

Shadow Habitat Regulations Assessment (sHRA)

Land at Devizes Road, Hilperton,
Trowbridge

07 August 2026

Ecology
Arboriculture
Land Management





Site Details

Site Name and Location	Land at Devizes Road, Hilperton, Trowbridge
Central OS Grid Reference	ST 88083 59311
Client	Redcliffe Homes Ltd

Report Details

Report Title	Shadow Habitat Regulations Assessment (sHRA)
Report Reference	3131-sHRA-NH

Quality Assurance & Revision Record

Revision	Date	Author	Checked By	Approver	Summary of Changes
V2	07 August 2026	Nick Hargreaves BSc MSc MCIEEM	Lindsay Taylor BSc MSC ACIEEM	Lindsay Taylor BSc MSc ACIEEM	w/ scheme amends and Consultation with LPA/NE
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1 Introduction

This report has been prepared on behalf of Redcliffe Homes Ltd in relation to a proposed planning application at Land at Devizes Road, Hilperton, Trowbridge.

The area within the application boundary is hereafter referred to as the 'Site'. A separate Ecological Impact Assessment has been produced (GE Consulting, 2026a) and accompanies the planning application.

1.1 Site Context

The Site is located off Devizes Road and Hilperton Drive (A361) in Hilperton and comprises two separate privately owned land holdings. The land holding to the north comprises a former tenanted (in use at time of survey) horse paddock, with associated yard and stables.

The land holding to the south is within private residential curtilage. There are two stable blocks on the Site; one to the north (Active Stables) and one to the south (Disused Stables). The Site is situated on the outskirts of an urban area and is bordered by farmland interspersed by hedgerows to the north, sports pitches to the east and residential development/roads to the south and west.

1.2 Description of Proposed Development

Proposals consist of an Outline Planning Application for a residential development of up to 80 units with associated landscaping and access.

1.3 Aims

This shadow Habitats Regulations Assessment (sHRA) has been produced to provide Wiltshire Council (WC) with technical information required to assess whether the project (i.e. the proposed scheme) may have an adverse impact on the integrity of any National Site Network site (also known as European sites'), either alone or in combination with other plans or projects in the local area as part of their responsibility as the 'competent authority' under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended).

The aims of this report is to:

- 👉 Identify those National Site Network sites that fall within the potential zone of influence (Zoi) of the proposed scheme, by way of consideration of their qualifying interests, conservation objectives and favourable (or otherwise) conservation status;
- 👉 Identify any effects/impacts of the proposed scheme that are likely to have likely significant effects (LSEs) on the identified National Site Network either alone or in-combination; and
- 👉 Identify ways in which the proposed scheme can be modified to avoid/mitigate impacts on the National Site Network to an acceptable level.

This sHRA should be read in conjunction with the corresponding application documents and drawings submitted with the planning application, in particular:

- 👉 Ecological Impact Assessment– (GE Consulting, 2026). Ref: 3131-EcIA-NH;
- 👉 Illustrative Masterplan (Thrive Architects, 2026) REDC251029 SKL-01; and
- 👉 Adoptable S38 Lighting Strategy. Highway Lighting Solutions (2026) HLS-1012-B.

2 HRA Requirement

2.1 National Site Network

European Council Directive 92/43/EEC (known as the Habitats Directive) and Council Directive 2009/147/EC (codified version of Directive 79/409/EEC as amended) ‘the Wild Birds Directive’ established a network of internationally important sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) designated for their ecological status. Special Areas of Conservation¹ (SACs) are designated under the Habitats Directive and promote the protection of flora, fauna and habitats. Special Protection Areas (SPAs) are designated under the Birds Directive in order to protect rare, vulnerable and migratory birds. These sites form a Europe-wide network of designated sites known as ‘Natura 2000’

In the UK, these formerly EU-protected sites have been merged into a National Site Network by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which amends the Conservation of Habitats and Species Regulations 2017 (as amended) by transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

In addition to sites designated under the above legislation, UK Government policy (NPPF paragraph 181 and Circular 06/2005 refer) states that internationally important wetlands listed under the Ramsar Convention 1971 (Ramsar sites) are afforded the same protection as SPAs and SACs for the purpose of considering development proposals that may affect them.

The term ‘Habitats Regulations Assessment’ is used to cover the process of assessing the effects of a project or plan on National Site Network sites and Ramsar sites.

2.2 Legislative Context

The Conservation of Habitats and Species Regulations 2017 (as amended) provides protection to the National Site Network.

Under Part 6 ‘Assessment of Plan and Projects’, Regulation 63 (1) of these regulations, an appropriate assessment needs to be undertaken by the ‘*competent authority*’ using evidence provided by the applicant (if requested) and in consultation with Natural England.

“(1) A competent authority [in this instance Wiltshire Council], before deciding to undertake, or give consent, permissions or other authorisation for, a plan or project which:

-  *Is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and*
-  *Is not directly connected with or necessary to the management of the that site;*

Must make an appropriate assessment of the implications for that site in view of that site’s conservation objectives.

(2) A person [the applicant] applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.”

¹ Those sites that have been adopted by the European Commission and formally designated by the government of each country in whose territory the site lies

The European Court of Justice (ECJ) has ruled that a plan or project can only be authorised if the competent authority has made certain that it will not adversely affect the integrity of any affected European site, and that “no reasonable scientific doubt” remains as to the absence of such effects.

As the application is not necessary to the management of the site for nature conservation, Wiltshire Council, as the relevant competent authority, is required to carry out an HRA to ensure that the development decision does not adversely affect the integrity of European sites.

2.2.1 Additional Information

As is often the case, the National Site Network sites referred to in this report are subject to multiple designations. The reason for this is that the legal regimes of the Birds and Habitats Directives are separate, and failure to additionally designate an existing SAC as an SPA (or vice versa) may breach legislation. A given site may have permutations of an SPA and a SAC and a Ramsar site and, as such, the boundaries of these may vary slightly or significantly and may overlap.

In England and Wales statutory National Site Network sites are also notified as Sites of Special Scientific Interest (SSSI). As such the provisions of the Wildlife and Countryside Act 1981 (as amended) are also relevant. The act imposes an important general duty on a range of authorities exercising functions which are likely to affect SSSIs. This general and overarching duty requires an authority to take reasonable steps, consistent with the proper exercise of the authority’s functions, to further the conservation and enhancement of the features for which sites are of special interest. It applies whenever an authority is exercising its functions, including when it has the power to take action, and applies at every stage from the formulation of plans, to the carrying out of operations and the making of decisions.

Due to the overlap and interplay between designated sites, the assessment below draws upon information produced to support the planning application and information freely available from Natural England and the Joint Nature Conservation Committee (JNCC) in relation to designated sites.

2.3 Local Policy/Guidance

There are a number of pieces of relevant policy/guidance for several of the internationally designated sites upon which the Site may result in impacts. Those of particular relevance are outlined below and discussed further in the relevant sections:

-  Bath and Bradford on Avon Bat SAC – Planning Guidance for Wiltshire (Wiltshire Council, 2015);
-  Trowbridge and Westbury Bat Mitigation Strategy (Wiltshire Council, 2025); and
-  HRA and Mitigation Strategy for Salisbury Plain SPA (in relation to recreational pressure from residential development) (Wiltshire Council, 2024).

2.4 Consultation

The previous planning application (original application PL/2022/07977) provides context in regard to Wiltshire Council’s requirements/expectations in regard to any future planning submission. Additionally, Natural England (NE) commented as a Statutory Consultee on 29th November 2023 and provided detailed comments in regard to impacts on Bath and Bradford on Avon Bat Special Area of Conservation (SAC) and in respect to impacts on bats.

Following the submission of the planning application in February 2026 comments were received on 23rd April 2026 from Kyle Conroy (Sustainable Development Higher Officer at Natural England) and from Elizabeth Burrows (Senior Ecologist at the Wiltshire Council) on 1st May 2026.

Subsequently liaison and meetings were held between the design team and Wiltshire Council with a meeting on 21st May 2026 with Jemma Foster (Development Management) and Elizabeth Burrows

(Senior Ecologist) to seek to agree a way to overcome the holding objection. It was agreed that the Ecological Impact Assessment and Shadow Habitats Regulations Assessment would be updated and any amendments would be highlighted via **green text**.

As part of their consultation response, WC and Natural England provided detailed comments in respect to the extent of bat survey and assessment, and impacts upon Habitats Sites and qualifying species. Technical points have been discussed below, with comments by the relevant consultee “quoted”, followed by a technical response.

2.5 HRA Process

Habitats Regulations Assessment follows a four-stage hierarchical approach. Each of those four stages contains a number of steps comprising the tests or procedures that are required by the Habitats Directive.

The definitive process for HRA is detailed in the Handbook for HRA (Tyldesley, D., and Chapman, C., 2013). The Handbook was intended to supplement government guidance (on GOV.UK) by bringing together all relevant law, policy, methodology, technical advice and good practice into one comprehensive source. Following the accession of the Planning and Infrastructure Bill in 2025 and UK Government Policy to seek to adapt the HRA process to facilitate development, the publishers of the Handbook – DTA Publications has elected to withdraw the handbook as of January 2026.

The justification for this being that the regulatory and assessment landscape will become ever more complex, with many individual sectors each having their own way of avoiding or adapting the HRA process, whilst the Regulations themselves are retained, with or without amendments. As such as it is not a viable proposition to adapt and maintain the Handbook as a resource that would be needed to adequately navigate through all the relevant processes in England.

Until the new processes become clear and guidance is published, the handbook will be followed in the interim, with ecologists fully cognizant of the risks of misapplying the regulatory process as it unfolds.

The HRA process comprises:

2.5.1 Stage 1 Screening (Test of Likely Significant Effect)

This stage seeks to identify any ‘Likely Significant Effects’ (LSE) of a plan or project on a National Site Network site(s), either alone or in combination with other plans or projects. A significant effect can be defined as an ‘effect that is likely to undermine the site’s conservation objectives’.

If the outcome of this stage is that no likely significant effect is identified (either alone or in combination) then no further assessment is required. This is essentially a risk assessment process that seeks to understand whether there are any mechanisms for identified impacts arising from the project to adversely affect the European site (e.g. cause-effect pathway).

Following the People Over Wind ruling (case C323/17) in April 2018, ‘it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site’ and therefore this screening is undertaken in the absence of standard mitigation.

2.5.2 Stage 2 Appropriate Assessment and the Integrity Test

Should the Stage 1 Screening identify that a plan or project could lead to likely significant effects on a National Site Network site(s), then it becomes necessary to proceed to Stage 2, which is often referred to as Appropriate Assessment (AA). AA considers whether a plan or project could adversely affect the

integrity of one or more National Site Network site(s), either alone or in combination with other plans or projects. A significant effect can be defined as an ‘effect that is likely to undermine the site’s conservation objectives’.

The assessment should consider the implications of any identified impacts in view of the site’s conservation objectives and its conservation status. If the potential for Adverse Effects on Integrity (AEIOI) of the site are identified, this assessment should also consider measures to control the identified impacts so as to avoid adverse effects on site integrity.

2.5.3 Stage 3 Assessment of Alternatives

If adverse effects on National Site Network site(s) are predicted (or cannot be ruled out), this stage seeks to ascertain whether there are alternative solutions that would have no, or a lesser effect on the integrity of the National Site Network site(s) adversely affected by the project. If impacts cannot be fully mitigated, then the plan or project should be rejected, or the HRA taken forward to the final stage, i.e. assessment of compensatory measures where it is determined that the project or plan should proceed for Imperative Reasons of Overriding Public Interest (IROPI).

2.5.4 Stage 4 Imperative Reasons of Overriding Public Interest (IROPI)

This stage assesses compensatory measures where no alternative solutions exist and where adverse impacts remain, and it is determined whether the project or plan should proceed for Imperative Reasons of Overriding Public Interest (IROPI).

3 Sites Scoped Into Assessment

The ‘zone of influence’ (Zoi) for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities². A Zoi of 10 km for internationally designated sites has been defined in relation to the project. Three National Site Network sites lie within 10km of the Site and have been scoped into the assessment:

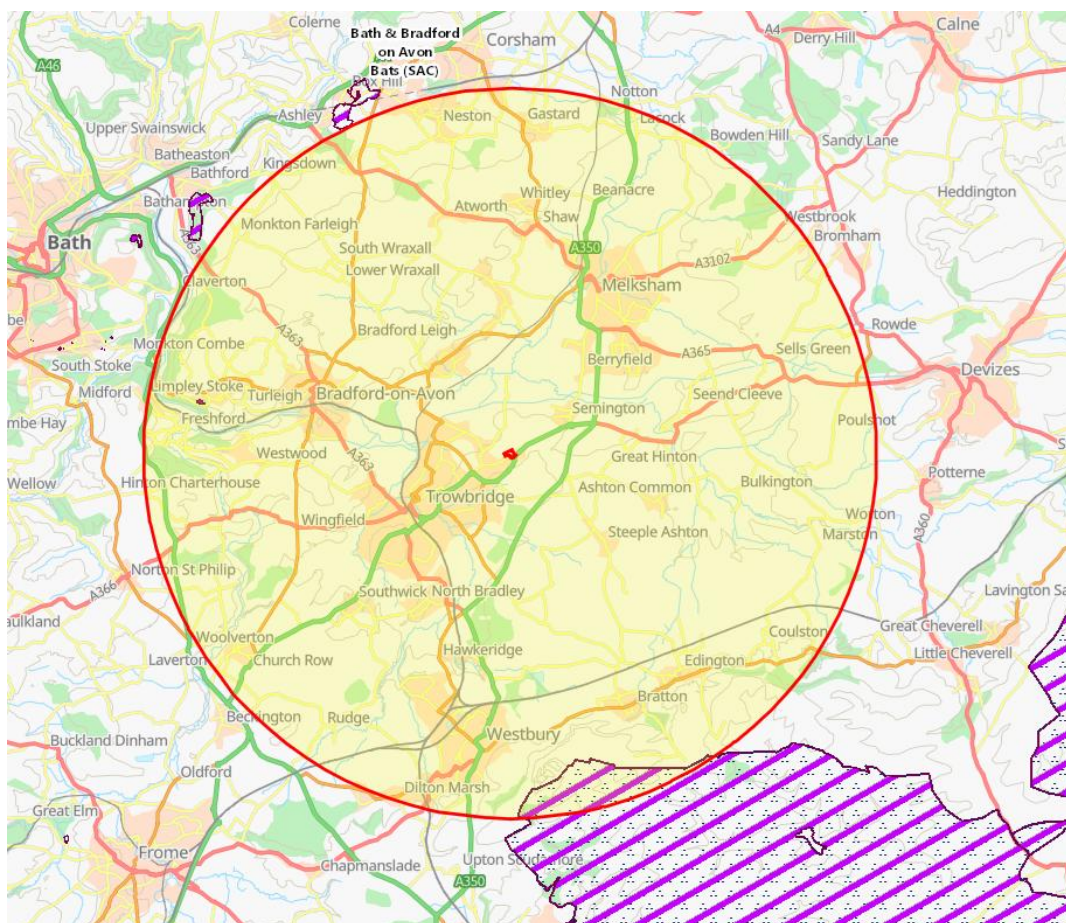
-  Bath and Bradford-on-Avon Bat SAC;
-  Salisbury Plain SAC; and
-  Salisbury Plain SPA.

National Site Network locations in relation to the application site are shown below (provided by MAGIC³).

² CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester

³ <https://magic.defra.gov.uk/home.htm>

Plate 1: National Site Network Sites within 10km Zol



The proposed development was not considered to have effects on the National Site Network beyond 10km as no potential pathways have been identified.

4 Screening Assessment

4.1 Factors Affecting NSN sites

The Assessment takes into account the current state of the National Site Network, the main sensitivities and the range and scale of potential impacts from the proposed development.

During the screening exercise, Standard Data Forms produced by JNCC have been used to identify threats, pressures and activities with high impacts on the site's designated features. In addition, Site Improvement Plans (SIP) which have been developed by Natural England for each site, have been used to identify current and predicted issues affecting the condition of the qualifying features.

4.2 Likely Significant Effect (LSE) Test

Table 1 below details the characteristics of the National Site Network and identifies potential pathways for LSEs as a result of the proposed development.

The assessment process found that the proposed development will not involve any direct land take of any of the National Site Network, however indirect LSEs on the Sailsbury Plain SPA/SAC, and the Bath and Bradford-on-Avon SAC cannot be ruled out.

Table 1: Screening Assessment for LSEs

Site Name	Distance from Site	Qualifying Features ⁴	Conservation Objectives ⁵	SSSI Condition Assessment	Threats, pressures and activities with negative impacts on the site (taken from Standard Data Form and SIP ⁶)	Risk of Significant Effect?
Salisbury Plain SAC/SPA	8.7km south	21465.94 ha site comprising heath, scrub, maquis and garrigue, phygrana, dry grassland, steppes, humid grassland, mesophile grassland, improved grassland, broad-leaved deciduous woodland, coniferous woodland, mixed woodland and other land (including towns, villages, roads, waste places, mines, industrial sites). Annex I habitats that are a primary reason for selection of this site: <i>Juniperus communis</i> formations on heaths or calcareous grasslands - Semi-natural dry grasslands and scrubland facies on	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; - The extent and distribution of qualifying natural habitats and habitats of qualifying species - The structure and function (including typical species) of qualifying natural habitats - The structure and function of the habitats of qualifying species - The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely - The populations of qualifying species, and,	Salisbury Plain SSSI 45.27% favourable 53.33% unfavourable-recovering 0.96% partially destroyed 0.45% not recorded Porton Down SSSI 14.80% favourable 85.20% unfavourable-recovering Parsonage Down SSSI	Changes in species distribution Air pollution: risk of atmospheric nitrogen deposition	No – while the development will likely cause an increase in traffic and therefore atmospheric nitrogen deposition, due to the distance between the development site and the SAC, and the size of the development it is highly unlikely to result in LSE. Additionally, the Site falls outside of the Recreational Buffer Zone as outlined in the

⁴ <https://sac.jncc.gov.uk/#>

⁵ <https://designatedsites.naturalengland.org.uk/>

⁶ <https://publications.naturalengland.org.uk/category/5458594975711232>

Site Name	Distance from Site	Qualifying Features ⁴	Conservation Objectives ⁵	SSSI Condition Assessment	Threats, pressures and activities with negative impacts on the site (taken from Standard Data Form and SIP ⁶)	Risk of Significant Effect?
		calcareous substrates (<i>festuco-brometalia</i>) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:  N/A Annex II species that are a primary reason for selection:  Marsh fritillary butterfly Annex II species present as a qualifying feature: N/A	 The distribution of qualifying species within the site.	 78.65% favourable  21.35% unfavourable-recovering		HRA and Mitigation Strategy for the SPA (Wiltshire Council, 2024) therefore there will be no recreational impact. Development is highly unlikely to impact on other pressures/threats listed.
Bath and Bradford-on-Avon Bats SAC	8.8km west	106.45 ha site comprising heath, scrub, maquis and garrigue, phygrana, broad-leaved deciduous woodland and other land (including towns, villages, roads, waste places, mines, industrial sites). Annex I habitats that are a primary reason for selection of this site:  N/A	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;  The extent and distribution of the habitats of qualifying species  The structure and function of the habitats of qualifying species	Box Mine SSSI  100% favourable Brown's Folly SSSI  75.01% favourable  24.99% unfavourable-recovering Combe Down and	Planning permission: general Change in land management Direct impact from third party Feature location/extent/condition unknown	Yes - a change in land management is to occur, offsite habitat availability/ management is going to change, and public access/ disturbance may increase due to the proposed

Site Name	Distance from Site	Qualifying Features ⁴	Conservation Objectives ⁵	SSSI Condition Assessment	Threats, pressures and activities with negative impacts on the site (taken from Standard Data Form and SIP ⁶)	Risk of Significant Effect?
		Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: - N/A Annex II species that are a primary reason for selection: - Greater horseshoe bat - Bechstein's bat Annex II species present as a qualifying feature: Lesser horseshoe bat	- The supporting processes on which the habitats of qualifying species rely - The populations of qualifying species, and, - The distribution of qualifying species within the site.	Bathampton Down Mines SSSI 98.51% favourable 1.49% unfavourable-recovering Winsley Mines SSSI 100% favourable	Offsite habitat availability/management Public access/disturbance Change to site conditions Inappropriate designation boundary	development. The Site lies within the Yellow Zone: Medium Risk sensitivity zone for habitat and the Grey Hatched Zone Medium Risk sensitivity zone for recreational pressure of the Trowbridge and Westbury Bat Mitigation Strategy (TWBMS). Development is highly unlikely to impact on other pressures/threats listed.

5 Information for Appropriate Assessment

5.1 Bath and Bradford-on-Avon Bats SAC

The Bath and Bradford-on-Avon Bats SAC is made up of 4 component Sites of Special Scientific Interest (SSSIs):

- 🦇 Winsley Mines SSSI;
- 🦇 Brown's Folly SSSI;
- 🦇 Combe Down, Bathampton Down Mines SSSI; and
- 🦇 Box Mine SSSI.

The Site Improvement Plan⁷ for the SAC states that:

“The SAC as a whole supports 15% of the UK population of greater horseshoe bats, internationally significant populations of lesser horseshoe and Bechstein's bats. The SAC comprises four component sites: Brown's Folly, Box Mine, Winsley Mines, and Combe Down and Bathampton Down Mines. These are distributed over a wide geographical area to the south and east of Bath and have different known bat usages, which over the whole of the SAC include breeding, hibernation, swarming and dispersal. The sites are all abandoned limestone mines, and some include areas of supporting habitat: broadleaved woodland and species rich calcareous grassland. The surrounding landscape provides feeding and commuting opportunities between the component SSSIs, other SAC sites and other undesignated roosts which is vital in supporting the bats throughout their life cycle. Features of significance within the wider landscape are watercourses, woodland, grazed pasture, hay meadows, hedgerows, linear trees and scrub.”

Greater Horseshoe Bats (GHS): This site in south-west England is selected on the basis of the size of population represented (up to 15% of the UK population). The Winsley Mine SSSI recorded counts of up to 100 hibernating GHS, representing c. 5% of the UK population in this site alone. In 1985, according to the Supplementary Advice on Conserving and Restoring Site Features (Natural England, 2019), a peak count of 56 bats was counted (1985).

Roost choice, and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with food and shelter. The woodland surrounding the underground mines is important for the maintenance of optimal humidity conditions inside the mine system and also as foraging areas.

Beyond this, GHS rely on the maintenance of supporting offsite habitats (functionally linked land). The provision of rich feeding areas around a roost, and the commuting routes (or flight-lines) to them, are an important element in sustaining the SAC population. Flightlines extend beyond the designated site boundary into the wider local landscape and are especially important as a link between summer and winter roost sites. GHS commute and forage along linear features, over grazed pasture and in woodland. Permanent pasture and ancient woodland linked with an abundance of tall bushy hedgerows is ideal supporting habitat for this species. GHS tend to forage within 2.5km of their summer roost, though they can travel up to 4km from these roosts to suitable foraging grounds (Schofield, 2008). In winter, their foraging range is reduced, with a mean foraging radius of 1.2 km around hibernation sites reported.

The bats are vulnerable to the loss of insect food supplies due to insecticide use, changing farming practices and the loss of broadleaved tree-cover, and to the loss or disturbance of underground roost sites.

⁷ <https://publications.naturalengland.org.uk/publication/6279810384920576?category=5374002071601152>

Lesser Horseshoe Bats (LHS): The main population of LHS is at Box Mine SSSI, with a hibernating population of 197 (peak count – Jan 2014) (Natural England, 2019). A smaller population is present at Winsley Mine SSSI, c. 6 individuals recorded (peak count – Dec 1984) (Natural England, 2019).

As with GHS, roost choice and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with shelter and food (supporting habitat). LHS tend to forage within 2-3km of their roost, though they can travel up to 4km from their roosts to suitable foraging grounds. LHS commute and forage along linear features over grassland and woodland. They feed on flies (mainly midges), small moths, caddis flies, lacewings, beetles, small wasps and spiders. The species prefers sheltered valleys with extensive deciduous woods or dense scrub, close to roost sites. Where habitat is fragmented, linear features such as hedgerows are important corridors between roosts and foraging areas. During the winter, their foraging range is reduced, with a mean foraging radius of 1.2 km around hibernation sites reported. Summer and winter roosts are usually less than 5-10 km apart.

LHS are vulnerable to the loss or disturbance of both summer and winter roost sites and the removal of linear habitat corridors.

Bechstein's Bats: The main populations of Bechstein's bat are at Box Mine SSSI and Brown's Folly SSSI, although recorded numbers are low (Natural England, 2019). There are no records of Bechstein's bats at either Winsley Mines SSSI or Combe Down and Bathampton SSSI.

Similarly to the horseshoe bats, roost choice and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with shelter and food (supporting habitat). Roosts are usually tree holes during the summer and exposed sites with caves, cellars or tree holes during the winter⁸. Bechstein's bats tend to forage near to their roost sites and rarely travel more than 1.5km to find suitable foraging grounds⁹. They forage largely in enclosed vegetation such as woodland and feed mainly by gleaning flies, earwigs and moths. The species prefers damp, deciduous woodland although they may be found in parkland and coniferous woodland. Where habitat is fragmented, linear features such as hedgerows are important corridors between roosts and foraging areas.

Bechstein's bats are vulnerable to the loss or disturbance of suitable habitat, e.g. by removal of dead/dying trees, habitat fragmentation and drainage of wet woodlands.

The SIP states that the main pressures and threats are:

- 👉 Planning permission - loss of foraging habitat, loss of minor roost sites, and disruption of flightpaths (the latter particularly through light pollution).
- 👉 Change in land management – loss of foraging habitat through inappropriate management in terms of bats.
- 👉 Direct impact from third party – vandalism and impacts of recreational activities.
- 👉 Feature location/ extent/ condition unknown (Bechstein's bat only) – lack of knowledge regarding location and extent of Bechstein's bats.
- 👉 Offsite habitat availability/ management – use of surrounding habitats.
- 👉 Public access/ disturbance – damage disturbance from public access.
- 👉 Change to site conditions – Unstable mines at risk of collapse may no longer be used by bats.
- 👉 Inappropriate designation boundary – new sites being considered for designation.

5.1.1 Bath and Bradford-on-Avon Bat SAC Planning Guidance for Wiltshire

Wiltshire Council and Natural England jointly published the guidance document assist applicants on how development activities can affect Wiltshire's bat SACs and what must be done to avoid or mitigate

⁸ <https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/bechsteins.htm>

⁹ <https://cdn.bats.org.uk/uploads/pdf/Bechsteins-bat-species-account.pdf?v=1642079639>

any impacts. It aims to flag up the types and locations of development that present risks to the SACs so that the needs of bats can be taken into consideration as early as possible in order to avoid unnecessary delays to development projects.

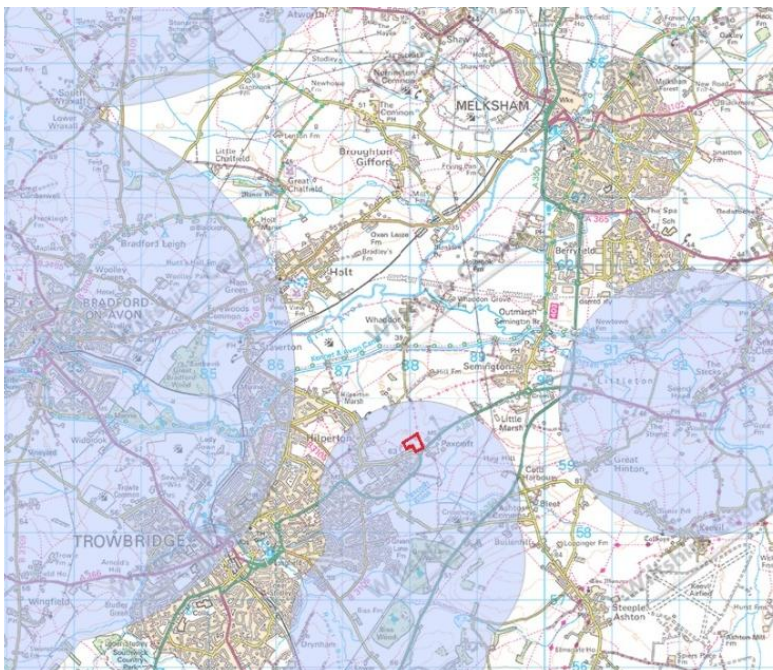
The guidance provides a required survey scope when Sites are located within Consultation Zones around Core Roosts associated with the SAC, and provides a list of potential impacts that should be considered, which are as follows:

- 🦇 Physical changes – alteration / demolition / removal of a potential roost feature including environmental conditions (temperature, humidity, internal light levels etc), loss, damage or change of management of potential foraging habitat, removal / fragmentation / modification of habitats in a potential commuting corridor;
- 🦇 Lighting – artificial lighting close to potential roosting, foraging and commuting features;
- 🦇 Noise and vibration – construction / demolition activities close to potential roost features;
- 🦇 Recreational disturbance – increasing the risk of recreational visits both organised and informal
- 🦇 Pollution – dust and fumes close to potential roost features; and
- 🦇 Mortality – predation by domestic cats at roost entrances, collision risk from wind turbines.

These broad impacts are informed by the pressures and threats from the Site Improvement Plan for the SAC (NE, 2015b), as outlined above.

The Site is located within the 1500m buffer for Bechstein's bats from Green Lane and Biss Woods Local Wildlife Site (LWS) see **Plate 2** below. The Site lies outside the Consultation Zones for the other two SAC Species, GHS and LHS.

Plate 2: Site Location within Bath and Bradford on Avon Bat SAC consultation zone



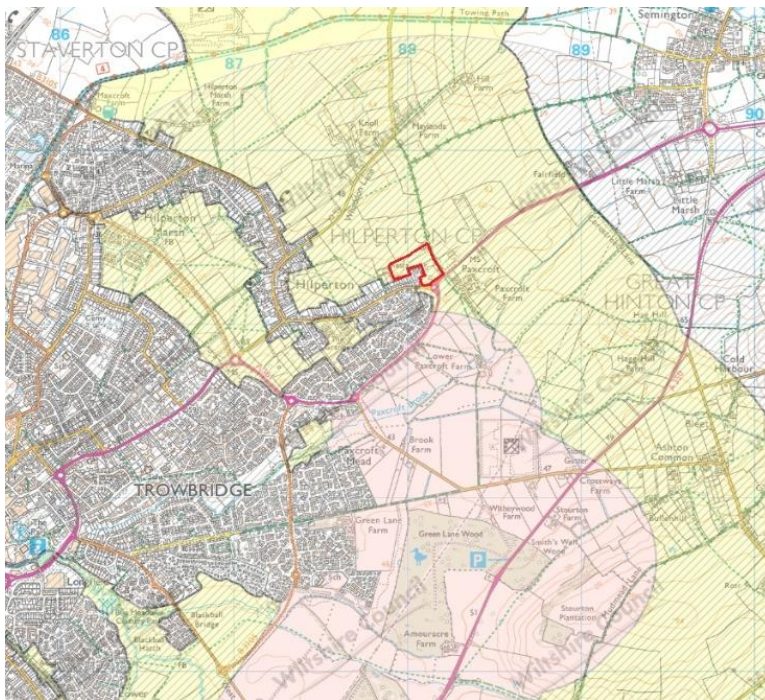
5.1.2 Trowbridge and Westbury Bat Mitigation Strategy (TWBMS)

Wiltshire Council published the TWBMS in July 2025 intended to provide a clear and detailed approach to considering the impact of development in the Trowbridge and Westbury area on the Bath and Bradford-on-Avon Bats Special Area of Conservation (SAC). This will help inform strategic planning for the area's future housing needs. This document builds upon the previous iteration – The Trowbridge Bat Mitigation Strategy (Wiltshire Council, 2020) and has been produced in support of the Wiltshire Local Plan Review 2020-2038. The document builds upon the guidance as outlined in the Bath and Bradford-

on-Avon Bat SAC Planning Guidance for Wiltshire (Wiltshire Council, 2015), though is tailored towards proposals within and around the settlements of Trowbridge and Westbury. In their announcement of the TWBMS¹⁰ WC stated that the document would “...bring the new strategy in line with the council's other mitigation strategies pertaining to European sites, it will not comprise a Supplementary Planning Document (SPD) and this has been agreed with Natural England”, and that the purpose was to allow flexibility so the strategy can be updated/amended when required.

The TWBMS outlines a series of Bat Sensitivity Zones have been developed with regards to habitat suitability and recreational pressures and have been drawn around key maternity roosts. The Site lies within the Yellow Medium Risk Sensitivity Zone (areas where habitat has been shown to be of importance or is highly likely to be of importance for SAC bats) and the Grey Hatched Medium Recreational Risk Zone (areas where new residential development is expected to result in increased recreational pressure on key woodland bat sites) – **Plate 3** refers.

Plate 3: Site Location within TWBMS Zones



Developments within the Yellow Zone must mitigate for all impacts on target bat species on site, and should expect to make a payment for strategic habitat mitigation.

Developments within the Grey Hatched Zone of less than 50 dwellings should expect to make a payment for recreational mitigation; and proposals of 50 or more dwellings within this zone will generally be expected to provide a Suitable Alternative Natural Greenspace (SANG) / sufficient natural recreational focused greenspace to ensure that new residents do not impact upon the important woodland sites.

In respect of all the zones, development proposals will be assessed on a case-by-case basis by the council's ecology team.

As with the aforementioned documents, the TWBMS provides detail on what could result in impacts upon the SAC:

¹⁰ <https://www.wiltshire.gov.uk/article/14112/New-strategy-in-place-to-protect-bat-habitats-from-potential-development-in-Trowbridge-and-Westbury>

“Significant potential effects to the SAC therefore include impacts to the foraging areas and commuting routes in the surrounding landscape used by the bats as well as roosts and can include:

- 🦇 Habitat degradation - alteration / demolition / removal of a potential roost feature including changes to environmental conditions (temperature, humidity, internal light levels etc); loss, damage or change of management of potential foraging habitat; or removal / fragmentation / modification of habitats in a potential commuting corridor;*
- 🦇 Lighting – increased artificial lighting affecting potential roosting, foraging, commuting features as well as insect availability;*
- 🦇 Noise and vibration – construction / demolition activities close to potential roost features;*
- 🦇 Recreational disturbance – increasing the risk of recreational visits, both organised and informal. This can result in impacts such as trampling of vegetation, leading to changes in species composition, loss of vegetation and erosion; disturbance from the presence of people and their activities; ‘general’ urban effects: dumping of waste, damage, vandalism, fires; and spread of plants including alien species.*
- 🦇 Pollution – dust and fumes close to potential roost features; and*
- 🦇 Mortality – e.g. predation by domestic cats at roost entrances, collision risk from road traffic and wind turbines.*

Wiltshire Council formally withdrew its emerging Local Plan (2020–2038) from examination on 19 May 2026 after government inspectors concluded it failed to allocate sufficient land to meet the county's housing and affordable housing needs, as well as concerns raised regarding the spatial strategy proposed. As such, the legal weight afforded to the TWBMS is somewhat untested. As confirmed via correspondence with Wiltshire Council, unlike the TBMS, the TWBMS does not represent a Supplementary Planning Document (SPD). However, WC has stated that “The TWBMS remains in place irrespective of the withdrawal of the Wiltshire Local Plan 2020-2038 from examination. It will continue to provide the detailed approach for addressing and mitigating the impacts of development in the Trowbridge and Westbury areas on the Bath and Bradford-on-Avon Bats SAC. As with the TBMS, the revised strategy has been prepared to support both the Wiltshire Local Plan and speculative growth. As a result, the TWBMS remains both relevant and appropriate.”

It should be noted that there is some minor discrepancy between the TWBMS Adoption Statement (22 July 2025) and the published TWBMS. Para 21 of the TWBMS Adoption Statement states “A main change put forward in the TWBMS is that new residential development proposals for 50 or more dwellings within the grey hatched medium recreational risk zone will generally be expected to provide a SANG / sufficient natural recreational focused greenspace, or to financially contribute towards a SANG / sufficient greenspace in close proximity to the development site, to minimise intercept new residents and minimise impact upon the important woodland sites. A monitoring fee will also need to be secured via a planning obligation to monitor use of the SANG / greenspace once the development is occupied”. There is some discrepancy between this adoption document and the version of TWBMS within the public domain and it is suggested that there should be flexibility to provide either SANG on-site or a financial contribution, as many other local authorities do.

5.2 Use of the Proposed Development Site by Bats

5.2.1 Roosting

5.2.1.1 Trees

As outlined in the EclA (GE Consulting, 2026a) the Site includes a number of mature trees, both specimen field trees and associated with the Site boundaries. A number of trees with Potential Roost Features (PRFs) were identified via Ground Level Tree Assessment (GLTA), and as such were subject to further survey via endoscope. No evidence of roosting bats was identified on any of the tree inspections

5.2.1.2 Buildings

The buildings on site were subject to assessment for roosting bats, including Building Inspection, Emergence Survey and supplementary deployment of static detectors. Surveys identified that Building B1 (Disused Stables) to represent infrequently used roosts for small numbers of day roosting lesser horseshoe (1no.) and greater horseshoe bats (2no.).

An updated Building Inspection of all Site buildings was conducted in June 2026. No roosting bats were noted utilising any of the buildings at the time of survey, and the evidence present (via droppings within B1) remained as per the previous inspection in 2025.

As a result of the Site's location, it is reasonable to conclude that these bats could be associated with the Bat SAC, and that the day roosts identified form part of a wider network of such sites across the wider landscape. In the absence of mitigation, the scheme will result in the loss of roosts for Annex II species lesser and greater horseshoe, which for those reasons discussed above, have the potential to be associated with the Bath and Bradford on Avon Bat SAC.

5.2.2 Foraging and Commuting

The Site has been subject to extensive surveys with works conducted by Engain in 2022, and more detailed updates by NPA in 2024 as outlined in the EclA (GE Consulting, 2026 – **Appendices 7 and 8** refer).

The 2022 surveys identified that at least 10 species were utilising the Site to some extent. In regard to Annex II bats greater horseshoe bats were recorded on the western detector in May (5.8 passes per night), June (0.6 passes per night), July (2.6 passes per night), August (2.6 passes per night), September (74.4 passes per night) and October (0.25 passes per night). On the eastern detector they were recorded in April (0.2 passes per night), May (1.2 passes per night), August (0.29 passes per night) and September (2.2 passes per night). Activity levels were therefore similarly low in both locations, with a peak in the west in September indicating that an individual bat likely foraged around the detector in that period. This indicates that the Site is used by an individual bat or small numbers of bats commuting through the Site, with greater levels of activity on the west (if the September results are excluded, the total passes per night across the recording period are 10.6 in the west and 0.8 in the east).

Lesser horseshoe bats were recorded on the western detector in May (0.6 passes per night), August (0.3 passes per night) and September (0.2 passes per night). They were recorded on the eastern detector in September only (0.2 passes per night). This indicates that the Site is used infrequently by an individual bat or small numbers of bats commuting through the Site, with more activity on the western edge of the Site compared with the east.

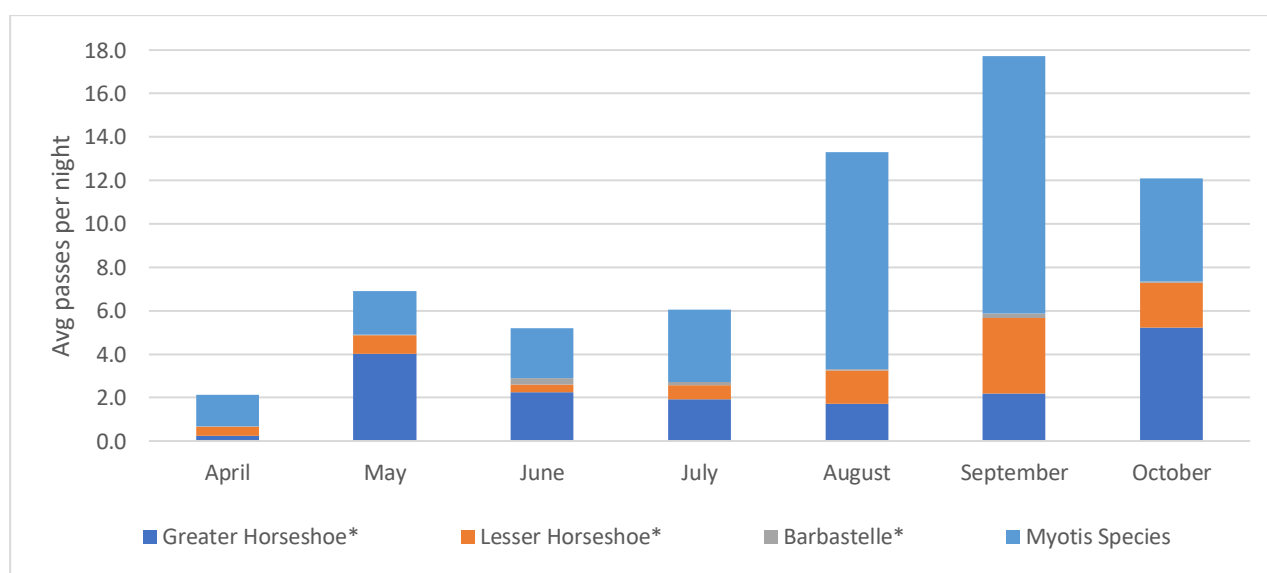
The 2024 surveys were conducted in line with the TWBMS and were more detailed in nature following the refusal of the original application due to insufficient data. As with the 2022 surveys, at least 10 bat

species using the Site for foraging/commuting with a cumulative 39,836 passes across the 50-night period (~796 passes per night).

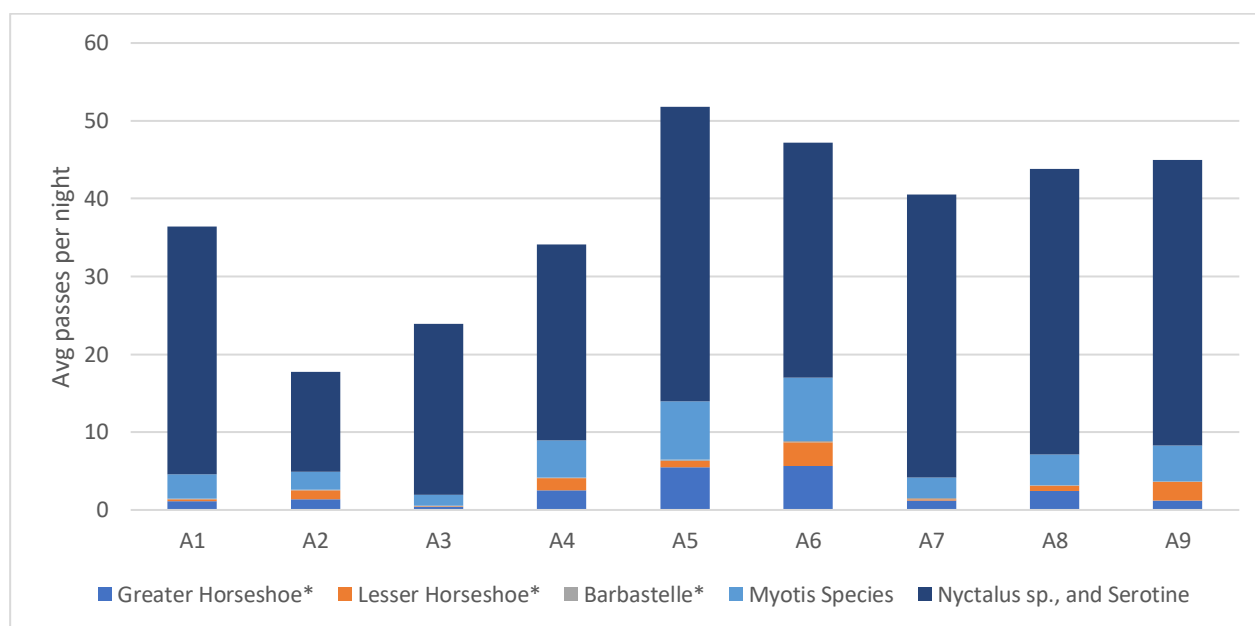
Myotis bats (including Annex II Bechstein's for which the SAC is in part designated) account for 4.82% of total calls (1,921 *Myotis* registrations). The highest *Myotis* activity was recorded in August (9.98 passes per night) and September (11.87 passes per night). The majority of these records are suggestive of commuting behaviour. The NBW surveys recorded both foraging and commuting activity by *Myotis*, with the vast majority recorded close to the eastern boundary of the Site. On average the detectors at A6 and A5 in proximity to Building B1 the recorded the highest *Myotis* activity, though similar levels of activity were noted across the southern part of the Site at detectors A7, A8 and A9. The higher activity recorded at location A5 in August (40.8 passes per night) is due to a single night (20 August 2024) of higher foraging activity (as suggested by 122 continuous records between 21:31-21:50, with no corresponding records at detectors A4 or A6). On this night *Myotis* activity was recorded much earlier on Site at detectors A6 (centre of Site), A1 (western boundary), A2 (northern boundary) and A9 (eastern boundary) (in order from earlier-later), suggesting the bats were foraging around the Site boundary features. Throughout the NBW surveys no *Myotis* were observed/recorded at Stopping Points 3 or 10 on the southern transect.

The Annex II species greater horseshoe, lesser horseshoe and barbastelle were all recorded at the Site, albeit in relatively modest proportions of total calls – 1.25% (497 registrations); 2.70% (1074 registrations); and 0.14% (56 registrations) respectively. Activity for horseshoe bats was recorded in all seven months of the active period with peaks in May and October (GHS) and September (LHS), with registrations in April being the lowest, and roughly half the registrations in June, July and August when compared to September and October. The largest number of calls were associated with A5 and A6 (in close proximity to the confirmed roosts in Building B1), with activity across the Site otherwise being fairly uniform. This suggests that while the Site certainly provides foraging opportunities for horseshoe bats, it appears to be of less importance during the key maternity period (June/July).

Graph 1: Average Passes per Night (by month)



Graph 2: Average Passes per Night (by Detector Location)



The assemblage of bats recorded during these surveys is considered to be fairly typical given the Site's geographic location and the habitats on and adjacent to the Site. Overall bat activity was dominated by pipistrelle bats and, with all other species combined accounting for <10% of the total recorded activity with GHS and LHS representing 1.25% and 2.70% of total calls. Due to the difficulty in identifying *Myotis* bats to species level, they have been grouped together. They account for a cumulative 4.82% of total calls, a modest number considering that Annex II Bechstein's will likely account for a proportion of that total. More common *Myotis* species (Natterer's and Daubenton's) and the more uncommon species (whiskered, Alcahoie, Brandt's), likely make up a larger proportion. As part of the consultation with Wiltshire Council, it was suggested that some further analysis of *Myotis* calls could be undertaken through greater examination of the shape and rate of frequency change within a bat echolocation call. However, WC ecologist confirmed that this would not be required.

The activity surveys undertaken found that the Site habitats offer a resource for a variety of species including Annex II bats (including day roosting) that are associated with the SAC. However, taking into consideration the modest scale of the Site, its context in the landscape, its proximity to the SAC and the assemblage, and numbers of bats identified, there is no evidence to suggest the Site or either of its boundaries represent a significant/landscape commuting corridor for any of these species (as had been suggested in consultation responses for planning application PL/2022/07977).

5.3 Identification of Potential Impact Pathways and Counteracting Measures

5.3.1 Bath and Bradford-on-Avon Bats SAC

Considering the vulnerabilities of GHS, Bechstein's and LHS bats as described above, the development may result in potential effects to the Bath and Bradford-on-Avon SAC as identified in the Bats Special Areas of Conservation (SAC): Planning Guidance for Wiltshire (2015) and the TWBMS (2025)

- 🦇 Loss of Roosts;
- 🦇 Direct loss of foraging/commuting habitat;
- 🦇 Loss/disruption of commuting/foraging routes (flight lines) through indirect impacts such as lighting; and
- 🦇 Disturbance during construction works.

5.3.2 Loss of Roosting Habitat

The scheme will not directly impact upon the Bath and Bradford-on-Avon Bats SAC or its identified Core Roosts. However, as outlined above, in the absence of mitigation the scheme will result in the loss of infrequently used roosts for small numbers of day roosting lesser horseshoe (1no.) and greater horseshoe bats (2no.) within Building B1.

In their comments, WC highlighted *“Surveys confirm that Building B1 supports a day roost for small numbers of common pipistrelle, greater horseshoe (GHS), and lesser horseshoe (LHS) bats. It is not agreed that the active stable building is not used by roosting bats. Static detector data confirm that GHS and LHS bats enter the building, and the absence of droppings or feeding remains is likely attributable to regular stable cleaning. It is therefore considered highly likely that the building is used by GHS and LHS bats as a night roost”*.

The inactive Stables B2 and Hay Barn B3 were subject to a reinspection concurrently with the one as described above. Building B2 is not currently in use as an active stable therefore regular cleaning activities are not undertaken, and no evidence of bat roosting (droppings, feeding remains etc) was noted. As such, the building is not considered to represent a night roost for either horseshoe species, as suggested by WC comments.

Additionally, NE stated *“The bat surveys have demonstrated that the disused stables (Building B1) are an active greater and lesser horseshoe bat roost (GHB and LHB). The roost was being used by GHB late in the summer with 2 bats recorded on cameras in August. Based on the information available, the possibility of the disused stables being used as a GHB mating roost cannot be discounted, with low counts at any one time but potentially a far higher number of individuals using the roost over the mating season. If this is the case, then the roost would be far greater ecological significance than the submitted information suggests. Further, more detailed surveys completed through October would be required to determine the status of the roost”*.

The stables were subject to deployments of static detectors from June to September, with use by both species recorded in all months (albeit at low levels), and GHS being present either Day or Night Roosting on every night the detectors were deployed. Further to this, while droppings are present, such significant aggregations to indicate use by higher numbers of individuals is not reflected in Site conditions. Mating sites for horseshoe bats are typically caves, mines, cellars or other underground sites (Ransome, 1991), and a single male may hold the same territory for many years. While it is recognised that other types of Site can be used for these purposes, Building B1 does not provide comparable conditions to the preferred type of structure within which male horseshoe bats set up territories. Furthermore, as the building was used by at least two greater horseshoe bats (as shown through emergence survey), it is our professional judgement that classification of a Mating Roost is an overrepresentation of the status of this roost. Furthermore, the creation of a bespoke bat roost will provide a purpose built structure for all species identified roosting and will be secured via EPSL in the long-term. Further surveys in October are disproportionate to the scale and nature of the roosts identified.

As a result of the Site's location, it is reasonable to conclude that these bats could be associated with the Bat SAC, and that the day roosts identified form part of a wider network of such sites across the wider landscape. While the loss of these roosts, is not likely to exceed the threshold for an Adverse Effect on the Integrity of the SAC, it could cumulatively (i.e. with the loss of other lower status roosts) result in an AEOI.

The lesser and greater horseshoe bat roosts are of greatest conservation significance with an individual lesser horseshoe noted on occasion with at least two greater horseshoe day roosting. These horseshoe bats, are likely using the features as part of a network of such features both within the Site itself and

within the locality, subject to environmental conditions. There was some correlation between the presence of greater horseshoe bats and the absence of lesser horseshoe bat, suggesting that interspecies competition may be a factor.

In the absence of mitigation, the demolition of Building B1 could result in injury/ mortality to several species of bat along with the loss of roost sites. This would be an offence under UK legislation. The Site will therefore require a **European Protected Species (EPS) Mitigation Licence (Bats)** from Natural England prior to works to the buildings. A licence cannot be applied for until full planning permission is granted, and all wildlife related conditions are discharged.

The licencing process there is a requirement to demonstrate that the application meets the 'Three Tests' under the Conservation of Habitats and Species Regulations 2017 (as amended). If met, these tests provide for derogations via the licensing process which allow what would under normal circumstances be illegal acts, to take place legally. When considering planning applications local authorities also have a duty to consider whether it is likely that these tests can be met and therefore the likelihood of the licence being granted by NE.

The three tests are as follows:

1. Regulation 55(2) (e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".
2. Regulation 55(9) (a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".
3. Regulation 55(9) (b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

The three tests will be met in this case as follows:

1. The licence would be applied for under 'other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.
2. This project would meet this test to satisfy the need for housing in the area and no satisfactory alternative for development is available.
3. The loss of the roosting sites in their current location will not be detrimental to the population of bats in their natural range as proportionate mitigation measures will be put in place to allow bats to continue to roost on Site.

In order to ensure that the 'Favourable Conservation Test' can be met, a mitigation statement will need to be submitted as part of the licence application. This includes measures to ensure that bats are not harmed during works and to ensure that there is long term provision of alternative roosting opportunities on Site. Input from a licensed bat worker will be required during licensable activities at the site (such as roof removal, soft demolition, conversion etc).

The table within **Appendix 8** lists types of works that have the potential to disturb roosting bats. Prior to commencing any works on the building, this form should be completed and returned to the ecologist at the earliest opportunity. This is to ensure that both the developer and ecologist have a detailed

understanding of the works that may impact roosting bats prior to the licence application process and commencement of works.

Mitigation measures will be required to ensure that bats are not harmed during demolition works and that there is long term provision of roosting opportunities for all species of bat on Site. Detailed specifications will be included within the subsequent licence application; however, a summary is provided below.

As part of their consultation comments NE stated “Further justification should be provided as to why the old stables building used by horseshoe bats cannot be reused and incorporated into the new development with connectivity to adjoining habitat maintained. Such an approach would be a potential “satisfactory alternative” that should be considered by the application. If the loss of the stables is considered unavoidable then details of the proposed replacement roosts should be provided prior to determination. These should include details of the location of the replacement roost within the development site and architectural drawings to show detailed design, dimensions and materials to be used. The scheme will need to demonstrate how roosting opportunities for both GHB and LHB will be provided within the structure as the two species should be provided with separate roosting areas. In addition, new crevice roosting opportunities should be provided within appropriately located buildings within the development. “

The current situation ‘status quo’ isn’t acceptable or feasible as the buildings in question are currently disused and have fallen into a state of disrepair. The majority of buildings present are not suitable for conversion into residential dwellings (being stables/agricultural focused buildings) without significant modification where it wouldn’t be cost-effective to undertake such works. In the long-term without the proposals, it is anticipated that this will result in the loss of the roosts present.

Due to the nature of the development, it has not been possible to retain the roosts in-situ. As described above Building B1 is not fit for conversion to a residential dwelling/s without significant modification, and the location of the roosts (in the stable section of the building) would likely preclude conversion of those sections for residential purposes.

Further to this if retained, the roost would be centrally located within a new residential development, and new sources of artificial lighting. There would be conflicting lighting requirements in regard to ecologically sensitive design for light averse bats in close proximity to residential dwellings and policy requirements for street lighting for public health and safety, as well as introduce significant constraints for Site access arrangements, and access to the larger Site Allocation which the scheme provides access to.

Further to this, the incorporation of a bat roost into a residential dwelling which is proposed for general sale introduces another variable/constraint to the sale of the property, as the successor in title to the building within which the bat roost is located would need to become responsible party (as the Licensee) under any European Protected Species Mitigation Licence. Which does not represent a practicable solution in the long term when compared to the creation of a bespoke bat roost, to be managed by the anticipated Management Company for the scheme POS.

As such the creation of a bespoke bat house to the east of the Site, associated with the 50m buffer coupled with erection of bat boxes on retained trees will ensure that sufficient opportunities are created within the wider Site to mitigate for impacts to existing roosts.

This purpose-built bat house will provide a range of opportunities for both crevice and void dwelling species including those found to be roosting within the buildings at the Site

GLTA and further endoscopy did not identify any tree roosts within the Site, as such no impacts upon tree roosting bats is anticipated. Bat roosts in trees are by their very nature difficult to identify, being

hard to locate and often transient in nature. For example, features such as flaking bark (popular as a roosting site for some of our bat species) change in a relatively short period of time. Some of these relatively delicate and short-lived roost types are lost and others appear; hence tree roosting bats move between a number of roosts.

As such, should works to trees be required, or should future amendments to the scheme design necessitate tree removal, further assessment via endoscope, and involving climbing assessments where necessary to identify presence/likely absence of roosting bats will be undertaken. In the event that evidence of roosting bats is identified, works will cease and further information collected in order to inform a mitigation licence application to Natural England.

As such, no Adverse Effect on Integrity (AEOI) is anticipated on the bat populations associated with Bath and Bradford-on-Avon Bats SAC through loss of roosting habitat.

5.3.3 Loss and Fragmentation of Foraging/Commuting Habitat

In the absence of mitigation, the proposed development has the potential to affect commuting and foraging bats through the severance of commuting/foraging routes due to hedgerow removal resulting in bats using less energy-efficient routes (Russ & Montgomery 2002) or abandoning roosts/ foraging areas altogether.

To mitigate, the scheme has been designed as per the requirements of the TWBMS to include a substantial dark corridor (c. 50m in width) along the eastern boundary of the Site. This will be set aside with its primary function as Core Bat Habitat in order to retain a permeable and functioning landscape for the target species. This is significantly in excess of the minimum 15m as required in the TWBMS, with the c. 50m being agreed with Wiltshire Council historically, as part of the wider Site Allocation. This extensive buffer will avoid severance of commuting routes/fragmentation but also provide high quality habitat for foraging.

Additionally, the scheme seeks to retain permeability around the Site periphery (though to a more modest extent – c. 5-10m), which can be used by foraging and commuting bats, allowing them to continue to move through and around the Site between offsite roosts and foraging grounds. The buffers will comprise a mosaic of grassland, native mixed scrub and native specimen trees, with new SUDs features providing seasonal waterbodies to both attenuate water and to enhance foraging. New attenuation features will include wet meadow mixtures which is also likely to increase invertebrate prey, along with new areas of diverse grassland, mixed native scrub, trees and woodland. These areas will be kept dark. This will form a significant area of enhanced foraging and commuting habitat for bats, which is well connected to the current core foraging and commuting habitat at the Site. As such this is considered to be a significant enhancement to the current baseline of managed low quality agricultural grassland. It is proposed that this mitigation is implemented prior to the first occupation of dwellings on Site.

Whilst there will be losses of scrub and specimen trees within the development, fragmentation will be minimised by reducing gaps for roads as much as possible, whilst maintaining dark corridors around the development periphery.

Natural England highlighted the following comment: *“The submitted survey results demonstrate that the site is used by at least 10 bat species, including all four Annex II species as well as species considered threatened in the UK (serotine). Please note that although not separated from other possible myotis species the assessment should assume that Bechstein’s bat are using the site to forage.*

Based on the submitted information Natural England considers the proposed development site to be valuable for bats. In particular, the site is strategically located as an important bat corridor between the

roosting sites to the south (including Green Lane Wood) and foraging opportunities around the copse north of Knoll Farm, the canal and the River Avon to the north of the site. Bat commuting corridors have been identified on the eastern and western boundaries of the site.

We also note that the fields to the southwest of the stables include areas of permanent grassland surrounded by areas of mixed scrub and woodland creating a sheltered glade, ideal for bat foraging. Permanent grasslands are likely to support cockchafer beetles which are an important food source of greater horseshoe bats and unless a cockchafer larval survey demonstrates otherwise this should be assumed in the assessment to be a significant greater horseshoe bat foraging resource. It should be noted that cockchafer beetles are known to go through cyclic population fluctuations so that in some years numbers may be low, with the population increasing in subsequent years. The high level of bat activity recorded in the area southwest of the stables, including by the Annex II species, confirm the areas relative importance.”

In a previous Appeal Decision in the area (Dilton Marsh PL/2023/01880 / APP/Y3940/W/24/335216) further surveys in the form of performing invertebrate (i.e. searching for cockchafer beetle and their larvae) surveys was discussed to provide a further evidence base in assessing the value of the grassland habitat for foraging greater horseshoe bats. However, it was acknowledged by NE that such surveys can still be unreliable as even if larvae are found to be low/non-existent then this does not mean that the grassland does not support cockchafer populations and that multiple years’ of surveys would likely be required. Therefore, the surveys were not undertaken, and the scheme was granted at Appeal.

Further to this the presence of cockchafer does not necessarily equate to important habitat for horseshoe bats. Cockchafer surveys (whether over a single or multiple years) are not a recognised and adopted survey technique when considering impacts on greater horseshoe bat. Indeed, the recognised survey requirements are set out in WC’s adopted Bat Special Areas of Conservation (SAC) Planning Guidance for Wiltshire (September 2015) and the TWBMS clearly sets out transect and static (i.e. automated) monitoring surveys are required to establish usage and any impacts. Indeed, the survey work undertaken has been performed to be compliant with WC adopted guidance, and in fact has greater coverage than would other be recommended for a site of its size, and such surveys would not be considered proportionate.

Wiltshire Council highlighted the following comment: *“Paragraph 2.6 and Appendix 2 of the Ecological Assessment states that the report is based on a summary of data obtained from third-party sources. Clarification of if GE Consulting has independently verified the bat call analysis is required”.*

As discussed above, this Report and the assessment therein was based upon work conducted by NPA on behalf of the client – Redcliffe Homes, though ecologists from GE Consulting have reviewed the information provided by NPA, which is replicated in part within the assessment, and in its original form in **Appendix 8** of this document. For context NPA are a reputable ecological firm, with a known specialism for bat survey and assessment, and as such, there is no reason to doubt the quality of the survey, analysis and assessment provided.

In regard to third party sources, this is misrepresenting NPA’s role. They were commissioned by the client to conduct a specific suite of surveys (i.e. bats) following the refusal of the previous application. Subsequently GE has been tasked to collate the data collected both as part of the original application, and subsequently by NPA and GE to support the new submission through this EclA and supporting sHRA and other documents.

“The assessment of bat foraging and commuting importance has been undertaken solely using previously analysed and summarised bat data and is therefore reliant on desk-based interpretation without the benefit of any direct field observations. As set out in paragraph 8.1.2 of the Bat Survey Guidelines, it is good practice to undertake manual activity surveys to provide site-specific information

on bat behaviour, including levels of activity, numbers of bats, use of the site for foraging or commuting, and direction of travel. Furthermore, the available data has not been analysed to identify call characteristics indicative of feeding activity. Clarification and justification of how bat activity, including foraging and commuting use of the site, has been determined is required...” and “...The bat transect surveys were undertaken by either one or two surveyors; where only one surveyor was used, the reduced survey coverage and effort requires justification.”

Manual activity surveys were undertaken by both Engain in 2021/22 and NPA in 2024 and it is this extensive dataset which has informed GE’s analysis and assessment of the Site and assemblage of bats present. The scope of bat activity surveys conducted following the refusal in 2023 to support this application is above and beyond that as outlined in best practice guidance with nine static detectors deployed monthly from April to October which were supplemented by NBWs of two transect routes on 10 separate occasions. Further to this, as outlined in Appendix 3 and within the NPA Report itself – “Either two individual transects or one combined transect were used to cover the Site. Experienced bat surveyors using handheld bat detectors (Anabat Walkabout) stood at fixed listening points (i.e. near potential flight lines/roosting features, at the boundaries of suitable commuting/foraging habitat) for up to 1 hour after sunset; recording all bat activity within range. After 1 hour, surveyors then followed a pre-determined transect route stopping at pre-defined listening points for approximately five minutes”.

A key principle for ecological consultants is the need to operate between two competing principles: firstly, taking the Precautionary Principle into account to protect biodiversity and secondly, being proportionate so regulation does not become unreasonable or impractical, and how both these principles need to be balanced through evidence-based decision-making.

As outlined in BS 42020:2013 (Biodiversity — Code of practice for planning and development)¹¹, proportionality is a core principle for ecological consultants. All the work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. This principle aims to prevent unnecessary burden on developers while ensuring robust environmental protection

The precautionary principle as a concept within the UK assists the decision-making process in the face of a lack of scientific certainty. The precautionary principle is applicable where there is plausible evidence of a risk that a particular policy could cause serious or irreversible damage to the environment, alongside a lack of scientific certainty about the likelihood or severity of this damage.

The majority of ecological surveys are informed by various published guidelines which seek to clearly outline an approach to conducting surveys for specific species groups, to ensure that development schemes across the UK are informed by a comparable level of data collection (though not seeking to create a “one size fits all approach”).

Firstly, Section 2.2.17 of the Bat Survey Guidelines (BCT, 2023¹²) itself refers to Proportionality and is clear that “When planning surveys it is **important to take a proportionate approach**” and that “The type of survey (or suite of surveys) undertaken and the amount of effort expended **should be proportionate to the predicted impacts of the proposed activities on bats...**” and “...it needs to be recognised that robust surveys are fundamental to understanding what those impacts are”. Additionally, this is

¹¹<https://www.n-somerset.gov.uk/sites/default/files/2022-06/16%20-%20biodiversity%20-%20code%20of%20practice%20for%20planning%20and%20development%20%282013%29%20BS%20420202013.pdf>

¹²https://cdn.bats.org.uk/uploads/pdf/Resources/For-professionals/Bat-Survey-Guidelines-4th-edition-AMENDED-27.03.24.pdf?v=1711530492&_gl=1*bpi7ab*_gcl_aw*R0NMLjE3NzAzNjgyODcuQ2p3S0NBaUF2NWJNQmhBSUVpd0FxDUIHdUVkM21uS1E5SGVqa3hTbjRRb3VlaVR1aWw3TkhoMjF5TEpUNGxiR1RtYzI4N2JldmhzRW1Cb0N2M2dRQXZEX0J3RQ..*_ga*MTYxNTczNDQyMi4xNzczNjg5O TIw*_ga_G28378TB9V*_czE3NzM2ODk5MjAkzEkZzAkDDE3NzM2ODk5MjAkajYwJGwwJGgw

supported by Clause 4.1.2 of BS42020 (BSI, 2013) states that “*professionals should take a **proportionate approach** to ensure that the provision of information with the (planning) application is **appropriate to the environmental risk** associated with the development and its location*”. Further to this the Bat Survey Guidelines themselves in Para 2.2.32 include provision that ecologists “...*should, as appropriate, modify their approach from that of published good practice or standing advice...*”. While this does not allow carte blanche for ecological consultants to ignore survey guidelines, it must be recognised that all ecological consultants will seek to tailor the scope of surveys conducted based upon the scale and nature of the scheme proposals, and the anticipated quantum of impacts predicted.

“The assessment must consider the abundance of greater horseshoe bat (GHS) foraging habitat in the locality. Aerial photography indicates pasture is limited in the locality”.

A review of aerial photography over a c. 10-year period indicates that the majority of undeveloped land in the locality are managed rotationally (i.e. between grassland and arable, with hay/silage being the preponderance). As a brief exercise the following fields have been managed as grassland in the past 10 years on one or more occasions, with the area marked being c. 375ha in extent, of which the Site (c.3.7ha) represents c. 1% of this area.

Plate 4: Review of Aerial photography – Fields managed for grazing within the past 10 years.



**Please note, this does not represent an exhaustive graphical representation and has been used to illustrate the extent of similar such habitats within the locality.*

“The site is not located within, or immediately adjacent to, any statutory or non-statutory designated sites for nature conservation; however, it lies within both the Yellow and Grey Zones of the Trowbridge and Westbury Bat Mitigation Strategy (TWBMS), as acknowledged within the Ecological Impact Assessment (EclA). The interpretation of the survey results in relation to the value of the site to SAC bats (LHS, GHS and Bechstein) in the context of the wider local landscape is not agreed with. The site is

situated within the core sustenance zone of a Bechstein's bat maternity roost, and evidence from radio-tracking studies and ringing projects has demonstrated that Bechstein's bats roosting in Green Lane Wood and Biss Wood forage in areas north of the A361 and commute to swarming and hibernation sites at Box Mine SSSI."

That the Site lies within proximity to important Bechstein's Roosts at Green Lane and Biss Woods is not disputed and has been clearly outlined throughout this report. However, the value of the Site can only be quantified via the collection of data, which has been conducted extensively at the Site since the original planning submission. As such some further analysis as reported by NPA in their bat survey report has been replicated below.

NPA results show that whilst detector A1 recorded the highest records within timecode 2 (14/39), typically the earliest records were made by detectors A4 and A6. This is also the case for all the records within timecodes 2 and 3, with A4 and A6 recording the first *Myotis* record on Site on 28 out of 38 nights (i.e. no records within these time periods on 12 nights), with the earliest record being at timecode A2 on 5 occasions, timecode 5 on 4 occasions and timecode 1 on 1 occasion. This suggests that *Myotis* are not commuting into the Site early from the south (i.e. from Green Lane and Biss Woods), certainly not on the western side of the Site (on the basis the detector at A5 would otherwise have recorded the earliest record more often).

Table 2: *Myotis* Registrations by Timecode

Timecode	Before Sunset	0-20 after SS	21-40 after SS	41-60 after SS	61-80 after SS	81-100 after SS	101-120 after SS	Middle of Night	120-101 before SR	100-81 before SR	80-61 before SR	60-41 before SR	40-21 before SR	0-20 before SR	After Sunrise
Count	0	0	39	135	163	161	83	1086	57	38	81	68	10	0	0

Further to this the highest *Myotis* activity was recorded in August (9.98 passes per night) and September (11.87 passes per night). The higher September average is partly due to the higher *Myotis* activity recorded at location A9 (23.6 passes per night). The majority of these records are suggestive of commuting behaviour.

On average the detectors at A6 and A5 recorded the highest *Myotis* activity. The higher activity recorded at location A5 in August (40.8 passes per night) is due to a single night (20 August 2024) of higher foraging activity (as suggested by 122 continuous records between 21:31-21:50, with no corresponding records at detectors A4 or A6). On this night *Myotis* activity was recorded much earlier on Site at detectors A6, A1, A2 and A9 (in order from earlier-later). This all suggests this higher activity is not evidence that the western boundary of the Site is a significant/landscape commuting corridor for *Myotis* bats. Throughout the NBW surveys no *Myotis* records were made at locations 3 or 10 on the Southern transect.

The higher activity recorded at location A6 in September (18.0 passes per night) is as a result of 28 passes on the 20th and 32 passes on the 21st. These were sporadic records not suggestive of foraging behaviour. With there being no corresponding records prior at detector A5 on either night, this also suggests this higher activity is not from *Myotis* bats commuting up from the south and heading north.

The higher activity recorded at location A6 in August (17.8 passes per night) is due to 48 passes being recorded on the 22nd during 2 likely foraging bouts. Again, with no corresponding earlier records at A5.

The higher activity recorded at location A5 in September (12.6 passes per night) is as a result of 18 passes on the 20th and 22 passes on the 21st. These were sporadic records not suggestive of foraging behaviour. With there being no records recorded prior at detector A5 on either night, this also suggests this higher activity is not from *Myotis* bats commuting up from the south and heading north. As such, the analysis as made by NPA is correct and consistent in its interpretation of the survey findings.

“There are multiple LHS and GHS maternity and hibernation roosts in the wider landscape around Trowbridge and as such the site is located in landscape that is highly likely to be of importance to the SAC’s qualifying species.

As acknowledged within the EclA, the site provides suitable commuting and foraging habitat for all SAC bat species. Pasture represents optimum foraging habitat for GHS bats, while linear features such as tree lines and scrub constitute favoured commuting habitat for all SAC qualifying species. Surveys further confirm that both LHS and GHS bats roost within buildings on the site, and that all three SAC bat species regularly utilise habitats across the site.

*These species were recorded during every month surveyed and detected on all deployed automated bat detectors. Given the inherent difficulty in reliably distinguishing Bechstein’s bat calls from those of other *Myotis* species, the presence of this species is reasonably assumed. Apparent low levels of recording should not, in isolation, be interpreted as evidence of low site importance, as such conclusions fail to account for bat behaviour, echolocation characteristics, and recognised survey limitations.”*

It should be noted that in the absence of counteracting data, targeted radio tracking and ringing data should not necessarily be extrapolated to ascribe importance to a Site solely based on proximity. Bats can and do utilise features and habitats which typical bat behaviour would suggest that they would not. A notable example is GHS bats at Berry Head Quarry, Brixham (part of the South Hams SAC), where bats cross street lit roads and traverse urban areas to get from their roosts in the quarry to the wider countryside, whereas typical GHS behaviour would suggest they would typically avoid this. As outlined in the EclA, *Myotis* species account for only 4.82% of total calls, and of that total, it is reasonable to conclude that Bechstein’s will only account for a proportion of the total, considering that the UK is resident to five other *Myotis* species, of which Natterer’s and Daubenton’s are common and widespread across Wiltshire.

“Taken together, this evidence confirms habitats within the site have roosting, foraging and commuting functionality for SAC bats and that the site plays a functional role within the wider landscape. Unless further justification is provided the Ecological Impact Assessment must be amended to reflect this.

As above, this is seeking to ascribe greater value to the Site than the data would indicate. The first or last record of the night was always recorded at detectors A4, A5 or A6, which all corresponds with a GHS roost being recorded at the disused stables.

Table 3: GHS Registrations by Timecode

Timecode	Before Sunset	0-20 after SS	21-40 after SS	41-60 after SS	61-80 after SS	81-100 after SS	101-120 after SS	Middle of Night	120-101 before SR	100-81 before SR	80-61 before SR	60-41 before SR	40-21 before SR	0-20 before SR	After Sunrise
Count	0	0	82	141	65	46	43	419	14	27	57	127	53	0	0

The highest activity was recorded in October (5.22 passes per night) and May (4.01 passes per night). The higher October and May averages is partly due to the higher activity recorded at location A6 in October (11.00 passes per night) and in May (13.25 passes per night). This also resulted in location A6 having the highest overall average activity. These higher averages appear likely as result of GHS foraging activity shortly after/before GHS would have been expected to emerge/return to roost at the disused stables. This also appears to be reason for the higher averages at A5 in May, June and July.

In regard to LHS bats, the first or last record of the night was recorded at A4 on 4 occasions, A6 on 2 occasions, A1 on 1 occasion and at A2 on 1 occasion, which all corresponds with a LHS roost being recorded at the disused stables.

Table 4: LHS Registrations by Timecode

Timecode	Before Sunset	0-20 after SS	21-40 after SS	41-60 after SS	61-80 after SS	81-100 after SS	101-120 after SS	Middle of Night	120-101 before SR	100-81 before SR	80-61 before SR	60-41 before SR	40-21 before SR	0-20 before SR	After Sunrise
Count	0	0	19	10	14	41	29	356	10	4	5	5	4	0	0

The highest activity was recorded in September (3.47 passes per night) and the highest average activity recorded at A6 and A9. This is in part due to the higher averages recorded at location A9 (10.2 passes per night) and location A6 (7.2 passes per night) in September.

The higher activity recorded at A9 in September is due 22 records on the 20th and 14 records on the 21st. The higher activity recorded at A6 in September is due 15 records on the 21st. These all appear due to a combination of foraging and commuting activity. This is also the case for the activity at A4 in October.

At A4 in October, and at A6 in May and September, there are rarely any corresponding records at A5, which suggests (along with lower average recorded at A5) that the western boundary of the Site is not a significant/landscape commuting corridor.

The proposed Landscape Buffer and Ecological Corridor (approximately 50 m wide) is welcomed. It is essential that this corridor is designed and delivered with the primary objective of providing Core Bat Habitat and a coherent ecological network, to ensure compliance with Policy CP50 and the NPPF (paragraph 187(a) and (d)).

The 50m buffer was requested as part of the previous application, with its main function to ensure landscape connectivity south to north (and vice versa) for bats from Green Lane and Biss Wood to components of the Bat SAC to the north. This is in-line with Policy CP50 as it seeks to protect features of nature conservation value as part of the design rationale, and is above the typical buffers which would be expected to be provided (as such represents a bespoke measure), to demonstrate no adverse effect upon the SAC.

However, it is not agreed that the proposed Landscape Buffer and Ecological Corridor would constitute an enhancement for foraging bats. The development would result in the loss of approximately 3 hectares of preferred habitat (noting this is a rough estimate) currently used by foraging GHS bats and GHS and LHS day roost and night perch."

While the Site is used by horseshoe bats to some extent, for roosting, commuting and foraging, it alone, is not considered to represent a significant resource for horseshoe bats (as shown through the modest number of calls recorded, even when balancing limitations of survey methods i.e. directionality of call, with the large number of detectors utilised at the Site). As discussed above, the grassland present represents a modified sward, and while the scheme would result in a partial loss of this habitat to facilitate development, this would be more than mitigated for via enhancement to other neutral grassland, coupled with the creation of a bespoke bat house, secured and managed under a European Protected Species Mitigation Licence.

“The Landscape Buffer and Ecological Corridor is proposed on habitat that is already confirmed foraging habitat utilised by foraging bats. Consequently, even if it is assumed that the Landscape Buffer and Ecological Corridor will deliver optimal foraging habitat for GHS bats, there would still be an overall unacceptable net loss of foraging resource as a result of the development which is contrary to CP50.”

As above, WC’s comments are ascribing greater value to the habitats within the Site, than the data (both habitat/botanical survey and bat activity) indicates. While the presence of and use of the Site by the three Annex II species for which the SAC is designated is clear, and as rarer species nationally, they are less abundant than our most common species, we must be cognizant that the Site is in proximity to Site importance for these species, yet a modest number of registrations for all three species were recorded via methodology where significantly more static detectors were deployed (total 9no.) across the entire active period. Considering the Site supports intermittently used day/night roosts for GHS and LHS bats, the modest number of registrations does not indicate that the Site is being used to a great extent by those bats as roosting. Further to this, the TWBMS requires schemes within the yellow risk zone to “...firstly, fully mitigate on site for the loss of habitat by ensuring no net loss, to be demonstrated by use of an established metric (preferably the Statutory Biodiversity Metric or subsequent version) based on best practice. This is notwithstanding the need to adhere to Biodiversity Net Gain (BNG) requirements” which the scheme demonstrates via the Statutory BNG Metric (**Section 7** refers). Furthermore Core Policy 50 requires proposals to “...demonstrate how they protect features of nature conservation and geological value as part of the design rationale”, that “All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development” and that “Any development potentially affecting a Natura 2000 site must provide avoidance measures in accordance with the strategic plans or guidance... otherwise bespoke measures must be provided...” all of which are shown by the measures as described above.

As required by the TWBMS, development within the yellow medium risk zone will be expected to fully mitigate on site for the loss of habitat by ensuring no net loss, to be demonstrated by use of an established metric (preferably the Statutory Biodiversity Metric or subsequent version). **Table 5** below summarises the schemes position using the Statutory Metric. Full details on BNG are detailed in the BNG Statement (GE, 2026b), and this outlines that the current indicative scheme design for the Outline Permission.

Table 5: BNG Assessment (Whole Scheme)

Unit Type	Onsite Baseline Units	Onsite Post-Development Units	Net Unit Change	% Change
Habitat	9.95	12.29	+2.34	23.49%
Hedgerow/Linear	2.76	3.57	+0.81	29.14%
Watercourse	N/A	N/A	N/A	N/A

The scheme also needs to consider the Additionality Principal as outlined in Government Guidance¹³ on what can be counted for BNG is as follows:

“If you already need to create or enhance habitat as part of your development, you may be able to count this towards your 10% biodiversity net gain (BNG)...” and ... “You cannot include some habitat schemes in BNG calculations at all. There are other schemes that you can include:

-  *In full - for enhancing actions, such as green infrastructure (a developer can satisfy all their BNG requirements through the works, receiving 110% of their biodiversity units through them)*
-  *In part - for mitigation and compensation actions, such as nutrient mitigation (at least 10% of the developer’s biodiversity units must come from additional activities other than mitigation and compensation)”*

As part of this guidance, it states that “Mitigation or compensation to a Special Area of Conservation, Special Protection Area, or Protected Species” can count towards BNG in part.

Table 6 BNG Assessment (Additionality)

Unit Type	Onsite Baseline Units	Onsite Post-Development Units (Additionality Habitat only)	Net Unit Change	% Change
Habitat	9.95	9.95	0	0.02%
Hedgerow/Linear	2.76	2.76	0	0
Watercourse	N/A	N/A	N/A	N/A

Habitats included within the Additionality Metric include those which can be utilised by foraging/commuting bats (i.e. not subject to levels of artificial lighting above the existing baseline).

As such, this demonstrates that the scheme can ensure no net loss of habitats on Site as required by Paragraph 146 of the TWBMS and Policy CP50 of the Wiltshire Core Strategy. It is anticipated that any future Reserved Matters application will include refinement to the scheme design, and as such the BNG Assessment will be updated to reflect this.

In addition, as outlined above, the Site lies within the Yellow (Medium) Risk Zone and new developments must where appropriate, contribute to strategic habitat mitigation, which presumably would include SANG and other habitat provision, albeit this is not particularly clear. The TWBMS costs this at £972.03 per dwelling, which based on the scheme proposals of up to 80 dwellings would result in a cumulative contribution of £77,762.40 to be secured section 106 agreement (s106), a section 111 agreement (s111) or unilateral undertaking (UU).

A Habitat Mitigation and Monitoring Plan (HMMP) will be produced detailing the methods and strategies to manage these habitats, as well as providing details of the funding mechanisms and timescales for management. As required by the Bath and Bradford on Avon Bat SAC Planning Guidance for Wiltshire Document and the TWBMS, habitats will be managed for horseshoe bats in perpetuity.

As such, it is considered that, with the above mitigation and habitat enhancement/creation measures described above, **there will be no AEOI to the bat populations associated with the Bath and Bradford-on-Avon Bats SAC as a result of habitat loss/fragmentation.**

¹³ <https://www.gov.uk/guidance/what-you-can-count-towards-a-developments-biodiversity-net-gain-bng>

5.3.4 Loss/Disruption of Foraging/Commuting Habitat through Lighting

All three species associated with the Bath and Bradford-on-Avon SAC are generally light-averse woodland specialists, preferring to commute/forage within woodlands, along the edges of woodland or along woodland glades/rides. Lighting levels of under 0.5lux are required to ensure continued use of commuting routes (Stone, 2013) (unless baseline conditions already exceed this level). Lighting can cause avoidance of commuting routes and a change in the abundance of available insect prey. Fragmentation via lighting can cause bats to fly further to reach foraging grounds which could result in increased energetic costs, higher risk of predation and roost abandonment (Stone, 2013). In the absence of mitigation, lighting within the new development has the potential to cause disruption or loss of these commuting/foraging routes and as such it is considered that, in the absence of mitigation, the development could have a permanent adverse effect on the local populations of all three species.

As highlighted by Engain (2023), the Site's connectivity to the Bechstein's Core Roosts to the south is inhibited by existing sources of artificial lighting from the adjacent A361 (via street lighting) as well as from Trowbridge Rugby Club to the east. The existing lighting illuminates the southern part of the Site and the southern end of the tree-lined path that forms the Site's eastern boundary as shown on Plates 5, 6 and 7 below.

Plate 5: View east towards A361 in southern part of the Site



Plate 6: View east along A361 opposite the Site



Plate 7: Trowbridge Rugby Club



In addition, there is some existing residential light spill both from the adjacent dwelling to the west, and via a static caravan in northeast corner of the Site.

Unmitigated, the scheme will result in new sources of artificial lighting which could result in fragmentation/severance to commuting routes for SAC bats.

Historic concerns from WC that the Site forms a choke point along the eastern edge of Trowbridge are not supported by the data collected. However, even if it were the case, that the feature was of

significance, it should be acknowledged that development can proceed where adequate mitigation can be put in place to retain the functionality of the habitat. As such the scheme includes an extensive 50m buffer along the eastern boundary of the Site has been included and will be completely unlit to ensure long-term permeability of the Site and the wider landscape as shown in the submitted Lighting Strategy Plan (Highway Lighting Solutions, 2026), **Appendix 1** refers.

During operation, no lighting is to be directed at the hedgerows and woodland, allowing continuous corridors for bats to be maintained. Whilst a certain level of lighting throughout the Site is necessary for the health and safety of future residents, the strategy includes measures to reduce the impact of this lighting on local fauna including the identification of sensitive zones (in the case of this scheme, the 50m buffer and other boundary buffers) to ensure darker areas are maintained/created to protect important commuting and foraging routes. Lighting within these areas will be kept to an absolute minimum. Best practice technology should be employed to reduce light-spill, for example LED lighting, luminaires with peak wavelengths higher than 550nm, no upward light-spill and/or a part-night lighting regime, in line with current guidelines (Bat Conservation Trust/ Institute of Lighting Professionals, 2023). Key bat habitats, namely the eastern 50m buffer, should be maintained (as per the TWBMS) at no more than 0.2lux on the horizontal plane and less than 0.4lux on the vertical plane lux (or baseline light levels).

Any necessary external lighting throughout the Site will be designed with no spill to exceed the boundaries, particularly along the eastern boundary. Where brighter lighting is necessary, i.e. around parking spaces and primary footpaths, luminaires will be directional with no upward, sideways or outward spill and fitted with shields where necessary to maintain darker areas along the woodland edges.

Whilst the lighting will invariably be increased in some areas, the impact of this is considered to be minimal providing a sensitive lighting strategy is developed in-line with the above measures and adhered to. It can therefore be concluded **there will be no AEOL to the bat populations associated with the Bath and Bradford-on-Avon Bats SAC as a result of lighting.**

5.3.5 *Disturbance during Construction Works*

There is potential for impacts as a result of disturbance through noise, vibration and construction lighting during construction and enabling works.

Construction will be restricted to daylight hours, finishing at least 30 minutes before sunset and commencing at least 30 minutes after sunrise throughout the year. If this is not possible, no construction lighting will be allowed to spill onto boundary hedgerows, tree lines or adjacent watercourse and woodland habitats, ensuring light averse species can continue to utilise the Site and wider area during the construction period.

A Construction Ecological Management Plan (CEMP) will be produced providing details and mechanisms through which this area will be protected during construction.

As such, it is considered that, with the mitigation described above, **there will be no AEOL to the bat populations associated with the Bath and Bradford-on-Avon Bats SAC as a result of construction disturbance.**

5.3.6 *Increased Recreational Pressures*

The TWBMS highlights the potential for increased recreational pressures on woodlands which support bats associated with the Bath and Bradford on Avon Bat SAC. As such a ZOI has been developed around these roosts (the Grey Hatched Zone) within which, new residential development is expected to result in increased recreational pressure (and therefore adverse effects) on key woodland bat sites. The

TWBMS requires that “*New residential development proposals for 50 or more houses within this zone will be expected to provide mitigation in the form of SANG / sufficient natural recreational focused greenspace; and new residential development proposals for less than 50 dwellings within this zone will be expected to make a financial contribution towards the delivery of strategic mitigation to address recreational pressure on the woodland sites*”. Suitable Alternative Natural Greenspaces (SANGs) is the term given to greenspaces that are created or enhanced with the specific purpose of absorbing recreation pressure that would otherwise occur at designated nature conservation site, particularly European wildlife sites. SANGs are created, or existing greenspaces enhanced to create a SANG, in order to mitigate for the effects of new housing development, absorbing the level of additional recreation pressure associated with the new development. It is understood that this is in addition to the contributions being sought for ‘strategic’ bat habitat mitigation within the ‘Yellow Zone’, to mitigate for the loss of bat habitat, as opposed to recreational pressure.

The proposals are for 80 dwellings, and therefore it is expected that the site should provide mitigation in the form of SANG / sufficient natural recreational focused greenspace. The revised TBMS is clear throughout that ‘*sufficient natural recreational focused greenspace*’ is an alternative option for mitigation to a strategic scale SANG, and this is a reasonable approach to take within the guidance given that it cannot reasonably be expected for a 50-dwelling scheme to provide the same level of mitigation as an 80 dwelling scheme.

SANG originally derives from Natural England’s *Suitable Alternative Natural Greenspace (SANG) Guidance* (August 2021) which provides a recognised framework for delivering alternative greenspace that seeks to divert recreational pressure from protected sites and was written in relation to the Thames Basin Heaths Planning Zone. The TWBMS (and the TBMS prior to this) was drafted based upon visitor survey information collected by Footprint Ecology in 2018 as published in the Trowbridge Recreation Strategy and Visitor Surveys (Panter, C., Lake, S. & Liley D. 2018).

The 50-dwelling threshold for when schemes are required to provide “*SANG / sufficient natural recreational focused greenspace*” as referred to in the TWBMS seems to derive from work produced by Footprint Ecology, who themselves conducted work on behalf of WC as discussed above. A literature review of similar such documents produced by Footprint Ecology indicates that this derives originally from the Thames Basin Heaths Delivery Framework (Joint Strategic Partnership Board, 2008) which sets out that applications for large scale development **beyond the zone of influence**¹⁴ should be assessed on an individual basis. This follows from the advice of the technical assessor (Burley, 2007) who recommended that residential developments of 50 or more dwellings within 5-7km should be assessed and **may be required to provide mitigation**¹⁵. The document recommends that such cases be considered on a **case-by-case basis**. Further review of Burley 2007 indicates that there was significant discussion between stakeholders (The Joint Strategic Partnership Board) on what would constitute a ‘small site’ however this discussion was around at what threshold would Sites be considered to have an impact and at which distance and as such should provide a contribution to strategic mitigation. As such, it’s inclusion in other documents dealing with strategic mitigation appears to represent an arbitrary number and not be based on evidence regarding significance of impacts.

As Footprint Ecology specialise in visitor surveys, recreational mitigation schemes and Habitats Regulations Assessments of Local Plans, this number appears to have proliferated throughout the wider literature. Most similar strategic mitigation schemes have been written in such a way to provide flexibility and not to introduce an artificial barrier to development proposals (i.e. by providing the option to provide

¹⁴ The 5km Zol identified by the TBH SPA Delivery Framework

¹⁵ <https://www.bracknell-forest.gov.uk/sites/default/files/2021-08/thames-basin-heaths-spa-delivery-framework.pdf>

bespoke SANG on site where possible, or to contribute SANG/SAMM payments to the LPA as part of a strategic scheme).

In the previous version of the document (the TBMS) (an adopted SPD), the requirement was in line with this trend. New residential development would be able to demonstrate no adverse effect on site integrity of the SAC provided that funding being collected via CIL towards the LPA scheme for SANG/SAMM for mitigating residual in-combination effects from recreational pressure (which contribute toward a new 38ha SANG and hence reflect a maximum worst-case scenario).

In addition to this, it is recognised that the Draft Local Plan (now withdrawn) puts forward site allocations for major residential development in Trowbridge and Westbury (for which this site forms part of the wider Trowbridge allocation for 600 homes) which have been assessed as having the potential to increase recreational / visitor pressure on the woodlands that support Bechstein's bats. As such, two strategic SANGs have likewise been allocated in the draft Local Plan; one in Trowbridge and one in Westbury. The strategic SANGs / Country Parks proposed in Trowbridge and Westbury have been allocated by means of Policy 54: North Trowbridge Country Park and Policy 63: Westbury Country Park respectively, albeit it should be recognised that alternative SANG provision could come forward to mitigate for development if those sites weren't to come forward. At the time of writing, the Inspectors who are examining the new Local Plan have not confirmed whether this mitigation is appropriate or acceptable and this will be monitored.

However, the location of the strategic SANGs / Country Parks has been selected by the Council so as to maximise the potential for use by new residents of the site allocations in Trowbridge and Westbury put forward in the draft Local Plan and is currently proposed to be located between the strategic site allocations for major residential development and the closest woodlands that support Bechstein's bat roosts. This is to ensure that the SANGs / Country Parks are appropriately located to intercept residents that may otherwise visit the woodlands.

The allocated SANGs / Country Parks should be designed to provide attractive greenspace alternatives to the sensitive woodlands, as per the guidance set out above.

In March 2025, Wiltshire Council and Natural England published a Statement of Common Ground as part of Wiltshire Council's Local Plan Review¹⁶. Within it stated *"3.53 - At North Trowbridge there is a proposal for a Country Park (Policy 54), functioning as SANG, to ensure that the planned growth within the plan period will seek to avoid harm to the Bechstein's bat maternity colonies in Green Lane and Biss Woods to the south-east of the town, which are functionally linked to the Bath and Bradford-on-Avon Bats SAC. Natural England offered support for the proposed North Trowbridge Country Park as set out in Policy 54 of the draft Wiltshire Local Plan at the Regulation 19 stage. Natural England are aware of ongoing discussions with regards the delivery of this SANG and are working with the Council and landowners in bringing forward a deliverable scheme of suitable scale alongside the potential for a phased approach. Any outcome will need to mitigate impacts upon the aforementioned bat species / habitats with any agreed phasing / amendments needing to be agreed by Natural England to maintain a sufficient level of mitigation. Natural England can confirm that the most recent SANG masterplan as set out by the promoter will secure a suitable level and layout of SANG relative to the allocation at Policy 54 and appropriate landscaping will further enhance the foraging opportunities for Bechstein's bats across the SANG"*.

A review of the Trowbridge Recreation Strategy and Visitor Surveys (Panter, C., Lake, S. & Liley D. 2018) makes it clear that there *"is insufficient information to identify particular thresholds of access, activities that should be singled out or levels of development at which impacts occur, however the review does*

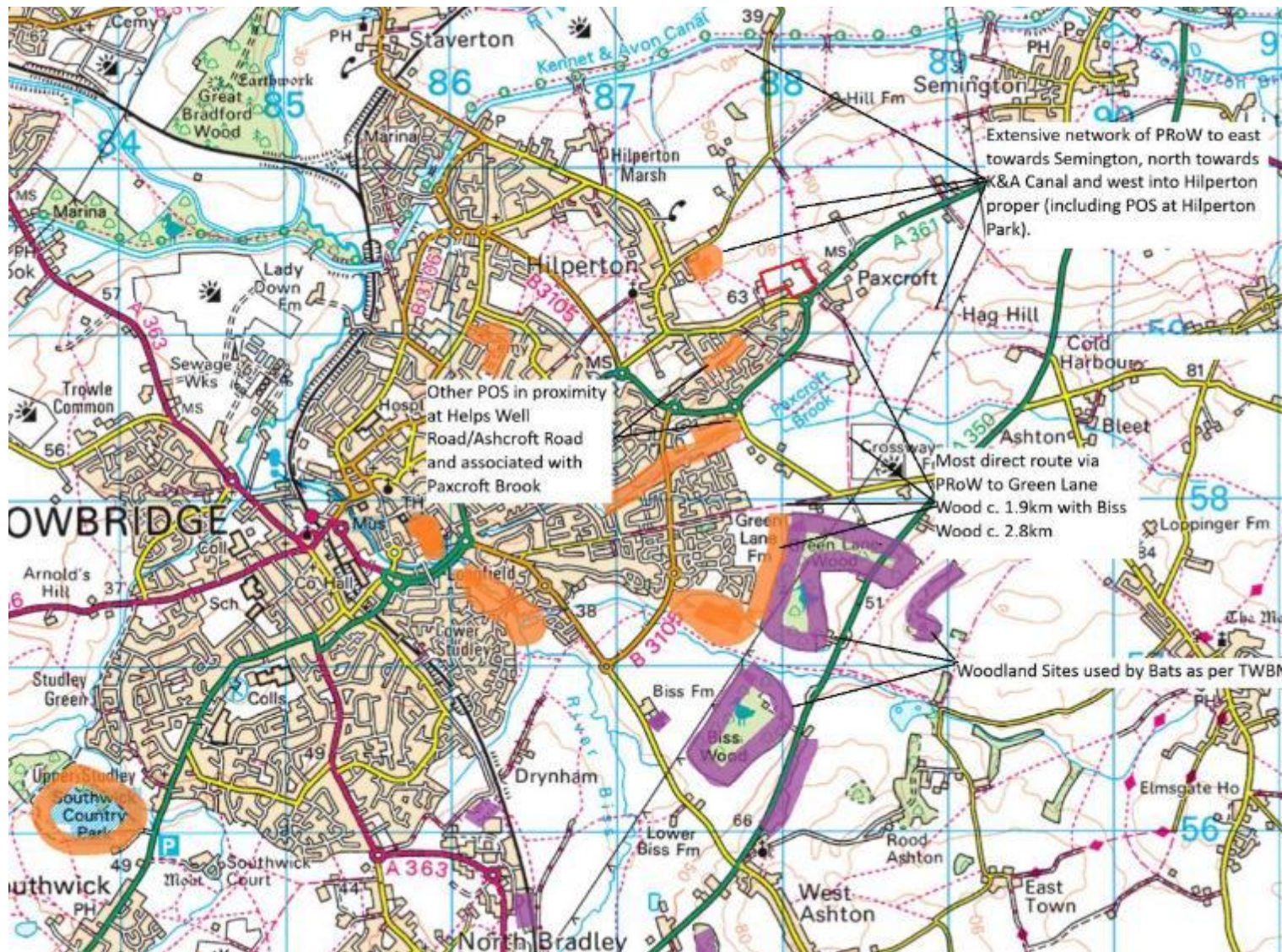
¹⁶ https://www.localplanservices.co.uk/files/ugd/017f5b_910bb5add65e49f2adb49c9f0166007a.pdf

highlight risks for Bechstein's Bat. These risks relate to the overall pressure on the woodland sites, which are themselves relatively fragmented. These pressures will grow with increased levels of development". It also found that "...Estimates of total visitor numbers to sites highlight that the bat woodland sites are relatively quiet (up to 0.2 per ha per hour), and Biss Wood was particularly quiet (0.02 people per ha per hour). The other greenspace sites were much busier, for example Southwick Country Park was estimated to have 0.44 people per ha per hour and Biss Meadows and Paxcroft Mead around 0.9 people per ha per hr". Further to this roughly "two thirds (65%) of interviewees arrived at sites on foot". With Clanger and Picket Wood and Southwick Country Park (main car park) were the locations with high proportions of interviewees arriving by car.

While on average, the distance between the home postcode of interviewees and the survey point where interviewed was 2.5km, but half of all postcodes were within a 700m radius and three quarters within in a 1.8 km radius, visit rates (i.e. number of interviewees per household) show that the woodland sites draw visitors on foot from a radius of around 600m, beyond this distance visit rates are low and constant.

This is key in seeking to assess potential quantum of impact as through liaison in June 2026, WC stated "...Where the SANG criteria are not met, applicants must provide robust justification demonstrating how recreational impacts will be appropriately mitigated to ensure no adverse effect on the Bath and Bradford Special Area of Conservation" and that the scheme should seek to demonstrate that the site wouldn't contribute to recreational pressure via showing how new residents might use or access other areas rather than the SAC, looking at other footpaths in the locality, commenting on barriers to access etc. As such, **Plate 8** below seeks to show existing open space, public rights of way, areas of restricted access and other such factors (i.e. barriers etc) within the Site's locality.

Plate 8: Open Space and Access within the Locality



Site boundary delineated by **Red Line**. Public Rights of Way delineated by **Pink Lines** (Solid/Dashed/Dotted). **Orange Area** delineates existing Public Open Space/Open Access Land under CROW Act 2000. **Purple Area** delineates Important Bat Woodlands

As shown above, the Site is well connected to the PRoW network via HILP21 which bounds the Site to the east. This provides links to the north to Whaddon Lane, other PRoWs and the Kennet and Avon Canal. It also provides a link east via HILP22/SEMI9A to Semington. The most recent comments from WC Highways Officer have indicated that a contribution is required to enhance HILP21, which the applicants have agreed to provide. As such, works to improve this Byway Open to all Traffic (BOAT) will be undertaken and provide further enhanced opportunities for walking along this route for leisure and recreation purposes. Other links via public highway and PRoW to the west (Devizes Road) and HILP25 and HILP29 provide links to the centre of Hilperton proper and its associated POS off Whaddon Lane. Further routes branch west from St Michael and All Angels Church to Hilperton Marsh and Trowbridge. To the south there are links via Hilperton Drive to the POS at Helps Well Road/Ashcroft Road which represents the closest larger area of linear POS, with a larger linear POS associated with Paxcroft Brook/TROW122.

When considering potential access to Green Lane and Biss Wood, the shortest distance via PRoW and public highway (with pavement) is via HILP26 to Lower Paxcroft Farm then south via SASH7 to Ashton Road. There is no footway on Ashton Road, which requires the walker to navigate c. 500m of a busy minor road, to Green Lane Wood Nature Park to the west of Green Lane Wood, which represents a distance of c. 1.9km. As outlined in Trowbridge Visitor Survey c. 65% of respondents had arrived via foot, with three quarters of respondents from within a 1.8km radius. Furthermore, visit rates (i.e. number of interviewees per household) show that the woodland sites draw visitors on foot from a radius of around 600m, beyond this distance visit rates are low and constant. As such, the majority of new residents can be anticipated to utilise POS (both formal and informal within the scheme and in the locality) within closer proximity to their residence than the closest of the sensitive woodlands, and there are ample alternative opportunities for recreation other than the SAC.

In addition, this assessment does not include any ameliorating factors of the WC's stated aim to include a new Country Park at North Trowbridge as detailed in Policy 54 of the now withdrawn Draft Local Plan. Natural England (in their Statement of Common Ground with WC) "...can confirm that the most recent SANG masterplan as set out by the promoter will secure a suitable level and layout of SANG".

Further to this, the Footprint Ecology assessment recognises that there is "...very little work directly addressing the impacts of disturbance on woodland bats. However, a simulation model of possible impacts on *Barbastelle Bats* (a rare breeding woodland species which switches roosts following disturbance by a predator/perceived predator) concluded that the greatest risk of disturbance was from unrestricted recreationists (i.e. those wandering off the paths) and that the risk of disturbance was greater closer to car parks (Bennet et al. 2009)". While it is valid to extrapolate from one type of woodland specialist bat to another (*Barbastelle* to *Bechstein's*) the journal article does state "From the results of the simulation runs, anthropogenic disturbance does not appear to be negatively influencing *barbastelle* bat breeding success", and that "simulation suggests that anthropogenic disturbance of the *barbastelle* bat is not preventing the females from establishing maternity roosts in *Chedworth Wood*..." and "...factors other than human disturbance may be influencing the use of the potentially suitable roost trees within the wood".

As such, the conclusions of the article are not as clear-cut as is otherwise suggested within the Footprint Report, and this is before considering that "wildlife individuals may have differing tolerances for interactions with recreationists (Vaske et al., 1995), especially considering the existing and long-term uses of the Green Lane and Biss Woods specifically for recreational purposes (as Wiltshire Wildlife Trust Reserves) and the active management by the WWT (i.e. the Site seeks to deter/prevent unrestricted access), including through a new Ecological Centre on the reserve, which includes a full time warden and part time education officer and will be funded in the long-term via s106 contributions. The WWT

stated¹⁷ *“We acknowledge that increased footfall requires extra management of the site. With the additional resource, we will intensify our monitoring of the reserve's important wildlife, and the overall condition of the woodland. Our highest priority is protecting sensitive species like the Bechstein's bat. The presence of the dedicated Warden and the centre will be key to actively deterring disturbance, vandalism, and fires, safeguarding this locally rare species from any adverse effects of the new proximity to development.”*

The aforementioned SANG design standards requires SANGs to be in the order of 30ha in size, with a further recommendation of 8 hectares of open greenspace per 1,000 new residents / people as detailed in guidelines on SANG creation, which is based on the average of 2.4 people per household. Based on the number of dwellings proposed via this outline application (up to 80), this results in an average occupancy level of 192 residents. If one were to utilise the guidance therefore, the scheme should require c. 1.536ha of SANG or ‘sufficient natural recreational focused greenspace’.

The scheme proposals themselves include significant areas of accessible public green space which will be created as part of the development totalling c. 2.335ha of formal and informal open space, including c.0.787ha of other neutral grassland, 0.41ha of modified grassland and 1.138ha of mixed scrub. The provision of these areas will provide new and existing residents in the local area with new opportunities for dog walking and recreation in combination with providing ecological mitigation and enhancement for Annex II bat species, and as discussed above provides links out to the wider countryside for walking purposes. It is proposed that this greenspace should be delivered prior to first occupation of the development.

Furthermore, Habitat Information Packs (HIPs) will be provided to new residents. These packs will include information on habitats within the Site, in addition to local footpaths and additional areas of POS within the wider area to further reduce pressures on woodlands associated with the Bat SAC.

As discussed above a Habitat Management and Monitoring (HMMP) has been produced detailing the methods and strategies to manage the new grassland areas, woodland, and orchard as described above, as well as providing details of the funding mechanisms and timescales for management which will ensure the above mitigation is provided to mitigate any impacts from potential increased visitor pressure.

In conclusion, whilst the scheme will include extensive areas of greenspace (both for wildlife and for recreational uses), it is considered disproportionate and unfeasible to deliver SANG on site, and suitable natural alternative greenspace has been provided instead which will be delivered in advance of the first occupation of homes. In addition, the proposals will contribute to wider SANG provision as per the TBMS guidance. **As such, through the implementation of the above measures, no AEOI on the SAC is anticipated.**

6 Cumulative Assessment

Cumulative assessment (In-combination assessment) is a key part of the HRA process, as it seeks to identify whether any residual effects below the threshold for AEOI but where plans or project could cumulatively result in an AEOI upon a designated site.

However, as the assessment above does not identify any residual effects from the identified impact pathways, **there is no potential for AEOI of the SAC via cumulative impacts.**

¹⁷ <https://www.wiltshirewildlife.org/blog/statement-green-lane-woods-ecological-centre>

7 Summary Assessment and Conclusions

Likely Significant Effects (LSE) was identified as a result of the development proposals upon the Bath and Bradford on Avon Bat SAC. The Appropriate Assessment identified that the proposed development should be undertaken in accordance with the mitigation detailed in within this sHRA with the development also providing a financial contributions as per the Strategic Mitigation as outlined in the TWBMS. Assuming that the mitigation measures are implemented as proposed, it can be concluded that there will be no AEOL, either alone or in-combination with other projects, resulting from the scheme.

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Appendix 1 – Adoptable S38 Lighting (Highway Lighting Solutions)



S38 ROAD LIGHTING SCHEDULE:

- Galvanised tubular stepped steel lighting column. 5m height. Internal & external glass fibre rod to 250mm above ground. CU/Phosco: R2505T01/WLT.S.
- Urbis Axia 3.1 18LED lantern. Warm white LED (2700K). Black canopy.
- 70mm dia post top mounted at 0 degree tilt.
- Code: Axia 3.1 C3.5 2.7K. 16 Oscon square giant 640mA. Optic: 52933 (1.08lm - 7w).
- Osram Optotronic 4DM suitable for Telenia CMS DALI auto switch (Note: sensor must be replaced with a 7 pin NEMA socket (option for Zodon SS6 20lux photocell)).
- Lantern complete with a 7 pin NEMA socket (option for Zodon SS6 20lux photocell).
- Lantern as specified in WC matrix. C3.5.2.7K. UNSUG code: 42 0023 0000 100

- Galvanised tubular stepped steel lighting column. 5m height. Internal & external glass fibre rod to 250mm above ground. CU/Phosco: R2505T01/WLT.S.
- Urbis Axia 3.1 18LED lantern. Warm white LED (2700K). Black canopy.
- 70mm dia post top mounted at 0 degree tilt.
- Code: Axia 3.1 A1.0 2.7K.8 Oscon square giant 270mA. Optic: 52933 (1.08lm - 7w).
- Osram Optotronic 4DM suitable for Telenia CMS DALI auto switch (Note: sensor must be replaced with a 7 pin NEMA socket (option for Zodon SS6 20lux photocell)).
- Lantern complete with a 7 pin NEMA socket (option for Zodon SS6 20lux photocell).
- Lantern as specified in WC matrix. A1.0.2.7K. UNSUG code: 42 0007 0000 100

DIMMING REGIME: D19
Dimming to be applied to all adoptable lanterns. Manufacturer set lantern dimming to 75% output from 8pm to 11pm and 50% output from 11pm to 6am. Rest of time output at 100%. All equipment to be ordered compliant with Wiltshire Specification.

ADAPTABLE STANDARD EQUIPMENT POWER SUPPLIES:
Road lighting columns to be supplied via un-metered statutory low voltage supply. Preferably District Network Operator (DNO).
If an IDNO is to be used for power supply networks, then a service level agreement must be in place prior to commencement of works. Without such agreement, scheme will not be adopted.
Internal wiring to be 2.5mmsq, 3 core flexible arctic grade 230v. (Blue)
Charles Endirect (L2/SF/A14.0x300 tails) or Lucy Lighting (TR2-PP20-EB2-L006-06)
32A double pole, single fused isolator to Wiltshire Council specification to be mounted within lighting column above DNO cut out. Network provider: **TSA by Client.**

GENERAL SCHEME NOTES:

- Any alterations to the positions of columns and / or associated equipment to that as shown on this drawing should be referred to the designer to ensure compliance with lighting level requirements. Following technical approval, any change to column locations or equipment specification will require re-submission to Wiltshire Council (WC) for further review / approval.
- Adoptable columns to be located to back of footway within adoptable land or to rear of service strip or to rear of private road. Where the rear of private road is not within the adoptable land, the columns must be located within the adoptable land. The columns must be located within the adoptable land and must be included on the adoptable coloured plan agreement. Ease of access for maintenance purposes must be considered.
- Equipment installation works are to be carried out in accordance with the Electricity at Work Regulations 1989, requirements of the latest edition of the IEE wiring Regulations BS7671, manufacturers instruction and where adaptable, to current WC residential specification (currently Rev.S under review).
- All column doors to face away from on coming traffic unless access restricted or otherwise specified.
- Final column numbers will be provided by WC following technical approval of lighting proposals. Numbering to be affixed to adoptable columns in line with Wiltshire Council specification. Numbering standard detail (SD/1400/10). Numbers to be affixed 2m above ground facing carriageway.
- In order to avoid future maintenance issues, the planting of trees and shrubbery in the vicinity of proposed trees in close vicinity <4m should be reviewed and re-located.
- Any additional private area lighting or private wall mounted luminaires being installed onto property walls by Developer should be carefully selected to ensure power efficiency, suitable low wattage and light output avoiding over illumination, glare & light pollution.
- Location of street lighting units should be included on sales plans for buyer information prior to purchases.

WILTSHIRE COUNCIL SPECIFIC NOTES:

- ALL NEW LIGHTING INSTALLATIONS MUST INCLUDE FOR TELENIA CMS - NEW 7 PIN NEMA MOUNTED TELECELLS WITH INTEGRAL GPS AND DALI DIMMING - T2-E INB-3 BLACK - TO BE AFFIXED TO EACH LANTERN.
- TELENIA CMS SYSTEMS MUST BE INSTALLED TO THE COMPLETE CMS SYSTEM.
- WITHOUT INSTALLATION OF TELECELLS, THE SITE SHALL NOT BE DEEMED ACCEPTABLE FOR ADOPTION.
- ALL STREET LIGHTING IS TO BE INSTALLED IN ACCORDANCE WITH WILTSHIRE COUNCIL SPECIFICATION. CONTRACTOR TO ALSO REFER TO WILTSHIRE COUNCIL RESIDENTIAL LIGHTING CONTRACTOR TO SD/1300/02, SD/1400/01, SD/1400/05 AND SD/1400/10.
- AND NON RESIDENTIAL SPECIFICATION.
- UNITS POSITIONED BEHIND THE SERVICE STRIP OR WITHIN UNADOPTED LAND MUST BE LOCATED WITHIN THE SERVICE STRIP OR WITHIN UNADOPTED LAND INCLUDED IN THE ADOPTION AREA / AGREEMENT PLAN.

LEGEND

- Site Boundary
- Location of existing road lighting columns included for reference only.
- Proposed trees - smaller, bushes.
- Bat commuting - 50m ecology zone.
- Lux contours for reference MF set to 1.
 - 0.5 Lux
 - 1.00 Lux
 - 3.00 Lux
 - 5.00 Lux
 - 7.00 Lux

ECOLOGY:

This lighting design considers Townbridge Bat Mitigation Strategy, (Johns Associates Limited) January 2020 and Environmental Consultants (Egan Ltd), requirements which address the development area falls within a Special Area of Conservation (SAC) with high importance for bats.

Artificial lighting causes discharges to bats at the road, their feeding behavior and commuting routes. This will have a severe negative impact on their survival.

The extents to which this lighting strategy applies includes the whole site, but more specifically, to maintain controlled and dark zones along the Eastern side.

Lighting classes P4 & P5 provides appropriate low lighting levels for a new development within conservation designated area and is in accordance with WCC design guidance.

Warm white LED light source 2700K is specified, providing lower UV & blue spectrum output. Columns are low height at 5m to minimise lighting impact and spill. Lantern optic settings have been optimised to provide good column spacing's thus reducing number of columns required.

Lanterns are to be mounted at 0 degree tilt to prevent upward light pollution and sky glow.

Dusk to dawn photocells may be installed for on/off switching as a temporary measure up to CMS code installation prior to Wiltshire Council approval. LANTERN SET DIMMING will reduce the amount of light output and associated spill by 25% from 8pm to 11pm then down to 50% from 11pm to 6am.

Dimming control for individual lanterns is flexible with option for further dimming or indeed Lantern switch off (part night control) during periods of bat activity (to be confirmed by Lighting Engineer).

Lux contours are included on the drawing for reference. The maintenance factor has been set to 1 in contour calculation to show full light spread at scheme installation.

DESIGN METHODOLOGY AND NOTES:

- The development roads are to be extended during next phase design.
The main spine road South to North is to be a bus route. Consequently, designer proposes illumination to P4 class (Eav=5.00 to 7.50, Emin=1.00).
The main road is to be free lined with offset pedestrian footpaths. Designer has specified 5m height columns with wide optic lanterns to throw light onto the footpaths.
Lighting class for side roads P4 (Eav=3.00 to 4.50, Emin=0.60).
All new lanterns may be fitted with temporary photocells as detailed for control prior to affixing CMS telecells.
-

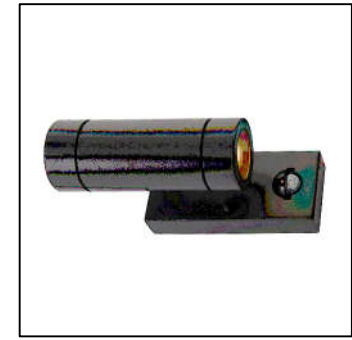
EXTERNAL WALL MOUNTED LUMINAIRES:

All domestic exterior lighting will be carefully selected to prevent over illumination glare and light pollution past property boundary. External luminaires are proposed to include integrated movement sensors. The timer should be set to switch the light source off after 60 seconds of detecting no movement.

Front porch lighting is to include an integrated PIR sensor & the rear garden light should be a warm colour temperature (2700K or less).

The fillings should not emit any direct upward light and should be low power (circa 7W), with a warm colour temperature (2700K or less).

A single wall-pack style lantern with an asymmetrical distribution is proposed, in the proposed front porch area. The lantern should be mounted at a height of 2m above ground level. The front porch lighting is proposed to be a downlight type producing no direct upward light such as the Palin PIR fixed wall downlight by Saby Lighting.



Palin PIR

Wolf Mini

ECOLOGY ILLUMINANCE ZONES:

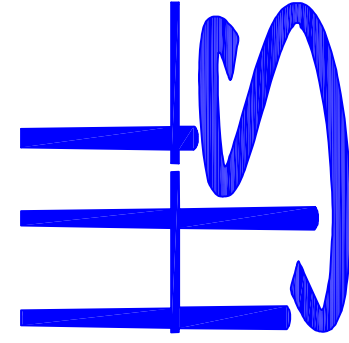
The extents to which this lighting strategy applies includes the main development area, Zone C where public lighting is provided to an appropriate BS EN Standard, along the adopted highways. In addition to low level public lighting, private lighting proposed and installed luminaires is also controlled as proposed by above recommended measures.

A 50m wide buffer zone to the East of the site is included, which is split into Zone A & Zone B. Zone B is set at 10m, where illumination spill is limited from 1 down to 0.2lux falls to within a distance of 8m from building, which is 2m clear of proposed Zone A.

In addition, property boundary fencing and landscape planting will further reduce any light spill from the buildings into zone B.

Adoptable lighting scheme proposals must be technically approved by adopted lighting engineer prior to final technical approval will be conducted 'at risk'.

HIGHWAY LIGHTING SOLUTIONS Ltd



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Bromborough, Wirral, CH62 6BY
support@highwaylightingsolutions.co.uk

Project:	Redcliffe Homes Adoptable S38 Lighting
Location:	AGR _ _ _ Land Off Devizes Road, Hilperton
Drawn by:	Ken Duckers
Checked by:	Ian Buckley
Telephone:	0151 327 2424
Scale @ A0:	Drawing No.: HLS-1012-B
Date:	22/01/26
Date:	0151 327 2424
Fax:	Revision: 1 of 1 Draft 2

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