Countryside Properties UK Limited

FREEKS FARM

Construction Environmental Management Plan (CEMP)

V6
FEBRUARY 2020

PUBLIC

Countryside Properties UK Limited

FREEKS FARM

Construction Environmental Management Plan (CEMP)

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1 INTRODUCTION

1.1 PURPOSE OF THE CEMP

1.1.1. WSP has been commissioned by Countryside Properties Limited (the 'Applicant') to prepare a Construction Environmental Management Plan (CEMP) in support of a reserved matters planning application for a residential development comprising of 460 dwellings (hereafter referred to as the 'Proposed Development') on roughly 20.65 hectares (ha) of land south of Freeks Farm, Burgess Hill (hereafter referred to as the 'Site').

1.1.2. The Proposed Development is set to begin construction in December 2020 and completed in July 2024.

1.1.3. This CEMP sets out the overarching principles for construction management of the Proposed Development to discharge Condition 3 and 5 of the planning permission (Ref: DM/18/0509) issued by Mid Sussex District Council (MSDC). In addition, this CEMP aims to:

- Provide an overview of the methodology to be adopted during construction of the Proposed Development;
- Outline the environmental constraints on and around the Site and the potential impacts on these;
- Ensure that mitigation measures are implemented during construction;
- Ensure that construction industry best practice standards are adopted throughout the construction of the Proposed Development; and
- Be a point of reference for the project team, interested parties and site workers.

1.2 LEGAL COMPLIANCE

1.2.1. Considerable environmental legislation applies to the works to be undertaken. The expectation is that all relevant legislation, including requirements for licences, permits and/or consents shall be identified and the appointed Principal Contractor (herein the 'PC') will be required to provide details of how compliance is to be achieved as part of the construction process.

1.2.2. For each significant environmental aspect, the relevant applicable environmental legislation and regulations will be identified from, but not limited to the list provided in **Appendix A**. The list of relevant legislation and its applicability to the Site and the construction works will be reviewed and updated where necessary.

1.3 CONDITION 3

1.3.1. The production of a CEMP is a requirement of Condition 3 of the decision notice issued by MSDC of the planning application (Ref:DM/18/0509). The Condition sets out several elements that are required to be provided within, and alongside this CEMP prior to the commencement of any construction work. The wording of Conditions 3 and 5, including a description of each element and where the relevant information can be located within the CEMP is provided in **Table 1-2 below**.

Table 1-1 – Requirements of Condition 3 of DM/18/0509 and location of relevant information within this CEMP

Condition 3		
'Prior to any works commencing on any phase (including site clearance/preparation and/or demolition), a construction management plan for that phase shall be submitted to and be approved in writing by the Local Planning Authority after consultation with West Sussex County Council (WSCC). Thereafter, the applicant and contractors shall complete the works in accordance with the approved plan throughout the construction period in order to minimise disturbance during demolition and construction and will include details of the following information for approval. Details of how measures will be put in place to address any environmental problems arising from any of the below shall be provided. A named person shall be appointed by the applicant to deal with complaints, shall be available on site and their availability made known to all relevant parties'		
Condition Requirement	**Description**	**Location in this CEMP**
3a	*The phased programme of construction works*	Section 4.1
3b	*The means of access and road routing for all construction traffic associated with the development*	Section 4.5
3c	*Details of a scheme for the monitoring of noise, dust and vibration (including any piling) in accordance with the appropriate British Standard (BS). The report on the assessment made under the BS shall include estimated values of LAeq and show all calculations*	Section 6.2
3d	*Provision of wheel washing facilities and details of their operation and location*	Section 4.5
3e	*Construction work including delivery times*	Section 4.4 & 4.5
3f	*Details of a means of suppressing dust arising from the development and site boundary fencing*	Section 6.3
3g	*Details of all proposed external lighting to be used during construction*	Section 4.11
3h	*Details of all areas to be used for the storage of plant and materials associated with the development*	Section 4.10
3i	*Details of areas for the loading, unloading, parking and turning of vehicles associated with the construction of the development*	Section 4.5
3j	*Details of the temporary construction site enclosure to be used throughout the course of construction*	Section 4.9
3k	*Details of any construction accesses to be used*	Section 4.5
3l	*Details of the appropriate public consultation that will be required*	Section 3.6
3m	*Details of scheme to protect residential properties from the noise sources during construction*	Section 6.2

1.4 CONDITION 5

1.4.1. The MSDC decision notice also outlined Condition 5 associated with the management of surface water which has also been covered within this CEMP. Details on the location of the various condition requirements and their location within this CEMP can be found in **Table 1-2** below.

Table 1-2 - Requirements of Condition 5 of DM/18/0509 and location of relevant information within this CEMP

Condition 5		
'No development of a phase shall take place, including any works of demolition, until a Management of Surface Water during Construction Plan for that phase has been submitted and approved in writing by the Local Planning Authority. Thereafter, the approved Plan shall be implemented and adhered to throughout the entire construction period. The Plan shall provide details as appropriate but not necessarily be restricted to the following matters:		
Condition Requirement	**Description**	**Location within this CEMP**
5a	*The protection of receiving watercourses from polluted runoff including silt*	Section 6.4
5b	*The protection of ancient woodland and other wildlife habitats from polluted runoff and silt*	
5c	*The pumping of water from excavations and how it will be disposed of*	
5d	*Methods to prevent run off from the site during construction to ensure that properties situated lower than the site will be protected from flooding*	
5e	*Methods to attenuate surface water during construction and how it will be managed following collection*	

1.5 STRUCTURE OF THE CEMP

1.5.1. This CEMP is based on established good management practice through British Standards and the Construction Industry Research and Information Association (CIRIA) guidance, and includes the following sections:

- **1. Introduction**: Outlines the purpose and the legal obligations of the CEMP;
- **2. The Site and Proposed Development**: Including a description of the Site and surrounding area, a description of the Proposed Development, and a summary of sensitive environmental receptors on Site and in the immediate vicinity;
- **3. General Requirements:** Outlines the general requirements to be implemented as part of the CEMP, including audits and inspections, consents, health and safety, objectives and targets, roles and responsibilities, training, internal and external communication procedures, method statements and incident response;
- **4. Construction Information**: Provides a description of the works, construction programme, proposed working hours, details of haulage routes and equipment to be used;

- **5. Key Environmental Effects:** Identifies and provides a brief description of the key environmental effects identified in the environmental assessment;
- **6. Environmental Control Measures**: Provides control measures that the Principal Contractor shall implement to minimise impacts to the environment;
- **7. Monitoring:** Outlines the requirements for monitoring throughout the lifecycle of the Proposed Development including reporting procedures for environmental incidents and the communication and complaints procedure; and
- **8. Summary:** Concludes the purpose of the CEMP and key environmental considerations that will need to be considered during demolition and construction.

2 THE SITE AND PROPOSED DEVELOPMENT

2.1 THE SITE AND SURROUNDING AREA

2.1.1. The Site covers an area of approximately 20.65 hectares and is located to the north of Burgess Hill. The Site forms a parcel of land that borders the western side of Freeks Lane. The Proposed Development also includes a new access constructed to the east of Freek's Lane from Maple Drive.

2.1.2. The Site is primarily agricultural land interspersed with hedgerows and scattered woodland. The fields comprise of a combination of small and medium sized irregular shaped fields under pastoral land use. There is also an area of former farm buildings to the north that comprises delipidated agricultural units and a field with a collection of farm machinery and vehicles scattered throughout. There are also areas of species poor semi-improved grassland, tall ruderal vegetation and dense scattered scrub.

2.1.3. Vegetation throughout the Site is primarily confined to the boundaries, except for a few mature trees in the northern fields and several mature hedgerows forming field boundaries. The boundary vegetation generally comprises of a strong and extensive established landscape framework of woodland with mature tree belts, with mature hedgerows dissecting the fields. The extensive landscape framework restricts many views into and out of the Site as well as having a relatively low-lying topography.

2.1.4. The Site also contains a river valley and is bordered to the west and north by the River Adur.

2.2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.2.1. The Proposed Development description which forms the basis of this CEMP is provided below and the proposed Ste layout provided in **Appendix B**:

'*Residential development comprising up to 460 dwellings, public open space, recreation area, play areas, associated infrastructure including roads, surface water attenuation and associated demolition (outline application with all matters reserved except for principal means of access from Maple Drive.'*

2.2.2. This CEMP covers the following proposed construction activities of the Proposed Development:

- Enabling works (earthworks);
- Landscape and ground profiling;
- Installation of drainage;
- Construction of foundations which may include piling along access road through landfill site;
- Construction of dwellings;
- Installation of services and commissioning;
- Construction of on-site highways; and
- Construction of off-site highway improvements.

2.2.3. **Table 2-1** below identifies the potential receptors that have been recognised as being potentially sensitive to construction works due to their location in proximity to the Site;

Table 2-1 – Sensitive Receptors

Environmental Topic	Receptor and Location
Ecological Designations	■ Bedelands Farm Local Nature Reserve and Site of Nature Conservation Importance is located roughly 110m east of the Site ■ There are two areas of ancient woodland in close proximity to the Site including Big Wood (adjacent to the Site to the north-east) and Ten Acre Gill (10m north of the Site)
Habitats	■ On-Site habitats including woodland, hedgerows, ponds and watercourses
Protected Species	■ Freeks Farm has high suitability to support roosting bats; ■ Two badger setts are located within the Site, however are currently disused; ■ Hazel dormouse is confirmed present within hedgerow, scrub and woodland habitats within the Site; ■ Several habitats on Site are likely to support nesting birds; ■ Great Crested Newt terrestrial habitat located within the Site, however no breeding ponds within the Site; ■ Slow worms have been found present on the southern part of the Site
Archaeology	■ Previously unrecorded archaeological deposits potentially present within the southern portion of the Site.
Noise and Vibration	■ Residential and amenity receptors and schools adjacent to the Site and near the surrounding road network
Air Quality	■ Mid Sussex AQMA No.1 located 5km south of the Site ■ 20 ecologically sensitive receptors ranging from 40m – 1km from Site ■ Residential receptors and schools adjacent to the Site and near the surrounding road network
Water	■ River Adur adjacent to the Site ■ Residential receptors adjacent to the Site ■ Flood risk to adjacent dwellings ■ World's End Stream runs through the Site
Ground Conditions	■ Construction workers ■ Surrounding Site users ■ Groundwater bodies ■ Vegetation and Wildlife ■ Agricultural Land ■ Underlying mineral resources

3 GENERAL REQUIREMENTS

3.1 REQUIREMENTS AND CONSENTS

3.1.1. The Proposed Development shall be carried out within the requirements (but not limited to) of relevant legislation contained within **Appendix A** of this CEMP.

AUDITS AND INSPECTIONS

3.1.2. Once work commences, internal environmental inspections and audits on the Project will be conducted on a regular basis (usually 6 months or after a significant change). Audits will be carried out in accordance with the PC's and Applicant's Environmental Management System (EMS) to assess the environmental performance of the Project and to check compliance with the legal and contractual requirements. Audit timeframes shall be discussed and agreed between the PC and Applicant.

3.1.3. Environmental inspections will take place in accordance with the EMS to ensure the Site is assessed and requirements set out within this CEMP are adhered to whilst demolition and construction activities are taking place.

CONSENTS

3.1.4. A register of consents covering: planning, highways and environmental will be prepared and maintained by the PC to keep track of any progress. This will enable the Project Team to plan for consents to be applied for and obtained prior to the relevant works activity commencing.

3.1.5. The progress of the preparation, submission and internal approval of the consents identified as being required will be tracked using the consents register.

3.1.6. This CEMP will be the overarching document outlining and tracking the delivery and achievement of legal compliance.

HEALTH AND SAFETY

3.1.7. This CEMP provides and overview of the measures and processes that are likely to be adopted during the demolition and construction phases of the Proposed Development. However, it is not intended to fulfil any legislative obligations of the PC regarding occupational health and safety. These obligations will be met within a standalone construction Health and Safety Plan.

3.2 OBJECTIVES AND TARGETS

3.2.1. The objective of this CEMP is to ensure all those involved in the demolition and construction phases of the Proposed Development follow a specific framework which outlines all environmental impacts associated with the implementation of the proposed work activities. It ensures the environmental risks are properly identified and outlines the mitigation to be employed throughout both the demolition and construction phases of the Proposed Development.

3.3 ROLES AND RESPONSIBILITIES

3.3.1. Personnel with defined environmental responsibilities are detailed in **Table 3-1** below. Each individual will sign to confirm that they understand and accept their designated duties and responsibilities. Where there is more than one individual with responsibilities, these personnel will sign a project induction which will confirm the acceptance of their environmental and sustainability

responsibilities. In accordance with Condition 5 of the decision notice, a named person will be appointed by the Applicant to deal with any complaints under the CLO Role.

Table 3-1 – Responsibilities Matrix

Individual	Role
Applicant	■ Pre-start Public Consultation ■ Ensures that all relevant environmental documentation and information, e.g. existing consents, changes to the design are communicated to the designer and contractor; ■ Setting the standard for environmental management on Site, as stated in the contracts; and ■ Reporting any environmental concerns and responding appropriately to incidents. ■ Discharge planning conditions
Project Manager (including responsibilities as Environmental Manager and Community Liaison Officer)	■ Overall responsibility for ensuring conformance with the CEMP and ensuring any incidents are appropriately investigated In relation to Environmental Management, the Project Manager shall ensure work is carried out: ■ In accordance with legislation & consents, objectives, targets and the CEMP with regards to any environmental activities on Site. ■ Ensure site staff operates in accordance with agreed Risk Assessments and Method Statement (RAMS) particularly for activities that have the potential to cause harm to the environment; Monitor/Report environmental issues by: ■ Ensuring compliance with environmental legislation & consents, objectives, targets and the CEMP; ■ Carrying out Inspections, Audits and Non – conformance. ■ Responsible for delivering environmental training. ■ Environmental Manager to liaise with SHEQ Manager to ensure a Site Waste Strategy is implemented; ■ Environmental performance reporting; ■ Ensure work is carried out in accordance with the environmental documentation submitted alongside the planning application

	▪ Compliance with environmental legislation, consents, objectives, targets and other environmental commitments ▪ In their role as Community Liaison Officer is responsible for: • Gathering and sharing information; • Fostering an environment that encourages and supports community involvement and engagement; • Leading community development activities (e.g. apprenticeships, work experience etc.); • Maintaining community relations; • Investigate any complaints from the local community and implement actions to address complaints within 48hrs.
Principal Contractor	▪ Plan, manage, monitor and coordinate the entire construction phase ▪ Take account of the health and safety risks to everyone affected by the work (including members of the public), in planning and managing the measures needed to control them ▪ Liaise with the Applicant throughout the duration of the project to ensure that all risks are effectively managed ▪ Have ongoing arrangements in place for managing health and safety throughout the construction phase ▪ Consult and engage with workers about their health, safety and welfare ▪ Ensure suitable welfare facilities are provided from the start and maintained throughout the construction phase ▪ Check that anyone they appoint has the skills, knowledge, experience and, where relevant, the organisational capability to carry out their work safely and without risk to health ▪ Ensure all workers have site-specific inductions, and any further information and training they need ▪ Take steps to prevent unauthorised access to the Site ▪ Liaise with Applicant to share any information relevant to the planning, management, monitoring and coordination of the pre-construction phase;

	■ Make all sub-contractors and service suppliers aware of the requirements to use specified routes at all times; ■ Clearly communicate all permitted diversions, such as temporary road closures or road traffic incidents; ■ Ensure that access to the site is controlled by competent site access traffic marshals with the appropriate accreditation to temporary halt non-site vehicles if required. Marshals should assist with sae site access and egress; and ■ Distribute maps or other routing information to all drivers / companies accessing the site; ■ Provide details about loading / unloading locations as well as parking (off road locations for all contractors.
Safety, Health, Environment and Quality (SHEQ) Manager	Ensuring work is carried out: ■ In a safe manner ■ In accordance with any manufacturers' instructions etc., good standards ■ of workmanship. ■ Ensure site staff are working in accordance with agreed Risk ■ Assessments and Method Statements (RAMS) particularly where ■ activities have the potential to cause harm. ■ Ensuring that the CEMP is implemented throughout all phases of the Project. Monitoring HSEQ issues by: ■ Carrying out regular checks on Site to ensure the Site is secure and tidy ■ Weekly checks and any required toolbox talks and recorded. ■ Monthly Site audits. ■ Consulting workers on the effectiveness of measures to reduce risk to the health, safety and environment, reviewing and improving conditions or methods/procedures where appropriate. ■ Keeping records of and reporting any incidents and close calls (near misses).
Project Administrator	■ Responsible for maintaining and updating all records and documentation relating to the Project

All Staff and Subcontractors	▪ Should follow good practice and are responsible for carrying out their activities without detrimental effects on the environment; ▪ Should comply with systems of work including this OCEMP, Environmental Management Systems (EMS) and risk assessments and should carry out tasks in accordance with their training; ▪ Are responsible for reporting any environmental concerns and incidents to their supervisors, including suggestions and improvements. ▪ Should understand the Project environmental obligations and the practical measures needed to comply with them; and ▪ Identify the need for and deliver regular toolbox talks.

3.4 COMPETENCE, TRAINING AND AWARENESS

3.4.1. The PC shall identify the training needs of their employees and subcontractors so that they can implement the requirements of this CEMP into briefings and construction method statements. It is recommended that the PC and/or Demolition Contractor create a competence, training and awareness tracker shall be prepared and maintained for all site operatives to ensure employees and subcontractor training requirements and training given is recorded and monitored throughout the demolition and construction phase.

3.4.2. Specific training needs will be developed for individuals to reflect the work to be carried out on the Proposed Development and the significant risks and opportunities identified.

3.4.3. The requirement is for all personnel to be aware if their general environmental management responsibilities, and for those who work may cause, or have the potential to cause, a significant impact on the environment, to receive specific environmental awareness briefings. Environmental awareness will be reinforced through information, such as poster campaigns, environmental/sustainability performance indicator reports and environmental alerts available on-Site notice boards.

3.4.4. All contractors are responsible for ensuring the competency of their environmental staff. If environmental training is needed for staff, a contractor is responsible for ensuring this requirement is fulfilled. Any training provided to all Staff and Subcontractors will be logged in a competence, training and awareness tracker and any certification documents will be produced by the relevant members of staff as evidence that they hold the required competencies.

3.5 INTERNAL COMMUNICATION

3.5.1. Communication on environmental issues with all Staff and Subcontractors will take place through face-to-face conversation via environmental training and / or toolbox talks, email and telephone. The Project Manager will be made aware of all environmental issues at the earliest possible opportunity.

Communication on environmental matters will be maintained through regular construction meetings chaired by the Project Manager.

3.5.2. Environmental issues identified by any member of the Project Team will be entered into an Incident Report Form, communicated to the relevant personnel to ensure any required actions are carried out, and closed out within an appropriate timeframe. Dissemination of information will take place in several forms as appropriate, including meetings to discuss project issues, method statements, task/activity briefings, toolbox talks, inductions, environmental notices and environmental alerts. Records that these have been carried out and who received them will be recorded on briefing registers and collated and maintained by the Project Administrator. The Project Manager will also ensure policies and procedures on display are up to date. Supervisors will also be notified of any legislation changes which may affect working practices on Site.

3.5.3. Any unexpected finds/occurrences by Site staff can be reported to their supervisors, who will then give notification to the Project Manager who will advise on the course of action to be taken.

3.6 EXTERNAL COMMUNICATION

COMUNICATION WITH THE APPLICANT

3.6.1. The Project Manager will liaise regularly with the Applicant and their representatives regarding the programme of works, nature of the operations and the methods to be employed to minimise adverse environmental impacts. This will include progress meetings as well as the production and submission of progress reports which will cover environmental/sustainability issues. The Project Manager will also supply all relevant supporting information and documentation to the Applicant for matters concerning consents and the environment in accordance with the appropriate timescales.

STATUTORY AUTHORITIES AND NON-GOVERNMENTAL ORGANISATIONS

3.6.2. In the event of stakeholder liaison being required with local authorities or Non-Governmental Organisations (NGO's), the Project Manager will identify the requirements and seek authorisation from the Applicant to undertake the task. Where consultation is required, a representative from the Applicant will be invited to attend with the Project Manager.

3.6.3. All Project staff will keep an archive of any email correspondence between themselves and statutory authorities and NGOs concerning the activities taking place. If any complaints are received via statutory authorities or NGOs, a log of correspondence will be kept by way of a Project Complaints Register. This will be managed by the Project Manager.

PUBLIC ENGAGEMENT

3.6.4. Pre-start public engagement will be led by the Applicant including arranging and attending public consultation events. Once work has commenced on Site, public engagement will be led by the Project Manager.

3.6.5. A minimum of 14 days prior notification by letter drop to properties likely to be directly impacted will be given before works are due to commence. The letter will outline where exactly the works are taking place, what activities are involved, timescales for the work, potential impacts and contact details for the public during the works. The process for distributing letters to the public is as follows:

- Draft letter written by the Applicant and agreed distribution list;

- Letter delivered to residents by Project Manager a minimum of 14 days prior to works commencing.

COMPLAINTS PROCEDURES

3.6.6. As part of the site set-up process, Site notice boards will be erected, maintained and clearly visible to third parties. A telephone number for complaints will be published on the Site hoarding. The Project Manager will be responsible for dealing with any complaints and will have the appropriate authority to resolve any issues that may occur.

3.6.7. The Applicant will maintain a close liaison with the MSDC Environmental Health Officer (EHO) at all times and should any complaints regarding environmental nuisance (e.g. dust or noise) be received by the Project Manager, the details will be passed to the EHO for verification purposes.

3.6.8. Should any unforeseen event occur within the construction site that has the potential to cause off-site pollution then the Project Manager will immediately notify the Applicant, who in turn will notify the MSDC EHO by phone and e-mail. As far as possible, notice will be issued to the MSDC EHO for dealing with an unforeseen activity which may give rise to a particular environmental problem.

3.6.9. During any site work, if any complaints are received directly by the PC or its subcontractors, the Project Manager will be notified as soon as is practicable but within twelve hours of the complaint being received. It will be the responsibility of the PC's Site Manager to brief any staff responsible for unacceptable working conduct.

3.6.10. All complaints will be entered into the Project complaints register, each assigned an action, responsible person and close out date.

WORKSITE SECURITY

3.6.11. The PC will maintain out of hours security during works. Signage will be provided on site hoardings to inform the public of the helpline number for reporting security incidents or concerns. The Project Manager will follow up security incidents and concerns reported and will arrange implementation of further measures if required.

3.6.12. The Site will have a manned gate at the entrance and exit to the Site during working hours. Further security measures will be considered and monitored for on-going review.

3.7 METHOD STATEMENTS

3.7.1. Method statements will be completed by the PC or sub-contractor by trained engineers or other appropriately experienced personnel, in consultation with on-site staff and environmental specialists. Their production will include a review of the environmental risks and commitments, so that appropriate control measures are developed and included within the construction process.

3.7.2. Method statements will be reviewed and signed off by the appointed Project Manager and, where necessary reviewed, by an appropriate environmental specialist (e.g. ecologist). Where required, method statements will also be submitted to the enforcement agencies for information (Environment Agency, EHO at MSDC etc.). As a minimum, method statements will contain the following:

- Location of the activity and access/egress arrangements;
- Work to be undertaken and methods of construction;
- Plant and materials to be used;
- Labour and supervision requirements;

- Health, safety and environmental considerations; and
- Any permit or consent requirements beyond those already obtained

3.8 INCIDENT RESPONSE

3.8.1. An Incident Response Plan will be developed by the Project Manager and SHEQ Manager to highlight the potential pollution receptors specific to each works area and the activities taking place there. Each document will be in place prior to construction activities commencing, and will be available for viewing and be briefed to the workforce on Site. They will be reviewed and if necessary, updated, at least every six months. The key components of each Incident Response Plan be:

- A brief scope of works taking place on Site;
- Types of environmental incident that have the potential to occur (however low the risk)
- Types of hazardous material likely to be present on Site;
- A list of pollution receptors and maps showing their location in relation to the Site;
- The procedure for responding to environmental incidents, reporting them and investigation (including spill or leak events) and the locations of spill kits and emergency incident response equipment;
- Key contact numbers for reporting of environmental incidents; and
- Recommendations to help reduce the likelihood of environmental incidents.

3.8.2. In the event of a spill or leak, the following process shown in **Figure 3-1** will be followed. This will be included in each Incident Response Plan, and this will be briefed to the workforce and displayed on Site notice boards.

3.8.3. All incidents will be recorded on an Environmental Incident Report Form.

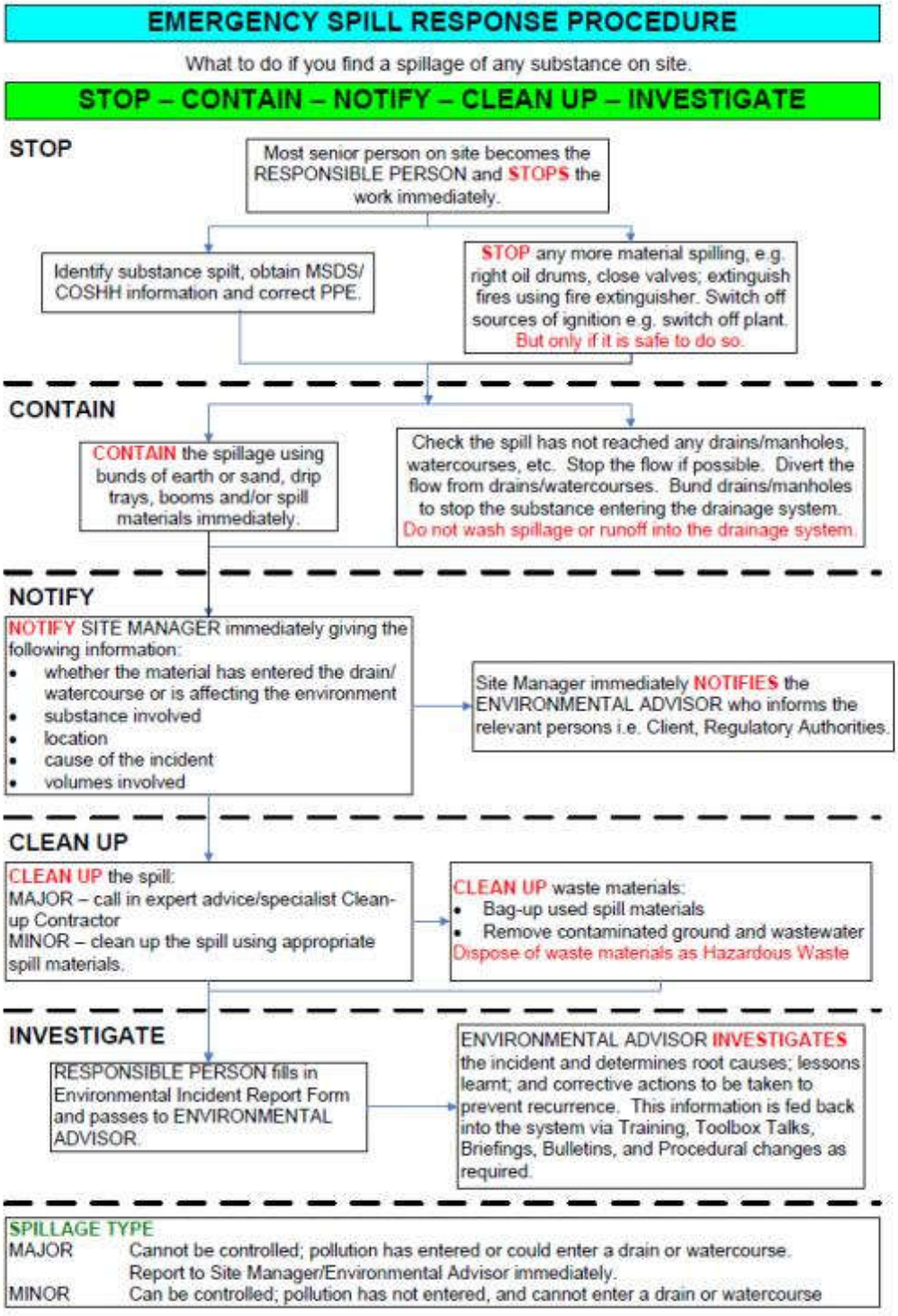


Figure 3-1 - Spill Response Procedure

4 CONSTRUCTION INFORMATION

4.1 CONSTRUCTION PROGRAMME AND PHASING

4.1.1. The outline construction programme is provided in **Table 4-1** below:

Table 4-1 – Outline Construction Programme

Activity	Start Date	End Date	Duration
Prepare Start on Site Approval Pack	09/12/19	23/12/19	2 weeks
Pre-Start Meeting	06/01/20	06/01/20	
Tree/Hedgerow Planting/Removal	06/01/20	06/02/20	4 weeks
Stage 1 Dormouse Habitat Clearance	02/01/20	30/01/20	4 weeks
Stage 2 Dormouse Habitat Clearance	03/02/20	02/03/20	4 weeks
Ecology Mitigation/Fencing	02/03/20	06/04/20	5 weeks
Reptile/GCN Translocation	09/03/20	20/04/20	6 weeks
Archaeology Trenching Works	20/04/20	06/07/20	11 weeks
Start on Site Remediation	30/04/20	30/04/20	
Remediation Period	30/04/20	17/08/20	20 weeks
S278 Works	06/01/20	04/05/20	17 weeks
Groundworks Construction including S38 Roads	04/05/20	12/04/24	207 weeks
Superstructures Construction	18/05/20	30/04/24	202 weeks
First Build Completion	14/12/20	14/12/20	
Deadline for Provision of Isaacs Lane Bridge Link	01/06/21	01/06/21	

4.1.2. An occupation and phasing strategy has been produced and is provided in **Appendix C.**

4.2 CONSTRUCTION WORKS

4.2.1. The Proposed Development will involve the following works during construction:

- Enabling works (earthworks);
- Contamination and ground remediation;
- Landscape and ground profiling;
- Installation of drainage;
- Construction of foundations which may include piling
- Construction of dwellings;
- Installation of services and commissioning;
- Construction of on-site highways; and
- Construction of off-site highway improvements.

4.2.2. A schedule will be provided prior to construction to explain the period of operation of the temporary site access via Freek's Lane, prior to the new entrance being constructed from Maple Drive.

4.2.3. Works from Freek's lane are anticipated to include tree removal (February 2020 – June 2020), ecology works (March 2020 – April 2020) and establishing the site compound (May 2020).The new access is set to be completed in June 2020 and subsequent to completion, no further construction traffic permitted to use the Freek's Lane.

4.3 CONSTRUCTION PLANT AND EQUIPMENT

4.3.1. The likely plant required for each of the construction activities is provided in **Table 4-1** below.

Table 4-2 – Likely Plant Required for Construction Activities

Plant	Site Preparation and Demolition	Substructure	Superstructure	Fit-Out
Bituminous mixing and laying plant	✓	✓		
Breakers	✓	✓		
Bulldozers	✓	✓		
Compressed Air Plant	✓	✓	✓	
Concreting Plant	✓	✓		
Skips	✓	✓	✓	✓
Cranes			✓	
Dumpers	✓	✓	✓	
Earth Moving Plant	✓	✓		
Excavators	✓	✓		
Forklift Trucks	✓	✓	✓	✓

Lifting Devices	✓		✓	✓
Loaders	✓	✓	✓	✓
Lorries (Deliveries and Muck Away)	✓	✓	✓	✓
Mobile Elevating Work Platforms	✓		✓	
Pallet Jack	✓	✓	✓	✓
Pavers	✓	✓		
Piling Equipment		✓		
Power Float	✓	✓		
Pumps and Dewatering Equipment	✓	✓		
Road Sweeper	✓	✓	✓	
Rollers	✓	✓		

4.4 WORKING HOURS AND RESTRICTIONS

4.4.1. Working hours for all construction activities will be conducted within the standard industry working hours and in accordance with Condition 19 of the decision notice from MSDC:

- Monday – Friday 08:00 – 18:00 Hours
- Saturday 09:00 – 13:00 Hours
- Sundays and Bank/Public Holidays no work is permitted

4.4.2. No continuous 24-hour activities are envisaged at this stage and any working on Sundays or Bank Holidays are not permitted. Any change to working hours will need to be agreed in advance and in writing with MSDC.

4.4.3. The temporary site entrance (Appendix E) is in close proximity to Sheddingdean Community School. Deliveries should occur to and from the site outside of the School arrival and departure times (from 08.30 – 9.15 hrs and 15.00-15.45 hrs).

4.4.4. A Traffic Management Plan should be provided prior to construction to show consideration for pedestrians including any crossings required on Maple Drive.

4.5 CONSTRUCTION VEHICLE ACCESS, ROUTING AND TURNING

4.5.1. Construction traffic will be routed from the wider road network via the M23, A2300, A273, B2036 and left onto Maple Drive as shown In **Appendix D**.

An additional route from the south / east will be provided for drivers indicating access via the B2036, tuning right into Maple Drive to avoid movement of construction vehicles through Mill Road, Freek's Lane and Leylands Road.

4.5.2. Initial tree and hedgerow removal and replacement planting, ecological mitigation works and initial S38 access and ground works will be undertaken using the existing access along Freek's Lane from Maple Drive. Following the completion of the new access road, all construction traffic will use the new access point from Maple Drive as shown in **Appendix E**. Priority will be given to ensure that access for existing residents to their properties is maintained at all times. This will be monitored by MSDC and if complaints are received about inconvenience and delays, then additional traffic management measures will be introduced to ensure residents are supported with the development impacts.

4.5.3. The condition of the roads will be closely monitored and the use of a jet wash at the entrance and exit to the Site and use of a road sweeper will minimise any impacts to the surrounding community. A schedule of condition of existing roads will be undertaken and recorded with the Highway Authority.

4.5.4. All vehicle arrivals and departures will be timed to comply with the agreed working hours outlined in **Section 4.4** above. All deliveries will be within the confines of the Site during loading and off-loading.

4.5.5. Temporary construction signage will be agreed with West Sussex County Council (WSCC) and erected prior to works commencing and any temporary traffic management requirements will be agreed in advance with WSCC.

4.5.6. Once the new bridge and link road have been constructed to A273 Isaacs Lane, sales and construction traffic will use both entrances to minimise impacts on the road network. WSCC reserve the right to review this approach and to determine that the new temporary entrance via Freek's Lane be removed and reinstated if there is concern relating to local amenity, safety or concern relating to congestion or safe routes to school.

4.5.7. Wheel washing and road sweeper cleaning equipment will be available o site to prevent safety on Maple Drive being compromised by mud on the road during the period in which the temporary site access via Freek's Lane is in operation.

4.5.8. Site booking and clearance for site access for deliveries and contractors will not occur on the public highway. A specific area for delivery access control will be provided off the highway / Maple Drive to ensure that vehicles do not wait or queue on the Highway. The complexity of holding areas will be clearly communicated to delivery drivers so that unloading / loading is not undertaken in the public highway.

4.6 WASTE AND MATERIAL MANAGEMENT

4.6.1. Waste produced on-site will be subject to the Duty of Care under the Environmental Protection Act (1990).

4.6.2. The waste stream will be managed so far as is reasonably practicable to maximise the reuse of surplus materials and to ensure any adverse environmental effects are minimised. Waste will be segregated on Site into key waste streams such as excavated soil and stones, metals, wood/timber and general construction waste.

4.6.3. The transportation of waste to and from the Site will comply with the Duty of Care requirements. These include ensuring waste is transported by registered carriers, disposal to appropriately licensed sites and maintenance of appropriate waste transfer documentation.

4.6.4. The Project Manager will audit waste carriers and disposal facilities and maintain documentary evidence that these requirements are being met, including a register of waste carriers, disposal sites (including transfer stations) and relevant licensing details for each waste stream. Waste contractors who remove waste will be registered with the Environment Agency.

4.6.5. A Site Waste Management Plan (SWMP) will be produced, providing details on forecast waste quantities and classification likely to be generated during the construction of the proposed development. The SWMP will follow the waste hierarchy, as illustrated in **Figure 4-1**.

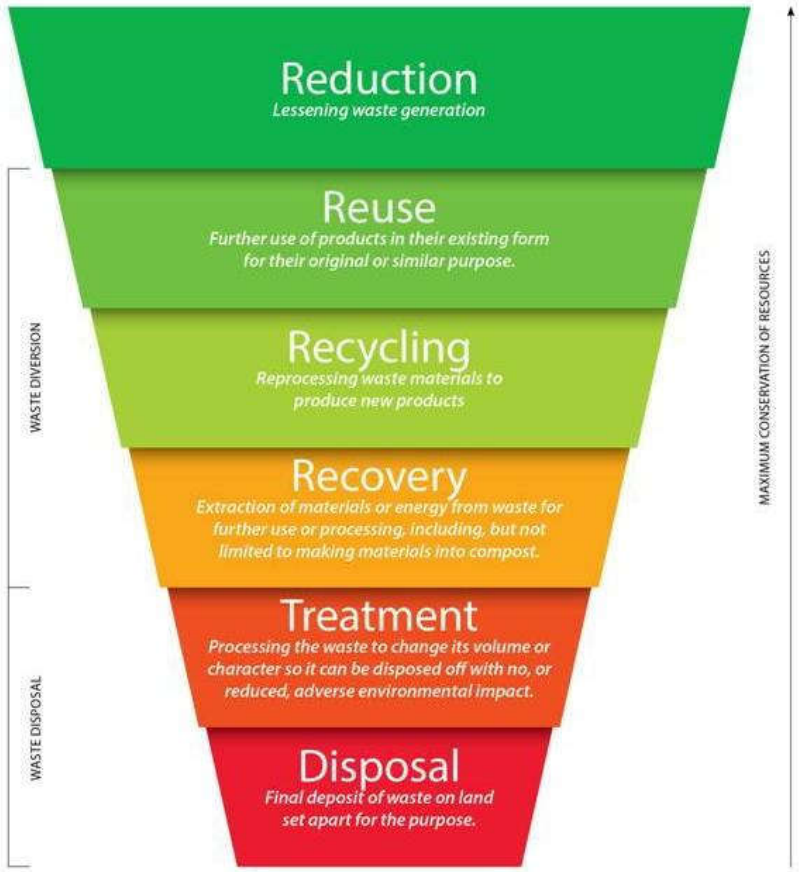


Figure 4-1 - Waste Hierarchy

4.6.6. The Proposed Development will be constructed in line with the hierarchy. The hierarchy is a classification of waste management options in order of their environmental impact. The concept provides the cornerstone of the Project's waste minimisation strategy - **reduce**, **reuse**, **recycle**. The Project will seek opportunities to operate within the top sectors of the hierarchy, where feasible designing out waste, then reusing and recycling materials, before waste recovery.

4.7 COMMUNICATIONS AND COMPLAINTS

4.7.1. The Project Manager will be responsible for managing and responding to any complaints received as outlined in Section 3.4.

4.8 ROAD AND FOOTPATH CLOSURE

4.8.1. Any anticipated closures should be notified in advance to the WSCC Highway Authority as part of the proposed scheduling. Actual closure notification will require the necessary statutory instrument and need processing via the Highways team.

4.9 SITE COMPOUND, ACCOMODATION AND WELFARE FACILITIES

4.9.1. The Site offices for the works will be in the area displayed in **Appendix F**. The site office and compound shall be screened by suitable hoarding.

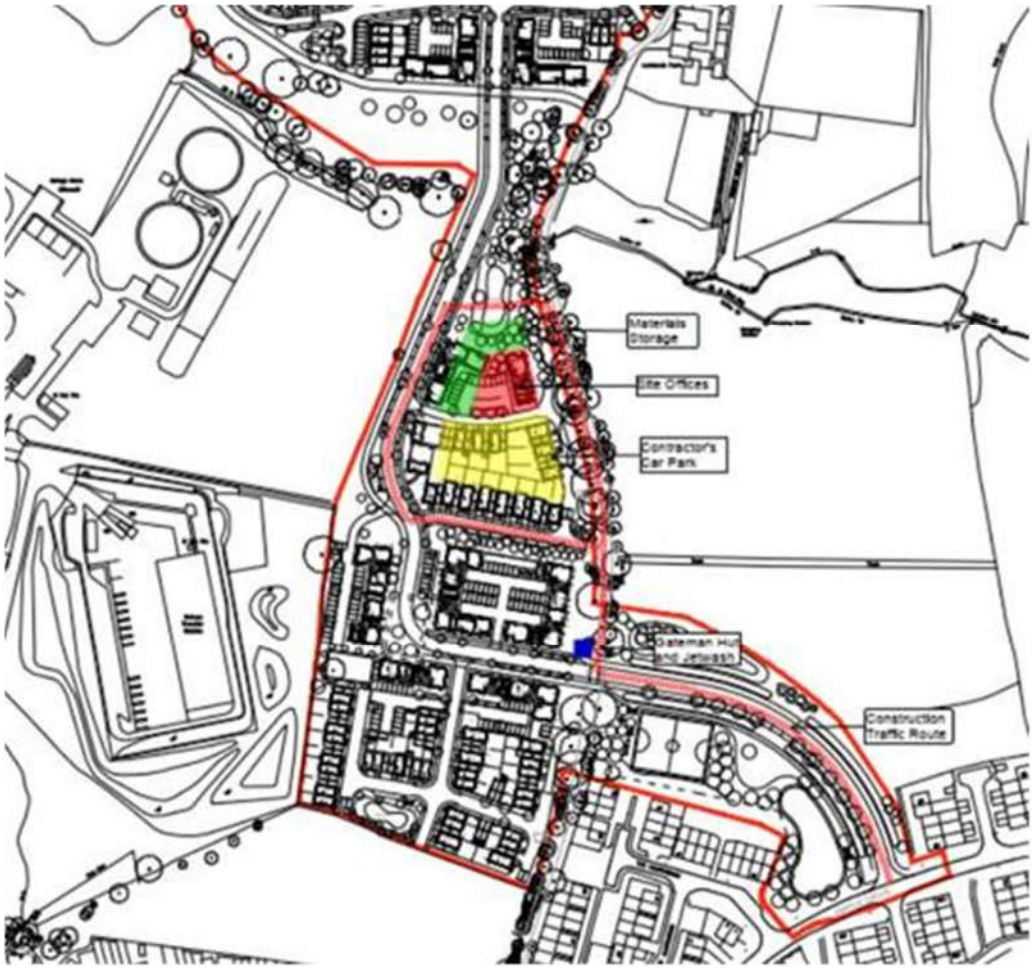
4.9.2. Site welfare facilities shall be provided in accordance with Schedule 2 of the Construction (Design and Management) Regulations 2015.

4.9.3. There are various environmental issues relating to the internal office environment, including energy use, waste and the use of electrical equipment to consider. Site offices have been identified as important contributors to carbon emissions from the construction process and should be assessed on their energy performance. Carbon management and energy efficiency are vital considerations for the entire construction process and HM Government have set a strategic priority on low carbon and sustainable construction[1]. The Project Manager and PC will be required to monitor and report on the above considerations in line with on-going reporting obligations as outlined in Section 7.

4.9.4. Contractors parking will be within the compound area within the southern part of the site as shown below in **Figure 4-2**. This will be installed when the compound is established immediately after the ecological constraints have been cleared in May 2020. A letter should be sent out to inform any local residents of the works, a copy of which will be made available to local members.

[1] HM Government (2013) Construction 2025: Industrial Strategy for Construction – Government and Industry in Partnership

Figure 4-2 - Contractor's Car Park Plan



4.10 MATERIAL STORAGE AND HANDLING

4.10.1. The indicative location for the storage of materials is shown in **Appendix F.** The PC, Project Manager and SHEQ Manager will ensure that materials are stored efficiently to reduce the risk of damage, environmental incidents, injury to site-based staff and theft. The following measures shall be considered when determining the storage of materials:

- Materials shall be stored at least 10m away from sensitive receptors, including drainage and transport routes, or more if there is no vegetated buffer zone (i.e. hedgerows);
- All potentially polluting materials should be stored in a designated area, on an impermeable based, bunded and away from potential vehicle collision;
- Material storage shall be planned to avoid double handling
- Ensure that any suppliers instructions are followed;
- Plan any storage areas so that frequently used items are easy to access;
- Store valuable materials, or those that are hazardous or attractive to thieves, in a secure area, out of sight of the public;
- Store materials away from waste storage containers and from vehicle movements that could cause accidental damage;
- Materials shall be covered to protect them against the elements;
- Valuable materials shall be locked away and out of public view to reduce the risk of theft;

- Secure any lightweight materials to protect them from wind damage or loss; and
- Take special care over the storage of materials that are potentially polluting.

4.10.2. Plant and equipment will be stored in areas that are less susceptible to possible pollution incidents, or in dedicated areas of hard standing. A spill kit will be available for use in the event of an incident.

4.10.3. All deliveries will be supervised by a responsible person. Any fuel deliveries will take precautions to ensure that the fuel storage tanks are bunded and that they are checked for any damage before and during delivery to prevent overfilling. Any refuelling will take place away from any drains and will be adequately signposted to ensure the refuelling area is clearly visible to all.

4.10.4. Vehicles will be off-loaded using the lorry mounted HIAB/forklift or site forklift. Where practicable, the loading and unloading operations must be carried out to avoid the need for persons to climb onto the vehicles to undo straps etc. If this is not possible then a system of fall prevention, for example scaffold platforms with guardrails, will be provided.

4.10.5. Where possible, pre-cast and prefabricated elements will be delivered directly to their final position; thereby limiting the number of plant movements associated with double handling. All deliveries would be dealt with at the designated materials handling locations.

4.11 LIGHTING

4.11.1. The extent and location of the areas to be lit will vary during the different stages of construction according to area of construction, security and health and safety requirements. Careful selection and planning of temporary lighting can reduce the effects of light pollution, including:

- Identify sensitive receptors surrounding the Site;
- Position/direct lighting away from sensitive receptors;
- Use directional lighting;
- Use appropriate levels of illumination;
- Light areas only when and where required;
- Use the minimum amount of lighting, without compromising health and safety; and
- Install hoods, louvers, shields, reflectors and baffles to mitigate or reduce any light spillage.

4.11.2. To avoid unnecessary light pollution from site compounds, officers and welfare facilities, consideration should be given to a ‘switch off’ scheme where the SHEQ Manager will provide training and posters actively encourage staff and subcontractors to switch off lighting when a room or area is not in use.

4.11.3. Alternatively, lighting may be controlled through motion sensors or a ‘last man out switch’ whereby the last person can switch off all the non-necessary lights in one single switch.

4.11.4. Where security lighting is to be installed, the following shall be considered:

- Only use lighting as required (for safety reasons);
- Use an appropriate powered light. The maximum considered to be suitable for exterior security lighting is 2000 lumens or 150watts;
- Install movement sensors with timers, as this will reduce the amount of time a certain area is constantly lit; and
- Position/direct lighting away from sensitive receptors so long as it doesn’t comprise health and safety

4.12 SECURITY

4.12.1. Site security is an important component of good environmental management and every effort shall be made to ensure the safety of the Site and local community. The following security measures shall be considered:

- The PC will maintain an out of hours helpline during works, if not possible, an 'out of hours' phone number shall be provided. Signage will be provided on Site hoardings to inform the public of the helpline number for reporting security incidents or concerns. The SHEQ Manager will follow up security incidents and concerns reported and will arrange implementation of further measures required.
- The Site will be secured with herras fencing around the perimeter and high-quality locks on any gates;
- Do not stack materials against the inside or outside of the Site boundary as this can provide an opportunity for unauthorised individuals to enter the Site;
- Position fuel tanks, hazardous materials and waste away from the Site boundary to deter theft and arson;
- Ensure that potentially hazardous materials are well secured and where possible located away from watercourses. For storage containers with capacity more than 200 litres it is a legal requirement and good practice, to lock fuel outlets when they are not in use, and provide secondary containment for oil in storage (e.g. bunds with 110% capacity);
- The SHEQ Manger will maintain a COSHH register documenting all materials stored and safe handling requirements which will be kept in the site office.
- Secure and immobilise plant and equipment overnight to prevent vandalism;
- The Site will have a full time gateman during work hours, however consideration should be given to the installation of lights, warning notices, alarm systems and CCTV, particularly for outside of work hours;
- Monitor the movement of people on and from Site using Site passes or swipe cards;
- Position the site office so that it has a good view of the Site;
- Inform local police about the Site and ask for their advice on security;
- Consult the Fire Service for advice on storing fuel and flammable materials on Site (where necessary); and
- If the Site experiences a problem such as vandalism, ensure that appropriate measures are taken to clean up/repair and problems promptly, to discourage further problems from occurring.

4.12.2. Any Site hoarding will conform to industry standards unless otherwise specified by MSDC.

4.13 HEALTH AND SAFETY

4.13.1. Everyone employed on-site in relation to the Proposed Development will receive a Site-specific induction from the SHEQ Manager to inform them of the health and safety arrangements, welfare on Site and to ensure they understand the requirements of the risk assessment and method statement relevant to their work. All site based staff will be informed of their legal obligation to comply with health and safety.

4.14 EMERGENCY PROCEDURES

4.14.1. Procedures will be set in place to respond to any emergency incidents which may occur on Site. A Site Pollution Incident Response Plan will be developed by the Project Manager and SHEQ Manager prior to any works commencing on Site as outlined in Section 3.8.

4.14.2. All appropriate staff will be trained and made aware of the spill response procedure and the location of spill equipment set in place, following EA Pollution Prevention Guidelines 21 and 22 as best practice. In the event of any incident the Applicant will be notified. Additionally, the EA and any other interested bodies will be notified as required.

4.15 CONTRACTOR TRAINING

4.15.1. It is important to raise awareness of environmental issues so that people on Site are aware of what good environmental practice is and where to obtain information. Training should be provided on Site to disseminate good practice guidance relevant to the Proposed Development. For a training programme to be successful and effective it is vital to:

- Appoint a trainer with appropriate knowledge, skills and experience;
- Make training specific to the audience;
- Posting key environmental issues relating to the construction programme/phases on notice boards or in communal areas can keep awareness raised to all the workforce;
- Make training engaging and relevant;
- Follow up and refresh training to keep abreast of changes in legislation and codes of practice;
- Use refresher training and inductions as a response to corrective actions raised (e.g. misuse of spill kits, incorrect refuelling methods);
- Check the understanding of the training with the attendees through tests, discussions, inspections and audits etc.; and
- Maintain records of all training undertaken and planned within the Competence, Awareness and Training Tracker.

4.15.2. In accordance with the above points and to ensure that environmental issues are communicated on Site, the environmental training and on-going communication methods as detailed in **Table 4-4** will be implemented. This list is not exhaustive.

Table 4-3 – Environmental Training and Communication

Meeting / Briefing / Training	Frequency	Attendees
SHEQ Inspection Meetings	Monthly	Applicant, PC/DC and Project Manager
Induction Training (which will include Environmental aspects)	On first visit to site	All persons attending Site (Site personnel, sub-contractors, Applicant, visitors)
RAMS briefings	Every job task	All Staff and Subcontractors
Environmental Toolbox Talks will be undertaken which are appropriate to the construction works being carried out on site at that time.	Minimum of one per month	All Staff and Subcontractors

Environmental briefings e.g. Environmental Bulletins / Alerts, Lessons Learnt, Results of Inspections / Audits.	As required	All Staff and Subcontractors
Job specific training e.g. 1. Dealing with spillages 2. Environmental awareness 3. Site Waste Management 4. Environmental Management 5. Project Environmental Procedures	As required.	All Staff and Subcontractors

4.15.3. This CEMP will form part of all tender documents circulated to all trades associated with the development of the Site to ensure that the agreed principles are communicated.

4.15.4. Site specific inductions completed by the PC and/or SHEQ Manager for all staff and contractors new to the development will include reference to the key sensitivities outlined in this CEMP

5 KEY ENVIRONMENTAL EFFECTS

5.1 POTENTIAL SIGNIFICANT ENVIRONMENTAL EFFECTS

5.1.1. **Table 5-1** below provides a summary of the likely significant environmental effects arising from construction activities. For further information, please refer to the Environmental Statement (WYG, January 2018) and supporting documentation submitted in support of the planning application (Ref. DM/18/0509).

Table 5-1 – Potential Significant Environmental Effects

Environmental Topic	Likely Significant Environmental Effects
Traffic and Transport	▪ Increased construction vehicle traffic and HGV movements. ▪ Increased congestion of the local highway network. ▪ Potential increase in accidents as a result of increased levels of traffic. ▪ Transfer of mud and other materials by vehicles onto the local road network.
Landscape and Visual	▪ Viewpoints within 200m of the Site that have unobstructed views of the Proposed Development may experience negative visual impacts
Ecology	▪ Loss of habitats and disturbance to protected species ▪ Dust and pollution impacts to protected habitats including ancient woodland, ponds, hedgerows and watercourse ▪ Potential spread of Schedule 9 listed invasive species, Himalayan balsam
Cultural Heritage	▪ There is a low potential for previously unrecorded archaeological deposits to be present within the southern portion of the Site.
Noise and Vibration	▪ Noise arising from construction works ▪ Increase in noise levels associated with increased traffic during construction ▪ Vibration arising from any piling activities, ground remediation and drilling work during construction
Air Quality	▪ Emissions from construction vehicles and equipment during construction ▪ Dust and particulate matter generated during earth works ▪ Physical contamination, coating of vegetation, soil contamination ▪ Health impacts due to inhalation
Flood Risk and Drainage	▪ Alterations and / or changes to ground levels has the potential to increase flood risk ▪ Potential for ponding of surface water on-site and runoff to the surrounding area contaminating nearby watercourses

	▪ Temporary increase in the demand for foul drainage to support welfare facilities during construction ▪ Contamination of groundwater resources during excavation and piling activities ▪ Existing water mains may be impacted while the new water mains connection to the Site is constructed
Ground Conditions	▪ Risk of construction workers being exposed to contaminants ▪ Surrounding Site users may be exposed to contaminated dust due to ground disturbance ▪ Construction works may increase the potential for contaminant migration to underlying groundwater resources ▪ Vegetation and wildlife may be exposed to made ground due to disturbance during construction ▪ The loss of most of agricultural land on Site ▪ Loss of the underlying mineral resource
Climate Change	▪ Greenhouse gas emissions during construction due to emissions from construction plant and machinery

6 ENVIRONMENTAL CONTROL MEASURES

6.1 ENVIRONMENTAL PROCEDURES

6.1.1. The Applicant will ensure that all site based staff adhere to the relevant local policies and good practice guidelines for implementation during all site activities.

6.1.2. To avoid / mitigate against any significant environmental effects, a series of Project Environmental Procedures (PEP) have been proposed.

6.1.3. Responsibilities for the implementation of each PEP have been assigned to specific members of the project team, which it is envisaged will comprise:

- Principal Contractor (site based);
- Project Manager (site based); and
- Environmental Consultant (i.e. air quality, ecology and noise specialists).

6.1.4. A list of the key PEPs is provided in **Table 6-1**. Further details relating to each PEP are contained within **Appendix G** of this document.

Table 6-1 – Environmental Procedures

Procedure	Title	Procedure relevant to:		
		Principal Contractor	Project Manager	Environmental Consultant
PEP/01	Waste Management	✓	✓	
PEP/02	Noise and Vibration	✓	✓	✓
PEP/03	Dust and Local Air Quality	✓	✓	✓
PEP/04	Vehicles Management	✓	✓	
PEP/05	Hazardous Substances	✓	✓	

6.1.5. All Staff and Subcontractors hold the responsibility to ensure that the below environmental control measures are implemented.

6.2 NOISE AND VIBRATION

6.2.1. The construction works will comply with BS 5228:1997 Noise and Vibration control on construction and open sites and the following mitigation measures will be considered:

PLANT AND EQUIPMENT

- Plant will be certified to meet relevant current EU legislation and should be no noisier than would be expected based on the noise levels contained in Annex C and Annex D of BS 5228-1: 2009 Noise and Vibration Control on Construction and Open Sites;
- Noisy plant or equipment will be situated as far as possible from the Site boundary and will be fitted with effective exhaust silencers, maintained in good and efficient working order and

operated in such a manner as to minimise noise emissions. Plant will comply with the relevant statutory requirements;

- Compressors will be fitted with properly lined and sealed acoustic covers which will be kept closed whenever in use;
- Pneumatic percussive tools will be fitted with mufflers or silencers of the type recommenced by the manufacturers;
- Equipment and vehicles to be shut down when not in use;
- Semi-static equipment is to be sited and oriented as far as is reasonably practicable away from noise sensitive receptors and will have localised screening if deemed necessary; and
- Where practicable, mains electricity to be used instead of generators.

METHODS OF WORKING

- Site inductions will highlight the need for vehicle horns and alerts to only be used when necessary;
- No work which is audible at the site boundary will be undertaken outside the specified working hours, except in cases of emergency where safety is an issue, or where a prior agreement has been reached with MSDC;
- The contractor will comply with the requirements of the Control of Pollution Act 1974 (with reference to Part III), the Environmental Protect Act 1990, the Health and Safety at Work Act 1974 and the Control of Noise at Work Regulations 2005;
- Burning equipment will be used in preference to cold cutting where possible;
- Large concrete pours (for which an extension of working hours may be necessary) will commence as early as possible within normal working hours so that activities can be completed within normal working hours as far as possible;
- All trade contractors will be made familiar with current noise legislation and the guidance contained in BS 5228-1:2009+A1:2014 and BS5228-2:2009+A1:2014 which will form a prerequisite of their appointment;
- Unless agreed in advance, all deliveries will be during the construction site hours and on a “just-in-time” basis to avoid/minimise vehicles waiting outside or on the site with engines running.
- Loading and unloading of vehicles, dismantling of equipment such as scaffolding or moving equipment or materials around the Site will be conducted in such a manner as to minimise noise generation;
- Deviation from approved method statements will be permitted only with prior approval from the PC and other relevant parties. This will be facilitated by formal review before any deviation is undertaken; and
- A contact number which the public may use shall be displayed prominently on the Site board and any noise complaints will be reported in accordance with the Complaints Procedures (Section 3.6).

MONITORING AND REPORTING

6.2.2. Noise & Vibration levels during construction will be monitored through regular communication with those residents near the Site. Any noise issues are expected to be resolved quickly.

6.3 AIR QUALITY

6.3.1. The Proposed Development is not within an Air Quality Management Area. However, the PC will give due consideration to the actions to improve air quality outlined within the MSDC Air Quality

Annual Status Report. The Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (2014) identifies the likely potential Air Quality impacts and mitigation measures associated with construction and demolition activities. Relevant potential impacts associated with the Proposed Development include:

- Dust deposition resulting in soiling of surfaces;
- Visible dust plumes that are evidence of dust emissions;
- Elevated PM_{10} concentrations because of dust generating activities on Site; and
- An increase in the increase in concentrations of airborne particles and NO2 due to exhaust emissions from diesel powered vehicles and equipment used on-site, as well as vehicles accessing and egressing the Site.

MITIGATION MEASURES FOR THE SITE

6.3.2. In line with the best practice to be implemented at the Site, IAQM guidelines, and in to minimise the nuisance and impact arising from dust produced during the construction phase, the following measures are to be implemented:

- No bonfires or burning of any material will be permitted anywhere on Site;
- Wherever possible, operating plant will be positioned away from Site boundaries to prevent exhaust fumes from drifting over to neighbouring premises and will be well maintained to ensure they are working correctly and efficiently;
- During excavation works, material will be dug and surplus material immediately loaded to waiting vehicles for transportation off Site. To reduce unnecessary handling, where possible, some material will be stockpiled to be reused. Material will be covered during transportation;
- Damping down of any earthworks stockpiles and the use of water bowsers to spray larger areas of the Site will be implemented to suppress dust generation;
- Minimise surface areas of stockpiles (subject to health and safety and visual constraints regarding slope gradients and visual intrusion) to reduce area of surfaces exposed to wind pick-up;
- Where appropriate, windbreak netting / screening will be positioned around material stockpiles and vehicle loading / unloading areas, as well as exposed excavation and material handling operations, to provide a physical barrier between the Site and the surroundings;
- Where practicable, stockpiles of soils and materials will be located as far as possible from sensitive properties, taking account of prevailing wind directions and seasonal variations in the prevailing wind;
- Areas where soil has been exposed (e.g. during landscaping) will be re-vegetated as quickly as is practicable; and
- Minimise the use of diesel or petrol-powered generators by using mains electricity or battery powered equipment where possible (and if safe to do so).

CONSTRUCTION TRAFFIC

- All vehicles / skips transporting waste or excavation arisings will deploy suitable covers over loads;
- Only appropriately designed vehicles will be used for materials handling;
- Ensuring that all construction plant and equipment is maintained in good working order and not left running when not in use;

- There will be wheel washing facilities present at the entrance and exit to the Site as shown in **Appendix F** to minimise the transfer of dust and particulate matter onto surrounding highways. In addition, a road sweeper will be utilised on the local highway network as and when needed;
- Construction vehicle access arrangements shall be designed to avoid sensitive streets or narrow, congested roads, where possible;
- Materials deliveries and vehicle access to the Site will be timed to avoid the need to queue outside the Site prior to opening or whilst other deliveries are completed.
- Regular inspection of local highways and site boundaries to check for dust deposits will be conducted. If necessary, cleaning and/or removal should be undertaken; and

OPERATIONS

- Use of dust-suppressed tools for all operations;
- Skips will be covered to ensure that dust does not escape.

6.4 GROUND CONTAMINATION AND WATER QUALITY

6.4.1. The following measures have been identified and will be implemented.

METHODS OF WORKING

6.4.2. All construction activities will be undertaken in accordance with legislation and the Environment Agency Pollution Prevention Guidance (PPG) and other relevant documents, in particular:

- PPG 1: General Guide to the Prevention of Pollution of Water Resources (Environment Agency, reviewed July 2013);
- PPG 2: Choosing and using Storage Tanks (Environment Agency, April 2014);
- PPG 3: Choosing and using Oil Separators (Environment Agency, 2006);
- PPG 5: Works and maintenance in or near water (Environment Agency, 2007)
- PPG 6: Working at Construction and Demolition Sites (Environment Agency, April 2014);
- PPG 7: Operating Refuelling Facilities (Environment Agency, August 2011);
- PPG 13: Vehicle Washing and Cleaning (Environment Agency, July 2007);
- PPG 21: Pollution Incident Response Planning (Environment Agency, 2004); and
- PPG 22: Dealing with Spills (April 2011).

MEASURES SPECIFIC TO THE SITE

- Detailed design will consider scheduling early provision of proposed SuDS (Sustainable Drainage Systems) infrastructure so this can serve a construction mitigation function;
- Implementation of an appropriate temporary drainage system will be required to minimise the potential risks of contamination or excess sediment reaching nearby surface water. This will include road gully's left at base course level to enable surface water to discharge into the drainage system, with a hessian protection filter system, drain socks and booms around drains.
- In the event that any contaminated material is encountered onsite, the handling, storage and removal will be subject to current waste management legislation and guidance (see **Appendix A**);

MEASURES SPECIFIC TO THE MANAGEMENT AND DISPOSAL OF WATER FROM EXCAVATIONS, DEWATERING AND PUMPING

- Prevent water from entering excavations, by using cut off-ditches;
- Consider the impact on groundwater if well point dewatering or cut of walls are used;

- Use sump pumps in excavations;
- Discharge onto hard surfaces (concrete slabs then into gravel) into surface water;
- Use appropriate pump rates – to avoid the disturbance of material and mobilisation of material; and
- Minimise the disturbance of any standing water;

MEASURES SPECIFIC TO EXPOSED GROUND AND STOCKPILES

- Minimise the amount of exposed ground and soil stockpiles from which the water drains;
- Only remove vegetation from the area that needs to be exposed in the near future; and
- Seed or cover stockpiles.

MEASURES SPECIFIC TO ON-SITE WORKING

- Plant and wheel washing will be carried out in a designated area of hardstanding at least 10 metres from any watercourse of surface water drain;
- Run-off will be collected in a sump – recycle and reuse water where possible;
- Settled solids will be removed regularly;
- Discharge of contained water goes to foul sewer (if possible); and
- Tanker off-site for authorised disposal.

MEASURES SPECIFIC TO SITE ROADS AND RIVER CROSSINGS

- Brushing or scraping roads to reduce dust and mud deposits;
- Using small dams in artificial roadside ditches to retain silt;
- Using existing permanent bridges or pipe crossings for river crossings;

MEASURES SPECIFIC TO THE PROTECTION OF RECEIVING WATERCOURSES AND HABITATS FROM POLLUTED RUN-OFF

- Where run off water is contaminated with silt or other pollutants such as oil, this water must not be pumped or allowed to flow directly or indirectly in to surface waters or groundwater without treatment;
- If discharge to surface waters, groundwater, soakaways or surface water sewers is necessary, relevant consent or authorisation will be required from the Environment Agency;
- If discharge to surface waters, groundwater, soakaways or surface water sewers is necessary, the use of Sustainable Drainage Systems (SUDS), settlement lagoons or tanks; filtration, pumping to grassland, discharging to the sewer or tanker off site will be considered in accordance with PPG 5;
- Where works are required on the watercourse banks, or in-channel, vegetation clearance will be restricted to the working area and will be undertaken only immediately prior to the commencement of those works, except for other circumstances where earlier clearance may be required due to the presence of protected species. Vegetation will be re-established as soon as practicable. If necessary additional measures such as geotextiles (biodegradable and non-biodegradable), mulching, brushwood mattresses etc. will be used to protect soils before vegetation has re-established, particularly on the watercourse banks;
- Sediment laden water generated on site will be appropriately treated before discharge. This may be using silt fences, silt traps, filter bunds (possibly straw bales or gravel bunds), settlement ponds and/or proprietary units such as a ‘siltbuster’. Discharges will not be direct to any

watercourse, but will be made to ground (where appropriate). This also applies to waste water containing sediment during any wheel washing of vehicles entering and exiting Site';
- Plant and wheel washing will be carried out in a designated area of hard standing at least 10 metres from any watercourse or surface water drain;
- Any plant cleaning or wheel washing runoff will be collected in a sump – recycled and reused wherever possible and any settled solids will be removed regularly;
- Control and treatment measures will be regularly inspected to ensure they are working effectively;
- Avoid unnecessary vegetation clearance to prevent sediment pollution from runoff;
- Do not dispose removed vegetation in watercourses and prevent debris from vegetation removal operations from falling into water. Consider removing vegetation from behind the bank and pulling it away from the water, or by placing screens or nets between the vegetation and the water; Where this is impractical, use booms or temporary screens to collect any floating debris so that it can then be easily removed. This type of recovery should cause as little disruption to the watercourse as possible;
- Place a protective bund around waterbodies to prevent water pollution;
- Dewatering can affect the ecology of wetlands around the Site. Consider monitoring water levels during the works;
- Vegetated buffer strips will be maintained adjacent to all watercourses, where possible;
- If any works are deemed to require significant dewatering (groundwater control) operations further consideration will be given to potential impacts and requisite mitigation. At present, the requirement for significant dewatering is considered very unlikely however, where long-term dewatering operations (>6 consecutive months) are proposed this will be subject to licensing consent through the Environment Agency;
- Local weather forecasts will be monitored and works scheduled accordingly. Earthworks and in-stream works may be stopped, or otherwise adequately controlled, during storm events;
- Emergency response plans will be developed and spill kits made available on site;
- All relevant consents will be sought from the EA for temporary discharges and in-stream works;
- Construction compounds and stockpiling areas will be located at least 50m from sensitive watercourses;
- Foul drainage from site welfare facilities will be disposed of appropriately. This may be by discharge to the foul sewer or by collection from septic tanks for disposal off site; and
- There should be no uncontrolled run-off of water or mud from the site.

GENERAL MEASURES

- Excavated soils will be re-used onsite wherever possible;
- Fuels and potentially hazardous construction materials will be stored in bunded areas with external cut-off drainage; fuel will be stored in double skinned tanks with 110% capacity;
- Fuelling and lubrication of construction vehicles and plant will be on hardstanding or on haul roads, where reasonably practical, with appropriate cut-off drainage and located away from watercourses. In the event of plant breakdown drip trays will be used during any emergency maintenance and spill kits will be available on site;
- Construction plant will be checked regularly for oil and fuel leaks, particularly when construction works are undertaken in or near the existing site waterbodies;
- Waste fuels and other fluid contaminants will be collected in leak-proof containers prior to removal from site to an approved processing facility;
- Washing out of any cement or concrete lorries will be carried out off site; and

- Once hard surfaces are constructed in the form of roads, silt run-off preventative measures are to be utilised throughout the construction period;
- During works, machinery will only be refuelled within the designated refuelling area;
- All machinery will be regularly checked for oil leaks or similar, which, if found, must be prevented from entering the drainage ditches or watercourses either through immediate repair of the machinery or through use of a drip tray/spill kit or similar;
- Any spillages (e.g. diesel) should be cleaned up immediately. Efforts will be made to stop a spill at the source;
- If it is not possible to stop the spill at source, significant attempts will be made to stop it as close to the source as possible. If possible, the spilling material will be safely moved into another container to limit the size of the spill. Use of a suitable container and pump may be required; and,
- In the event of a spillage on site, the material should be contained (using an absorbent material such as sand or soil or commercially available booms). Sorbents will be used to soak up a spill and stop it spreading on hard surfaces. Using sorbents generates waste and this method will only be used on small spills, or where a spill has been contained to stop further spread. All used sorbents will be disposed of at an accredited site for disposal.

CONTAMINATION AND HUMAN HEALTH

6.4.3. The following methods will be implemented during demolition and construction to ensure the safety of construction workers, visitors and to avoid any potential pollution of surface and ground water:

- Use of appropriate Personal Protective Equipment (PPE) at all times during the construction works;
- Provision of adequate hygiene facilities for washing and changing;
- Excavated soils will be used onsite wherever possible; and
- In the event of the discovery of unexpected contaminated ground after the development has begun, development must be halted on the part of the Site affected to the extent specified by MSDC in writing.

6.4.4. Should significant unexpected contamination be encountered this will be managed appropriately and reported to the Environment Agency. If required, this risk assessment will also be updated.

6.5 ASBESTOS

6.5.1. The Site contains several agricultural buildings and old fuel tanks which have the potential to contain Asbestos Containing Materials. MSDC imposed Condition 8 relating to contamination which should be adhered to. This CEMP does not represent evidence to discharge this condition, but outlines measures that shall be implemented during construction of the Proposed Development.

6.5.2. While measures have been taken to avoid and reduce the risk of exposure to contaminants such as asbestos to construction workers and surrounding site occupants, the risk cannot be entirely removed. To mitigate this risk, all Site operatives will undergo Asbestos Awareness training and all ground worker sub-contractors will require appropriate asbestos training. Asbestos Awareness is to be included in the Site induction and tool box talks.

6.5.3. If during construction, contamination not previously identified is found to be present on Site, construction works shall cease until a method statement, identifying, assessing the risk and proposed remediation measures, together with a programme is submitted to and approved in writing by MSDC in accordance with Condition 8 of the decision notice.

6.5.4. Any remediation or removal of asbestos or contaminated waste shall be undertaken by a suitably licensed contractor.

6.6 ECOLOGY

BACKGROUND

6.6.1. Several ecological surveys and reports were undertaken between 2012 and 2016 and supplemented by additional surveys during 2019 to inform the reserved matters planning application. These surveys confirmed the Site consists of several habitats and ecological features that supported protected and notable species including the presence of ancient woodland adjacent to the Site. There are no ecological designations within the Site, however Bedelands Farm Local Nature Reserve (LNR) and Bedelands Site of Nature Conservation Interest (SNCI) are located adjacent to the Site boundary within 100m.

6.6.2. The sections below present a summary of the following reports; however, these should be viewed in full, available on the MSDC planning application register for the Proposed Development and include:

- Environmental Statement Chapter 6 – Ecology;
- ES Appendix 6.1 Baseline Ecological Appraisal;
- ES Appendix 6.2 Consultation Responses and Meeting Notes;
- ES Appendix 6.3 Dormouse – Consideration of Article 16 Tests of Habitats Directive;
- ES Appendix 6.4 Great Crested Newts – Consideration of Article 16 Tests of Habitats Directive;
- Ecology Impact Topic Report (October 2019); and
- Ecology Mitigation Strategy (October 2019).

GENERAL ECOLOGY PROTECTION MEASURES

6.6.3. The following measures shall be implemented to reduce effects of dust deposition, damage to vegetation, compaction and degradation of the watercourse and ponds:

- Erection of tree protection fencing around woodlands, hedgerows and trees in accordance with BS5837:2012
- A minimum buffer zone of at least 15m where no site activities will take place is required near areas of ancient woodland
- Storage of materials and vehicles away from watercourses and ponds
- Dampening down of potential sources of dust
- Adherence to the Environment Agency's Pollution Prevention Guidelines
- Implementation of engineering safeguards as part of construction works to control surface water runoff and avoid contamination of watercourses. This could include measures such as the use of temporary silt traps to intercept silt and other potential pollutants

6.6.4. In addition, the following general safeguarding measures will be implemented in relation to faunal species:

- All contractors will be briefed as to the possible presence of protected and notable faunal species within the Site, with reference to the implications of legislation and licensing
- Any trenches or deep pits within the Site that are to be left open overnight will be provided with a means of escape should a Badger or other mammal enter. This could simply be in the form of a roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water

- Any trenches/pits will be inspected each morning to ensure no animals have become trapped overnight
- The storage of topsoil or other 'soft' building materials in the Site will be given careful consideration. Badgers will readily adopt such mounds as setts. To avoid the adoption of any mounds, these will be kept to a minimum and will be subject to inspections by site contractors with consideration given to temporarily fencing any such mounds to exclude Badgers
- The storage of any chemicals on Site will be contained in such a way that they cannot be accessed or knocked over by any roaming animals
- No burning or fires will be permitted on Site at any time
- Food and litter will not be left within the working area overnight
- Temporary lighting shall be minimised wherever practicable. Where required for health and safety, security or other reasons, it will be positioned to minimise light spill onto woodlands, hedgerows and other boundary features
- Disturbance from noise will be minimised by the adoption of good working practice

SPECIES SPECIFIC MITIGATION MEASURES

Bats

6.6.5. No confirmed bat roosts were identified based on initial surveys undertaken, however several trees were identified as having the potential to support roosting bats. In addition, a maternity roost for brown-long eared bats has also been located roughly 10m from the Site. Roosting features by bats can be sporadic and transitory such that potential roosting features could be used in the future, furthermore, new roosting features could develop. It is necessary that a precautionary approach to safeguard bats during building demolition and tree felling works and ensure compliance with legislation. The demolition of Freeks Farm house will be under a non-licensed method statement will need to occur outside the active bat season (November to March inclusive).

6.6.6. This precautionary approach shall include update surveys at the appropriate stage prior to works commencing to identify any roosting features and provide an assessment of presence/absence of roosting bats together with further appropriate safeguarding measures.

6.6.7. Should any roots be identified, a European Protected Species (EPS) licence may be required from Natural England.

Badger

6.6.8. Badgers are highly mobile species which readily move and re-use setts, such that there is the potential for the status of setts to change or new setts be created. Two badger setts were identified within the Site, therefore and update survey shall be completed prior to construction works to confirm any mitigation or licensing requirements.

6.6.9. Where setts are to be retained, a protection zone shall be established within 30m of setts to prevent disturbance during the construction phase. This should be fenced off (with Heras fencing or similar) and works avoided within this area where practical. A method statement shall be prepared for any works required within the protection zone, detailing any necessary safeguarding measures, with works carried out under ecological supervision if required.

6.6.10. If groundworks are required within proximity to a sett (within 20m), consideration will be given for the requirement for closure or temporary exclusion of setts to be carried out under a development licence from Natural England.

Dormouse

6.6.11. The Site presents good habitat opportunities for dormouse associated with hedgerows and woodland habitat which have been confirmed present within these habitats. Therefore, construction works will need to be carried out under a EPS development licence obtained from Natural England and an appropriate mitigation strategy implemented. The exact mitigation measures to be implemented with be agreed in consultation with Natural England and feature within the Mitigation Strategy but will likely include:

- Sensitive timing of works (clearance to be undertaken outside of the peak hibernation or breeding periods or as a two-stage process);
- Works to be preceded by check surveys of habitats for nests;
- Ecological supervision by an appropriately qualified and licensed ecologist; and
- Progressive clearance of vegetation by hand.

Birds

6.6.12. To avoid an offence under the Wildlife and Countryside Act 1981, the potential loss of active nests during construction will be avoided by either undertaking clearance of potential bird nesting habitat outside of the bird nesting season (March to August inclusive) or, if necessary, preceding any clearance with an inspection by a suitably qualified ecologist.

6.6.13. Any nests identified will be cordoned off and protected until they cease to be active or the young have fledged the nest. Disturbance from noise will be minimised by the adoption of good working practice, such as restricted hours of working and noise reducing construction measures.

Great Crested Newts

6.6.14. Site clearance and construction works have the potential to impact Great Crested Newts which may lead to an offence under the relevant legislation. As such, works will likely need to be carried out under a EPS development licence obtained from Natural England, with implementation of an appropriate mitigation strategy. The measures provided below are indicative based on the presence of Great Crested Newts on Site, the exact measures to be implemented will be set out within a Mitigation Strategy in consultation with Natural England.

6.6.15. Measures are likely to focus on the pre-construction translocation and exclusion of newts (and other amphibians) from the area affected by works. This will involve the erection of amphibian exclusion fencing around the edge of area subject to construction works and installation of pitfall traps and refuges, together with additional lengths of drift fencing as required. A trapping exercise will then be undertaken by a suitably qualified and licensed ecologist to remove amphibians from the affected areas. Any amphibians captured will be relocated by a suitably qualified and licensed ecologist to areas of retained habitat within open space areas. Based on the low population of newts recorded, it is considered that at least 30 days of trapping during suitable weather conditions between March and October would be required, until results indicate that suitable effort has been expended. The exclusion fencing would then be maintained for the duration of the construction works, preventing amphibians re-entering area affected by construction activities.

Reptiles

6.6.16. Site clearance works, notably in the southern long-sward grassland fields, have the potential to kill or injure reptile species. Given there is the potential for reptiles to be present on Site, a survey shall

be undertaken by a suitably qualified ecologist to update the habitat assessment and presence/absence surveys if required prior to works commencing.

6.6.17. Where possible, translocation of reptiles will be undertaken in combination with Great Crested Newt mitigation as described above. Elsewhere, consideration will be given to displacement of reptiles through gradual removal of habitats followed by destructive searches, or alternatively trapping and relocation of reptiles will be undertaken if large areas of habitat supporting good reptile populations are to be affected. Such measures shall be detailed within a method statement at prior to works commencing.

Invasive Species

6.6.18. Prior to works commencing, an update invasive species survey shall be undertaken and a control strategy will be prepared before any works commence near the affected area to ensure the species is not spread during the construction phase. Himalayan balsam is present on Site, therefore species-specific control measures will be required. This is likely to involve treatment of any stands before any works commence, and works to be carried out under a specific method statement to avoid any contamination during works.

6.7 LANDSCAPE AND VISUAL MANAGEMENT

6.7.1. The following measures may be considered during the construction works to ensure protection of the existing townscape setting and views to the Site:

- Temporary screening to the sensitive visual receptors through the implementation of solid construction hoardings. Natural screens such as trees and hedgerows shall be retained where possible;
- Use of attractive hoardings to screen low-level 'clutter';
- Appropriate location, organisation and phasing of construction activities;
- Tidy Site management to reduce the visual clutter associated with building works; and
- Large plant will be located away from the most sensitive receptors, where there are viable alternative locations.

6.7.2. Hoardings should be well lit in poorly lit areas and any gates should be positioned to minimise the noise transmitted to nearby sensitive receptors.

6.8 HAZARDOUS SUBSTANCES

6.8.1. Materials used in the construction process such as oil, fuel, solvents and paints have the potential to cause serious pollution incidents. Therefore, the Environment Agency's PPG's and other relevant guidance will be followed during the handling and storage of such materials.

6.8.2. All workers on-site will be made aware of potential contamination issues on the Site and will use best practice techniques during the construction phase. The operation of construction vehicles and the handling, use and storage of hazardous materials will be undertaken as follows:

- Construction vehicles and plant will be regularly maintained and supplied with spill kits and drip trays to reduce the risk of hydrocarbon contamination;
- Refuelling would be undertaken in specified areas where there is non-permeable hardstanding and drainage passes through an oil interceptor prior to discharge. Drip trays will be installed to collect leaks from diesel pumps;

- Adequate bunded and secure areas with impervious walls and floors, with a capacity of 110% of substance volume, are to be provided for the temporary storage of fuel, oil and chemicals on Site during construction;
- Oil interceptor(s) will be installed on discharge points from any temporary oil storage/refuelling areas; and
- Development of Site pollution control procedures in line with Environment Agency's PPG's, and appropriate training for all construction staff. Provision of spill containment equipment such as absorbent material on Site.

6.8.3. Hazardous materials already present on-site, or proposed to be used during the construction works will be identified and an appropriate Control of Substances Hazardous to Health Assessment carried out.

6.8.4. The PC will comply with relevant legislation, technical guidance and regulations in the identification, handling, storage, recovery and disposals of waste. Provision will be made for a suitably qualified consultant to identify "hazardous waste" so that materials can be appropriately managed and disposed of during works.

6.8.5. Disposal sites and routes will be identified by the PC, SHEQ Manager and Project Manager in consultation with the MSDC and the EA. Consideration should be given to transportation modes and alternatives to reduce the adverse environmental effects, times, landfill capacity and license conditions.

6.8.6. If during construction, contamination not previously identified is found to be present on Site, construction works shall cease until a method statement, identifying, assessing the risk and proposed remediation measures, together with a programme, is submitted to and approved in writing by MSDC in accordance with Condition 8 of the decision notice.

6.8.7. Any remediation or removal of asbestos or contaminated waste shall be undertaken by a suitably licensed contractor.

6.8.8. The PC shall comply with all relevant legislation and regulations when dealing with contaminated materials. The PC will prepare a full management plan where contaminated land is identified to comply with all relevant handling and disposal legislation.

7 MONITORING

7.1 MONITORING, CONTINUAL IMPROVEMENT AND REVIEW

7.1.1. The Project Manager will hold the responsibility for maintaining a register of all environmental monitoring, which will be made available for auditing and inspection.

7.2 REPORTING

7.2.1. Reporting procedures will be defined by the Project Manager who will hold overall responsibility for providing feedback to the Applicant on the environmental performance of the construction works.

7.2.2. All injury incidents occurring because of the Proposed Development's work activities or conditions are to be reported to the SHEQ Manager and recorded in the Site Accident Book. First aid will be provided and where necessary, arrangements will be made to get the injured person to hospital.

7.2.3. The SHEQ Manager will report any notifiable injury accidents and incidents as scheduled under The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 to the Health and Safety Executive (HSE) who will carry out an investigation of all notifiable injury accidents and incidents.

ENVIRONMENTAL INCIDENTS

7.2.4. Environmental Incidents will be managed in accordance with the Incident Response Plan (as discussed in Section 3.8).

7.2.5. The Applicant will advise MSDC within 24 hours of any incidents of non-compliance with the CEMP and will respond to any reported incidents within 24 hours, or as soon as reasonably practicable. In the event of working practices being deemed dangerous either by the MSDC or the HSE, immediate remedial action will be taken by the SHEQ Manager.

7.2.6. The Project Manager will record full details of the Environmental Incident and ensure that they are responded to as soon as reasonably practicable (preferably within one hour but always within 24 hours) in accordance with the Incident Response Plan. The Project Manager will monitor and ensure that appropriate action is taken and will undertake an investigation to assess what corrective and preventive action, or further investigation is necessary to avoid recurrence of the Environmental Incident.

7.3 COMMUNICATION AND COMPLAINTS

7.3.1. The Project Manager and Applicant will define procedures for managing incidents. A centralised Complaints Register of all reported complaints and incidents will be maintained by the Project Manager.

7.3.2. The formal procedure for handling project complaints / concerns will be developed by the PC and Project Manager and include the below:

- All Stakeholders will be able to report any concerns, complaints or other comments to PC and/or Project Manager in writing, by email or in person at the site offices. Site contacts details will be provided at site entrances and on perimeter hoardings;

- The Project Manager will take full details of the concerns expressed and ensure that a formal assessment is commenced of the reported concern. They will also issue an initial response to the person who has submitted the complaint / concern confirming its receipt.
- The Project Manager will record the date and contact information associated with a complaint / concern on a standard form and place a copy in a project Complaints Register;
- The Project Manager will undertake an investigation to assess what corrective and preventive action, or further investigation is necessary;
- The Project Manager will respond within a reasonable timescale (typically not more than 30 days) and place details of the completed corrective and preventive actions within the project complaint register. If a longer-term programme is required to provide an adequate solution then this programme will be detailed on the register against the specific issue;
- The Project Manager will notify the relevant stakeholder of the proposed corrective and preventive actions to be adopted;
- Any corrective measures / actions will be implemented with associated implementation dates being recorded;
- For long term corrective action, the complainant will be informed of proposed action; and
- Following the implementation of the corrective action and agreement with the relevant stakeholder that the complaint has been adequately addressed the case will be closed and date recorded.

7.3.3. If a complaint is not resolved to the satisfaction of the complainant directly with the PC and Project Manager, the following levels of mediation will be available:

- If the grievance cannot be adequately addressed by the PC and Project Manager, the complaint / concern will be escalated to an appropriate contact within the Applicant; and
- If the grievance is still not adequately resolved the issue will be taken to MSDC for a final decision to be made.

8 SUMMARY

8.1.1. This CEMP has been developed to outline measures to minimise and mitigate the potential effects relating to the construction of the Proposed Development at Freeks Farm to ensure best practice is followed. This CEMP sets out specific measures that will be adopted to minimise the environmental effects associated with all demolition and construction phases of the Proposed Development and to discharge Conditions 3 and 5 of DM/18/0509 issued by MSDC.

8.1.2. The following key environmental issues will require consideration and / or protection during the construction works:

- Emissions of NO_2, PM_{10} and dust resulting from construction works and construction traffic impacting nearby sensitive receptors including physical contamination of nearby vegetation, ecological receptors or soil and impacts to human health;
- Greenhouse gas emissions during construction due to emissions from construction plant and machinery;
- Increase in congestion of the local highway network;
- Transfer of mud and other materials by vehicles on the local road network;
- Viewpoints within 200m of the Site have unobstructed views of the Proposed Development and may experience a negative visual change associated with construction works
- Noise arising from construction activities, construction traffic and vibration from piling or drilling activities;
- Construction works have the potential to generate dust, mobilise contaminants and lead to accidental spillages of fuels and oils which could impact construction workers, nearby receptors, controlled waters, ecology and future residents and/or maintenance workers;
- Alterations and / or changes to ground levels has the potential to increase flood risk;
- Potential for ponding of surface water on-site and runoff to the surrounding area contaminating nearby watercourses;
- Temporary increase in the demand for foul drainage to support welfare facilities during construction;
- Contamination of groundwater resources during excavation and piling activities;
- Existing water mains may be impacted while the new water mains connection to the Site is constructed;
- Construction works have the potential to cause the degradation of water quality due to the mobilisation of contaminants and dust and increase the potential for contaminant migration to underlying groundwater resources
- Potential destruction of ecological habitats and disturbance to protected or notable species from construction works;
- Construction activities may lead to direct, physical impacts to heritage or archaeological assets. In addition, visual impacts associated with the Proposed Development may lead to impacts on the setting of heritage assets.
- Construction activities alongside construction traffic may lead to impacts on pedestrian, cyclist and driver delay and have the potential to impact accidents and road safety.

8.1.3. A series of best practice measures and site-specific measures have been recommended for which the PC will ensure are implemented and considered to minimise the environmental impacts associated with construction of the Proposed Development.

Appendix A

RELEVANT LEGISLATION

Environmental Legislation	Summary of Relevance to the Site
HAZARDOUS SUBSTANCES	
CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH) REGULATIONS 2002 (AND AMENDED 2003, 2004)	The COSHH regulations provide a legal framework for controlling people's exposure to all 'very toxic, toxic, harmful, corrosive or irritant' substances and apply to all places of work. There are various requirements including an assessment of the risk to the health of employees arising from their work and what precautions are needed, introduction of appropriate measures to prevent or control the risk (ensuring that measures of control do not increase the overall risk to health and safety), use of control measures and maintenance of equipment.
WASTE	
CONTROLLED WASTE (REGISTRATION OF CARRIERS AND SEIZURE OF VEHICLES) REGULATIONS 1991 (AMENDED 1998)	This legislation provides powers to control fly-tipping and prevents the unlicensed transport of waste materials. All carriers of controlled waste including the producers of building and demolition waste are required to be registered with the Environment Agency. Controlled waste is defined as household, industrial, radioactive or commercial waste other than agricultural, mineral/ quarrying or explosive wastes. This registration must be renewed every 3 years.
THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2010 (AMENDED 2011, 2012, 2013, 2014 AND 2015)	The Regulations consolidate the Pollution Prevention and Control and waste Management Licencing regulations to provide a more streamlined approach to environmental regulations, by allowing for a number of different activities to be regulated under one permit by the Environment Agency.
HAZARDOUS WASTE (ENGLAND AND WALES) REGULATIONS 2005 (AMENDED 2009)	The Regulations ensure the sound management, storage and safe disposal of hazardous wastes, to prevent environmental pollution and harm to human health. 'Hazardous' waste applies to wastes which contain any substance which: ■ is listed a hazardous waste in the List of Waste Regulations 2005 (see below); ■ is exceptionally classified as hazardous by the Secretary of State or any of the National Executives; or ■ is declared hazardous by virtue of any regulations under section 62 of the Environmental Protection Act (EPA) 1990. All hazardous waste movements require pre-notification to the Environment Agency prior to any hazardous waste being produced (where possible). Producers are required to know and document the quantity, nature, origin and final destination of the Hazardous Waste and to certify that the waste carrier is registered under the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991. Copies of the completed consignment notes must be retained for at least 3 years by all those in the waste chain.
LIST OF WASTES (ENGLAND) REGULATIONS 2005 (AMENDED 2005)	The List of Waste Regulations categorises wastes as hazardous, and provides a coding system of waste and hazardous waste. Wastes included in the list are subject to the provisions of Directive 75/442/ EEC.

	Under the List of Waste Regulations, a set of criteria are provided to determine whether or not a waste is classified as hazardous, e.g. if it has a flash point lower than 55ºC.
Environmental Protection (Duty of Care) Regulations 1991 (amended 2003)	A legal duty of care is imposed on anyone – from producers, to carriers and disposers of waste, to ensure that: ▪ Waste is not illegally disposed of or dealt with without a licence or in breach of a licence or in any way that causes pollution or harm; ▪ Waste is transferred only to an 'authorised person', i.e. a local authority, registered carrier or a licensed disposer; and ▪ When waste is transferred, it is accompanied by a full written description which forms part of a waste transfer note (or consignment note for hazardous wastes). All persons subject to duty of care are required to ensure that neither they nor any other person commit an offence under the Regulations.
Environmental Protection Act (EPA) 1990: Part 2 – Waste on Land (amended 2010)	This Act builds on the system put in place by the Control of Pollution Act with stricter licensing controls and other provisions aimed at ensuring waste handling, disposal and recovery operations do not harm the environment. It reorganised Local Authority responsibilities for waste management, introduced a duty of care for producers and handlers of waste and described the offences of unauthorised storage, treatment and disposal of waste.
Environmental Protection Act (EPA) 1990: Part 2a	The section of the EPA created by the Environment Act 1995 setting out the legislative framework for identifying and dealing with contaminated land.
Environment Act 1995	Inserted Part '2a' to the EPA 1990 giving powers and responsibilities to Local Authorities regarding contaminated land.
Discharge to Water / Land	
Anti-Pollution Works Regulations 1999	Aimed at ensuring that site owners pay for the prevention and remediation of pollution arising from their activities. Notices can be served by the Environment Agency directing a site owner to carry out anti-pollution works where any poisonous, noxious or polluting matter is likely to enter, or to be, or to have been present in any controlled waters.
Water Industry Act 1999	The Act prohibits certain discharges to sewers including: ▪ Any matter likely to injure the sewer or interfere with the free flow of its contents or to affect the treatment, disposal of its contents; ▪ Liquid waste or steam at a temperature higher than 110ºF or any other chemical waste which is dangerous, a nuisance or prejudicial to health; ▪ Any petroleum spirit; and ▪ Calcium carbide. Trade effluents may be discharged into public sewers only with the consent, or by agreement with, the sewerage undertaker (i.e. local water company). The consent may stipulate conditions relating to: ▪ Nature or composition of the effluent; ▪ Maximum daily volume allowed; ▪ Maximum daily rate of flow; and ▪ Sewer into which the effluent is discharged.

WATER RESOURCES ACT 1991 (AMENDED 2009)	The Act requires water abstractions to be licensed and certain discharges into controlled waters to be subject to Environment Agency consent. It is an offence under the Act 'to cause or knowingly permit': ■ Poisonous, noxious or polluting matter, or any solid waste matter, to enter controlled waters ■ Matter, other than trade or sewage effluent, to be discharged from a sewer in contravention of a relevant prohibition; ■ Trade or sewage effluent to be discharged into controlled waters or through a pipe into the sea (beyond the controlled waters) ■ Unauthorised work in a water protection zone; ■ Trade or sewage effluent to be discharged onto land or into a lake or pond in contravention of a relevant prohibition or; ■ Any matter to enter inland waters so as to cause or aggravate pollution by impeding flow. Pollution from individual discharges into water is controlled by a system of discharge consents which set legal limits on the type, concentration and total volume of discharge which can be released. If a pollution incident occurs, a description of the nature and extent of harm must be produced.
WATER ACT 2003 AND 2014	The Water Act replaces parts of the Water Resources Act 1991, and was fully implemented in 2012. The Water Act introduces a new abstraction licence system which reduces the number of licences and encourages the development of Catchment Abstraction Management Strategies (CAMS).
GROUNDWATER REGULATIONS 1998 (AMENDED 2009)	The Regulations transpose the requirements of the Groundwater Directive into UK legislation. The Regulations aim to prevent and limit the pollution of groundwater by certain listed substances or groups of substances. The listed substances are the same as those in the Groundwater Directive. The Regulations aim to prevent entry of List I substances into groundwater and prevent groundwater pollution by List II substances. The direct or indirect discharge of List I or II substances must be subject to prior investigation and authorisation. The Regulations also allow notices to be served to control activities which might lead to an indirect discharge of List I substances or groundwater pollution by an indirect discharge of substances in List II.
CONTROL OF POLLUTION (OIL STORAGE) (ENGLAND) REGULATIONS 2001	These Regulations require a person having custody or control of oil to carry out certain works and to take certain precautions and other steps for preventing pollution of any waters which are controlled waters for the purposes of Part III of the Water Resources Act 1991. The Regulations impose general requirements in relation to the storage of oil and the types of container used. Where the Environment Agency considers that there is a significant risk of pollution of controlled waters from the oil in question it has the power to serve a notice on the person having custody or control to minimise the risk.
CONTAMINATED LAND (ENGLAND) REGULATIONS 2000 (AS AMENDED 2006 AND 2012)	Local Authorities have a duty to inspect land, to identify contamination and to decide whether any such land should be designated a 'special site'. Public registers of contaminated land and special sites are kept by the local authority and the Environment Agency. Following designation of land as contaminated or a special site, the enforcing authority can

	serve a remediation notice on the appropriate person(s) specifying what needs to be done and the period within which remedial work should be completed. The appropriate person will be the person(s) who caused or permitted the contamination of the land. If this person cannot be identified then responsibility falls to the current occupier or owner of the land.
BUILDING REGULATIONS 1991 (AS AMENDED 2002)	The Regulations impose requirements upon people carrying out certain building operations, including new buildings, building extensions and a material change of use of land or a building. Building work must comply with schedule 1 of the Regulations which include minimum standards for various aspects including site preparation, toxic substances, drainage etc.
EMISSIONS TO AIR / NOISE	
CONTROL OF POLLUTION ACT (COPA) 1974 (SECTIONS 60, 61) (AMENDED 1989)	Section 60 of COPA gives powers to the Local Authority to control noise and vibration from construction sites. The basis of the COPA legislation is that Best Practical Means should be used to control noise and vibration pollution. Control is by service of an abatement notice (under S60) on the person responsible for the noise requiring specific controls to minimise noise and vibration. The notice may specify types of plant and machinery, hours of work, boundary noise levels, etc. Section 61 provides for the Contractor to apply to the Local Authority for consent before works commence. This protects the contractor from action by the local authority under S60, but not from individual residents' complaints.
CLEAN AIR ACT 1993	The Act prohibits, subject to certain conditions, the emission of dark and black smoke from chimneys serving boilers and other industrial plant. Limits also apply to dust, grit, sulphur and car fume emissions. All new furnaces shall be so far as practicable, smokeless. The Local Authority is empowered to undertake an examination of a plant likely to be causing air pollution, taking into account the possible relevance of statutory exemptions.
NOISE AND STATUTORY NUISANCE ACT 1993	This Act amends the Environmental Protection Act (EPA) 1990 to make noise emitted from vehicles, machinery or equipment in the street a statutory nuisance. It gives the Local Authority powers to serve an abatement notice on the person responsible.
NOISE ACT 1996	Introduces a new procedure for Local Authorities to seize noisy equipment, in relation to statutory nuisance offences under the EPA 1990.
CONTROL OF NOISE AT WORK REGULATIONS 2005	Requires that all employers must conduct an assessment of the exposure and therefore of the risk of their employees to noise where they have reason to believe that any of the specified action levels for various noise exposures is or could be exceeded.
CONSTRUCTION PLANT AND EQUIPMENT (HARMONISATION OF NOISE EMISSION STANDARDS) REGULATIONS 1985 (AS AMENDED 1995)	Provides for examination and certification of construction plant that comply with noise emission standards. The Regulations require that plant is certified by approved bodies. Various types of plant manufactured after the dates of the regulations are to meet noise emission standards and are certified as such.

ENVIRONMENTAL PROTECTION ACT (EPA) 1990: PART 3 – STATUTORY NUISANCE (SECTION 80)	When a complaint of statutory nuisance is made to the Local Authority by a person living in its area, the Authority has to take steps to investigate the nuisance. Statutory nuisances include any premises maintained in such a state to be prejudicial to health or a nuisance; any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance. Noise emitted from premises so as to be prejudicial to health or a nuisance.
VEHICLES	
ROAD VEHICLES (CONSTRUCTION AND USE) REGULATIONS 1986 (AS AMENDED 2015)	It is an offence to use a vehicle if it is emitting 'smoke, visible vapour, grit, sparks, cinders or oily substances' in such a way as is likely to cause 'damage to any property or injury to any person'. It is an offence to use a vehicle in such a way as to cause excessive noise.
ROAD TRAFFIC (VEHICLE EMISSIONS) (FIXED PENALTY) REGULATIONS 1997 (AS AMENDED 2002 AND 2003)	These Regulations give powers to Local Authorities to enforce vehicle emission standards at the roadside as part of the implementation of the national air quality strategy. Under the Regulations, Local Authorities may issue fixed penalty notices to users of vehicles that do not comply with emissions standards set in the Road Vehicles (Construction and Use) Regulations 1986 as amended. Appropriately trained Local Authority officers can test emissions from vehicles with the help of a uniformed police officer to stop the vehicle. The Local Authority officer may also issue a fixed penalty notice to drivers who leave their engines running unnecessarily.

Appendix B

PROPOSED SITE LAYOUT

Proposed Ground Floor

1:1250

0m 25m 50m 75m 100m

CDM REGULATIONS 2015. All current drawings and specifications for the project must be read in conjunction with the Designer's Hazard and Environment Assessment Record. All intellectual property rights reserved.

Rev	Date	Description
-	30/08/2019	Issue for Planning Application

Dwn	JKM
Chkd	BW
Drawn	JKM
Checked	BW
Date	Aug 2019
Scale @ A1	1:1250

Northern Arc Burgess Hill

Proposed Ground Floor

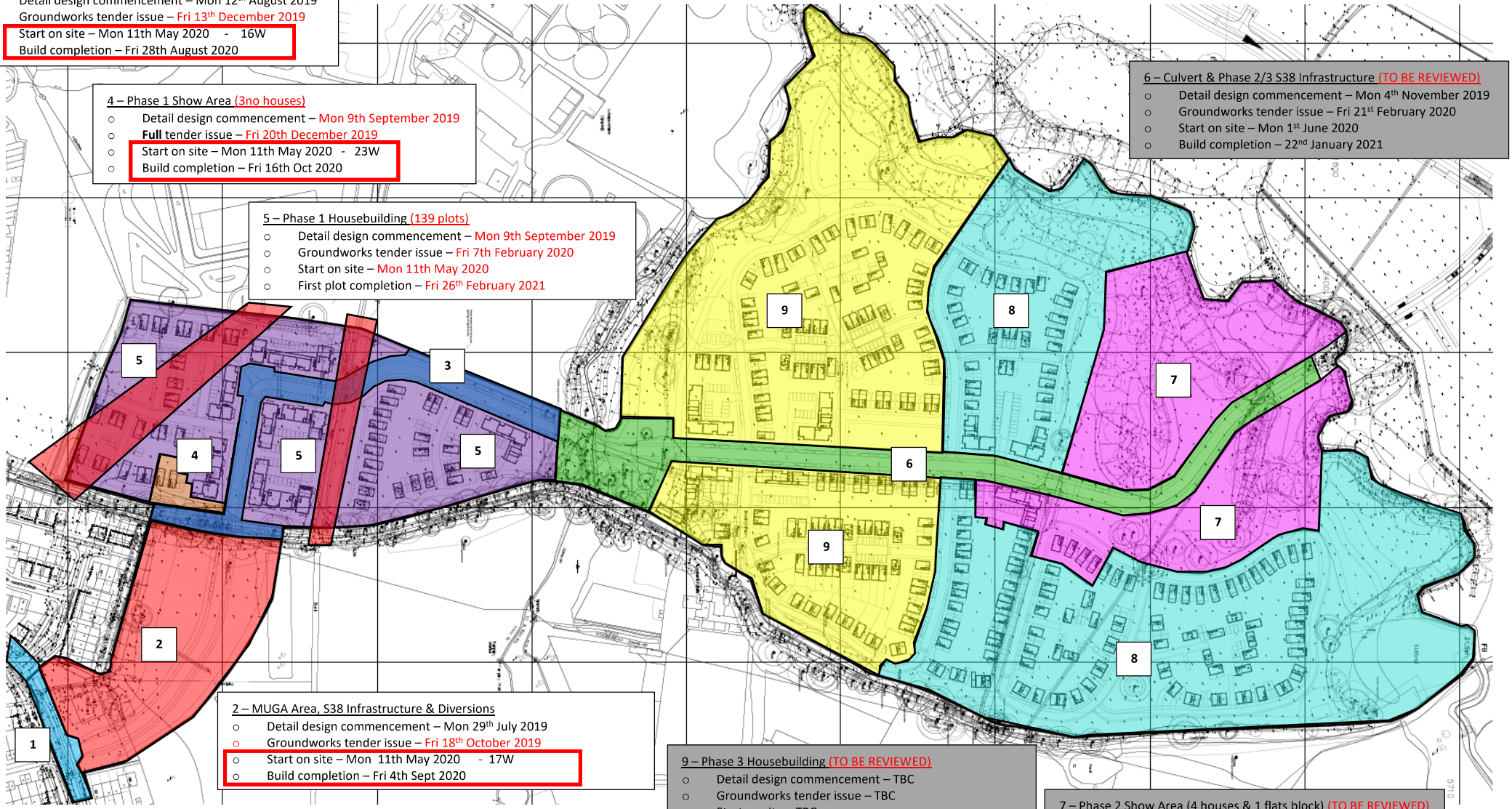
AA7888-2007
REV N

For Planning

PRP

Appendix C

OCCUPATION AND PHASING STRATEGY



3 – Phase 1 S38 Infrastructure
- Detail design commencement – Mon 12th August 2019
- Groundworks tender issue – Fri 13th December 2019
- Start on site – Mon 11th May 2020 - 16W
- Build completion – Fri 28th August 2020

4 – Phase 1 Show Area (3no houses)
- Detail design commencement – Mon 9th September 2019
- **Full** tender issue – Fri 20th December 2019
- Start on site – Mon 11th May 2020 - 23W
- Build completion – Fri 16th Oct 2020

5 – Phase 1 Housebuilding (139 plots)
- Detail design commencement – Mon 9th September 2019
- Groundworks tender issue – Fri 7th February 2020
- Start on site – Mon 11th May 2020
- First plot completion – Fri 26th February 2021

6 – Culvert & Phase 2/3 S38 Infrastructure (TO BE REVIEWED)
- Detail design commencement – Mon 4th November 2019
- Groundworks tender issue – Fri 21st February 2020
- Start on site – Mon 1st June 2020
- Build completion – 22nd January 2021

2 – MUGA Area, S38 Infrastructure & Diversions
- Detail design commencement – Mon 29th July 2019
- Groundworks tender issue – Fri 18th October 2019
- Start on site – Mon 11th May 2020 - 17W
- Build completion – Fri 4th Sept 2020

1 – S278 Maple Drive Junction
- Detail design commencement – Mon 15th April 2019
- Groundworks tender issue – Weds 21st August 2019
- Start on site – Mon 9th March 2020 - 9W
- Build completion – Fri 8th May 2020

9 – Phase 3 Housebuilding (TO BE REVIEWED)
- Detail design commencement – TBC
- Groundworks tender issue – TBC
- Start on site – TBC
- First plot completion – Construction to confirm

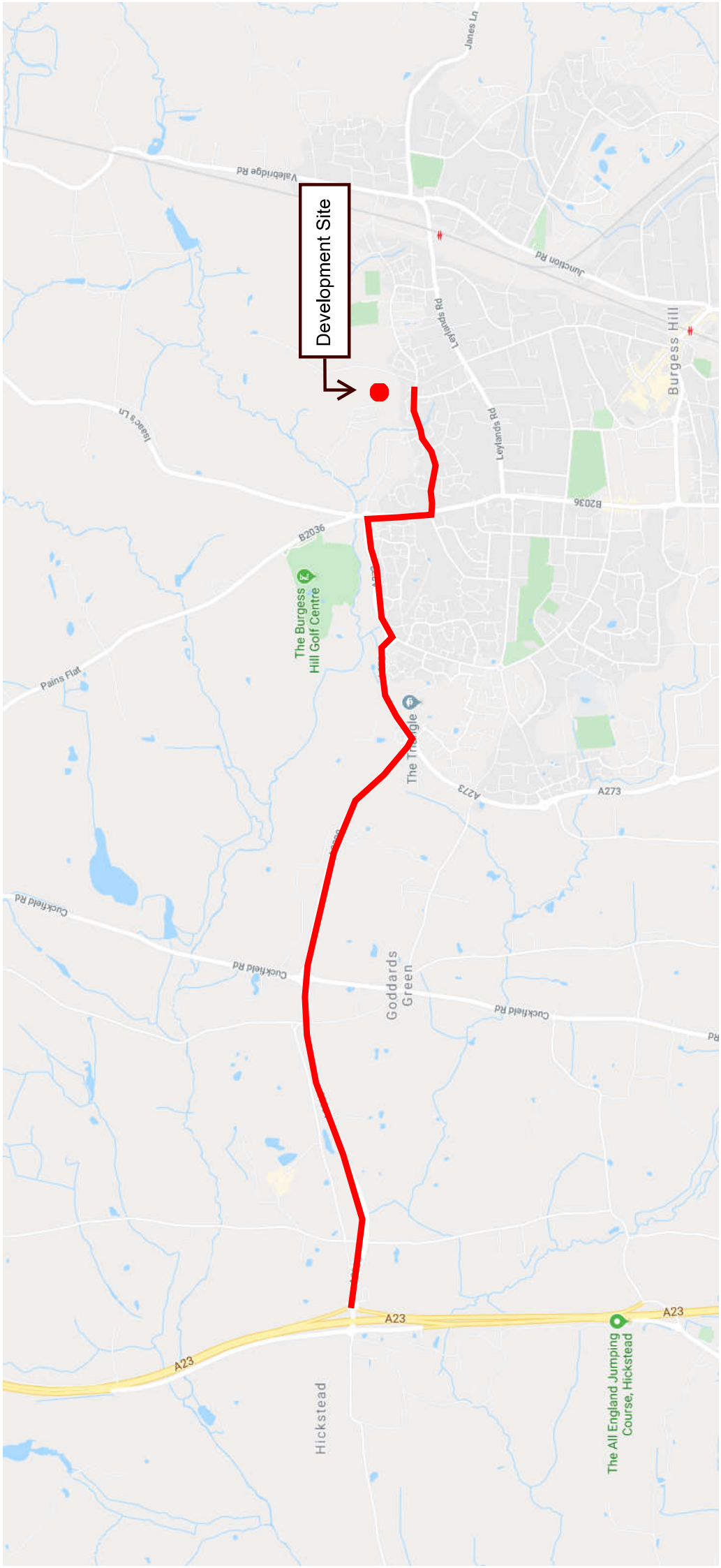
7 – Phase 2 Show Area (4 houses & 1 flats block) (TO BE REVIEWED)
- Detail design commencement – Mon 18th May 2020
- Groundworks tender issue – Fri 18th September 2020
- Start on site – Mon 16th November 2020
- Build completion – Fri 23rd July 2021 (To be reviewed)

8 – Phase 2 Housebuilding (TO BE REVIEWED)
- Detail design commencement – Mon 16th December 2019
- Groundworks tender issue – Fri 26th June 2020
- Start on site – Mon 28th September 2020
- First plot completion – Construction to confirm

Detail Design Phasing
Freeks Farm, Northern Arc, Burgess Hill
Revised 05/09/19 (revisions in red)

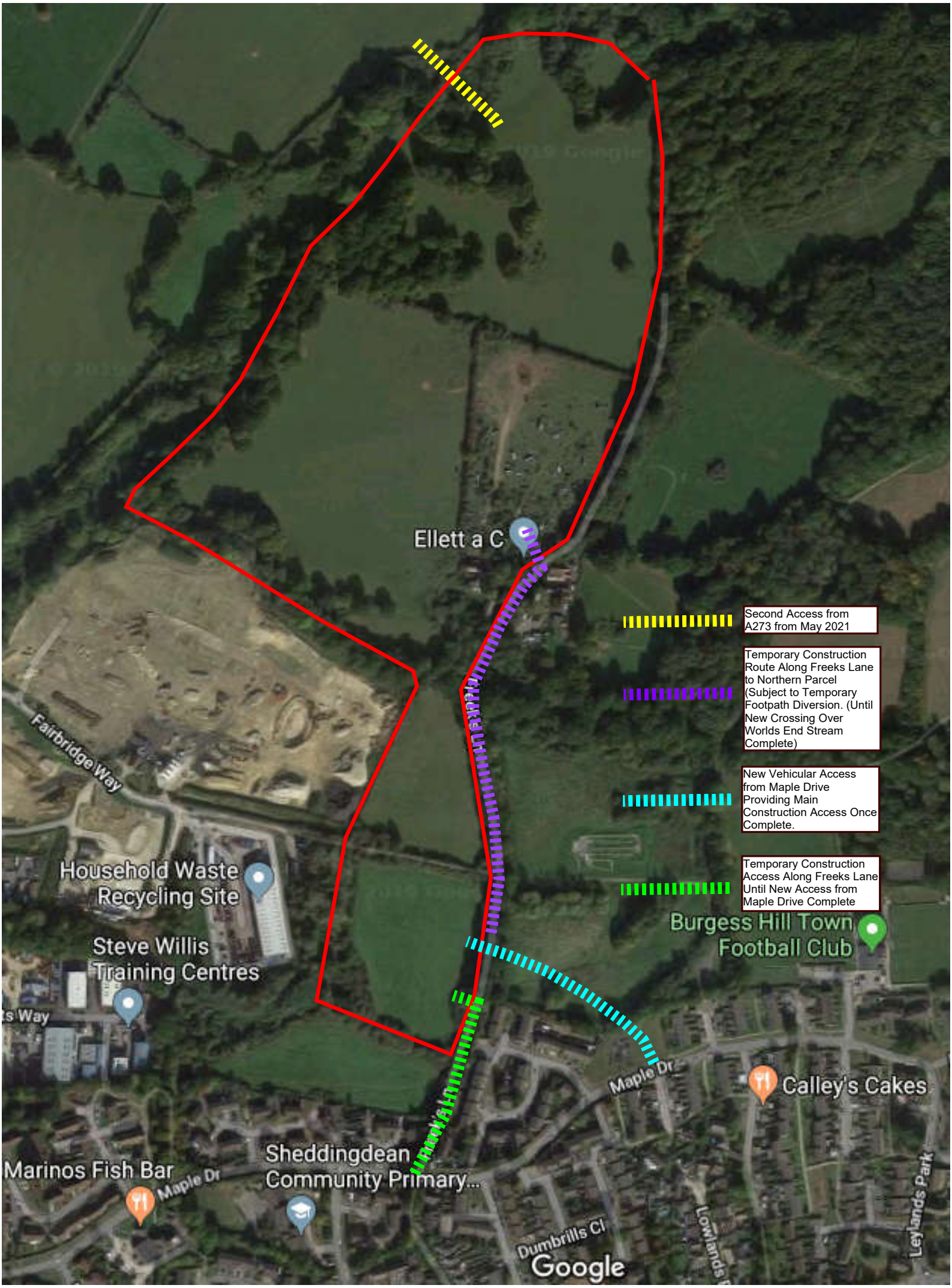
Appendix D

CONSTRUCTION TRAFFIC ROUTEING PLAN


Development Site
Valebridge Rd
Junction Rd
Leylands Rd
Burgess Hill
Isaac's Ln
B2036
The Burgess Hill Golf Centre
Pains Flat
The Triangle
A273
Cuckfield Rd
Goddards Green
A23
Hickstead
The All England Jumping Course, Hickstead

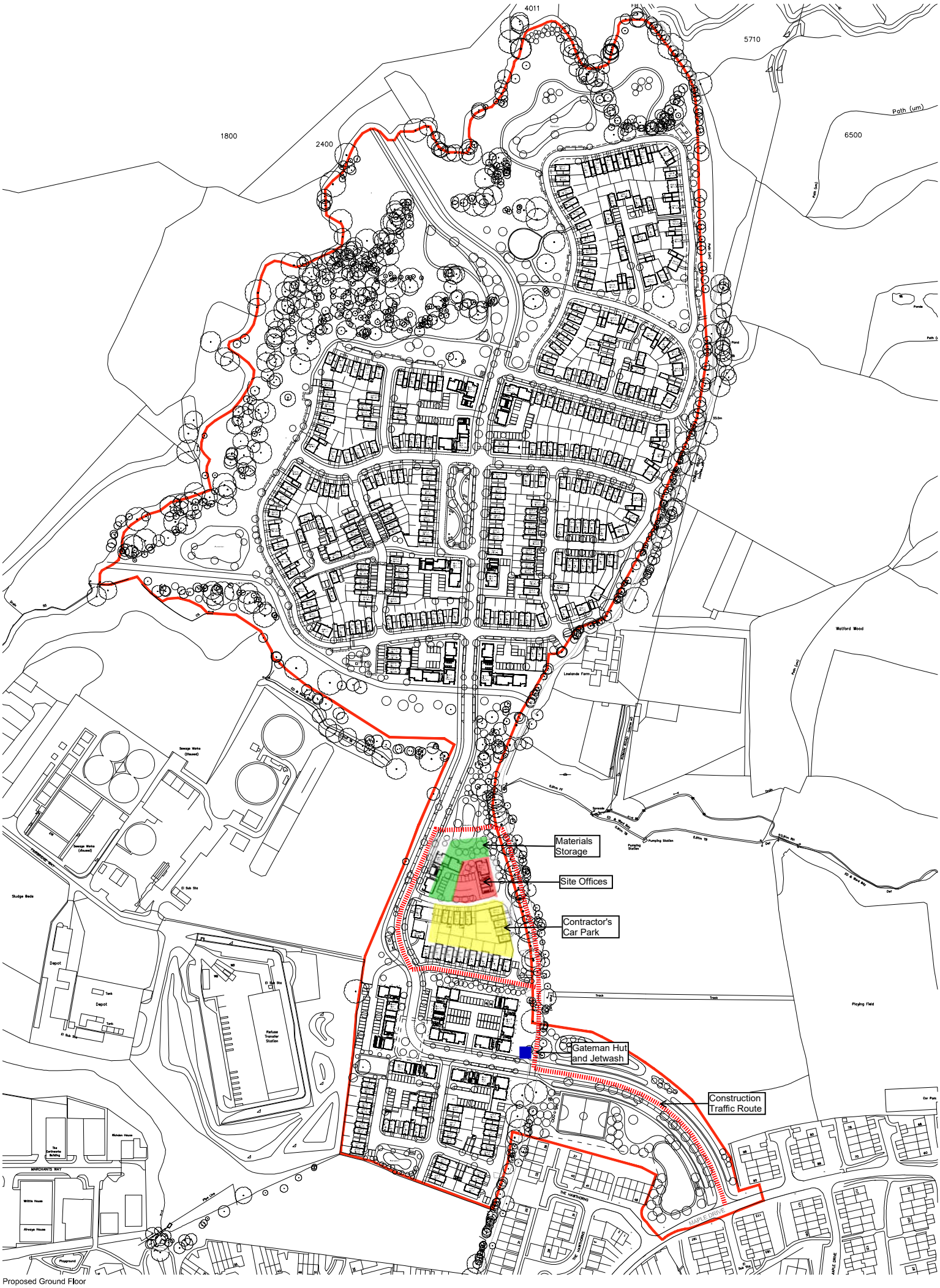
Appendix E

SITE ACCESS PLAN


Second Access from A273 from May 2021
Temporary Construction Route Along Freeks Lane to Northern Parcel (Subject to Temporary Footpath Diversion. (Until New Crossing Over Worlds End Stream Complete)
New Vehicular Access from Maple Drive Providing Main Construction Access Once Complete.
Temporary Construction Access Along Freeks Lane Until New Access from Maple Drive Complete
Ellett a C
Fairbridge Way
Household Waste Recycling Site
Steve Willis Training Centres
Burgess Hill Town Football Club
Maple Dr
Calley's Cakes
Marinos Fish Bar
Sheddingdean Community Primary...
Dumbrills Cl
Google

Appendix F

CONSTRUCTION COMPOUND LAYOUT



Proposed Ground Floor

1:1250

0m 25m 50m 75m 100m

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Rev	Date	Description
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Dwn	JKM
Chkd	BW
Drawn	JKM
Checked	BW
Date	Aug 2019
Scale @ A1	1:1250

Northern Arc Burgess Hill

Compound Plan

AA7888-2007
REV N

For Planning

PRP

Appendix G

PROJECT ENVIRONMENTAL PROCEDURES

Procedure	Waste and Materials Management
REF:	**PEP/01**
ACTION BY:	Principal Contractor and Site Environmental Manager
PURPOSE:	Management of the storage, handling, movement and disposal of waste materials.
PROCEDURE	Classification: ■ The amount of waste, its classification and disposal route will be identified at site set-up to facilitate separation and correct disposal. Segregation: ■ Waste materials will be segregated by type. A separate skip for special waste will be used. Storage: ■ All waste will be stored in designated areas which are isolated from surface drains; ■ Waste will be stored in such a manner as to prevent its escape. This may be achieved through secondary containment as necessary; ■ Stored waste will be clearly identified and its stability monitored; ■ Sufficient equipment will be provided to staff on site to enable the safe storage and containment of waste; and ■ Skips will be covered and regularly checked to see if they are full. Hazardous wastes: ■ Used oil will be stored in bunded area for collection. Waste licensing and Duty of Care: ■ A full audit of materials leaving the Site will be made; ■ Licences of waste carriers, contractors and final disposal Sites and consignment notes will be inspected and the results recorded; ■ Waste management registers will be maintained in line with current legislation; ■ Checks will be made to ensure the accurate completion of transfer notes; and ■ Checks will be made to ensure waste reaches the destination detailed on the transfer note. Records: All records for waste disposal will be maintained for a minimum of three years after the completion of the contract, or any such period necessary to comply with relevant legislation.
REFERENCES:	Waste Transfer Notes Special Waste Transfer Notes ■ Controlled Waste (England and Wales) Regs 2012; ■ Environmental Protection (Duty of Care) Regs 1991; ■ Environmental Protection Act 1990: Part 2 – Waste on Land; ■ The Hazardous Waste Regs 2005 (as amended); ■ The Waste Management Licensing Regs 1994 (as amended); and ■ Control of Substances Hazardous to Health (COSHH) Regs 2002. PPG8: Safe storage and disposal of used oils (Environment Agency); Waste Management Guidance Notes (Environment Agency); CIRIA, Waste minimisation in construction, Special Publication, 1997; and WRAP, *Practical Solutions for Sustainable Construction*: Achieving Good Practice Waste Minimisation and Management.

Procedure	Noise and Vibration
REF:	**PEP/02**
ACTION BY:	Principal Contractor and Project Manager
PURPOSE:	Monitoring and control of noise and vibration
PROCEDURE	<u>Licensing:</u> ■ It will be ensured that where appropriate a Section 61 consent is in place prior to work starting (in accordance with the Control of Pollution Act 1974). <u>Identification of sensitive receptors:</u> ■ Local receptors to noise and vibration nuisance will be identified; and ■ Interested parties will be pre-notified of noise and vibration levels associated with activities on Site. <u>Plant maintenance:</u> ■ All plant will be maintained in accordance with the manufacturers' or suppliers' instructions; ■ All machines in intermittent use will be shut down when not in use; and ■ Where possible all plant will be placed away from the site boundaries to reduce the effect on the local community. <u>Noise and vibration abatement measures:</u> ■ Working hours will be limited to those agreed with MSDC to minimise disruption to neighbours; ■ All vehicles, plant and other equipment will be fitted with the appropriate silencers, mufflers or acoustic covers as applicable; ■ Neighbours will be kept informed of the times and dates of any potential noise nuisances; and ■ Noise barriers, e.g. earth bunds, fences, etc. will be put in place where necessary early in the construction works.
REFERENCES:	■ Control of Pollution Act (COPA) 1974; ■ Environmental Protection Act (EPA) 1990: Part 3 – Statutory Nuisance; ■ Countryside and Rights of Way Act 2000; ■ Noise and Statutory Nuisance Act 1993; ■ Noise Act 1996; ■ BS5228: Noise and vibration control on construction and open sites, Parts 1 & 2 (1997), Part 4 (1992) – BSI, London; ■ HSE, Noise in construction, 1992; and ■ Ground borne vibrations arising from piling, CIRIA Technical Note 142, 1992.

Procedure:	Dust and Local Air Quality
REFERENCE:	PEP/03
ACTION BY:	Principal Contractor and Project Manager
PURPOSE:	Control of dust and atmospheric emissions affecting local air quality

PROCEDURE:	Sensitive receptors:
	■ Identify potential receptors:
	  ○ Residents;
	  ○ Pedestrians;
	  ○ Neighbouring tenants;
	  ○ Local transport infrastructure;
	  ○ Drainage systems; and
	  ○ Controlled waters.
	■ Regular communication with local residents and businesses will be established through the Project Manager.
	Dust risk register:
	■ Site activities causing dust problems and existence of sensitive receptors will be identified to assess the risk of nuisance caused by dust; and
	■ Identify and record activities and receptors and any control or protection measures put in place.
	Wind:
	■ Wind speed and direction will be observed prior to conducting dust-generating activities to determine the potential for dust nuisance to occur when wind direction may carry dust into sensitive areas and avoiding dust-generating operations during periods of high or gusty wind.
	Equipment:
	■ All construction plant and dust abatement equipment will be maintained in good working order and will not be used if it is not in full working order.
	Construction:
	■ Cutting and grinding will be conducted using dust suppressed equipment and water sprays will be used to minimise dust emissions;
	■ On-site cement and concrete batching will be undertaken in enclosed areas with suitable water dowsing and wind shielding;
	■ On-site aggregate handling will be carried out in enclosed areas where practicable;
	■ The height from which materials will be tipped or dropped during transfer will be minimised; and
	■ The mixing of large quantities of concrete or bentonite slurries shall take place in enclosed or shielded areas where practicable.
	Vehicles:
	■ Haul roads and associated vehicle waiting areas will be regularly inspected and kept clean of all materials (including dust);
	■ Jet washing will be undertaken on vehicles leaving the Site;
	■ General site traffic will be restricted to watered or treated haul roads; and
	■ Local highways and site boundaries will be regularly inspected for dust deposits and, if necessary, cleaned.

	Smoke nuisance: ▪ No burning of rubbish or any other activity likely to give rise to dark smoke on or off the Site shall be undertaken.
REFERENCES:	▪ PEP/04 Vehicles Management; ▪ Environmental Protection Act 1990 (EPA); ▪ Clean Air Act 1993; ▪ Environment Act 1995 Part 4; and ▪ Road Vehicles (Construction and Use) Regulations 1986 (as amended).

Procedure:	Vehicles Management
REFERENCE:	PEP/04
ACTION BY:	Principal Contractor and Project Manager
PURPOSE:	Minimisation of the effect of vehicles on site
PROCEDURE:	Traffic Management: ■ Permitted access routes for HGV movements will be clearly signed and compliance with these restrictions regularly monitored; ■ Speed limits will be set within the Site which are appropriate to the various activities which are required to be undertaken; ■ Delivery routes will be clearly marked; and ■ Plant crossings, access and egress points will be kept clean in order to avoid the deposition of debris, mud or other materials which could cause nuisance to other road users. Control of dust and other materials: ■ Haul roads and associated vehicle waiting areas will be regularly inspected and kept clean of all dusty materials; ■ General site traffic will be restricted to watered or treated haul roads; ■ Local highways and site boundaries will be regularly inspected for dust deposits and, if necessary, cleaned; and ■ Refer to Procedure PEP/3 Dust and Air Quality. Fuel handling: ■ Refuelling will be carried out as far away as feasible from any drain or other sensitive receptor, only in designated areas on impermeable surfaces; ■ Refuelling equipment will be regularly inspected with maintenance and repair as appropriate; ■ Fuels and potentially hazardous construction materials will be stored in bunded areas with external cut-off drainage; fuel will be stored in double skinned tanks with 110% capacity; ■ Spill kits, locks and other suitable security devices will be provided; and ■ Fuel bowsers and stores will be secure and as far as possible vandal-proof. Washing vehicles: ■ Wheel-washing facilities (jet washer and road sweeper) will be provided at main construction access and crossing points; ■ Hardstanding areas will be used for all plant maintenance and washing off; ■ These areas will be sited away from any drain or watercourse; and ■ Water released form this area will be directed to a temporary drainage system or pumped for off-site disposal. Avoidance of nuisance from exhaust emissions: ■ No vehicle or item of equipment emitting visible black smoke, other than during ignition, will be used on any construction site or public highway; ■ Combustion engines on all plant and equipment shall not be left running unnecessarily; ■ All vehicle and equipment engines and exhaust systems will be maintained so that the exhaust emissions do not breach statutory limits for the vehicle/equipment type and mode of operation; ■ All vehicles and equipment shall be maintained in accordance with the manufacturers' and suppliers' recommendations; and ■ Exhausts of vehicles and equipment used for construction shall be positioned at a sufficient height to ensure dispersion of exhaust emissions.

REFERENCES:	■ PEP/02: Noise and Vibration ■ PEP/03: Dust and Air Quality ■ Anti-Pollution Works Regs 1999 ■ Clean Air Act 1993 ■ Environmental Protection Act 1990 – Part 3: Statutory Nuisance ■ Road Vehicles (Construction and Use) Regs 1996 ■ Road Traffic Regulation Act 1984 ■ Water Industry Act 1991 ■ Water Resources Act 1991 ■ The Groundwater Regulations 1998 ■ PPG6: Working at Construction and Demolition Sites (Environment Agency) ■ PPG7: Refuelling Facilities (Environment Agency)

Procedure:	Pollution Incident Control
REFERENCE:	PEP/05
ACTION BY:	Principal Contractor and Project Manager
PURPOSE:	Identification, prevention and control of pollution incidents
PROCEDURE:	Storage of hazardous materials: ■ Stockpiles will be located, as far as is reasonably practicable, away from sensitive receptors such as residential areas, places of public access etc.; ■ On site storage of chemicals, fuels etc. will be checked regularly and any container found to be leaking will be removed immediately; ■ Hazardous substances will only be stored in dedicated enclosed areas with an impervious base; ■ Adequate secondary containment (bunding) will be put in place. This will be at least 110% of the capacity of the containers where possible; ■ Secondary containment will be regularly inspected, emptied and maintained; and ■ A COSHH register documenting all materials stored and safe handling requirements will be kept in the site office. Handling hazardous materials: ■ Use of potentially hazardous materials will be minimised and quantities stored will be kept to a minimum; ■ Designated access routes for the delivery and transport of such materials will be used; and ■ All site staff will be made aware of risks associated with the handling, storage and use of hazardous materials through training sessions. Spill kits: ■ Spill kits with instructions will be sited in areas of high risk and in close proximity to material storage areas; ■ All staff will be trained in the use of spill kits and the correct disposal of used spill control material; ■ Used spill kit equipment will be disposed of as hazardous waste (see PEP/02 Waste Management); and ■ Spill kits will be maintained and periodically inspected. Site drainage and water courses: ■ Site drainage plans will be obtained and a copy kept on site; ■ The on-site drainage system will be tested; ■ Abandoned drains will be sealed off or removed to minimise the loss of contaminated water; and ■ The layout of the Site will be designed to minimise the risk of pollution reaching the groundwater or watercourse. Discharge of water: ■ Written discharge consents will be obtained prior to any discharge to public sewer from the Environment Agency or the local sewerage undertaker as appropriate; and ■ Consents to discharge will be recorded. Actions in the event of a pollution incident on site: ■ Stop work on site immediately and take appropriate safe actions to prevent further pollution occurring; ■ Notify Site Manager / Project Manager of incident, possible environmental effects and impact on works;

	■ Identify nearby potentially sensitive receptors and take appropriate actions to prevent migration of pollutants; ■ Monitor surrounding areas for further contamination / migration of pollutants; and ■ Agree and implement remediation techniques. <u>Pollution incident reporting:</u> ■ Reporting form will include the following information: ■ Date, time and location of incident; ■ The nature of the incident and a description of the events; ■ The environmental effects of the incident; ■ Immediate action taken following the incident; and ■ Corrective action taken and the date closed. ■ The completed form will be signed by the Project Manager and a copy passed to the Principal Contractor for signing. <u>Emergency contact and telephone numbers:</u> ■ A list of emergency contacts will be kept on display in the site office and in high risk areas (e.g. oil storage locations), including: ■ Project Manager; ■ Environment Agency contacts; and ■ Approved pollution clean-up contractors.
REFERENCES:	■ PEP/02 Waste Management; ■ COSHH Register; ■ Emergency contacts list; ■ Water Resources Act 1991; ■ Water Industry Act 1991; ■ Environment Act 1995; ■ Anti-Pollution Works Regulations 1999; ■ Control of Pollution Act (COPA) 1974; ■ The Groundwater Regulations 1998; ■ Environment Agency Pollution Prevention Guidelines, including: ■ PPG1 – General guide to the prevention of pollution of controlled waters; ■ PPG2 – Above ground oil storage tanks; ■ PPG4 – Disposal of sewage where no mains drainage is available; ■ PPG5 – Working in or near rivers; ■ PPG6 – Working on Construction and Demolition Sites; ■ PPG8 – Safe storage and disposal; and ■ PPG21 – Pollution Incident Response Planning.

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