

Shadow Habitats Regulations Assessment



'Spring Park Data Centre
Expansion', Corsham
10th June 2024

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Summary

- S.1. This report has been prepared by Tyler Grange Group Ltd (TG) on behalf of Ark Estates Spring Park Limited. It sets out the findings of a 'shadow' Habitats Regulations Assessment (HRA). It has been prepared to accompany a full planning application for the proposals for the 'Proposed Extension of Spring Park Data Centre Campus – Land South of Westwells Road, Neston, Corsham' (hereafter referred to as 'the site').
- S.2. The development proposals comprise a new data centre building with associated infrastructure and landscaping which will be referred to as "P6" in the Ark Spring Park naming conventions. The site covers approximately 3.6ha and is centred at National Grid Reference ST 85270 68754. It is located to the west of Corsham in Wiltshire.
- S.3. This report uses available data to examine likely effects of the proposed development on statutory designated European sites, both alone and in combination with other proposals; it sets out information required to inform a HRA, which will ultimately be carried out by the competent authority (Wiltshire Council).
- S.4. Bath and Bradford-on-Avon Bats SAC was identified within 0.9km northwest of the site. Bat activity surveys completed in 2022 confirmed the presence of qualifying bat species associated with the SAC within the proposed development site. The HRA screening exercise outlined in this report has identified the potential for operation phase impacts on some of the qualifying features of the SAC due to impacts associated with physical modification of bat roosts, public access disturbance and damage, loss of habitat connectivity and risk of collision and bat fatality.
- S.5. Information to inform an Appropriate Assessment (AA) is provided, including information on potential impacts on qualifying features of the designated site through impact pathways including change to habitats, lighting and noise, and proposed mitigation measures to control such impacts.
- S.6. It is anticipated that implementation of the mitigation measures outlined in this report during operation allows the competent authority to conclude that there will be no likely significant adverse effects arising from the proposed development, alone or in combination with other projects or plans, on the Conservation Objectives or the qualifying features of the Bath and Bradford-on-Avon Bats SAC.



Section 1: Introduction

- 1.1. This 'shadow' Habitats Regulations Assessment (HRA) Screening and Appropriate Assessment report has been prepared by Tyler Grange Group Limited (TG) on behalf of by Ark Estates 4 Limited for the 'Proposed Extension of Spring Park Data Centre Campus – Land South of Westwells Road, Neston, Corsham'.
- 1.2. The proposed development area, hereafter referred to as 'the site', covers approximately 6.7ha, is centred at National Grid Reference ST 85270 68754 and its extent is shown in **Figure 1.1**, below.



Figure 1.1: Red Line Boundary (© Google Earth)

Context

- 1.1. A full planning application is being submitted for the development a new data centre building with associated infrastructure and landscaping which will be referred to as "P6" in the Ark Spring Park naming conventions. This would be an expansion of the existing Spring Park Data Centre Campus which is located immediately to the north of the site. HRAs were undertaken for the previous planning applications associated with the campus and this assessment will be read in conjunction with the current planning application.
- 1.2. An Ecological Impact Assessment (EclA) has been prepared which sets out ecological impacts/mitigation and proposed enhancements (Tyler Grange, 2024, report reference **15116/R08b**). This should be read in conjunction with this report.



Purpose

- 1.3. This report sets out 'shadow' HRA which, in accordance with the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'), provides information for the competent authority¹, Wiltshire Council, to carry out the required Appropriate Assessment (AA).
- 1.4. This shadow HRA aims to assess the potential effects of the proposed development on European (and international) sites within the vicinity of the site, namely the Bath and Bradford-on-Avon Bats Special Area of Conservation (SAC).

Quality Control

- 1.5. All ecologists at Tyler Grange Group Ltd are members of CIEEM, working towards becoming members of CIEEM or acting under the supervision of staff that are members of CIEEM, and abide by the Institute's Code of Professional Conduct.

¹The Habitats Regulations define a 'competent authority' as including any Minister of the Crown, government department, statutory undertaker, public body of any description or persons holding public office, or any person exercising those functions (regulation 7(1)). [Accessed: 15/08/2023]



Section 2: Legislation and Planning Policy

Legislation

- 2.1. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance (listed under Annex I, II and IV of the Directive). The Birds Directive (formally known as Council Directive 2009/147/EC on the conservation of wild birds) was also adopted in 2009. These directives have been transposed into UK law through The Conservation of Habitats and Species Regulations, hereafter referred to as 'the Habitats Regulations 2017 (as amended)', and incorporated protections for European sites.
- 2.2. It should be noted that the UK's departure from the European Union (EU) does not alter the implementation of this legislation in the UK at the time of writing. Section 6 of the EU (Withdrawal) Act 2018 (as amended) requires retained EU law such as the Conservation of Habitat and Species Regulations 2017 (as amended) to be interpreted in line with "retained case law" which includes retained EU case law.
- 2.3. European sites comprise:
 - SACs and candidate SACs (cSACs) designated under the Habitats Directive;
 - SPAs and potential SPAs (pSPAs), classified under the Birds Directive;
 - Ramsar sites, designated under the Convention on Wetlands of International Importance; and
 - European Marine Sites (EMS).
- 2.4. Under the Habitats Regulations, competent authorities are required to consider impacts of any plans / projects which may result in Likely Significant Effect (LSE) and/or adverse effects on the integrity of European sites - either alone or in-combination with other plans / projects. The assessment of the potential effects is termed an HRA, which is split into four stages, as described below, and shown in **Figure 2.1**:
 - **Stage 1** is a screening stage to determine if the proposed development is expected to have an LSE on a European site. If an LSE is determined, AA, Stage 2, is required;
 - If required, **Stage 2** refers to an AA which is used to determine whether the project will adversely affect the integrity of any given European site(s) (through also considering proposed avoidance and mitigation measures), in view of their conservation objectives. Conservation objectives specify the overall target for a site's qualifying features (habitats and species / populations listed in Annex I and II) in order for that feature to be maintained or restored, to reach favourable conservation status;



- **Stage 3** is triggered if significant adverse effects are identified in Stage 2 that cannot be avoided or mitigated. This stage requires alternative options to be examined to avoid significant impacts on European sites; and
- If it is deemed that the project should proceed for Imperative Reasons of Overriding Public Interest (IROPI), **Stage 4** comprises an assessment of compensatory measures which would be required.

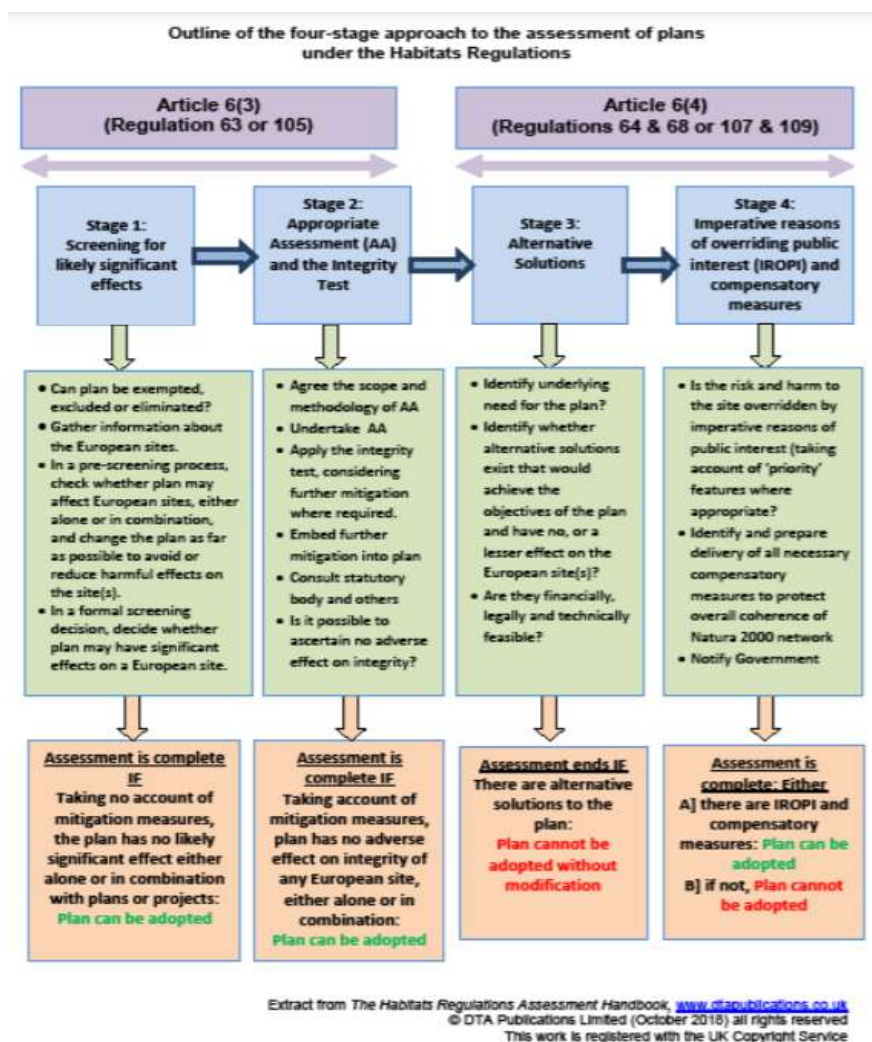


Figure 2.1: HRA stages²

- 2.5. The responsibility of undertaking AA, if required, lies with the competent authority who is responsible for granting consent for the scheme - in this case, it is assumed that this will be the LPA (WCC). However, it is the applicant's obligation to provide information to the competent authority to enable them to undertake the assessment. In this case, the applicant is Ark Estates Spring Park Limited

² Reproduced from DTA publications (2018) HRA handbook. <https://www.dtapublications.co.uk> [Accessed: 15/08/2023]



- 2.6. This report aims to provide sufficient information relevant to HRA screening (HRA Stage 1) to demonstrate to the LPA that AA (HRA Stage 2) is only required for potential adverse effects relating to air and water pollution, loss of functionally-linked land, changes in species distribution and increased pressure from public recreation during the operational phase of the development.
- 2.7. The National Planning Policy Framework (NPPF) 2023 requires development plans to identify, map and safeguard international, national and locally designated sites of importance for biodiversity, such as European designated sites. Under the requirements of the NPPF, unless it has been concluded that the proposed development will not adversely affect the integrity of European designated sites, the usual presumption in favour of sustainable development does not apply.

Local Planning Policy Context

- 2.8. The Wiltshire Core Strategy policy relevant to ecology; Core Policy 50 (CP50) – Biodiversity and Geodiversity, seeks to ensure protection and enhancement of sites and features.
- 2.9. There are two Corsham Neighbourhood Plan Policies relevant to the Bath and Bradford-on-Avon Bat SAC:
1. Policy CNP ED1 states that proposals for development should take into account Corsham Design Guide and Corsham Batscape Strategy:

"Proposals for development should take into account the Corsham Design Guide and Corsham Batscape Strategy. Applicants must demonstrate how their proposals will: i) take account of the principles and guidance in the Corsham Batscape Strategy to help ensure that their development preserves and, where possible, enhances landscape permeability and connective habitats within the Corsham area (including details of measures to preserve and, where possible, enhance wildlife corridors, especially with regard to foraging areas, priority flight lines and maternity roosts); and ii) be of high-quality design, reflecting the distinctive character and features of the local area (design, scale, materials, colours and proportion respect the prevailing historic context) identified in the Corsham Design Guide and, where possible, result in improvements to existing features that are considered to be detractors."

2. Policy CNP E1 requires development proposals to protect, and where possible, enrich the habitats of protected bat species associated with the Bath and Bradford-on-Avon Bat SAC:

"Otherwise acceptable proposals for development which protect and, where possible, enrich the habitat of the protected bat species associated with the Bath and Bradford on Avon Bats Special Area of Conservation (SAC) will be supported. Applicants will need to demonstrate how their proposals would contribute to the delivery of the Corsham Batscape Strategy, including details of measures to preserve and, where possible, enhance wildlife corridors, (especially with regard to foraging areas), priority flight lines and maternity roosts. Proposals that enhance the biodiversity of Corsham will be supported."



Section 3: Methodology

- 3.1. This report provides information relevant to HRA screening (Stage 1) and AA (Stage 2) and aims to determine if the proposed development is likely to have an LSE on any European sites. Detailed methodology at each stage is set out below.
- 3.2. To inform the scope of the Stage 1 Screening, and potential for LSEs, the EclA report written by Tyler Grange (report reference **15116/R08b**) was used for reference. The methodology and results utilised for bat surveys by Tyler Grange are outlined in the EclA.

HRA Stage 1: Screening

- 3.3. Screening aims to determine if the proposed development is expected to have any LSEs on European sites. An effect is considered 'likely significant' if, in the absence of mitigation, it cannot be excluded based on objective information and it might undermine a European site's conservation objectives.
- 3.4. To assess whether LSEs may occur, the following information is provided:
- Identification of relevant European sites and their respective qualifying features (presented in **Section 4, European sites**);
 - Identification and understanding of the conservation objectives the identified sites (presented in **Section 4, European sites**);
 - Where relevant, an estimation of the likely magnitude, duration, location and extent of effects on European sites if any are anticipated (presented in **Section 5, HRA screening (Stage 1)**; and
 - Identification of whether any element of the proposed development will have an LSE on any qualifying feature, either alone or in-combination with other projects and plans (presented in **Section 5, HRA screening (Stage 1)**).
- 3.5. This assessment has been informed by thorough review of the proposed development proposals (set out in **Section 1** above) and (**Appendix 1**). In addition, the following resources were reviewed to inform this report:
- The Habitats Regulations 2017 (as amended);
 - UK government guidance on the use of Habitats Regulations Assessment³ ;

³ Ministry of Housing, Communities and Local Government (2019) Guidance Appropriate assessment: Guidance on the use of Habitats Regulations Assessment, <https://www.gov.uk/guidance/appropriate-assessment> [Accessed: 14/08/2023]



- Joint Nature Conservation Committee for citations of European sites and associated conservation objective and site improvement plan documents⁴ ;
- Natural England’s web resources for citations of European sites and associated conservation objective and site improvement plan documents;
- Multi-Agency Geographic Information for the Countryside (MAGIC) interactive maps for locations of statutory sites (DEFRA 2020) within a 10km search radius of the site⁵ ;
- Wiltshire & Swindon Biological Records Centre (WSBRC);
- Google Maps, including aerial photography;
- The Wiltshire Core Strategy, adopted 2015⁶; and
- The Corsham Neighbourhood Plan 2016 - 2026⁷.

3.6. In order to establish the European sites which may be affected by the proposed development, a 10km search radius was used from the site boundary in the first instance. This was then followed by a review of the local planning policy to establish if any European sites within the wider area have a larger catchment area.

3.7. The CJEU in the case of *People Over Wind, Peter Sweetman v Coillte Teoranta* ruled that “in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, 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”⁸. Hence it is not acceptable for the Stage 1 screening assessment to rely on avoidance or reduction (mitigation) measures. Therefore, if it cannot be concluded that there will be no LSE in the absence of mitigation measures at the screening stage, HRA Stage 2 (AA) is required.

In-combination Assessment

3.8. This report considers the potential for ‘in-combination effects’ on European sites from the development.

Assessment of Effects and Mitigation Measures

3.9. An assessment of the potential effects for European sites in view of their conservation objectives is made, in terms of the magnitude, duration, location and extent of effects, both alone and in-combination with other developments.

⁴ JNCC (2020) Joint Nature Conservation Committee for citations of internationally designated sites, <https://jncc.gov.uk/our-work/uk-protected-areas/> [Accessed: August 2023].

⁵ <https://magic.defra.gov.uk/> [Accessed: August 2023]

⁶ Wiltshire Council (2015). Wiltshire Core Strategy.

⁷ Corsham Town Council (2019). Corsham Neighbourhood Plan 2016-2026.

⁸ Court of Justice of the European Union (CJEU) (2018) Judgement of 12.4.2018 - Case C-323/17 *People Over Wind and Sweetman*



- 3.10. Mitigation measures can include both avoidance measures and reduction measures, but the former approach is preferred.

Integrity Test

- 3.11. The integrity test requires the competent authority to ascertain if the development (alone and in-combination with other plans / projects) will not have a significant adverse effect on a European site's integrity, which is defined as:

*"The coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the level of populations for the species for which it was classified."*⁹

⁹ The Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (2019) Guidance: Appropriate Assessment, <https://www.gov.uk/guidance/appropriate-assessment> [Accessed: 15/08/2023]



Section 4: European Sites

- 4.1. This section provides the following information:
- Identification of internationally designated sites; and
 - Identification / understanding of conservation objectives of each interest/ qualifying feature.
- 4.2. The site falls within the Zone of Influence (Zoi) for one European site identified by MAGIC, Bath and Bradford-on-Avon Bats SAC (UK0012584). The site is 0.9 km northwest of the site. Designated for its hibernating populations of three species of bat: greater horseshoe *Rhinolophus ferrumequinum* and Bechstein's bat *Myotis bechstenii* as primary reasons for selection and lesser horseshoe *Rhinolophus hipposideros* as a qualifying feature for site selection. The SAC sites are all abandoned limestone mines and some include areas of supporting habitat: broadleaved woodland and species rich calcareous grassland.
- 4.3. The Annex II species that are a primary reason for selection of the Bath and Bradford-on-Avon Bat SAC are¹⁰:
- 1304 Greater horseshoe bat
 - 1323 Bechstein's bat
- 4.4. Annex II species present as a qualifying feature, but not a primary reason for site selection is:
- 1303 Lesser horseshoe bat
- 4.5. The site falls within the Bat Consultation Zone of the Bath and Bradford-on-Avon Bat SAC¹¹. The Bat Consultation Zone is a Core Area which has been identified as a landscape surrounding a Core Roost used regularly for foraging and commuting as shown in **Figure 4.1**. The Site is within a Core Area because it is within a greater horseshoe bat core roost 4km buffer, a lesser horseshoe core roost 2km buffer and a Bechstein's bat core roost 1.5km buffer. Therefore, this site is scoped into the assessment.

¹⁰ <https://sac.jncc.gov.uk/site/UK0012584>

¹¹ According to the Bat SAC Planning Guidance for Wiltshire (Wiltshire Council and Natural England, 2015). The Bat Consultation Zone is a Core Area which has been identified as a landscape surrounding a Core Roost used regularly for foraging and commuting. The Site is within a Core Area because it is within a greater horseshoe bat core roost 4km buffer, a lesser horseshoe core roost 2km buffer and a Bechstein's bat core roost 1.5km buffer.



Plan 2 Inset map of the Bradford-on-Avon Bat SAC Core Roosts showing Core Areas (i.e. buffers) for each species

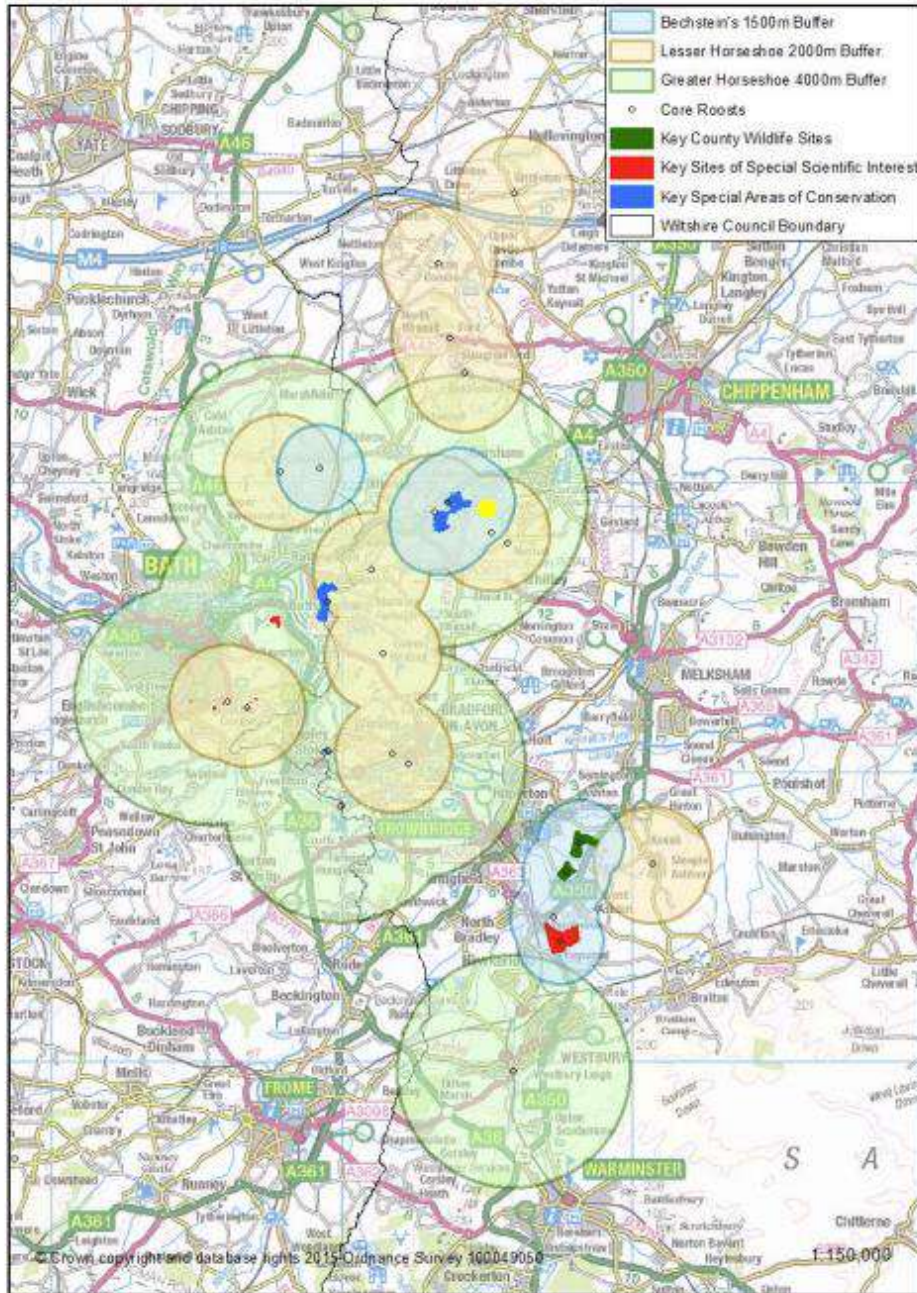


Figure 4.1 SAC Planning Guidance Map with indicative location of the site show with a yellow dot (Wiltshire Council and Natural England, 2015)

- 4.6. The current condition of the European site is 'favourable'. The disused stone mines are of key importance as a hibernation and swarming site for the above three bat species because of the combination of temperature and humidity conditions, suitable access, lack of pollution and infilling, and lack of disturbance. The SAC bat populations are also supported by habitats beyond the boundaries of the SAC. Such habitats include watercourses, tree lines, hedgerows and open farmland which provide foraging habitat, flight corridors and summer roosting



habitat. In addition, several maternity roosts for each of the special features have been identified between Trowbridge and Westbury. Lesser and greater horseshoe maternities and a pre-maternity have been found in buildings as far as south Westbury while nationally important maternity roosts for Bechstein's bats have been recorded using a group of woodlands around the SW perimeter of Trowbridge including Green Lane and Biss Woods and Pickett and Clanger Wood. Records of ringed bats show there is a connection between these summer / maternity roosts and the SAC.

- 4.7. No SSSIs beyond one forming a component of the European Site listed above (Box Mine SSI, also 0.9km northwest of the site) were identified within the 2 km ZOI. Given the same qualifying features between the SSSI and European designations, any potential impacts of the proposed development (and therefore suggested mitigation) on the internationally designated site will also be relevant to this SSSI.
- 4.8. Given that the site does not lie within the ZOI for any other European sites and none are present within 10km of the site, effects on European sites other than the Bath and Bradford-on-Avon Bat SAC have been scoped out of this assessment and are discussed no further within this report.

Threats

- 4.9. Site Improvement Plans (SIPs) and Standard Data Forms (SDFs) have been developed for each European designated site in England. SIPs and SDFs cross over and each provides a high level overview of the issues (both current and predicted) affecting the condition of the features on the whole site (in both England and Wales), and outlines the priority measures required to improve the condition of the features. They do not cover issues where remedial actions are already in place or ongoing management activities which are required for maintenance.
- 4.10. According to the SIP (Natural England, 2015), the prioritised issues that are currently impacting or threatening the condition of the features are:
- Planning Permission: general;
 - Change in land management;
 - Direct impact from third party;
 - Feature location/extent/condition unknown;
 - Offsite habitat availability/management;
 - Public Access/disturbance
 - Change to site conditions; and
 - Inappropriate designation boundary.
- 4.11. The SDF for the Bath and Bradford-on-Avon Bats SAC (JNCC, 2015) states that this site is vulnerable to:



- Other urbanisation, industrial and similar activities;
- Other ecosystem modifications;
- Unknown threat or pressure;
- Modification of cultivation practices; and
- Outdoor sports and leisure activities, recreational activities.

Conservation Objectives

- 4.12. Conservation objectives are set out by Natural England to help public bodies comply with the law and to protect European sites.
- 4.13. Conservation objectives for the Bath and Bradford-on-Avon Bats SAC '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;
 - 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.



Section 5: HRA Screening (Stage 1)

- 5.1. The aim of the HRA Screening is to establish whether construction or operation of a proposed development is likely to result in an LSE on European Sites.
- 5.2. In this stage, the following information is required:
- Estimation of the likely magnitude, duration, location and extent of effects of the changes on internationally designated sites, as far as can be reasonably predicted; and
 - Identification of whether any element of the development will have an LSE on any feature or interest, either alone or in combination with other projects / plans.

Site Context

- 5.3. The site comprises an area of previously developed land which has largely been left unmanaged between Corsham and Neston, Wiltshire. The main habitat within the site is tall ruderal, with some scattered scrub and hardstanding. The southern extent of the site comprises predominantly neutral grassland and dense scrub. Broadleaved semi-natural woodland, tree lines and scrub are present around the site perimeter, with a large woodland block to the west. A Habitat Features Plan is provided in the EclA (report reference **15116/R08b**) The site is currently vacant but there are Public Rights of Way (PRoW) through the site therefore it is accessed by the public including dog-walkers. **Figure 5.1** illustrates the location of the site in relation to the Bath and Bradford on Avon Bats SAC.

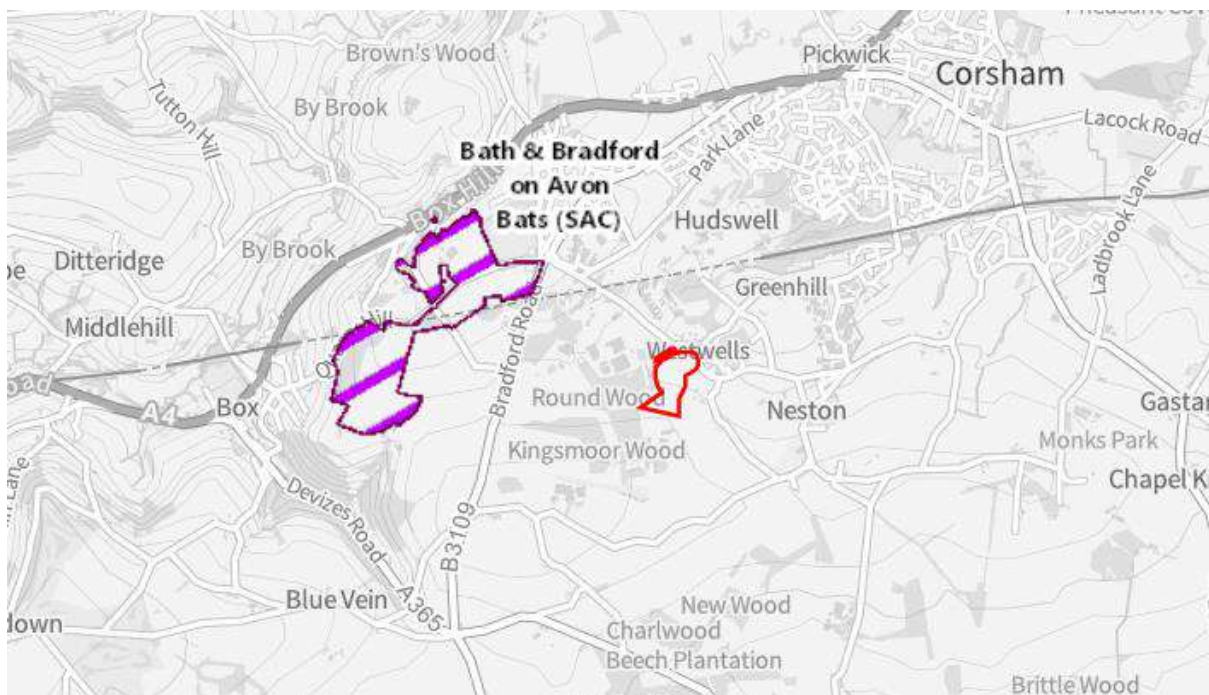


Figure 5.1: Site (indicated by redline) in relation to European Site (indicated by purple hatching)



Ecological Context

- 5.4. The habitat on site was deemed to be of moderate suitability for bats because the main area of the site comprises tall ruderal which has limited foraging opportunities for bats. Habitats of primary importance for Bechstein's bat include broadleaved woodland, particularly semi-natural ancient woodland. The habitats of primary importance to greater horseshoe bats include broadleaved woodland and cattle grazed pasture¹². For lesser horseshoe bats these habitats are also of primary importance, as well as wooded riparian corridors, mature tree lines, and hedgerows¹³. However, it is bordered by woodland which connects to the wider landscape which could be used for bats for commuting and foraging and is contextually well connected, and therefore functionally linked to the Bath and Bradford-on-Avon Bat SAC.
- 5.5. Habitat in the wider landscape which is even better connected and functionally linked in more rural areas around the SAC/SSSI may be more optimal for foraging and commuting than the site. This would explain the low to moderate levels of lesser horseshoe bats and relatively much lower levels of greater horseshoe bats irregularly recorded during the walked transect and static monitoring surveys using the woodland edges and lines of trees for commuting. However, it is acknowledged that the recorded bat activity levels may be underrepresented due to survey limitations.
- 5.6. Greater horseshoe bats were rarely recorded during the walked transect surveys and very low numbers of calls were recorded by static detector surveys (34 total calls, 0.6% of total calls during static detector survey period). The Greater Horseshoe Heatmap **Plan 15116/P05** in the EclA (report reference **15116/R08b**) shows where these were recorded around the edges of the site using the tree lines for commuting, Lesser horseshoe bats were recorded more often during the walked transect surveys mostly along the southern tree line boundary as shown in the Lesser Horseshoe Heatmap **Plan 15116/P04** in the EclA (report reference **15116/R08b**). These findings corroborate the Corsham Batscapes Strategy maps which shows the southern site boundary as a strategy flyway, as demonstrated in **Figure 5.2**. Low to moderate numbers of calls were recorded by static detector surveys (252 total calls, 4% of total calls during static detector survey period).
- 5.7. There are no confirmed roosts of Bat SAC species within the site but there is known to be both a greater horseshoe bat roost and lesser horseshoe bat roost in the woodland immediately adjacent to the west of the site in the slope shaft^{14 15}. Other roosts that are likely to be of significance to the population of the Bat SAC are less than 300m to the south and other records of the qualifying bat species of the SAC were returned within 5km of the site (from a data search from WSBRC). There will be no loss, damage or disturbance to any of these roosts or other roosts which may be in the vicinity of the site by the development proposals.

¹² Ransome (1996) The management of feeding areas for greater horseshoe bats. English Nature Research Report No. 174, p1-74.

¹³ BCT (2020) Core Sustainance Zones and habitats of importance for designing Biodiversity Net Gain for bats. Bat Conservation Trust, London.

¹⁴ Corsham Town Council (2019) Corsham BatScape Strategy.

¹⁵ Cotswold Wildlife Surveys (2018) Habitat and Protected Species Surveys of land off Westwells Road, Westwells, Corsham, Wiltshire.



Habitats which are used for commuting are likely to be associated with these roosts and this has been taken into consideration.

- 5.8.
- Fifteen trees were identified within the woodland on the edges of the site, both within and adjacent to the site, as having suitability to support roosting bats. Five of these trees were subject to further nocturnal surveys and no bats were observed emerging or re-entering any of the PRFs on the trees during these surveys or during endoscope inspections. This indicates that bats, including Bechstein’s bats, were not roosting in the trees during the surveys but there is still a potential roosting resource for them.
- 5.9.
- Part of the site is within a mapped Direct Migration Route to Drews Pond Wood in the Corsham Batscape Strategy, as demonstrated in **Figure 5.2**. Habitats on the Direct Migration Route plans have been identified as likely importance or value for bat populations associated with the SAC.

Phase 2 Batscape Maps - SW Section

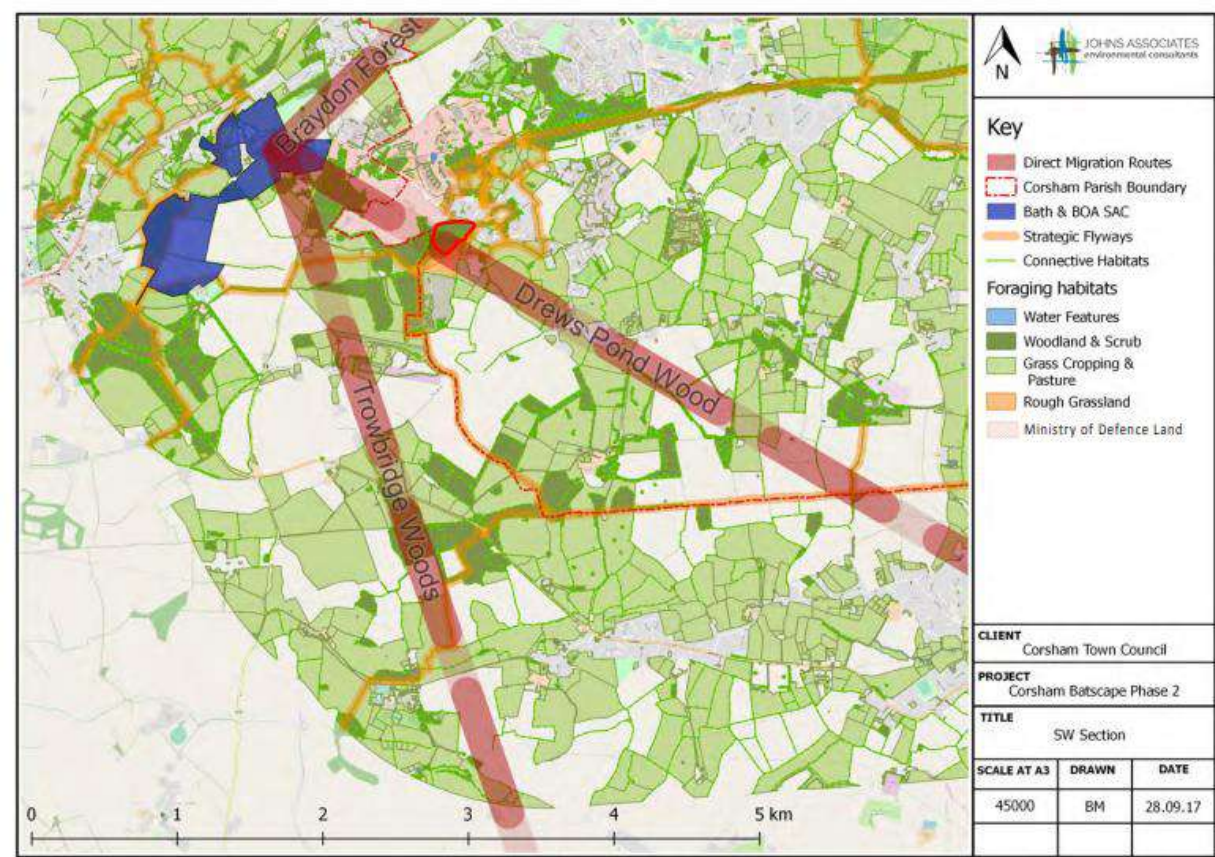


Figure 5.2 Corsham Batscape Strategy Map with portion of the site that falls within direct migration route outlined by a red line (Corsham Town Council, 2019)

Potential Impacts

- 5.10.
- Potential impact pathways in relation to the conservation objectives and the potential threats and pressures of the proposed development that could affect the Bath and Bradford-on-Avon Bats SAC include:

- Physical modification of bat roosts;
- Public access disturbance and damage;
- Loss of habitat connectivity; and
- Risk of collision and bat fatality.

Screening Assessment of Site Alone

5.11. The results of the full HRA screening for the Bath and Bradford-on-Avon Bats SAC is presented in the Screening Matrix in **Table 5.2**.

Table 5.2: Screening Matrix for Bath and Bradford-on-Avon Bats SAC

Pathways	Screening rationale for potential for effects on qualifying features	LSE
Physical modification of bat roosts	No greater or lesser horseshoe roosts and no Bechstein's roosts have been identified within the site and no such roosts will be destroyed as part of the project. Although there is a known roost within the slope shaft adjacent to the site (approximately 30m from the site boundary), this will not be impacted by the proposals.	No
Public access disturbance and damage	Public access is managed or not available to the complex of SSSIs that make up the Bath and Bradford-on-Avon Bats SAC. This is not a residential development therefore public use of the area is not expected to increase as a result of this development. Therefore, there is no such impact pathway associated with the proposed development.	No
Change of land use/loss of habitat connectivity	The site is located approximately 0.9km from the nearest component SSSI site, Brown's Folly SSSI, within the Bath and Bradford-on-Avon Bats SAC. There will be no land-take or resource requirements from within any part of the SAC, therefore there are not foreseeable direct impacts on the SAC as a result of the project. It is known that greater use the site at low frequency and lesser horseshoe bats use the site at low - moderate frequency and Bechstein's bat may also be present. The woodland on the edges of the site is used for commuting and is functionally linked to the SAC, specifically the Box Mine SSSI roosts. The southern boundary forms a strategic highway for these species (Drews Pond Wood Direct Migration route; Corsham Town Council, 2019). The site therefore currently provides habitat connectivity for the Bat SAC species in their CSZs.	Yes



Pathways	Screening rationale for potential for effects on qualifying features	LSE
	The proposals involve removal of all of the tall ruderal habitat in the middle of site which has not been demonstrated to support commuting of foraging habitat for the Bat SAC species. Although Drews Pond Wood Direct Migration route has been mapped through the middle of the site, this also runs through the nearby operational MOD base which is highly illuminated at night. The direct migration route mapping plots straight routes, and does assign any varying importance to the habitats within it based on the habitat preferences of the above species. <i>Myotis</i> sp. bats were recorded during 2022 static monitoring (forming 26% of the total calls. It was not possible to reliably identify these beyond genus level. However it is considered that Bechstein's are also unlikely to use the middle of the site and use the boundary woodland and tree line features instead due to their affinity for woodland habitats, relying on a continuous, closed canopy There is potential adverse effects from illumination associated with the proposed development of habitats used by bats around it. Lighting could deter bats from commuting across and adjacent to the site. Greater horseshoe bats, Bechstein's bats and lesser horseshoe bats are sensitive to even very low levels of light and will avoid commuting through lit areas¹⁶. External lighting that will be installed as part of the proposed development could spill on to retained tree lines and woodland and could result in bats using alternative commuting routes, where available. This could prevent access for horseshoe bats to feed and represent an increased energy burden on the bats. Noise such as plant/vehicle movements during construction and plant associated with the data center during operation close to the boundary features could also cause bats to abandon these as flight lines. If not designed appropriately, removal of woodland trees to widen the access track into the site could cause bats to abandon the flight line along the northern boundary of the site.	

¹⁶ Wiltshire Council and Natural England (2015). Bat Special Areas of Conservation (SAC) Planning Guidance for Wiltshire.



Pathways	Screening rationale for potential for effects on qualifying features	LSE
	The site is considered sub-optimal for greater and lesser horseshoe bats and Bechstein's, which are more reliant on cattle pastures / meadows, extensive woodland / scrub, and dense continuous broadleaved woodland. The change of land use of the site may alter commuting routes of horseshoe bats locally and may result in the loss of foraging habitat in the surrounding area, which is formed of mainly arable land and grazed grassland with associated hedgerows, and continuous woodland blocks. Greater horseshoe bats use natural linear landscape features such as tree lines and edges for commuting¹⁷. Lesser horseshoe bats commute along similar habitat as well as rivers and ravines.	
Risk of collision and bat fatality	There is a low risk of bat fatality from road collisions. Traffic speeds within the site during construction and operation at night will be low enough for bats to take avoiding action.	No

- 5.13. There is potential for an LSE on the Bath and Bradford-on-Avon Bats SAC due to potential loss of habitat connectivity and change of land use from the proposed development. This is with respect to bat species which are primary reasons and a qualifying feature of the site, as they are all evidenced to use the site which is functionally linked to the SAC.
- 5.14. The effects of loss of habitat connectivity due to habitat removal, lighting and noise arising from development in the Bat SAC Consultation Zone could lead to adverse effects on maternity and hibernation roosts, other roosts and habitat that bats rely on for foraging and commuting outside the SAC boundary. This could disrupt the factors that help to maintain the favourable condition of the SAC and interfere with the balance, distribution and density of key species that are the indicators of favourable condition of the site. It could change the dynamics of the relationships that define the structure and/or function of the site and result in fragmentation if habitats between maternity and hibernation roosting areas becomes less

¹⁷ Kyheröinen, E.M., S. Aulagnier, J. Dekker, M.-J. Dubourg-Savage, B. Ferrer, S. Gazaryan, P. Georgiakakis, D. Hamidovic, C. Harbusch, K. Haysom, H. Jahelková, T. Kervyn, M. Koch, M. Lundy, F. Marnell, A. Mitchell-Jones, J. Pir, D. Russo, H. Schofield, P.O. Syvertsen, A. Tsoar (2019): Guidance on the conservation and management of critical feeding areas and commuting routes for bats. EUROBATS Publication Series No. 9. UNEP/EUROBATS Secretariat, Bonn, Germany, 109 pp.



favourable for bats. This could also reduce the area of key habitats, reduce populations of and balance between key species and reduce diversity of the SAC.

- 5.15. Measures to avoid and mitigate these potential impacts are set out in the Appropriate Assessment Section.

In-combination Assessment

- 5.16. A search of nearby projects in relation to Bath and Bradford-on-Avon Bats SAC is included in Table 5.3 below.

Table 5.2: Nearby projects

Statutory Body	Development – Planning Status	Outline	In- combination Assessment
North Somerset District Council	Portishead Branch Line - MetroWest Phase 1	Proposed scheme to rebuild a section of disused railway line between Portishead and Pill, plus associated development (stations, car parks etc.) to allow reintroduction of passenger services along the Portishead Branch. The HRA assessed potential for LSE on Bath and Bradford-on-Avon Bats SAC and Mells Valley SAC. No LSE alone or in-combination was concluded	No LSE in-combination
National Grid Electricity Transmission plc	Hinkley Point C Connection project – Approved	The Scheme is a Nationally Significant Infrastructure Project involving the connection of a new nuclear Power Station at Hinkley Point, Somerset (Hinkley Point C power station) to the high voltage electricity transmission system. The HRA assessed the potential for LSE on both Bath and Bradford-on-Avon Bats SAC and Mells Valley SAC. Both were screened in for appropriate assessment due to potential impacts to greater horseshoe bats but no LSE alone or in combination was concluded	No LSE in-combination
Wiltshire County Council	Planning application 19/11352/FUL Spring	The erection of two data centres, a standby	No LSE in-combination



Statutory Body	Development – Planning Status	Outline	In- combination Assessment
	Park Westwells Road - Approved	generation plant area, highway works, vehicle access, infrastructure, plant, enclosures, landscaping and other associated works An Ecological Impact Assessment concluded no adverse impacts to bats as a result of the Demolition of existing building and erection of a new data centre, plant, highways works, vehicle access, infrastructure, enclosures, landscaping and other associated works. An Ecological Impact Assessment concluded no adverse impacts to bats as a result of the Scheme.	
Wiltshire County Council	Planning application 19/07824/WCM Land to the north of the Rudloe Water Treatment Works - Approved with conditions	The proposed development is for the construction of a new inclined mine entrance from the surface into the existing permitted mine workings, and the construction of ancillary surface facilities including new cutting shed/workshop, block storage area, alterations to existing vehicular access and landscaping. The HRA assessed the potential for LSE on Bath and Bradford-on-Avon Bats SAC and concluded no significant adverse residual effects on bats, alone or in combination.	No LSE in-combination
Wiltshire Council	Planning application 19/05832/FUL Leafy Lane Woodland - Approved with conditions	Proposed use of land as natural burial site; associated access track and landscaping. A small number of trees are proposed to be removed as part of the Scheme. The county ecologist has requested a HRA screening due to the proximity to Bath and Bradford-on-Avon Bats SAC	No LSE in-combination



Statutory Body	Development – Planning Status	Outline	In- combination Assessment
Wiltshire Council	Planning application 18/09884/OUT Land South of Westwells road, between Rowan Lane & Jaggards Lane.- Approved with conditions following appeal	Residential development for up to 81 dwellings, roads, footpaths, balancing areas and open space. A revised layout was submitted. An HRA has been completed which concluded that there were no LSE on the Bath and Bradford-on-Avon Bats SAC either alone or in combination.	Potential for LSE in-combination
Wiltshire Council	Planning application 17/12270/REM Land off Bradford Road. - Approved with conditions, still in construction	Housing development of up to 88 dwellings, currently in construction and is approximately 0.5km north of the site. No HRA was conducted due to the application being before the People Over Wind case. This application is separated from the proposals by extensive existing development.	No LSE in-combination
Wiltshire Council	Planning application 19/11784/OUT Little Orchard, Bulls Lane, Box - Approved with conditions	Erection of two dwellings and garaging with parking and alterations to existing house to facilitate creation of drive way. The proposal is approximately 400m Box Mines SSSI which is a component of Bath and Bradford-on-Avon SAC. Bats were not found to be roosting in any buildings proposed for demolition but have been confirmed as roosting elsewhere on the site in structures not directly affected by the proposals. Minimal habitat loss is anticipated. No significant impacts concluded.	No LSE in-combination
Wiltshire Council	Planning application 14/11354/OUT. Former MOD Rudloe No. 2 Westwells Road Hawthorn - Approved with Conditions in 2016	Application for up to 180 Dwellings and Economic development, demolition existing buildings and structures, Car parking, open space, associated infrastructure and access. Surveys revealed the presence of small roosts of lesser and	Potential for LSE in-combination



Statutory Body	Development – Planning Status	Outline	In- combination Assessment
		greater horseshoe bats and various flight routes and foraging areas throughout the site by all three designated species. A HRA was conducted which concluded no LSE on the Bath and Bradford-on-Avon Bats SAC alone or in combination. However, due to the proximity of this development to the Proposed Scheme (and the Bath and Bradford-on-Avon Bats SAC) there is potential for LSE in combination.	
Wiltshire Council	Planning application W/13/00643/FUL. Land South West Of Kingston Farm Buildings - Approved with Conditions	Mixed Use development comprising 138 dwellings, new employment space, on site public open space, community allotments, offsite highway and drainage works and a strategic landscaping scheme. A HRA assessment concluded no significant adverse effects on the integrity of the Bath and Bradford-on-Avon Bats SAC alone or in combination	No LSE in-combination
Wiltshire Council	Planning application 13/05188/OUT & 16/04544/REM Land North of Bath Road. - Appeal approved with conditions in 2015.	Outline planning application for erection of up to 150 dwellings, up to 1,394sqm B1 offices, access, parking, public open space with play facilities and landscaping. A HRA concluded no significant adverse effects on the integrity of the Bath and Bradford-on-Avon Bats SAC alone or in combination.	No LSE in-combination
Wiltshire Council	Planning application 15/00712/WCM Bradford Road - Approved with conditions in 2016	Construction of an inclined mine entrance from the surface into existing permitted mine workings construction of ancillary surface facilities including access onto highway offices car park workshop covered storage open storage landscaping and restoration. A HRA concluded no significant adverse effects on the integrity of	No LSE in-combination



Statutory Body	Development – Planning Status	Outline	In- combination Assessment
		the Bath and Bradford-on-Avon Bats SAC alone or in combination	

- 5.17. As identified above in **Table 5.2** two sites have potential to cause a Likely Significant Effect in combination with the proposals. The two sites are 'Land South of Westwells road, between Rowan Lane & Jaggards Lane' and 'Former MOD Rudloe No. 2 Westwells Road Hawthorn'. The two site have been considered in more detail below with regards to the mitigation measures proposed on these sites and those at Spring Park Data Centre.

Land South of Westwells road, between Rowan Lane & Jaggards Lane

- 5.18. Land South of Westwells Road (Planning application 18/09884/OUT) located approximately 530m south of the site is for the construction of 81 dwellings. The site was identified as being extremely likely to provide important commuting/foraging habitat for bats for which the Bath and Bradford-on-Avon Bats SAC is designated for. A slope shaft is located adjacent to the site which is a roost for lesser and greater horseshoe bats.
- 5.19. It is expected that with the proposed mitigation and enhancement measures of the two schemes it is unlikely that the bats or any foraging and commuting routes for which the Bath and Bradford-on-Avon Bats SAC is designated for will be impacted by the proposals.

Former MOD Rudloe No. 2 Westwells Road Hawthorn

- 5.20. Former MOD Rudloe No 2 site (Planning application 14/11354/OUT) is an outline and reserved matter application for demolition of existing buildings/structures, construction of 180 dwellings, economic development and associated infrastructure. The site includes former MOD buildings, amenity grassland and small blocks of woodland and trees. The site is located 450m north of the Proposed Scheme and is also on the Drews Pond migration route 43 and is adjacent to the Box Mines SSSI (the closest part of the Bath and Bradford on Avon SAC). It includes confirmed roosts for both greater and lesser horseshoe bat; areas of suitable foraging habitat for lesser horseshoe and Bechstein's bat and commuting by all three species and so will be important commuting/foraging habitat for the designated features of the Bath and Bradford-on-Avon Bats SAC.
- 5.21. The proposals include the provision of two bat barns, maintaining a woodland corridor, additional planting, and a lighting plan to avoid disturbance to foraging and commuting habitat.
- 5.22. The Rudloe No 2 proposal is likely to impact the same flight lines as the Proposed Scheme as they are along the same migration route and less than 500 m apart although It is expected that with the proposed mitigation and enhancement measures of the two schemes it is unlikely that the bats or any foraging and commuting routes for which the Bath and Bradford-on-Avon Bats SAC is designated for will be impacted by the proposals.



Conclusion of In-combination Assessment

- 5.23. Based on the findings above and the mitigation measures of the sites, the Proposed Scheme will not result in any in combination LSE.



Section 6: Appropriate Assessment (Stage 2)

Approach to Appropriate Assessment

- 6.1. Where significant effects are likely, or it is uncertain if there would be significant effects, an Appropriate Assessment is required.
- 6.2. For an AA, the implication of the plan/project on each affected site must be assessed in light of its conservation objectives. The development of conservation objectives is required by the 1992 Habitats' Directive (92/43/EEC); an objective of this legislation is to achieve 'favourable conservation status' (see **Figure 6.1**) of the habitats and / or species features for which the site is designated.

Conservation status for habitats is defined in Article 1(e) as:

"[The] conservation status of natural habitats [is] the sum of influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species... The conservation status of natural habitats will be taken as 'favourable' when:

- *its natural range and areas it covers within that range are stable or increasing; and*
- *the species structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and*
- *the conservation status of its typical species is favourable."*

Conservation status for species is defined in Article 1(i) as:

"[The] conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within [its] territory... The conservation status of species will be taken as 'favourable' when:

- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and*
- *the natural range of the species is neither being reduced for the foreseeable future; and*
- *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis."*

Figure 6.1: Favourable conservation status

Impact Assessment

- 6.3. Following the screening described in **Section 3**, the need for an AA has been identified for Bath and Bradford-on-Avon Bats SAC. In this section, an assessment of the implications for this site in view of the surrounding site's conservation objectives is made, in terms of the magnitude, duration, location and extent of effects.



Mitigation Measures

- 6.4. The 'Information to Inform an AA' section also looks at potential mitigation measures which would be required to determine if the magnitude, duration, location and extent of likely significant effects can be reduced/removed. These mitigation measures would form part of the planning consent, including related planning conditions, for the proposed development, if approved. Mitigation measures can include both avoidance measures and reduction measures, but the former approach is preferred. Mitigation measures for each qualifying feature of the SPA/Ramsar/SAC are considered separately, below.

In-Combination Impacts

- 6.5. In-combination assessment of impacts should also be made in light of the development and other relevant plans / projects.

Integrity Test

- 6.6. The integrity test requires the competent authority to ascertain if the development (alone and in combination with other plans / projects) will not have a significant adverse effect on a site's integrity, which is defined as:

"the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the level of populations for the species for which it was classified".

Monitoring

- 6.7. Details of required monitoring are described, either for the purposes of validating the findings of the AA, or as an early warning which would enable any actions resulting in an unexpected adverse impact to be stopped, paused, reduced, altered or removed.

Information to Inform an Appropriate Assessment

- 6.8. As laid out in the scoping section, the proposed development was identified as having potentially significant effects on European site(s) alone during operation and in-combination during operation (Table 5.2).
- 6.9. Information to inform an Appropriate Assessment for each of these sites is given below. This information includes an impact assessment comprising descriptions of the qualifying features of the designated sites and their conservation objectives, as well as in-combination mitigation measures.

Impact Assessment

- 6.10. As detailed in the screening section of this report, the proposed development has been screened in for an Appropriate Assessment based on an LSE regarding loss of habitat connectivity and therefore impacts on bat foraging of qualifying species of the Bath and Bradford-on-Avon Bats SAC in the absence of mitigation. Therefore, an assessment of



whether there would be an adverse effect on the integrity of the SAC and the consideration of measures to address and negate the effects of specific impact pathways, changes to habitats, artificial lighting and noise have been set out below.

- 6.11. Without the proposed mitigation, it is possible that removal of habitats within the site, the potential for illumination of habitats used by bats around the proposed development and the potential for noise impacts on habitats used by bats around the proposed development could have an impact on the integrity of the Bath and Bradford-on-Avon Bats SAC in the short-term and long-term during construction and operation.

Mitigation Measures

Habitat

- 6.12. The Soft Landscape Proposal plans in **Appendix 1** (edp7897_d021-E-Detailed Soft Landscape Plan)) should be cross-referenced with this section.
- 6.13. The woodlands and tree lines are proposed to be retained as part of the proposed development. Although a few individual trees will be removed from the woodland on the northern boundary of the site for an access road, the large retained existing tree canopies on either side of the woodland will be managed to provide a "hop-over" crossing point for bats. This will ensure the east-west connectivity feature along the northern boundary of the site is retained, with minimal light levels as detailed below.
- 6.14. Moreover, the existing woodland and tree lines that will be retained will be protected through implementation of a Construction and Environment Management Plan (CEMP), expected to be secured by a planning condition. They will also be enhanced, as described below, as part of the proposed development and managed through implementation of a Landscape and Ecology Management Plan (LEMP), also expected to be secured by a planning condition.
- 6.15. Proposed new woodland and tree planting within the site will provide opportunities for foraging bats in sheltered areas. Sustainable drainage system (SuDS) creation and species-rich grassland incorporated with areas of shrub to create ecotones would be beneficial for invertebrates and therefore improve foraging for bats in this area. Strategic planting along the existing commuting features would also enhance these for commuting bats.
- 6.16. In the east of the site, wetland SuDS features consisting of two attenuation ponds designed using ecological principles , along with ecotones which will be created in the surrounding species-rich grassland and areas of native shrub planting will collectively increase insect prey abundance. The ponds will retain water all year round and will support a mosaic of wetland habitats with damp to dry habitats at the margins. Greater horseshoe bats and lesser horseshoe bats are known to forage over ponds as well as over neutral grassland which is being created in this area of the site. The retained tree lines and extra tree planting will link these habitats to the boundaries of the proposed development to allow these species to exploit these new foraging opportunities.
- 6.17. Moreover, habitat creation in land at the southern extent of the site to contribute to delivering biodiversity net gain will also be beneficial for foraging bats. This includes tree planting which



provide sheltered foraging areas, creation of a wildlife pond which will increase levels of invertebrate prey and hedgerow planting, which will also increase connectivity for commuting.

- 6.18. A Landscape Ecological Management Plan (LEMP) will set out long-term management of landscape and habitats that will be created as part of the development set out in the Soft Landscape Proposals in **Appendix 1**. Management of the habitats that are integral to maintaining functionality of bat light lines and feeding areas outlined in this Appropriate Assessment will be undertaken in perpetuity. The LEMP will include details of work to monitor the use of the green infrastructure by horseshoe bats.

Lighting

- 6.19. During occupation of the proposed development, it is expected that lesser horseshoe bats, greater horseshoe bats and Bechstein's will avoid the built-up areas due to their light-sensitivity and will instead use the areas of green infrastructure around the edges of the site as described in the previous section.
- 6.20. A Lighting Strategy (JCA, May 2023), included in Appendix 2, which includes the lighting design with a lighting contour plan (drawing no. 9123-JCA-ST-XX-D-E-63001 in Appendix A of that report), has been produced to retain ecological functionality of these features for bats during the ongoing operation of the Site. The design objectives within the lighting plan include consideration of appropriate mitigation for bats for any road lighting that could intrude on bat commuting and foraging in accordance with best practice guidance (ILP and BCT, 2018) and the Corsham Batscape Strategy (Corsham Town Council, 2019).
- 6.21. The Lighting Strategy has achieved a no net increase in light levels across the features used by bats along all of the boundaries of the site using following design principles:
- Only provide light when and when it is needed for security and maintenance purposes;
 - Keep the number and wattage of light sources to a minimum;
 - Keep the height of light sources to a minimum;
 - Avoid direct upward light above the horizontal to maintain a 'dark sky';
 - Avoid lighting at the proposed site access road from Rowan Lane at bat "hop-over" and at Rowan Lane itself to the north of the site;
 - Wall mounted luminaires which shall be dimmed by 50% output to 1000 lumen;
 - Dusk to dawn photocell sensor to control external lighting during hours of darkness
 - Facility to operate dimmer switches to allow security staff to raise or lower associated external lighting to suit operational requirements;
 - When dusk to dawn sensor activates to turn off lighting, the external lighting levels will reset and when called for will return at 50% output;



- External staircases and roof lighting will only initial when maintenance lighting switches are operated. Should luminaires be inadvertently left on they will automatically switch off when the dusk to dawn sensor activates;
- Maintain 'dark corridors' and minimise light trespass at environmentally sensitive locations including the adjacent woodland and tree lines and areas of proposed grassland and SuDs creation; and
- Follow ILP guidance.

- 6.22. The Lighting Strategy design contour plan shows that this will create "dark corridors" around all of the boundaries of the site of 0 lux. There will be no artificial lighting in the area at south of the site which has been allocated to contribute to biodiversity net gain, therefore this will remain at the dark baseline levels and has not been included in the Lighting Strategy.
- 6.23. A lighting strategy will be embedded into a CEMP to ensure these dark corridors are retained during construction. The CEMP should also ensure that vehicle use and machinery on Site during construction should avoid night-time hours and provision of temporary site lighting during construction would be localised only (JCA, 2023). This would avoid potential temporary loss of commuting routes and these areas will remain accessible to light sensitive bat species.
- 6.24. Although Drews Pond Wood Direct Migration route has been mapped through the middle of the site, this also runs through the nearby operational MOD base which is highly illuminated at night. The direct migration route mapping plots straight routes, and does assign any varying importance to the habitats within it based on the habitat preferences of the above species.
- 6.25. *Myotis sp.* bats were recorded during 2022 static monitoring (forming 26% of the total calls. It was not possible to reliably identify these beyond genus level. However it is considered that Bechstein's are unlikely to use the middle of the site and use the boundary woodland and tree line features instead due to their affinity for woodland habitats, relying on a continuous, closed canopy

Noise

- 6.26. Bats rely on high-frequency echolocation calls to perceive their environment, but also detect other environmental sounds at lower frequencies¹⁸. However, low-pitched noises, audible to humans but not to bats are unlikely to cause significant disturbance whereas ultrasound could¹⁹. The data centre will emit noise during operation. This is likely to be continuous with the exception of rare emergency alarms. Sudden loud noise can disturb bats and cause abandonment of roosts. Noise from vehicles during operation is expected to be minimal due to slow speeds and not considered to be an impact to bats.

¹⁸ Ella Z. Lattenkamp et al. Hearing sensitivity and amplitude coding in bats are differentially shaped by echolocation calls and social calls, *Proceedings of the Royal Society B: Biological Sciences* (2021). DOI: 10.1098/rspb.2020.2600

¹⁹ Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. CIEEM, Ampfield.



- 6.27. Mitigation for the noise impacts will involve reducing the noise at the source through the installation of acoustic attenuators for plant, and the installation of sound enclosures for external plant to reduce their dB output. These mitigation measures are accounted for within the modelling data in the supporting acoustic impact assessment.
- 6.28. An acoustic impact assessment (**65204515-007-SWE-ZZ-XX-T-U-0001-P6-C01**) was carried out to model the potential increase in noise levels. The assessment used 5 receptor locations (**visible in Figure 6.2, below**) across the site, and a “worst-case” scenario in terms of expected noise outputs, to assess if there was an increase in noise levels at the 8kHz frequency at these receptors.
- 6.29. Due to modelling limitations, frequencies above 8kHz are unable to be assessed. This was not considered to pose a significant constraint as lower frequencies attenuate less readily than higher frequencies, therefore in mitigating for frequencies at 8kHz, higher frequencies will also be attenuated, likely with greater efficacy.
- 6.30. The assessment concluded that at all but one sampling location, there will be no increase in noise at the assessed frequency at day or night time, and therefore there will be no noise impact on bats as a result of the operation of the site at these locations.
- 6.31. A single sampling location adjacent to an area of woodland (referred to as **BAT3 in 65204515-007-SWE-ZZ-XX-T-U-0001-P6-C01, visible below in Figure 6.2**) indicated a potential increase of high frequency noise levels during the quietest parts of day time only.
- 6.32. The minimum baseline dB value recorded at BAT3 measured 16 dB at 8kHz i.e. at the quietest part of the day, the dB value measures 16. In the site’s operational phase there is a potential increase to the minimum dB value of +3 dB from 16 dB to 19 dB at 8kHz.
- 6.33. However, in this location the existing average baseline noise levels are 54dB, which is already in excess of the level at which there is potential deleterious effects on roosting bats (50 dB)¹⁴.



Figure 6.2: Receptor locations shown in yellow.

- 6.34. Additionally, the dB value recorded 90% of the time in this area measures 39 dB at 8kHz, which is in excess of the potential increase to the minimum dB value.



- 6.35. It is therefore considered that this area is suboptimal for roosting bats. The potential increase of +3 dB at the quietest point in the day is considered to be "marginal" when compared with existing baseline dB values.
- 6.36. Additionally, roosting bats were considered likely absent based on nocturnal surveys carried out on mature trees in 2023. It is considered that the baseline ambient high frequency noise could be a contributory factor to the lack of roosts in the woodland areas
- 6.37. As there will be no increase to high frequency noise at this location at night, no impacts to commuting and foraging bats are likely either.
- 6.38. Noise mitigation measures will be embedded into a CEMP to avoid noise impacts to bats during construction, including ensuring vehicle use and machinery on Site during construction avoids night-time hours. This would avoid potential temporary loss of commuting routes.

Integrity Test

- 6.39. It is anticipated that implementation of the above mitigation measures during operation allows the competent authority to conclude that there will be no Likely Significant Effects arising from the proposed development, on the Conservation Objectives or the qualifying features of the designated sites.
- 6.40. The information provided in this report should provide Wiltshire Council, the competent authority, sufficient information to fulfil their duties under the Conservation of Habitats and Species Regulations.



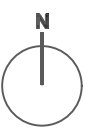
Section 7: Conclusions

- 7.1. The site lies within the Zol of Bath and Bradford-on-Avon Bats SAC, which was screened in for potential LSEs.
- 7.2. Mitigation measures are proposed in the form of soft landscaping proposals, a lighting strategy, and acoustic impact mitigation to mitigate against impacts to the qualifying bat species of the SA, and will be controlled in perpetuity.
- 7.3. It is anticipated that implementation of the above mitigation measures allows the Competent Authority to conclude that there will be no Likely Significant Effects arising from the proposed development, on the Conservation Objectives or the qualifying features of the Bath and Bradford-on-Avon Bats SAC.



Appendix 1: Soft Landscape Plan





- Site Boundary
- Land under the Control of the Applicant

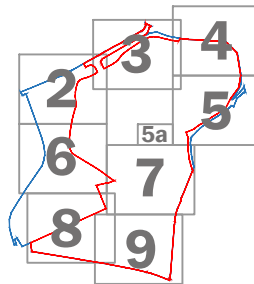


A risk assessment has been carried out on this design. Residual risks following this process are listed below. A copy of the full Design Risk Register is also available on request from EDP.

- Soft landscaping implementation within a construction environment (across the site);
- Installing trees (across the site);
- Water bodies (attenuation basins and pond);
- Working within close proximity of underground services (across the site);
- Works adjacent to existing highways (across the site);
- Works near to existing PtoWs (across the site);
- Construction of gravel and hoggan paths (across the site).

For further guidance, refer to HSE Construction (Design and Management) Regulations 2015.

overview



This drawing is to be read in conjunction with all other drawings and specifications within the package. These drawings have been prepared for design development and costing purposes only. All dimensions in millimeters unless otherwise specified. Do not scale off this drawing, written dimensions to be taken only. All base plans used are provided by the client and architect, except where otherwise expressly agreed in writing. EDP shall have no responsibility or liability for any loss direct or consequential. This drawing must not be copied in whole or part without prior written consent from EDP.

purpose of issue	PLANNING		
e	Updated to latest building layout	29-04-2024	NWa
d	Replacement trees, additional tree planting to south & revised red line	29-04-2024	NWa
-	Original	05-05-2023	sRP
rev	description	date	by

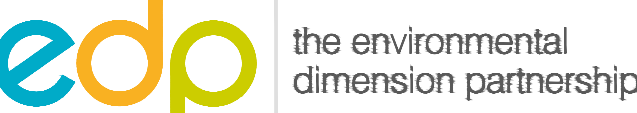
client
Ark Data Centres

project title **Proposed Extension of Spring Park Data Centre Campus - Land South of Westwells Road, Neston, Corsham**

drawing title
Detailed Soft Landscape Plan

date	29 APRIL 2024	drawn by	sRP
drawing number	edp7897_d021e	checked	CMY
scale	1:1000 @ A1	QA	RBa

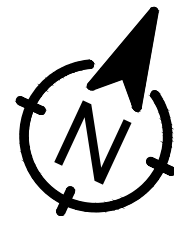
Sheet 1 of 10



Registered office: 01285 740427 - www.edp-uk.co.uk - info@edp-uk.co.uk

Appendix 2: Lighting Strategy

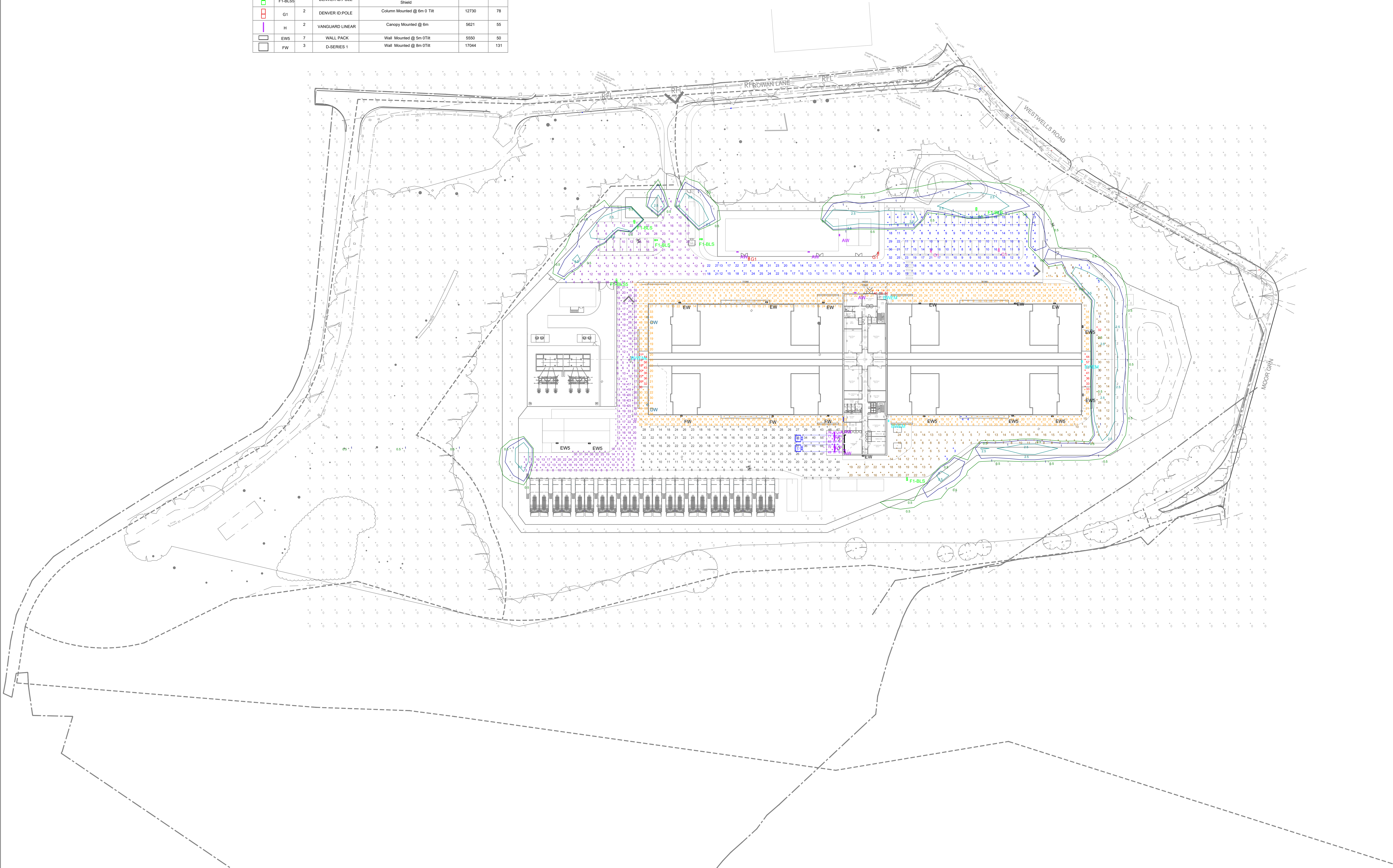




NOTES:
FOR BUILDING LAYOUTS AND DESCRIPTION REFER
TO ARCHITECTURAL DRAWING 22077-PL1101.

Schedule of luminaires					
Symbol	Label	Quantity	LUMINAIRE REF	Description	Lumens Per Lamp Wattage
	AW	6	DENVER ID-WALL	Wall Mounted @3.5m	1442 10.3
	BWEM	4	DENVER ID-WALL EM	Wall Mounted @ 3.5m Maintained emergency	2355 18
	C1	2	DENVER ID-POLE	Column Mounted @ 6m OTIR	6521 45
	DW	2	DENVER ID-POLE	Wall Mounted @ 6m OTIR	13990 87
	EW	7	WALL PACK	Wall Mounted @ 6m OTIR	5550 50
	F1-BLS	5	DENVER ID-POLE	Column Mounted @ 6m 0 TIR, With Back Shield	4941 38
	F1-BLS5	1	DENVER ID-POLE	Column Mounted @ 5m 0 TIR, With Back Shield	4941 38
	G1	2	DENVER ID-POLE	Column Mounted @ 6m 0 TIR	12730 78
	H	2	VANGUARD LINEAR	Canopy Mounted @ 6m	5621 55
	EWS	7	WALL PACK	Wall Mounted @ 5m OTIR	5550 50
	FW	3	D-SERIES 1	Wall Mounted @ 6m OTIR	17044 131

Statistics					
Description	Symbol	Avg	Max	Min	Min/Avg
Car Park	+	13 lux	38 lux	3 lux	0.23
Entrance East	+	42 lux	17 lux	33 lux	0.79
Entrance West	+	41 lux	56 lux	32 lux	0.78
Horizontal Cafe	+	0 lux	3 lux	0 lux	N/A
Loading Bay	+	75 lux	97 lux	49 lux	0.84
Main Entrance	+	50 lux	58 lux	41 lux	0.82
Pavement	+	20 lux	59 lux	4 lux	0.20
Service Road	+	12 lux	32 lux	3 lux	0.25
Service Road Street	+	14 lux	38 lux	3 lux	0.21
Service Yard Street	+	20 lux	65 lux	5 lux	0.30
Access Road	+	13 lux	38 lux	3 lux	0.08



P02	STAGE 2 ISSUE FOR PLANNING					
	LC	24/05/23	LC	25/05/23	LC	25/05/23
P01	STAGE 2 ISSUE FOR PLANNING					
	LC	03.05.23	LC	05.05.23	LC	05.05.23
Rev	Drawn By	Date	Chkd By	Date	Apprvd By	Date
Revisions						

Revisions					
Approval Status:					
A - Approved					
B - Approved with Comments					
C - Do Not Use					

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Engineering Projects Service & Maintenance
Interior Fit Out Design & Consultancy

Client

ARK
DATA CENTRES

Project
SPRING PARK EXPANSION
CORSHAM

Drawing Title
SITE PLAN
EXTERNAL LIGHTING LAYOUT

Status: S5 - SUITABLE FOR CLIENT APPROVAL					
Scale	1:500	@AO	Proj.No.	OPP09123	
Drawing No.	9123-JCA-ST-XX-D-E-63001				Revision
					P02

An abstract collage on a dark blue background. A large yellow hexagon is the central focus. Surrounding it are various geometric shapes: a light blue pentagon, a purple arrow pointing down, a purple asterisk, a black hand icon, a black leaf, a black triangle, a black circle with white segments, a black triangle with white dots, and a light blue triangle. The text "Step into our world" is written in a black, sans-serif font across the yellow hexagon.

Step into our world

www.tylergrange.co.uk



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