

Construction Environmental Management Plan (CEMP)

32 Valley Road
Chandlers Ford
Eastleigh
SO53 1GP

Rev:D

Date: February 2022



Figure 1- Site Location Plan (32 Valley Road highlighted in red)

CONTENTS:

1 INTROUCTION	1
2 CEMP	1
3 BACKGROUND	1
4 PROJECT ROLES AND RESPONSIBILITIES	2
.1 Site Managers	2
.2 Site/ Construction Supervisors	2
.3 Site staff and sub-contractors	3
.4 Training	3
.5 Contacts	3
5 CONSTRUCTION	4
.1 Working hours	4
.2 Project management actions	4
.1 Access to site	5
.2 Training and Management Procedures	5
.3 Consultation with the public	5
6 ENVIRONMENTAL MANAGEMENT	6
.1 Training, Awareness and Competence	6
.2 Project Communication and Co-ordination	6
.3 Complaints and Inquiry Procedure	7
.4 Checks and Corrective Action	7
7 OPERATIVE CONTROLS	8
.1 Site Establishment	9
.2 Dust	9
.1 Monitoring Programme	10
.2 Mitigation Techniques	11
.3 Earthworks	12
.4 Material Handling	12
.5 Site, Access and Public Roads	12
.6 Mitigation exposure of on-site workers	13

.7 Control of Pollution	13
.3 Noise	14
.1 Noise Monitoring Programme	14
.2 Noise Control Measures	14
.3 Project Specific Elements	15
.4 Culvert Easement	16
.4 Vibrations	17
.5 Light Disturbance	17
.6 Heritage and Archaeological	18
.7 Waste Management	19
.8 Water	19
.9 Ecological Management	19
.1 Protective Species	19
.2 Trees on-site	20
.3 Land Contaminated	20
.4 Excavations and Stockpiles	21
.10 Resource Use	21
.11 Energy Consumption/ Monitoring	21
.12 Water Usage	21
.13 Visual Amenity	22
.14 Vermin	22
.15 Flood Risk	22
8 SUMMARY AND CLOSURE	23

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1. INTRODUCTION

This Construction Environmental Management Plan (CEMP) is for the construction phase of the development and sets out the intended methods of effectively managing potential environmental impacts. This document has been developed to avoid, minimise, and mitigate any construction effects on the environment and surrounding community.

The document has been prepared to support application ref: F/19/85935 as per the request of the Local Planning Authority (Eastleigh Borough Council). Which has outlined that no construction work shall commence until the CEMP is submitted and approved by Eastleigh Borough Council.

2. CEMP

The intention of the CEMP is to detail how construction works will be undertaken and managed in accordance with the planning application proposals. It forms a framework within which the measures will be implemented throughout the project. Reviews will be undertaken at set intervals, and new information added as appropriate.

The environmental objectives are:

- All activities shall be conducted in accordance with the CEMP, relevant legislation (Eastleigh Borough Council Local Plan), Codes of Practice, guidelines, and any local environmental procedures.
- All practical steps shall be taken to minimise the environmental effects of the construction works.
- Environmental licenses, permits and consents and other statutory requirements are to be obtained prior to works commencing and fully complied with.
- Regularly reviewing of the environmental requirements of the project and ensuring that environmental controls remain adequate throughout the duration of the project.
- All staff (including Sub-Contractors) shall be aware of the environmental issues relevant to the Project through the provisions of site-specific information on the environmental impacts of construction and the mitigation measures to be applied during inductions, briefings, toolbox talks and other relevant meetings.

3. BACKGROUND

The proposed residential development is for the 'erection of 1no four bedroom dwelling following the demolition of the existing dwelling'. The site is located at 32 Valley Road in Chandlers Ford, SO53 1GP (Figure 1) and has historically been home to a now demolished bungalow.

4. PROJECT ROLES AND RESPONSIBILITIES

This section describes the environmental roles and responsibilities of key members of the project team.

4.1 Site Manager:

- To lead by example and champion all areas of environmental management.
- Ensure that appropriate resources are in place to effectively implement the CEMP and deliver all legal requirements.
- Review the CEMP throughout the construction process to ensure it remains relevant and effective in identifying and managing environmental risks.
- Report to and agree in writing with the LPA any amendments to the CEMP.
- Ensure that all legal requirements are identified and met.
- Implement the use of an accurate Site Waste Management Plan (SWMP) and ensure its applicability to the site operations.
- Ensure that the site is safe and that hazards are identified and secure.
- Undertake (or nominate others) to undertake audits.
- Monitor performance of the project against statutory requirements, objectives, and targets.
- Ensure that all legal requirements are identified and met.
- Ensure that accurate reporting of resource usage e.g. energy and water.
- Ensure that all documentation referencing environmental procedures and policy are relevant and up-to-date and included within the CEMP.
- Managing all necessary documentation to demonstrate compliance with appropriate legislation for the required period.
- Identify necessary levels of environmental competence in staff and ensure necessary training is delivered to personnel.
- Managing investigation and resolution of complaints in accordance with the Complaints Handling Protocol.
- Ensure correct procedures are followed in case of an environmental incident.
- Ensure that site and all stored materials and chemicals are safe and secure.
- The site is kept in a tidy and orderly fashion.
- There are First Aid facilities and appropriately trained First Aid staff.

4.2 Site/ Construction Supervisors:

- Ensure that the CEMP and associated documents and control methods are effectively implemented on site on a day-to-day basis.
- Fully investigate and act on any environmental incidents and report findings to the Site Manager.
- Conduct and document weekly environmental inspections.
- Ensure that environmentally orientated briefing and 'toolbox talks' being delivered to the site workforce.
- Implement and maintain environmental controls on site.
- Ensure action is taken on any spills/ incidents that occur on site.

- Report any activity that has potential to have an environmental effect immediately to the site manager.
- Maintain a waste register ensuring correct waste management procedures are being implemented.
- Complete daily logs.

4.3 Site staff and Sub contractors:

- Compliance with direction given in the Site Induction.
- Proactively approach environmental issues whilst on site.
- Site staff should ensure they are fully aware of the environmental procedures in place and if they have any questions, they should be directed towards the Site Manager.
- Ensure all construction activities are carried out in line with the procedure's details in the CEMP.

4.4 Training:

All site personnel with environmental responsibilities shall be suitably trained and qualified. Where it is indicated specific training requirements are needed; it is the responsibility of the site management to ensure these needs are met at the earliest possible opportunity.

The induction to all site personnel shall include a general overview of site-specific environmental issues, as well as details of how these issues shall be managed. All appropriate site personnel shall undertake environmental awareness training and if supplementary training is needed over the course of the works it will be provided necessary.

Detailed information shall be communicated to personnel by means of regular Environmental Briefings and Toolbox Talks covering topics relating to specific site activities. These shall be given to all site personnel at a period of no less than fortnightly.

Environmental Bulletins and Newsflashes shall be clearly displayed in all mess/ office areas. Any actions relating to these shall be implemented immediately, and all site personnel made fully aware of any changes.

4.5 Contacts:

Project Manager: Mark White: mark@tramardevelopments.com

Site Manager: Ben White: ben@tramardevelopments.com

First Aider: Mark White: mark@tramardevelopments.com

5. CONSTRUCTION

The current construction programme is for development to commence following discharge of any pre-commencement conditions. It is anticipated that development would take place over a 5 month period broadly as follows:

Weeks 1-4: site levelling/excavation works

Weeks 5-16: substructure/frame/roof

Weeks 17-20: hard/soft landscaping & remediation

5.1 Working Hours (Construction Phase):

Construction activities are intended to take place as follows:

- Between the hours of 8:00-17:30 Mondays to Fridays
- 8:00-13:00 on Saturdays
- At no time on Sundays or Bank Holidays

It is considered that these working hours are sufficiently restricted to ensure that noise and construction related activities will not impact upon any of the nearby residential receptors.

5.2 Project Management Actions:

All environmental documentation shall be kept on site at all times and be available for inspection by internal and external auditors and regulators, as well as the client and management. Site personnel shall be made aware immediately if any significant changes in work procedures are implemented.

Relevant documentation shall include the following:

- Site Weekly Checklist
- Impacts and Aspect Matrix
- Environmental Risk Assessment
- CEMP
- Site Waste Management Plan
- Pollution Prevention Plan (including Emergency Response)
- Training and Responsibilities Matrix

Weekly environmental inspections shall take place on site by the construction supervisor. The findings of these inspections and any associated actions shall be appropriately documented on the Weekly Checklist.

Site management shall regularly liaise with the Environment Agency and other authorities and regulatory bodies with regards to all consents, exemptions, and licenses. Any applications shall be made with consideration of appropriate timescales.

A consents schedule shall be completed and held on site files, detailing information from date of application. Where specific limitations are set through any license, consent or exemption, this is to be clearly identified and regularly reviewed to ensure compliance.

It is the responsibility of the site management to ensure all spill kits are always fully stocked, and an inventory of equipment within the spill kit is to be clearly displayed within the site office.

5.2.1 Access to site:

Access and egress to site will be via the existing entrance/ exit onto Valley Road.

Where operative have no alternative but to drive to site and park in the local vicinity, they do so non-obstructively and not on grass verges or footways.

Access to the site should be via Valley Road and local roads.

Onsite wheel washing will be utilised for all vehicles when they leave if required and local roads may require the use of a road sweeper to reduce the mud on local roads.

5.2.2 Training and Management Procedures:

To ensure the mitigation methods and measures are applied, appropriate training and management procedures will be implemented in accordance with Building Research Establishment's (BRE): The Pollution Control Guide: Part 1- Pre Project planning and effective management.

The BRE guidance makes the following recommendations: "Before the start of any project appropriate training on how to control pollution emissions should be given to all personnel expected to be present on site. This training should include:

- The benefits of reducing pollution to health and environment
- The benefits of minimising disruption from complaints and enforcement actions
- Methods to minimise the generation of pollution
- Action plans on what should be done if emissions breach any limits that have been set for the particular site
- Individual responsibilities and management procedures
- The importance of effective communication between relevant personnel at all levels

All site personnel, site operatives and sub-contractors will be made aware of the risks and mitigation methodology for any potential environmental impacts relevant to their specific activities through the Site Induction and regular briefings and toolbox talks.

5.2.3 Consultation with the public:

In conjunction with appropriate mitigation, operating hours and employee training, handling public relations in an appropriate way to help to reduce the potential for air quality complaints. BRE: The Pollution Control Guide: Part 1- Pre project planning and effective management makes recommendations regarding the handling of public relations. These recommendations will be implemented at the site:

- Notice boards on the site perimeter fencing will be display telephone and email contacts for enquiries and receipt of complaints, and the name of the person/s who should be contacted.

6. ENVIRONMENTAL MANAGEMENT

6.1 Training, Awareness & Competence:

Site staff shall be competent to perform tasks that have the potential to cause significant environmental impact. Competence is defined in terms of appropriate education, training and experience. If project specific training is required, this will be achieved by:

- Site induction, including relevant environmental issues
- Environmental posters and site notices
- Method statement and risk assessment briefings
- Toolbox talks, including instruction on incident response procedures
- Key project specific environmental issues briefings
- All managers and supervisors will be briefed on the content of this CEMP

Method Statements will be prepared for specific individual activities that have the potential to cause significant environmental impact prior to the works commencing. These method statements will include measures for environmental protection and mitigation, along with emergency preparedness appropriate to the activity being undertaken.

The Contractor Environmental Manager will review key Method Statements prior to their issue and the undertaking of the work Method Statement briefings will be given prior to personnel undertaking key elements of the activities.

6.2 Project Communication and Co-ordination:

Periodic meetings will be held between the team members to discuss performance to date, the need for improvements (if any), results of inspections and any complaints received. Upcoming work operations will be reviewed in order to plan any necessary actions to mitigate risks to disseminate information on best practice. If necessary, representative of the Local Planning Authority may also be invited to attend such meetings. The CEMP and any Method Statements of note will be distributed to the project team, including sub-contractors, to ensure that the environmental requirements are communicated effectively.

Any key activities which have the potential to cause significant environmental impact will be briefed to staff and contractors, whilst project, client and company environmental policies will be displayed on site where appropriate.

During the construction programme, internal communication will include regular meetings covering the following:

- Training
- Progress
- Inspections, audits and non-conformance
- Complaints
- Visits by external bodies
- Feedback from above
- Objectives and targets including reporting on environmental performance.

Communication with adjoining landowners and the nearest residential properties will be encouraged where appropriate.

6.3 Complaints and Inquiries Procedure:

It is important that members of the public or interested parties are able to make valid complaints or inquired about the construction works. Such complaints and inquiries can provide a valuable feedback mechanism which helps reduce potential impacts on sensitive features and will also allow the construction techniques to be refined and improved.

It is anticipated that the complaints and inquiries procedure can be made either directly to the site contractor or via the Local Planning Authority (Eastleigh Borough Council), who in turn would provide feedback to the site contractor.

All complaints and inquiries will be logged promptly by the site contractor and kept on site for review by Eastleigh Borough Council upon request.

6.4 Checking and Corrective Action:

Environmental Monitoring will be undertaken and will feedback into the content of this CEMP. As outlined above, it is intended for the CEMP to be a “living document” which is updated periodically as and when required.

The Contractor Environmental Manager is responsible for establishing a programme of environmental monitoring, the results of which shall be fed back to the Environmental Specialist for inclusion within the CEMP if necessary.

The Contractor will define procedures for regular review and compliance checking to establish performance against both legal requirements and the content of the CEMP.

Any checking or corrective action requested by Eastleigh Borough Council will also be monitored externally by the planning authority.

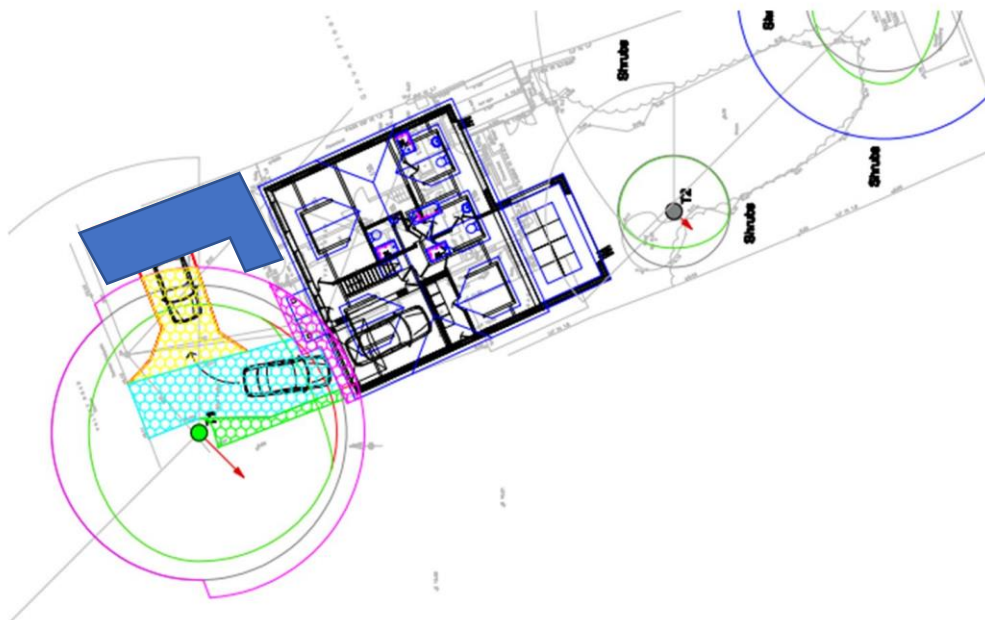
This methodology will ensure that the construction activities are being undertaken in accordance with the CEMP and that the Contractors are held to account.

The procedure for addressing non-conformance/ compliance and ensuring that corrective actions are undertaken is outlined below:

- Completion of a Non-Conformance Report- this will record any environmental incident and work that has not been carried out in accordance with the CEMP
- Completion of a Corrective Action Report- this will record any identified deficiency as a result of monitoring, inspection, surveillance and valid complaint
- Action- Any necessary actions identified as a result of the above will be allocated to a responsible person, along with a timescale for the action to be undertaken

Records of the above will be retained by the Contractor throughout the construction process. Further environmental records, waste management records, health and safety records etc. will also be maintained by the Contractor in accordance with company procedure and legal requirements. The records will be maintained either in hard copy or electronically in such a manner that they are readily identifiable, retrievable, and protected against damage, deterioration or loss in accordance with the various legal requirements for their retention and subsequent disposal.

7. OPERATIVE CONTROLS



(Figure 2-Blue area highlighting the designated area for welfare unit and materials storage alongside)

7.1 Site Establishment:

Facilities will be established to minimise risk to the environment and promote efficient use of resources, These measures will be in accordance with the site layout plan and other operational site requirements, including:

- Use of protective fencing to separate working areas, site boundaries and protect sensitive features/ receptors from disturbance
- Temporary site offices, welfare facilities and secure storage of equipment
- Hazardous substances, including fuel and oil, will be stored in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001
- Refuelling and use of such hazardous substances will only be within designated areas, designed to contain run-off and only undertaken by trained personnel. Emergency spill kits are to be readily available
- Materials storage areas will be established, managed and maintained throughout the construction process
- Waste segregation areas will be established utilising containers of an appropriate design to ensure they are fit for purpose and no waste can escape
- Sewerage effluent from the site office and welfare facilities will be removed from site if no connection to the existing on site sewer can be established
- Temporary lighting will be designed to minimise light spillage and orientated away from nearby residential properties
- Any temporary compounds or storage areas will be removed from site following completion of the works

7.2 Dust:

There are no UK statutory or recommended levels of dust deposition that constitutes a statutory nuisance; whether a nuisance exists is determined in the first instance by the professional judgement of the environmental health officer.

Dust contains particles in the ranges of sizes. The finer fraction of dust particle range is more likely to become airborne and to travel beyond the boundary of a site.

The finer particles with comprise dust can become suspended and entrained in air and, as such, they can disperse from a source. They will progressively fall out of the air stream; in fact, most dust settles out close to the source. Fugitive dust is that which escapes from the immediate vicinity of the source and may affect the areas surrounding the site.

Particulate emissions from construction works associated with the development have the potential to impact upon local residents, and on-site workers during the works. Dust which is raised by onsite operations may be carried to nearby residential areas, if present in sufficient quantities, Concerns have been raised by the inhalation of dust particles and the possible health effects this may have. This has the potential to impact upon local residents and on-site workers.

Where mud from a development site is allowed to spread onto local roads, it can form a secondary source of dust. The mechanical action of wheels on the road surface material will reduce the particle sizes by crushing and the potential for emission of dust from these roads can be quite high. As vehicles pass along the road, dust is re-suspended into the turbulent air stream both beneath and behind the vehicle and this can become entrained into a moving air flow. The erosive action of road traffic depends on the number and size of wheels, the vehicle speeds and the moisture content of the surface material.

Good environmental practices (outlined below) will be used to control these dust emissions and mitigate against any nuisance problems arising.

All construction works that could promote dust will take extra caution with the nearby watercourse, and prevent pollution to the watercourse.

7.2.1 Monitoring Programme:

On-going monitoring shall be undertaken by the construction supervisors on a regular basis, both on and off site for visible signs of dust emissions and deposition originating from the site to ensure the adequacy of the mitigation measures being employed. On site daily monitoring of dust emissions will be undertaken for each construction activity which is deemed to pose a risk, with records maintained.

The monitoring programme will record:

- Date
- Activity/ Location
- Weather Conditions
- Wind Direction and Speed
- Dust suppression method(s) implemented

Excessively windy conditions can increase the propagation of dust. The local weather forecast will be considered as part of the monitoring procedure. These conditions will be noted and the activities which have an increased risk of causing dust nuisance (e.g. excavations and earthworks) during windy conditions will be restricted or the mitigation level increased. Construction supervisors will assess if the weather conditions are appropriate for the types of activities being undertaken.

Any complaints in relation to fugitive dust will be logged and appropriate action taken by site management in accordance with the Complaints Procedure to ensure any further potential for complaint is minimised. Logs of any complaints will be made available to the LPA (Eastleigh Borough Council).

The following sources have the potential to create dust during the construction phases of that development works:

- Site clearance
- Ground excavation and earthworks
- On site vehicle movements during dry weather

- Wind blowing across the site
- Stockpiles of excavated materials
- Cutting, grinding and drilling operations
- Tipping operations

7.2.2 Mitigation Techniques:

The north and west boundary is to be enclosed within a timber hoarding (2.4m high) with gates facing the road. Mesh will cover the south and east boundary fences to reduce the likelihood of dust passing through.

It is understood that the following works have the potential to cause dust and this must be monitored as an environment risk as well as local nuisance.

Wheel washing will be utilised at point of exit onto the shared road and frequent brushing of the entrance/ roadway will reduce the likelihood of dust becoming an issue on the road or nearby properties.

Likewise, if mud becomes an issue, then the local roads will be cleaned utilising a commercial brush sweeper.

The site will be inspected to identify potential nesting sites. If nesting birds are identified a minimum 5 metre buffer will be installed until after the birds have fledged.

Note: No works will be undertaken within this area until the birds have fledged.

The above works to establish the site are very small in nature with the fencing works undertaken by hand and the delivery of site offices etc are undertaken in such a way as to reduce the likelihood of dust escaping the site.

All sensitive receptors are a consideration during these works. However, as a result of the scale of the operations required the nuisance potential is reduced with smaller scale plant, smaller work areas and a reduced frequency/duration of relevant activities.

There will be a complete prohibition on the burning of any materials on the site during construction.

Mitigation equipment will be readily available on site from the commencement of the works. These will include sheeting, and damping equipment, such as, tractor bowsers, road sweepers etc.

Where processes are intrinsically dusty and alternative processes exist which are less dusty, these will be implemented. Prefabricated components and construction will be used wherever possible to minimise the need for on-site construction which may cause the emission of dust.

7.2.3 Earthworks:

Excavations, and loading and unloading of materials on-site and stockpiling of materials have the potential to be a major contributor to dust emissions. During excavation, previously stable surfaces are disrupted and exposed to the wind. As these materials

are generally dry, they can easily become suspended by the wind or mechanical disturbance and readily become airborne in significant quantities.

Surfaces will be disturbed as little as possible and where necessary stabilised as soon as possible after disturbance by damping down with water sprays to minimise dust emission and re-suspension.

Where the construction logistics on site allows stockpiles will be located away from areas of the site close to the sensitive receptors. All stockpiles will be treated with water sprays to prevent dusting or covered correctly with secured tarpaulins where necessary.

7.2.4 Material handling (throughout construction):

A wide range of materials will be handled during the construction phases of the development and the handling of these materials has the potential to create dust emissions. Generally, the use of dry or powdery material on site will be minimised. The following precautions will be implemented to minimise dust emissions arising from materials handling.

- Material drop heights will be minimised
- Damping down will be used to reduce dust emissions in dry, hot weather damping down frequency will be increased
- Steep sided stockpiles or mounds or those with sharp changes in shape will be avoided. Heights of stockpiles will be restricted to mitigate airborne dust potential.
- Wherever possible stockpiled materials will be kept away from the site boundary and sensitive receptor locations and damped down, enclosed, or securely sheeted as appropriate.
- Wind barriers will be used to protect stockpiled loose material and skips will be enclosed or covered. Lorries will be covered, and closed tankers will be used for transporting dry and fine powdery materials.
- Materials delivered to site will be left wrapped until needed
- Methods and equipment will be in place in case of spillages. The site will be regularly inspected for spillages and wet handling methods for cleaning up spillages such as cement powder will be used.

7.2.5 Site, Access, and Public Roads (throughout construction):

Vehicle movements and behaviour on site will be controlled by appropriate signage and compliance will be monitored by construction site supervisors. Vehicles will be restricted to a minimum commensurate with the construction requirements and speeds will be limited to 5mph at all times. This will contribute to the reduction in the re-suspension of dust as a result of the movement of vehicles.

Site roads will be inspected regularly and kept in a compacted condition using static sprinklers, bowzers, low emission additives and binders if necessary. The access road, Valley Road to the main construction site will be cleaned daily during the working week

and more frequently, if necessary, Edges of the access road and footpaths will be cleaned with a hand broom and controlled damping.

Damping down techniques used to minimise the re-suspension of dust into the air can also cause the build-up of mud and dirt on roads which is picked up by vehicle wheels. Therefore, wheel washing techniques and rumble grids may be implemented, before vehicles enter public highways, to prevent the transportation of mud and dirt off site.

Selected site personnel will be trained in asbestos awareness and will be able to identify the material if encountered. If this event is realised the element of work affected will be suspended and the area segregated prior to the necessary remediation strategy being implemented.

7.2.6 Mitigating exposure of on-site workers:

Whilst it is important to minimise the impacts of the works on residents and other sensitive receptors, it is also necessary to consider the effects of exposure to dust on site workers during the various construction phases.

Training will be provided for all on-site workers regarding suppression of pollution emissions and minimising exposure to potentially harmful emissions. Appropriate PPE will be worn as determined by the risk assessment for the relevant activity.

Workers will always reduce their exposure to emissions. Excessive time will not be spent by one person on one activity which is inherently dusty.

Wherever equipment is being used within enclosed spaces, ventilation or particle extraction systems will always be used.

7.2.7 Control of Pollution:

All works shall be carried out with Best Practicable Means and in accordance with the Pollution Control Act 1974. If in the case a complaint is received by site staff, head office or the Council, the contractor shall implement remedial measures within 24 hours to reduce the adversity of impact. If this proves ineffectual or a complaint is found reasonable by the Council, works shall cease until an alternative less polluting way of working can be arranged. Means of control also include mediation including the contractor agreeing not to undertake noisy works at mealtimes, including breakfast and lunchtime. A contemporaneous log of any complaints, remedial actions and monitoring shall be kept on site or at head office and made available upon request from the Council including when visiting the site to investigate a complaint about pollution or disturbance.

7.3 Noise:

Like dust, the generation of noise beyond the site boundary is a potential source of statutory nuisance and can lead to complaints. Such complaints, if upheld, can lead to legal action which causes resultant delays and costs to the project.

A basic element in the mitigation of nuisance due to noise is adherence to acceptable working hours. All works shall be undertaken in compliance with the working hours specified by the local authority (Eastleigh Borough Council) as part of the planning application.

The site is directly adjacent to various residential areas making construction noise a particularly sensitive issue to residents.

A basic element in the mitigation of nuisance due to noise is adherence to acceptable working hours. All works shall be undertaken in compliance with the working hours specified by the local authority as part of the planning application.

- Monday to Friday 8am- 6pm
- Saturday 9am- 1pm
- No Sunday, Bank holiday or public holiday working

Good relations with people living and working in the vicinity of site operations are of paramount importance. Early establishment and maintenance of these relations throughout the carrying out of site operations will contribute towards allaying people's fears. Good relations can be developed by keeping people informed of progress and by treating complaints fairly and expeditiously.

Noise can also interfere with working efficiency of site workers by inducing stress, by disturbing concentration and by increasing accident risk. Effects of noise on persons on site are similar to the effects on nearby residents, and the benefits of good control measures will apply equally on and off site.

7.3.1 Noise monitoring programme

Noise levels will be monitored at the sensitive locations nearest to site during the main construction works in accordance with a Noise Monitoring Plan to be agreed with the LPA (Eastleigh) in keeping with BS5228 and updated before construction commences on site.

- Weather conditions and wind direction
- Location of monitoring
- Background noise level
- LAeq dB reading over the relevant time period

Where any noise complaints are received, these will be thoroughly investigated by the site management in accordance with the Complaints Procedure and actions implements to ensure repetition of the issues are avoided.

7.3.2 Noise Control Measures

A number of control measures will be implements at the site to minimise noise. These measures are developed from current best practice and the BRE Pollution Control

Guide: Part 1 – Pre project planning and effective management. In particular the following control measures will be applied: Acoustic barriers for static activities will be used where necessary and practicable. The extent to which this can be done depends on the nature and mode of operation of the machines to be enclosed and the ventilation requirements, in particular, and where practicable, acoustic barriers shall be provided when working within the area of local properties.

- All construction plant and equipment shall comply with EU noise emission limits.
- All vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers.
- Selection of inherently quiet plant
- All major compressors, generators etc. shall be “sound reduced” models fitted with properly lined and sealed acoustic covers which shall be kept closed whenever the machines are in use and all ancillary pneumatic percussive tools shall be fitted with silencers of the type recommended by the manufacturers.
- Machines in intermittent use shall be shut down in the intervening periods between works or throttled down to a minimum.
- Materials shall be delivered during normal site working hours.
- All ancillary plant such as generators, compressors and pumps shall be positioned so as to cause minimum noise disturbance, i.e., furthest from receptors, or if necessary, behind acoustic enclosures and/ or shielding. Where possible, loading and unloading will also be carried out away from such areas.
- Constant monitoring and review of operations.
- Site training and awareness for all site personnel about behaviour on site to minimise nuisance and engender a considerate approach.
- Modification of existing plant and equipment, noise from existing plant and equipment can often be modified at source if necessary or improved sound reduction methods can be applied.
- Maintenance: regular and effective maintenance by trained personnel is essential and will do much to reduce noise from machinery. Increases in plant noise are often indicative of future mechanical failure. Regular maintenance will form part of an effective housekeeping management programme.
- The hours of operation of all plant and vehicles will be limited to the normal site work hours and any use of equipment outside of these hours will be avoided.
- The drop heights will be minimised as much as possible.
- No plant or machinery will be left running unnecessarily.
- Plant and equipment such as flatbed lorries, skips and chutes will be lined where possible with noise attenuating materials.
- Materials will be handled as carefully as possible when loading lorries and skips to minimise noise.
- Queueing of vehicles wanting to enter the site will be minimised and a policy relating to this will be clearly set out in the site rules.

Whilst reversing alarms do present audible impact their necessity is a reflection of the high risk associated with reversing vehicles. They must be distinct to ensure they are audible above background noise. Despite their need, mitigation can be introduced to prevent nuisance to residents.

Any reversing areas needed or introduced will be located away from sensitive receptors. Pre-established reversing areas will also allow additional acoustic barriers to be introduced to provide further mitigation. All practicable additional measures will be taken to minimise nuisance from reversing alarms.

7.3.3 Project Specific Elements

The scale of the preliminary works, (Stage 1), is minor in comparison to the main construction works (Stage 2). Stage 1 provides the enabling packages to ensure the Main Construction works can be undertaken without logistical restrictions.

Stage 1 comprises:

- Security fencing, internal fencing covering whole site and locked gates across entrance
- External wooden hoarding to protect hedge
- Setting up of the main site establishment
- Further demolition of existing building
- Further site investigation works on the main construction site

These elements will incorporate small scale earthworks. The fence will be erected manually without the need for craneage.

All sensitive receptors are a consideration during these works. However, as a result of the scale of the operations required the nuisance potential is reduced with smaller scale plant, smaller work areas and a reduced frequency/duration of relevant activities.

The project will incorporate the following major elements of construction during the Main Construction Works.

7.3.4 Culvert Easement

Further information has been obtained in regard to the culvert easement area. Figure 3 shows the easement area is less intrusive to the site than originally expected. The easement area is based on upon a 3m easement from the culvert. Therefore, the impact of the proposed dwelling on the culvert is minimal.

However, precautions will still be taken to minimise any effect on the culvert. It is proposed that no machinery will access the area between the foundations and the boundary line, therefore reducing risk of extra pressure and damage to the culvert during construction. It is proposed that a digger will be used to carry out excavations to the West side of the proposed dwelling. Any machinery or plant will not encroach onto the any of the area highlighted in red on Figure 3.

The position of the culvert will be clearly identified onsite and no construction plant movements, or activities, such a excavations, piling or stockpiling of materials will take place within the 3 metre easement area.

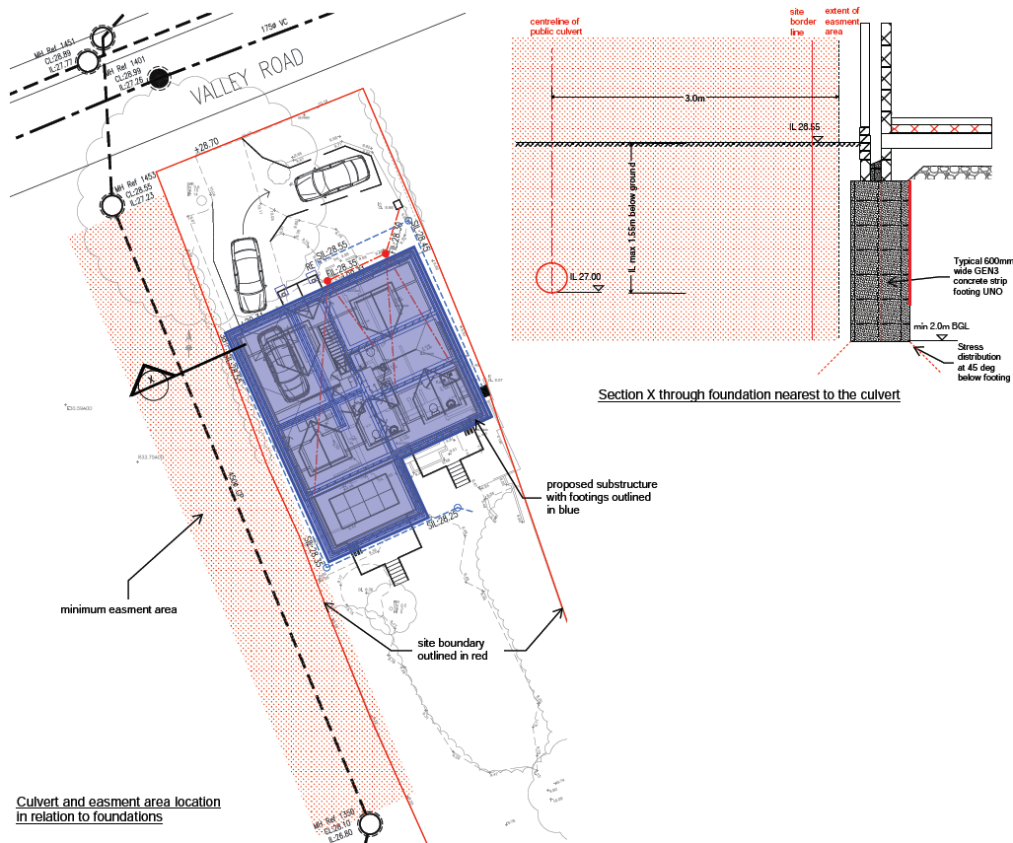


Figure 3: Structural Engineers Drawings.

7.4 Vibration:

Initial assessments indicate that the works should not pose any significant risks in relation to vibration. However, if it becomes apparent that vibration may give rise to an environmental impact a full investigation shall be undertaken by the site manager using where necessary external specialist consultants to carry out monitoring at the receptor locations.

Extra caution will be made near to the identified watercourse on site.

7.5 Light Disturbance:

It will not be necessary to light the construction site during the darker months, but internal lighting will be used within the office and store and within the new property as the works progress.

Possible sources of nuisance are:

- Light trespass- light spillage beyond the boundary of the property on which a light is located, sometimes shining through windows and curtains.
- Glare- the uncomfortable brightness of a light source when viewed against a darker background.

It will not be necessary to light the construction site during the darker months, but internal lighting will be used within the office and store and within the new property as the works progress.

The major mitigating factor is the project working hours. (0800-1800, Monday to Friday), this will prevent the more severe element of intrusion, i.e., sleep deprivation, being realised.

Due to the location of properties external to the site, consideration shall be given to the location and angle of site lighting to ensure minimum potential for disturbance to residents. The sensitive receptors are those nearest to the site.

The following mitigation and best practice will be implemented:

- Lights will, where practicable, be positioned facing away from residential properties, however, adequate lighting of working areas is an essential safety consideration and where this is not possible lighting units will be placed in such a way as to pose minimal risk of light disturbance. Unless health and safety requirements dictate otherwise, no lighting shall face towards any property identified as a sensitive receptor.
- Lighting will be directed towards the site activity to avoid the possibility of any lights shining directly onto nearby residential properties.
- Lights will also be directed away from the hedges to ensure these "receptors" again are not disturbed, these may be utilised by wildlife as travel routes, shelter and feeding points.
- Lighting will be suitable for the application.
- Unnecessary lighting will be removed.
- Lights will be switched off when they are not needed; this will include periods outside of normal site working hours.
- Any security lighting will always be kept to a minimum and powered by mains supply.
- Checks will be made each evening to ensure no lights are left on in error.

Any complaints relating to light disturbance will be fully investigated by the site management team in line with the Complaints Protocol.

7.6 Heritage and Archaeology:

Initial assessments do not anticipate that there are any archaeologically sensitive areas within the site boundaries. However, the following procedures shall be followed in the event of such a find or discovery:

- Immediately stop works in the area of the find.
- Protect the find and the area surrounding by fencing/ blocking off and immediately contact the Site Manager.
- Contact an archaeologist and obtain advice on how to proceed.
- All significant finds must be reported to the County Archaeologist

7.7 Waste Management:

The site will implement a Site Waste Management Plan (SWMP) which describes the procedures for management of waste arising from the construction activities. The SWMP shall comply with the Site Waste Management Plans Regulations 2008.

7.8 Water:

Any water works will be considerate of the nearby watercourse.

- Spill kits shall be made available, and site operatives trained in their use, to deal with any spillages of materials likely to contaminate the water courses (including the one identified close to the site). All spill kits shall always be fully stocked and an inventory of equipment within the container shall be clearly displayed on the lid.
- Due care and attention shall be given to the prevention of surface run-off. For example, stockpiling of materials within the vicinity of the watercourses shall be discouraged. Where stockpiles must be in the vicinity of a watercourse 7m buffer strip shall be in place to reduce pollution risks.
- The positioning of fuel storage tanks and other potentially polluting materials will not be necessary. Sorted materials on site shall be checked regularly for containment integrity (both primary and secondary), quantity stored and security of storage.
- Increase in frequency during these operations.
- In periods of heavy rainfall or excessive vehicle movements within the vicinity, monitoring shall be increased to reduce risks of pollution incidents.
- Washing out of concrete wagons or other equipment used in concreting operations shall not be undertaken.

7.9 Ecological Management:

No sites of importance for nature conservation have been identified within the proposed works or environs.

7.9.1 Protect species

- Birds- It is not anticipated that there are any protected species on site. However, if any are identified during construction then works will be stopped and an ecologist consulted, to safeguard the potential habitat.
- Badgers- If badgers or signs of badgers are found during the proposed development work. Work in the local vicinity will stop and the ecologist will be contacted immediately for advice.
- Reptiles- No reptiles have been identified on site and no bats were found roosting or previously utilising the onsite buildings.

- Small mammals (Hedgehogs)- Records show hedgehog presence on site and therefore measures will be implemented during the construction works. These include:
 - o 'gaps' to the base of fencing, to prevent them being trapped on site
 - o Escape ramps/ covered and capped drainage, to allow the small mammals to climb out/ not have access.
 - o All vegetation shall be checked for small mammals before removal.

7.9.2 Trees on site

Excavation and construction work shall not commence until written confirmation of tree protection fencing and ground protection is installed, and acknowledged by the LPA. Tree protection will be retained for the duration of the project.

Where trees under a preservation order are on site these must be enclosed within a barrier. Root Protection Areas (RPA) and Consideration for the retained tree's RPAs should avoid any works within the root protection areas in order to ensure the protection of existing growing conditions.

Demolition/Excavation Works, any removal of existing built structures (including small outbuildings, walls etc.) or hard surfacing such as the onsite fenced compounds will need to be undertaken with great care where this occurs within or near to the rooting areas of retained trees. These works should adhere to the BS5837 RPA restrictions.

7.9.3 Land Contamination

During the site induction all personnel shall be made aware of their responsibility to be vigilant with regards to identification of potential soil contamination. Key personnel in this respect are ground workers, machine operators and their banksman. Training will be provided to supervisors to provide the necessary awareness to identify areas of contamination. They will report any suspicions of contaminated soil or groundwater to the site management.

If unforeseen contamination is encountered during site works, the specific element of work will be suspended, and the area will be segregated. The result of any notification will also be reported to the LPA (Eastleigh) and the Environment Agency, remediation options shall be considered following assessment and identification of contaminants. Any remediation process shall comply with all legislative and best practice guidance.

Should any excavated soils need to be removed from site for disposal to a landfill, the soils shall undergo Waste Acceptance Criteria (WAC) testing in order to correctly classify the materials in terms of waste disposal. The results of the WAC testing shall be supplied to the chosen waste acceptor at an early stage of the process in order to locate a suitable landfill site.

7.9.4 Excavations and Stockpiles

All stockpiled material will be located away from sensitive receptors with suitable bunds/ barriers to prevent cross contamination as a result of run-off.

The pond and material storage will have a boundary of a "Staked Turbidity Barrier" to reduce run off sediment. Whereas the west boundary of the site will host a silt fencing to protect the drainage culvert. Please refer to section 7.3.4 for further information on the Culvert protection.

Strict Health and safety precautions will be implemented for all excavations, and this may include the use of gas monitors should the need be defined from a thorough risk assessment of the activity being undertaken. The risk assessment will identify the necessary actions to be taken in the event of activation of any gas alarms.

7.10 Resource Use

A dedicated area shall be maintained for storage of all materials and due care and appropriate handling shall be undertaken at all times to reduce any risk of damage and wastage. Packaging of items should not be removed until required, to ensure maximum potential for returning of unused goods.

As much office waste as possible shall be sent for recycling and also strategies are to be put in place to ensure minimal wastage on site, for example avoiding unnecessary printing etc.

Where possible, use of local suppliers shall be considered to reduce transportation costs and maintain a low carbon footprint.

Waste disposal options shall be investigated to ensure minimal transportation requirements where possible. Onsite crushing and reuse of materials shall be incorporated into the project. This shall aid reduction in waste going to landfill as well as minimising vehicular movements on the local road systems.

7.11 Energy Consumption/ Monitoring

"Switch it Off" schemes and other energy saving campaigns shall be implemented on site to encourage all personnel to consider their carbon footprint. Use of car sharing and buses shall be encouraged as outlined in the CTMP. Posters shall be clearly displayed within the site offices to ensure all personnel are aware of the CTMP requirements. This shall also be covered within the site induction and regular toolbox talks held relating to the subject.

7.12 Water Usage

Within site accommodation taps shall be switched off when not in use and all staff shall be made aware of water saving techniques. Every effort to ensure reduction in water use shall be implemented where available.

7.13 Visual Amenity

Although enclosed by trees the construction process poses a potentially short-term impact. The following mitigation measures shall be deployed to minimise the impacts.

- Visual issues should be considered in deciding upon the need for lighting and its location and specification. Temporary lighting should use suitable lamps with flat glass lanterns and cut-off beams in order to minimise light spillage.
- Handling of soils in accordance with British Standards (BS) 3822:2007 Topsoil; and locating, where possible, temporary materials storage mounds in areas that would.
- Mitigate views of the proposed development for adjacent receptors and without damaging the ecological resource.
- Ensure that the site boundaries are always kept clean and tidy, including local roads.

The site shall be securely fenced, and the fencing shall be well maintained and kept free of attachments and non-site-specific posters.

7.14 Vermin

Maintenance of a clean and tidy site including vermin control is essential. An appropriate pest control measure will be adopted, as necessary.

The site will be subject to a pest control survey and baiting programme if required and control measures shall continue throughout the construction phase including:

- Correct and satisfactory stopping and sealing of all disused drains and sewers where applicable.
- Prevention of accumulation of refuse and putrescent materials.
- Ensuring any on-site catering facilities pay careful attention to food delivery, handling and storage and disposal of any food waste.

7.15 Flood Risk

As stated in the flood risk assessment, produced by The Civil Engineering Practice in April 2020, highlighting point 7.3. The summary of the proposed works are as follows:

- The public surface water sewer (culvert) located beneath the western boundary of the site is identified on Southern Water records. Southern Water maintains this infrastructure with access and easement rights typically set at 3 metres either side of the culvert.
- The surface water sewer is also under the jurisdiction of the Environment Agency as a classified Main River. A Flood Risk Activity Permit will be obtained prior to construction for all activities to be undertaken within 8m of the main river.
- Standalone permission will also be obtained from Southern Water as asset owner prior to construction in accordance with the Water Industry Act and Southern Water Policies.

- The condition of the culvert is to be recorded via a CCTV survey in agreement with both Southern Water and the Environment Agency prior to construction and upon completion of the works.
- Southern Water and Environment Agency permissions for working within easements are covered by standalone legislation separate from the Planning Application process with all permissions obtained prior to construction of the development.
- Details of all management systems required under the Flood Risk Activity Permit will be provided and agreed with all parties prior to commencement. All works will be completed during low summer flows.

8. SUMMARY AND CLOSURE

This CEMP has sought to incorporate the key environmental considerations for the proposed development and the responsibilities, actions and contingencies.

As detailed within the CEMP, this is to be a “living document” which is updated throughout the construction process as and when it is required.