



A428 Black Cat to Caxton Gibbet improvements

TR010044

Volume 9

9.48 Pre-commencement Plan

Planning Act 2008

Rule 8(1)(k)

Infrastructure Planning (Examination Procedure) Rules 2010

November 2021

Infrastructure Planning

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**The Infrastructure Planning
(Examination Procedure) Rules 2010**

**A428 Black Cat to Caxton Gibbet
improvements**
Development Consent Order 202[]

9.48 Pre-commencement Plan

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1. Overview

1.1 Introduction

- 1.1.1 This document describes the proposed pre-commencement works (as defined by the dDCO **[TR010044/EXAM/3.1v3]**) to be undertaken by the Principal Contractor (PC) and details the Mitigation Measures required to appropriately control those works.
- 1.1.2 This document responds to the submission made at Deadline 1 by Cambridgeshire County Council, Huntingdonshire District Council and South Cambridgeshire District Council (the Cambridgeshire Authorities) called the 'Cover Letter and ISH1 Action Point response' **[REP1-103]**.
- 1.1.3 Within the Deadline 1 submission made by the Cambridgeshire Authorities, **[REP1-103]** the pre-commencement activities are listed as follows:
- a. archaeological investigations and mitigation works
 - b. environmental surveys
 - c. pre-construction mitigation works**
 - d. investigations for the purpose of assessing and monitoring ground conditions and levels
 - e. remedial work in respect of any contamination or other adverse ground conditions**
 - f. erection of any temporary means of enclosure
 - g. temporary hard standing**
 - h. receipt and erection of construction plant and equipment**
 - i. diversion and laying of underground apparatus and utilities
 - j. protection works**
 - k. **demolition** (save in relation to Brook Cottages),
 - l. site clearance**
 - m. **construction compound set up**
 - n. the temporary display of site notices or advertisements

Those highlighted in bold were indicated as the activities that brought the most concern to the Cambridgeshire Authorities.

- 1.1.4 This document is organised into two main sections;
- “2 Pre-Commencement Activities” - this section of the plan describes the types of activities the Applicant envisages undertaking for each of the pre-commencement works highlighted bold in paragraph 1.1.3 above. The descriptions provided in this plan are indicative of the type and magnitude of operations required.
- “0

Mitigation Measures” - this section of the plan sets out the mitigation measures that will apply to all pre-commencement works as defined in the dDCO and as listed in paragraph 1.1.3 above.

- 1.1.5 This document, together with the Biodiversity pre-commencement plan [APP-239] and the Archaeological Mitigation Strategy (AMS) [REP3-030] will apply to all pre-commencement works as defined in the dDCO and as set out in paragraph 1.1.3 of this document.

1.2 Limitations

- 1.2.1 The detailed design of the Scheme has not been completed at the time of producing this document, and as such, the construction programme and methods have not yet been fully determined. Therefore, the scope and methods described in this document are provided on an indicative basis only, to give an impression of the type and magnitude of the proposed operations.
- 1.2.2 As a result of further work on the detailed design and the construction programme, the methods have the potential to change from that described in this document. However, all pre-commencement works will be subject to the mitigation measures set out in this and other early control documents (i.e. the biodiversity pre-commencement plan and the AMS).
- 1.2.3 An indicative scope and method has been provided for only the activities of most concern to the Cambridge Authorities (highlighted bold in 1.1.3) in order to provide some context. However, however, all pre-commencement works are controlled by the mitigation measures in this document, together with the Biodiversity pre-commencement plan and the AMS.

Commented [KG1]: 1.1.5 The AMS [REP3-030] is not approved by the Cambs LAs. A revised document is required for approval and this reference should then be amended.

Commented [FT2]: PM: The Cambridgeshire authorities understand that these sections and the text in each following section will be revised and restructured to make clear what are the indicative scope and methodology elements and what are the required mitigation and control elements.

2. Pre-Commencement Activities

2.1 Pre-construction Mitigation Works

Scope

- 2.1.1 In order to minimise the impact to ecology caused by the main construction phase, a number of activities will be required within the pre-commencement phase. These are stated within 2.1.2 to 2.1.9.
- 2.1.2 Temporary fencing will be erected to protect ecological species and habitats from construction working areas where there is considered to be a risk from the construction activities.
- 2.1.3 Silt mitigation may be installed along watercourses where any pre-commencement works are taking place.
- 2.1.4 Bat boxes of various designs will be installed in retained woodlands within the Order Limits.
- 2.1.5 Bird nest boxes will be installed on selected retained trees within the Order Limits; these will be suitable for a range of species.
- 2.1.6 Fencing and hoarding will, as far as is reasonably practicable, be located such that it does not damage sensitive habitats, trees or hedgerows.
- 2.1.7 In locations where construction works are in proximity to Public Rights of Way (PRoW) the PC will fence off works areas using temporary fencing panels to segregate the site work areas from the public.
- 2.1.8 Clear sight lines will be maintained around hoardings and fencing with no hidden corners in order to avoid, where reasonably practicable, opportunities for anti-social behaviour and crime and to ensure the safety of vehicles.
- 2.1.9 Use and maintenance of adequate fencing and hoardings to an acceptable condition to prevent unwanted access to the site, to provide noise attenuation, screening and site security where required – this will include the need to provide viewing points at relevant locations, if appropriate.

2.2 Remedial works in respect of any contamination or other adverse ground conditions

Scope

- 2.2.1 Within Breedon's Quarry on the alignment of the new dual carriageway lie a number of silt lagoons that create unfavourable ground conditions on which to construct. This is of key importance for the River Great Ouse Viaduct structure that is to be built here during the main construction phase, and which will require a firm platform to safely operate large cranes, plant and equipment.
- 2.2.2 The silt lagoons will be filled with clean imported stone material to create a foundation suitable for the construction of the new dual carriageway across this area. The platform will be designed to satisfy all environmental, safety and technical constraints concerning levels, material properties and compaction. The material used will be subject to design and has not yet been specified.

Commented [DA3]: Pre-commencement phase activities should be informed by the preliminary works surveys for Biodiversity pre-commencement plan [APP-239] and method statement for any Natural England species mitigation licences (e.g. bats, Great Crested Newt, badger, Barn Owl) for activities that would otherwise be illegal. The Councils seek the document to be updated to reflect this, along with the need for no commencement prior to approval of the relevant licenses from Natural England.

Commented [DA4]: It is unclear where exactly the fencing will be installed. Further clarification is required, including a table listing when / where the fencing will be installed, including a constraints map showing the location. Such as specified distances from Badger sett, watercourse, birds nest. This should include fencing around the section of Protected Road Verge S8, Brockley Road.

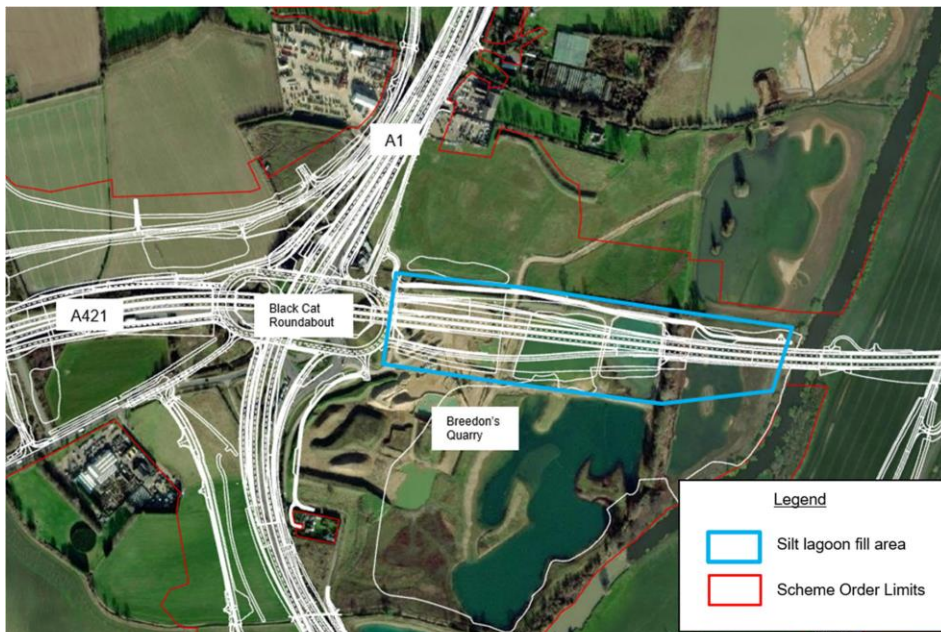
Commented [DA5R4]: If these details are not yet known, the Councils seek a mechanism to be consulted at to such details as the scheme progresses

Commented [DA6]: Any other bat mitigation measures should be implemented. Including veteranisation of trees and any protection of existing flight-line (should gaps be formed during construction)

Commented [DA7]: Why is this limited to the Order Limits? Barn Owl boxes must be installed pre-construction, but must be 1.5km away from the Order Limits. Please update to include Barn Owl

Commented [FT8]: PM: what measures are in place to deal with dewatering and possible contamination - akin to the measures at 3.1 of the First EMP?

- 2.2.3 The fill of the lagoons will be permanent under the footprint of the new dual carriageway, as its purpose is to provide a stable base on which to construct the permanent embankments. The lagoon fill will be placed during the pre-commencement phase however, any construction on top of the lagoon fill will proceed within the main works only.



Plan of Proposed Silt Lagoon Fill Area – Brendon's Quarry

Methodology

- 2.2.4 Significant Plant/Materials expected:
- 360° tracked excavators
 - Tracked dozers
 - Rollers
 - Stone delivery vehicles (road-going)
 - Imported stone material
- 2.2.5 Proposed Sequence
- Access will be gained via the existing quarry entrance, direct from the Black Cat Roundabout. This requires no temporary traffic management and therefore will not place an additional burden on the traffic flow of the surrounding road network.
 - Temporary welfare cabins will be established within the quarry area.

- c. The required construction plant will be delivered on flatbed vehicles/low loaders and offloaded within the quarry area.
- d. Stone delivery vehicles will arrive via road through the existing quarry entrance and tip the imported stone. There will be a maximum of 60 HGVs per day for this operation.
- e. The stone will be placed and spread using a combination of excavators and dozers. Generally, the dozers will spread the bulk of the material and the excavators will complete the trimming of the surface and edges.
- f. The surface, once filled to the designed level, will be compacted using a roller.
- g. The works will progress in a linear fashion from the west heading east (away from the quarry entrance) enabling the construction plant to be positioned on the newly laid platform, placing new material ahead of itself until the eastern limit is reached.

Commented [FT9]: PM: what are the relevant controls on HGV movements? Should there not be reference to traffic management measures as in the First EMP?

2.3 Temporary Hard Standings

Scope

- 2.3.1 Temporary hard standing areas are required at various locations site wide for the purpose of temporary access points, temporary welfare/compound areas, temporary working platforms (e.g. for cranes to operate safely), temporary laydown areas and temporary haul roads for use in the main construction phase.
- 2.3.2 Their dimensions will vary greatly depending on their purpose and each will be subject to a design to ensure they fulfil their performance requirements.
- 2.3.3 All the temporary hard standing areas will be constructed from a granular stone material that will be permeable to avoid any issues involving surface runoff.
- 2.3.4 Haul routes will be required to form a suitable travelling surface for vehicles to access areas remote from the public highways. They will be approx. 6m wide and will also be constructed from a granular stone material.

Commented [KG10]: The phasing of work to construct hardstanding areas and haul roads is critical to the success of the Archaeological Mitigation Strategy (once approved). Temporary works must take place after archaeological works been completed in those areas and where relevant. It would be helpful to have this stated for the avoidance of doubt.

Methodology

- 2.3.5 Significant Plant/Materials expected
 - a. 360° tracked excavators
 - b. Tracked dozers
 - c. Rollers
 - d. Stone delivery vehicles (HGVs)
 - e. Granular stone material
- 2.3.6 Proposed Sequence
 - a. Access will be gained via designated site access points, direct from public highways.

Commented [FT11]: PM: what are the relevant controls on HGV movements? Should there not be reference to traffic management measures as in the First EMP?

- b. The required construction plant will be delivered on flatbed vehicles/low loaders and offloaded within the site bounds. Alternatively, if a site haul route previously established is available, access will be prioritised within and through site and away from the public highway.
- c. Stone delivery vehicles will arrive via road through the site access point, travel to the work area and tip the imported stone.
- d. The stone will be placed and spread using a combination of excavators and dozers. Generally, the dozers will spread the bulk of the material and the excavators will complete the trimming of the surface and edges.
- e. The surface, once filled to the designed level, will be compacted using a roller.
- f. Haul routes will progress in a linear fashion heading away from the designated access point enabling the construction plant to be positioned on the newly laid platform, placing new material ahead of itself.

Commented [SH12]: Do these vehicles comply with the construction traffic route restrictions set out in the OCTMP [REP4-011]?

2.4 Receipt and erection of construction plant and equipment

Scope

- 2.4.1 The Scheme will make use of on-site concrete batching plants for the main construction phase. The on-site concrete batching plants will be established as part of the pre-commencement works in Wintringham (at the location of the Schemes main construction compound) and at Breedon's Quarry.
- 2.4.2 Each site will require a hardstanding area that may incorporate a concrete base/foundation for larger elements of the plant. The precise design and layout of the two sites is to be confirmed as it will be to the specification of the suppliers to enable them to achieve the Scheme's demands for concrete.
- 2.4.3 The plants will be modular and delivered by road via the existing quarry entrance (for Breedon's Quarry) and via the newly constructed Wintringham Junction (see paragraph 2.8.3) for the main construction compound. Larger elements of the plant will be offloaded and positioned using a crane.

Methodology

- 2.4.4 Significant Plant/Materials expected:
 - a. Delivery vehicles (road-going, mainly flat-bed lorries and low-loaders).
 - b. Cranes.
 - c. Modular batching plant elements (eg silo, pipework, precast concrete elements, etc).
- 2.4.5 Proposed Sequence
 - a. The hardstanding areas will be established as per section 2.3.6 (Methodology for Temporary Hardstandings).
 - b. Access will be gained via designated site access points, direct from trunk road network – i.e. the A1 at the Black Cat Roundabout for Breedon's Quarry or the existing A428 for the main construction compound at Wintringham.

Commented [FT13]: PM: what are the relevant controls on HGV movements? Should there not be reference to traffic management measures as in the First EMP?

- c. The necessary construction plant including cranes, will drive directly to the work area and mobilise.
- d. The modular elements of the concrete plants will be delivered to site on flat-bed lorries and low-loaders.
- e. The crane will offload and lift the elements into place to the specification of the plant supplier.
- f. The plant will be commissioned and tested.

2.5 Protection Works

Scope

- 2.5.1 There are approximately 122,000m of existing overhead or underground utilities within the Order Limits, including but not limited to; gas mains, electricity cables, oil pipelines, water, communication cables. For the majority, the utilities will be left uninterrupted and unaffected by the Scheme. If this is not possible, the services will be protected. The protection measures will be agreed with the respective statutory undertakers. In some instances, protection will not be feasible, and as a last resort, diverting the services will be implemented.
- 2.5.2 The specification of the protection will be dictated by the asset owner, closely following their requirements. For buried services, this is usually in the form of a reinforced concrete protection slab to spread the load applied by construction traffic passing over it. The concrete protection slab will be constructed in-situ and will be in the region of 10m x 6m typically. The precise dimensions of slabs will be subject to Temporary Works Designs.
- 2.5.3 For overhead services, protection will be in the form of a demarcated exclusion zone to segregate the main construction works from hazards. The Energy Networks Association (ENA) and Health and Safety Executive (HSE) GS6 guidance will be followed in the establishment of the exclusion zones. The precise type of fencing will be determined on a case-by-case basis dependent on the potential risk to the service or the workforce and the duration of main construction works programmed for that area. Longer term protection will likely be in the form of timber post and rail fencing whereas shorter term protection will likely be formed by Heras fencing.
- 2.5.4 Temporary fences will also be used to segregate the main construction operations from public areas and public rights of way. The type of fence adopted will be determined by the duration of requirement and risk to the public/workforce.
- 2.5.5 Fencing and protection slabs will be adopted site wide wherever the Scheme borders or interacts with a service or the public.

Methodology

- 2.5.6 The methodology will depend on the type of protection selected in each case. Generally, the two main types that the PC is likely to implement are described below as an example.

Commented [FT14]: PM: can the Applicant confirm that, apart from commissioning, the plant will not be operated under the pre-commencement works. If not, and the plant is to be operated, controls as to air quality (under something akin to the Air Quality Management Plan in the First EMP) and noise (akin to the Noise Management Plan) should be implemented.

Commented [CB15R14]: From an AQ perspective other legislation is available to control this aspect as the batching plant will require an Environmental Permit under the Environmental Permitting Regulations (2016). This will contain conditions to minimise and control emissions to air. The Permit will be required prior to operation.

(a) *Protection Slabs*

- (i) The design and construction methodology of the slab will be agreed and approved by the asset owner in advance of the works.
- (ii) Generally small plant and hand tools are favoured when working around buried assets.
- (iii) The ground will be civilised using mechanical plant (e.g. a small excavator) where permitted.
- (iv) Reinforcing steel will be placed as per the design and timber shutters will be erected to create the form of the slab.
- (v) The form will be filled with concrete, delivered using a concrete wagon, directly placed within the slab.
- (vi) The surface will be finished in accordance with the design and left to cure.
- (vii) The timber shutters will be removed and the ground around the slab will be civilised to match the top level of the slab.
- (viii) Following a temporary works inspection/asset owner's inspection, the slab will be approved for use and subject to an ongoing inspection routine in line with Temporary Works requirements.

(b) *Temporary fencing*

- (i) The type of fencing will be determined by the Scheme in liaison with all relevant stakeholders.
- (ii) Light duty fencing i.e. Heras fencing, crowd barriers and cone/chain, will be set out by an engineer and placed manually by a small gang of operatives using standard assembly procedures.
- (iii) Heavier duty fencing i.e. post and rail, wire mesh, site hoarding etc. will be set out by engineer and installed using post drivers or concreted in.
- (iv) The infill panels i.e. timber rails, wire mesh, wire strands will be attached using simple hand tools by a small gang of operatives.

2.6 Demolition (save in relation to Brook Cottages)

Scope

- 2.6.1 The pre-commencement demolition works are limited to the A1 Service Area and the Travelodge at the Black Cat Roundabout. They are to be demolished to enable the construction of the new dual carriageway.

Methodology

- 2.6.2 The precise methodology and sequence of demolition will be developed with a specialist demolition contractor to minimise the impact on the surrounding area and to remove the buildings using the safest possible methods.

Commented [FT16]: PM: what measures are in place to deal with any contaminated material encountered - should the Contaminated Land Management Plan not apply?

- 2.6.3 Generally, the demolition will involve the use of specially equipped excavators and other similar plant to raise the buildings to the ground in small sections. The demolition waste will be removed from site on **HGVs** and disposed/recycled as appropriate.
- 2.6.4 At both proposed locations, access will be direct from/to the strategic road network without requiring any additional temporary traffic management.

Commented [FT17]: PM: what are the relevant controls on HGV movements? Should there not be reference to traffic management measures as in the First EMP?

2.7 Site Clearance

Scope

- 2.7.1 To enable the main construction works, clearance of vegetation (trees, hedgerows and ground vegetation) site wide within the Scheme Order Limits is required.
- 2.7.2 The vegetation will be cleared in accordance with a Permit to Clear issued by the **Ecological Clerk of Works (ECoW)**. **A Permit to Clear is a procedure adopted by the PC that ensures that vegetation clearance only commences once the vegetation has been inspected by the ECoW.** Once the ECoW is satisfied that there will be no detriment to ecology, they will issue a permit to the responsible person for that task, permitting the clearance works to proceed.
- 2.7.3 The vegetation will be completed using powered tools and equipment including trimmers, flails, and chainsaws. Vegetation clearance is required site-wide wherever vegetation will obstruct the construction of the new dual carriageway.

Commented [KG18]: This should follow methods agreed with the Archaeology Clerk of Works to prevent damage to archaeological sites in woodland areas.

Commented [DA19]: This doesn't cover areas of undisturbed bare ground, which are suitable for ground nesting birds. Permits should be extended to include areas of land left undisturbed period during the bird breeding season.

Methodology

- Access for site clearance works will be gained via authorised site accesses and temporary haul routes through site.
- All the required surveys, inspections and ecological mitigation will be completed by an ECoW who will issue a Permit to Clear vegetation.
- Any vegetation requiring protecting or retaining i.e. **trees under Tree Protection Order,** will be protected from damage.
- The vegetation will be removed in accordance with the Permit to Clear vegetation using specialist equipment, e.g. trimmers, flails and chainsaws.
- All cleared vegetation will be loaded onto a transport vehicle and removed from site for processing, reuse or disposal.

Commented [FT20]: PM: the biodiversity management plan will apply.

Commented [DA21]: please add - veteran elm and Protected Road Verge S8

2.8 Construction Compound Set-up

Scope

- 2.8.1 The proposed location for the main construction compound is at Wintringham, adjacent to ongoing residential development projects.
- 2.8.2 There will be pre-commencement work to establish this compound that will include temporary modular buildings, carparks, footways, fencing, lighting, services/utilities and drainage.

- 2.8.3 It is anticipated that the access will be via a roundabout that will be constructed by the residential developer under their own planning permission and will not form part of the Scheme's pre-commencement or main construction works. Once the roundabout is complete, the Scheme will access the main construction compound directly from it.
- 2.8.4 There will also be a number of smaller 'satellite' compounds on the Scheme, located within Breedons' Quarry, the Travelodge site and a number of minor vehicle recovery compounds. These sites will also incorporate modular buildings and all other provisions mentioned previously but on a smaller scale and sited on the temporary hardstandings described in 2.3.

Methodology

- a. Utilities: Installed using standard installation techniques, laying ducting, pipework, cables and connections.
- b. Culvert: to gain temporary access to the area (pre-completion of roundabout by others), Hen Brook requires a culvert to be installed enabling access from the north of the site. This will be in accordance with all appropriate consents (i.e. from the Environment Agency), permits (i.e. Permit to Clear) and temporary works designs.
- c. Earthworks: All of the compound areas will first have the topsoil layer stripped and stockpiled in a designated bund. The bund will be sealed and seeded. The formation will be trimmed to the required level and the subsoil stockpiled separately from the topsoil. Hardstanding will be installed as previously described in 2.3.
- d. Drainage: installed using standard pipelaying and connection techniques.
- e. Foundations: The footings for cabins will be installed where applicable in the form of a small concrete pad or proprietary product (for example, Wysebase footings or similar) in accordance with a temporary works design.
- f. Cabins: the cabins will be relocated from their existing location in Brampton to the main construction compound. The cabins will be delivered on flatbed/lowloader transport, with access directly from the A428 access (roundabout) and lifted into position using a mobile crane or similar. Once in their correct location they will be connected, assembled and commissioned.
- g. Paved areas: Where practicable, the carpark and footways will be paved using standard paving techniques.
- h. Landscaping: the area immediately surrounding the offices that is not paved will be civilised using an excavator and seeded where practicable.

Commented [FT22]: PM: comments above regarding Contaminated Land Management Plan apply.

3. Mitigation Measures

- 3.1.1 This section details the mitigation measures that will be implemented to control the pre-commencement works.
- 3.1.2 For each pre-commencement activity, the proposed construction methods will be reviewed in-line with this document and all applicable mitigation measures will be implemented. For example, any operations involving construction plant will be controlled by the Fuels and Oils section (3.1.5 - 3.1.7). If that operation also involved an interaction with a watercourse, it would additionally be controlled by the section on water quality (3.1.8 - 3.1.11). All pre-commencement activities are also controlled by the biodiversity pre-commencement plan.
- 3.1.3 Mitigation measures can be considered as source control (i.e. to prevent fine sediment-laden runoff forming and to treat contaminated runoff close to where it forms), barriers and conveyance measures (i.e. to prevent site runoff draining uncontrolled into water bodies and to direct and treat it en-route to storage areas), and storage and final treatment areas (i.e. where water is stored on site and treated to the required quality prior to it being discharged from the site).
- 3.1.4 The mitigation measures set out in this document are considered sufficiently detailed to control of the pre-commencement works and as such no further approval of this document, once consent is granted, will be needed.

Fuels and Oils

- 3.1.5 The storage, dispensing, containment and use of all fuels, oils and COSHH materials and wastes shall be undertaken in accordance with regulatory and good practice guidance.
- 3.1.6 For COSHH materials and waste, relevant control and management measures may include:
 - a. Storage will be in a secure, bunded and sheltered area.
 - b. Waste will be segregated.
 - c. COSHH liquids will not be stored in flood zones.
 - d. Areas will be supervised, and records of materials and waste stored and removed from the area recorded.
 - e. The handling, storage and disposal must be undertaken as described in the COSHH Assessment and any Material Safety Data Sheet (MSDS).
- 3.1.7 Fuel and oil (including mould oil) must be stored in accordance with The Control of Pollution (Oil Storage) (England) Regulations 2001, with fuels and oil handled in such a way that risk of pollution is minimised. Specifically:
 - a. Fuel and oil storage tanks must comply with *The Control of Pollution (Oil Storage) (England) Regulations 2001* (REF 1-1) and must be locked outside working hours.
 - b. Storage areas must not be located within 20m of watercourses, ponds, site drainage or within any areas of flood zones or on a gradient.

- c. Refuelling must not be permitted within 20m of a watercourse/pond, within 20 metres of a highway drainage gully/site drainage, or within areas of flood zones.
- d. Mobile bowsers must be integrally bunded and must comply with *The Control of Pollution (Oil Storage) (England) Regulations* (REF 1-1) and must be secured outside working hours.
- e. Trained operatives will carry out refuelling of plant and equipment.
- f. Plant nappies will be used during refuelling.
- g. Drums will be stored in bunded areas with a minimum capacity of 25% of the total volume contained within the bund, or 110% of the largest container, whichever is the greater. Where possible, these bunds must be fitted with roofs to prevent the collection of rainwater. Individual drums in use shall be stored on a drip tray sufficient to contain 25% of the full capacity of the drum.
- h. Storage tanks and drums will be maintained in a good condition, fitted with lids and labelled to indicate the contents.
- i. Static combustion engine plant (e.g. compressors, lighting sets) will be integrally bunded or placed on plant nappies.
- j. Bunds, tanks pipework and plant will be regularly checked for signs of damage or leaks and must be regularly maintained.
- k. Spill kits will be provided within close proximity to fuel and oil storage areas, with plant that is operating in isolated areas, and in welfare facilities. Drivers, operators and stores personnel will be trained in security and the use and safe disposal of spill kits.
- l. Drums must be stored in bunded areas with a minimum capacity of 25% of the total volume contained within the bund, or 110% of the largest container, whichever is the greater. Where possible, these bunds will be fitted with roofs to prevent the collection of rainwater. Individual drums in use must be stored on a drip tray sufficient to contain 25% of the full capacity of the drum.

Water Quality

- 3.1.8 The specific silt management techniques will be determined by the PC following a risk assessment based approach to the circumstances and applying suitable control measures in order to avoid detriment to water quality and being exposed to potential prosecution. The techniques will be adapted throughout the works depending on the need and circumstances at any given time, and ensuring the same outcomes are achieved. However, measures that may be used include:
- a. Fabric silt fences, sandbags and straw bales
 - b. Earth bunds and settlement lagoons
 - c. Settlement tanks
 - d. Drainage cut-off ditches with check dams and/or sediment traps
 - e. Baffle pads or other measures to dissipate flow energy on any temporary outfalls to water bodies

- 3.1.9 Pre-construction water quality, level and flow monitoring will be conducted.
- 3.1.10 Water bodies to be monitored and the scope of monitoring will be based on risk assessment but will include all watercourses that may be adversely impacted during the pre-commencement works.
- 3.1.11 The monitoring programme should be sufficiently comprehensive to ensure there is a robust baseline against which the monitoring during construction works can be compared.

Statutory Nuisance

3.1.12 The “Best Practical Means” should be adopted for all pre-commencement activities to avoid unacceptable noise, air pollution and land contamination. There should be a single point of contact to handle any complaints.

3.1.13 Effective water suppression will be used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.

3.1.14 Air quality monitoring will be undertaken where necessary and after risk-assessing the activities and/or receptors.

3.1.15 Best practicable methods will be implemented to reduce noise as far as possible. This may include acoustic panelling, agreement of suitable permitted working hours with the local authority, and the use of new and well-maintained plant and equipment.

3.1.16 The work will be fenced off from the public to prohibit access from unauthorised persons. In some of the more sensitive boundaries, it may be appropriate to erect screens to protect neighbouring property from the works. This will be determined on a case-by-case basis using a risk assessment approach, considering the nature of works and the receptors present.

Ecology

3.1.17 Areas of vegetation clearance and top-soil strip should be limited as much as practicable. Where possible, vegetation clearance across the Scheme will be phased to minimise the areas of exposed ground and reduce the potential risk for runoff.

3.1.18 Any vegetation removed will be assessed and recorded using a Permit to Clearform. The Ecological Clerk of Works (ECoW) will decide all permits.

3.1.19 If possible, vegetation must be removed outside of bird nesting season (March-August inclusive).

3.1.20 Phased vegetation clearance outside the hibernation period for reptiles to render habitat unfavourable for reptiles to shelter, which will encourage dispersal into adjacent areas of suitable habitat.

3.1.21 The ECoW will be responsible for ensuring construction environmental

Commented [DA23]: Why does this section not refer to the Pre-commencement Biodiversity Plan [APP-239] and the proposed survey work and development of the constraints plan, which may influence the protection measures required?
Why is there no reference to bats, badgers and Great Crested Newts during site clearance works?
Or protection (fencing) of Protected Road Verge?
Or no works to commence until the relevant mitigation licences obtained from Natural England? Which will also inform the list of pre-commencement requirements

Commented [DA24]: What happens if it is not possible to remove vegetation outside of bird nesting season? What happens if the works are located close to Schedule 1 (WCA) bird nest?

Consideration must also be given to commencement of works on areas of undisturbed bare earth suitable for ground nesting birds (e.g. Little Ringed Plover). Permits should be issued where areas have remained inactive for a period of time and could have been started to be used by breeding birds (as has happened as a result of the A14)

Commented [DA25]: Why is there no consideration of vegetation clearance of Great Crested Newt habitat? including suitable hibernation sites / removal of ponds? And no clearance prior to licence(s)

mitigation measures are correctly implemented, monitored and maintained.

~~3.1.213.1.22~~ Stockpiles will be covered seeded or fenced to prevent wind whipping.

~~3.1.223.1.23~~ Trees will be protected from construction works in accordance with the best practice measures contained in the following British Standards: _____

- a. BS 5837:2012 – Trees in relation to design, demolition and construction (REF 1-2)
- b. BS 3998:2010 – Tree Work: Recommendations (REF 1-3)

Further advice will be sought from the Local Authority regarding the protection of trees.

3.1.233.1.24 A Root Protection Area (RPA) will be set up around trees to be retained on site prior to commencement of construction

3.1.243.1.25 The RPA will be demarcated by a suitable physical barrier. The protective fencing will be maintained for the duration of the construction phase and checked on a regular basis.

3.1.253.1.26 In the event that an RPA cannot be maintained at 12 times the diameter at breast height, mitigation such as bog matting, flotation tyres and hand digging will be utilised.

Traffic Management

3.1.263.1.27 None of the pre-commencement works require long-term traffic management i.e. any traffic management required to complete pre-commencement works will be erected at the start of a shift and removed at the end of the same shift.

3.1.273.1.28 Traffic management will be designed and implemented by a specialist traffic management contractor only in accordance with any consents necessary.

Soil Management

3.1.283.1.29 Pre-commencement works requiring the removal of soil will require designated areas in the immediate vicinity of the excavation in which to stockpile the soil.

3.1.293.1.30 Stockpiles will be segregated to ensure that the topsoil and subsoil are not mixed or contaminated.

3.1.303.1.31 Stockpiles will be sealed at the end of each working shift to minimise dust creation, avoid migration/mixing of different soil types, protect the soil from degradation due to weather, and to ensure the stockpiles remain stable.

Commented [FT26]: PM: this section requires greater detail with reference to relevant controls that are set out in the Traffic Management Plan of the First EMP.

Commented [FT27]: PM: but they will require management of potential acute effects.

Commented [FT28]: PM: this section requires greater detail with reference to the relevant policies of the Contaminated Land Management Plan.

4. References

- Ref 1-1. The Control of Pollution (Oil Storage) (England) Regulations 2001
- Ref 1-2. BS 5837:2012 Trees in relation to design, demolition and construction. British Standards Institution (2012).
- Ref 1-3. BS 3998:2010 – Tree Work: Recommendations. British Standards Institution (2010).