES**

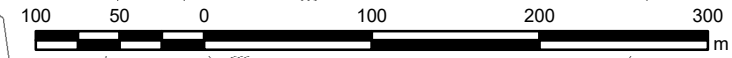
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**ISSUE PURPOSE**  
Environmental Statement

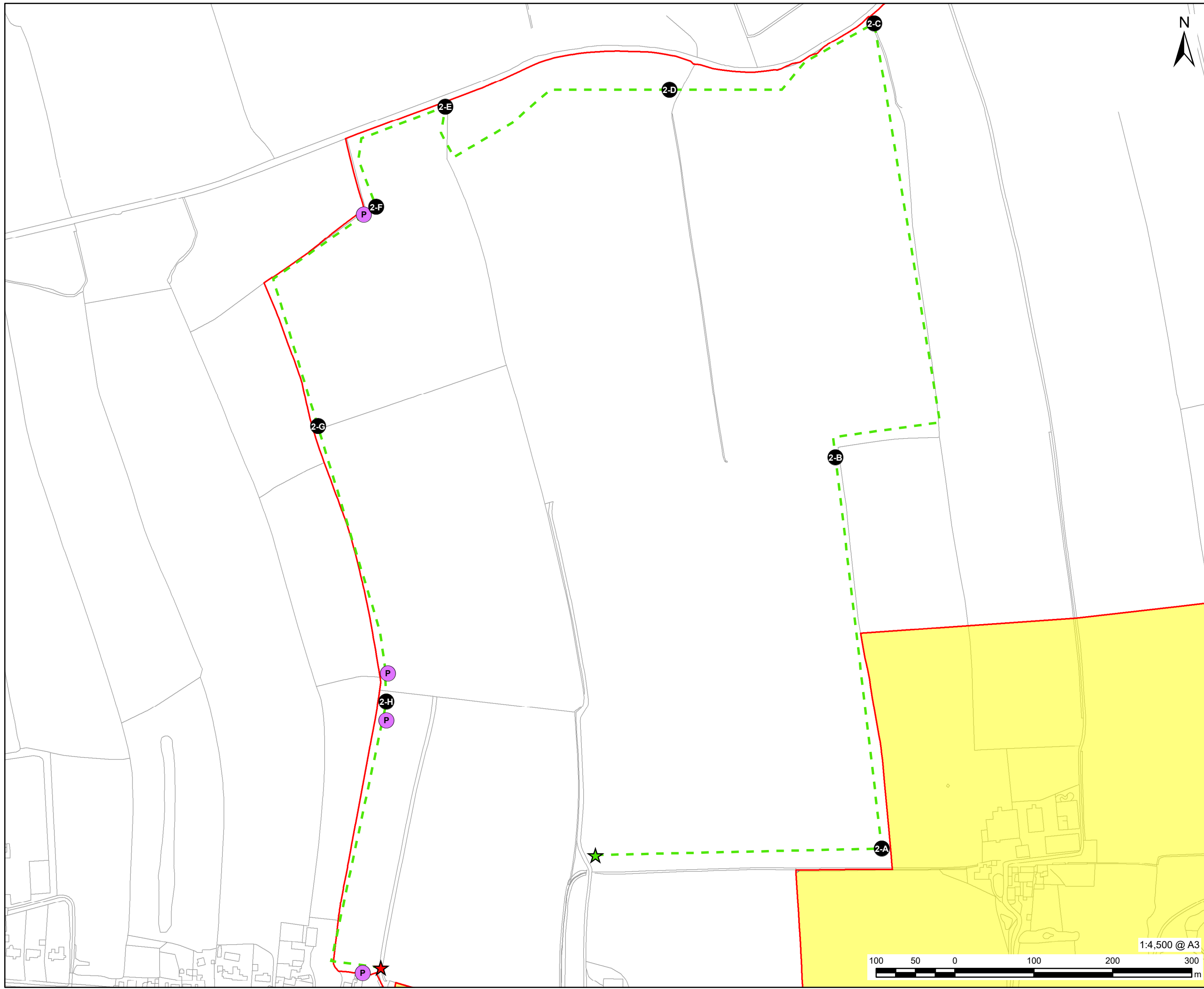
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 1

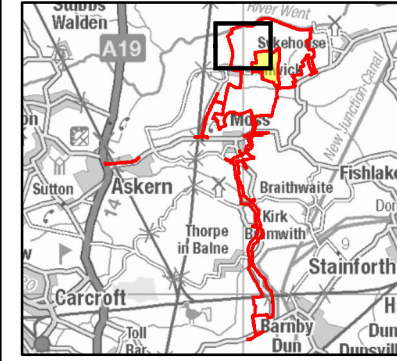
**FIGURE NUMBER**  
Figure 8-3-4



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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Transect 2
- Bat Record**
- P Pipistrellus pipistrellus



**NOTES**

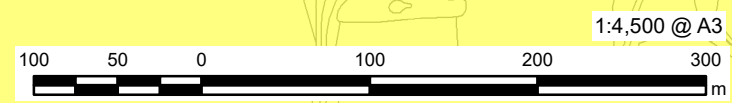
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**ISSUE PURPOSE**  
Environmental Statement

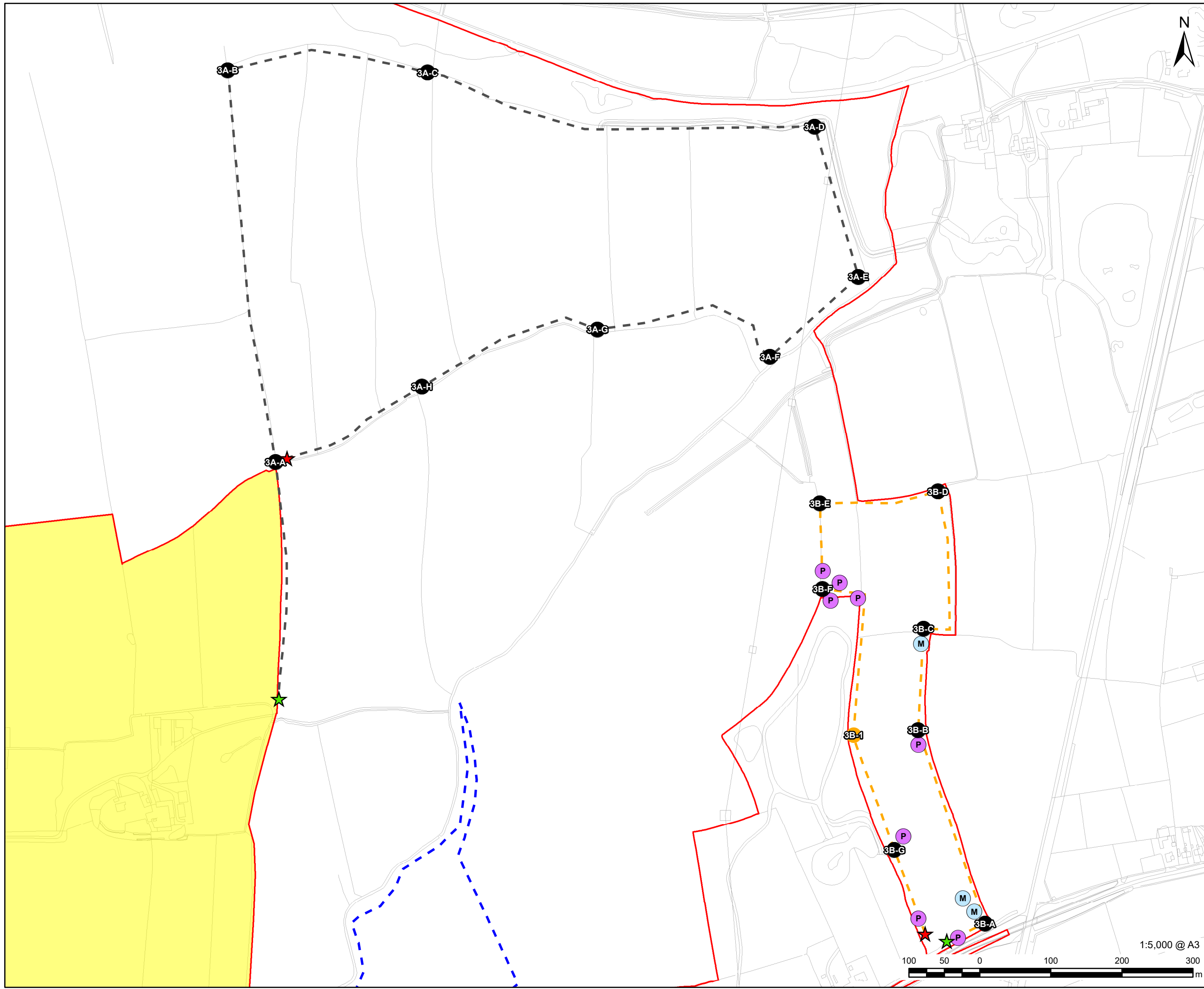
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 2

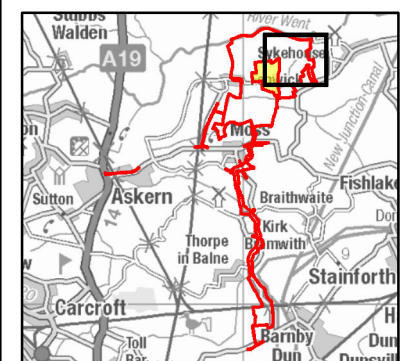
**FIGURE NUMBER**  
Figure 8-3-5



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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Additional Stopping Point for Spring Visit
  - Transect 3a (No Access)
  - Transect 3b
  - Other Transect**
  - Transect 1
  - Bat Record**
  - M Myotis sp.
  - P Pipistrellus pipistrellus



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**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 3

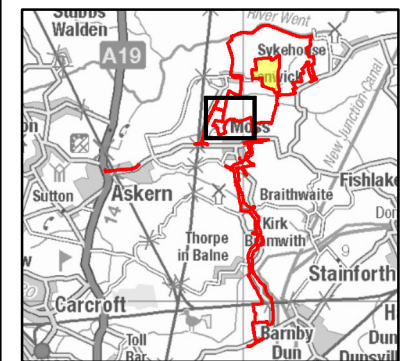
**FIGURE NUMBER**  
Figure 8-3-6

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- LEGEND**
- Order limits
  - ★ Start & End Point
  - ▲ Static Detector Location
  - - - Transect 4
  - - - Transect 5
- Other Transect**
- - - Transect 5
- Bat Record**
- Myotis spec.
  - Pipistrellus pipistrellus
  - Pipistrellus pygmaeus
  - Plecotus auritus



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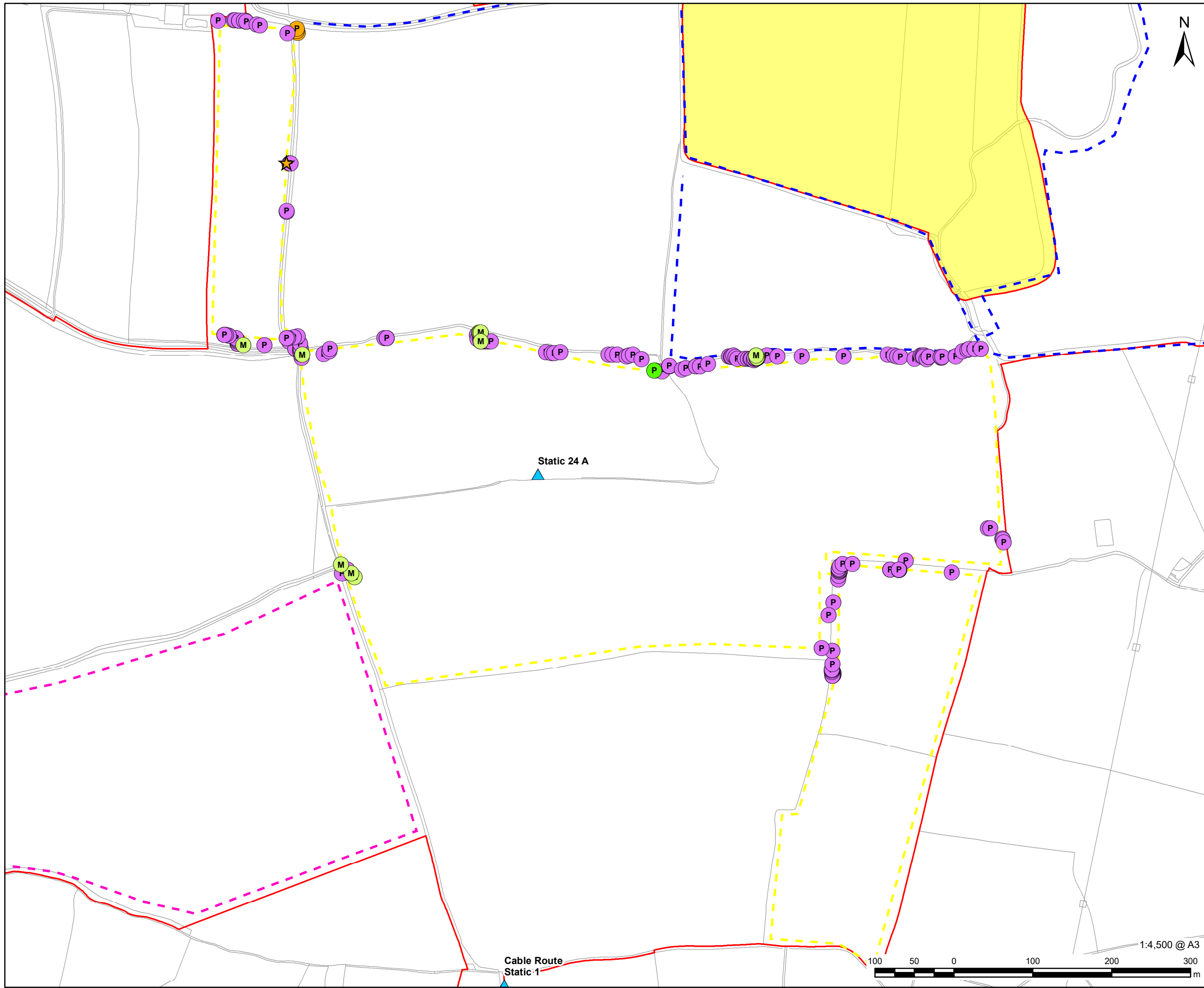
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 4

**FIGURE NUMBER**  
Figure 8-3-7

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**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

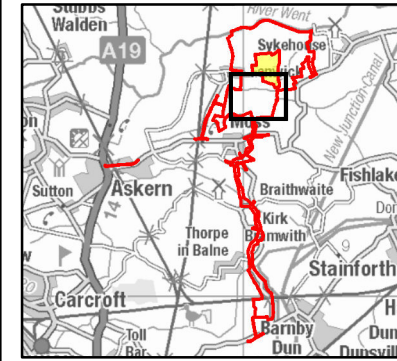
**LEGEND**

- Order limits
- Land not included in the Order limits
- ★ Start & End Point
- ▲ Static Detector Location
- Transect 5

**Other Transect**

- Transect 1
- Transect 4

- Bat Record**
- M Myotis spec.
  - P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus
  - F Plecotus auritus



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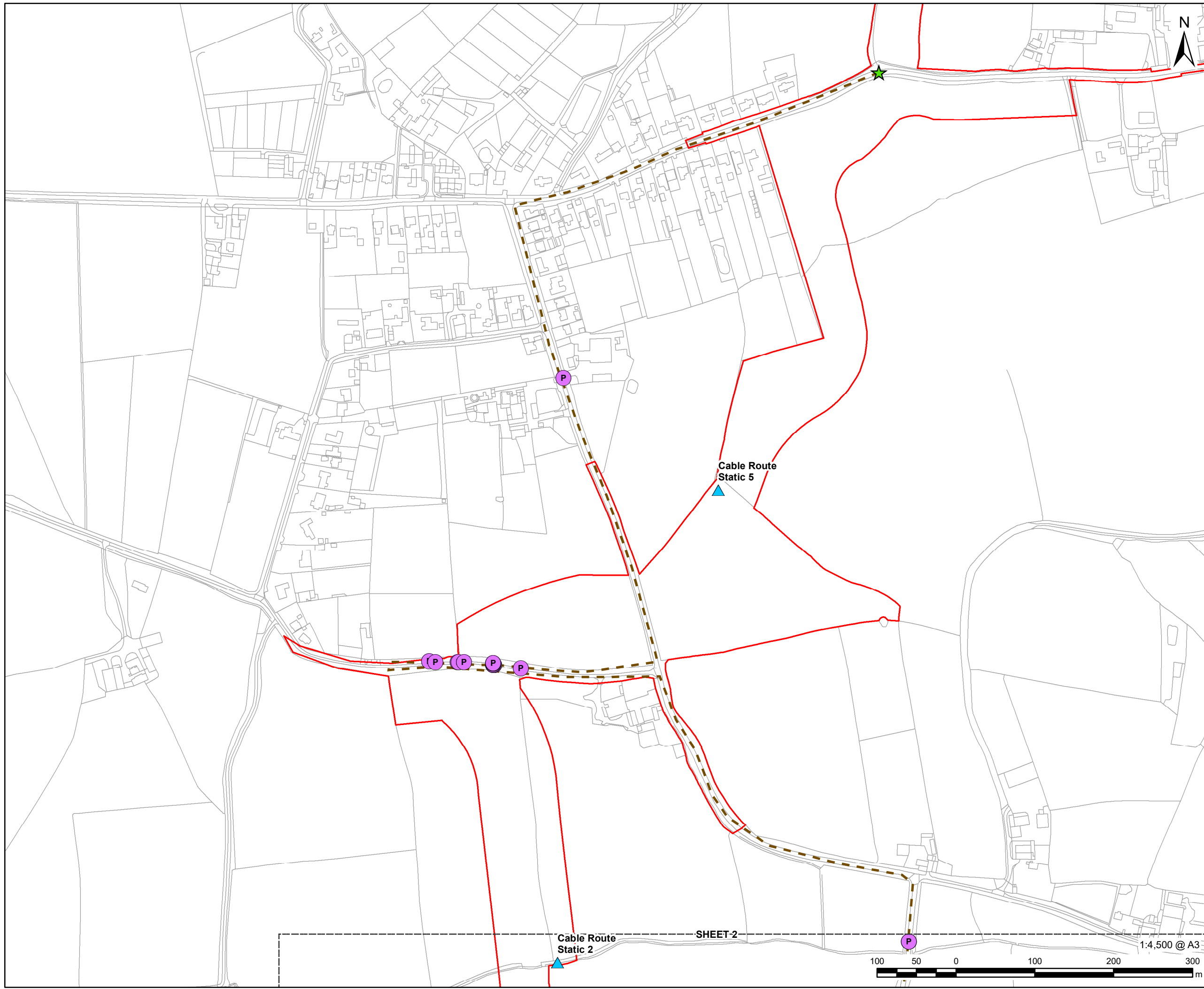
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 5

**FIGURE NUMBER**  
Figure 8-3-8

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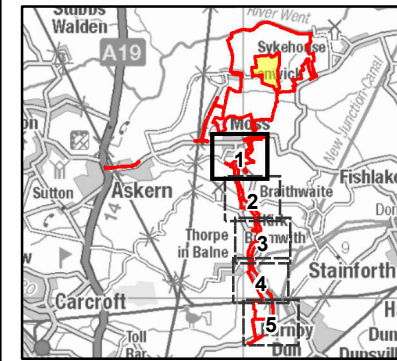


**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - ★ Start Point
  - ▲ Static Detector Location
  - Transect 6
- Bat Record**
- P Pipistrellus pipistrellus



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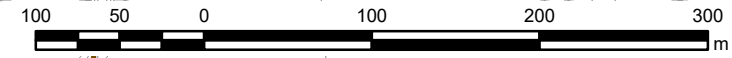
**ISSUE PURPOSE**  
Environmental Statement

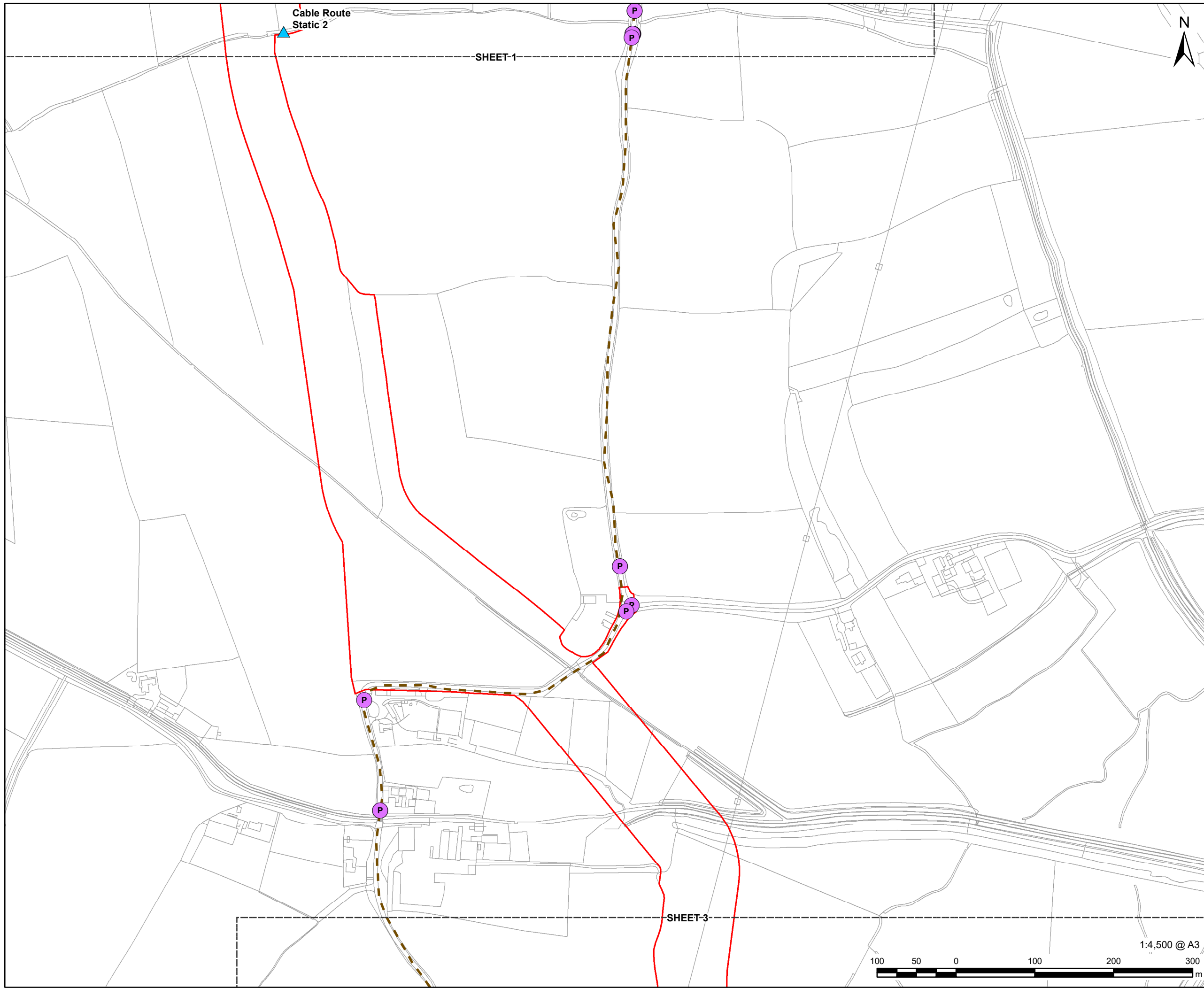
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 6  
Sheet 1 of 5

**FIGURE NUMBER**  
Figure 8-3-9

Cable Route Static 2 SHEET 2



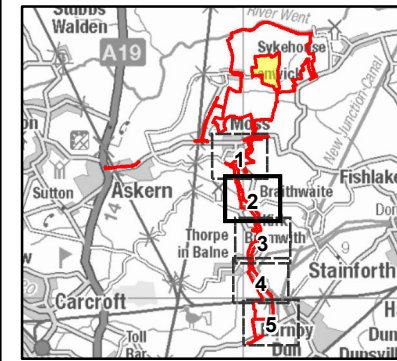


**LEGEND**

- Order limits
- ▲ Static Detector Location
- Transect 6

**Bat Record**

- P Pipistrellus pipistrellus



**NOTES**

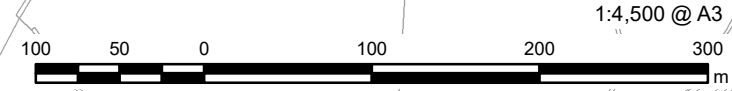
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**ISSUE PURPOSE**  
Environmental Statement

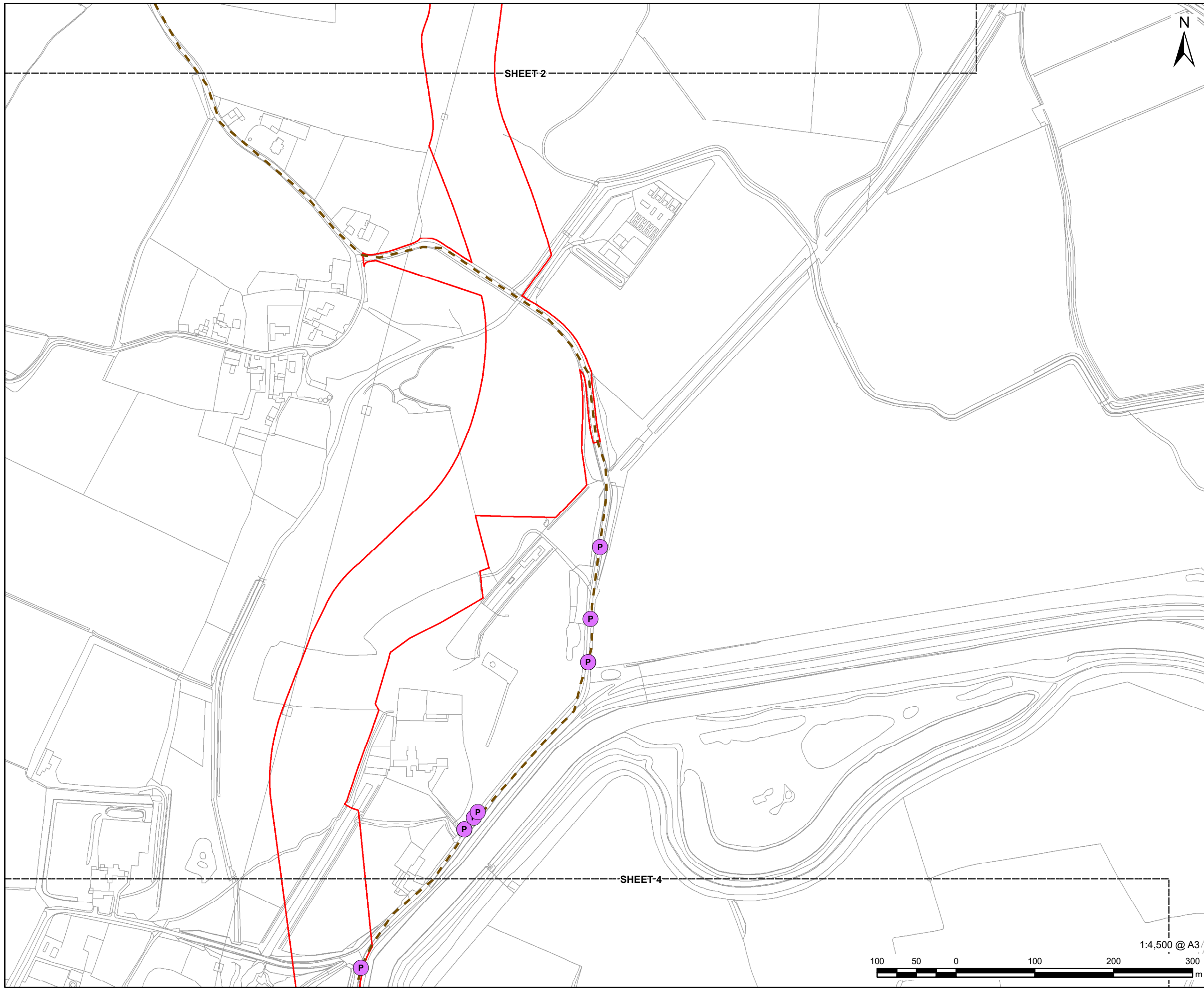
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 6  
Sheet 2 of 5

**FIGURE NUMBER**  
Figure 8-3-9



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# AECOM

**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

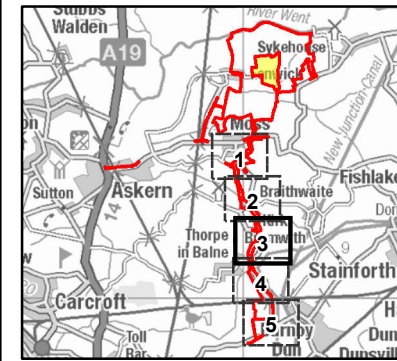
**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

**LEGEND**

- Order limits
- Transect 6

**Bat Record**

- P Pipistrellus pipistrellus



**NOTES**

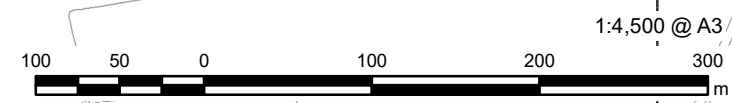
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**ISSUE PURPOSE**  
Environmental Statement

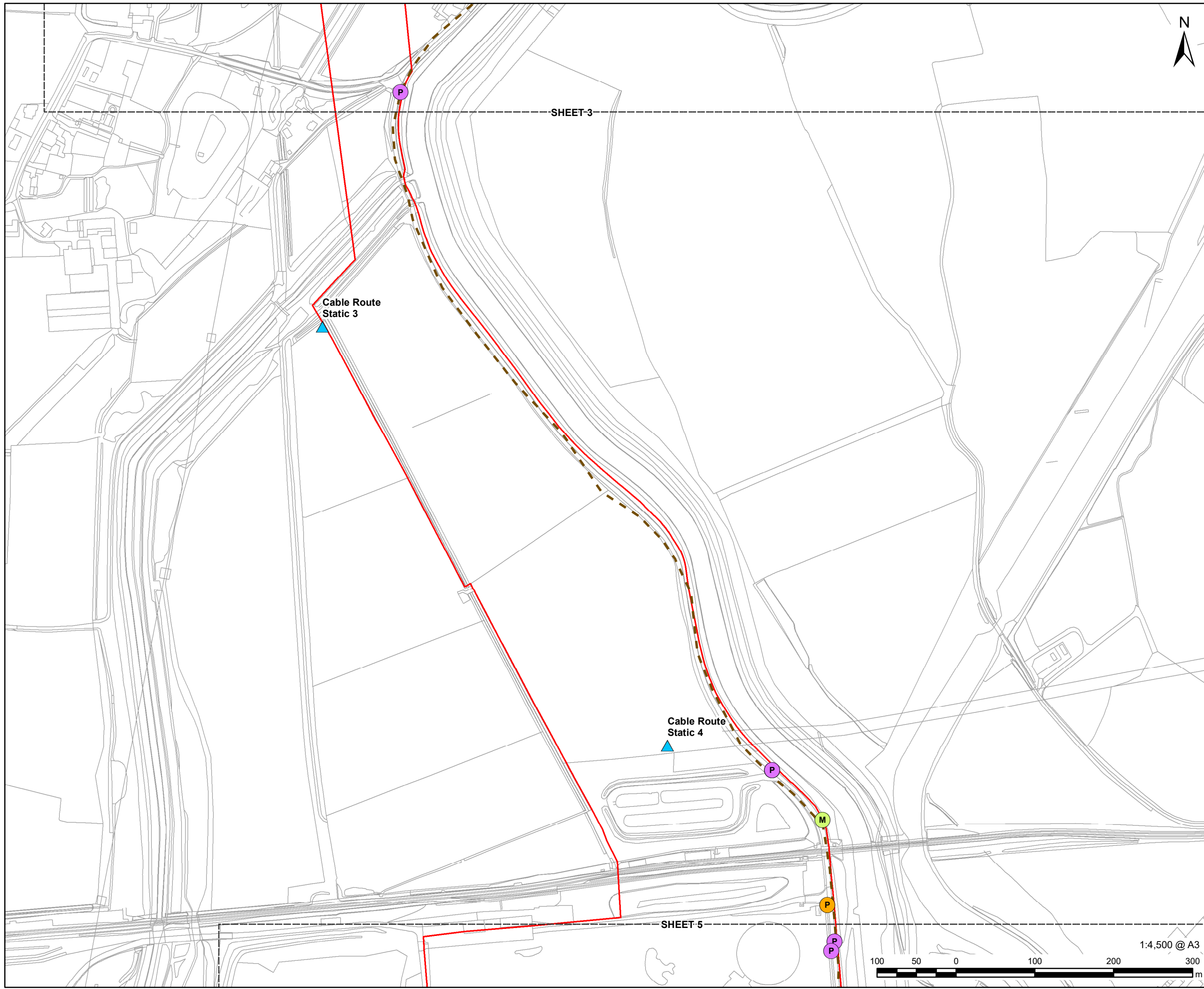
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 6  
Sheet 3 of 5

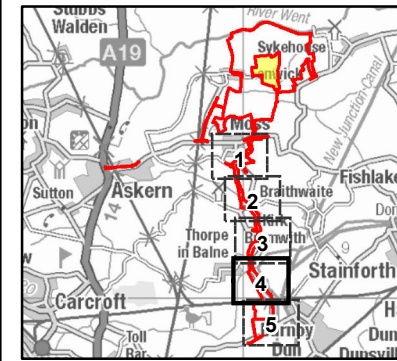
**FIGURE NUMBER**  
Figure 8-3-9



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- LEGEND**
- Order limits
  - ▲ Static Detector Location
  - Transect 6
- Bat Record**
- M Myotis spec.
  - P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus



**NOTES**

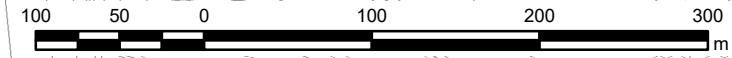
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Environmental Statement

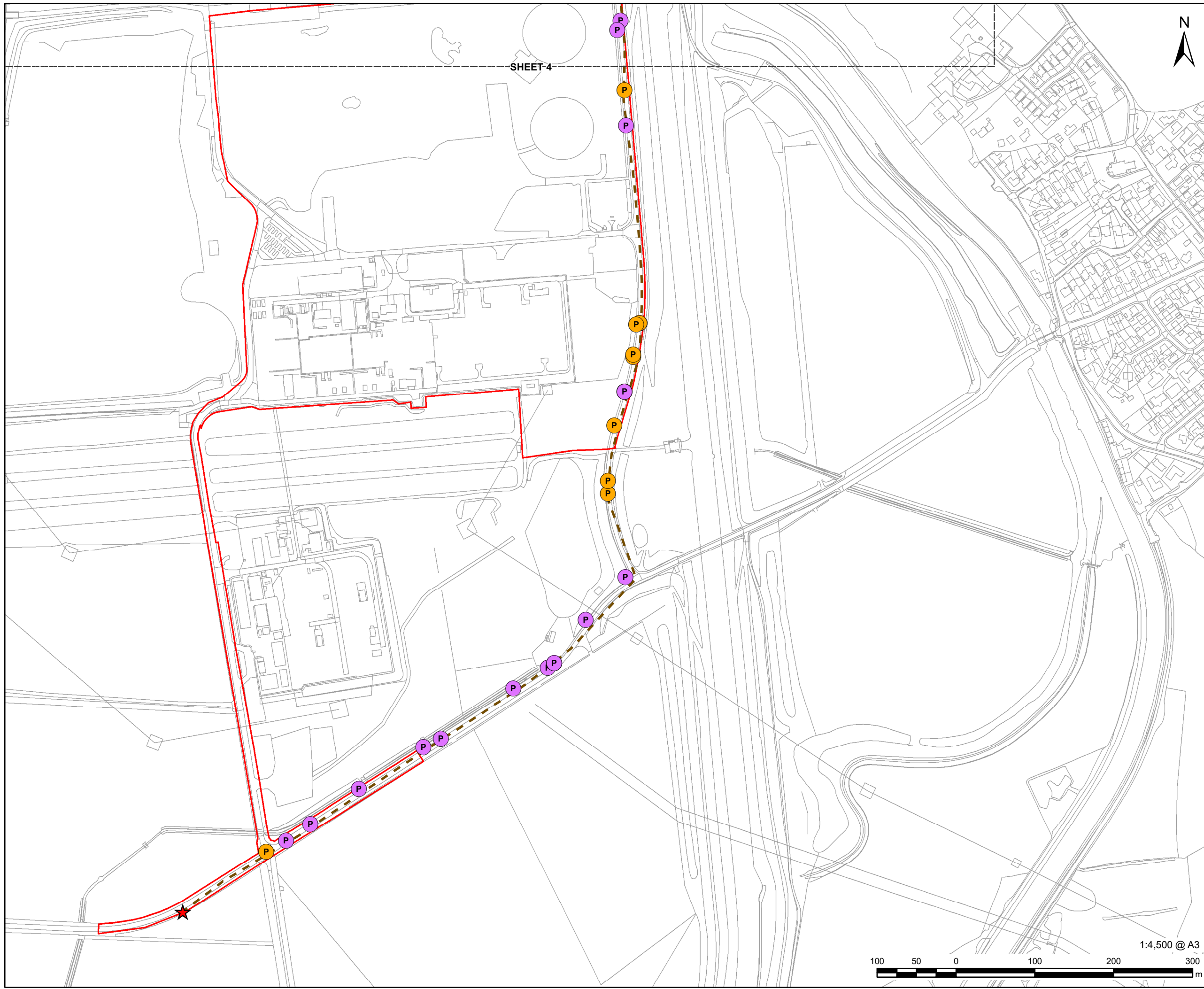
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 6  
Sheet 4 of 5

**FIGURE NUMBER**  
Figure 8-3-9



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SHEET 4

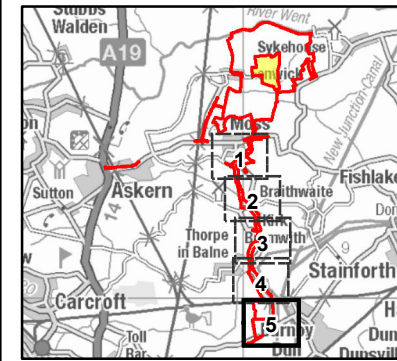


**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - ★ End Point
  - Transect 6
  - P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus



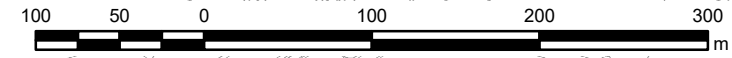
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**ISSUE PURPOSE**  
Environmental Statement

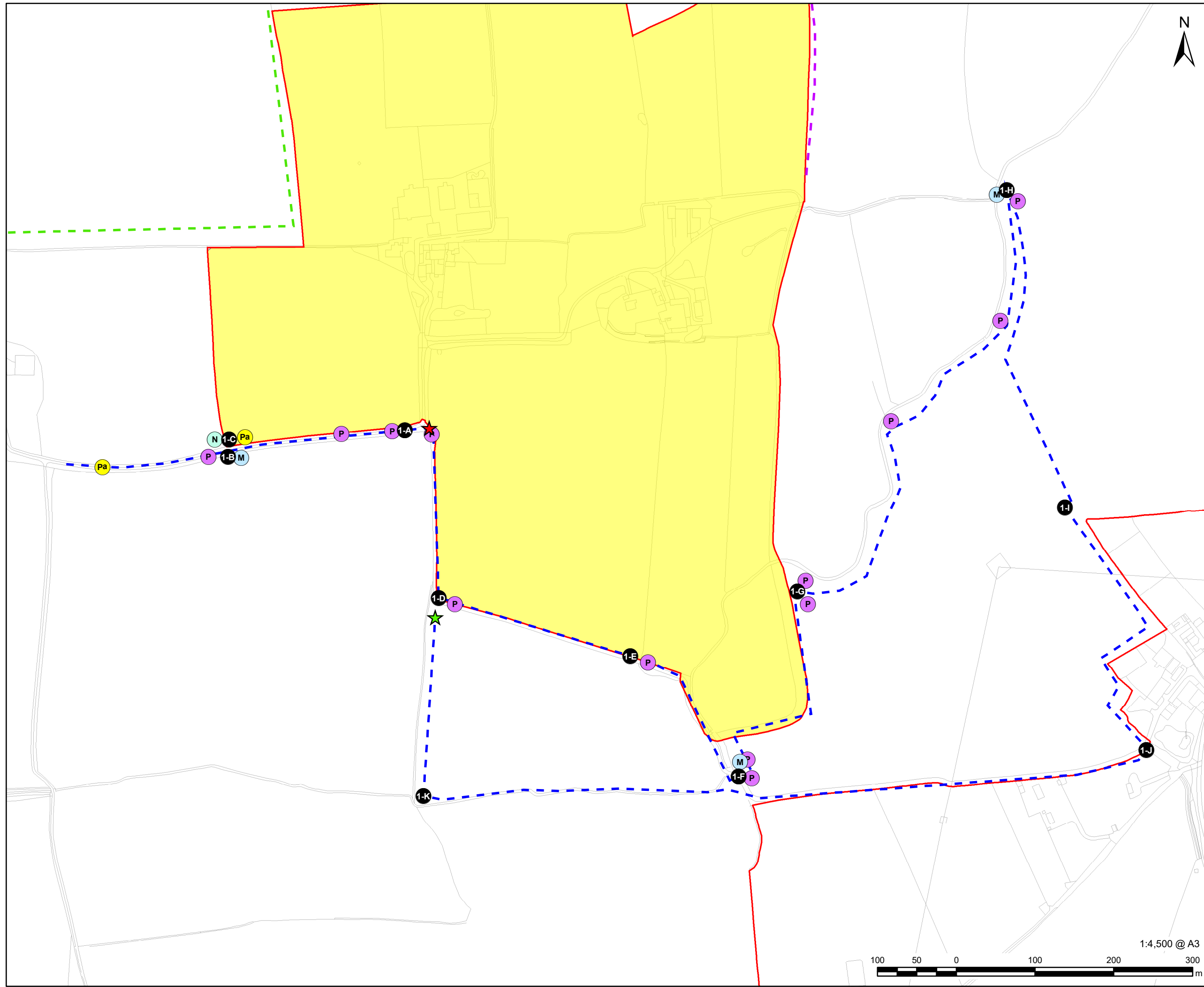
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Spring - Transect 6  
Sheet 5 of 5

**FIGURE NUMBER**  
Figure 8-3-9



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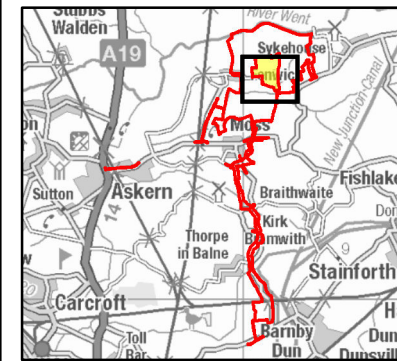


**LEGEND**

- Order limits
- Land not included in the Order limits
- ★ End Point
- ★ Start Point
- Location of Stopping Point
- Transect 1
- Other Transect  
Transect 2
- Transect 3a

**Bat Record**

- M Myotis sp.
- N Nyctalus noctula
- P Pipistrellus pipistrellus
- Pa Plecotus auritus



**NOTES**

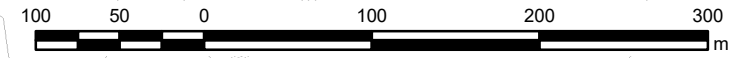
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**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

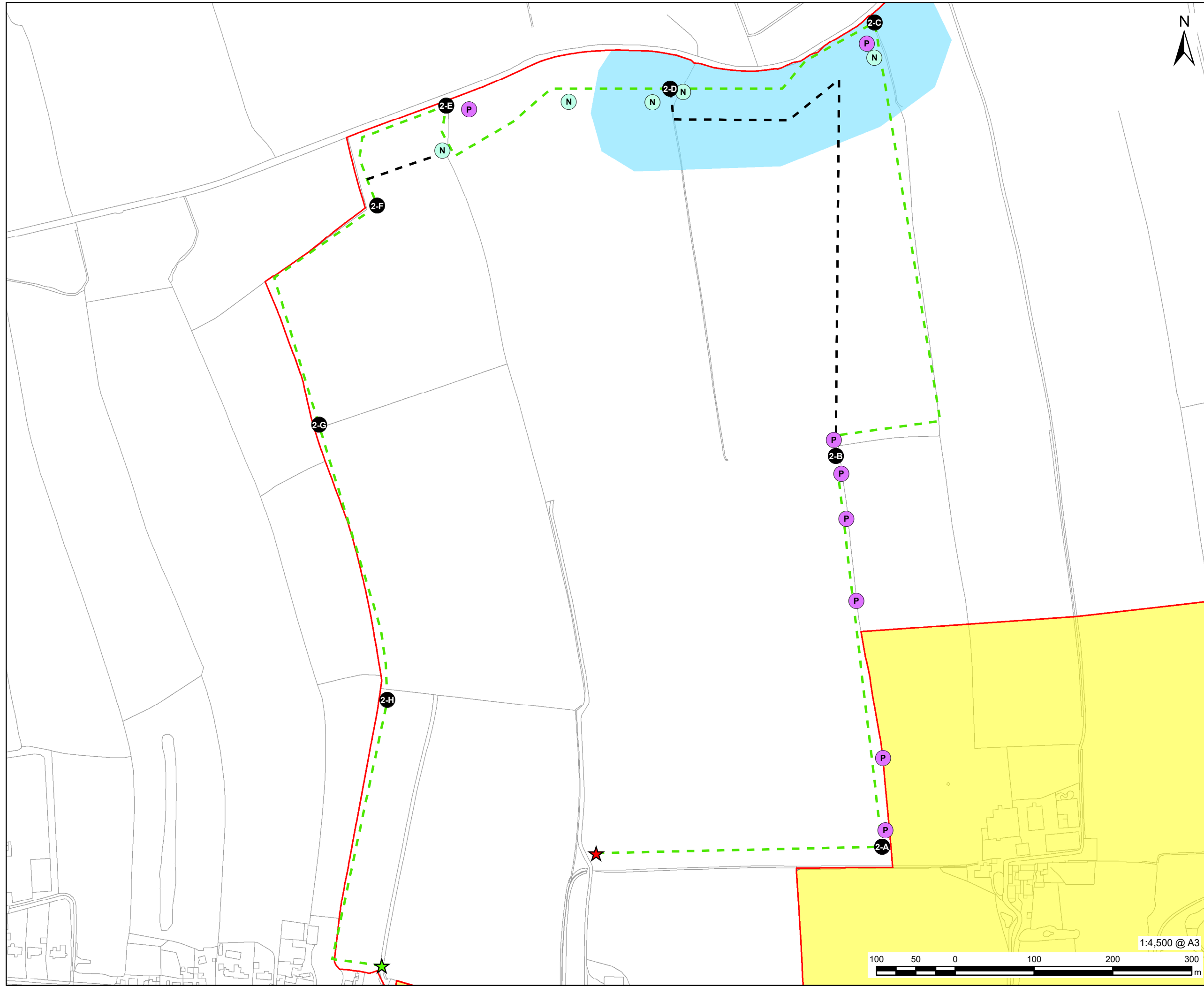
**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 1

**FIGURE NUMBER**  
Figure 8-3-10



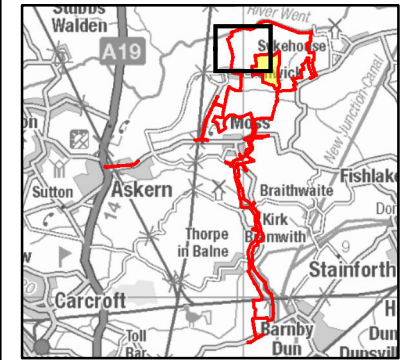
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**LEGEND**

- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Transect 2
  - Diversion due to Flooding
- Bat Record**
- N Nyctalus noctula
  - P Pipistrellus pipistrellus
  - Flooded Area



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**ISSUE PURPOSE**

Environmental Statement

**PROJECT NUMBER**

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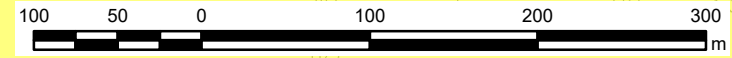
**FIGURE TITLE**

Bat Activity Survey, Summer - Transect 2

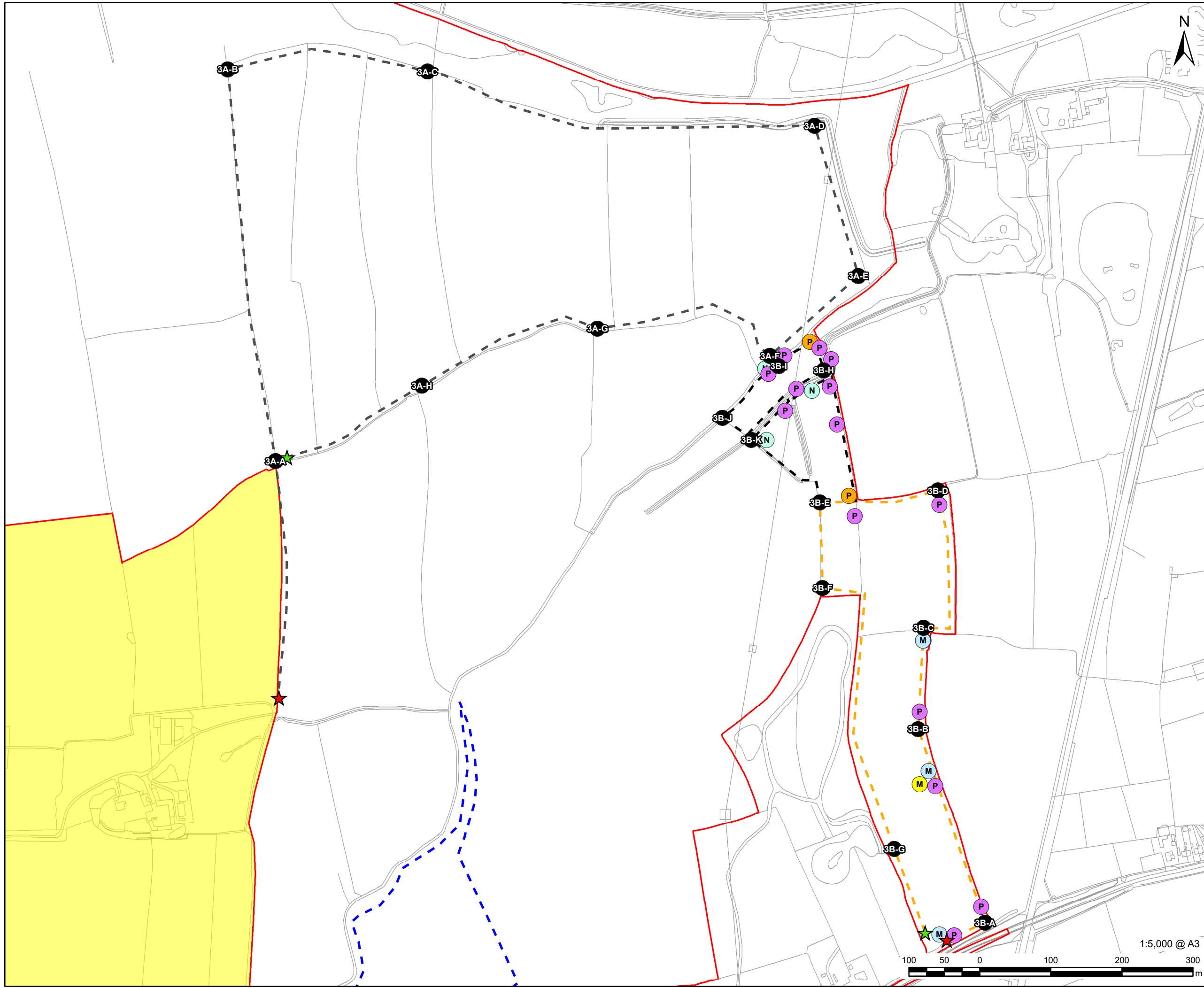
**FIGURE NUMBER**

Figure 8-3-11

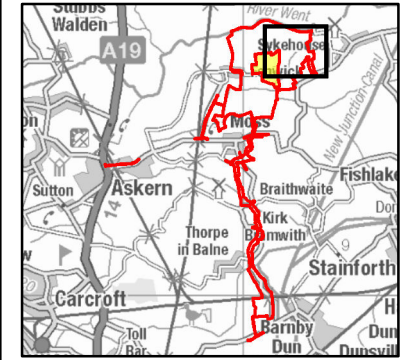
1:4,500 @ A3



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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Transect 3a (No Access)
  - Transect 3b
  - Diverted Route Used for Summer Visit for Transect 3b
  - Other Transect**
  - Transect 1
  - Bat Record**
  - Myotis daubentonii
  - Myotis sp.
  - Nyctalus noctula
  - Pipistrellus pipistrellus
  - Pipistrellus pygmaeus



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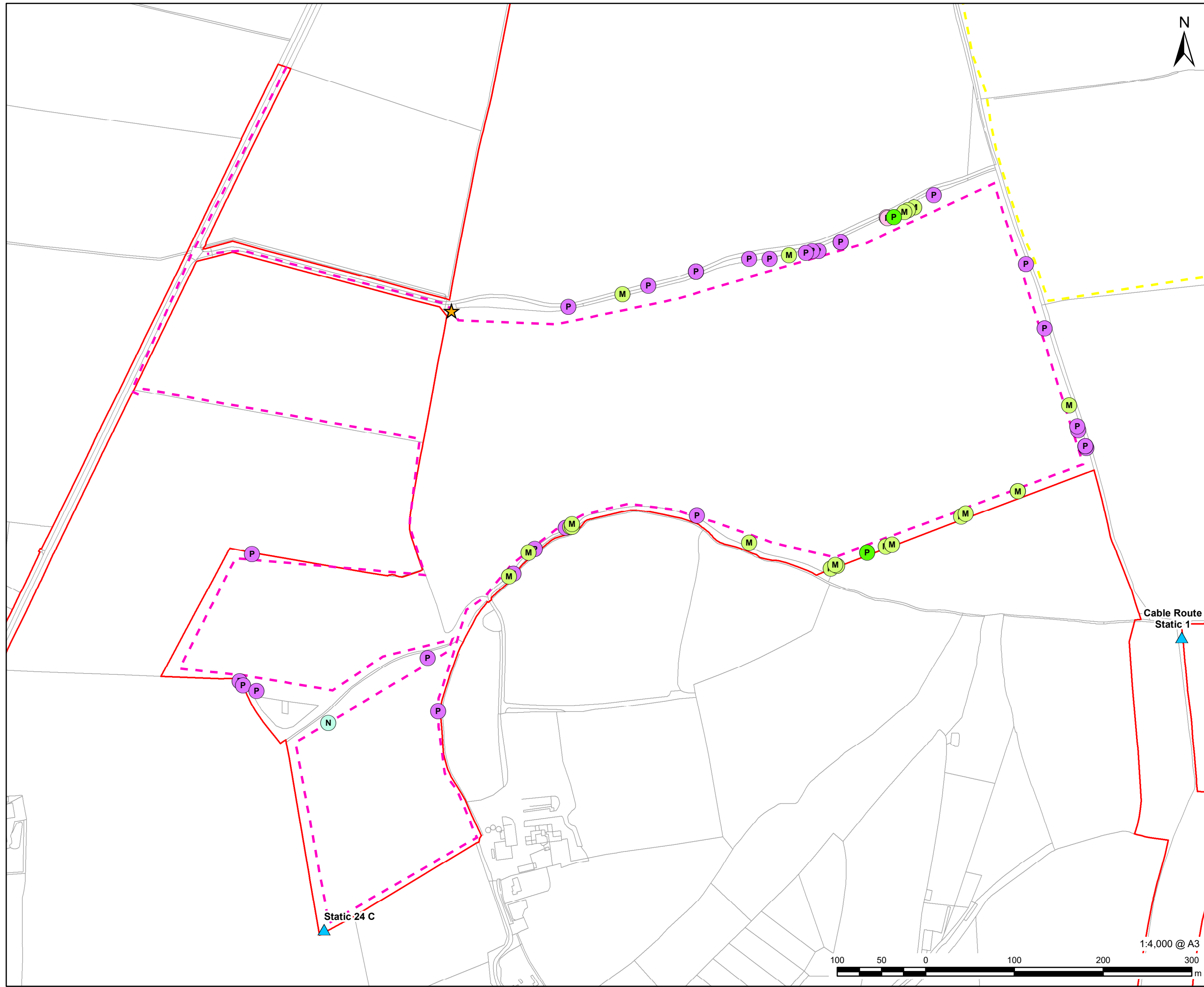
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

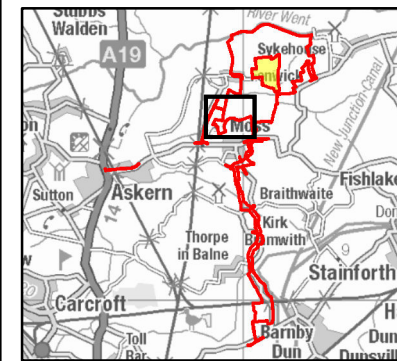
**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 3

**FIGURE NUMBER**  
Figure 8-3-12

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- LEGEND**
- Order limits
  - ★ Start & End Point
  - ▲ Static Detector Location
  - Transect 4
  - Other Transect**
  - Transect 5
  - Bat Record**
  - M Myotis spec.
  - N Nyctalus leisleri
  - N Nyctalus noctula
  - P Pipistrellus pipistrellus
  - P Plecotus auritus



**NOTES**

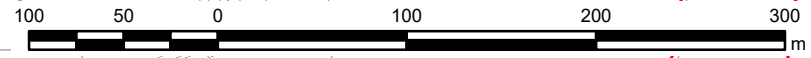
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**ISSUE PURPOSE**  
Environmental Statement

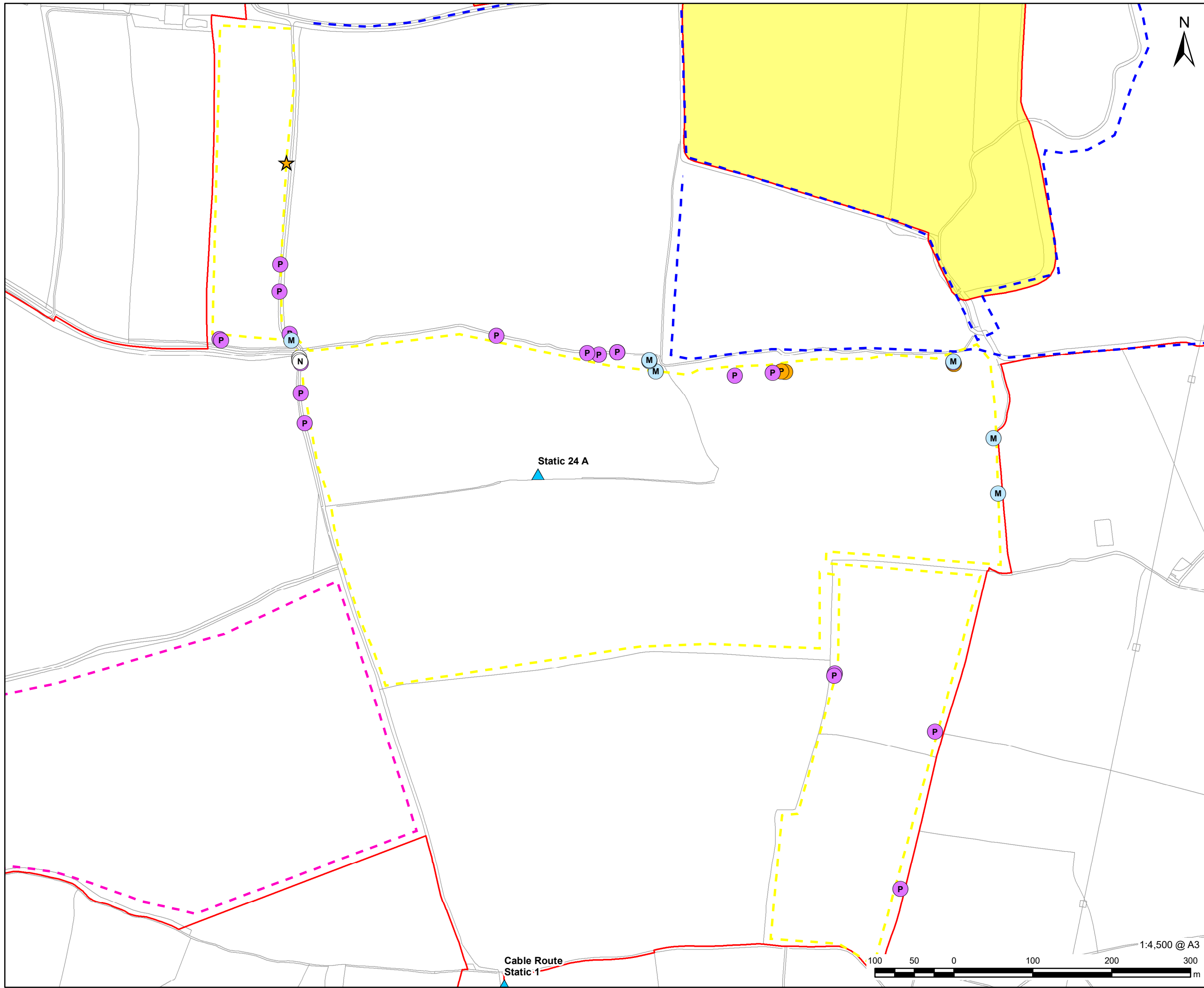
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 4

**FIGURE NUMBER**  
Figure 8-3-13



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**AECOM**

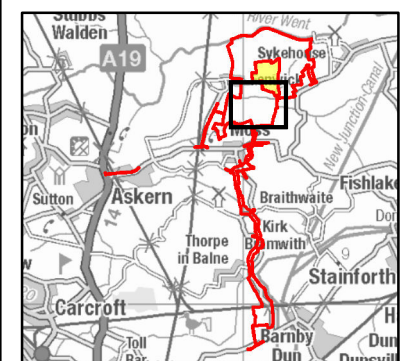
**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

**LEGEND**

- Order limits
- Land not included in the Order limits
- ★ Start & End Point
- ▲ Static Detector Location
- Transect 5
- Other Transect**
- Transect 1
- Transect 4
- Bat Record**
- M Myotis sp.
- N Nyctalus noctula
- P Pipistrellus pipistrellus
- P Pipistrellus pygmaeus



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**ISSUE PURPOSE**

Environmental Statement

**PROJECT NUMBER**

60698207

**FIGURE TITLE**

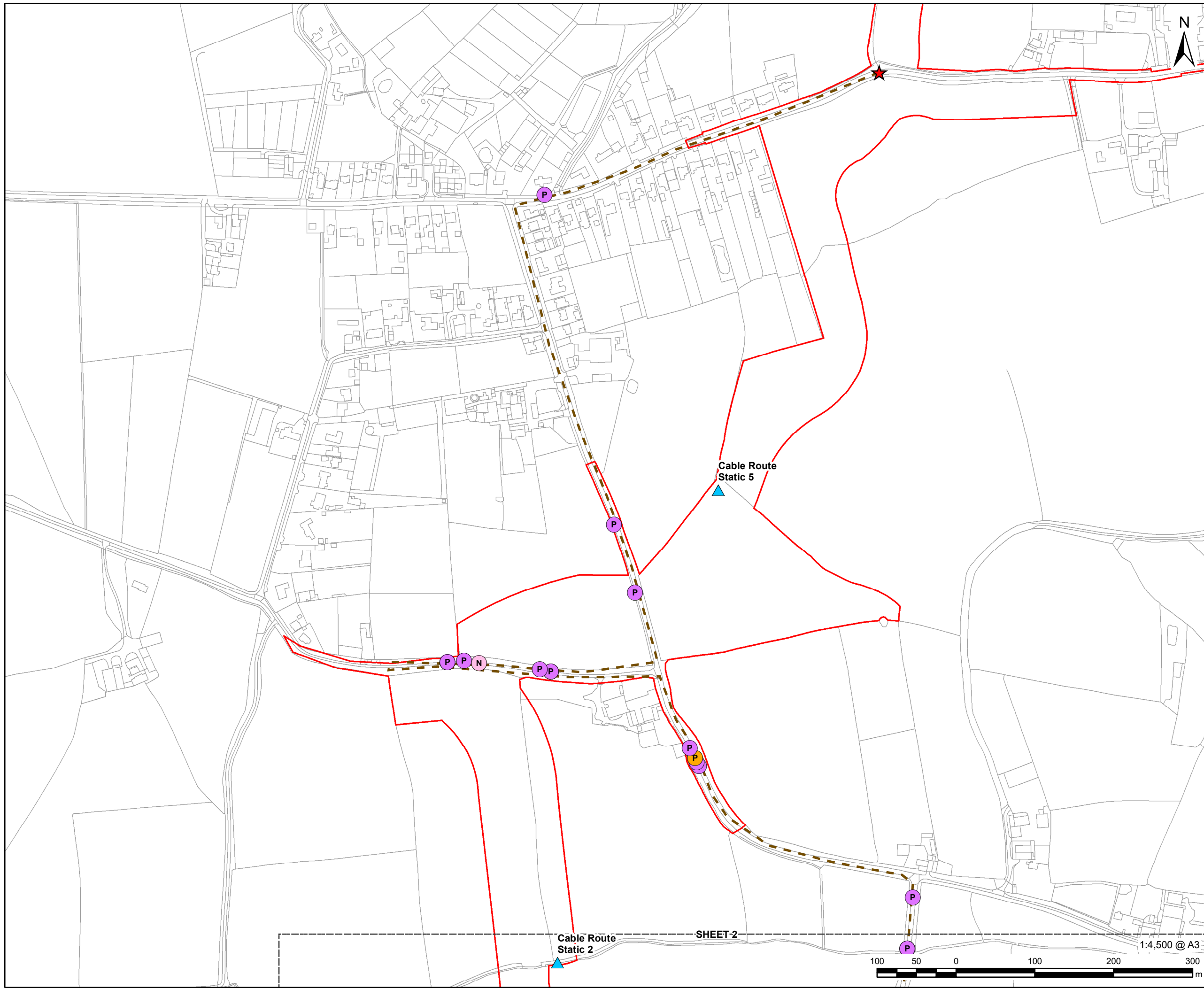
Bat Activity Survey, Summer - Transect 5

**FIGURE NUMBER**

Figure 8-3-14



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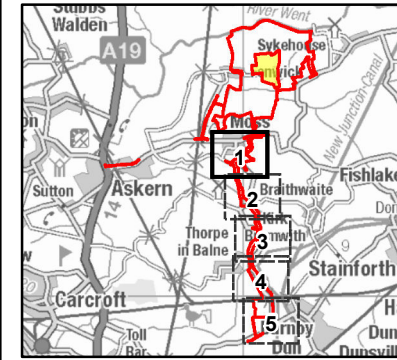


**PROJECT**  
Fenwick Solar Farm

**CLIENT**  
Fenwick Solar Project Limited

**CONSULTANT**  
AECOM Limited  
Midpoint,  
Alencon Link  
Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - ★ End Point
  - ▲ Static Detector Location
  - Transect 6
- Bat Record**
- Nyctalus leisleri
  - Pipistrellus pipistrellus
  - Pipistrellus pygmaeus
  - Plecotus auritus



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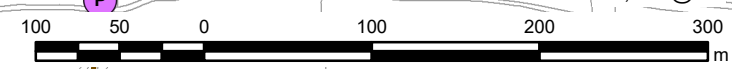
**ISSUE PURPOSE**  
Environmental Statement

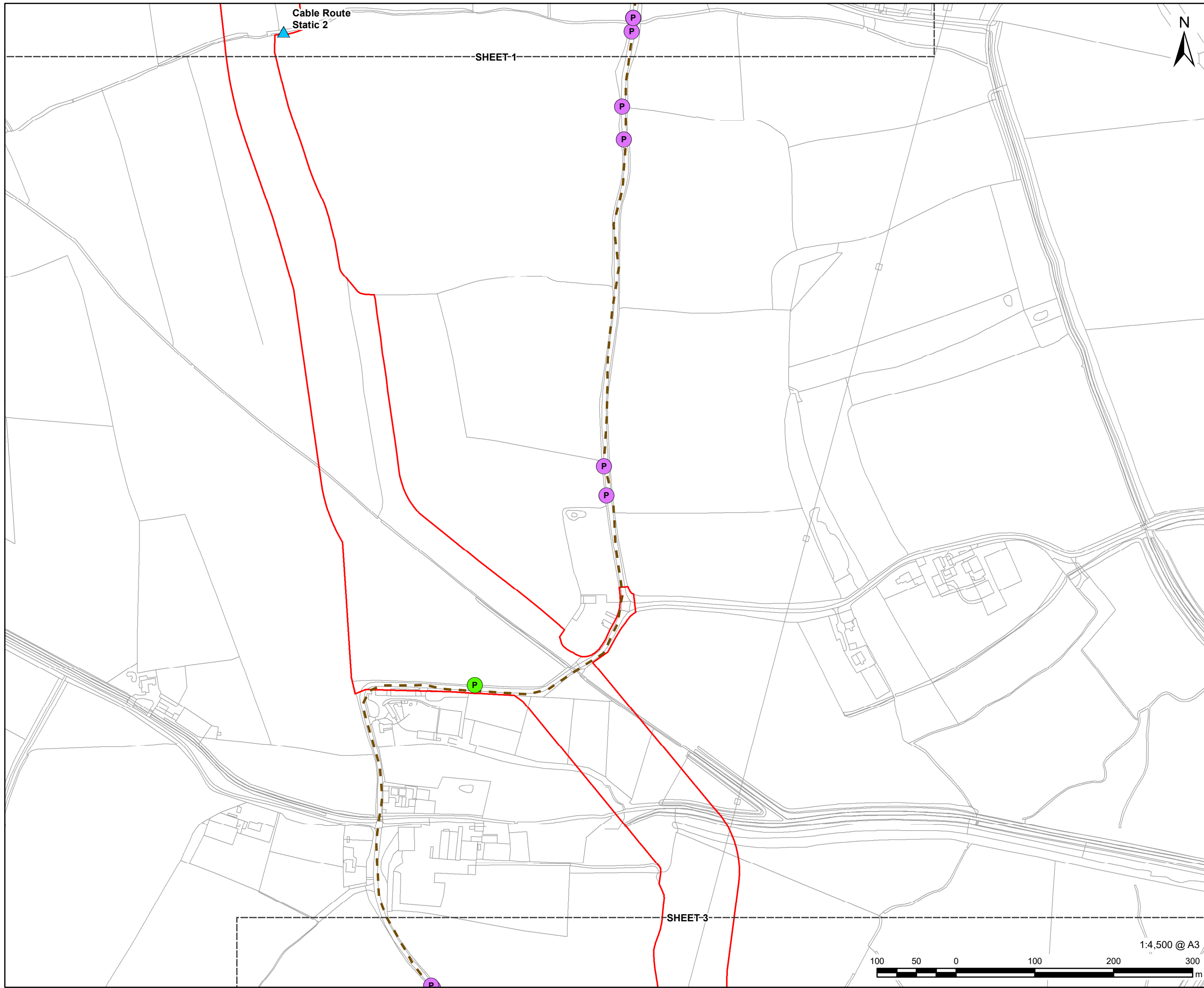
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 6  
Sheet 1 of 5

**FIGURE NUMBER**  
Figure 8-3-15

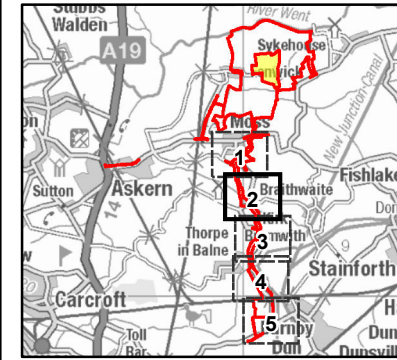
Cable Route Static 2 SHEET 2





**LEGEND**

|                   |                           |
|-------------------|---------------------------|
|                   | Order limits              |
|                   | Static Detector Location  |
|                   | Transect 6                |
| <b>Bat Record</b> |                           |
|                   | Pipistrellus pipistrellus |
|                   | Plecotus auritus          |



**NOTES**

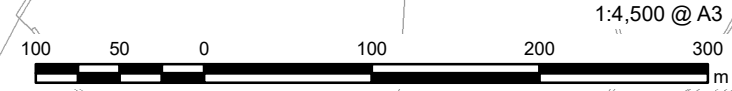
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Environmental Statement

**PROJECT NUMBER**  
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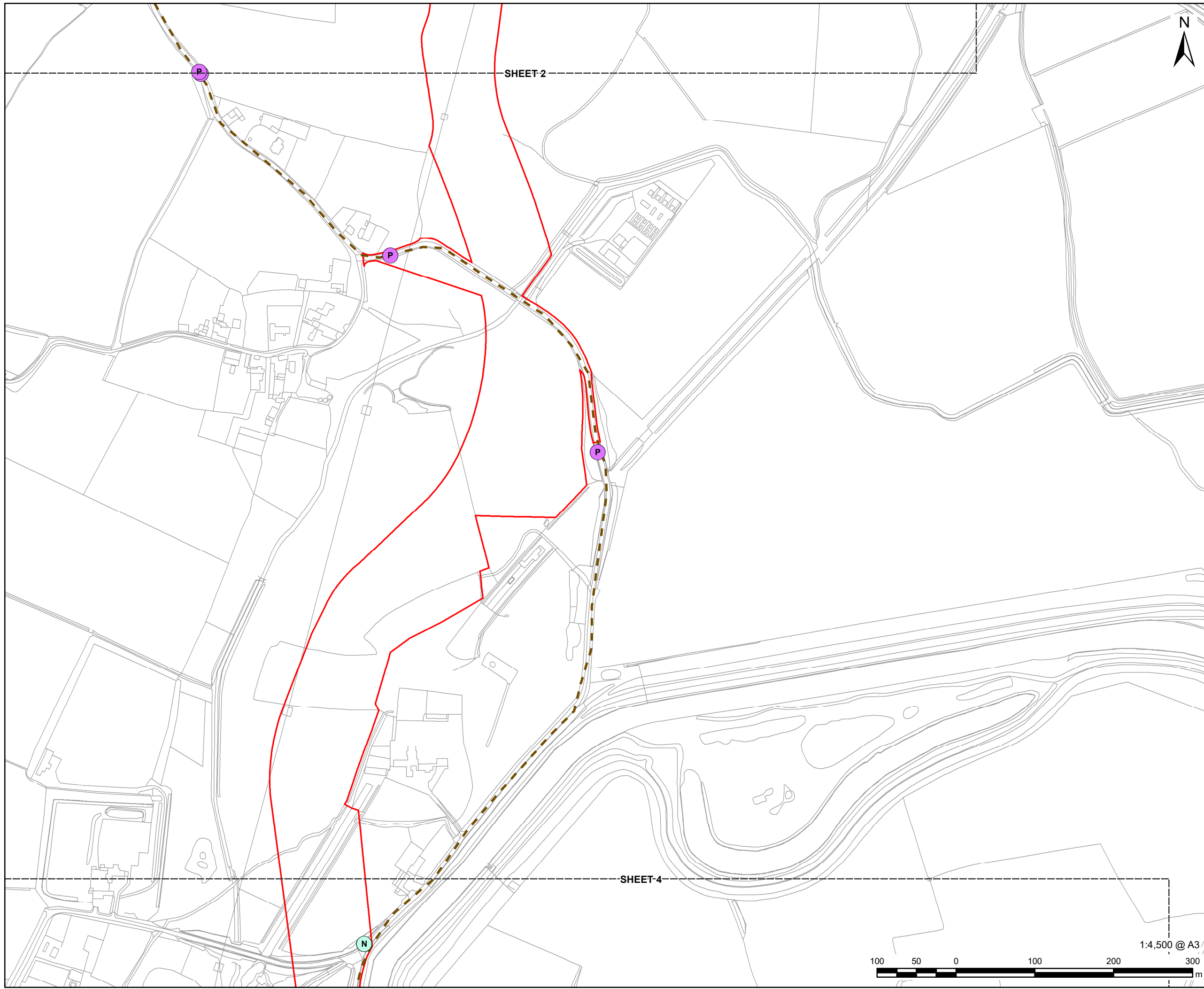
**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 6  
Sheet 2 of 5

**FIGURE NUMBER**  
Figure 8-3-15



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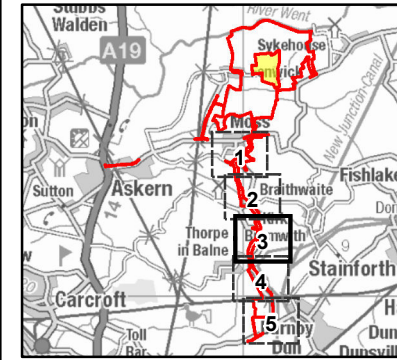


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**CONSULTANT**  
AECOM Limited  
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Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - Transect 6
- Bat Record**
- N Nyctalus noctula
  - P Pipistrellus pipistrellus



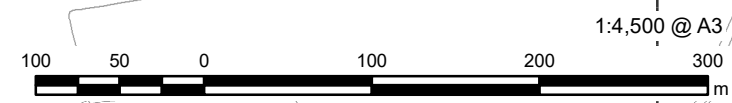
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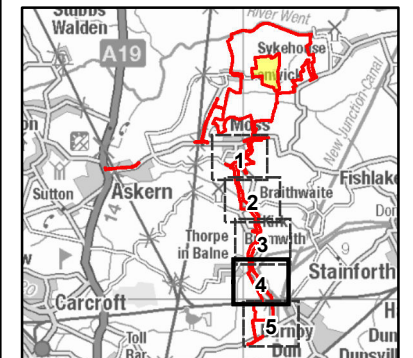
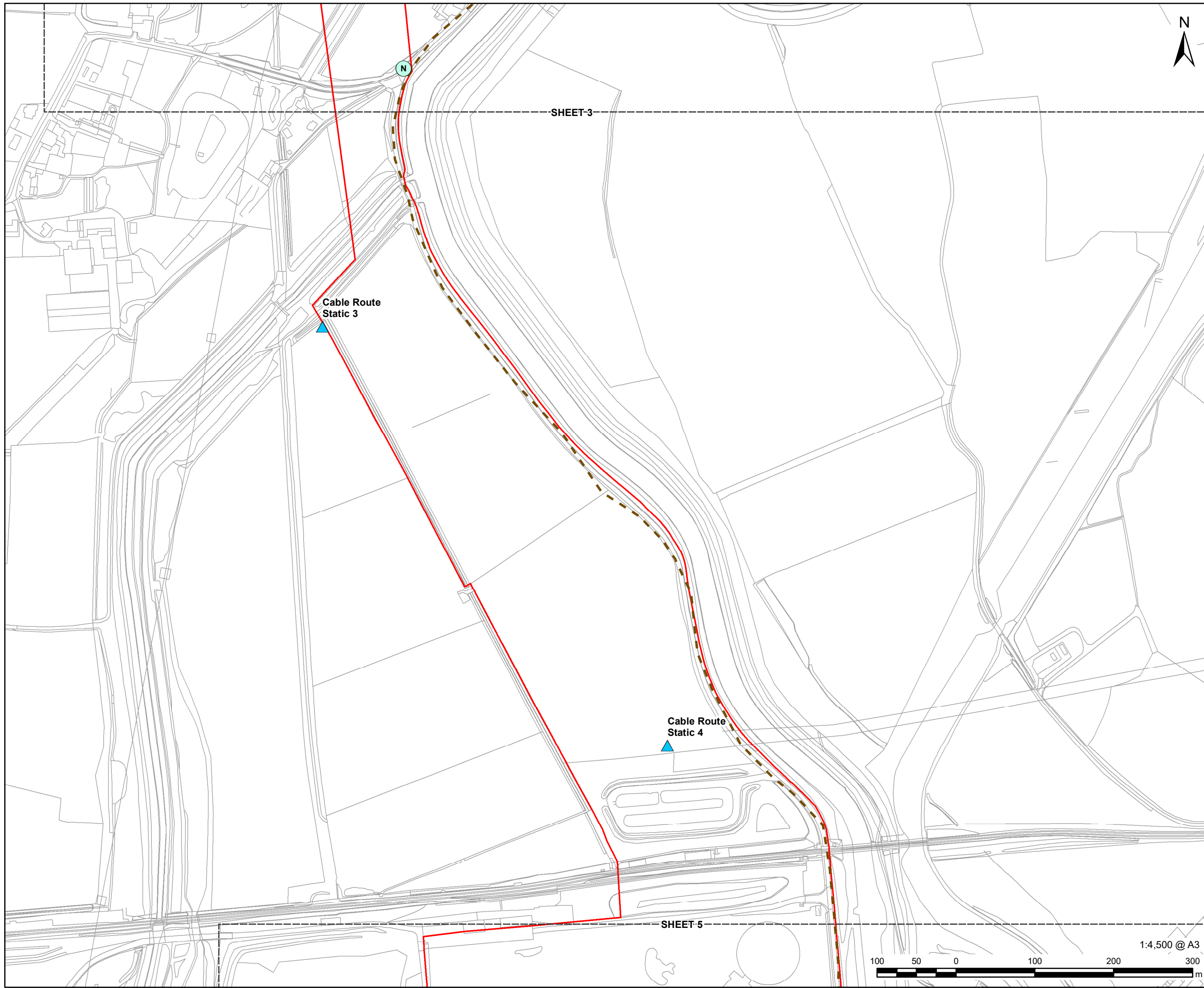
**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 6  
Sheet 3 of 5

**FIGURE NUMBER**  
Figure 8-3-15



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**NOTES**

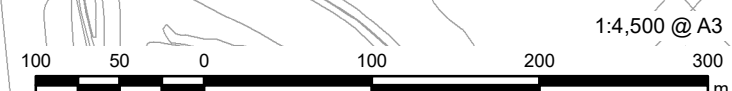
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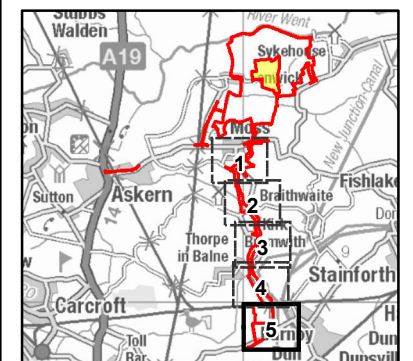
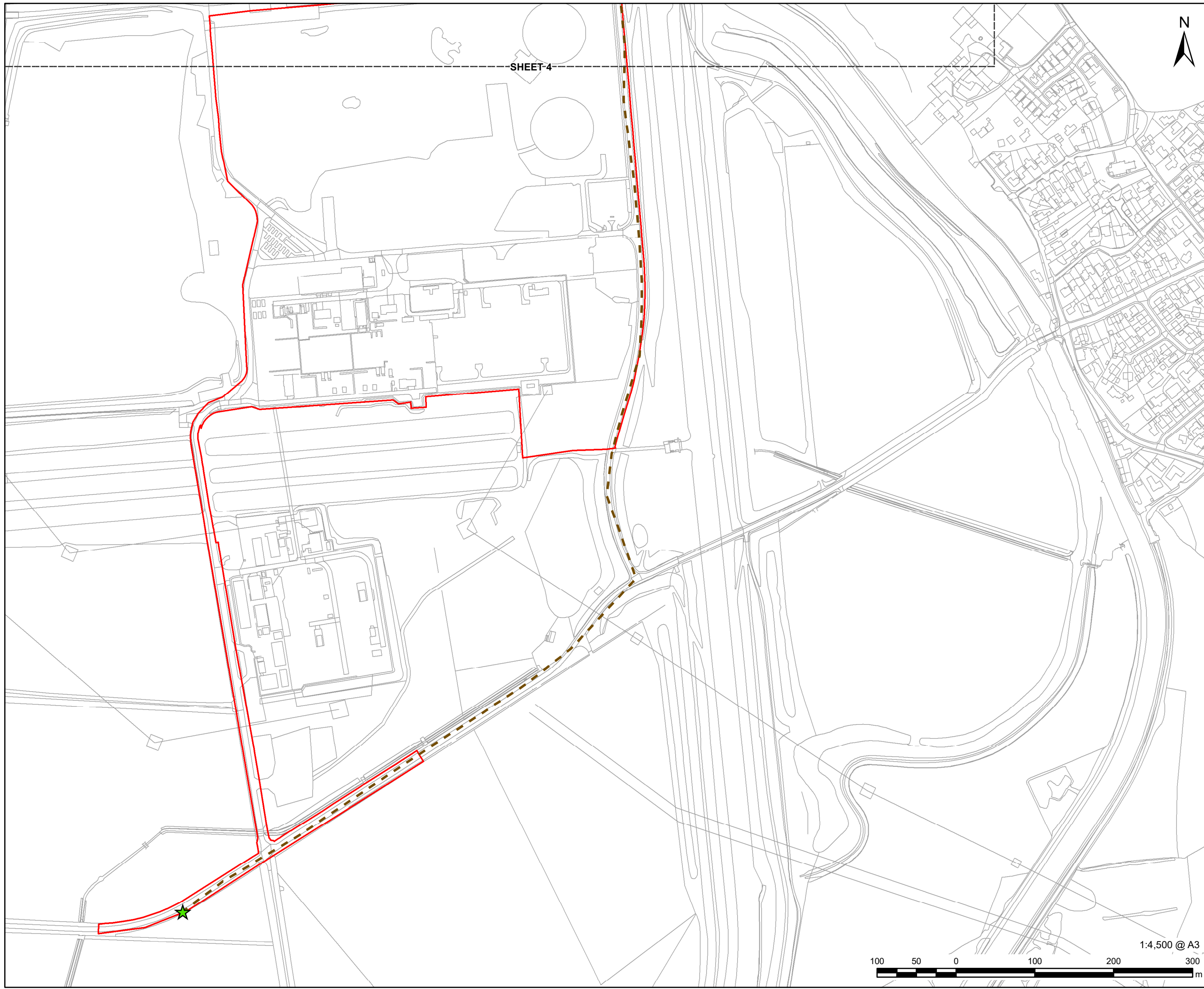
**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 6  
Sheet 4 of 5

**FIGURE NUMBER**  
Figure 8-3-15



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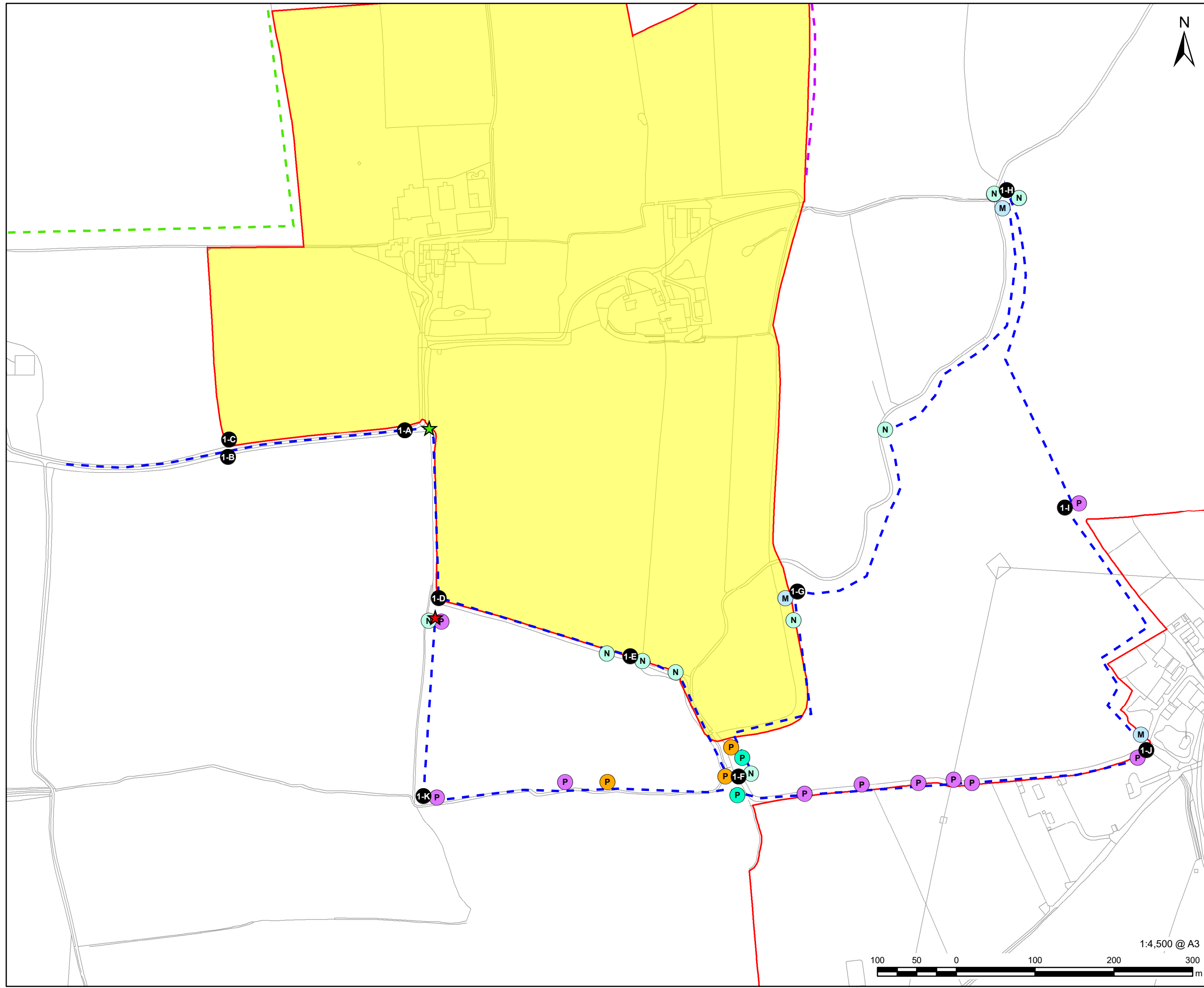
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Summer - Transect 6  
Sheet 5 of 5

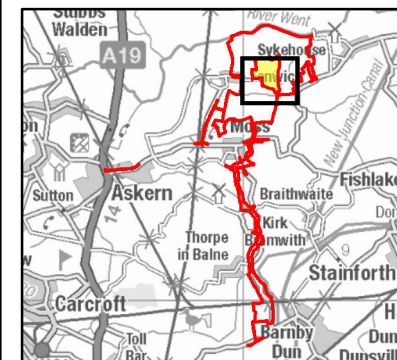
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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Transect 1
  - Transect 2
  - Transect 3a

- Bat Record**
- M Myotis sp.
  - N Nyctalus noctula
  - P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus
  - P Pipistrellus species



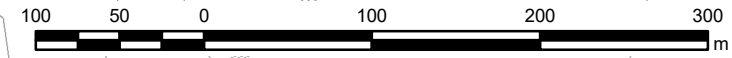
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Environmental Statement

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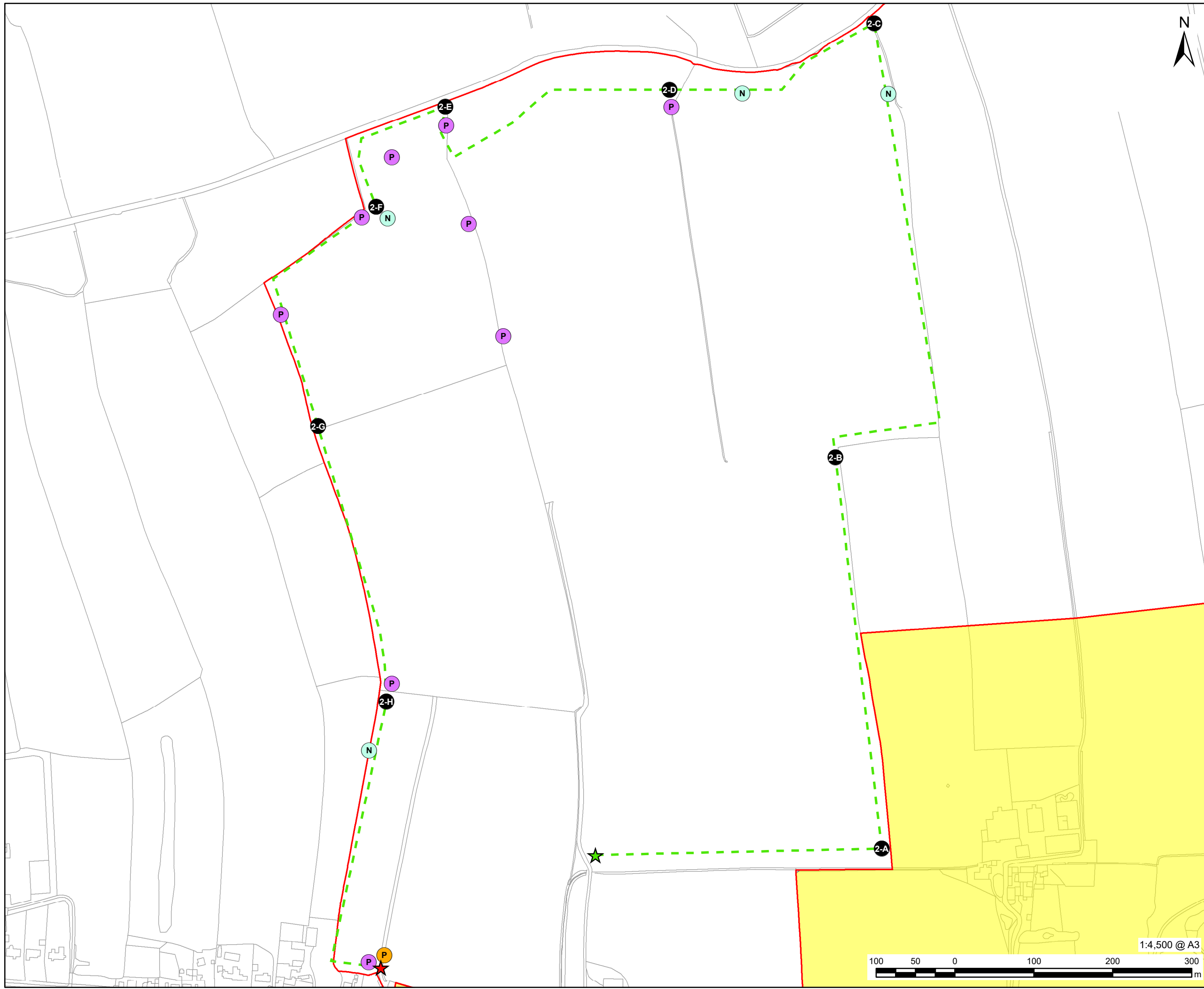
**FIGURE TITLE**  
Bat Activity Survey, Autumn - Transect 1

**FIGURE NUMBER**  
Figure 8-3-16

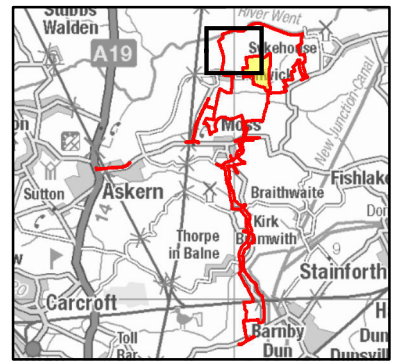


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- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start Point
  - ★ End Point
  - Location of Stopping Point
  - Transect 2
- Bat Record**
- N Nyctalus noctula
  - P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus



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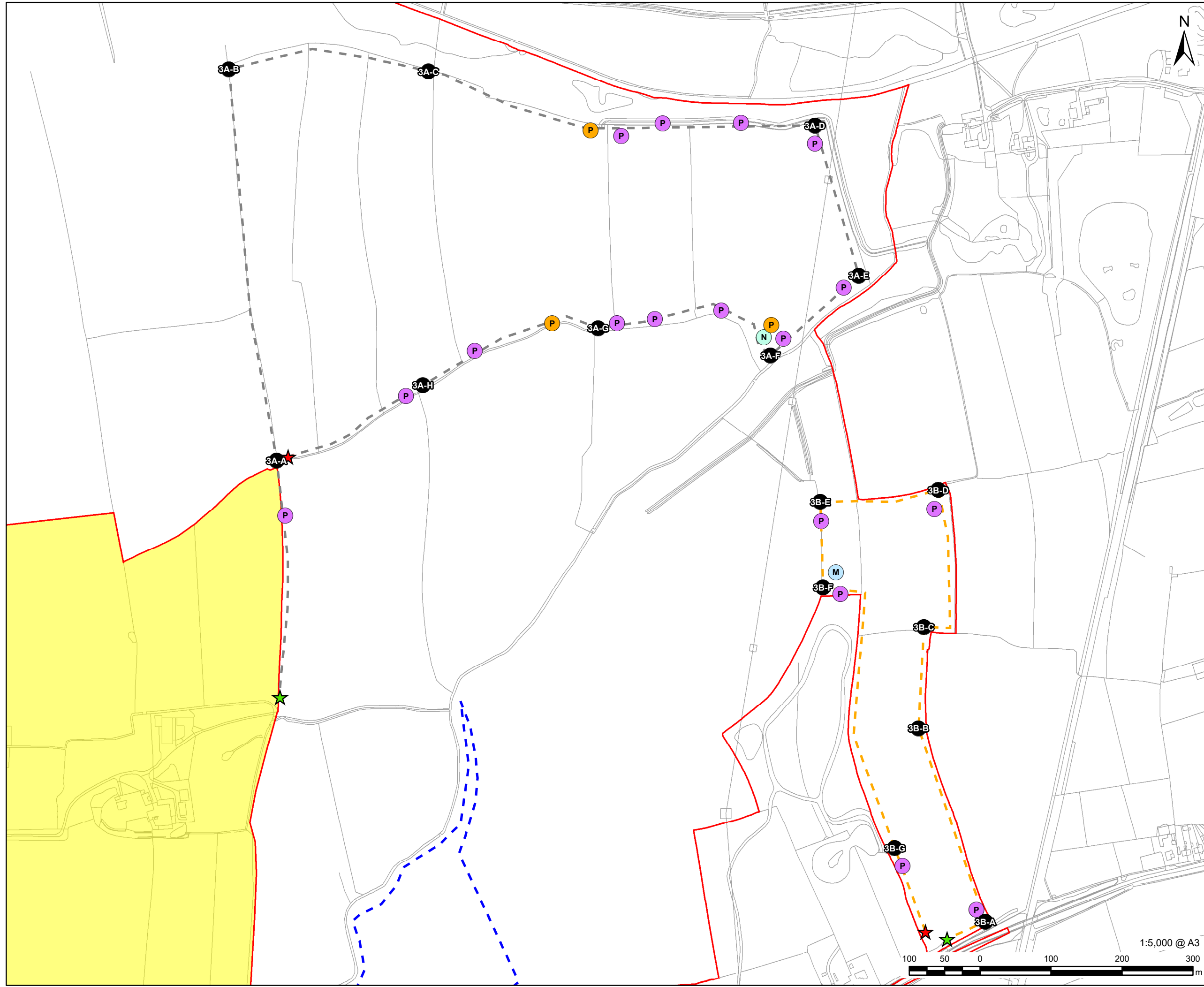
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
60698207

**FIGURE TITLE**  
Bat Activity Survey, Autumn - Transect 2

**FIGURE NUMBER**  
Figure 8-3-17

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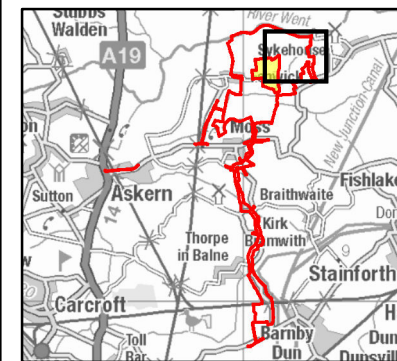


**LEGEND**

- Order limits
- Land not included in the Order limits
- ★ Start Point
- ★ End Point
- Location of Stopping Point
- Transect 3a (No Access)
- Transect 3b
- Other Transect**
- Transect 1

**Bat Record**

- M Myotis sp.
- N Nyctalus noctula
- P Pipistrellus pipistrellus
- P Pipistrellus pygmaeus



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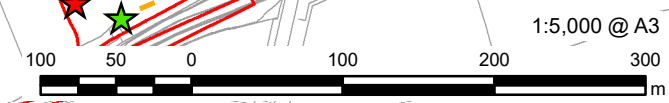
60698207

**FIGURE TITLE**

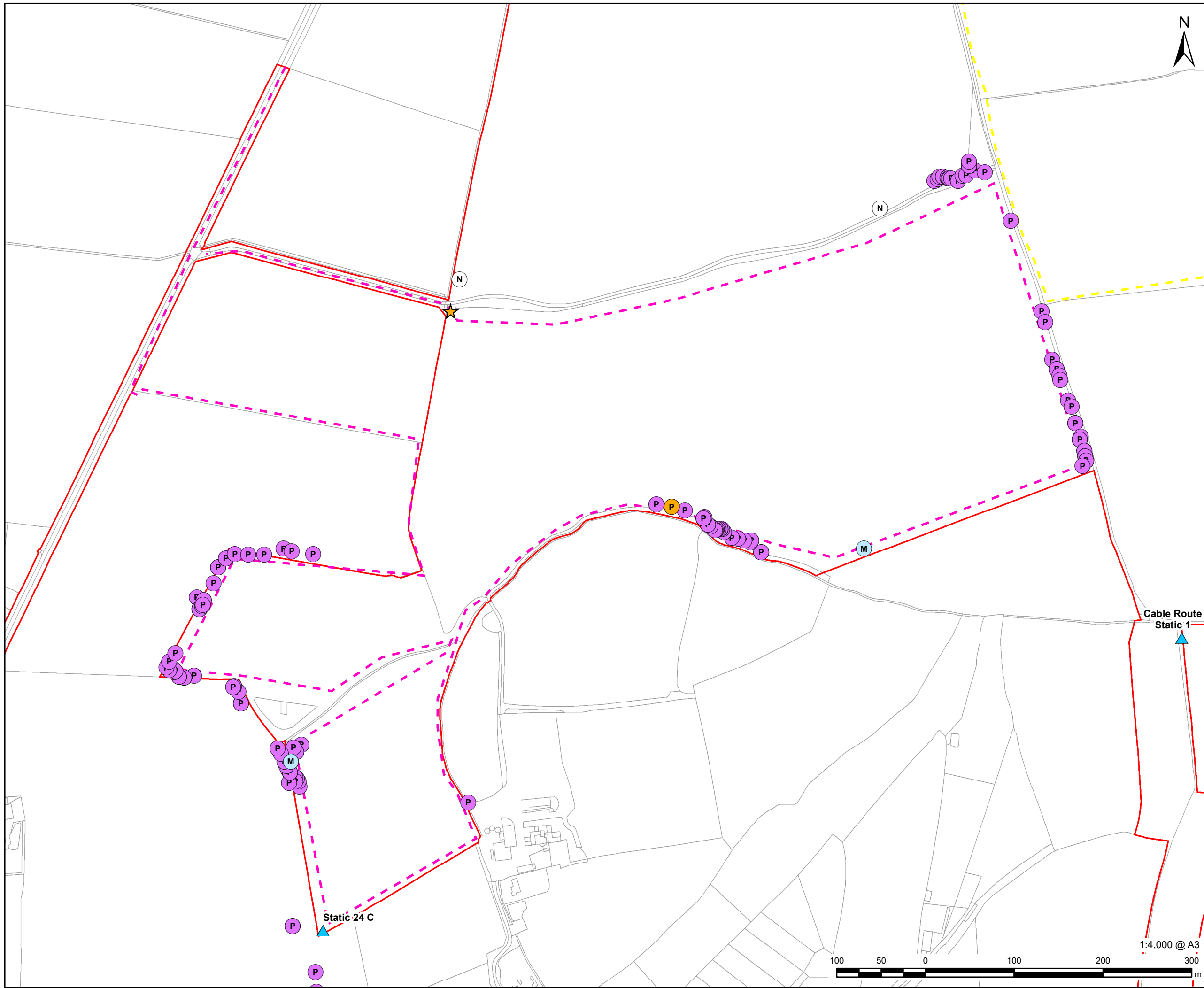
Bat Activity Survey, Autumn - Transect 3

**FIGURE NUMBER**

Figure 8-3-18

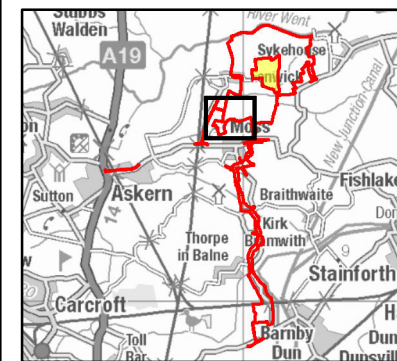


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**LEGEND**

- Order limits
- ★ Start & End Point
- ▲ Static Detector Location
- Transect 4
- Transect 5
- Other Transect**
- Transect 5
- Bat Record**
- M Myotis sp.
- N Nyctalus noctula
- P Pipistrellus pipistrellus
- PY Pipistrellus pygmaeus



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**FIGURE TITLE**

Bat Activity Survey, Autumn - Transect 4

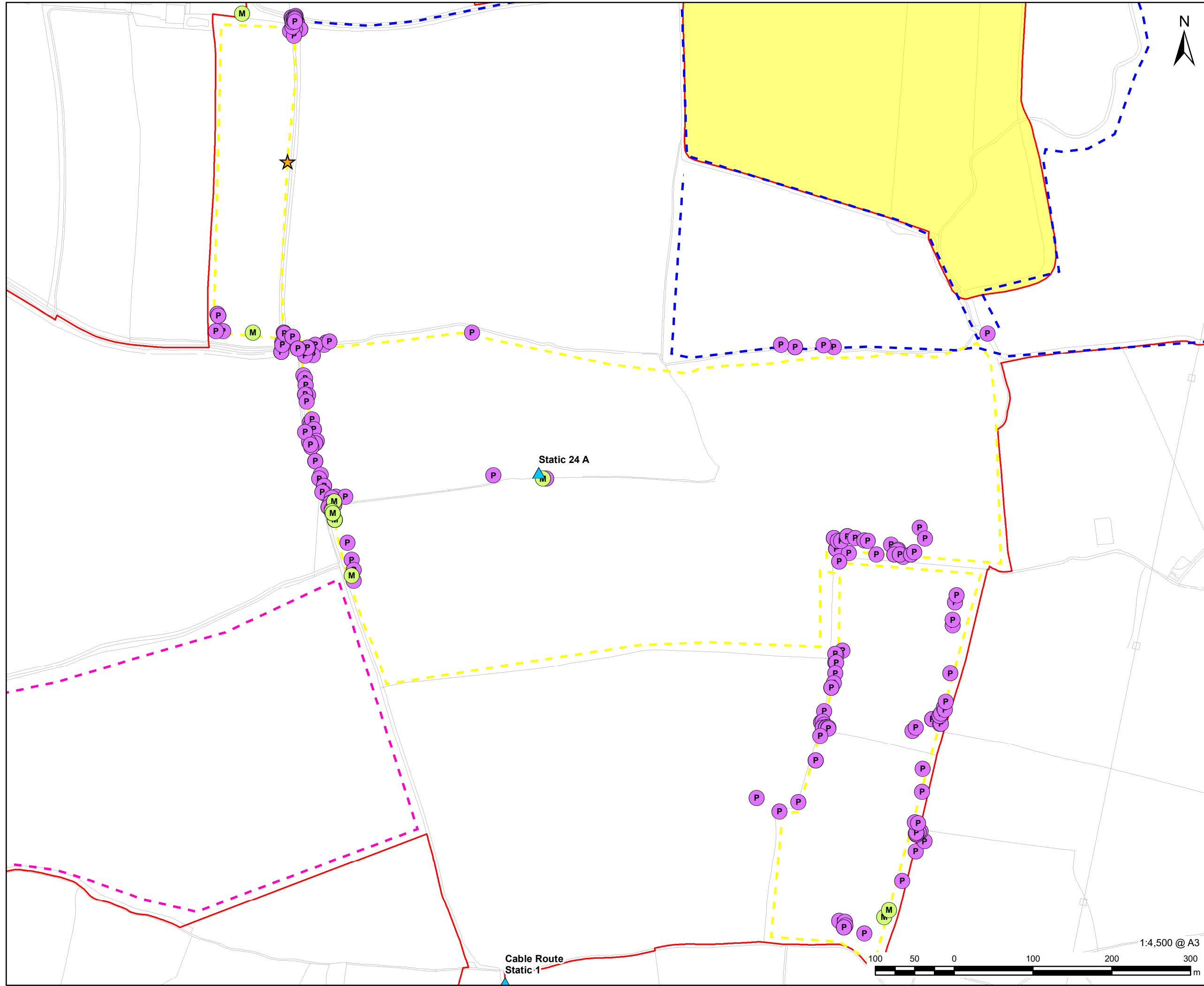
**FIGURE NUMBER**

Figure 8-3-19



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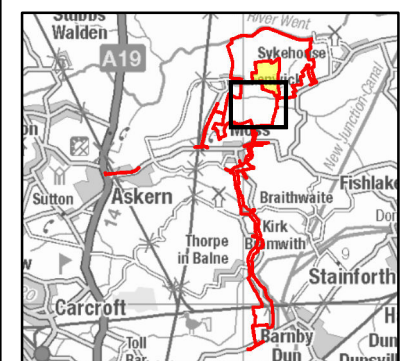


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Midpoint,  
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www.aecom.com

- LEGEND**
- Order limits
  - Land not included in the Order limits
  - ★ Start & End Point
  - ▲ Static Detector Location
  - Transect 5
  - Other Transect
  - Transect 1
  - Transect 4
  - Myotis spec.
  - Pipistrellus pipistrellus



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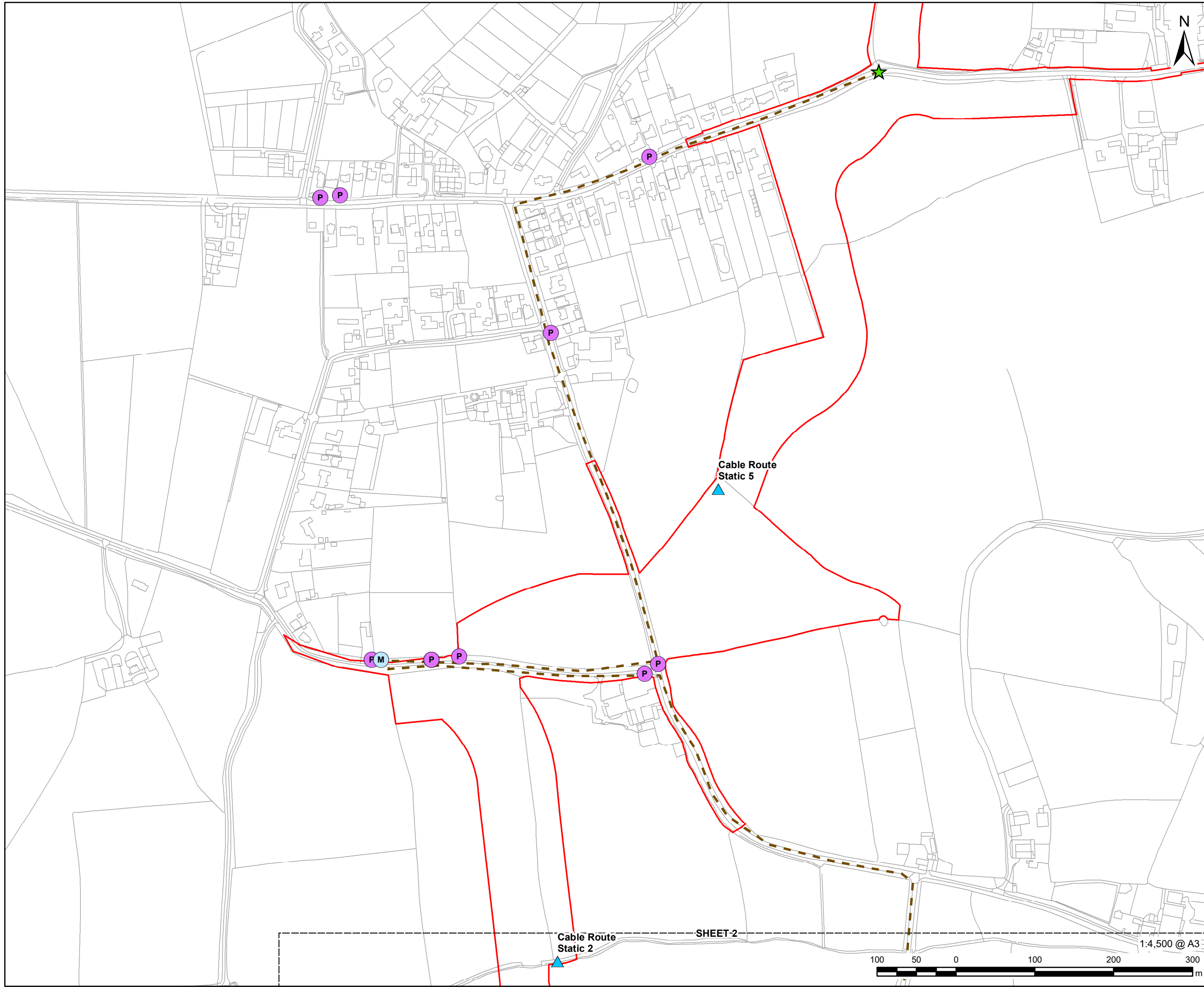
**ISSUE PURPOSE**  
Environmental Statement

**PROJECT NUMBER**  
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**FIGURE TITLE**  
Bat Activity Survey, Autumn - Transect 5

**FIGURE NUMBER**  
Figure 8-3-20

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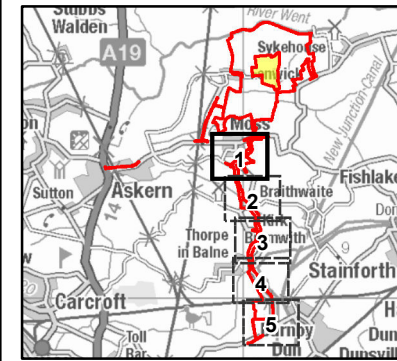


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Basingstoke, RG21 7PP  
www.aecom.com

- LEGEND**
- Order limits
  - ★ Start Point
  - ▲ Static Detector Location
  - Transect 6
- Bat Record**
- M Myotis sp.
  - P Pipistrellus pipistrellus



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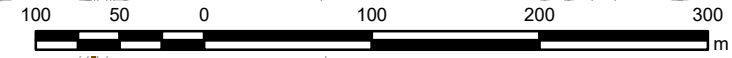
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Environmental Statement

**PROJECT NUMBER**  
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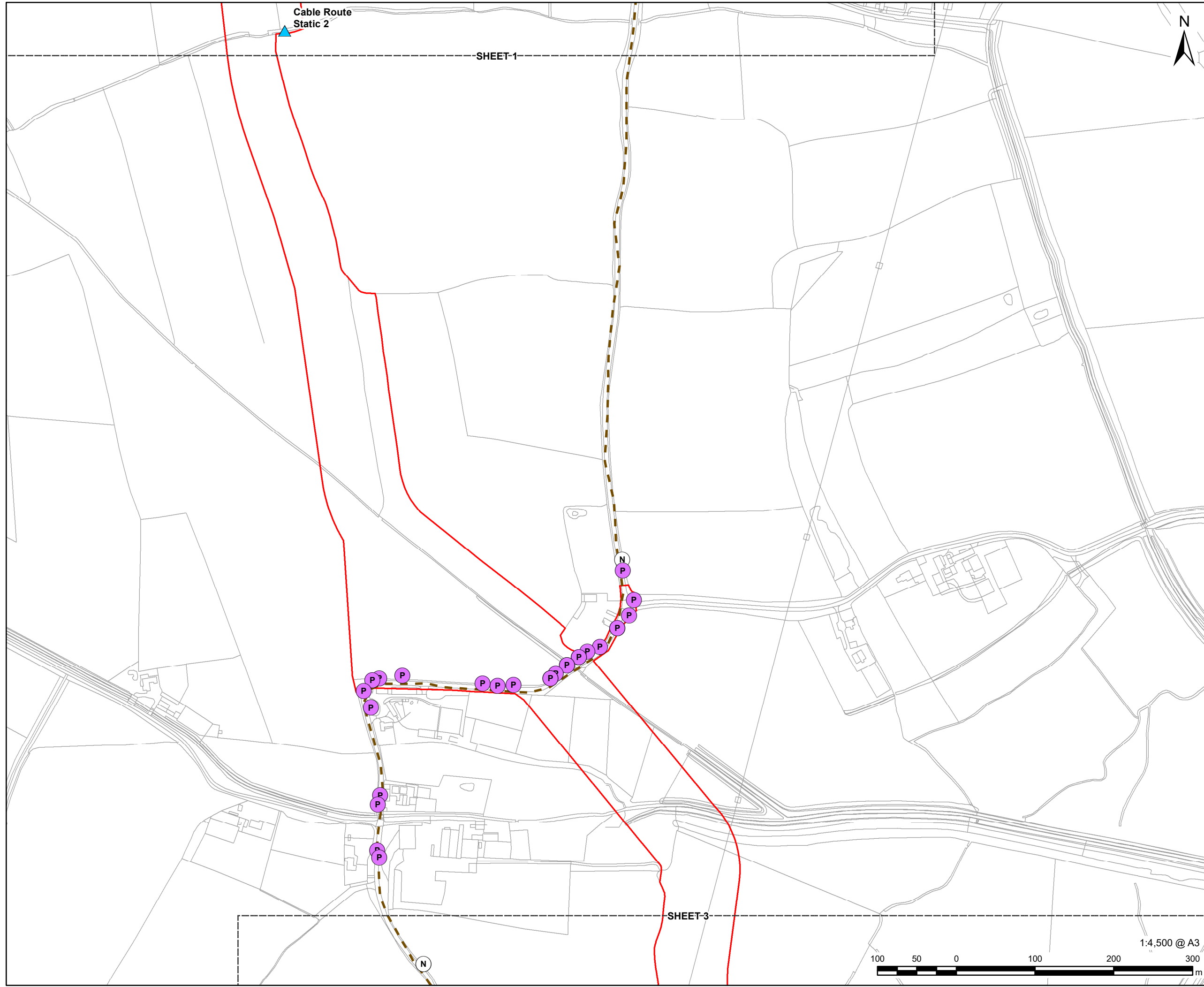
**FIGURE TITLE**  
Bat Activity Survey, Autumn - Transect 6  
Sheet 1 of 5

**FIGURE NUMBER**  
Figure 8-3-21

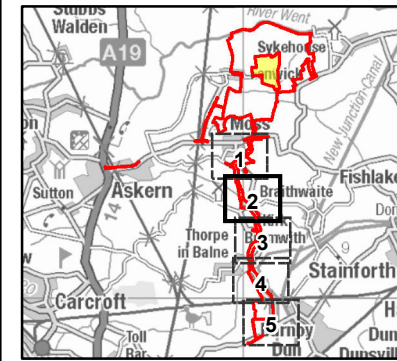
Cable Route Static 2 SHEET 2



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- LEGEND**
- Order limits
  - ▲ Static Detector Location
  - Transect 6
- Bat Record**
- N Nyctalus noctula
  - P Pipistrellus pipistrellus



**NOTES**

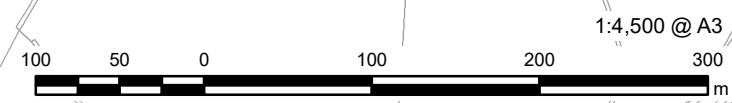
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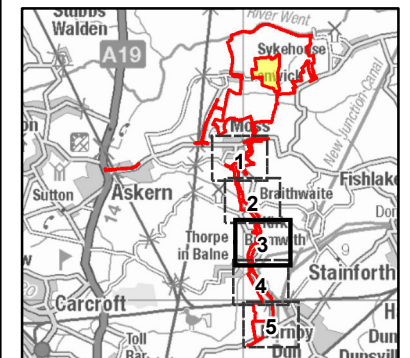
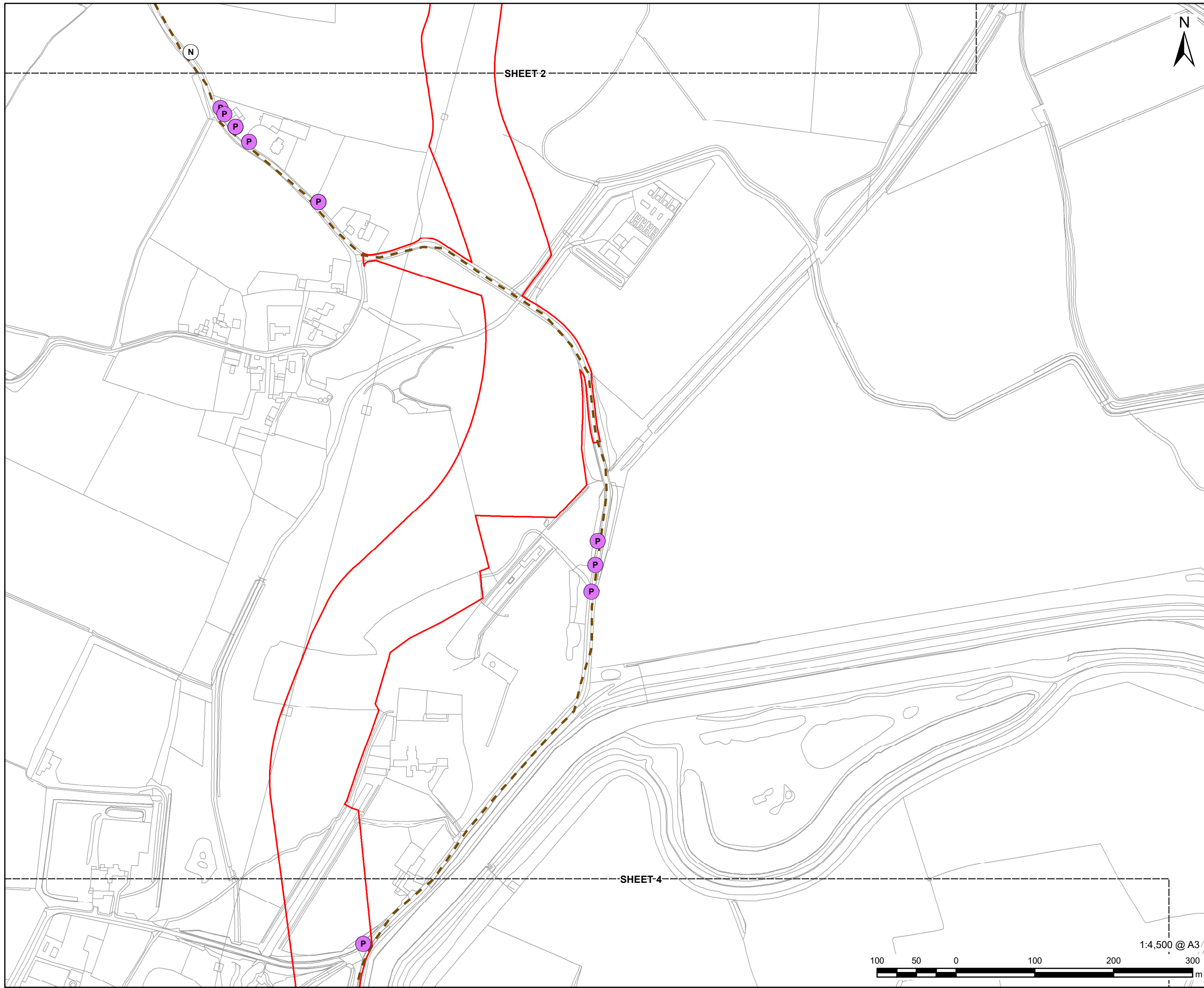
**FIGURE TITLE**  
Bat Activity Survey, Autumn - Transect 6  
Sheet 2 of 5

**FIGURE NUMBER**  
Figure 8-3-21



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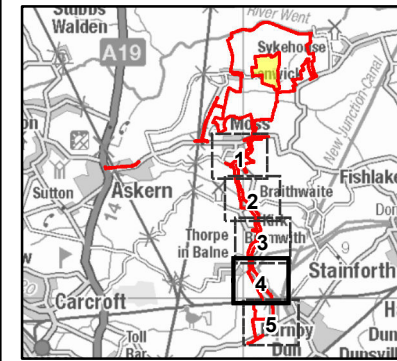
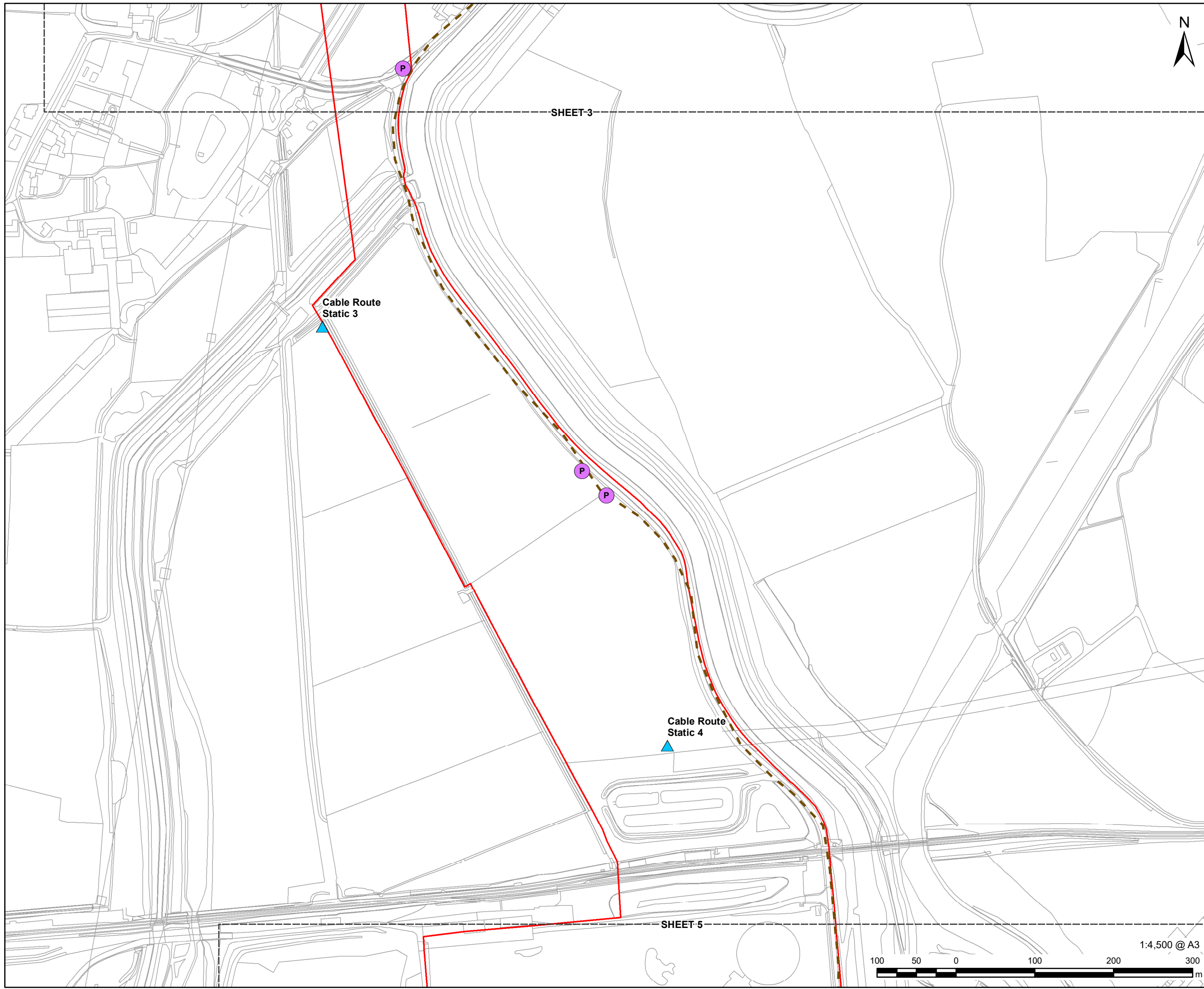
**FIGURE TITLE**  
Bat Activity Survey, Autumn - Transect 6  
Sheet 3 of 5

**FIGURE NUMBER**  
Figure 8-3-21



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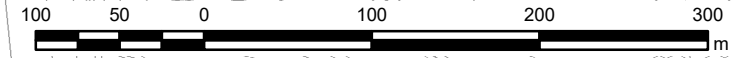
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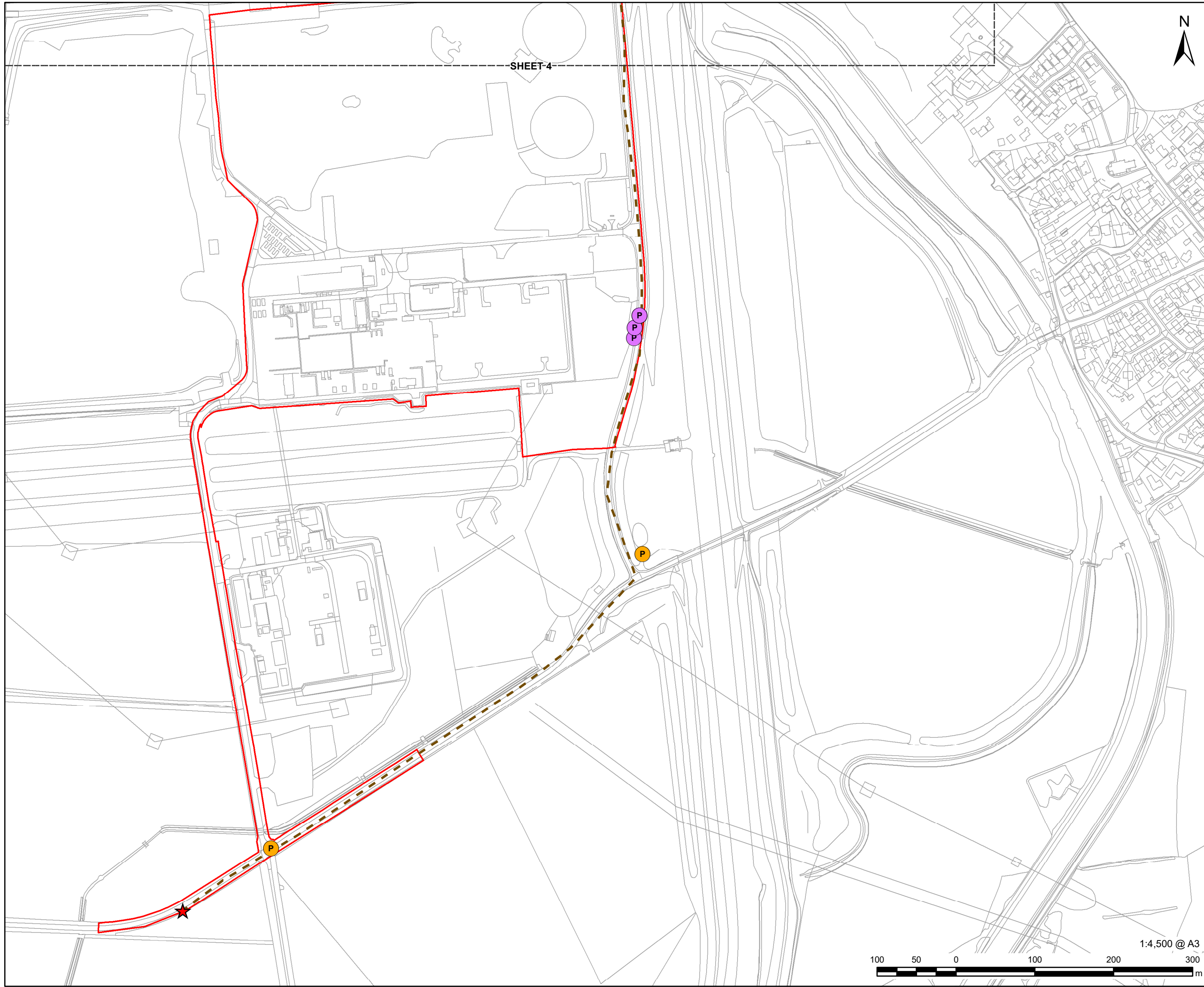
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**FIGURE TITLE**  
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Sheet 4 of 5

**FIGURE NUMBER**  
Figure 8-3-21



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SHEET 4

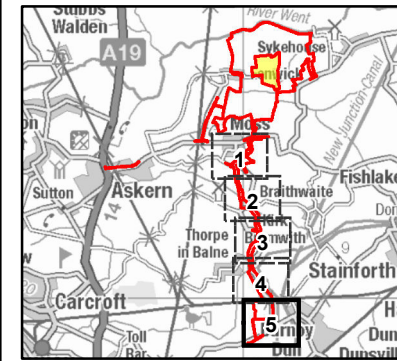


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www.aecom.com

- LEGEND**
- Order limits
  - ★ End Point
  - Transect 6
- Bat Record**
- P Pipistrellus pipistrellus
  - P Pipistrellus pygmaeus



**NOTES**

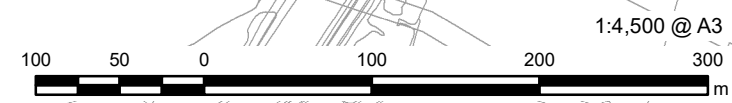
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Figure 8-3-21



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## Annex B Daytime Bat Walkover (DBW) Survey Results

| Feature Ref. | Grid Reference | Tree/group species         | Tree Description                        | PRF Description (if applicable)  | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|----------------------------|---|--|--------------------------------|
| T1           | SE 59694 16679 | Oak ( <i>Quercus</i> sp.)  | Immature (25-30 years old), single stem | West facing woodpecker hole, east facing split in trunk  | PRF                            |
| T2           | SE 59674 16784 | Oak                        | Immature, single stem                   | South-east facing hole in trunk  | PRF                            |
| T3           | SE 59648 16861 | Oak                        | Single stem                             | South-east facing hole and snapped branches  | PRF                            |
| T4           | SE 59617 16964 | Oak                        | Single stem                             | Two south east facing broken branches; hazard beam on lower branch approx. 1 m from the ground | PRF                            |
| T5           | SE 59599 17027 | Oak                        | Single stem                             | South facing hole, 3 m high  | PRF                            |
| T6           | SE 61187 16897 | Oak                        | Semi-mature, single stem                | South facing hole in an east facing branch.  | PRF                            |
| T7           | SE 59682 17239 | Willow ( <i>Salix</i> sp.) | Some deadwood, single stemmed           | Many cracks in trunk, snapped branches   | PRF                            |

| Feature Ref. | Grid Reference | Tree/group species         | Tree Description               | PRF Description (if applicable)  | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|----------------------------|--------------------------------|--|--------------------------------|
| T8           | SE 59856 17047 | Ash ( <i>Fraxinus</i> sp.) | Standing deadwood, single stem | Large trunk cavity to east, ground level to 3.5 m. Open branch cavity, 4.5 m east. | PRF                            |
| T9           | SE 60069 17380 | Willow                     | Single stem                    | N/A  | FAR                            |
| T10          | SE 60289 16943 | Willow                     | Multi-stem                     | Lots of cracks in stem and snapped branches.                                       | PRF                            |
| T11          | SE 61401 15963 | Willow                     | Multi-stem                     | Many cracks and snaps.   | PRF                            |
| T12          | SE 60501 15544 | Oak                        | Single stem                    | 0. dbh, long trunk cavity and lifted bark on south east at 2 m to 4.5 m            | PRF                            |
| T13          | SE 60582 15932 | Oak                        | Single immature oak            | N/A  | FAR                            |
| T14          | SE 60522 15546 | Ash                        | Single stem                    | North facing hole in branch, snapped branches.                                     | PRF                            |
| T15          | SE 60196 15531 | Oak                        | Single stem                    | South facing holes, hard to see if holes go all the way in.                        | FAR                            |
| T16          | SE 60135 15523 | Willow                     | Multi-stem                     | Snapped stem and deadwood, north facing. Hollow stem                               | PRF                            |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>      | <b>PRF Description (if applicable)</b>   | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|------------------------------|--|---------------------------------------|
|                     |                       |                           |                              | on south side.<br>Previously listed as High potential  |                                       |
| T17                 | SE 60118 15522        | Oak                       | Single stem                  | 4 m south west facing hole and a north facing hole, and a torn branch.                           | FAR                                   |
| T18                 | SE 60135 15523        | Oak                       | Single stem                  | North facing lifted bark   | FAR                                   |
| T19                 | SE 60118 15522        | Oak                       | Semi-mature oak, single stem | 5 m north facing branch with tear out.   | FAR                                   |
| T20                 | SE 60600 15322        | Oak                       | Single stem                  | Potential roost features visible up northern aspect. Lifted bark and trunk crack                 | FAR                                   |
| T21                 | SE 60929 15435        | Oak                       | Semi-mature oak, single stem | Woodpecker hole 3.5 m high on eastern side. Previously listed as Moderate PRF                    | PRF                                   |
| T22                 | SE 61586 16179        | Oak                       | Single stem                  | 0.7 m dbh, trunk split from 1.5 m high to 4 m. Light visible. Previously listed as Moderate PRF. | PRF                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>     | <b>PRF Description (if applicable)</b>  | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-----------------------------|---|---------------------------------------|
| T23                 | SE 61790 16625        | Ash                       | Multi stemmed ash           | 50 cm dbh, two woodpecker holes at 4 and 4.5 m eastern aspect. Cluttered exit   | PRF                                   |
| T24                 | SE 61807 16604        | Ash                       | Half dead ash tree          | N/A   | PRF                                   |
| T25                 | SE 61893 16423        | Oak and Ash               | Group of trees              | 0.4 m dbh, branch split on eastern aspect to 2.5 m high on oak<br>Oak and ash trees with knothole and lifted bark western extent 4/5 m high | PRF                                   |
| T26                 | SE 61772 16896        | Oak                       | Single stem                 | Split in stem and broken branches   | PRF                                   |
| T27                 | SE 61663 16943        | Willow                    | Multi-stemmed willow        | Woodpecker hole 4 m high northern extent and snapped branches with peeling bark   | FAR                                   |
| T28                 | SE 61773 17195        | Oak                       | Semi-mature, single stemmed | Snapped branches approximately 5 m up.  | FAR                                   |
| T29                 | SE 61756 17275        | Oak                       | Semi-mature oak             | Snapped branches, peeled bark and fissures causing potential cavities 4/5   | FAR                                   |

| Feature Ref. | Grid Reference | Tree/group species | Tree Description            | PRF Description (if applicable)                              | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|--------------------|-----------------------------|--|--------------------------------|
|              |                |                    |                             | m high on western extent                                     |                                |
| T30          | SE 61630 17283 | Ash and Oak        | Group of trees              | 2x ash and 1x oak with multiple features at all extents      | FAR                            |
| T31          | SE 61449 17230 | Willow             | Mature willow with 10 stems | Cracks in stems  | FAR                            |
| T32          | SE 61439 17293 | Willow             | Multi- stem                 | Cracks in trunk and snapped branches.                        | FAR                            |
| T33          | SE 61412 17306 | Willow             | Mature willow, single stem  | Snapped branches, unsafe to climb                            | FAR                            |
| T34          | SE 61497 17002 | Oak                | Single Stem                 | Previously listed as Negligible                              | NONE                           |
| T35          | SE 61275 16967 | Oak                | Semi-mature oak             | Tear out on north western side of tree approx. 4.5 m high    | PRF                            |
| T36          | SE 61209 17094 | Willow             | Single stem                 | Butt rot snapped branches, deadwood with cracks and crevices | FAR                            |
| T37          | SE 61197 17194 | Ash                | Immature ash                | Previously listed as Negligible                              | NONE                           |
| T38          | SE 61199 17202 | Oak                | Semi-mature oak             | N/A  | FAR                            |
| T39          | SE 61199 17271 | Willow             | Mature willow               | Butt rot and fallen stems                                    | FAR                            |



| Feature Ref. | Grid Reference | Tree/group species                  | Tree Description             | PRF Description (if applicable)  | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|-------------------------------------|------------------------------|--|--------------------------------|
| T40          | SE 61198 17295 | Willow                              | Mature willow                | N/A  | FAR                            |
| T41          | SE 61198 17311 | Hawthorn<br>( <i>Crataegus</i> sp.) | Single stem                  | Previously listed as Negligible  | NONE                           |
| T42          | SE 61200 17328 | Willow                              | Dead willow                  | Lots of fallen branches and deadwood                                     | FAR                            |
| T43          | SE 61198 17338 | Hawthorn                            | Single stem                  | Previously listed as Negligible  | NONE                           |
| T44          | SE 61199 17355 | Willow                              | Immature                     | N/A  | FAR                            |
| T45          | SE 61100 17310 | Willow                              | Multi- stem                  | Split stems and snapped branches   | FAR                            |
| T46          | SE 61097 17298 | Oak                                 |                              | Previously listed as Negligible  | NONE                           |
| T47          | SE 61095 17227 | Willow                              |                              | N/A  | FAR                            |
| T48          | SE 61097 17186 | Oak                                 | Single stem                  | N/A  | FAR                            |
| T49          | SE 61100 17134 | Ash                                 | Single stem                  | Two rot holes in the stem  | FAR                            |
| T50          | SE 61061 16833 | Ash                                 | Single stem                  | Possible dieback potential for cavities in crown not visible from ground | FAR                            |
| T51          | SE 60999 17116 | Oak                                 | Two stems – split from trunk | Tear outs and snapped branches   | FAR                            |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>     | <b>PRF Description (if applicable)</b>   | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-----------------------------|--|---------------------------------------|
| T52                 | SE 61008 17180        | Deadwood                  | Standing dead wood tree     | N/A  | FAR                                   |
| T53                 | SE 61056 17397        | Willow                    |                             | Split trunk  | FAR                                   |
| T54                 | SE 61025 16822        | Ash                       |                             | N/A  | FAR                                   |
| T55                 | SE 61010 16820        | Ash                       | Single stem                 | Dead branches, tear outs, has bat roost potential.   | PRF                                   |
| T56                 | SE 60736 16841        | Oak                       | Single stem                 | Tear outs in stem and broken branches  | FAR                                   |
| T57                 | SE 60713 16987        | Ash                       | Single stem                 | Tear out on one of the branches  | FAR                                   |
| T58                 | SE 60755 16991        | Willow                    | Multi-stem, unsafe to climb | Large split  | FAR                                   |
| T59                 | SE 60333 17460        | Oak                       | Semi-mature oak             | 0.5 m dbh, tear out/branch cavity at 4.5 m to west aspect. Previously listed as Moderate PRF | PRF                                   |
| T60                 | SE 61195 16866        | Ash                       | Dead                        | Half of the trunk has fallen away, upwards facing holes.                                     | PRF                                   |
| T61                 | SE 61187 16897        | Ash                       | Immature ash                | Snapped branch on east side  | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>           | <b>PRF Description (if applicable)</b>   | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-----------------------------------|--|---------------------------------------|
| T62                 | SE 61195 16866        | Ash                       | Single stem                       | Snapped branches, lifted bark  | FAR                                   |
| T63                 | SE 61417 16822        | Willow                    | Mature willow adjacent to a ditch | Cracked branches, butt rot.  | FAR                                   |
| T64                 | SE 61412 16815        | Willow                    | Single stem                       | Half snapped off, deadwood, butt rot, not safe to climb as it's dropping to pieces | FAR                                   |
| T65                 | SE 61409 16792        | Unsure                    | Single stem                       | Snapped branch, 6 m up   | FAR                                   |
| T66                 | SE 61411 16764        | Ash                       | Single stem                       | Snapped branches and rot holes approximately 6 m high.                             | FAR                                   |
| T67                 | SE 61410 16753        | Willow                    | Mature willow                     | Butt rot, dropping to pieces   | FAR                                   |
| T68                 | SE 61199 16538        | Ash                       | Single stem                       | Tear out 6 m up on west side   | FAR                                   |
| T69                 | SE 61179 16464        | Ash                       | Single stem                       | Ash dieback present hollow decaying trunk  | FAR                                   |
| T70                 | SE 61009 16449        | Ash                       | Single stem                       | snapped branches   | FAR                                   |
| T71                 | SE 61044 16374        | Oak                       | Single semi-mature oak            | N/A  | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>  | <b>PRF Description (if applicable)</b>                       | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|--|--|---------------------------------------|
| T72                 | SE 61228 16331        | Oak                       | Immature oak   | Split in stem, tear out approximately 4 m high, west facing. | FAR                                   |
| T73                 | SE 61192 16275        | Oak                       | Semi-mature oak  | Previously listed as Negligible                              | NONE                                  |
| T74                 | SE 61110 16198        | Oak                       | Semi-mature oak  | But rot and snapped branches                                 | PRF                                   |
| T75                 | SE 61054 16301        | Oak                       | Single semi-mature oak   | N/A  | FAR                                   |
| T76                 | SE 60984 15998        | Oak                       | Ivy-covered oak, semi-mature                                       | Tear outs and missing branches                               | PRF                                   |
| T77                 | SE 60938 17087        | Oak                       | Mature oak within a large gap in the hedgerow along field boundary | N/A  | FAR                                   |
| T78                 | SE 60931 17163        | Ash                       | Single stem  | Splits in stem and snapped branches                          | FAR                                   |
| T79                 | SE 61014 17278        | Unknown                   | Half dead  | Branch snaps and split stem                                  | FAR                                   |
| T80                 | SE 61023 17354        | Willow                    | Mature, multi-stem   | Snapped branches   | FAR                                   |
| T81                 | SE 61224 17028        | Oak                       | Multi-stem   | N/A  | FAR                                   |
| T82                 | SE 61296 17320        | Oak                       | Single stem  | Previously listed as Negligible                              | NONE                                  |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>      | <b>PRF Description (if applicable)</b>       | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|------------------------------|--|---------------------------------------|
| T83                 | SE 61322 17317        | Willow                    | Multi-stem                   | Previously listed as Moderate/High potential | PRF                                   |
| T84                 | SE 61384 17297        | Willow                    | Two stems                    | Previously listed as High potential          | PRF                                   |
| T85                 | SE 61415 17289        | Oak                       | Single stem                  | Previously listed as Low potential           | FAR                                   |
| T86                 | SE 61445 17280        | Willow                    | Single stem                  | Previously listed as Low potential           | FAR                                   |
| T87                 | SE 61449 17280        | Willow                    | Multi-stem                   | Previously listed as low potential           | FAR                                   |
| T88                 | SE 61226 16485        | Oak                       | Single stem                  | Snapped branch southern extent 6 m           | PRF                                   |
| T89                 | SE 61205 16505        | Willow                    |                              | N/A  | FAR                                   |
| T90                 | SE 61213 16474        | Unknown                   |                              | N/A  | FAR                                   |
| T91                 | SE 61213 16461        | Unknown                   | Single stem                  | N/A  | FAR                                   |
| T92                 | SE 60973 16432        | Willow                    | Multi-stem                   | N/A  | FAR                                   |
| T93                 | SE 60964 16408        | Unknown                   | Two stems                    | N/A  | FAR                                   |
| T94                 | SE 60948 16340        | Ash                       | Multi-stem                   | N/A  | FAR                                   |
| T95                 | SE 60941 16294        | Unknown                   |                              | N/A  | FAR                                   |
| T96                 | SE 60948 16279        | Willow (needs verifying)  | Single stem, snapped in half | N/A  | FAR                                   |
| T97                 | SE 60950 16225        | Unknown                   | Single stem                  | N/A  | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>                                      | <b>PRF Description (if applicable)</b>                                    | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|--|---|---------------------------------------|
| T98                 | SE 60946 16163        | Unknown                   | Multi-stem   | N/A   | FAR                                   |
| T99                 | SE 60943 16132        | Unknown                   | Single stem  | N/A   | FAR                                   |
| T100                | SE 6094316103         | Unknown                   | Single stem  | N/A   | FAR                                   |
| T101                | SE 6094116089         | Unknown                   | Single stem  | N/A   | FAR                                   |
| T102                | SE 6094016060         | Unknown                   | Multi-stem?  | N/A   | FAR                                   |
| T103                | SE 60941 16011        | Unknown                   | Single stem  | N/A   | FAR                                   |
| T104                | SE 61410 16753        | Willow                    | Dead and fallen willow tree stump, approximately 2.5 m tall. | N/A   | FAR                                   |
| T105                | SE 61442 15915        | Oak                       |  | Damaged limbs, previously listed as Low potential                         | PRF                                   |
| T106                | SE 61435 15924        | Oak                       | Dead wood at the top   | Dead wood at the top and lifted bark. Previously listed as Low potential  | PRF                                   |
| T107                | SE 61432 15926        | Oak                       |  | Snapped branches and damage limbs. Previously listed as Low potential.    | PRF                                   |
| T108                | SE 61421 15938        | Oak                       |  | Ivy covered oak with a split in trunk, previously listed as Low potential | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>   | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|--|---------------------------------------|
| T109                | SE 61418 15942        | Oak                       |                         | Tear out, previously listed as Moderate potential  | PRF                                   |
| T110                | SE 61413 15948        | Oak                       |                         | Cracked bark   | PRF                                   |
| T111                | SE 60392 16951        | Oak                       |                         | N/A  | PRF                                   |
| T112                | SE 61394 15974        | Oak                       | Dead, hollow oak        | Rot holes all the way up the trunk. Previously listed as High potential.                           | PRF                                   |
| T113                | SE 60921 15506        | Oak                       |                         | N/A  | FAR                                   |
| T114                | SE 60924 15483        | Oak                       |                         | N/A  | FAR                                   |
| T115                | SE 60382 15546        | Oak                       |                         | Snapped limbs. Previously listed as Low potential  | FAR                                   |
| T116                | SE 60924 15483        | Willow                    | Many stemmed willow     | Cracks in stem, previously listed as Moderate potential  | PRF                                   |
| T117                | SE 60382 15546        | Oak                       |                         | Cavity 4 m up on the south side, snapped branches and splits. Previously listed as High potential. | PRF                                   |
| T118                | SE 60438 15545        | Oak                       |                         | Cracked or lifted bark. Cracks in trunk. Previously  | FAR                                   |

| Feature Ref. | Grid Reference | Tree/group species | Tree Description | PRF Description (if applicable)   | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|--------------------|------------------|---|--------------------------------|
|              |                |                    |                  | listed as Low potential.  |                                |
| T119         | SE 60460 15544 | Willow             |                  | Snaps in and off limbs. Trunk rot   | FAR                            |
| T120         | SE 60483 15543 | Oak                |                  | Butt rot and dead and snapped branches. Previously listed as High potential                         | PRF                            |
| T121         | SE 60511 16022 | Oak                |                  | Broken limbs and lifted bark. Previously listed as Moderate potential.                              | PRF                            |
| T122         | SE 60513 15542 | Unknown            |                  | N/A   | FAR                            |
| T123         | SE 60917 16173 | Unknown            |                  | N/A   | FAR                            |
| T124         | SE 60919 16133 | Unknown            |                  | N/A   | FAR                            |
| T125         | SE6180116714   | Oak                | Single stem      | Large cavity in main trunk.   | PRF                            |
| T126         | SE6172316836   | Oak                | Single stem      | Tear out with splits on surface.  | PRF                            |
| T127         | SE6193416664   | Oak                | Single stem      | Broken limbs seen only surveyed from western side. 7/8 m high Woodpecker holes and snapped branches | PRF                            |



| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>                                      | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|---|---------------------------------------|
| T128                | SE6111916204          | Oak                       | Single stem             | Snapped limb, unable to see if it goes into the main trunk.                 | FAR                                   |
| T129                | SE6121816289          | Oak                       | Single stem             | Snapped limb and split on main trunk facing south.                          | PRF                                   |
| T130                | SE6146315890          | Oak                       | Single stem             | Ivy covered tree with snapped limbs and knot holes facing east.             | PRF                                   |
| T131                | SE6147115879          | Oak                       | Single stem             | Ivy covered tree with snapped limbs and knot holes facing east.             | PRF                                   |
| T132                | SE6139215830          | Ash                       | Single stem             | Ivy covered tree, dead wood section with rot holes.                         | PRF                                   |
| T133                | SE6139915752          | Willow                    | Multi-stem              | Woodpecker hole, 4 m high facing north with lifted bark on upper branches.  | PRF                                   |
| T134                | SE6139415750          | Willow                    | Multi-stem              | Cavity opening on main trunk 2 m, further inspection needed to verify if it | FAR                                   |

| Feature Ref. | Grid Reference | Tree/group species | Tree Description    | PRF Description (if applicable)   | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|--------------------|---------------------|---|--------------------------------|
|              |                |                    |                     | goes further into a cavity.   |                                |
| T135         | SE6139115748   | Oak                | Single stem         | Snapped branches with potential entry points at the base facing north (1 m and 3 m high).                                       | PRF                            |
| T136         | SE6100015708   | Oak                | Group of two trees  | Snapped branch on northern side 4-5 m high.   | FAR                            |
| T137         | SE5996016613   | Ash and Oak        | Group of four trees | Ash with hollows and three neighbouring oaks to the north which all have features of snapped branches                           | PRF                            |
| T138         | SE5956517157   | Oak                | Group of four trees | 4x old oaks with snapped branches to the southern extent - no obvious PRF but snapped branches may have created deeper cavities | FAR                            |
| T139         | SE5964717212   | Willow             | Multi-stem          | Large willow with knot hole which faces upwards off main trunk around 2   | PRF                            |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>  | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|---|---------------------------------------|
|                     |                       |                           |                         | m high to western extent  |                                       |
| T140                | SE6040016951          | Willow                    | Multi-stem              | Large willow unable to see full extent of tree  | FAR                                   |
| T141                | SE6031416707          | Willow and Oak            | Group of trees          | Several large oaks and willows with some features   | PRF                                   |
| T142                | SE5980417251          | Ash                       | Single stem             | Ash with cavity facing upwards 2 m on main stem next to another ash with snapped branches | PRF                                   |
| T143                | SE5991416848          | Oak                       | Single stem             | Oak with large cavity 1 m high  | PRF                                   |
| T144                | SE6175016928          | Ash                       | Single Stem             | Pruning scars creating possible cavities 5 m high on southern extent                      | FAR                                   |
| T145                | SE6193316756          | Oak                       | Single stem             | Large oak in hedgerow snapped branches western extent 5/6 m                               | PRF                                   |
| T146                | SE6190516568          | Oak                       | Single stem             | North facing snapped branched   | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>   | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|--|---------------------------------------|
| T147                | SE6170916791          | Unknown - dead tree       | Single Stem             | In hedgerow, rotting wood causing cavities   | PRF                                   |
| T148                | SE6172916823          | Prunus sp.                | Single stem             | In hedgerow large cavities in main stem from 0.5 m to 4 m                                    | PRF                                   |
| T149                | SE6173116807          | Oak                       | Single stem             | Knotholes on main trunk 5 m high eastern extent  | PRF                                   |
| T150                | SE6118416916          | Ash                       | Single stem             | Cavities in main trunk 5 m high on northern extent   | PRF                                   |
| T151                | SE6146016999          | Oak                       | Group of trees          | 2 x oak trees snapped branches and peeling bark all extents                                  | PRF                                   |
| T152                | SE6164916973          | Willow                    | Single Stem             | Fallen tree with multiple features present   | PRF                                   |
| T153                | SE6092417226          | Ash                       | Single Stem             | Possible dieback large cavities in main trunk 6 m high on east. Branch tear out and butt rot | PRF                                   |
| T154                | SE 61019 17325        | Ash                       | Single Stem             | Possible dieback causing cavities along full trunk ok  | PRF                                   |

| Feature Ref. | Grid Reference | Tree/group species | Tree Description | PRF Description (if applicable)  | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|--------------------|------------------|--|--------------------------------|
|              |                |                    |                  | the western extent 1-3 m high  |                                |
| T155         | SE 61572 17285 | Field Maple        | Single Stem      | Small cavities along full trunk from base to 4 m high on southern extent | PRF                            |
| T156         | SE 61736 17292 | Plum               | Single Stem      | Large weld in bark 5 m on southern extent                                | FAR                            |
| T157         | SE 61776 17186 | Hawthorn           | Single stem      | Fissures in main stem from ground level to 4 m high on eastern extent    | FAR                            |
| T158         | SE 61803 17092 | Oak                | Single stem      | Snapped branches causing possible cavities 2/5 m high on western extent  | FAR                            |
| T159         | SE 59663 16436 | Oak                | Single stem      | Split in main trunk  | FAR                            |
| T160         | SE 59649 16361 | Oak                | Single stem      | Oak tree with decaying main stem - several cavities in main trunk        | FAR                            |
| T161         | SE 59646 16319 | Ash                | Single stem      | Ash with three deep knotholes around 3 m off lower branches              | PRF                            |
| T162         | SE 59640 16285 | Ash                | Single stem      | Ash with deep knotholes about 3 m  | PRF                            |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>   | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|--|---------------------------------------|
|                     |                       |                           |                         | up on main stem with ivy cover   |                                       |
| T163                | SE 60313 16406        | Willow                    | Group of trees          | Three cracked willows with lots of fallen branches   | FAR                                   |
| T164                | SE 60230 16404        | Willow                    | Single stem             | Willow with broken stem  | FAR                                   |
| T165                | SE 60167 16402        | Willow                    | Single stem             | Willow with missing bark on stem   | FAR                                   |
| T166                | SE 60031 15610        | Oak                       | Single stem             | Old oak with snapped branches 1 m high on the western extent   | PRF                                   |
| T167                | SE 60051 15522        | Oak                       | Single stem             | Woodpecker hole 1.5 m high on the western extent   | FAR                                   |
| T168                | SE 60902 15721        | Ash and Oak               | Group of trees          | Snapped branches and small cracks in main trunk eastern extent 5 m high  | FAR                                   |
| T169                | SE 60729 15447        | Oak                       | Single Stem             | Oak with large tear out on northern extent of main stem other dead and fallen branches with potential features | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>  | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|---|---------------------------------------|
| T170                | SE 61959 16234        | Oak                       | Single Stem             | Side of arable field hollows in pruned branches to the western extent 4/5 m high  | FAR                                   |
| T171                | SE 61965 16214        | Oak                       | Single Stem             | Side of arable field - cavity on western extent lower branch                      | PRF                                   |
| T172                | SE 61985 16166        | Oak                       | Single Stem             | Snapped branches creating possible cavities on main trunk western facing ¾ m high | FAR                                   |
| T173                | SE 61865 16207        | Oak                       | Single Stem             | Peeled bark and snapped branches 1-3 m high eastern extent                        | FAR                                   |
| T174                | SE 61847 16246        | Oak                       | Single Stem             | Snapped branches and hazard beams eastern extent 5 m high                         | FAR                                   |
| T175                | SE 61820 16304        | Willow                    | Single Stem             | Large cracks in main trunk could be endoscoped from ground                        | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>  | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|---|---------------------------------------|
| T176                | SE 61809 16353        | Unknown Dead Tree         | Single Stem             | Lifted bark and snapped branches along dead trunk   | FAR                                   |
| T177                | SE 61804 16358        | Unknown Dead Tree         | Single Stem             | Lifted bark along dead trunk eastern extent   | FAR                                   |
| T178                | SE 61788 16419        | Oak                       | Single Stem             | Frost/shearing cracks eastern extent along full trunk   | FAR                                   |
| T179                | SE 61787 16430        | Ash                       | Single Stem             | Woodpecker hole northern extent 4 m high  | PRF                                   |
| T180                | SE 59182 14949        | Unknown Dead Tree         | group of trees          | Dead trees with decaying trunks large cavities upward facing oak and silver birch   | FAR                                   |
| T181                | SE 59315 14822        | Oak                       | Group of trees          | 2x Oak next to each other 1. Butt rot creating large central cavity and 2. with several cavities about 3 m high facing north and some snapped | FAR                                   |



| Feature Ref. | Grid Reference | Tree/group species | Tree Description | PRF Description (if applicable)   | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|--------------------|------------------|---|--------------------------------|
|              |                |                    |                  | branches creating cavities  |                                |
| T182         | SE 59562 15005 | Oak                | Single Stem      | Oak stump with deep cavities in main trunk 0.5 m high northern extent   | FAR                            |
| T183         | SE 59646 15049 | Oak                | Single Stem      | Oak with several snapped branches off of main stem and frost crack on front branch 2 m high northern extent                     | FAR                            |
| T184         | SE 59682 15052 | Oak                | Group of trees   | Two large oaks no specific features but both showing crown death possible there are features that can't be assessed from ground | FAR                            |
| T185         | SE 59801 15334 | Oak                | Group of trees   | Group of oak along the field boundary with features along the southern and eastern extents                                      | FAR                            |
| T186         | SE 60160 15288 | Oak                | Single Stem      | Oak with split hazard beam 2 m on north extent  | PRF                            |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>  | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|---|---------------------------------------|
| T187                | SE 60207 15294        | Oak                       | Single Stem             | Oak tree with hollow trunk - barn owl pellets surrounding tree                          | FAR                                   |
| T188                | SE 60246 15297        | Ash                       | Single Stem             | Ash dying with two cavities where branches have broken off 2 and 3 m on southern extent | FAR                                   |
| T189                | SE 60274 15300        | Oak                       | Single Stem             | Large oak split in main trunk on the southern extent about 2 m high                     | FAR                                   |
| T190                | SE 60649 15322        | Oak                       | Single Stem             | Snapped branches creating cavities to the southern extent of oak tree about 2 m high    | FAR                                   |
| T191                | SE 60705 15330        | Willow                    | Multi-stem              | Snapped branch creating cavity on underside of branch 2 m high southern extent          | FAR                                   |
| T192                | SE 60419 14939        | Willow                    | Multi-stem              | Salix sp. Cavities at northern extent 2-3 m high  | FAR                                   |
| T193                | SE 60184 14929        | Oak                       | Single stem             | N/A   | PRF                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>    | <b>PRF Description (if applicable)</b>                                    | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|----------------------------|---|---------------------------------------|
| T194                | SE 60089 14923        | Oak                       | Single stem                | dead wood   | PRF                                   |
| T195                | SE 60087 14892        | Oak                       | Single stem                | dead wood   | PRF                                   |
| T196                | SE 60094 14840        | Oak                       | Single stem                | Dead limbs  | PRF                                   |
| T197                | SE 60101 14810        | Oak                       | Single stem                | N/A   | PRF                                   |
| T198                | SE 60107 14790        | Unknown                   | Single stem                | N/A   | PRF                                   |
| T199                | SE 60129 14711        | Oak                       | Single stem                | N/A   | PRF                                   |
| T200                | SE 60137 14673        | Oak                       | Single stem                | N/A   | PRF                                   |
| T201                | SE 60304 14773        | Unknown                   | Single stem                | Weld on main trunk  | PRF                                   |
| T202                | SE 60304 14767        | Oak                       | Single stem                | N/A   | PRF                                   |
| T203                | SE 60419 14473        | Oak                       | Single stem                | N/A   | PRF                                   |
| T204                | SE 60369 14467        | Oak                       | Single stem                | N/A   | PRF                                   |
| T205                | SE 60026 13928        | Oak                       | Group of trees             | some appear to have cracks but unable to access other side to fully check | FAR                                   |
| T206                | SE 60080 13924        | Oak                       | Single stem                | N/A   | FAR                                   |
| T207                | SE 60119 13889        | Oak                       | Single stem                | Oak with dead wood  | FAR                                   |
| T208                | SE 60237 13766        | Mixed Woodland            | Mixed broadleaved woodland | Unable to fully survey  | FAR                                   |
| T209                | SE 60164 13756        | Oak                       | Single stem                | knot holes near base of branches and tree                                 | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b>   | <b>PRF Description (if applicable)</b>  | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|---------------------------|---|---------------------------------------|
| T210                | SE 60138 13751        | Oak                       | Single stem               | dead branches with splits   | FAR                                   |
| T211                | SE 60104 13743        | Oak                       | Single stem               | Multiple Knot holes   | FAR                                   |
| T212                | SE 60057 13733        | Oak                       | Single stem               | loose bark with some callusing  | FAR                                   |
| T213                | SE 59792 13691        | Oak                       | Single stem               | ivy cover. Fused limbs and splits.  | FAR                                   |
| T214                | SE 59802 13602        | Willow                    | Single stem               | Split in trunk with features  | FAR                                   |
| T215                | SE 59807 13573        | Willow                    | Group of trees            | Two trees with split branches   | FAR                                   |
| T216                | SE 59808 13552        | Oak                       | Single stem               | Young oak tree within hedgerow, containing a few knot holes off dead limbs                            | FAR                                   |
| T217                | SE 59660 13501        | Multiple                  | Line of trees             | Line of trees around field, currently outside RLB but would require further assessment if RLB changes | FAR                                   |
| T218                | SE 59929 13360        | Unknown                   | Line of trees along ditch | Line of trees along ditch, currently outside RLB but would require further                            | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b><br>assessment if RLB changes                                       | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|---|---------------------------------------|
| T219                | SE 59891 13132        | Unknown                   | Group of trees          | Group of 4 trees in hedgerow  | FAR                                   |
| T220                | SE 59810 12964        | Ash                       | Single stem             | Single dead ash tree in field containing multiple features. Knot holes, splits, lifting bark              | FAR                                   |
| T221                | SE 59971 13007        | Willow                    | Single stem             | Willow, loose bark and splits. Areas of lifted bark where small mammals and inverts may enter.            | FAR                                   |
| T222                | SE 60098 13022        | Oak                       | Group of trees          | Four oak trees in hedgerow that contain multiple features   | FAR                                   |
| T223                | SE 59937 12942        | Oak                       | Group of trees          | 3 oak trees amongst hedgerow. Multiple features such as splits, lifting bark, hollow stem and callus roll | FAR                                   |
| T224                | SE 59942 12862        | Oak                       | Single stem             | Oak tree. Knot holes and dead branches with splits  | FAR                                   |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b>                                 | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|--|---------------------------------------|
| T225                | SE 59876 12797        | Multiple                  | Group of trees          | Multiple Ash, willow and hawthorn trees in hedgerow that have features | FAR                                   |
| T226                | SE 59990 12705        | Oak and Ash               | Group of trees          | Oak and ash trees on both sides of hedgerow have multiple features     | FAR                                   |
| T227                | SE 60106 12619        | Hawthorn                  | Group of trees          | Two hawthorns with features  | FAR                                   |
| T228                | SE 59907 12602        | Unknown                   | Single Stem             | N/A  | FAR                                   |
| T229                | SE 59773 12592        | Unknown                   | Single Stem             | N/A  | FAR                                   |
| T230                | SE 60104 10685        | Oak                       | Single Stem             | located within hedgerow with lifting bark present                      | FAR                                   |
| T231                | SE 60199 10489        | Ash                       | Single Stem             | Trunk with hollows located in a defunt hawthorn hedgerow on dry drain  | PRF                                   |
| T232                | SE 60417 10436        | Ash                       | Single Stem             | Trunk with hollows, nesting barn owl present                           | PRF                                   |
| T233                | SE 60117 10343        | Oak and Willow            | Group of trees          | N/A  | FAR                                   |
| T234                | SE 59937 10371        | Oak                       | Single Stem             | Holes on northern side and broken limbs. Located in                    | PRF                                   |

| Feature Ref. | Grid Reference | Tree/group species | Tree Description | PRF Description (if applicable)                       | Suitability (NONE, FAR OR PRF) |
|--------------|----------------|--------------------|------------------|---|--------------------------------|
|              |                |                    |                  | species rich hedgerow                                 |                                |
| T235         | SE 60218 10964 | Ash                | Single Stem      | Tree with holes present. Located in hedgerow          | PRF                            |
| T236         | SE 60167 10990 | Ash                | Single Stem      | Ivy clading   | PRF                            |
| T237         | SE 60086 10916 | Ash                | Single Stem      | holes and trunk cavity                                | PRF                            |
| T238         | SE 59543 10655 | Unknown            | Group of trees   | N/A   | FAR                            |
| T239         | SE 59925 11805 | Oak                | Single Stem      | trunk voids present. Located in species rich hedgerow | PRF                            |
| T240         | SE 59906 11785 | Unknown            | Group of trees   | N/A   | FAR                            |
| T241         | SE 59728 11825 | Ash                | Single Stem      | tree with holes located in species rich hedgerow      | PRF                            |
| T242         | SE 59485 11946 | Ash                | Single Stem      | tree with holes located in species rich hedgerow      | PRF                            |
| T243         | SE 59325 11973 | Oak                | Single Stem      | void in base and cracks on main trunk                 | PRF                            |
| T244         | SE 59213 12022 | Oak                | Single Stem      | barn owl box present on tree. Trunk has splits        | PRF                            |
| T245         | SE 59393 12200 | Oak                | Single Stem      | N/A   | FAR                            |

| <b>Feature Ref.</b> | <b>Grid Reference</b> | <b>Tree/group species</b> | <b>Tree Description</b> | <b>PRF Description (if applicable)</b> | <b>Suitability (NONE, FAR OR PRF)</b> |
|---------------------|-----------------------|---------------------------|-------------------------|--|---------------------------------------|
| T246                | SE 59500 12409        | Oak                       | Single Stem             | N/A                                    | FAR                                   |
| T247                | SE 59636 12432        | Oak                       | Single Stem             | N/A                                    | FAR                                   |
| T248                | SE 59619 12131        | Oak                       | Group of trees          | N/A                                    | FAR                                   |
| T249                | SE 59809 12250        | Oak                       | Single Stem             | N/A                                    | FAR                                   |
| T250                | SE 59806 12123        | Oak                       | Group of trees          | N/A                                    | FAR                                   |
| T251                | SE 60080 12499        | Unknown                   | Group of trees          | N/A                                    | FAR                                   |
| T252                | SE 59565 11921        | Oak                       | Group of trees          | N/A                                    | FAR                                   |
| T253                | SE 59824 11986        | Oak                       | Single Stem             | N/A                                    | FAR                                   |



## Annex C Bat Activity Survey Results

**Beaufort wind force scale:** 0 = No wind, 1 = Light air *smoke drifts*, 2 = Light Breeze *leaves rustle*, 3 = Gentle Breeze *small twigs move*, 4 = Mod Breeze *small branches move*, 5 = Fresh Breeze *small trees sway*, 6 = Strong Breeze *large branches move*, 7 = Mod Gale *whole trees in motion*

**Rain Scale:** 0-none, 1-drizzle 2-shower 3-rain 4-downpour 5-flood.

**Oktas cloud scale:** 0 = complete absence of cloud (fine), 1 = cloud amount of 1 eighth or less, but not zero (fine), 2 = 2/8 of sky covered (fine), 3 = 3/8 of sky covered (partly cloudy), 4 = 4/8 of sky covered (partly cloudy), 5 = 5/8 of sky covered (partly cloudy), 6 = 6/8 of sky covered (cloudy), 7 = 7/8 of sky covered (cloudy), 8 = sky completely covered (overcast).

**Abbreviations:** H&S = heard and seen; HNS = heard but not seen;  
 QA = Species confirmed following a review of the recorded bat call:

### SPRING

**Surveyor:** TC, MR      **Temp C:** 13

**Site:** Transect 1      **Wind:** 0

**Date:** 10/05/2023      **Rain:** Recent rain

**Sunset:** 20:50      **Cloud:** 4

**Start/end:** 20:50 to  
 10:36

| Timestamp | Species                          | Comment  |
|-----------|----------------------------------|--|
| 21:20     | <i>Pipistrellus pipistrellus</i> | Heard not seen (HNS), several passes foraging activity         |
| 21:22     | <i>Pipistrellus pygmaeus</i>     | Added post QA  |
| 21:26     | <i>Pipistrellus pipistrellus</i> | Heard and seen (H&S), commuting north to south along tree line |
| 21:29     | <i>Pipistrellus pipistrellus</i> | HNS  |
| 21:37     | <i>Pipistrellus pipistrellus</i> | HNS, commuting   |
| 21:40     | <i>Pipistrellus pipistrellus</i> | HNS  |
| 21:43     | <i>Pipistrellus pipistrellus</i> | HNS, multiple passes   |

|       |                                  |  |
|-------|----------------------------------|--|
| 21:45 | <i>Pipistrellus pipistrellus</i> | H&S, multiple passes along hedgerow        |
| 21:50 | <i>Pipistrellus pipistrellus</i> | H&S, continuous distance foraging activity |
| 21:50 | <i>Myotis species</i>            | Added post QA, multiple passes             |
| 21:54 | <i>Pipistrellus pipistrellus</i> | HNS  |
| 22:14 | <i>Pipistrellus pipistrellus</i> | HNS, brief pass                            |
| 22:16 | <i>Pipistrellus pipistrellus</i> | HNS  |

**Surveyor:** AJ, CM      **Temp C:** 13

**Site:** Transect 2      **Wind:** 0

**Date:** 10/05/2023      **Rain:** Recent rain

**Sunset:** 20:50      **Cloud:** 4

**Start/end:** 20:50 to  
 10:36

| <b>Timestamp</b> | <b>Species</b>                   | <b>Comment</b>                                 |
|------------------|----------------------------------|--|
| 21:45            | <i>Pipistrellus pipistrellus</i> | Added post QA                                  |
| 21:55            | <i>Pipistrellus pipistrellus</i> | HNS, two brief passes, likely commuting        |
| 22:16            | <i>Pipistrellus pipistrellus</i> | Added post QA                                  |
| 22:19            | <i>Pipistrellus pipistrellus</i> | H&S, one pipistrelle foraging around the trees |
| 22:27            | <i>Pipistrellus pipistrellus</i> | Added post QA                                  |

**Surveyor: TC, MR      Temp C: 14**

**Site:            Transect 3    Wind:        0**

**Date:            11/05/2023    Rain:        Recent rain**

**Sunset:        20:52            Cloud:        4**

**Start/end:** 20:52 to  
 10:33

| Timestamp | Species                          | Comment                          |
|-----------|----------------------------------|----------------------------------|
| 21:30     | <i>Pipistrellus pipistrellus</i> | H&S, foraging in corner of field |
| 21:31     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                   |
| 21:35     | <i>Pipistrellus pipistrellus</i> | H&S, foraging around corner      |
| 21:38     | <i>Pipistrellus pipistrellus</i> | HNS, several passes              |
| 21:50     | <i>Pipistrellus pipistrellus</i> | HNS, faint passes                |
| 21:55     | <i>Pipistrellus pipistrellus</i> | HNS, faint passes                |
| 22:00     | <i>Pipistrellus pipistrellus</i> | HNS                              |
| 22:01     | <i>Myotis species</i>            | HNS, brief pass                  |
| 22:06     | <i>Myotis species</i>            | HNS, commuting                   |
| 22:11     | <i>Pipistrellus pipistrellus</i> | HNS, brief foraging pass         |
| 22:16     | <i>Myotis species</i>            | HNS                              |

**Surveyor: NP, LG      Temp C: 13**

**Site:            Transect 4    Wind:        3**

**Date:            30/05/2024    Rain:        0**

**Sunset:        21:21            Cloud:        4**

**Start/end:** 21:21 to  
 00:00

| Timestamp   | Species                          | Number Of Passes - Comments       |
|-------------|----------------------------------|-----------------------------------|
| 21:59-22:06 | <i>Pipistrellus pipistrellus</i> | 38 – H&S foraging multiple passes |

|               |                                  |                                   |
|---------------|----------------------------------|-----------------------------------|
| 22:08 - 22:22 | <i>Pipistrellus pipistrellus</i> | 49 – H&S foraging multiple passes |
| 22:22         | <i>Pipistrellus pygmaeus</i>     | 2 – H&S foraging multiple passes  |
| 22:22 - 22:31 | <i>Pipistrellus pipistrellus</i> | 10 – H&S foraging multiple passes |
| 22:31         | <i>Plecotus auritus</i>          | 1 – H&S foraging multiple passes  |
| 22:32 - 22:34 | <i>Myotis species</i>            | 10 – Added post QA                |
| 22:48 - 22:55 | <i>Pipistrellus pipistrellus</i> | 46 – HNS foraging multiple passes |
| 22:58 - 23:00 | <i>Pipistrellus pipistrellus</i> | 13 – HNS foraging multiple passes |
| 23:05         | <i>Pipistrellus pipistrellus</i> | 9 – HNS foraging multiple passes  |
| 23:06         | <i>Myotis species</i>            | 2 – Added post QA                 |
| 23:11 - 23:14 | <i>Pipistrellus pipistrellus</i> | 14 – HNS foraging multiple passes |
| 23:19         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging multiple passes  |
| 23:26 - 23:28 | <i>Pipistrellus pipistrellus</i> | 14 – HNS foraging multiple passes |
| 23:28         | <i>Myotis species</i>            | 1 – Added post QA                 |
| 23:28         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging multiple passes  |
| 23:29         | <i>Myotis species</i>            | 1 – Added post QA                 |
| 23:29 - 23:32 | <i>Pipistrellus pipistrellus</i> | 14 – Added post QA                |

**Surveyor:** JL, MG      **Temp C:** 13

**Site:** Transect 5      **Wind:** 4

**Date:** 30/05/2024      **Rain:** 0

**Sunset:** 21:21      **Cloud:** 4

**Start/end:** 21:21 to  
00:01

| Timestamp     | Species                          | Number of passes - Comments                    |
|---------------|----------------------------------|--|
| 21:49         | <i>Pipistrellus pipistrellus</i> | 4 – Added post QA                              |
| 21:54 - 21:55 | <i>Pipistrellus pipistrellus</i> | 2 – Added post QA                              |
| 22:00 - 22:01 | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging                               |
| 22:01         | <i>Myotis spec.</i>              | 1 – HNS foraging                               |
| 22:02 - 22:03 | <i>Pipistrellus pipistrellus</i> | 3 – H&S commuting along tree line              |
| 22:05         | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging                               |
| 22:08         | <i>Pipistrellus pipistrellus</i> | 1 – H&S multiple bats foraging along tree line |

|               |                                  |  |
|---------------|----------------------------------|--|
| 22:08         | <i>Myotis spec.</i>              | 3 – Added post QA                              |
| 22:08 - 22:09 | <i>Pipistrellus pipistrellus</i> | 6 – H&S multiple bats foraging along tree line |
| 22:09         | <i>Myotis spec.</i>              | 1 – Added post QA                              |
| 22:09 - 22:12 | <i>Pipistrellus pipistrellus</i> | 18 – Added post QA                             |
| 22:13         | <i>Plecotus auritus</i>          | 1 – Added post QA                              |
| 22:13 - 22:18 | <i>Pipistrellus pipistrellus</i> | 25 – Added post QA                             |
| 22:18         | <i>Myotis spec.</i>              | 5 – Added post QA                              |
| 22:19         | <i>Pipistrellus pipistrellus</i> | 1 – H&S foraging                               |
| 22:19         | <i>Myotis spec.</i>              | 1 – Added post QA                              |
| 22:19 - 22:24 | <i>Pipistrellus pipistrellus</i> | 16 – HNS foraging, multiple passes             |
| 22:25         | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA                              |
| 22:25         | <i>Pipistrellus pipistrellus</i> | 3 – Added post QA                              |
| 22:25         | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA                              |
| 22:25         | <i>Pipistrellus pipistrellus</i> | 2 – Added post QA                              |
| 22:25         | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA                              |
| 22:25 - 22:26 | <i>Pipistrellus pipistrellus</i> | 3 – Added post QA                              |
| 22:26         | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA                              |
| 22:26 - 22:27 | <i>Pipistrellus pipistrellus</i> | 9 – Added post QA                              |
| 22:32 - 22:33 | <i>Pipistrellus pipistrellus</i> | 5 – HNS foraging                               |
| 22:36         | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                              |
| 22:40         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging                               |
| 22:43 - 22:47 | <i>Pipistrellus pipistrellus</i> | 20 – HNS foraging multiple passes              |
| 22:49         | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                              |
| 23:09 - 23:11 | <i>Pipistrellus pipistrellus</i> | 17 – HNS foraging                              |
| 23:13         | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                              |
| 23:23         | <i>Myotis spec.</i>              | 2 – Added post QA                              |
| 23:23 - 23:24 | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging multiple passes               |
| 23:24         | <i>Myotis spec.</i>              | 1 – Added post QA                              |
| 23:28 - 23:30 | <i>Pipistrellus pipistrellus</i> | 12 – HNS foraging                              |
| 23:31         | <i>Myotis spec.</i>              | 1 – Added post QA                              |

|               |                                  |                   |
|---------------|----------------------------------|-------------------|
| 23:31 - 23:32 | <i>Pipistrellus pipistrellus</i> | 9 – Added post QA |
| 23:32         | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA |
| 23:40         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging  |
| 23:42 - 23:43 | <i>Pipistrellus pipistrellus</i> | 5 – Added post QA |
| 23:43         | <i>Pipistrellus pygmaeus</i>     | 3 – Added post QA |
| 23:43 - 23:44 | <i>Pipistrellus pipistrellus</i> | 4 – Added post QA |
| 23:53         | <i>Pipistrellus pygmaeus</i>     | 3 – Added post QA |

|                   |                       |                |           |
|-------------------|-----------------------|----------------|-----------|
| <b>Surveyor:</b>  | <b>EW, AB</b>         | <b>Temp C:</b> | <b>13</b> |
| <b>Site:</b>      | <b>Transect 6</b>     | <b>Wind:</b>   | <b>4</b>  |
| <b>Date:</b>      | <b>30/05/2024</b>     | <b>Rain:</b>   | <b>0</b>  |
| <b>Sunset:</b>    | <b>21:21</b>          | <b>Cloud:</b>  | <b>4</b>  |
| <b>Start/end:</b> | <b>21:21 to 00:00</b> |                |           |

| <b>Timestamp</b> | <b>Species</b>                   | <b>Number of passes</b>                     |
|------------------|----------------------------------|---|
| 21:55            | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                           |
| 22:00 - 22:02    | <i>Pipistrellus pipistrellus</i> | 9 – H&S foraging along lane multiple passes |
| 22:05 - 22:06    | <i>Pipistrellus pipistrellus</i> | 5 – Added post QA                           |
| 22:13 - 22:15    | <i>Pipistrellus pipistrellus</i> | 8 – HNS foraging along road                 |
| 22:17 - 22:18    | <i>Pipistrellus pipistrellus</i> | 4 – HNS foraging along road                 |
| 22:21 - 22:22    | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging along road                 |
| 22:32 - 22:34    | <i>Pipistrellus pipistrellus</i> | 4 – HNS foraging along road                 |
| 22:38            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging along road                 |
| 22:48            | <i>Myotis spec.</i>              | 1 – Added post QA                           |
| 22:49            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging along river                |
| 22:50            | <i>Pipistrellus pygmaeus</i>     | 1 – HNS foraging along river                |
| 22:52            | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                           |
| 22:52 - 22:53    | <i>Pipistrellus pygmaeus</i>     | 2 – Added post QA                           |
| 22:53            | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                           |
| 22:53            | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA                           |
| 22:53            | <i>Pipistrellus pipistrellus</i> | 1 – Added post QA                           |

|               |                                  |   |
|---------------|----------------------------------|---|
| 22:54         | <i>Pipistrellus pygmaeus</i>     | 1 – Added post QA                         |
| 22:55 - 22:56 | <i>Pipistrellus pipistrellus</i> | 6 – Added post QA                         |
| 22:57         | <i>Pipistrellus pygmaeus</i>     | 1 – HNS multiple bats foraging along road |
| 22:57 - 22:58 | <i>Pipistrellus pipistrellus</i> | 5 – HNS multiple bats foraging along road |
| 22:59 - 23:01 | <i>Pipistrellus pygmaeus</i>     | 4 – HNS foraging along hedgerow           |
| 23:03 - 23:04 | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging along hedgerow           |
| 23:04         | <i>Pipistrellus pygmaeus</i>     | 1 – HNS foraging along hedgerow           |
| 23:04         | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging along hedgerow           |
| 23:15         | <i>Pipistrellus pipistrellus</i> | 4 – HNS foraging along hedgerow           |

## SUMMER

**Surveyor:** TC, IW      **Temp C:** 15

**Site:** Transect 1      **Wind:** 1

**Date:** 25/07/2023      **Rain:** Dry

**Sunset:** 21:11      **Cloud:** 2

**Start/end:** 21:11 to  
 23:11

| Timestamp | Species                          | Comment                                   |
|-----------|----------------------------------|---|
| 21:12     | <i>Pipistrellus pipistrellus</i> | H&S, commuting                            |
| 21:55     | <i>Pipistrellus pipistrellus</i> | H&S, continuous foraging along hedgerow   |
| 21:56     | <i>Myotis species</i>            | Added post QA                             |
| 22:01     | <i>Pipistrellus pipistrellus</i> | HNS, foraging                             |
| 22:05     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                            |
| 22:10     | <i>Pipistrellus pipistrellus</i> | H&S, seen commuting into tree line        |
| 22:12     | <i>Pipistrellus pipistrellus</i> | H&S, commuting                            |
| 22:19     | <i>Pipistrellus pipistrellus</i> | H&S, foraging along woodland edge         |
| 22:21     | <i>Pipistrellus pipistrellus</i> | H&S, x2 bats foraging along woodland edge |
| 21:56     | <i>Myotis species</i>            | Added post QA                             |
| 22:28     | <i>Pipistrellus pipistrellus</i> | Added post QA                             |
| 22:35     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                            |
| 22:41     | <i>Pipistrellus pipistrellus</i> | HNS, foraging passes                      |
| 22:49     | <i>Plecotus auritus</i>          | Added post QA                             |
| 22:52     | <i>Plecotus auritus</i>          | Added post QA                             |
| 22:57     | <i>Nyctalus noctula</i>          | HNS, commuting                            |
| 22:59     | <i>Myotis species</i>            | Added post QA                             |



|       |                                  |                                     |
|-------|----------------------------------|-------------------------------------|
| 23:00 | <i>Pipistrellus pipistrellus</i> | Added post QA                       |
| 23:05 | <i>Pipistrellus pipistrellus</i> | H&S, continuous foraging along road |
| 23:08 | <i>Pipistrellus pipistrellus</i> | HNS foraging                        |

**Surveyor:** KC, EB      **Temp C:** 15

**Site:** Transect 2      **Wind:** 1

**Date:** 25/07/2023      **Rain:** Dry

**Sunset:** 21:11      **Cloud:** 2

**Start/end:** 21:11 to  
 23:11

| Timestamp | Species                          | Comment  |
|-----------|----------------------------------|--|
| 21:02     | <i>Nyctalus noctula</i>          | H&S, foraging activity. Circled tree for a while then disappears into canopy |
| 21:23     | <i>Nyctalus noctula</i>          | H&S, foraging activity.  |
| 21:45     | <i>Nyctalus noctula</i>          | HNS  |
| 21:48     | <i>Nyctalus noctula</i>          | HNS, foraging  |
| 21:56     | <i>Nyctalus noctula</i>          | HNS, foraging  |
| 21:59     | <i>Nyctalus noctula</i>          | HNS, foraging  |
| 22:01     | <i>Nyctalus noctula</i>          | H&S, seen circling tree during listening point                               |
| 22:21     | <i>Nyctalus noctula</i>          | HNS, continuous foraging throughout listening point                          |
| 22:22     | <i>Pipistrellus pipistrellus</i> | HNS, foraging  |
| 22:39     | <i>Pipistrellus pipistrellus</i> | HNS  |
| 22:41     | <i>Pipistrellus pipistrellus</i> | HNS, foraging  |
| 22:43     | <i>Pipistrellus pipistrellus</i> | HNS, social calls  |
| 22:44     | <i>Pipistrellus pipistrellus</i> | HNS, foraging  |
| 22:47     | <i>Pipistrellus pipistrellus</i> | HNS, foraging  |

22:53 *Pipistrellus pipistrellus* HNS, foraging

22:56 *Pipistrellus pipistrellus* HNS

22:58 *Pipistrellus pipistrellus* HNS, foraging

**Surveyor:** TC, IW **Temp C:** 18

**Site:** Transect 3b **Wind:** 0

**Date:** 27/07/2023 **Rain:** Dry

**Sunset:** 21:09 **Cloud:** 2

**Start/end:** 21:09 to 23:09

| Timestamp | Species                          | Comment                               |
|-----------|----------------------------------|---------------------------------------|
| 21:05     | <i>Pipistrellus pipistrellus</i> | H&S, commuting above hedgerow         |
| 21:14     | <i>Pipistrellus pipistrellus</i> | H&S, x2 bats foraging along tree line |
| 21:21     | <i>Pipistrellus pipistrellus</i> | H&S, commuting along tree line        |
| 21:46     | <i>Nyctalus noctula</i>          | HNS, very faint pass commuting        |
| 21:51     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                        |
| 22:04     | <i>Nyctalus noctula</i>          | Added post QA                         |
| 22:06     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                        |
| 22:14     | <i>Pipistrellus pygmaeus</i>     | Added post QA                         |
| 22:17     | <i>Pipistrellus pipistrellus</i> | HNS, commuting, intermittent activity |
| 22:24     | <i>Nyctalus noctula</i>          | Added post QA                         |
| 22:24     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                        |
| 22:27     | <i>Pipistrellus pipistrellus</i> | HNS, commuting                        |

|       |                                  |                      |
|-------|----------------------------------|----------------------|
| 22:30 | <i>Pipistrellus pygmaeus</i>     | Added post QA        |
| 22:31 | <i>Pipistrellus pipistrellus</i> | HNS, commuting       |
| 22:37 | <i>Pipistrellus pipistrellus</i> | HNS, very faint pass |
| 22:45 | <i>Pipistrellus pipistrellus</i> | HNS, commuting       |
| 22:47 | <i>Myotis species</i>            | Added post QA        |
| 22:51 | <i>Pipistrellus pipistrellus</i> | HNS, commuting       |
| 22:55 | <i>Myotis daubentonii</i>        | Added post QA        |
| 22:55 | <i>Myotis species</i>            | Added post QA        |
| 22:55 | <i>Pipistrellus pipistrellus</i> | HNS, foraging        |
| 23:01 | <i>Pipistrellus pipistrellus</i> | HNS, foraging        |
| 23:06 | <i>Myotis species</i>            | Added post QA        |
| 23:06 | <i>Pipistrellus pipistrellus</i> | HNS, commuting       |

**Surveyor:** AS, JC      **Temp C:** 15

**Site:** Transect 4      **Wind:** 1

**Date:** 29/07/2024      **Rain:** 0

**Sunset:** 21:05      **Cloud:** 2

**Start/end:** 21:05 to  
23:19

| Timestamp     | Species                          | Number of passes - comment |
|---------------|----------------------------------|----------------------------|
| 22:01         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging           |
| 22:06 - 22:07 | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging           |
| 22:11         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging           |
| 22:13         | <i>Nyctalus noctula</i>          | 1 – added post QA          |
| 22:36         | <i>Pipistrellus pipistrellus</i> | 1– added post QA           |
| 22:38         | <i>Myotis spec.</i>              | 1 – HNS foraging           |

|               |                                  |                   |
|---------------|----------------------------------|-------------------|
| 22:38         | <i>Pipistrellus pipistrellus</i> | 1 – H&S foraging  |
| 22:40         | <i>Myotis spec.</i>              | 1 – HNS commuting |
| 22:43         | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging  |
| 22:43 - 22:45 | <i>Myotis spec.</i>              | 3 – added post QA |
| 22:47         | <i>Pipistrellus pipistrellus</i> | 1 – added post QA |
| 22:48         | <i>Myotis spec.</i>              | 1 – HNS           |
| 22:51         | <i>Myotis spec.</i>              | 2 – HNS foraging  |
| 22:51         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging  |
| 22:52         | <i>Myotis spec.</i>              | 1 – added post QA |
| 22:53         | <i>Plecotus auritus</i>          | 1 – added post QA |
| 22:53         | <i>Myotis spec.</i>              | 2 – HNS foraging  |
| 22:56         | <i>Myotis spec.</i>              | 2 – HNS foraging  |
| 22:59         | <i>Myotis spec.</i>              | 2 - HNS           |
| 23:01 - 23:02 | <i>Pipistrellus pipistrellus</i> | 5 – HNS foraging  |
| 23:03         | <i>Myotis spec.</i>              | 1 - HNS           |
| 23:04 - 23:05 | <i>Pipistrellus pipistrellus</i> | 2 – added post QA |
| 23:07         | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging  |
| 23:08         | <i>Myotis spec.</i>              | 3 – added post QA |
| 23:08         | <i>Plecotus auritus</i>          | 1 – added post QA |
| 23:09 - 23:10 | <i>Nyctalus leisleri</i>         | 2 – HNS foraging  |
| 23:11 - 23:12 | <i>Pipistrellus pipistrellus</i> | 5 – HNS foraging  |
| 23:12         | <i>Myotis spec.</i>              | 1 – added post QA |
| 23:12 - 23:15 | <i>Pipistrellus pipistrellus</i> | 5 – HNS foraging  |
| 23:15         | <i>Myotis spec.</i>              | 1 - HNS           |
| 23:16         | <i>Pipistrellus pipistrellus</i> | 1 – added post QA |

**Surveyor:** AS, JC      **Temp C:** 14

**Site:** Transect 5      **Wind:** 2

**Date:** 30/07/2024      **Rain:** 0

**Sunset:** 21:05      **Cloud:** 3

**Start/end:** 21:05 –  
 23:15

| <b>Timestamp</b> | <b>Species</b>                   | <b>Number of passes</b> |
|------------------|----------------------------------|-------------------------|
| 21:42 - 21:43    | <i>Pipistrellus pipistrellus</i> | 2 – added post QA       |
| 21:45            | <i>Myotis sp.</i>                | 1 – added post QA       |
| 21:46            | <i>Nyctalus noctula</i>          | 3 – H&S foraging        |
| 21:48 - 21:50    | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging        |
| 22:08            | <i>Pipistrellus pipistrellus</i> | 2 – H&S foraging        |
| 22:18            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging        |
| 22:24            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging        |
| 22:40 - 22:41    | <i>Myotis sp.</i>                | 2 - HNS                 |
| 22:44            | <i>Pipistrellus pygmaeus</i>     | 1 – HNS foraging        |
| 22:45            | <i>Myotis sp.</i>                | 1 – HNS foraging        |
| 22:45            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging        |
| 22:51            | <i>Pipistrellus pygmaeus</i>     | 2 – HNS foraging        |
| 22:52            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA       |
| 22:54            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging        |
| 22:57 - 22:59    | <i>Myotis sp.</i>                | 4 - HNS                 |
| 23:00 - 23:01    | <i>Pipistrellus pipistrellus</i> | 4 – HNS foraging        |
| 23:03            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging        |
| 23:07 - 23:08    | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging        |

**Surveyor:** EW, PM      **Temp C:** 13

**Site:** Transect 6      **Wind:** 2

**Date:** 29/07/2024      **Rain:** 0

**Sunset:** 21:05      **Cloud:** 3

**Start/end:** 23:08

| <b>Timestamp</b> | <b>Species</b>                   | <b>Number of passes</b>     |
|------------------|----------------------------------|-----------------------------|
| 21:52            | <i>Nyctalus noctula</i>          | 2 – added post QA           |
| 22:00            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging along road |

|               |                                  |                                 |
|---------------|----------------------------------|---------------------------------|
| 22:05         | <i>Pipistrellus pipistrellus</i> | 1 – added post QA               |
| 22:18         | <i>Pipistrellus pipistrellus</i> | 2– HNS foraging along road      |
| 22:27         | <i>Plecotus auritus</i>          | 1 – added post QA               |
| 22:32 - 22:33 | <i>Pipistrellus pipistrellus</i> | 2– HNS foraging along hedgerow  |
| 22:39 - 22:43 | <i>Pipistrellus pipistrellus</i> | 6– HNS foraging along tree line |
| 22:47         | <i>Pipistrellus pipistrellus</i> | 2 – added post QA               |
| 22:47         | <i>Pipistrellus pygmaeus</i>     | 1 – added post QA               |
| 22:47         | <i>Pipistrellus pipistrellus</i> | 1– HNS foraging along road      |
| 22:51         | <i>Plecotus auritus</i>          | 1 – added post QA               |
| 22:51         | <i>Pipistrellus pipistrellus</i> | 2– HNS foraging along road      |
| 22:53         | <i>Pipistrellus pipistrellus</i> | 1 – added post QA               |
| 22:56         | <i>Pipistrellus pipistrellus</i> | 2– HNS foraging along road      |
| 22:57         | <i>Nyctalus leisleri</i>         | 1– HNS foraging                 |
| 23:02         | <i>Pipistrellus pipistrellus</i> | 1– HNS foraging                 |
| 23:04         | <i>Pipistrellus pipistrellus</i> | 1– HNS foraging                 |
| 23:09         | <i>Pipistrellus pipistrellus</i> | 1– HNS foraging                 |

## AUTUMN

**Surveyor:** TC, KW      **Temp C:** 16

**Site:** Transect 1      **Wind:** 3

**Date:** 20/09/2023      **Rain:** Dry, rain during the day

**Sunset:** 19:09      **Cloud:** 7

**Start/end:** 19:09 to  
21:09

| Timestamp | Species                          | Comment   |
|-----------|----------------------------------|---|
| 19:34     | <i>Nyctalus noctula</i>          | Heard not seen (HNS), several passes commuting activity |
| 19:37     | <i>Nyctalus noctula</i>          | HNS, commuting pass                                     |
| 19:41     | <i>Nyctalus noctula</i>          | HNS   |
| 19:44     | <i>Nyctalus noctula</i>          | HNS, commuting pass                                     |
| 19:45     | <i>Pipistrellus species</i>      | Added post QA   |
| 19:47     | <i>Pipistrellus pipistrellus</i> | H&S, foraging into field                                |
| 19:48     | <i>Pipistrellus pygmaeus</i>     | HNS   |
| 19:50     | <i>Pipistrellus pygmaeus</i>     | HNS   |
| 19:55     | <i>Nyctalus noctula</i>          | Added post QA   |
| 20:04     | <i>Myotis species</i>            | Added post QA   |
| 20:10     | <i>Nyctalus noctula</i>          | Added post QA   |
| 20:10     | <i>Pipistrellus pipistrellus</i> | HNS, foraging throughout listening point                |
| 20:12     | <i>Noctule</i>                   | HNS, quick commuting pass                               |
| 20:13     | <i>Myotis species</i>            | Added post QA   |
| 20:21     | <i>Pipistrellus pipistrellus</i> | Added post QA   |
| 20:27     | <i>Pipistrellus pipistrellus</i> | Added post QA   |
| 20:31     | <i>Pipistrellus pipistrellus</i> | HNS, foraging activity                                  |

|       |                                  |  |
|-------|----------------------------------|--|
| 20:38 | <i>Pipistrellus pipistrellus</i> | HNS, commuting passes along hedgerow                                   |
| 20:41 | <i>Pipistrellus pygmaeus</i>     | HNS, foraging along hedgerow   |
| 20:43 | <i>Pipistrellus pipistrellus</i> | HNS, foraging along hedgerow   |
| 20:45 | <i>Pipistrellus pygmaeus</i>     | HNS, foraging along hedgerow   |
| 20:51 | <i>Pipistrellus pipistrellus</i> | HNS, foraging activity   |
| 20:53 | <i>Pipistrellus pipistrellus</i> | HNS, foraging along hedgerow   |
| 20:53 | <i>Pipistrellus pipistrellus</i> | HNS, activity along hedgerow   |
| 20:57 | <i>Pipistrellus pipistrellus</i> | HNS, constant foraging with numerous passes throughout listening point |
| 21:06 | <i>Pipistrellus pipistrellus</i> | HNS, commuting   |
| 21:06 | <i>Nyctalus noctula</i>          | HNS, commuting   |
| 21:11 | <i>Nyctalus noctula</i>          | Added post QA  |
| 21:39 | <i>Pipistrellus pipistrellus</i> | Added post QA  |

**Surveyor:** MR, EB      **Temp C:** 16

---

**Site:** Transect 2      **Wind:** 3

---

**Date:** 20/09/2023      **Rain:** Dry, rain during the day

---

**Sunset:** 19:09      **Cloud:** 7

---

**Start/end:** 19:09 to 21:09

| Timestamp | Species                          | Comment       |
|-----------|----------------------------------|---------------|
| 19:41     | <i>Nyctalus noctula</i>          | HNS           |
| 19:52     | <i>Nyctalus noctula</i>          | HNS           |
| 19:55     | <i>Pipistrellus pipistrellus</i> | HNS, foraging |
| 20:10     | <i>Pipistrellus pipistrellus</i> | HNS, foraging |



|       |                                  |                 |
|-------|----------------------------------|-----------------|
| 20:16 | <i>Pipistrellus pipistrellus</i> | HNS, foraging   |
| 20:20 | <i>Pipistrellus pipistrellus</i> | HNS, faint pass |
| 20:22 | <i>Pipistrellus pipistrellus</i> | Added post QA   |
| 20:25 | <i>Nyctalus noctula</i>          | HNS             |
| 20:28 | <i>Pipistrellus pipistrellus</i> | HNS             |
| 20:32 | <i>Pipistrellus pipistrellus</i> | HNS, foraging   |
| 20:44 | <i>Pipistrellus pipistrellus</i> | HNS             |
| 20:49 | <i>Nyctalus noctula</i>          | HNS             |
| 20:56 | <i>Pipistrellus pygmaeus</i>     | HNS, foraging   |
| 20:59 | <i>Pipistrellus pipistrellus</i> | HNS             |
| 21:01 | <i>Nyctalus noctula</i>          | HNS             |

**Surveyor:** MR, IW      **Temp C:** 14

**Site:** Transect 3a      **Wind:** 1

**Date:** 21/09/2023      **Rain:** Dry

**Sunset:** 19:06      **Cloud:** 2

**Start/end:** 19:06 to  
 21:06 (for  
 both  
 Transect 3a  
 and 3b)

| Timestamp | Species                          | Comment       |
|-----------|----------------------------------|---------------|
| 19:50     | <i>Pipistrellus pygmaeus</i>     | Added post QA |
| 19:51     | <i>Pipistrellus pipistrellus</i> | H&S, foraging |
| 19:55     | <i>Pipistrellus pipistrellus</i> | HNS           |

|       |                                  |                       |
|-------|----------------------------------|-----------------------|
| 19:57 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 19:59 | <i>Pipistrellus pipistrellus</i> | H&S, x3 bats foraging |
| 20:06 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 20:12 | <i>Pipistrellus pipistrellus</i> | H&S, x2 bats foarging |
| 20:15 | <i>Nyctalus noctula</i>          | Added post QA         |
| 20:15 | <i>Pipistrellus pygmaeus</i>     | Added post QA         |
| 20:17 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 20:18 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 20:19 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 20:22 | <i>Pipistrellus pygmaeus</i>     | Added post QA         |
| 20:24 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 20:24 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |
| 20:29 | <i>Pipistrellus pipistrellus</i> | HNS, foraging         |

|                   |   |                |            |
|-------------------|---|----------------|------------|
| <b>Surveyor:</b>  | <b>MR, IW</b>                                       | <b>Temp C:</b> | <b>14</b>  |
| <b>Site:</b>      | <b>Transect 3b</b>                                  | <b>Wind:</b>   | <b>1</b>   |
| <b>Date:</b>      | <b>21/09/2023</b>                                   | <b>Rain:</b>   | <b>Dry</b> |
| <b>Sunset:</b>    | <b>19:06</b>  | <b>Cloud:</b>  | <b>2</b>   |
| <b>Start/end:</b> | <b>19:06 to 21:26 (for both Transect 3a and 3b)</b> |                |            |

| <b>Timestamp</b> | <b>Species</b>                   | <b>Comment</b>             |
|------------------|----------------------------------|----------------------------|
| 20:55            | <i>Pipistrellus pipistrellus</i> | HNS, foraging multi passes |

|       |                                  |                            |
|-------|----------------------------------|----------------------------|
| 21:07 | <i>Pipistrellus pipistrellus</i> | H&S, x2 bats foraging      |
| 21:13 | <i>Pipistrellus pipistrellus</i> | HNS, foraging              |
| 21:17 | <i>Myotis species</i>            | HNS, foraging              |
| 21:19 | <i>Pipistrellus pipistrellus</i> | Added post QA              |
| 21:24 | <i>Pipistrellus pipistrellus</i> | HNS, foraging multi passes |

**Surveyor:** EB, JR      **Temp C:** 13

**Site:** Transect 4      **Wind:** 2

**Date:** 09/09/2024      **Rain:** 0

**Sunset:** 19:34      **Cloud:** 3

**Start/end:** 19:34 –  
 21:34

| <b>Timestamp</b> | <b>Species</b>                   | <b>Number of passes - comment</b>      |
|------------------|----------------------------------|--|
| 19:59            | <i>Nyctalus noctula</i>          | 1 – HNS commuting                      |
| 20:10            | <i>Nyctalus noctula</i>          | 1 – HNS foraging feeding buzz heard    |
| 20:12 - 20:17    | <i>Pipistrellus pipistrellus</i> | 20 – H&S foraging in circles near tree |
| 20:19 - 20:23    | <i>Pipistrellus pipistrellus</i> | 21 – HNS commuting                     |
| 20:29            | <i>Myotis sp.</i>                | 1 – added post QA                      |
| 20:31 - 20:36    | <i>Pipistrellus pipistrellus</i> | 27 – HNS foraging                      |
| 20:36            | <i>Pipistrellus pygmaeus</i>     | 1 – HNS foraging                       |
| 20:36            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging                       |
| 20:46            | <i>Pipistrellus pipistrellus</i> | 1 – HNS foraging                       |
| 20:57 - 20:58    | <i>Pipistrellus pipistrellus</i> | 5 – HNS foraging                       |
| 21:02            | <i>Pipistrellus pipistrellus</i> | 5 – HNS distant pass                   |
| 21:05 - 21:06    | <i>Pipistrellus pipistrellus</i> | 6 – added post QA                      |
| 21:06            | <i>Myotis sp.</i>                | 1 – added post QA                      |
| 21:06            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                      |
| 21:08 - 21:21    | <i>Pipistrellus pipistrellus</i> | 44 – HNS foraging                      |

**Surveyor: DR, TD      Temp C: 13**

**Site:            Transect 5    Wind:        2**

**Date:            09/09/2024    Rain:        0**

**Sunset:        19:34            Cloud:       3**

**Start/end: 19:34 –  
 22:16**

| <b>Timestamp</b> | <b>Species</b>                   | <b>Number of passes</b>                        |
|------------------|----------------------------------|--|
| 19:52            | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging                               |
| 20:00            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                              |
| 20:02            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                              |
| 20:06            | <i>Myotis spec.</i>              | 1 – added post QA                              |
| 20:15 - 20:17    | <i>Pipistrellus pipistrellus</i> | 5 – HNS foraging                               |
| 20:18            | <i>Myotis spec.</i>              | 1 – added post QA                              |
| 20:19 - 20:31    | <i>Pipistrellus pipistrellus</i> | 49 – H&S foraging along hedgerow               |
| 20:34            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                              |
| 20:39            | <i>Myotis spec.</i>              | 1 – added post QA                              |
| 20:43            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                              |
| 20:49 - 20:53    | <i>Pipistrellus pipistrellus</i> | 17 – HNS foraging                              |
| 20:51 - 20:53    | <i>Myotis spec.</i>              | 5 – added post QA                              |
| 21:11            | <i>Pipistrellus pipistrellus</i> | 4 – added post QA                              |
| 21:14 - 21:22    | <i>Pipistrellus pipistrellus</i> | 25 – H&S multiple bats foraging along hedgerow |
| 21:28 - 21:34    | <i>Pipistrellus pipistrellus</i> | 20 – HNS foraging                              |
| 21:30            | <i>Myotis spec.</i>              | 2 – added post QA                              |
| 21:36 - 21:39    | <i>Pipistrellus pipistrellus</i> | 17 – HNS foraging                              |
| 21:41 - 21:48    | <i>Pipistrellus pipistrellus</i> | 24 – HNS foraging                              |
| 21:56            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                              |
| 21:59 - 22:00    | <i>Pipistrellus pipistrellus</i> | 5 – added post QA                              |
| 22:05            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA                              |
| 22:08 - 22:09    | <i>Pipistrellus pipistrellus</i> | 4 – HNS foraging                               |
| 22:14 - 22:17    | <i>Pipistrellus pipistrellus</i> | 17 – HNS foraging                              |

|                   |                        |                |                            |
|-------------------|------------------------|----------------|----------------------------|
| <b>Surveyor:</b>  | <b>DR, JR</b>          | <b>Temp C:</b> | <b>12</b>                  |
| <b>Site:</b>      | <b>Transect 6 (CR)</b> | <b>Wind:</b>   | <b>0</b>                   |
| <b>Date:</b>      | <b>12/09/2024</b>      | <b>Rain:</b>   | <b>Recent rain/drizzle</b> |
| <b>Sunset:</b>    | <b>19:37</b>           | <b>Cloud:</b>  | <b>2</b>                   |
| <b>Start/end:</b> | <b>19:37 – 21:37</b>   |                |                            |

| <b>Timestamp</b> | <b>Species</b>                   | <b>Number of passes</b> |
|------------------|----------------------------------|-------------------------|
| 20:01            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA       |
| 20:05 - 20:06    | <i>Pipistrellus pipistrellus</i> | 2 – added post QA       |
| 20:08            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA       |
| 20:13            | <i>Pipistrellus pipistrellus</i> | 2 – added post QA       |
| 20:16 - 20:17    | <i>Pipistrellus pipistrellus</i> | 4 – added post QA       |
| 20:18            | <i>Myotis sp.</i>                | 1 – HNS foraging        |
| 20:34            | <i>Nyctalus noctula</i>          | 1 – added post QA       |
| 20:34 - 20:41    | <i>Pipistrellus pipistrellus</i> | 26 – HNS foraging       |
| 20:43            | <i>Nyctalus noctula</i>          | 2 – added post QA       |
| 20:44            | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging        |
| 20:44            | <i>Nyctalus noctula</i>          | 1 – added post QA       |
| 20:44 - 20:45    | <i>Pipistrellus pipistrellus</i> | 4 – HNS foraging        |
| 20:51            | <i>Pipistrellus pipistrellus</i> | 3 – HNS foraging        |
| 20:57            | <i>Pipistrellus pipistrellus</i> | 1 – added post QA       |
| 21:03            | <i>Pipistrellus pipistrellus</i> | 2 – HNS foraging        |
| 21:14            | <i>Pipistrellus pygmaeus</i>     | 1 – added post QA       |
| 21:18            | <i>Pipistrellus pygmaeus</i>     | 1 – HNS foraging        |
| 21:25            | <i>Pipistrellus pipistrellus</i> | 4 – added post QA       |

## Annex D Static Survey Results

Species abbreviations: PIPI - Common Pipistrelle, PIPY - Soprano Pipistrelle, PINA – Nathusius’ Pipistrelle, PISP – Common or Soprano Pipistrelle, NYNO - Noctule, NYSP - Noctule or Leisler’s, MYSP - Myotis species, MYDA – Daubenton’s Bat, PLAU - Brown Long-eared. BAI = Bat Activity Index; hrs/nt = hours per night.

| Night temp. range | Season | Location | Dates                         | PIPI                      | PINA | PIPY | PISP | NYNO | NYSP | NYLE | MYSP | MYDA | BABA | PLAU | Species no. | Total | Nights | hrs/nt | BAI per hr | Activity Level         |
|-------------------|--------|----------|-------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|-------------|-------|--------|--------|------------|------------------------|
| 7°C - 18°C        | Spring | T1       | 10/05/2023<br>-<br>23/05/2023 | 9566                      | 0    | 172  | 1    | 159  | 2    | 0    | 820  | 1    | 0    | 19   | 8           | 10740 | 13     | 8      | 103.27     | High Activity          |
| 7°C - 18°C        | Spring | T2       | 10/05/2023<br>-<br>23/05/2023 | 8840                      | 0    | 14   | 3    | 8    | 1    | 0    | 69   | 5    | 0    | 3    | 8           | 8943  | 13     | 8      | 85.99      | Moderate-high Activity |
| 7°C - 18°C        | Spring | T3       | 10/05/2023<br>-<br>23/05/2023 | 3073                      | 0    | 165  | 30   | 41   | 1    | 0    | 50   | 5    | 0    | 12   | 8           | 3377  | 13     | 8      | 32.47      | Low-moderate Activity  |
| N/A               | Spring | 24A      | 24/05/2024<br>-<br>30/05/2024 | Static Failed             |      |      |      |      |      |      |      |      |      |      |             |       |        |        |            |                        |
| N/A               | Spring | 24B      | 24/05/2024<br>-<br>30/05/2024 | Static Failed             |      |      |      |      |      |      |      |      |      |      |             |       |        |        |            |                        |
| 9°C – 20°C        | Spring | 24C      | 24/05/2024<br>-<br>30/05/2024 | 1926                      | 0    | 1    | 0    | 27   | 0    | 3    | 22   | 0    | 0    | 0    | 5           | 1979  | 6      | 7.5    | 43.98      | Moderate Activity      |
| 9°C – 20°C        | Spring | CR1      | 24/05/2024<br>-<br>30/05/2024 | 4001                      | 6    | 121  | 21   | 9    | 0    | 0    | 1927 | 5    | 0    | 2    | 8           | 6092  | 6      | 7.5    | 135.38     | High Activity          |
| N/A               | Spring | CR2      | 24/05/2024<br>-<br>30/05/2024 | Static Failed             |      |      |      |      |      |      |      |      |      |      |             |       |        |        |            |                        |
| 9°C – 20°C        | Spring | CR3      | 24/05/2024<br>-<br>30/05/2024 | 594                       | 0    | 34   | 1    | 76   | 0    | 0    | 269  | 0    | 0    | 7    | 6           | 981   | 6      | 7.5    | 21.80      | Low Activity           |
| N/A               | Spring | CR4      | N/A                           | Static not Deployed - H&S |      |      |      |      |      |      |      |      |      |      |             |       |        |        |            |                        |

| Night temp. range | Season | Location | Dates                         | PIPI | PINA | PIPY | PISP | NYNO | NYSP | NYLE | MYSP | MYDA | BABA | PLAU | Species no. | Total | Nights | hrs/nt | BAI per hr | Activity Level         |
|-------------------|--------|----------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|-------------|-------|--------|--------|------------|------------------------|
| 9°C – 20°C        | Spring | CR5      | 24/05/2024<br>-<br>30/05/2024 | 3707 | 45   | 24   | 28   | 68   | 0    | 0    | 270  | 0    | 0    | 0    | 6           | 4142  | 6      | 7.5    | 92.04      | Moderate-high Activity |
| 9°C - 19°C        | Summer | T1       | 25/07/2023<br>-<br>04/08/2023 | 7423 | 0    | 310  | 6    | 138  | 13   | 0    | 602  | 0    | 0    | 24   | 7           | 8516  | 10     | 8      | 106.45     | High Activity          |
| 9°C - 19°C        | Summer | T2       | 25/07/2023<br>-<br>04/08/2023 | 3682 | 2    | 26   | 13   | 116  | 0    | 0    | 423  | 0    | 0    | 6    | 7           | 4268  | 10     | 8      | 53.35      | Moderate Activity      |
| 9°C - 19°C        | Summer | T3       | 27/07/2023<br>-<br>04/08/2023 | 6872 | 0    | 221  | 0    | 61   | 7    | 0    | 252  | 0    | 0    | 0    | 5           | 7413  | 8      | 8      | 115.83     | High Activity          |
| 13°C - 20°C       | Summer | 24A      | 30/07/2024<br>-<br>05/08/2024 | 2255 | 0    | 8    | 0    | 32   | 1    | 1    | 325  | 0    | 0    | 13   | 7           | 2635  | 5      | 8.5    | 62.00      | Moderate-high Activity |
| 13°C - 20°C       | Summer | 24B      | 30/07/2024<br>-<br>05/08/2024 | 742  | 0    | 5    | 2    | 19   | 0    | 0    | 115  | 18   | 0    | 2    | 7           | 903   | 5      | 8.5    | 21.25      | Low Activity           |
| 13°C - 20°C       | Summer | 24C      | 30/07/2024<br>-<br>05/08/2024 | 840  | 0    | 9    | 0    | 28   | 0    | 0    | 56   | 0    | 0    | 1    | 5           | 934   | 5      | 8.5    | 21.98      | Low-moderate Activity  |
| 13°C - 20°C       | Summer | CR1      | 30/07/2024<br>-<br>05/08/2024 | 5430 | 0    | 14   | 0    | 32   | 0    | 0    | 186  | 33   | 0    | 7    | 6           | 5702  | 5      | 8.5    | 134.16     | High Activity          |
| 13°C - 20°C       | Summer | CR2      | 30/07/2024<br>-<br>05/08/2024 | 2502 | 0    | 13   | 0    | 71   | 0    | 1    | 1484 | 0    | 0    | 7    | 6           | 4078  | 5      | 8.5    | 95.95      | Moderate-high Activity |
| 13°C - 20°C       | Summer | CR3      | 30/07/2024<br>-<br>05/08/2024 | 1037 | 0    | 55   | 0    | 45   | 0    | 0    | 273  | 0    | 0    | 4    | 5           | 1414  | 5      | 8.5    | 33.27      | Low-moderate Activity  |
| 13°C - 20°C       | Summer | CR4      | 30/07/2024<br>-<br>05/08/2024 | 1286 | 1    | 508  | 0    | 75   | 0    | 0    | 849  | 0    | 0    | 6    | 6           | 2725  | 5      | 8.5    | 64.12      | Moderate-high Activity |
| 13°C - 20°C       | Summer | CR5      | 30/07/2024<br>-<br>05/08/2024 | 3662 | 8    | 20   | 0    | 23   | 0    | 0    | 75   | 0    | 0    | 1    | 6           | 3789  | 5      | 8.5    | 89.15      | Moderate-high Activity |
| 6°C - 10°C        | Autumn | T1       | 20/09/2023<br>-<br>28/09/2023 | 2503 | 0    | 487  | 3    | 38   | 3    | 0    | 386  | 0    | 0    | 6    | 7           | 3426  | 8      | 11.50  | 37.24      | Moderate Activity      |

| Night temp. range | Season | Location | Dates                         | PIPI                      | PINA      | PIPY        | PISP       | NYNO        | NYSP      | NYLE     | MYSP        | MYDA       | BABA     | PLAU       | Species no. | Total         | Nights     | hrs/nt        | BAI per hr | Activity Level        |
|-------------------|--------|----------|-------------------------------|---------------------------|-----------|-------------|------------|-------------|-----------|----------|-------------|------------|----------|------------|-------------|---------------|------------|---------------|------------|-----------------------|
| 6°C - 10°C        | Autumn | T2       | 20/09/2023<br>-<br>28/09/2023 | 2742                      | 0         | 654         | 11         | 83          | 0         | 0        | 80          | 0          | 0        | 13         | 6           | 3583          | 8          | 11.50         | 38.95      | Moderate Activity     |
| 6°C - 10°C        | Autumn | T3       | 21/09/2023<br>-<br>28/09/2023 | 1565                      | 2         | 24          | 38         | 35          | 0         | 0        | 28          | 0          | 0        | 24         | 7           | 1716          | 7          | 11.50         | 21.32      | Low Activity          |
| 4°C - 19°C        | Autumn | 24A      | 09/09/2024<br>-<br>16/09/2024 | 322                       | 0         | 10          | 0          | 23          | 0         | 2        | 87          | 4          | 0        | 6          | 7           | 454           | 7          | 11.00         | 5.90       | Low Activity          |
| 4°C - 19°C        | Autumn | 24B      | 09/09/2024<br>-<br>16/09/2024 | 2895                      | 0         | 15          | 0          | 27          | 0         | 0        | 100         | 0          | 0        | 2          | 5           | 3039          | 7          | 11.00         | 39.47      | Moderate Activity     |
| 4°C - 19°C        | Autumn | 24C      | 09/09/2024<br>-<br>16/09/2024 | 2037                      | 0         | 4           | 0          | 36          | 1         | 0        | 29          | 2          | 0        | 7          | 7           | 2116          | 7          | 11.00         | 27.48      | Low-moderate Activity |
| 4°C - 19°C        | Autumn | CR1      | 09/09/2024<br>-<br>16/09/2024 | 2849                      | 0         | 9           | 3          | 20          | 0         | 0        | 181         | 17         | 0        | 15         | 7           | 3094          | 7          | 11.00         | 40.18      | Moderate Activity     |
| 4°C - 19°C        | Autumn | CR2      | 09/09/2024<br>-<br>16/09/2024 | 1447                      | 0         | 87          | 0          | 40          | 0         | 2        | 873         | 14         | 0        | 4          | 7           | 2467          | 7          | 11.00         | 32.04      | Low-moderate Activity |
| 4°C - 19°C        | Autumn | CR3      | 09/09/2024<br>-<br>16/09/2024 | 2185                      | 1         | 19          | 0          | 7           | 0         | 0        | 99          | 2          | 2        | 8          | 8           | 2323          | 7          | 11.00         | 30.17      | Low-moderate Activity |
| N/A               | Autumn | CR4      | 09/09/2024<br>-<br>16/09/2024 | Static not Deployed - H&S |           |             |            |             |           |          |             |            |          |            |             |               |            |               |            |                       |
| 4°C - 19°C        | Autumn | CR5      | 09/09/2024<br>-<br>16/09/2024 | 1309                      | 0         | 0           | 0          | 1           | 0         | 0        | 10          | 0          | 0        | 0          | 2           | 1320          | 7          | 11.00         | 17.14      | Low Activity          |
| <b>TOTALS</b>     |        |          |                               | <b>87292</b>              | <b>65</b> | <b>3029</b> | <b>160</b> | <b>1338</b> | <b>29</b> | <b>9</b> | <b>9940</b> | <b>106</b> | <b>2</b> | <b>199</b> | <b>179</b>  | <b>102169</b> | <b>154</b> | <b>172.50</b> |            |                       |



## Annex E Valuing Bat Roosts Foraging and Commuting Habitats in Ecological Impacts Assessment

The conservation importance of the roosting, foraging and commuting bats present on site is based on the rarity of individual bat species, importance of their roosts, commuting and foraging habitats and overall importance of the bat assemblages (see Tables below) based on the analysis framework in CIEEM Guidelines for Ecological Impact Assessment (Ref. 19), and in the CIEEM Bat Mitigation Guidelines (Ref. 15) and using professional judgement.

### Rarity Category (Central England/Midlands)

| Rarity category   | Species  |
|---|--|
| Widespread  | a. Common pipistrelle<br>b. Soprano Pipistrelle<br>c. Brown Long-eared bat                   |
| Widespread in many geographies but not as abundant in all | a. Daubenton's bat<br>b. Natterer's bat<br>c. Noctule<br>d. Brandt's bat<br>e. Whiskered bat |
| Rarer or restricted distribution                          | a. Leisler's bat<br>b. Nathusius' pipistrelle<br>c. Serotine ( <i>Eptesicus serotinus</i> )  |
| Rarest Annex II species and very rare                     | a. Barbastelle   |

Note, this excludes other UK bat species that are unlikely to occur within the Order limits based on their current distribution.

## Assessing Conservation Importance of Bat Roosts<sup>1</sup>

| Rarity category (species in each category are determined by region) | Roost category  |  |  |                            |   |   |  |
|---|---|--|--|----------------------------|---|---|--|
|   | Feeding perches; night-roosts Individual or very small occasional/transitional/opportunistic roosts | Non-breeding day roosts (small numbers of species) | Mating sites (excluding individual trees) Small numbers of hibernating bats  | Larger transitional roosts | Hibernation sites <sup>4</sup>  | Autumn Swarming sites   | Maternity sites <sup>3</sup>   |
| Widespread  | Site  | Site   | Site   | Site/Local                 | District/County [larger hibernation sites rare in the UK]                       | District/County (very large pipistrelle swarming sites as yet unknown in the UK)  | Unlikely to exceed District importance unless colonies are atypically large; importance increased for assemblages. |
| Widespread in many geographies but not as abundant in all           | Site  | Site   | Site, dependent on local distribution [for Myotis, see swarming site column] | District                   | District/County importance dependent on size <sup>2</sup> and number of species | County/Regional importance dependent on size <sup>2</sup> importance increased for larger sites that serve larger numbers/species | County/Regional importance on size <sup>2</sup> and local distribution; increased value for assemblages.           |

| Rarity category (species in each category are determined by region) | Roost category  |  |   |                            |  |  |  |
|---|---|--|---|----------------------------|--|--|--|
|   | Feeding perches; night-roosts Individual or very small occasional/transitional/opportunistic roosts | Non-breeding day roosts (small numbers of species)   | Mating sites (excluding individual trees) Small numbers of hibernating bats | Larger transitional roosts | Hibernation sites <sup>4</sup>   | Autumn Swarming sites  | Maternity sites <sup>3</sup>   |
| Rarer or restricted distribution                                    | Site (very well-used night roosts may be of District importance for some species)                   | Site/Local/District, dependent on local distribution | Site/Local/District, dependent on local distribution                        | District                   | District/County importance on size <sup>2</sup> and local distribution; increased value for assemblages. | County/Regional importance on size <sup>2</sup> and local distribution; increased value for assemblages. | County/Regional importance on size <sup>2</sup> and local distribution; increased value for assemblages. |
| Rarest Annex II species and very rare                               | Site (very well-used night roosts may be of District importance for some species)                   | Site/Local/District, dependent on local distribution | Site/Local/District, dependent on local distribution                        | District                   | County/Regional importance on size <sup>2</sup> and local distribution; increased value for assemblages. | County/Regional importance on size <sup>2</sup> and local distribution; increased value for assemblages. | County/Regional importance on size <sup>2</sup> and local distribution; increased value for assemblages. |

<sup>1</sup> Sites within or functionally-linked to SACs are of International importance for Qualifying Species. Sites that *could* be functionally-linked to SACs may or may not have that level of importance (e.g. a Barbastelle maternity roost from a multi-component 'bat' SAC may be too far away to be a direct satellite of a maternity roost within the SAC, but may be part of the same population through intermediate unidentified

roosts). Sites meeting SSSI guidelines are of National importance (though note that many SSSI citations do not reflect the 'bat' importance of the sites they describe).

- <sup>2</sup> In all cases, 'size' needs to be interpreted as 'relative to typical sizes for the species'.
- <sup>3</sup> Satellite roosts (i.e. alternative roosts found in close proximity to the main nursery colony) should be considered with the associated main colony.
- <sup>4</sup> For tree-roosting bats that are likely to hibernate in small numbers (which means individual hibernation sites are difficult to detect and many may be missed), the importance of the roost resource (i.e. the extent of woodland which contains trees suitable for hibernation) rather than individual confirmed roosts, should be assessed.

## Assessing the Importance of a Bat Assemblage

Sites of importance to bats often support several species, and it can be helpful to consider the importance of the assemblage as a whole after the individual bat species have been assessed. Assigning a level of importance to an assemblage provides contextual information only; it is not expected that the assemblage as a whole would be assessed as a single receptor.

| Rarity category   | Species and Score   |
|---|---|
| Widespread  | a. Common pipistrelle                      1 point each<br>b. Soprano Pipistrelle<br>c. Brown Long-eared bat                            |
| Widespread in many geographies but not as abundant in all | a. Daubenton's bat                              2 points each<br>b. Natterer's bat<br>c. Noctule<br>d. Brandt's bat<br>e. Whiskered bat |
| Rarer or restricted distribution                          | a. Leisler's bat                                      3 points each<br>b. Nathusius' pipistrelle<br>c. Serotine                         |
| Rarest Annex II species and very rare                     | a. Barbastelle                                      4 points  |
| Maximum score   | 26  |
| 45%   | County    12  |
| 55%   | Regional    14  |
| 70%   | National    18  |

## Importance of Ecological Features

Importance of Ecological Features      Typical descriptors and examples of criteria

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International or European      An internationally designated site or candidate site including SAC, candidate or possible SACs (cSACs or pSACs<sup>1</sup>) where bats are cited as a qualifying feature.

Resident or regularly occurring populations of species which may be considered at an international or European level<sup>2</sup> where:  
the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale;  
the population forms a critical part<sup>3</sup> of a wider population at this scale; or  
the species is at a critical phase<sup>4</sup> of its life cycle at this scale.

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UK or National      Sites designated at UK or national level e.g. SSSI, where bats are included as an interest feature.

Resident or regularly occurring populations of species which may be considered at a UK or a national level<sup>5</sup> where:  
the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale;  
the population forms a critical part of a wider population at this scale; or  
the species is at a critical phase of its life cycle at this scale.

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Regional      Populations of species of value at a regional level (i.e. Yorkshire and the Humber).

Resident or regularly occurring populations of species which may be considered at a regional level<sup>6</sup> where:  
the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale;  
the population forms a critical part of a wider population at this scale; or  
the species is at a critical phase of its life cycle at this scale.

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County or Unitary Authority or District      Populations of species of value at a County (South Yorkshire) level or District (Doncaster).

Resident or regularly occurring populations of species which may be considered at a County (or District) level where:  
the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale;  
the population forms a critical part of a wider population at this scale; or,  
the species is at a critical phase of its life cycle at this scale.

**Importance of Ecological Features**      **Typical descriptors and examples of criteria**

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|              |   |
|--------------|---|
| <b>Local</b> | Species populations of value in a local (i.e. within ~ 5 km of the site) context.<br><br>Areas of habitat or populations and, or communities of species considered to appreciably enrich the habitat resource within the local context (such as veteran trees), including features of value for migration, dispersal or genetic exchange. |
|--------------|---|

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|             |  |
|-------------|--|
| <b>Site</b> | Habitat that is of value in the context of the site only.<br><br>Populations of common and widespread species. |
|-------------|--|

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- 1 pSACs are sites which have been formally advised by to UK Government but have not yet been submitted to the European Commission. These sites should be valued at an international (European) level on the basis that they meet the relevant selection criteria for a SAC but are not yet designated as such.
- 2 Such species include those listed within Council Directive 92/43/EEC on the Conservation of natural habitats and of wild flora and fauna (i.e. Habitats Directive).
- 3 Such populations include sub-populations that are essential to maintenance of metapopulation dynamics e.g. critical emigration/immigration links between otherwise discrete populations.
- 4 Seasonal activity or behaviour upon which survival or reproduction depends.
- 5 Species which may be considered at the UK or national level means; other animals which receive legal protection in the basis of their conservation interest (those listed within the Wildlife and Countryside Act 1981 (as amended) Schedule 5 and 8); species listed for their principal importance for biodiversity (in accordance with the NERC Act section 41 England); priority species listed within the UK Post 2010 Biodiversity Framework (i.e. UK BAP); or species listed within the Red Data Book.
- 6 Such species include those listed in the appropriate Natural Character Area and key/priority species listed on the 2002 HABAP.

As well as assigning importance there is also a need to identify all legally protected species that could be affected by the Scheme in order that measures can be taken to ensure that adherence to the relevant legislation is observed. This may include the adoption of mitigation and appropriate licensing which is acceptable to Natural England.

An aerial photograph of a vast solar farm, showing rows of solar panels stretching towards the horizon. The lighting is dramatic, with long shadows and highlights on the panels, creating a strong sense of perspective. The overall color palette is dark and monochromatic, with shades of brown, grey, and black.

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