



ecosupport

St John's Road to
Dobwell Lane, Link Road

Construction Method Statement

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Foremam Homes

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Report	Construction Method Statement
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1.0 INTRODUCTION

1.1 Background

Ecosupport Ltd carried out an Extended Phase I habitat survey of the land associated with St Johns Road to Dobwell Lane in 2017 (**Fig 1**). Additional Phase II species surveys were carried out in the 2017 season. The previous ecological survey reports (Extended Phase I, Reptile surveys and bat surveys) by Ecosupport (2017a, b & c) have been used for completion of this report with an updated walkover also conducted on the 14th September, 2022 (by Adam Jessop MSc, ACIEEM).

Figure 1. Redline location plan of the site.



1.2 Brief

This Construction Method Statement (CMS) has been produced to satisfy Condition 8 of the granted planning permission:

“Prior to the start of work, a Construction Method Statement to protect the Upper Hamble Estuary and Woods SSSI, the retained woodland, the local assemblage of breeding birds, bats, reptiles and any other important ecological features must be approved in writing by Eastleigh Borough Council. The CMS should include the method statement specified in any European Protected Species licenses relating to the development.”

This report is in line with the recommendations in the previous ecological reports.

1.3 Aim

The aim of the CMS is to protect the ecological / biodiversity interests within and in the vicinity of the site. This report details the approach which construction workers will adopt in dealing with the potential ecological impacts associated with various construction activities. The approved CMS shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

1.4 Activities

The main construction activities will involve:

- Vegetation clearance and topsoil stripping
- Site establishment
- Movement of materials
- Construction of access road and junction
- Excavation and construction of attenuation basin
- Landscaping of planted vegetation

1.5 Structure of this Report

Sections 2.0 provides information on the ecological features which required protection during construction. Section 3.0 onwards then details specific measures that can be implemented to manage construction in order to prevent impacts arising.

2.0 ECOLOGICAL BASELINE

2.1 Habitats

The developable area of the site consists of poor semi-improved grassland currently used as a horse pasture field with an area of predominantly *Juncus* spp pasture where *Salix* spp dominated woodland was previously present (but has been cut down (**Figs 2 & 3**). The boundaries of the site comprised a woodland (containing a water course) a hedgerow (**Fig 4**) and tall ruderal along the edge of the hedgerow. The main habitat to be impacted was considered to be of limited value but the hedgerow and woodland are of local value and require protection during the works.

The water course in particular was noted to be vulnerable to any potential pollution created, with its ultimate sink identified as River Hamble and Southampton Water, considered to be designated sites. Therefore, a sensitive water treatment / drainage strategy was prepared as part of the application.

In addition, Himalayan Balsam (*Impatiens glandulifera*) was identified along the water course and this has now spread into areas of the *Juncus* spp and the hedgerow located along the northern boundary of the horse pasture field (**Fig 4**).

Figure 2. Horse pasture grazed to a short sward height dominating the southern part of the site (taken September, 2022).



Figure 3. Area dominated by *Juncus* spp (with occasional areas of Himalayan Balsam) where the *Salix* spp woodland was previously located (taken September, 2022).



Figure 4. Area The hedgerow located along the northern boundary of the horse field (part of which will need to be removed) with some areas of Himalayan Balsam growing (taken September, 2022).



2.2 Protected / Notable Species

Following the Phase I survey, Phase II bat activity and reptile surveys were undertaken in the 2017 season. The following provides background on the results and species identified during the surveys.

2.2.1 Bats

A total of six transect surveys and five static logger surveys between June and October 2017 were carried out. The total number of calls and species diversity were greatest within the woodland area. Using the guidance on valuation (Wray *et al.*, 2010), the site was considered to be of **Local** value for commuting bats and of **Regional** value for foraging bats.

In addition, a preliminary roost assessment carried out during the Phase I survey identified a small number of Oak (*Quercus* spp) trees along the eastern boundary with low roosting potential for bats. These trees are expected to be retained.

2.2.2 Reptiles

The 2017 reptile surveys identified the presence of a good population of Slow Worm (*Anguis fragilis*), all recorded along the edges of boundary vegetation (max count of 7). The site was therefore considered of **Local** value for reptiles and mitigation via a reptile capture was recommended.

2.3 Nearby Designated Sites

The following statutory designated sites were identified within 2km of the site:

- Manor Farm Local Nature Reserve (LNR) – 0.4km east
- Netley Common LNR – 0.4km west
- Upper Hamble Estuary and Woods Site of Special Scientific Interest (SSSI) – 0.6km east
- Solent & Southampton Water Special Protection Area (SPA) & Ramsar – 1.1km east
- Solent Maritime Special Area of Conservation (SAC) – 1.1km east
- Hackett's Marsh LNR – 1.9km south

In addition, there are 26 non-statutory Sites of Importance for Nature Conservation (SINC) within 2km; however, it was not considered the development will have a significant impact on these (Ecosupport, 2017).

In the Phase I assessment (Ecosupport, 2017), it was considered that any polluted surface water entering the water course within the site could potentially have indirect effects during the construction phase on nearby designated sites. In particular, the Upper Hamble Estuary and Woods SSSI, the Solent & Southampton Water SPA/Ramsar and the Solent Maritime SAC are of greater concern due to their status.

3.0 SPECIES SPECIFIC MITIGATION

The following species-specific mitigation during the construction period will be included within the proposed development. There are no European Protected Species Licences (EPSLs) required for this site.

3.1 Bats

3.1.1 Lighting

The woodland boundary was identified as being of particular importance for bats. Therefore, no lighting will be used during the construction period along the boundary vegetation between 15 minutes prior to dusk and 15 minutes after dawn during the active bat season (April to October inclusive). Any lighting required during the construction period will be directed away from the woodland.

As recommended within the Bat Activity Survey report (Ecosupport, 2017b), the lighting design within site operation will also use sensitive lighting, with lighting directed away from the adjacent woodland / tree lines.

3.1.2 Trees

If any of the trees identified as being of Low potential require felling / tree surgery, they will have the features soft felled under the supervision of an ecologist to ensure there are no bats present. If any bats are encountered, works will stop and Natural England will be consulted.

3.2 Reptiles

Prior to construction, reptile mitigation will be carried out to ensure the Slow Worms present are protected during construction works (***NB the strategy outlined below is a change to the mitigation outlined in the Reptile Survey and Outline Mitigation Report (Ecosupport Ltd, 2017c).***

3.2.1 Receptor

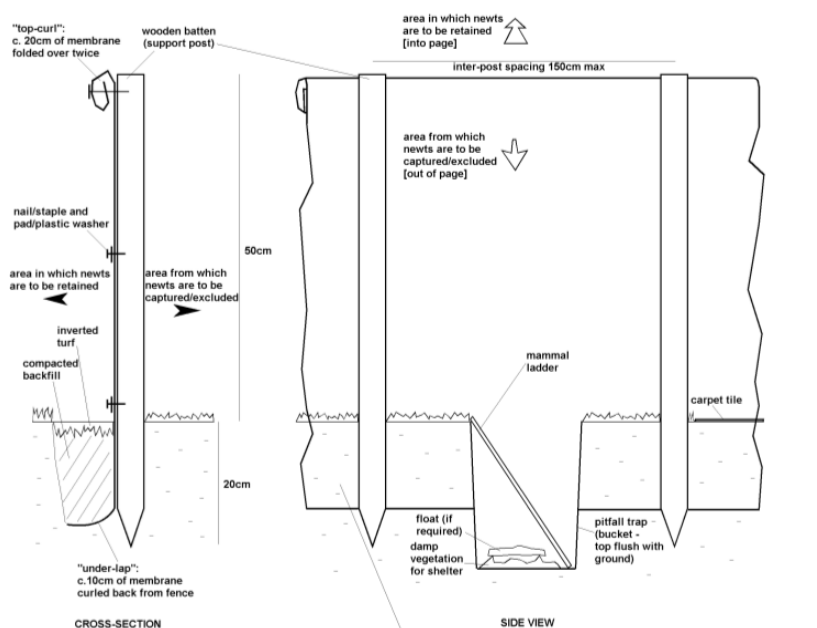
In a change from the previous strategy, the proposed receptor will be a landscaped mound which supports meadow grassland within phase 1 of the development (**Fig 5**) located approximately 0.2 km to the north of the site (although is contiguous with the site). This area benefits from having areas of unmanaged grassland around the edges of the mound as well as linkages to the adjacent M27 embankment (which will also support suitable habitat). Furthermore, it is understood it will be passed over to EBC (for long term ownership) and as such, it can be managed and protected as a suitable reptile habitat in perpetuity.

Figure 5. The new reptile receptor proposed which consists of a vegetated mound with surrounding unmanaged grassland areas within phase 1 of the St John's Road development.



3.2.2 Exclusion fencing

Prior to any reptile capturing taking place, the perimeter of the suitable habitat areas will be set up with exclusion fencing (where practicable). The reptile exclusion fencing will be of standard design and specification (as described in the *Great Crested Newt Mitigation Guidelines*, English Nature, 2001, **Fig 6**). This fence will remain *in situ* until completion of construction works. The purpose of this is to prevent reptiles moving onto site during the capture operation and subsequent construction.

Figure 6. Fence design and specification as provided in English Nature, 2001).

Artificial bitumen roofing felt and corrugated tin capture refugia will be distributed within all areas of suitable reptile habitat within the exclusion fence boundary to facilitate the capturing process. These will be placed at a minimum density of 100 / ha.

3.2.3 Capture and transport

Reptiles will be captured by hand by a Suitably Qualified Ecologist (SQE) from beneath artificial refugia, or wherever they are encountered on site and placed into a suitable container and immediately transported into the receptor area.

3.2.4 Capture effort

The HGBI guidelines (1998) suggest that for a '**Low**' population of Slow Worms (the corresponding population size in the HGBI guidelines), a minimum of 60 capture effort days are expended; however, the capture effort will be reviewed on an *ad hoc* basis during the translocation (i.e. it may be that significantly less than 60 days is required to provide the 5 negative capture days).

3.2.5 Habitat manipulation

Once the capture operation is underway, habitat within the site may be manipulated in order to increase the capture rates. Typically this would involve the strimming of areas of suitable habitat to reduce cover for reptiles and increase their reliance on artificial refugia for cover. It will also concentrate any remaining reptiles into parts of the site where the density of artificial refugia can be increased. Any habitat manipulation works will be carried out by a contractor under the supervision of a SQE to ensure works are carried out without harming individual reptiles.

3.2.6 Timing

All works which entail the capture of reptiles will take place between March and September (depending on weather conditions). This timing avoids the hibernation period when reptiles would be particularly vulnerable to disturbance. Reptiles will not be translocated after the end of

September in order to allow them sufficient time to find suitable hibernation sites at the release area.

3.3 Prevention of Damage and Disturbance of Nesting Birds

In order to avoid disturbance of nesting birds or damage to their nests, clearance of the sections of hedgerow required for site access will be undertaken outside of the bird nesting season (typically March to August, dependant on the weather). If this is not possible, sections to be cleared should be thoroughly checked by an ecologist immediately prior to clearance. If any active nests are found they should be left undisturbed with a suitable buffer of undisturbed vegetation (ca. 3m) until the nestlings have fledged.

4.0 PROTECTION OF HABITATS

Due to the presence of habitats of some value to be retained, these habitats will be protected during the construction period within the site. Biodiversity protection zones will be established, with relevant signage. The purpose of these measures is to allow sensitive areas to be easily identified and to prevent any potential adverse impacts on protected habitats or species. A map of the areas has been provided in **Fig 5** below, showing the protection measures.

4.1 Habitats to be Protected

The adjacent woodland and adjacent trees / grassland and boundary hedgerow are planned to be retained and therefore require protection. The woodland is of particular importance and therefore will be identified as a “biodiversity protection zone” with suitable signage, as detailed below.

4.2 Protective Heras Fencing

To protect the habitats listed above, protective fencing, such as heras fencing, will be placed around these features to be retained. This will ensure that machinery cannot enter the area and cause any damage to the features. For trees/woodland, fences must be installed at the distance of the branch spread away from the tree trunk (British Standard 5837:2012 Trees in relation to construction) at a distance half the height of the tree, as a minimum. No vehicles will enter the protective ring fencing and no materials will be stored within their circumference. All protective fencing must be in place prior to any construction machinery arriving on site, before any works on site get underway, and will remain in place until all work is completed (***NB details on the tree protective fencing are provided within the AIA (Sapling, 2017) and the approximate location of this fencing based on the AIA is reproduced in Fig 7).***

In addition, suitable signage will be placed around the perimeter of the fencing to inform operatives that it is a biodiversity protection zone and they cannot enter. An example of suitable signage can be seen in **Fig 8**.

4.3 Silt fencing

There is a watercourse within the northern part of the site which will be protected from water pollution by installation of silt fencing (***NB part of the water course is to be culverted and details on this are provided within the drainage plan produced by Baker Gilby Associates, drawing ref 17053-2400).*** The approximate location of the silt fencing is shown in **Fig 7**. Further details on water pollution measures are included in **Section 5.0**.

Figure 7. Map showing the approximate location of fencing within the site plan

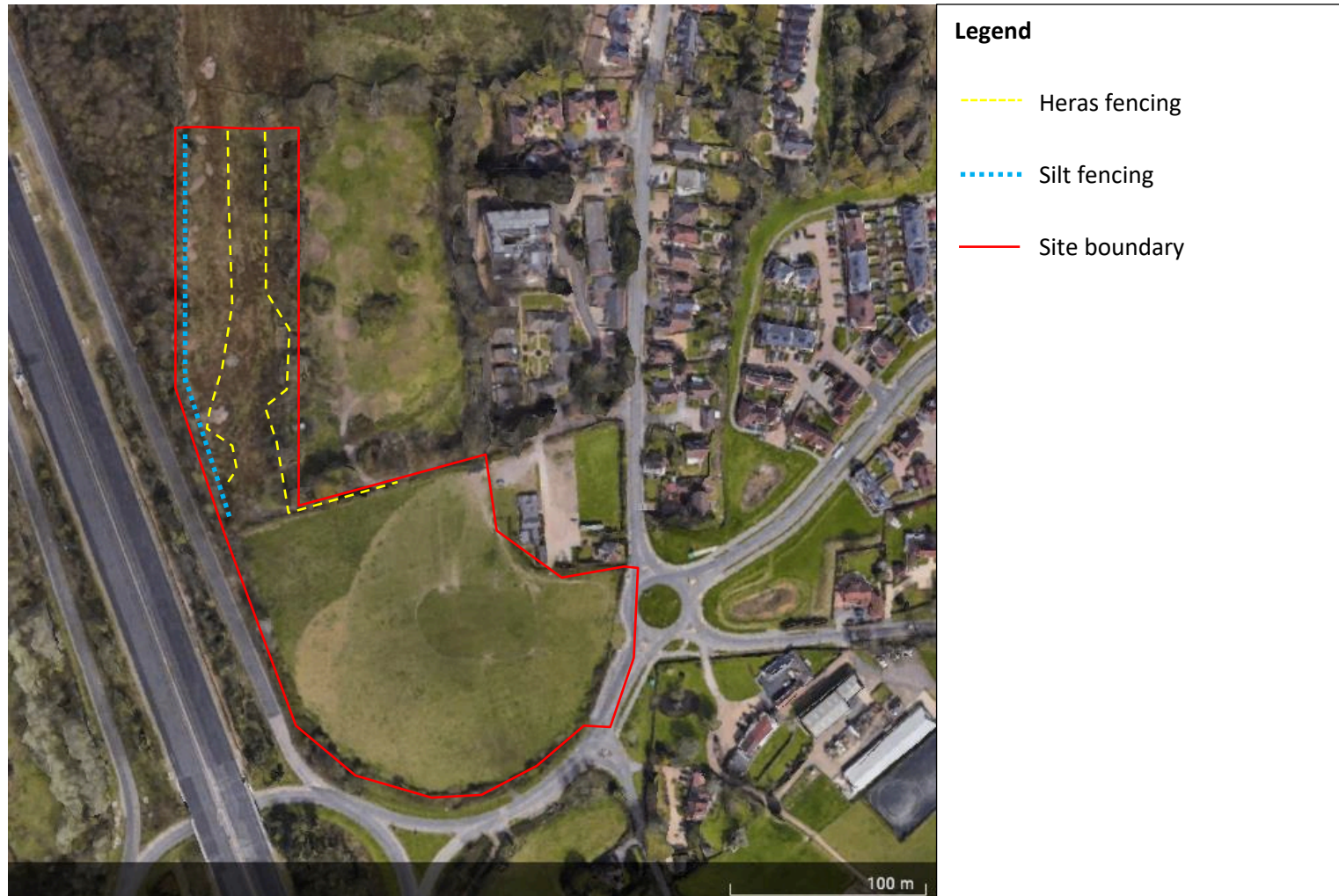


Figure 8. Example of biodiversity protection zone signage



5.0 WATER QUALITY

There is a water course within the northern part of the site and there is a risk that polluted water, generated during construction, could make its way into this system and enter the environment. It is understood a drainage plan has been produced for the site, which will mitigate this risk. General practical measures and sensitive working practices recommended to be included are provided in **Table 1** below to prevent water pollution through run-off.

Table 1. Practical measures and sensitive working practices involving water during construction.

Issue(s) to Control	Best Practices to be Adopted
Stormwater polluted with debris /chemicals	• Silt fencing to be installed along woodland boundary (as shown in Fig 7) • Minimise the areas of exposed ground • Locate siltation traps at key points on the site (where run off could enter drainage systems) and discharge all runoff through the traps. • Provide adequate drainage channels lined with impervious material. • Ensure integrity of hoarding to prevent uncontrolled discharge to stormwater drains outside site boundaries. • If it is not possible to install temporary water drainage works, as above, use sand bags (and sealed hoarding) to divert site water run-offs to siltation tank and water treatment systems. • Keep earthworks to a minimum during the rainy period. • Surround earthworks by dykes or embankments for flood protection and cover earthworks as appropriate. • To prevent soil erosion, compact earthworks final surfaces and perform subsequent permanent work/surface protection immediately after surface formation and provide appropriate drainage.
Concrete	• Recycle wastewater from washing of mixer trucks, drum mixers and similar equipment wherever practical to minimise wastewater discharge. • Treat all contaminated surface water from concrete operations with appropriate facilities.

6.0 AIR QUALITY

Construction activities have the potential to impact on air quality (i.e. through the production of dust). Construction activities are associated with the generation of nuisance dust (larger particles) and PM₁₀ emissions. The larger particles tend to fall out quickly and therefore the impacts are generally most likely to be felt within 200m of the development (Bureau Veritas, 2013). This has potential to negatively impact upon sensitive habitat receptors. **Table 2** provides a selection of techniques in order to prevent/minimise this.

Table 2. Practical measures and sensitive working practices involving air pollution control.

Issue(s) to Control	Best Practices to be Adopted
Emission of Dark Smoke from Equipment	• Conduct routine and major maintenance in accordance to manufacturer's instructions, and maintain records of all inspections and maintenance works. • Use fuel of quality specified by manufacturer/supplier. • Shut down all vehicles and plant in intermittent use between work periods or throttle down to a minimum idling speed (if the former is not possible).
Open Burning on Site	• Forbid open burning of wastes
Dust Emission from Construction Activities	General requirements: • Operate air pollution control equipment properly and effectively, in accordance to manufacturer's instructions. • In the event of a malfunctioning or breakdown of any air pollution control equipment, suspend the plant, process(s) or activity(s) concerned as soon as practicable until the equipment is restored to its proper function.
	Site boundary and entrance: • Provide vehicle washing facilities at the vehicle exit point.
	Access road (main haul road): • Pave with concrete, bituminous materials, hard core or metal plates, and kept clear of dusty materials; or • Spray with water frequently; • Keep the portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit clear of dusty materials.
	Exposed earth: • Treat properly by applying water spray, surface compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or temporary covers. • Schedule construction programme to complete works on open areas as quickly as possible.
	Dusty materials: • Dispose of cement, pulverized fuel ash or any other dusty materials collected by fabric filters or other air pollution control system or equipment in totally enclosed containers.

Issue(s) to Control	Best Practices to be Adopted
	Stockpile of dusty materials: • Cover stockpile over 50m³ entirely by impervious sheeting with enclosure extending at least 1 m above and beyond the stored materials. • Place in an area sheltered on the top and the 3 sides. • Spray with water.
	Loading, unloading or transfer of dusty materials: • Spray all dusty materials (except cement and PFA) with water immediately prior to any loading, unloading or transfer operation. • Control height from which excavated materials are dropped to a practical minimum.
	Pneumatic or power-driven drilling, cutting, polishing, breaking or crushing: • Spray water continuously on the surface during operation.
	Use of vehicles: • Wash every vehicle to remove any dusty materials from its body and wheels immediately before leaving the site. • Restrict vehicles to minimum practicable speed limits (< 10 km/h). • Where a vehicle leaving a construction site is carrying a load of dusty materials, cover the load entirely by clean impervious sheeting, which extends over the edges of properly fitting side and tail boards and dampen materials before transportation. • Make sure dusty materials are not loaded to a level higher than the side and tail boards.
	Excavation or earth moving: • Spray working area of any excavation or earth moving operation with water immediately before, during and immediately after the operation.

7.0 NOISE, VISUAL & VIBRATION

Noise and visual disturbance can have a range of impacts upon ecology dependent upon the sensitivity of the species, the nature and duration of the noise and the timing of the disturbance.

Activities associated with high levels of anthropogenic noise can re-structure animal communities (Barber et al. 2009). Reproductive, territorial, alarm and contact calls are forms of acoustical communication that noise can impact (Barber et al. 2009). This can result in a number of issues such as increased predation, and therefore death and injury, and decreased reproductive efficiency. These can both result in decreased numbers of certain species.

The site also contains areas of potential nesting bird habitat. Acoustic masking resulting from increasing background sound levels will reduce the number of individual birds that utilise communication networks and could have consequences for reproductive processes. For example, songbirds show greater nest desertion and abandonment within 100m of noise disturbance. Therefore **Table 3** provides methods of reducing noise.

Table 3. Practical measures and sensitive working practices to reduce noise during construction.

Issues(s) to Control	Best Practices to be Adopted
General Noise Control Measures	• Avoid simultaneous operation of noisy equipment. • Shut down all plant and equipment in intermittent use between work periods or throttled down to minimum idling speed. • Erect as early as possible noise source screening structures such as stores to shield the noise sensitive receivers (NSR). • Maintenance and servicing of equipment and vehicles in accordance to manufacturers recommendations especially for noise mitigation components e.g. retaining silencers and mufflers supplied with construction equipment.
Powered Mechanical Equipment from General Construction Works	Select quiet equipment whenever possible: • Silenced/super silenced compressors or electric compressor (when mains power available); • Hydraulic concrete cutters and crushers, and rock drills (up to 20 dB noise reduction). • Pneumatic breakers fitted with mufflers and damping collars (up to 21dB noise reduction)
Material movement	• Materials handled with care and heavy materials such as scaffolding and steelwork will be placed rather than dropped • Drop heights from lorries will be kept to a minimum.
Lighting (Section 3.1.1)	• Works will only be undertaken during daylight hours and with works completed at least 15 minutes prior to dusk or commencing 15 minutes after dawn to reduce disturbance to birds and bats. • Any lighting used will be restricted to daylight hours and will be directed away from sensitive habitat areas (i.e. woodland), using directional lighting where needed.

Issues(s) to Control	Best Practices to be Adopted
Fencing (Section 4.2)	• Heras fencing or similar will be used around the area of impact on site to limit disturbance outside of the construction area. • Tree protection fencing will be erected around any retained trees or hedgerow vegetation within the site to limit disturbance to habitat and any potential nesting birds.

8.0 HAZARDOUS SUBSTANCES

A number of hazardous materials are associated with construction projects. If not handled correctly, this can lead to contaminated soil, water or enter the natural environment. **Table 4** contains a variety of procedures to prevent ecological implications from hazardous substances.

Table 4. Practical measures and sensitive working practices involving hazardous substances.

Issue(s) to Control	Best Practices to be Adopted
Containers	• Use containers designed to minimise spills. • Ensure that containers used are appropriate to the substances contained (e.g. do not react with the substance, resistant to corrosions). • Ensure that containers are maintained in good conditions and securely closed. • Locate secondary containment store as far away from environmentally sensitive areas such as watercourses and water discharge points as possible. • Store goods away from heavily trafficked areas to avoid container damage. • In each storage area: • Ensure that only the substance(s) specified are stored. • Provide secondary containment or drip trays, and impermeable floor and bunding. • Prevent unauthorised access by providing locks to the storage areas.
Cleaning up minor spills	• Use sand, saw dust, or spill kit to absorb the spill and prevent it from spreading. • Dispose of the contaminated absorbent material as chemical waste. • Ensure that saw dust, spill kits, etc are readily accessible and of enough quantity.
Inspection and Maintenance	• Periodically inspect, and where necessary test, the condition of storage drums, tanks and pipelines (especially flanges and gaskets) • Inspect and maintain all plant and equipment to prevent leakage of chemicals/fuel.
Major Spills	• Contain the spill to minimise land contamination and pollution • Inform the Project Manager immediately. • The Project Manager shall arrange for appropriate removal and disposal of the chemicals by authorised organisations, and determine if other parties (e.g. Environment Agency) need to be informed.

9.0 CONCLUSION

The potential and confirmed presence of protected species and habitats requires sensitive methods and mitigation during and prior to construction. This construction method statement has detailed the methods which will be adopted to protect the environmental value of the site during construction works. This report should be read in conjunction with the supporting ecological reports.

10.0 REFERENCES

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