

CN220019 – Laystall Street

Construction Environmental Management Plan (CEMP)

Rev 1 - 10th March 2023

Introduction

This document specifically targets and mitigates the issues presented from the construction of the development and the associated works. For ease of reference, these are separated into specific elements and covered individually.

Works

Erection of a nine storey residential building, comprising 89 residential units (28 x 1 bedroom and 61 x 2 bedroom)

Location

32 – 34 Laystall Street
Manchester
M1 2JZ

The area surrounding the site comprises of the following;

- **North** – Commercial Properties
- **East** – Commercial Properties
- **South** – Commercial Properties
- **West** – Commercial Properties

Site Entrance & Staff / Visitor Parking

Please see agreed logistics plan.

Project Team

Employer	Great Places Housing Association
Principal Designer	CPC Project Services LLP
Architect	OMI Architects
Structural Designer	Clancy Consulting
Main Contractor	Eric Wright Construction
Operations Manager	TBC
Site Manager	TBC
Quantity Surveyor	TBC

Project Programme

May 2023 – April 2025

Site Working Hours

Monday to Friday (08:00 – 18:00)

Saturday (8:30 – 14:30)

Sunday (No work unless with prior arrangement and subject to proposed site activities)

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Erection and Maintenance of Security Hoarding

The operatives will utilise a safe system of work to ensure the general public are segregated from the element of works. All boundaries of the project will be closed off by 1.8m Heras Type Fence. Hoarding directly on to highways will be constructed to meet current regulations. All fencing will be visually inspected daily and maintained accordingly.

Site Accommodation, Loading and Unloading vehicles

Delivery vehicles will be controlled to ensure that unloading only takes place within designated times and within the site boundary (unless working on the surrounding infrastructure / highways). Vehicles will enter site immediately and gates will be manned to ensure no deliveries are kept on the highway. All subcontractors will be required to produce a procurement schedule for their materials which will be monitored through weekly / fortnightly meetings. Deliveries must be booked in advance. Efficient and accurate scheduling of deliveries will minimise storage capacity required, double handling and congestion around the site and surrounding roads and highway infrastructure.

Site storage of materials and plant will be very carefully controlled by restricted allocation of zones to particular trades. Detailed plans of the site will be drawn up outlining areas available for moving and storing materials during the various stages of the contract.

Wherever possible, materials will be delivered shrink-wrapped and palletised to be unloaded and distributed safely by crane or hoist. Diesel fuel for site plant will be stored in sealed tanks inside bunded walls with a minimum of 110% of the capacity of the tank. The use of diesel driven plant and equipment will be kept to an absolute minimum. Wherever possible, equipment and plant will be electrically powered to reduce noise and prevent emissions.

Visitor and Operative Parking

We will develop a Green Travel Plan for site which promotes public transport / car sharing. There will be very limited parking on site. Operatives will be expected to source local car parks where room on site is not available.

Pollution Prevention and Emergency Preparedness

A hazard identification & risk assessment will be completed by the prior to any site activities. The document provides a project specific outlook on the potential construction activities and sensitive receptors that could be encountered at site (surface water, groundwater, neighbouring properties, contaminated land, invasive weeds, tree protection orders, etc.). Through risk assessment, we quantify the likelihood and severity of activities against these receptors and provide mitigation / control measures to each. The Hazard Identification & Risk Assessment works in conjunction with the CEMP.

All materials and hazardous substances will be stored according to the manufacturer's literature. Containers will be labelled clearly and only kept on site if there is a use for them. All hazardous substances will be stored away from construction waste. The appropriate staff will be trained on storage and handling of substances.

All fuel sources will be stored in lockable double bunded fuel bowzers on an impermeable surface. The secondary container will be 110% of the primary container. All storage will be padlocked and either CCTV or physical security will be in place during non-working hours. Storage areas will be a minimum of 10m from sensitive receptors. A drip/interceptor tray and funnel will be available and in use when refueling to reduce the chance of leakage. Drip/interceptor trays will be cleaned of contaminants on a regular basis and removed from site as hazardous waste. Refueling procedures will be included within the Risk Assessment & Method Statements of all subcontractors.

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Spill kits will be stocked on site in abundance, particularly next to fuel bowzers and chemical storage. All drainage systems on site will be protected using hessian, sandbags or other devices. Any drums / containers will also be stored on an impermeable surface to limit the pathway of contaminants into the ground.

The site will have a drainage plan in place and it will be displayed on site.

An emergency response plan will be displayed. Site management is trained on how to implement the plan which is covered during the induction and through regular environmental toolbox talks.

Materials

EWG have a clear Environmental Materials Policy that aims to minimise the impact of our materials and services on the environment. All manufacturers, materials suppliers and third parties involved in the EWG supply chain are expected to show that they can comply with the policy to ensure the materials being used in our projects are as sustainable as possible.

Under the policy, all materials being used in the project will be locally sourced and supplied through local contractors. The designs for the project will specify local materials that are in-keeping with the local environment and to minimise travel to source, and the emissions that are produced from this, materials will be sourced from EWG's network of local suppliers and manufacturers.

When selecting material suppliers and manufacturers, EWG will preferentially select those that operate an ISO 14001 or equivalent accredited management system to ensure they are operating to the same environmental standards as us, with records maintained to show that suppliers are meeting these requirements. The design of the project will specify materials that are extracted, processed and supplied from responsible sources. All timber will be from sustainable and legal sources, with the supplier being FSC certified.

In order to ensure materials are used as efficiently as possible, the options for re-use of materials will be fully explored throughout the project. This includes conducting pre-demolition audits to determine the feasibility for the re-use of any demolition materials, ideally on site, but to explore options for off-site re-use where necessary. The majority of the components of the steel frame that will be used on this project have the ability for re-use at the end of their life should the building ever need to be demolished. Approximately 85% of the components have the potential for re-use either for the same purpose or a new one following repurposing. The manufacturer issues guidance on the components of the frame that have the potential to be re-used, as well as advice on the best methods of disassembly/deconstruction to allow for the components to be re-used.

Where it is determined that there is no alternative material that could be re-used for a component of the development, the design will specify the use of high recycled content materials to ensure we are minimising the use of non-renewable materials. When selecting materials to use, the BRE Green Guide for Specification will be used to ensure that the most sustainable options are being selected for each component. Not only will this ensure the materials are the most sustainable options, it will also ensure that the selection can consider the embodied energy in the materials. This development will use a steel frame, which not only is more likely to be recycled at end of life than other materials such as concrete or timber, its components are 100% recyclable.

All materials selected to be used in the project will have their durability considered as part of the selection process. Where required, we will specify the use of materials with a 25+ year guarantee to prevent the need for frequent replacements and therefore the increased use of non-renewable materials.

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Noise Control

In general, the construction phase can be viewed as intense activities of work over a short timescale. These construction processes involve concentrated activities in a localised area. The resultant noise effects are often significant to neighbouring properties. As a minimum, we will produce newsletters informing locals of the timing and duration of noisy activities such as piling operations as well as the Project Manager's immediate contact information.

Construction methodologies will be made as efficient as possible to minimise noise impacts to local residential areas and offices. Additionally, every opportunity will be taken to provide 'temporary' screening where likely to provide effective mitigation. Where properties are already subject to significant road traffic noise, the impact from construction noise will be less than those areas which are set further back from existing road transport corridors. All measures to minimise construction noise would be taken according to best practicable means, as described in the mitigation measures section.

The noise impact of the construction phase can be minimised by use of the noise control measures, as suggested in Section 8 of BS 5228-1:2009. General principles for the control of noise during the construction works are presented below.

- Appropriate choice of plant and equipment
- Regular plant maintenance
- Careful phasing of the proposed operations
- Provision of temporary barriers
- All staff and operatives will be briefed on the requirement to minimise nuisance from site activities. This included within the site inductions and reinforced through a programme of toolbox talks and all method statements
- No equipment will operate outside the manufacturers' rated working levels
- Use of machine based equipment on site will be kept to an absolute minimum and only silenced or sound models will be used.
- No plant and equipment will be left running if not required for immediate use.
- Resilient materials will be used where possible to reduce impact noise where materials are being moved or dropped e.g. lining chutes and dumpers. Materials will be lowered whenever practicable and otherwise drop heights will be kept to a minimum.

Noise Reduction Measures for Mobile Plant

- The movement of plant onto and around the site will have regard to the normal operating hours of the site and the location of any noise sensitive receptors.
- Audible reversing alarms will be of a type which whilst ensure that they give proper warning, have a minimum noise impact.
- Internal haul routes will be well maintained and avoid steep gradients.
- Earth moving plant will be fitted with efficient sound reduction equipment and manufacturers' enclosure panels will be kept closed.
- The site compound will be located to minimise the noise impacts of delivery vehicles on unmade ground.

Noise Reduction Measure for Stationary Plant and Tools

- Hydraulic or electric tools will be used where possible.
- Alternative equipment will be specified for concrete breaking/cutting.
- Sound reduction equipment will be fitted.

Further Noise Guidance

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- BS 5228 -1:2009 'Code of practice for noise and vibration control on construction and open sites – Part: Noise'
- [EWG-E-MP-02 - Environmental Management Toolkit](#) (saved in the Wrightway electronic project file).

Light Control

Lighting will be provided to ensure safe working conditions for staff. The following measures will be put in place:

- All lighting will be situated to provide as much lighting as is necessary for the work and no more, thereby reducing the risk of light pollution and the requirement for multiple generators.
- Lighting will face downwards / sideways so that they do not intrude into any nearby premises.
- Appropriate site lighting will be selected. For example; LED lighting to improve the energy efficiency of the site and minimise the spread of light beyond where is required.

Dust Control

The control of dust arising from the construction works will be controlled in a number of ways depending on the source and the stage at which the construction works are.

Visual dust monitoring will take place daily. If excessive dust levels are reached, works will be temporarily suspended whilst the Environmental Manager is consulted and further appropriate dust measures are implemented to enable works to recommence. This will be recorded.

Wheel Washing

Eric Wright Group Ltd will ensure that the working machinery, plant & vehicles, which may have the potential to cause an excessive dust or mud problem onto the public highway, will have the facility to wash down. This will be via a pressure washer at the site entrance to prevent mud being carried onto the road. A road sweeper will be procured when required.

Mitigation Measures

Haulage Routes, Vehicles and Construction Plant

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Haul roads and traffic routes	Deliveries will be scheduled to avoid standing traffic on routes to site.	Project Manager (TBC)
Vehicle waiting areas and hard standing	Vehicles will be directed into site and unloaded. If waiting is required, engines will be switched off.	Project Manager (TBC)
Vehicle and wheel washing	Wheel washing facilities will be easily available and sign posted.	Project Manager (TBC)
Site traffic	Speed restrictions will be in place including signage and managed by site personnel to avoid back up.	Project Manager (TBC)

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Public roads	Responsible person to be aware of scheduled deliveries and coordinate traffic and operations affecting access.	Project Manager (TBC)
Road cleaning	Road sweeper will be procured when required for cleaning access roads to site. These operations will be increased when critical activities occur.	Project Manager (TBC)
High level walkways and surfaces (Scaffolding and others)	Operatives will be briefed at induction to the requirements of dust control and suppression.	Project Manager (TBC)

Static and Mobile Plant Emissions

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Visible exhaust smoke	All standing / waiting traffic will ensure engines are switched off. All plant brought will be appropriately maintained and suppliers advised of this at order stage.	Project Manager (TBC)
Maintenance	All plant and equipment will be maintained off site.	Project Manager (TBC)
Servicing	All plant and equipment will be serviced off site.	Project Manager (TBC)
Operating time	All operations will be conducted in line with the planning conditions and all subcontractors will be made aware during procurement stage.	Project Manager (TBC)
Exhaust time	Operating plant will be monitored to ensure it is not left running unnecessarily.	Project Manager (TBC)
Exhaust direction and heights	Exhausts from plant will be in line with manufacturer's specifications and directed from ground to atmosphere.	Project Manager (TBC)
Location of plant and equipment	Plant and equipment operating close to other businesses and sensitive receptors will be kept to critical activities only.	Project Manager (TBC)

Material Handling

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Material Handling operations	Handling and movement of materials will be kept to a minimum through planning.	Project Manager (TBC)
Transport of powdery materials	Loose materials will be moved in containers or remain wrapped until use.	Project Manager (TBC)
Transport of aggregates	Enclosed or sheeted vehicles will be used.	Project Manager (TBC)

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Handling areas	Areas will be kept clean and free from dust/	Project Manager (TBC)
Vehicle loading	Construction methods that minimise the creation of dust will be used.	Project Manager (TBC)
Filling Skips	Enclosed skips will be used.	Project Manager (TBC)
Reducing the spread of dust across the site	Damping down methods will be used.	Project Manager (TBC)

Storage of Powder Materials

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Bulk Cement	Will be delivered and stored in tankers / silos.	Project Manager (TBC)
Silos	Will be kept in good condition and regularly checked for damage.	Project Manager (TBC)
Accidental spillage when filling or operating silos	Emergency preparedness plan will be in place and displayed.	Project Manager (TBC)
Dry materials > 3mm	Will be used at point of delivery.	Project Manager (TBC)
Dry materials < 3mm	Will be used at point of delivery.	Project Manager (TBC)
Storage	Materials will be stored away from site boundaries and sensitive receptors.	Project Manager (TBC)

Stockpiles

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Stockpiles	Stockpiles will be kept away from sensitive receptors and kept to a minimum.	Project Manager (TBC)
Building stockpiles	Stockpiling will be done so that the angle of repose is not such that slippage will occur.	Project Manager (TBC)
Short term stockpiles	Will be kept to a minimum and avoided by use of material at source.	Project Manager (TBC)
Long term stockpiles	Will be kept to a minimum and avoided by use of material at source.	Project Manager (TBC)

Site Establishment and Restoration on Completion

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Earthworks	Will be completed in sections to minimise over exposure.	Project Manager (TBC)

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Completed earthworks	Will be reinstated as soon as possible in line with programme.	Project Manager (TBC)
Storage mounds	Any mounding will be sealed.	Project Manager (TBC)
Landscaping	Will be in line with programme and design.	Project Manager (TBC)
Crushing and screening	Crushing and screening operations will kept away from sensitive receptors.	Project Manager (TBC)

Construction and Fabrication Process

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Cutting, grinding, drilling, sawing etc.	Pre-fabrication of materials will be considered to avoid cutting. Suppression methods will be explored.	Project Manager (TBC)
Dust control exhaust ventilation	Diamond cutting blades will be used and water sprays.	Project Manager (TBC)
Cutting roads, pavements, blocks	Diamond cutting blades will be used and water sprays.	Project Manager (TBC)
Angle grinders	Diamond cutting blades will be used and water sprays.	Project Manager (TBC)
Mixing of granular materials	Pre-mixed materials will be used under controlled conditions. Powders will be stored in a safe environment.	Project Manager (TBC)

Internal and External Finishing and Refurbishment

<u>Potential dust Source</u>	<u>Control Measure</u>	<u>Responsibility for implementation</u>
Painting and decorating	Use of suppression or extraction equipment will be used. Vacuum cleaning where possible.	Project Manager (TBC)
Plastering rendering, finishing and fitting out	Housekeeping will be a focus point across the development to control dust related activities.	Project Manager (TBC)
Electrical plumbing systems requiring chasing into walls	Use of suppression or extraction equipment will be used. Vacuum cleaning where possible.	Project Manager (TBC)
Fire proofing and insulation	Use of suppression or extraction equipment will be used. Vacuum cleaning where possible.	Project Manager (TBC)
Cleaning	Dry sweeping will be avoided.	Project Manager (TBC)

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Further Dust Guidance

- 'The Control of Dust from Construction and Demolition Activities' document (BRE, 2003).
- [EWG-E-MP-02 - Environmental Management Toolkit](#) (saved on the Wrightway electronic project file).

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