

Construction Environmental Management Plan



**Tyler
Grange**

**Spring Park Data Centre,
Corsham
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Section 1: Introduction

- 1.1. This Construction Environmental Management Plan - Biodiversity (CEMP-B) has been prepared by Tyler Grange Group Ltd on behalf of Ark Estates 4 Ltd in respect of the land to the south of Spring Park Data Centre, Corsham, hereafter referred to as 'the site'. The site is centred on National Grid Reference ST 85270 68754.
- 1.2. A full planning application for the 'Redevelopment of site to deliver extension to existing Spring Park data centre campus consisting of (a) free standing data centre building (b) energy, power, and water infrastructure (c) site access and internal roads (d) site security arrangements (e) diverted Public Rights of Ways (f) hard and soft, green and blue, landscaping and (g) other ancillary and auxiliary forms of development' was submitted to Wiltshire Council in June 2024 (planning reference: PL/2024/05527). The application is currently awaiting a decision however it is anticipated to be subject to a number of conditions, including the requirement for a CEMP.
- 1.3. To inform the planning application, ecological and arboricultural surveys and reporting was undertaken between 2016 – 2023. The most recent reports which have been used to inform this CEMP-B include:
 - Ecological Assessment (2024) (Tyler Grange)¹ - provides details of the ecological features within the zone of influence including the results of a field survey, describes the actual or potentially significant ecological effects as a result of the proposed development and describes mitigation and enhancements proposals, together with planning controls to ensure conformity with legislation and planning policy;
 - Shadow Habitats Regulations Assessment (sHRA) (2024) (Tyler Grange)² - provides an assessment on 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 Special Area of Conservation (SAC);
 - Arboricultural Impact Assessment (2023) (EDP)³ - provides an assessment of the existing trees in terms of health, condition, form and overall significance within the local environment and assess the degree of constraints they represent; and
 - Lighting Strategy (2023) (JCA)⁴ -provides details on the sensitive lighting strategy across the site, particularly in relation to bats.

¹ Tyler Grange (2024) Ecological Impact Assessment. P6 Spring Park Data Centre. Reference: 15116_R08b

² Tyler Grange (2024) Shadow Habitats Regulations Assessment. P6 Spring Park Data Centre. Reference: 15116_R011

³ EDP (2023) Arboricultural Impact Assessment. P6 Spring Park Data Centre. Reference: edp7897_r008-B-Arboricultural Impact Assessment

⁴ JCA (October 2025) External Lighting Report. Reference: 9123.0800.000.010.JCARD0C.001.R07



- 1.4. The ecological surveys identified a low number of slow worm on site and five trees within and surrounding the site has having moderate or high potential to support roosting bats. Further surveys of these trees did not identify any bats roosting within these trees. The woodland was also assessed as having suitability for hazel dormouse, however surveys concluded this species is likely absent.

Purpose

- 1.5. This CEMP-B has been prepared to expand upon the ecological protection measures outlined within the ecology reports submitted to inform the planning application including:
- Ensure adequate protection, mitigation, and compensation for protected and priority species and habitats;
 - Ensure mitigation and compensation works are carried out and completed as approved and in line with current best practice guidelines; and
 - Ensure adequate professional ecological expertise is available to assist those implementing the development to comply with statutory requirements and planning conditions.
- 1.6. The CEMP-B implementation period would commence prior to the demolition phase and would continue through to completion of all construction works.
- 1.7. This CEMP-B sets out the strategy to ensure the protection of habitats and species on the site during construction. The measures set out within this CEMP-B expand on the commitments made within the ecological and arboricultural reports. This CEMP-B is set out as follows:
- **Section 2** describes the site context, habitats present, and the protected species recorded and likely to be affected by construction at the site; and
 - **Section 3** sets out the protection measures for habitats and protected species within the site and details the strategies to be employed to avoid impacts both at the site and in the local area. These measures have been prepared in accordance with the British Standards for Biodiversity: BS 42020:2013.
- 1.8. As part of the planning application, a Landscape and Ecological Management Plan (LEMP) has also been produced (ref: **15116/R14**), in accordance with this CEMP-B.



Section 2: Site Description and Ecological Features

- 2.1. This section of the CEMP-B summarises the existing ecological features within the site.

Site Context

- 2.2. The site is defined by the application red-line boundary, shown in **Figure 2.1** below. The site is referred to as 'P6' in the Ark Spring Park naming conventions and covers approximately 6.7 ha. The site is located between Corsham and Neston and was a former military site. The site is surrounded by Spring Park to the northwest, residential areas with associated gardens to the east, green public open space and a retirement village to the south west and agricultural fields to the south east. There is an area of broadleaved semi-natural woodland immediately to the west with agricultural fields beyond.



Figure 2.1: Site boundary (contains Google Earth Data, 2024)

Designated Sites

- 2.3. The site is not covered by any statutory or non-statutory sites designated for nature conservation importance. The EclA identified one international designated site – Bath and Bradford-on Avon Bats SAC located 0.9 km north west of the site. A sHRA was prepared to inform the planning application and assessing the likely significant effect of the proposed development on the SAC. A further nationally designated site – Box Mine Site of Special Scientific Interest (SSSI) is also located 0.9 km north west of the site. One non-statutory designated sites, known as Local Wildlife Sites (LWS) was identified within 2 km of the site – Kingsmoor Wood LWS located 0.4 km south west of the site.



Baseline Habitats

- 2.4. The site comprises an area of previously development land which has largely been left unmanaged. Concrete foundations of previously demolished buildings are still present within the site. The main habitat within the site is tall ruderal with scattered and dense scrub, broadleaved semi-natural woodland. The southern extent of the site comprises mainly other neutral grassland and dense scrub.

Protected and Notable Species

- 2.5. Protected and notable species surveys have been undertaken across the wider site to inform the planning application. Full details of protected and notable species has been included within the EclA which should be read in conjunction with this report. The main ecological constraint onsite relates to the potential for roosting bats within trees and foraging and commuting bats, including international ecological importance for lesser horseshoe *Rhinolophus hipposideros*, greater horseshoe *Rhinolophus ferrumequinum* and barbastelle bat *Barbastella barbastellus*.
- 2.6. A single stem of Japanese knotweed *Fallopia japonica* was recorded on the site within the tall ruderal habitat during a July 2023 survey. This is currently being controlled by a specialist contractor. Variegated yellow archangel *Lamium galeobdolon* was also identified on the site and within the adjacent woodland.

Relevant Legislation

- 2.7. Construction cannot be undertaken which compromises the survival or success of the fauna described below or which results in the spread of non-native invasive species.

Badger

- 2.8. Badger *Meles meles* and their setts are afforded protection under the Protection of Badgers Act 1992. As badger can readily dig new setts, an updated badger survey will be undertaken 3 months prior to construction work starting. If any active sett have potential to be impacted by construction works then Tyler Grange or an appropriate specialist would be contacted, and a the badger licence from Natural England will be required.

Bats

- 2.9. All bats and their roosts, hazel dormouse and great crested newt are afforded protection under the Wildlife and Countryside Act (WCA) 1981 (as amended) and the Conservation of Habitats and Species Regulations 2018 (as amended) (the 'Habitats Regulations').

Birds

- 2.10. All British birds are legally protected under the WCA 1981 (as amended) from disturbance while actively nesting (generally acknowledged to occur between March and August inclusive). As such any removal of scrub and woodland will be timed to avoid the bird nesting season or preceded by checks for nesting birds by a suitably trained ecologist immediately



prior to any removal. Should any nesting birds be recorded within the site during works, no work will take place in that location until the young have left the nest.

Other notable fauna

- 2.11. Reptiles and hedgehogs *Erinaceus europaeus* are afforded protection under the WCA 1981 (as amended) although it is important to note that this legislation protects the species and not their habitat. As such, should any impacts occur to suitable reptile or hedgehog habitat, appropriate mitigation measures will be implemented to ensure that none of these species are harmed during works.



Section 3: Construction Environmental Management Plan – Biodiversity

Risk Assessment of Potentially Damaging Construction Activities

- 3.1. To inform the preparation of this CEMP-B, a risk assessment has been completed on all proposed construction-type activities likely to impact important biodiversity receptors within the site and local area, as detailed below.
- 3.2. Where possible, the proposed layout has been designed to retain those habitats which have been identified as being of importance, namely the woodland and trees with bat roosting potential. The landscape proposals include new woodland planting, buffers around the retained habitats, native shrub planting and habitats not currently present within the site including Sustainable Urban Drainage Systems (SuDS). It is anticipated that no lighting will be required during construction.
- 3.3. Habitat creation in the land at the south of the site will also be beneficial for foraging bats, including species associated with the Bath and Bradford-on-Avon Bat SAC. This will include a wildlife pond and native scrub, tree and hedgerow planting.

Site Clearance

- 3.4. Based on the habitats present and outlined in the EclA, the habitats lost as a result of the proposals comprise tall ruderal and hardstanding. During the clearance of habitats, without mitigation, there is potential for impacts to occur as a result of the following:
 - Removal of woody vegetation resulting in killing, injury or disturbance to protected/priority species such as nesting birds, reptiles, bats and badger;
 - Damage and destruction of retained habitats including trees and onsite and offsite woodland, negatively impacting the importance of these habitats post-development;
 - Run-off from the site works resulting in damage to retained and adjacent habitats including woodland;
 - Killing and injury of badger, nesting birds, reptiles and hedgehog resulting from habitat removal or destruction during constructions works;
 - Dust deposition resulting in damage to retained habitats within and adjacent off-site habitats;
 - Disturbance to off-site bat roosts within the off-site woodland;
 - Noise resulting in disturbance of species within and adjacent to the site; and
 - Temporary lighting disturbing nocturnal species, namely bats, badger and hedgehog.



Site Set-up

- 3.5. Site offices, huts and temporary toilets, including their drainage, will be created onsite, as will storage areas for stockpiles of materials. Without mitigation, site set-up could result in impacts occurring as a result of the following:
- Damage to retained and immediately adjacent habitats (including woodland) as a result of pollution from plant maintenance and storage of oils, fuels and chemicals, including toilets;
 - Site lighting, in particular overnight lighting, has the potential to cause disturbance to roosting, foraging and/or commuting bats; and
 - Construction activities including compaction of ground and accidental damage to retained habitats, including root protection zones and immediately adjacent offsite habitats.
- 3.6. In addition to these pathways negative impacts could also occur as a result of dust, noise and artificial lighting as detailed above.

Groundworks

- 3.7. Construction groundworks including creating foundations and excavations could result in impacts including:
- Damage to retained on-site and off-site habitats through accidental damage; and
 - Impacts to wildlife, namely badgers and small mammals, should these become trapped in pits and trenches created during groundworks.
- 3.8. In addition to these pathways, groundworks impacts could occur as a result of killing or injury of wildlife, dust, noise and artificial lighting as detailed above.

Material Storage and Removal from Site

- 3.9. The improper storage and disposal of materials during site clearance and construction could cause impacts to retained and adjacent habitats including woodland, as a result of dust and noise (as detailed above) which could result in direct impacts through damage or long-term impacts such as loss of function.
- 3.10. Inappropriate storage of topsoil could also result in the value of this resource being negatively impacted.

Construction

- 3.11. Without mitigation during construction there is potential for impacts to occur as a result of killing or injury of wildlife, damage to retained and immediately adjacent offsite habitats, dust, noise, run-off and artificial lighting (as detailed above).



Environmental Incidents

- 3.12. Whilst not part of any specific construction stage, environmental incidents have the potential to occur at any time during the works, such as from:
- Vandalism resulting in impacts to retained on-site and off-site habitats through direct damage or pollution events, should fuel or chemical containers become damaged;
 - Fires and burning waste could result in impacts to retained and adjacent habitats and protected/priority species should this occur close to retained habitats; and
 - Emergency incidents such as spillages or extreme weather resulting in impacts to retained and adjacent habitats.

Identification of 'Biodiversity Protection Zone'

- 3.13. Areas within the site identified as 'biodiversity protection zones' include:
- All retained trees and woodland and associated buffers;
 - Dark corridors around retained habitats; and
 - Retained trees with bat roosting potential.
- 3.14. Temporary protective fencing will therefore be provided to exclude and protect these retained areas during construction. This fencing will be installed as per BS 5837:2012 Trees in relation to design, demolition and construction, the AMS (edp7897_r008-B-Arbicultural Impact Assessment). This fencing will also mark the buffer with the off-site woodland (see the Tree Constraints Plan (edp7897_do11e). This fencing will be inspected monthly by the site manager during the construction works and if signs of damage occur, the fence will be fixed or replaced by the construction team. Signage will be affixed to the fencing to deter access.
- 3.15. Such fencing will also provide site security and prevent potential impacts to retained habitats, such as from vehicle movements, soil compaction and storage of materials. Where possible, vehicles with a low ground-pressure should be used to avoid soil compaction and avoid the rooting areas of retained trees and woodland.
- 3.16. These areas are to be kept unlit for the duration of the construction period, as well as post-development, as shown by the 'Bat Corridor Buffer Zone' on the External Lighting Layout in **Appendix 1**.

Practical Measures to Avoid or Reduce Impacts During Construction

- 3.17. Practical measures will be enacted to ensure that the retained biodiversity features are protected during construction.



Site Clearance

- 3.18. Prior to the commencement of any works on the site, an initial 'toolbox' talk will be completed with the contractors, to explain the sensitive features present on the site and the requirements for protection measures. This toolbox talk will also provide detail on the working methods to be employed during all works affecting sensitive habitats and identification of biodiversity protection zones, protected/priority species that could be encountered, their legal protection and necessary mitigation measures, including actions to be taken if any of these species are encountered on site, during works. This toolbox talk will be delivered by an appointed Ecological Clerk of Works (ECoW), comprising a suitably experienced (and licenced) ecologist, who will also undertake a walkover of the site prior to works commencing to check for any potential constraints, including checks for badger setts. The ECoW will be present as and when required to supervise sensitive works and provide ecological advice.
- 3.19. Further to the above, specific supervision measures will also be implemented in respect of the following species:
- 3.20. **Amphibians** – Great crested newt *Triturus cristatus* are considered likely absent from the site. However, as amphibians are known within the wider landscape, the scrub and debris on site should be undertaken under Reasonable Avoidance Measures (RAMs) to minimise impacts to amphibians (and other priority / protected fauna species) through injuring and killing.

Reasonable Avoidance Measures (RAMs)

- 3.21. Any works to suitable terrestrial habitats for amphibians onsite will be subject to RAMs to minimise impacts to amphibians, if present.
- 3.22. This RAMs is extracted from Natural England's best practice principles and reasonable avoidance measures. This RAMs will be adopted to minimise impact on amphibians during works.
- 3.23. The RAMs will include:
- Before any further vegetation clearance takes place, all contractors will be fully briefed by a toolbox talk from the ECoW (suitably experienced ecologist), regarding the potential presence of amphibians (and other protected species) and the mitigation measures that must be adhered to during clearance works;
 - In advance of works, suitable vegetation to be lost should be managed to reduce suitability for newts, including a two-stage directional vegetation removal, with the first cut to c.250 mm, and the second, 48 hours later, to 150 mm in a directional manner;
 - Timings of clearance of suitable vegetation should occur between March/April – October inclusive, when overnight temperatures are consistently above 5°C⁵. No

⁵ Guidance for works carried out under great crested newt district level licensing. Available at: <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.arguk.org/info-advice/gcn-licensing-reform/436-ne-gcn-dll-guidance-march19/file>



clearance work of suitable habitat should occur during winter, when amphibians are likely to be hibernating/in torpor (late October and mid-March inclusive);

- Outside of hibernation period (late October and mid-March inclusive), a hand search of any suitable refugia (logs, other materials that could be used as cover) is required immediately prior to work commencing. This will include checks of root bases where access allows and the supervision by the ECoW of the removal of these root balls; and
- Avoid dragging vegetation or tracking vehicles and machinery over unchecked areas.

3.24. General precautions during the construction phase will also be implemented onsite including:

- All cleared vegetation will be removed from within the construction boundary;
- Avoid burning or removal of any potential hibernacula, if present, (e.g. wood piles, debris etc.) without a thorough hand search for amphibians and hedgehog;
- Machinery and materials will be stored on areas of artificial unvegetated surface or raised off the ground on pallets where possible;
- Excavations should be backfilled, covered overnight or ramps installed to allow any animals to escape. Excavations and working areas are to be managed so as to not create temporary waterbodies which may attract newts onto site;
- In the event that a great crested newt is discovered during construction works, if not already present, all works should stop and a suitably experienced and licenced newt ecologist should be contacted. Contractors on site are not to handle a suspected great crested newt (unless at imminent risk of harm).

3.25. If a common toad *Bufo bufo* is found, it will be moved to retained habitat around the boundaries of the site.

3.26. **Badger** – No badger setts have been identified onsite or within 30 m from the site boundary. If a new sett is identified on the site, any construction works within 30 m of the sett entrances will require a badger licence from Natural England. The licence will be implemented following a method statement and work schedule. Natural England will only grant a licence for interference or closure of a badger sett between July to November inclusive, once planning permission has been granted.

3.27. The following actions will also be undertaken to minimise the potential for badgers to access the site during construction and cause delays and/or potential injury or disturbance:

- A pre-commencement check for badger will be undertaken at a maximum of three months prior to work commencing on site;
- Manage the construction site to ensure that ground is flat and compacted and there are no loose earth banks for badgers to readily dig into;
- All exposed earth works and excavations which could potentially trap a badger should be completely covered over with boarding at the end of daily operations



where practicable to prevent badgers from entering trenches, or have an inclined plank included overnight to offer a means of escape for badgers that may have become inadvertently trapped;

- Work is to be undertaken during the daytime where practicable, when badgers are least active, to minimise disturbance to their foraging activities;
- Overnight lighting at the site should be kept to a minimum during construction and should be infringe on the protection zones, as defined in Section 3.14 – 3.16 above;
- All chemicals and construction materials are to be safely and securely stored to prevent any spills or contamination and within an inaccessible area overnight; and
- Contractors are to be briefed during a ‘toolbox talk’ by an ecologist prior to starting works. After this, a Contractor should be nominated to undertake regular monitoring of the site and if any exploratory digging or new setts are identified they must contact the designated ecologist immediately.

- 3.28. **Bats (Roosting, Foraging and Commuting)** – The majority of trees with bat roosting potential are being retained and protected as part of the proposals, with the exception of two trees and one group of trees. Although no bats were found to be roosting within the trees, bats use trees in a transient nature and therefore the removal will be undertaken sensitively under the supervision of the ECoW, taking into consideration nesting birds (see below).

Method Statement for Section Felling

- 3.29. The trees to be removed with bat roosting potential will be soft felled under the supervision of a bat licenced ecologist. The potential roosting features of the tree will be initially checked by the bat licenced ecologist, if access is possible. If no evidence of bats are identified, including individual bats, the potential roosting feature(s) on the tree will be cut off in sections and roped carefully (slowly and gently) down to the ground. The bat licenced ecologist will then inspect the feature prior to the remaining tree being soft felled. The potential roosting feature will be leant against a standing tree for 24 hours with the roost feature facing outwards to allow any bats to fly out that night, if present. Cutting through the potential roosting feature will be avoided during the felling process.
- 3.30. Tree works will be carried out by an appropriately qualified and insured contractor in accordance with British Standard 3998:2010 ‘Tree Work - Recommendations’.
- 3.31. If a bat or signs of bats are found within any tree during removal of the tree, works should cease, and Natural England consulted and a mitigation licence submitted and granted prior to works commencing. The licence will detail the methods of working to remove the tree to ensure bats are not killed or injured during the works.



Bats and Lighting

- 3.32. Where lighting is required during construction, the following best-practice guidance measures should be followed:
- Utilise warm-white LED luminaires, with a spectrum ideally greater than 2700 Kelvin and with a peak wavelength higher than 550nm (or as close to these specifications as is feasible and practicable) to avoid the wavelength component which causes the greatest disturbance to bats;
 - Install specialist low-level bollard lighting, or fit external lights with motion-sensors and short timers if required to reduce light pollution; and
 - Avoid the lighting of retained trees and woodland, including the associated buffers through sensitive placement of lighting and choice of luminaire.
- 3.33. To avoid disturbance to roosting bats, if present in retained trees, and foraging and commuting bats during construction the following will be implemented:
- Work is to be undertaken during the daytime where practicable, when bats are least active, to minimise disturbance to their foraging activities;
 - Overnight lighting should be kept to a minimum, temporary and directed away from trees and woodland, adhering to the dark corridors as indicated by the 'Bat Corridor Buffer Zone' on the External Lighting Layout in **Appendix 1**; and
 - Noise and vibration should be kept to a minimum when working in the vicinity of trees which have the potential to support roosting bats.
- 3.34. The EcIA and sHRA (both produced by Tyler Grange) provide details on how impacts to foraging and commuting bats, including those associated with the Bat SAC will be considered during the construction and operational phase to maintain connectivity for these species. The site is considered to be functionally linked to components of the Bat SAC through the tree lines and woodland and a roost is located within the offsite woodland. These important commuting and foraging habitats are being largely retained and protected as part of the proposals and outlined within this CEMP – B and the AMS with the exception of a few individual trees removed. However, the large existing tree canopies will continue to provide a hop-over and retain connectivity for bats. This includes sensitive lighting to retain these areas as dark corridors.
- 3.35. Indirect impacts associated with dust and noise during the construction phase will be minimised through the methods outlined within this CEMP-B and through the installation of tree protection fencing installed as per BS 5837:2012 Trees in relation to design, demolition and construction and AMS.
- 3.36. **Birds** - The trees and woodland within the site provide potential nesting habitat for a range of common birds. Should any removal of potential breeding bird habitat be proposed within the bird nesting season (generally taken to be March to August inclusive, though this is not defined in law and birds can nest outside of this time), a detailed search of the vegetation



would need to be undertaken by the appointed ECoW immediately prior to its removal, to check for signs of active nests. If any active nests are found, a suitable buffer to be determined onsite by the ECoW, will be provided until the young have fledged and the nest is no longer active. This buffer would be protected by fencing, installed under the supervision of the ECoW, with appropriate signage provided in order to ensure no accidental damage occurs.

3.37. **Reptiles, particularly slow worm** – A low population of slow worm has been recorded within the site. As reptile habitat itself is not subject to protection, a precautionary approach would be based around ensuring that no reptiles are killed or injured during site works. This precautionary approach would involve phased habitat clearance under the supervision of an ECoW to actively encourage reptiles from areas of suitable habitat to be cleared towards areas of suitable habitat which are to be retained, protected and unaffected by the works. The methods of working will include:

- Prior to the commencement of works, artificial refuges will be positioned across the development site as recommended in Froglife (1999) and HGBI (1998) guidance. The refuges will comprise 0.4 mm corrugated iron, carpet or sheets of high-grade roofing felt, all measuring 1 x 0.5 m at a density of at least 50 refugia per hectare. The refuges will be spread across the site, with increased density in areas with optimal habitat for slow worm.
- Prior to the commencement of works, the contractors undertaking any vegetation clearance works will be subject to a 'Toolbox Talk' by a suitable experienced ECoW);
- The refuges will be left for at least seven days prior to the commencement of the works to allow them to 'bed in' and for the reptiles to locate them. Capture and translocation of reptiles will only commence when reptiles are active (March/April to October inclusive) during suitable weather conditions (dry, temperature above 9°C, no strong winds);
- The ECoW, who will have experience identifying and capturing reptiles and have knowledge on their habitat requirements will check the refugia within suitable weather conditions (air temperature between 9°C and 18°C, avoiding rainy or windy conditions);
- The number of days required for the complete removal of a reptile population from a site is difficult to predict and can vary depending on the size of a population and the abundance of suitable reptile habitats. However, in certain cases it has been suggested that between 15 and 20 visits may sufficiently clear a population (Gent and Gibson, 2003). In other cases, translocation efforts can continue for up to 90 days, particularly for sites which contain a high population of reptiles;
- Instead of defining an exact number of days required for the translocation process, the capture procedure will be repeated daily in suitable reptile conditions until a point where no reptiles are seen or captured for five consecutive days;
- For each visit, the ECoW will approach the refugia quietly then carefully turned over and any reptiles found underneath will be carefully captured and placed in a vivarium, buckets or cloth bags, separating larger adults from juveniles to avoid predation. The captured



reptiles will then be taken to the southern area for immediately for release. For each reptile translocated, the age, sex and position of capture will be recorded.

- The checks of refugia will be aided by a precautionary approach which will involve a phased cutting of suitable habitat, whereby it is initially cut down to no less than 250 mm under the supervision of the ECoW. The arising will be left in-situ for 24 hours in suitable weather conditions (dry, temperature over 10°C), before being removed from site to allow any animals to move of their own accord. The vegetation will be collected using hand tools only, rather than machinery;
- After the initial cut, the ECoW will check the working area to ensure that no reptiles or other common amphibians are present, before being cut to ground level under the supervision of the experienced ecologist. Vegetation clearance will be carried out using hand tools (such as strimmers, brush-cutters, or hand-held shears).

- 3.38. This work will be undertaken in a slow and systematic manner, moving towards suitable retained habitat in the southern extent of the site. Reptiles will be actively encouraged along vegetation, ensuring reptiles are not isolated in pockets of vegetation within the site.
- 3.39. The habitat manipulation works will take place within the active reptile season (March/April to September/October) and during suitable weather conditions – no heavy rain and temperature above 10°C.
- 3.40. In addition to the precautionary approach, any refuge areas such as logs or stones will be removed by the supervising ecologist from the working area to the margins of the site that will be unaffected by construction works. Should any reptiles be recorded which do not move of their own accord, they will be caught by the supervising ecologist and moved to areas of suitable off-site habitat that will not be affected by construction activities to the south of the site.

Translocation (If Required)

- 3.41. Should a higher population of slow worm be recorded on-site during the sensitive removal, a translocation will be undertaken. Temporary reptile exclusion fencing will be erected along the site boundaries. This fencing will also prevent accidental damage to the receptor site during construction.
- 3.42. The temporary reptile exclusion fencing will be at least 0.8 m high with 0.2 m buried below ground and will be constructed from tough polythene sheet held in place with wooden stakes. The fence construction will be carried out, or supervised, by the ECoW and inspected for integrity prior to the reptile translocation commencing on site, and periodically during construction works.
- 3.43. Prior to installation of the exclusion fencing, the fence location will be searched by the ECoW for reptiles under a Precautionary Working Method to ensure any reptiles are not killed, injured or harmed during the installation. This will involve a finger-tip search of the habitats to be removed to search for any reptiles present and move them out of harm's way. The ECoW will also have consideration for other protected/priority species, including nesting birds and hedgehog.



- 3.44. The exclusion fencing will remain in place for the duration of the construction works onsite for as long as reptiles could potentially be impacted and would be subject to monthly checks by the ECoW and weekly by the site manager to ensure that it is maintained within a functional condition. A log of checks will also be kept by the site manager.
- 3.45. Any damages to the fence will be reported and will be fixed immediately to avoid reptiles re-entering the site.
- 3.46. Vegetation adjacent to the fence should be strimmed, as required, to prevent it growing to the height of the fence which could enable reptiles to re-enter the site.
- 3.47. The fencing will enclose the artificial refugia, as detailed above. The translocation of the reptile population will be undertaken by a suitably qualified ecologist who will have experience identifying and capturing reptiles and have knowledge on their habitat requirements. Refugia will be checked by the suitably qualified ecologist within suitable weather conditions – air temperature between 9°C and 18°C, avoiding rainy or windy conditions.
- 3.48. The number of days required for the complete removal of a reptile population from a site is difficult to predict and can vary depending on the size of a population and the abundance of suitable reptile habitats. However, in certain cases it has been suggested that between 15 and 20 visits may sufficiently clear a population (Gent and Gibson, 2003). In other cases, translocation efforts can continue for up to 90 days, particularly for sites which contain a high population of reptiles.
- 3.49. Instead of defining an exact number of days required for the translocation process, the capture procedure will be repeated daily in suitable reptile conditions until a point where no reptiles are identified and captured for 5 consecutive days.
- 3.50. For each visit, the ECoW will approach the refugia quietly then carefully turned over and any reptiles found underneath will be carefully captured and placed in a vivarium, buckets or cloth bags, separating larger adults from juveniles to avoid predation. The captured reptiles will then be taken to the receptor site immediately for release. For each reptile translocated, the age, sex and position of capture will be recorded.
- 3.51. Reptiles should be released by being placed in suitable habitat in the southern extent of the site and it should be ensured that individuals are not left exposed due to the risk of predation.
- 3.52. **Other Species** - Regard will be had for any other protected or priority species that may be present within the site and in particular hedgehog. Prior to site clearance work, any obvious piles of leaves or brash will be cleared by hand and should any hedgehog be found, they will be carefully moved by a gloved hand to areas of protected habitat around the site boundary, away from the proposed development. If discovered during hibernation, the hedgehog must be left undisturbed. In the event the hedgehog is awoken from hibernation the advice of a local wildlife centre should be sought and the hedgehog removed to receive appropriate care.
- 3.53. **Invasive Species** – Japanese knotweed and variegated yellow archangel has been identified onsite. The variegated yellow archangel is widespread across the site and within



the adjacent woodland area and therefore control of this species is not considered to be a practical approach. However, all material of this plant must be left in situ where possible or transferred and disposed of appropriately and legally to avoid its spread. The stand of Japanese knotweed was currently being treated. A specialised contractor should continue to monitor and treat the stand of knotweed and provide advice on how to dispose and manage in the long term.

- 3.54. **Protecting Retained Habitats** – Trees and woodland on-site and adjacent to the site will be retained and enhanced as part of the proposals and these features will be fenced and protected during site clearance to ensure no impacts occur.
- 3.55. Tree protection barriers must be erected prior to the commencement of construction activities and should consist of the default specification recommended within BS 5837:2012 Trees in relation to design, demolition and construction, and the AMS comprising a scaffold framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3m to add further stability. Onto this, weldmesh panels will be securely fixed with wire or scaffold clamps. Tree protection fencing must be maintained to ensure it remains fit for the purpose intended. All-weather notices will be attached to the barriers with words such as 'Construction Exclusion Zone – No Access'. Once erected, fencing should remain in place and be maintained until works are complete.
- 3.56. **Pollution Prevention Measures** – To prevent any impacts occurring to sensitive receptors from pollution as a result of run off, dust or noise, best practice prevention measures will be adopted during the construction period. With the adoption of the measures set-out in this document no adverse impacts would be anticipated to occur.
- 3.57. **Lighting** (see Bat section above) – In order to prevent disturbance to nocturnal species, including bats and badger, no works will occur after dusk with working hours on the site. Shorter hours will be undertaken during winter months, due to less daylight hours, with working hours still finishing one hour prior to sunset dusk where possible. It is anticipated that no lighting will be required during construction. It is therefore considered that commuting and foraging bats can continue to use the site during construction works.
- 3.58. Where construction/security lighting is required, this be designed to avoid shining towards the defined protection zones, namely the boundary features, retained habitat and off-site woodland, to minimise impacts on nocturnal species including bats and badger.

Site Set-up

- 3.59. **Pollution** – Construction activities will be predominantly located away from the most sensitive habitats, namely trees and woodland. To ensure that no accidental impacts occur, these features will also be fenced and protected during works (see above).
- 3.60. To avoid impacts to retained habitats and the woodland, site offices (including welfare facilities), material storage areas (including oils, fuels, chemical toilets) and wheel wash facilities will be located within the central area of the site and away from the retained habitats. In addition, the areas used for the storage of materials will be regularly inspected for leaks by the site manager and during any ECoW visits.



- 3.61. Areas used for plant maintenance which could result in damage or pollution to retained habitats will also be located away from the 'biodiversity protection zones'.
- 3.62. **Protection of habitats** - During the site set-up and subsequent stages of the works, retained habitats and the adjacent woodland will be fenced to provide protection from accidental damage (see above).
- 3.63. The protective fencing within the site will be regularly inspected by the site manager in order to check the condition and positioning of this fencing. Should the fencing be damaged or in the incorrect location, it will be repaired, replaced and/or moved to the correct location adjacent to the retained habitats.
- 3.64. **Warning signs** - Warning notices will be positioned on the tree protection fencing to identify the protection area and discourage access.
- 3.65. **Wildlife exclusion barriers** - No other wildlife exclusion barriers will be required during construction.
- 3.66. **Disruption of mammal runs or paths** - Whilst any fencing has the potential to result in the disruption of mammal runs or paths, the entire margins of the site will still be accessible and connectivity to offsite habitats will therefore be maintained. Gaps underneath the fences, will also enable movement of smaller mammals including hedgehog.

Ground Works

- 3.67. **Protection of retained habitats** - In order to protect retained habitats, appropriate fencing will be erected prior to any construction or groundworks beginning and will be implemented in line with British Standards BS 5837:2012 (see above).
- 3.68. **Protection of wildlife** - During ground works, there is potential for mammals including badger and hedgehog, if present to become trapped within trenches or pits which are left open overnight. Any trenches or deep pits that are to be left open overnight will be covered or provided with a means of escape should wildlife enter, such as a roughened plank of wood placed in the trench as a ramp to the surface.
- 3.69. Any trenches or pits will be inspected each morning to ensure no animals have become trapped overnight. Should a badger become trapped in a trench it will likely attempt to dig itself into the side of the trench, forming a temporary sett. Should a trapped badger be encountered Tyler Grange, or an appropriate expert will be contacted immediately for further advice.

Material Storage and Removal from Site

- 3.70. **Material storage** - Site works will follow best practice with building materials as well as oils, fuels and chemical toilets not stored adjacent to the retained habitats, including woodland and trees. Run-off protection measures (as detailed above) will also be implemented to ensure that no run-off of materials will occur.
- 3.71. **Topsoil storage** - In order to protect and safeguard the soil resources during construction, such as from excessive compaction, appropriate handling measures will be implemented.



Ground preparation works will follow best practice with soil to be temporarily stored within areas of open space so as to maintain soil viability.

- 3.72. The storage of topsoil or other 'soft' building materials on the site will also be given careful consideration as badger will readily adopt such mounds as setts, which would then be afforded the same protection as established setts. Such mounds will be regularly inspected to check for use by badgers throughout the construction period.
- 3.73. Where possible, material stockpiling will be limited to the temporary storage of stripped soil retained for reinstatement and no covering is anticipated to be required.
- 3.74. Surplus topsoil produced during construction will be immediately removed from the site or temporarily stored, if necessary, prior to removal.

Construction

- 3.75. The protective measures detailed above for other phases of the works would also be implemented through the construction phase and as such no additional protection measures would be necessary.

Environmental Incidents

- 3.76. Should any retained habitat or features or the woodland be damaged, suitable mitigation measures will be implemented. If damage is not considered to be significant the habitats will be allowed to regenerate naturally, although if required, replacement planting will be provisioned, with the scale of replacement to be determined by the ECoW.
- 3.77. **Vandalism protection** - Measures will be implemented within the site to prevent potential impacts from vandalism, with such measures to include:
- The site will be securely fenced in its entirety with steel mesh (Heras) fencing to prevent access;
 - All offices and welfare facilities will be steel anti-vandal units;
 - All construction plant will have anti-vandal shutters and keys will be kept in a locked strong box within the site office;
 - Security alarm systems will be used which are linked back to a remote monitoring station as the building becomes enclosed;
 - Temporary doors will be kept locked out of hours to prevent illicit access; and
 - No tools will be left on site unless kept in secure steel containers.
- 3.78. These security measures will ensure that materials within the site are protected, preventing potential for pollution to occur as a result of vandalism.



Critical Periods and Locations

- 3.79. During the implementation of the CEMP-B, critical periods and locations where construction works will need to be controlled to avoid causing harm to biodiversity features, will comprise the following:
- An ECoW visit will be completed prior to the commencement of any works to provide a toolbox talk and undertake a walkover of the site to check for any potential constraints, including signs of badger;
 - Implementation of the reptile mitigation by an experienced ECoW during clearance of any habitat with potential to support reptiles;
 - Implementation of precautionary measures for badger including an inspection of the site prior to works commencing by an experienced badger ecologist;
 - Ecological supervision by the ECoW or suitably qualified ecologist will be undertaken during the clearance of any habitat with potential to support reptiles and hedgehog including log piles and brash piles to ensure no impacts occur to this faunal group;
 - During the bird nesting season (generally taken to be March to August inclusive, though this is not defined in law and birds can nest outside of this time) any removal or management of trees, scrub and woodland or any other vegetation with potential to support nesting birds, will require a detailed search, undertaken by an ECoW, immediately prior to its removal, to check for signs of active nests. Should any active nests be recorded suitable protection measures will be implemented as detailed above; and
 - At the end of the construction period, a verification report by the ECoW or similarly competent person(s) shall be submitted to the Local Planning Authority.
- 3.80. All other protection measures outlined within this CEMP-B and associated method statement will be implemented for the duration of construction where relevant. In particular, throughout the construction period, the site manager will be responsible for ensuring that the protective fencing of retained habitats remains in place and fit for purpose.
- 3.81. The maintenance of all such protection measures will be the responsibility of the site manager, however, an experienced ecologist acting as an ECoW will be available to attend the site at short notice if required throughout the construction period should any issues arise.

Responsible Persons and Lines of Communication

- 3.82. During the construction period, the following responsible persons and lines of communication have been identified in order to guide the implementation of this CEMP-B.
- 3.83. Advice and monitoring, including with regard to legal consents, planning conditions and contractual arrangements, will be provided by Ark Estates 4 Ltd, the site manager, ECoW, and badger ecologist, as appropriate.



- 3.84. The details of the site manager will be displayed on the site boundary with the site manager responsible for addressing any issues which are raised during construction.
- 3.85. The installation and maintenance of protective fencing will be undertaken by the site contactors under the supervision of a suitably qualified site agent, this site agent must be:
- Present on site for the majority of the time;
 - Aware of the arboricultural and biodiversity constraints;
 - Have the authority to stop any work that is causing, or has the potential to cause harm to any retained habitat;
 - Responsible for ensuring that all site operatives are aware of their responsibilities toward retained habitats and the consequences of any failure to observe those responsibilities; and
 - Make immediate contact with the local authority and/or a trained arboriculturalist in the event of any tree related problems occurring, whether actual or potential.
- 3.86. The site manager will make all contractors aware of the presence of retained ecological features and the measures implemented to protect these features. Prior to the start of works an ECoW will provide a 'toolbox' talk to detail the ecological features to be protected and the methods employed.
- 3.87. Subsequent to this initial 'toolbox' talk, where any subsequent supervision of works is required, such as removal of woody vegetation and buildings with nesting bird potential by a suitably qualified ecologist, prior to these works commencing, works around suitable habitat for reptiles, along with an updated walkover of the site to check for the signs of any protected or priority species and to check the methods detailed in the CEMP-B are being adhered to.
- 3.88. In the event of accidents or damaging incidents occurring during construction, the site manager will liaise with the ECoW, arboriculturalist and local authority as necessary, to agree solutions and contingency measures.

Role and Responsibilities on Site of an ECoW

- 3.89. An ECoW will comprise a suitably qualified ecologist, appointed to supervise the implementation of the CEMP-B.
- 3.90. The responsibilities of the ECoW will include attending the site prior to the start of works to deliver an initial 'toolbox' talk and to set out the ecological constraints and protection measures required. The ECoW will also attend site to supervise clearance if any habitat with potential to support nesting birds, amphibians, badger, reptile and hedgehog (as detailed above).
- 3.91. As long as the measures detailed in this CEMP-B are implemented, an ECoW is not anticipated to be required for the majority of site works.



- 3.92. Whilst no other supervision of works is anticipated to be required, the ECoW will be available to provide advice and undertake appropriate steps, including supervision, should any previously unidentified or unexpected protected or priority species be encountered during site works.
- 3.93. As required, and during any site visits, the ECoW will also undertake compliance checks of all mitigation measures implemented as part of this CEMP - B, such as the effectiveness of protective fencing.
- 3.94. The ECoW will also keep a record of all site visits and report any potential issues to the site manager. At the end of the construction period, a verification report by the ECoW or similarly competent person(s) shall be submitted to the Local Planning Authority.
- 3.95. A LEMP (ref: **15116/R14**) has been produced for this development which will detail all post-construction monitoring and management measures.
- 3.96. The appointed ECoW will have the necessary skills and experience required to deal with the potential issues which have been identified within the site and to provide advice to the client on any relevant issues, as necessary.
- 3.97. Copies of all ecological reports relevant to the site works as well as copies of planning conditions and the CEMP - B will be kept on site and be made available to the ECoW and site manager at all times, so that they are familiar with identified ecological constraints relating to the development.

Compliance Checking

- 3.98. Procedures will be put in place to allow third party compliance checks to be undertaken of the site throughout the construction period. Any request for a compliance check would be made to the site manager who would arrange for the required site visit to be completed as soon as reasonably practicable.

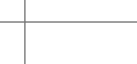
Identifying and Rectifying Remedial Measures

- 3.99. As part of any compliance checks or ECoW site visits, should any potential issues of non-compliance with the CEMP-B be identified, these will be immediately reported to the site manager and appropriate actions agreed.
- 3.100. In the event a significant issue occurs, such remedial measures shall be reported to the local authority, as required, with appropriate remedial measures to be discussed and agreed with all relevant parties. Further checks will then be completed within an appropriate time frame to confirm that remedial measures have been correctly implemented to the satisfaction of the local authority.



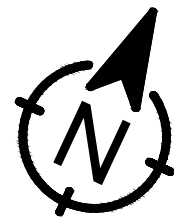
Appendix 1: Site Plan – External Lighting Layout



Schedule						
Symbol	Label	Image	Quantity	Catalog Number	Description	Lamp Lumens Wattage
	AW		3	DSX0.4.LA162.FW (DSX0.4 LED.BLS) (TZ)	D-Series 0 - Area luminaire with Back Light Shield Mounted on Wall Bracket @ 4m - 2700k	11491 114
	D1(BLC)		8	DSX0.4.LA082.BLC	D-Series 0 - Area luminaire With Back Light Cut-Off Technology Mounted on 6m Column - 2700k	4787 56
	D1(RCCO)		1	DSX0.4.LA082.RCCO	D-Series 0 - Area luminaire with Corner Optics and Cut-Off Technology Mounted on 6m Column - 2700k	4830 61
	EW		11	DWL 1.LA042.FW.W025	Denver ID Wall Mounted at Height Shown (3m & 4m AFFL) - 2700k	3427 25
	GWE		3	DWL 1.LA032.NR.W016.E M3	Denver ID Wall Mounted at 3m AFFL - Emergency Version - 2700k	2241 18
	HW		4	DWL 1.LA022.AY.W011	Denver ID Wall Mounted at 3.5m AFFL - 2700k	1292 10.3
	I		2	CSVT 1.LM0548.M1.SY	CSVT LED BATTEN - Mounted Under Canopy - 4000k	5011 36

Statistics				
Description	Symbol	Avg	Min	Min/Avg
Car Park	+	10 lux	0 lux	0.00
Entrance & Car Park	+	5 lux	0 lux	0.00
Loading Bays	+	81 lux	64 lux	0.79
Perimeter	+	13 lux	0 lux	0.00
Service Road	+	0 lux	0 lux	N/A
Service Road West	+	15 lux	4 lux	0.27
Service Yard South	+	21 lux	0 lux	0.00
SPILL	+	0.3 lux	0.0 lux	0.00

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



PR5	STAGE 2 ISSUE FOR PLANNING	23.10.25	CF-LC-PUL
PR4	STAGE 2 ISSUE FOR PLANNING	30.09.24	CF-LC-PUL
PR3	STAGE 2 ISSUE FOR PLANNING	11.04.24	CF-LC-PUL
PR2	STAGE 2 ISSUE FOR PLANNING	02.06.23	CF-LC-PUL
PR1	STAGE 2 ISSUE FOR PLANNING	05.05.23	CF-LC-PUL

Rev	Description	Date	Drw-Chk App
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Client



Project
SPRING PARK EXPANSION
CORSHAM

Drawing Title
SITE PLAN
EXTERNAL LIGHTING LAYOUT

Status	S5 - SUITABLE FOR CLIENT APPROVAL		
Scale	1:500	Size	A0
Drawing No.	9123-JCA-ST-XX-D-E-63001	Proj.No.	OPP09123
Revision	P05		



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