

Construction Environmental Management Plan with Construction Logistics Plan Included

Ferry Island



Volume 1

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Note - Contents list included in Volume

1.0 Introduction

Midgard has a sustainable vision for all its construction sites based upon eco efficient practices and eco effective behaviour. Fundamental to its vision are the continual improvements in environmental performance throughout its sites and an understanding of their corporate responsibility to the communities it works within. The JRL Group environmental management procedure sets out the objective to achieve environmental and sustainable development simultaneously with a view to continuously improve the service, quality and commitment it provides.

This Construction Environmental Management Plan (CEMP) document has been produced in outline format. As a live and dynamic document, additions may be made to this plan as the project evolves.

1.1 Pre-Commencement Planning Condition no. B29

The initial development of this CEMP has been produced prior to commencement of any works on site in line with planning condition no. B29 (HGY/2018/2223) –

“Development shall not commence within Plot B (other than demolition) until a Construction Environmental Management Plan (CEMP) in respect of Plot B has been submitted to and approved in writing by the local planning authority.

- a) The CEMP shall include a Construction Logistics Plan (CLP) and Air Quality and Dust Management Plan (AQDMP) in respect to Plot B.
- b) The CEMP shall provide details of how construction works in respect of Plot B are to be undertaken respectively and shall include:
 - i. A construction method statement which identified the stages and details how works will be undertaken – [throughout](#)
 - ii. Details of working hours, which unless otherwise agreed with the Local Planning Authority shall be limited to 08:00 to 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays – [section 5.1](#)
 - iii. Details of plant and machinery to be used during construction works – [section 5.3](#)
 - iv. Details of an unexploded ordnance survey – [section 9.7](#)
 - v. Details of the waste management strategy – [section 6](#)
 - vi. Details of community engagement arrangements – [section 13](#)
 - vii. Details of any acoustic hoarding – [section 5.3](#), [8.3](#) and [8.4](#)
 - viii. A temporary drainage strategy and performance specification to control surface water runoff and Pollution Prevention Plan (in accordance with Environment Agency guidance) – [section 7](#)
 - ix. Details of external lighting – [section 5.4](#) and [10.4](#)
 - x. Details of any other standard environmental management and control measures to be implemented. – [section 4](#), [9](#), [10](#) and [11](#)
- c) The CLP will be in accordance with Transport for London’s Construction Logistics Plan Guidance (July 2017) and shall provide details on:
 - i. Monitoring and joint working arrangements, where appropriate
 - ii. Site access and car parking arrangements
 - iii. Delivery booking systems
 - iv. Agreed routes to/from the Plot
 - v. Timing of deliveries to and removals from the Plot (to avoid peak times, as agreed with Highways Authority, 07 to 09:00 and 16:00 to 18:00 where possible) – [section 8.5](#)
 - vi. Travel plans for staff/personnel involved in demolition/construction works to detail construction phase – [section 8.6](#)
 - vii. Joint arrangements with neighbouring developers for staff parking, lorry parking and consolidation of facilities such as concrete batching.
- d) The AQDMP will be in accordance with the Greater London Authority SPG Dust and Emissions Control (2014) and shall include:

- i. Mitigation measures to manage and minimise demolition/construction dust emissions during works [section 5.2 and 16](#)
- ii. Details confirming the Plot has been registered at <http://nrmm.london> – [section 5.2 and 8.7](#)
- iii. Evidence of Non-Road Mobile Machinery (NRMM) and plant registration shall be available on site in the event of Local Authority Inspection – [section 5.2 and 8.7](#)
- iv. An inventory of NRMM currently on site (machinery should be regularly serviced and service logs kept on site, which includes proof of emission limits for equipment for inspection) – [section 8.7](#)
- v. A dust risk assessment for the works – [section 5.2](#)
- vi. Lorry parking, in joint arrangements where appropriate

Additionally, the site of Contractor Company must be registered with the Considerate Constructors Scheme. Proof of registration must be sent to the Local Planning Authority prior to any works being carried out. “

2.0 Environmental Management System

JRL Group's environmental policy has been developed in accordance with the nature, scale and environmental impacts of the company's activities. This policy provides a broad framework for setting environmental objectives and targets and delivering sustainable development and has the full support and commitment of the Board of Directors. Our environmental policy includes a commitment to continual improvement in the prevention of pollution and to compliance with the relevant environmental legislation, regulations and requirements. The Policy is updated annually and forms part of the EMS, which is certified to ISO 14001: 2015 standard.

It is the responsibility of the Project Manager to ensure effective implementation and understanding of the environmental management system. This should be undertaken with the support of environment manager, advisor, specialists and other suitably qualified personnel. It must also be made clear to all site personnel that each individual has a responsibility to ensure no environmental incidents occur.

The following outlines the processes and plans to be implemented on site to ensure all environmental aspects and impacts are identified and sufficient measures are put in place to reduce risks associated with the works.

2.1 Aspects & Impacts Register

In line with JRL Group Ltd. procedures, an Aspects and Impacts Register and Risk Assessment has been completed for the project in order to reduce the environmental impact of our site activities. This register also includes the control measures which will be put in place to minimise our environmental impacts. The Project Manager is responsible for ensuring that the control measures are fully implemented and monitored. The Risk Assessment is scored by analysing whether the aspects are regulated by legislation, are a contractual requirement and according to the likelihood and severity of the aspect occurring.

The Significant Environmental Aspects which have been identified for this project are:

- Dust
- Noise
- Vibration
- Vehicle movements

2.2 Project Details

The Ferry Island development forms part of the Tottenham Hale development being carried out by Argent Related. The development will comprise the construction of a new shared basement, two residential buildings (7 to 38 storeys) and associated public realm space. Building 1 will include 376 build to rent apartments with ground floor shell and core retail units. Building 2 will include 108 private for sale apartments, also with shell and core retail units within the ground floor.

2.3 Site Location

Ferry Island is in the London Borough of Haringey. The address for the development is Ferry Island, Tottenham Hale, London, N17 9FR.

The site is bounded by the TfL bus station to the east, along with Tottenham Hale tube station. Residential and business buildings are located on the north side of Station Road. Ferry Lane is to the south of the development.



Figure 1: Site Location

2.4 Scope of Works

Programme Dates	Scope of Works
15/08/22 – 19/09/22	Site establishment and enabling works
26/09/22 – 15/05/22	Substructure, piling and basement excavation
20/07/23 – 25/11/24	Superstructure
17/10/23 – 28/05/25	Façade
01/11/23 – 14/11/25	MEP installation

01/11/23 – 14/11/25	Internal fit-out works
06/12/24 – 10/04/25	External works

3.0 Project team Roles and Responsibilities

All members of the Project team are responsible for the effective planning, implementation, management, monitoring and review of all environmental control measures identified in this plan.

It is the responsibility of the Project Manager to ensure that team members are aware of their environmental responsibilities and that they are suitably trained as necessary.

Name	Responsibilities
Project Manager	<i>To write and maintain the CEMP.</i> <i>To complete the Environmental Aspects and Impacts Register.</i> <i>To inform subcontractors and suppliers of significant environmental impacts and control measures required to minimise them.</i> <i>To request, review and comment on the subcontractors' method statements.</i> <i>To manage and control all of the environmental documentation produced on this project</i>
Environment Manager	<i>To carry out monthly SHE 8E site inspections</i> <i>To carry out formal environmental management system audits.</i> <i>To advise the project team on environmental queries</i> <i>To champion and promote environmental best practices on site.</i>
Environmental Advisor	<i>To collate monthly environmental data provided by the Environmental Champion</i> <i>To assist the site in preparation for Considerate Constructor Audits.</i> <i>To assist the site with maintaining a good relationship with local residents.</i> <i>To arrange events with local charities, schools etc.</i> <i>To champion environmental best practices and the considerate constructors scheme on site</i>
Environmental Champion	<i>To sign the 'Environmental Compliance Letter'.</i> <i>To carry out weekly SHE 6E environmental inspections.</i> <i>To check waste transfer notes are compliant and collate in the site file.</i> <i>To check timber delivery notes are compliant and collate in the site file.</i> <i>To collate material delivery notes in the site file.</i> <i>To provide water and electricity meter readings and photos of meters to the Environmental Coordinator.</i> <i>To provide fuel consumption figures to the Environmental Coordinator.</i> <i>To provide the NRMM details for all plant on site to the Environmental Coordinator.</i> <i>To promote awareness of the RMP among the workforce.</i> <i>To enforce waste segregation on site (i.e. separate hazardous waste streams in separate Hazibags).</i> <i>To conduct a monthly environmental toolbox talk to raise environmental awareness amongst the workforce.</i> <i>To conduct on-site training with the workforce (e.g. spill kit training) when advised by the Environmental Team.</i>

4.0 Environmental Contractual Requirements

Requirements	Summary of Requirements
Client Requirements	Monthly client reporting - Noise, dust and vibration monitoring - eKPIs – electricity, fuel, water consumption and related carbon emissions - Carbon emissions from site deliveries – Datascope or similar Considerate Constructors Scheme
Contractual Obligations	Planning Consent – HGY/2018/2223 Section 106 Agreement (27 March 2019) BREEAM New Construction 2018 'Very Good' Argent Related Code of Construction Practice
Specific local authority agreements	Section 61 (<i>Application TBC</i>)
Requirements from previous studies or/and reports	The following tender documents have been reviewed as part of the CEMP production and their recommendations have been incorporated within this document: - Baseline Vibration Report (Sandy Brown, June 2018) - Ecology Appraisal (RPS, July 2018) - Environmental Noise Survey Report (Sandy Brown, June 2018) - Geotechnical Interpretative Report (Wood Thilsted, August 2018) - Geo-environmental Interpretive Report – 2020 (Langan, November 2021) - Risk Assessment for German Air-dropped UXO (Buro Happold, April 2018)
Other Statutory Authority Requirements	Thames Water Trade Effluent/Groundwater Discharge Licence Transport for London's Ultra Low Emission Zone Mayor of London's Non-Road Mobile Machinery – Central Activity Zone The Mayor of London's publication "The Control of Dust and Emissions During Construction and Demolition" BRE Publication "Controlling Particles, Vapour and Noise Pollution from Construction Sites"

5.0 Nuisance

Nuisance for the purposes of this document is broken into four sections, namely Dust, Noise, Vibration and Lighting. The following sections detail activities and control methods to be implemented on the project.

Sensitive receptors likely to be affected by construction nuisance as identified in consultation with the local authority include:

- Premier Inn London Tottenham Hale Hotel
- Residents along Station Road
- Hale Gardens residents

5.1 Site Operating Hours

Site operating hours are presumed to be Monday to Friday, 08:00 to 18:00 and Saturday from 08:00 to 13:00. There will be no works carried out on Sundays or Bank holidays. This is to be confirmed by application and agreement of a Section 61 of the Control of Pollution Act 1974 by London Borough of Haringey Council.

HQM movements will be avoided between 07:00 and 09:00 and 16:00 and 18:00 to avoid peak traffic.

5.2 Dust Mitigation

Appropriate preventative measures to control dust emissions can significantly reduce the potential for dust generation. A robust site specific dust mitigation strategy can be found Section 16; this will be adhered to at all times and briefed to all workers on induction and via Tool box talks. The table below outlines how we aim to avoid impacts arising from dust that could affect our neighbours and the local environment.

Risk	Mitigation
Construction Traffic	- All construction traffic will follow specifically designated routes - Speed limits will be put into place on site for all vehicular movements - All vehicles carrying loose material will be covered - Wheel wash facility to be used for vehicles leaving site
Vehicles & Equipment	- Wet materials that have the potential to leak from the vehicle shall be transported in sealed vehicles. - All vehicles associated with the construction site shall comply with the standard of the London Low Emission Zone. For HGVs, the standard is Euro 6 for NO_x and PM. For heavier vans and mini buses the standard is Euro 6. - Prior to construction movements commencing, the developer/applicant is to register any Non-Road Mobile Machinery (NRMM) of a power rating between 37kW and 560kW at https://nrmm.london/ to help monitor the use of such equipment across London. NRMM used on the site shall be required to meet the following standards (EU Directive 97/68/EC): <u>From 1 September 2020:</u> Stage IIIB of the Directive as a minimum, within Greater London; Stage IV of the Directive as a minimum, within the Central Activity Zone. <u>From 1 January 2025:</u> Stage IV throughout London. - No idling when vehicles are stationary. The engines of vehicles and plant on site shall be not left running unnecessarily. - Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment, where possible. Petrol and diesel powered generators shall only be used if mains electricity or battery powered equipment is not available.
Highways	- Wheel washes at each gate, and where appropriate use of road sweepers will be incorporated to ensure highways remain clear of dust and mud - Road edges and pathways will be swept by hand and damped down as necessary
Stockpiles	- To be sealed or sprayed as required - Location of stockpiles away from any sensitive receptors

Dust Suppression	• Mobile bowzers to be deployed on site at regular intervals. Activity to be increased during significantly dry and windy periods. • Appropriate hoardings shall be provided around the whole working area to ensure reduction in dust migration. • Deliveries of significantly dusty materials to be sprayed to reduce dust potential. • All cutting and grinding operations to be conducted in ways to reduce risk of dust migration (wet cutting techniques etc.) • Site preparation: - Appropriate hoarding shall be provided around the whole working area to reduce dust dispersion; - The name and contact details of person(s) accountable for air quality pollutant emissions and dust issues shall be displayed on the site boundary; - Hoardings, fencing, barriers and scaffolding shall be regularly cleaned using wet methods (not blowing with compressed air lines) to prevent re-suspension of particulate matter. - All the appropriate spill kit cleans up and containment materials shall be available in strategic locations on site and they shall be utilized immediately in the event of a spillage occurring; - A stakeholder communications plan shall be developed and implement, including community engagement before work commences on site. • On-site activities: - Dust producing plant shall be kept as far away as possible from sensitive areas (and may be screened). A physical distance and/or barrier shall be created between dust/emission generating activities and receptors; - Stockpiles shall be covered or seeded to prevent wind whipping, and loose materials shall be removed as soon as possible; - The materials with the potential to produce dust (i.e. sand and other aggregates) shall be kept away from working area boundaries and shall be ensured that are stored in bunded areas and are not allowed to dry out unless required for a particular process and other control measures are in place; - Where practicable, re-fabrication, fabrication and dismantling of materials and machinery shall be encouraged to be undertaken off-site to reduce the need for grinding, sawing and cutting on-site. In cases where such work must take place, water-based dust control shall be used. - The site shall use cutting, grinding or sawing equipment fitted, or in conjunction with, suitable dust suppression techniques such as water sprays or local extraction; - The site shall implement the use of water to effectively suppress dust emissions; - Where practicable, identified work activities that have a high potential for dust emissions shall be fully enclosed and the enclosure shall be maintained for the entire duration that the specific work activity is in operation;
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	- An adequate supply of water shall be available at all work areas for dust suppression measures. Where practicable, used water shall be collected and reused to maximize the use of recycled and non-potable water; - All dust control equipment shall be maintained in good condition and a record of maintenance and servicing activities shall be kept; - Drop heights shall be minimised from conveyors loading shovels, hoppers and other loading (lorries, etc.) or handling equipment, and fine water sprays shall be used on such equipment; - The site shall provide enclosing chutes and/or conveyors. The site shall use enclosed conveyors where crossing roads, other public areas and property which is not ownership or control by the site. Loaded bins and skips shall be sheeted or otherwise enclosed; - The movement of delivery materials shall be handled in a manner which minimises dust production and disturbance; - The burning of material on site shall be strictly prohibited; - The site shall use enclosures or shield areas designated for mixing large quantities of cement, bentonite, grouts and other similar materials. The location of designated areas for mixing these materials shall be remote from the site boundary and potential receptors; - The site shall ensure that bulk cement and other fine powder materials shall be delivered in enclosed tankers. For construction, for smaller supplies of fine powder materials, bags shall be sealed after use and stored appropriately to prevent dust;
Dust Inspection & TBTs	• All employees shall be provided with an appropriate induction and ongoing briefings and tool box talks (TBT) regarding management of environmental issues (ie. dust mitigation measures required from the works they are carrying out, etc.); • Weekly dust site inspections shall be carried out to monitor compliance with air quality and dust control procedures, and to monitor site outside the work site; • Records of inspection results shall be maintained within the respective site offices, and make available to the local authority when asked; • When activities with a high potential to produce dust and emissions are being carried out during prolonged dry or windy conditions, daily dust inspections at the boundary of such activities shall be completed to ensure dust and emissions are controlled; • Record any exceptional occurrences causing dust episodes on or off the site and the action taken to resolve the situation; • In the event of non-compliance with the agreed thresholds, obvious visual impacts and/or complaints, the following measures shall be implemented: Immediately undertake an investigation of activities on site to ascertain whether any visible dust is emanating from the site or activities are occurring that are not in line with dust control procedures; If on-site sources are identified as breaching the agreed thresholds, the relevant activities shall be rectified and/or suspended where practicable until remedial measures can be implemented; Actions shall be recorded in a site logbook; The activity shall then be monitored to ensure that the mitigation measures are working and that there is no repeat incident; If the cause of the alert is not related to site operations, the outcome of any investigations shall be recorded in the site logbook.

Monitoring	- Noise and dust monitors will be installed along the perimeter of the hoarding. - Ongoing visual monitoring to be undertaken by site personnel on regular basis, both on and off site to ensure no migration of dust - Regular liaison with the Council's EHO and Client to be undertaken throughout the project - Regular reviews of mitigation methodology to be undertaken by Environment Manager and Project Manager
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5.3 Noise and Vibration

Noise and vibration will be managed by applying best practicable means as defined under Section 72 of the Control of Pollution Act (COPA) 1974, to all activities, including the following:

- Carefully select equipment and construction methods to reduce noise and vibration.
- Use of hoardings or screens as noise barriers.
- Locate plant as far as reasonable practicable from receptor.
- Ensure that plant is shut down when they are not in use.
- Construct temporary infrastructure (e.g. haul roads) of materials that minimise noise and vibration.
- Monitor the noise levels regularly to confirm the noise level of site activities.
- Include noise minimisation practice in induction.
- Liaise with the community to provide information of the noisy work activities and their durations.
- Arrange delivery times to suit the area.

Specific requirements will be outlined in the Section 61 once granted by the London Borough of Haringey.

An unattended baseline noise survey was undertaken over 15 minute periods between 16:00 on Thursday 11th January 2018 and 16:30 on Tuesday 16th January 2018. The location of the measurement was to the west of Ferry Island. The location was chosen to be reasonably representative of noise levels experienced by the nearest noise sensitive premises along The Hale and Station Road.

Table 1: Ambient noise levels measured during unattended survey

Date	Daytime (07:00 – 23:00) L _{Aeq} , 16h dB	Night (23:00 – 07:00) L _{Aeq} , 8h dB
Thursday 11 th January	-	61
Friday 12 th January	65	61
Saturday 13 th January	65	61
Sunday 14 th January	63	62
Monday 15 th January	65	60
Tuesday 16 th January	-	-
Average	65	61

Attended sample measurements were also undertaken to determine the existing noise levels from road traffic, pedestrians and other significant noise sources in the area. Measurements (L1 – L5) were undertaken for the Island Sites on 11th, 16th and 22nd January 2018.

The dominant noise source observed at the Site during the surveys was noted to be road traffic along nearby roads which are relatively heavily trafficked carrying cars, buses, lorries and emergency vehicles throughout the day and night.

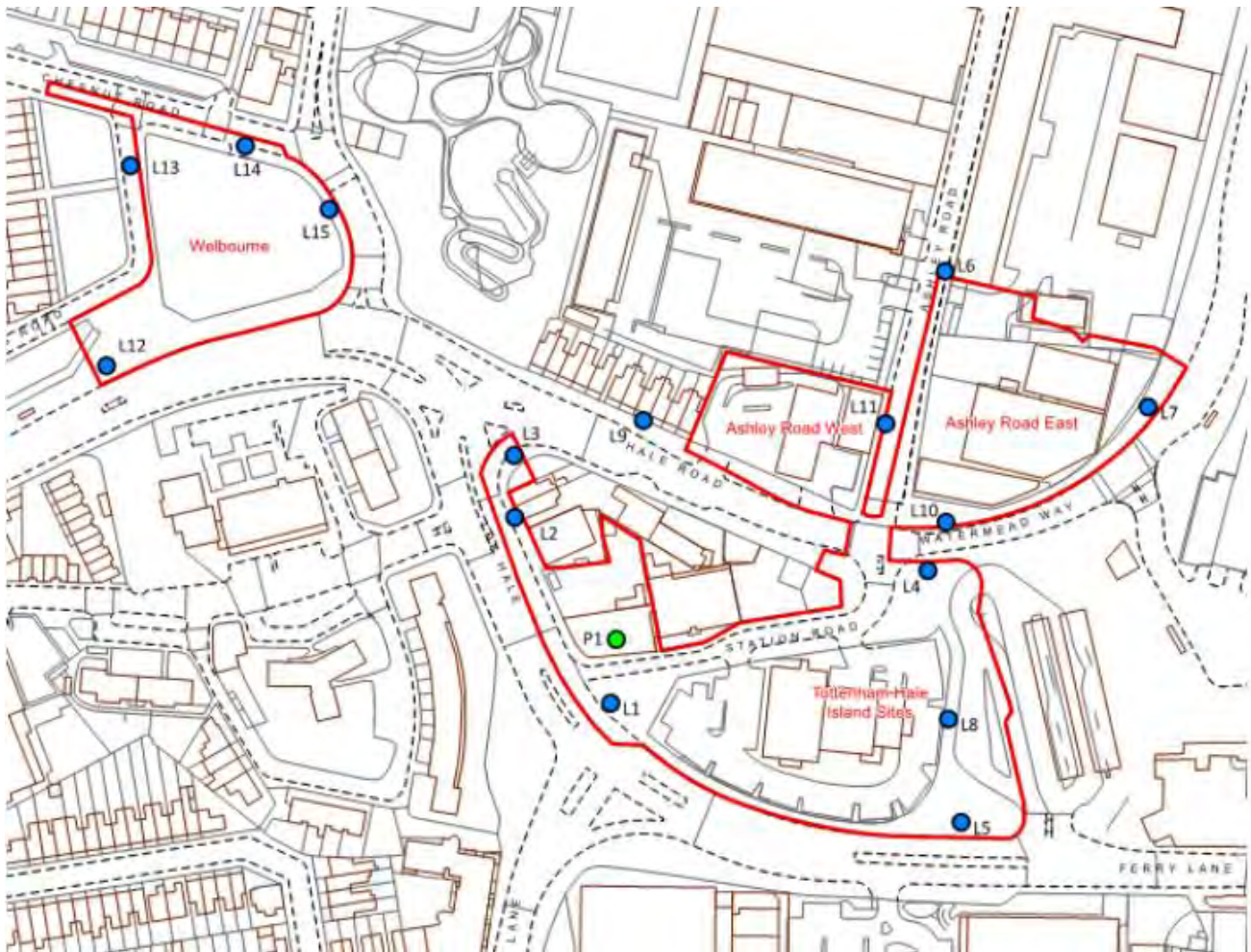


Figure 2: Attended Noise Sample Measurement Locations

The representative background sound levels from the unattended measurements were $L_{A90, 15min}$ 58 dB during the day, and $L_{A90, 15min}$ 49 dB during the night. Attended sample measurements indicate that typical background sound levels at the Island Sites vary between L_{A90} 58-65 dB (daytime) and L_{A90} 48-61 dB (night time).

Midgard will work towards an average noise level of 85 dB $L_{Aeq,T}$ in line with best practice during the construction phase.

The full programme length for the project is 155 weeks. Midgard have split this into key areas of development works:

- Basement - 44 Weeks
- Substructure - 52 weeks
- Superstructure - 67 weeks
- Façade installation - 78 weeks
- Fit-Out - 100 weeks

The types of plant and machinery that are likely to be used on-site per development works activity are included in the below table. The noise levels have been taken from BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites.

	Assumptions: BS 5228 Noise Level dB(A) @10m	Percent on-times assumptions
Groundworks		
Excavator	75.0 dB(A)	30%
Generator	73.0 dB(A)	100%
9T Dump truck	79.0 dB(A)	20%
20T Tracked excavator	74.0 dB(A)	30%
7T Roller	68.0 dB(A)	30%
Concrete mixing	77.0dB(A)	60%
Concrete pump	78.0 dB(A)	30%
Deliveries and muck away	78.0 dB(A)	20%
Superstructure		
Poker Vibrator	76.0 dB(A)	40%
Petrol Saw	86.0 dB(A)	5%
50T Mobile Crane	84.0 dB(A)	60%
Concrete mixing	77.0 dB(A)	60%
Concrete pump	78.0 dB(A)	50%
Deliveries	78.0 dB(A)	20%
Hand tools and material handling	77.0 dB(A)	5%
Scaffolding		
Fork lift	76.0 dB(A)	20%
Deliveries	78.0 dB(A)	20%
Hand tools and material handling	77.0 dB(A)	5%
Roof Works		
50T Mobile Crane	84.0 dB(A)	40%
Fork lift	76.0 dB(A)	20%
Petrol Saw	86.0 dB(A)	5%
Deliveries and muck away	78.0 dB(A)	20%
Hand tools and material handling	77.0 dB(A)	5%
Façade		
Fork lift	76.0 dB(A)	20%
Chop Saw	78.0 dB(A)	5%
Deliveries	78.0 dB(A)	20%
Hand tools and material handling	77.0 dB(A)	5%
Externals		
Excavator	75.0 dB(A)	30%
Generator	73.0 dB(A)	100%
9T Dump truck	79.0 dB(A)	30%
20T Tracked excavator	74.0 dB(A)	30%
7T Roller	68.0 dB(A)	30%
Concrete mixing	77.0 dB(A)	60%
Concrete pump	78.0 dB(A)	50%
Deliveries and muck away	78.0 dB(A)	20%

Midgard will carry out 24-hour noise and dust monitoring using Class 1 noise monitors, situated across the development. This data will be reviewed regularly by the Environmental Manager and shared with the site management team. Notifications will be sent to the Environmental Manager and site team when exceedances occur. This allows the team to temporarily stop noisy works and review the noise levels and works being carried out. Using our noise monitoring data, we will undertake noise modelling to predict noise levels at the sensitive receptors highlighted in section 5.0.



Figure 3: Preliminary Current Noise Modelling with Key Sensitive Receptors

To mitigate noise levels, the Midgard team will:

- Use temporary screens during construction activities which are taking place within close proximity to noise sensitive receptors.
- All machinery will be regularly maintained to control noise emissions, with particular emphasis on lubrication of bearings and the integrity of silencers.
- Site staff will be made aware that they are working adjacent to a sensitive area and avoid all unnecessary noise due to misuse of tools and equipment, unnecessary shouting and radios.
- As far as possible, the avoidance of two noisy operations occurring simultaneously in close proximity to the same sensitive receptor.
- Ensure engines are turned off when possible.
- Where reasonably practicable, plant and or methods of work likely to cause significant levels of vibration at the receptors identified will be replaced by less intrusive plant/methods of working.

Site construction methods will take into account the need to minimise vibration and be based on best practice industry practices. In the phases of works where vibration due to site activity is not anticipated and no monitoring is deemed required, Midgard will make provisions to ensure monitoring can be set up to investigate reasonable complaints from the neighbourhood.

5.4 Light Disturbance

The surrounding vicinity to the site currently creates a significant amount of light pollution. Any further task lighting required on the project is not expected to cause a nuisance. All task lighting, however, will aim to minimise the impacts of light spillage on adjacent retained habitats as far as reasonably practicable by ensuring any security lighting that is left on overnight is kept to a minimum and away from any sensitive receptors. Lighting will be timed to be off outside of normal working hours.

6.0 Waste Management System

A Resource Management Plan will be completed when we confirm our waste management suppliers. It will contain:

- Procedures and commitments for minimising non-hazardous waste
- Procedures for minimising hazardous waste
- Procedures for monitoring, measuring and reporting hazardous and non-hazardous site waste
- Procedures for sorting, reusing and recycling construction waste into defined waste groups, either on site or through a licensed external contractor
- The name or job title of the individual responsible for implementing the above
- Identification of the key refurbishment/demolition materials.
- Potential applications and any related issues for the reuse and recycling of the key refurbishment and demolition materials.
- Target of > 90% (by tonnage) of non-hazardous construction waste shall be diverted from landfill

6.1 Disposal of Non-Hazardous Waste

All non-hazardous waste will be removed from site within strict adherence to all waste legislation requirements, including Duty of Care Regulations. Prior to any agreed use of hauliers or waste disposal sites, the appropriate licences will be thoroughly checked to ensure that particular waste streams can be accepted and carrier licences are valid. This can only be undertaken by authorised personnel and copies of all necessary licences must be retained on site at all time and reviewed for expiry. No waste will leave site without appropriate waste transfer notes. It is essential that all waste transfer notes are inspected for detail and must contain the correct description of waste as well as the correct waste code, in line with the List of Waste Codes Regulations.

6.2 Disposal of Hazardous Waste

The Project Manager will ensure that the hazardous waste is segregated, stored safely and that measures are implemented to avoid contamination of other waste. This will be achieved using Powerday's mixed COSHH bins or "Hazibags" which are flexible intermediate bulk containers (IBC) which is UN approved for Packing Groups II and III. No hazardous waste will leave the site without the correctly completed Consignment Note. The consignment notes must contain all necessary information including waste description and hazardous waste registration number. Any carriers removing hazardous waste must have appropriate licences and disposal sites must be verified to be able to accept waste being sent. These checks and signing of consignment notes can only be undertaken by authorised personnel. All hazardous waste must be stored on site in appropriate, covered or locked skips. No mixing of hazardous and non-hazardous waste is authorised.

In both instances above waste disposal options will look to ensure minimal transportation requirements where financially viable.

6.3 Waste Reporting, Records and Location

All waste transfer / consignment notes will be held on site throughout the duration of the project. It is a legal requirement for all WTNs to be kept for a minimum of two years and WCNs for a minimum of three years. Each

waste transfer will be fully documented and the Resource Management Plan updated accordingly with waste carriers and disposal details.

7.0 Water

Erection of concrete structures during the construction will be monitored to prevent associated contaminated material entering any watercourses. Pre-cast work or permanent formwork will reduce the amount of in-situ concreting required. Washing out of concrete wagons or other equipment used in concreting operations will be undertaken in designated contained washout areas. These will be located away from all watercourses and drains and will be impermeable to prevent infiltration to ground.

Where stockpiles have to be located with a direct path to a watercourse a bund will be in place to reduce all pollution risks.

The positioning of fuel storage tanks and other potentially polluting materials and maintenance/refuelling facilities will be on bunded areas of hard standing with dedicated drainage systems. Stored materials on site will be checked regularly for containment integrity (both primary and secondary), quantity stored and security of storage.

Spill kits will be made available, and site operatives trained in their use, to deal with any spillages. All spill kits will be fully stocked and kept dry at all times.

8.0 Transportation and Traffic Management

The Construction Design and Management Regulations 2015 Regulations 17, 27 and 28 states that it is the responsibility of the Principal Contractor, for controlling the access onto site, vehicles, the boundary of the site and the security and the traffic routes. This project will have a Traffic Management Plan, which will have a review process at the appropriate times and continue to be a live document throughout the many changing faces of this contract

The main aim of the regulations is to ensure that by giving adequate consideration to the use of and the movement of vehicles and pedestrians at the planning stage, many of the risks posed by site traffic can be minimised or avoided. This plan will also be cross-referenced in other documents such as the:

- Construction Phase Health & Safety Plan
- The Fire and Emergency Plan.

A traffic management plan has been implemented on the site. The plan outlines timings of deliveries and routes to be taken by hauliers and workers to ensure minimal disruption to local residents and businesses. This will include potential risk for noise disturbance as well as minimising additional traffic during peak periods.

We are committed to encourage our employees to utilise active travel methods and to not travel via private car to work. There is no parking available in the nearby roads (adjoining the site) for any construction traffic related to the site.

8.1 Traffic Routes

The traffic management plan requires that the works will be organised in such a way that the traffic routes are suitable for the passage of vehicles using them with regard to locations and width of lanes.

Traffic routes will not be approved unless:

- Vehicles can use the traffic route without causing danger to themselves or other road user.
- Pedestrian access or egress is sufficiently separated from vehicle routes as will enable the pedestrian to see any approaching vehicle or plant.
- There is sufficient separation between vehicles and pedestrians, or where this is not reasonably practicable or in an emergency there are other means for the protection of pedestrians;
- There are effective means of warning of the approach of any vehicle.

All vehicular traffic will approach the project from the North along the A406 (North Circular), then down Watermead Way as the artery into the project area, partially on The Hale and then onto Ferry Lane to access the site entry point.

8.2 Vehicles

Any vehicle being used for construction work will:

- Be driven in a manner that is safe.
- Be loaded in a way that it can be driven, operated or towed safely.
- Have suitable steps taken to prevent unintended movement of the vehicle.
- Have the person in control of the vehicle the capability to give adequate warning to any person liable to be at risk from the movement of the vehicle.
- Be fully aware of weight restrictions and exclusion zones on the site.
- Be fully aware of the TM plan speed restrictions on approach to the site and speed restriction on site - 5mph.

To that end no person shall;

- Be allowed to ride on, or in a vehicle unless a proper place has been provided for that purpose.
- Be required or permitted to remain on any vehicle during the loading or unloading of any loose material, unless a safe place has been provided for that purpose.

Where any vehicle is being used in the proximity of any excavation, pile-bores, edge of ramp or embankment, suitable and sufficient measures will be taken to prevent the vehicle overrunning the edge or falling in the bore.

All vehicles will comply with the rules of London's Ultra Clean Emission Zone. Vehicles which don't meet the criteria will be charged. All JRL vehicles will comply with the following criteria:

- Diesel – Euro 6 (VI) standard or better (roughly end of 2015 onwards);
- Petrol - Euro 4 standard or better (roughly 2006 onwards);
- Gas – Euro 6 (VI) standard or better;
- Fully electric or hydrogen fuel cell – all are compliant and avoid CAZ charges;
- Hybrid electric – the diesel/petrol engine must meet the relevant criteria above.

Vehicles delivering to site should be a minimum of FORS Silver.

Anticipated traffic movements will vary throughout the programme period, as will the size and type of vehicle. As a general rule the number and size of vehicles will be greater during the earlier phases of the project whilst our scope of the ground and structural works are underway. Traffic will decrease as the internal and finishes works are carried out.

Table 2: Anticipated Vehicle Movements

Construction Phase	Programme	No. of Trips (Monthly)	Peak no. of Trips (Daily)
Site Setup	Q3 2022 – Q4 2022	550	25
Basement Excavation and Piling	Q3 2022 – Q1 2023	1,400	64
Substructure	Q1 2023 – Q3 2023	1,400	64
Superstructure	Q2 2023 – Q4 2025	1,300	59
Façade	Q1 2024 – Q3 2025	700	32

Fit-out, Testing and Commissioning	Q2 2025 – Q4 2025	700	32
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8.3 Site Entrances and Security

There will initially be one access gate on Ferry Lane. Approval in principle has been granted to install site entry and exit crossover points on Ferry Lane. With this in place the site will utilise 2 no. access and 2 no. egress gates during the build programme.

In addition the pedestrian access to the site is via a separate entrance gate with biometric controlled turnstiles. The pedestrian entrance will always be as close as possible to the welfare facilities to allow a safe access to these facilities for the operatives to change and ensure they have the correct Personal Protective Equipment on prior to entering the site itself. At the site entrance any visitors will be ushered through a safe segregated walkway to the site offices to meet with the site management for a site induction.

The site boundary will be secured to prevent unauthorised access by a plywood hoarding of a surface density of no less than 7 kg/m² of 2.4m high. Consideration will be given to the location of climbing aids, such as street furniture and utility boxes and hoarding extended where required. Hoarding licences will be obtained from LBH. Where hoarding creates poorly lit walkways, Midgard will install bulkhead lights.

The gates will be controlled all the time via the Gatemen/Traffic Marshals. When the gate is not in attendance then the gates shall be closed.

8.4 Logistics and Delivery

All delivery vehicles will drive into site with the assistance of the traffic marshal to the designated loading/unloading area and will move on any vehicles waiting idly or if drivers are failing to adhere to designated routes. Traffic marshals will halt pedestrians and cyclists while vehicles are entering and leaving the site. Once the vehicle is unloaded or loaded, the vehicle will leave site under the Traffic Marshal's guidance.

As a general rule, construction vehicles will only be allowed to park on site for the purposes of loading and unloading and there will be no private parking on the premises. The Traffic Marshal will be responsible for the control and coordination of all aspects of material deliveries and movement. Tower cranes may be utilised to facilitate easy and quick unloading of delivery vehicles.

When vehicles are entering or leaving the site, these will be supervised by a Traffic marshal. With regard to cyclist safety, our banksman will pay special attention to any pedestrians or cyclist when vehicles are moved onto or off the site.

Mud and debris on the road is one of the main environmental nuisance and safety problems arising from construction sites. Midgard will make provisions to minimise this problem from the outset with the use of wheel washing systems. In the early stages of the project when ground works are being carried out, the area outside the vehicle gates will be constantly swept and washed down. If necessary jet washers will be used to wash down all vehicles that enter/leave the construction site. We will also make provision for cleaning the adjoining roads daily and as required by an approved road sweeper. We will insist on all muck away lorry's be fully sheeted to minimise the risk of any mud over-spilling onto the highway.

We will consider spraying a fine spray to suppress dust on the following:

- Unpaved areas that are subject to traffic or wind.
- Sand, spoil and aggregate stockpiles.
- During loading/unloading of dust generating materials.

Key phases of the logistics plan are shown in figures 4, 5, 6, 7 and 8 below.

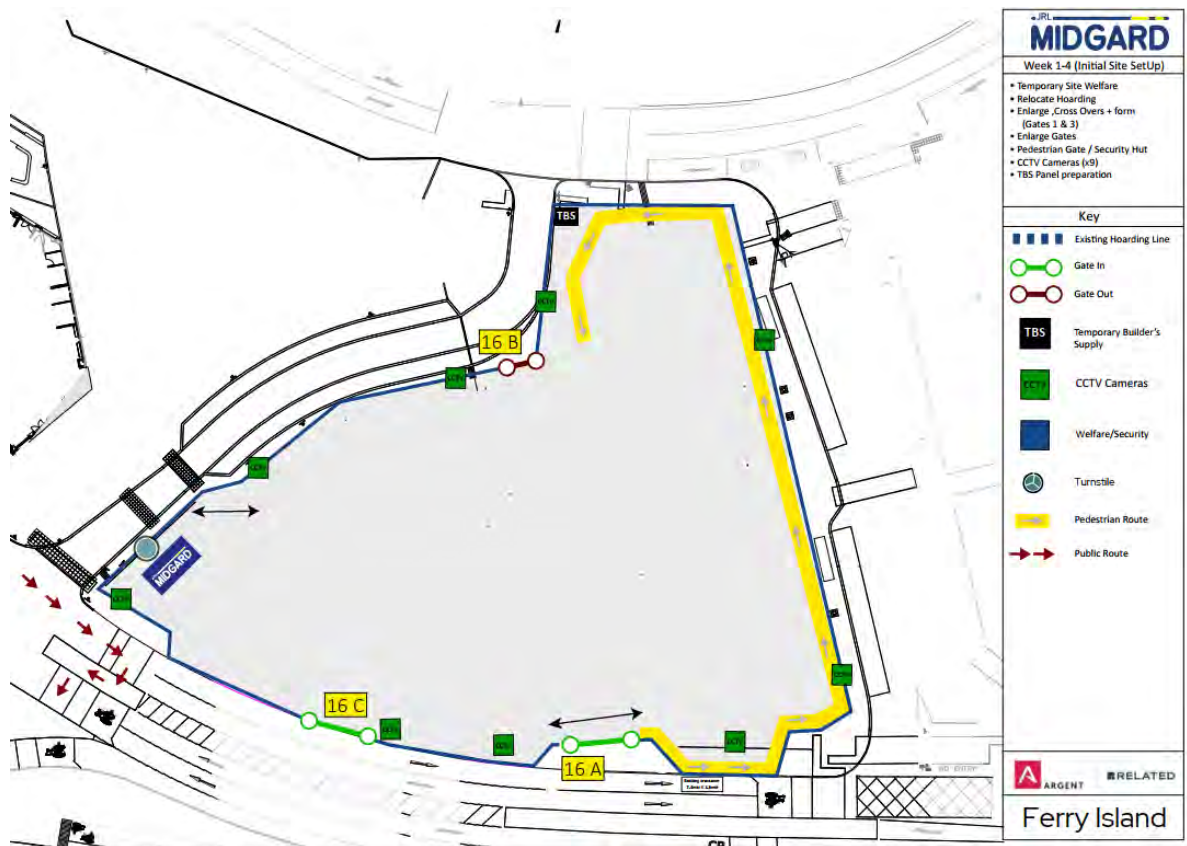


Figure 4: Site Logistics Plan - Weeks 1-4

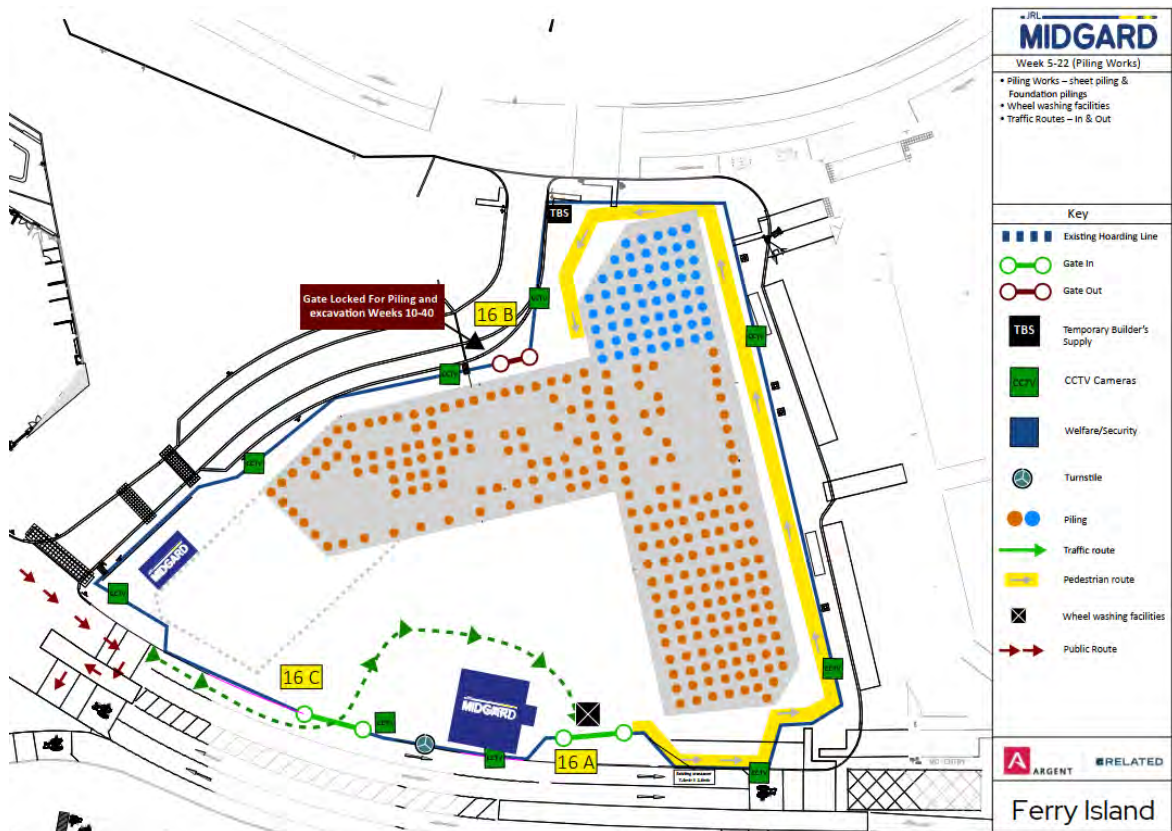


Figure 5: Site Logistics Plan - Weeks 23-27



Figure 6: Site Logistics Plan - Weeks 47-64

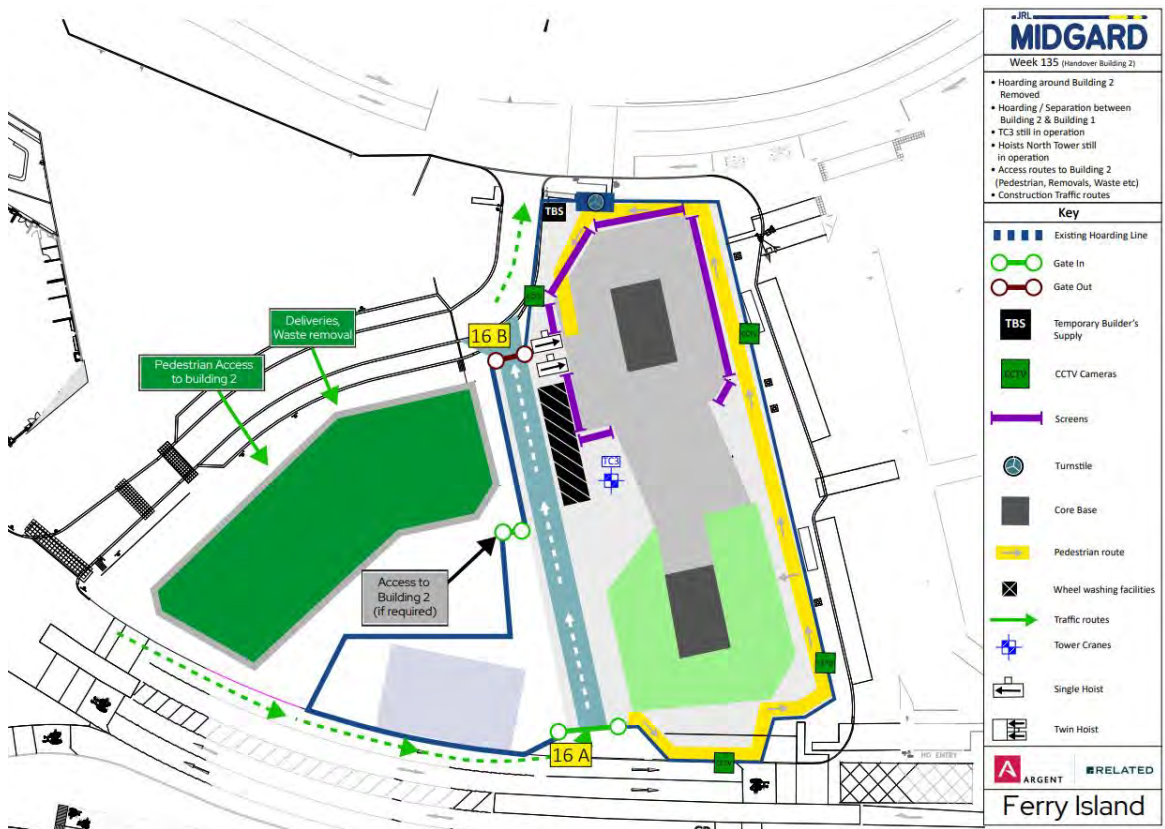


Figure 7: Site Logistics - Week 135

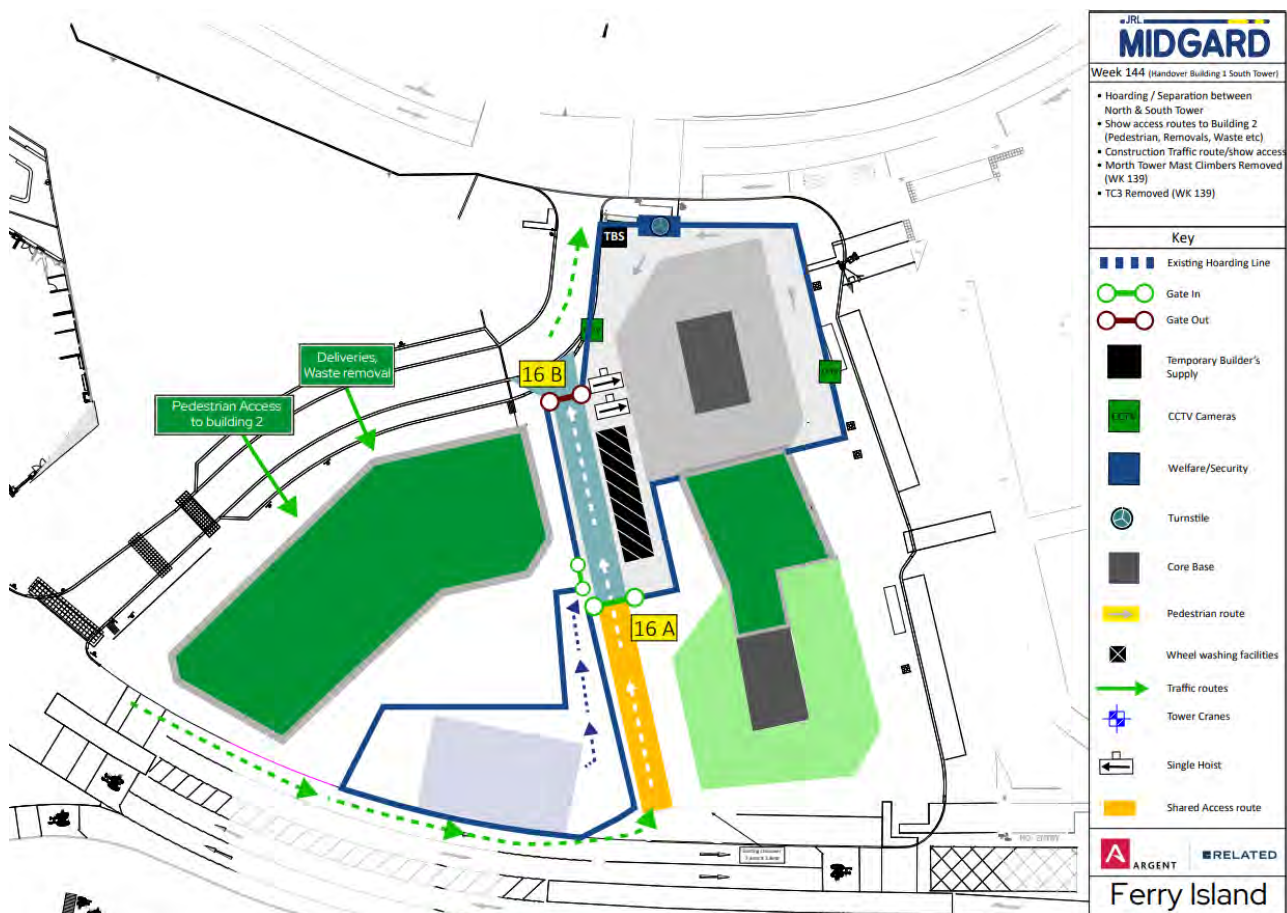


Figure 8: Site Logistics Plan - Week 144

8.5 Delivery Management System

Datascope, a site wide electronic delivery management system will be used on this project. All deliveries will be booked in advance so that they are timed to prevent a backlog of vehicles and disruption to surrounding area. Traffic Marshals will make sure, as far as practical that only booked deliveries to site are accepted and any vehicles attempting to deliver without complying with this system will be refused access, within reason.

All plant deliveries will be coordinated to be delivered out of peak times 7-9am and 4-6pm, whenever practical, to avoid any congestion and to avoid key operational periods. This policy will be communicated to our supply chains and we will check compliance with these procedures and follow up with any sub-contractors and suppliers who fail to adhere to these rules.

The delivery of all materials, plant and equipment will be pre-planned and arranged with designated times of the day according to the construction programme to minimise the impact on the local area. Vehicles will not be permitted to enter the Site before 8am, unless a specific requirements are in place, for example large abnormal loads. All goods deliveries will be to designated areas on Site where all vehicles will be unloaded with the materials taken to the appropriate storage area immediately.

8.6 Construction Worker's Travel Plan

A robust, realistic and achievable travel plan is considered crucial in encouraging sustainable travel choices by those visiting the site. The aims of the Construction Worker's Travel Plan are to consider the safety and travel patterns of other road users and pedestrians and ensure the environmental and highway capacity impact

is minimised. Reducing single occupancy private vehicle trip will support the mitigation of potential impact on the temporary increase in the number of traffic movements on the local road network during construction.

It is expected at peak, there will be 600 workers on site who in large will be travelling during the peak hours of 6:30 to 8:30 and 17:00 to 19:00 Monday to Friday.

Midgard are committed to encourage our employees to utilise active travel methods and to not travel via private car to work. There is no parking available on site or in the nearby roads (adjoining the site) for any construction traffic related to the site.

The development is well served by public transport, achieving a PTAL rating of 6a, with convenient access to, London Underground, Network Rail services, London Overground and a number of bus services, it is therefore expected of our workforce to utilise these.

- Tottenham Hale Underground – 170m away
- Tottenham Hale Station – 200m away
- Bruce Grove – 1000m away

Safe and secure cycle parking will be provided to promote cycling to work. There are several local roads which have been designated by TfL as roads which are appropriate for use by cyclists including Cycleway 1 and Cycleway 24.

Information on active travel methods will be shared with the workforce during the site's induction and site notice boards.

To enable specific actions to be monitored, travel surveys will be undertaken to monitor the effectiveness of the plan and to evaluate changes in travel patterns.

8.7 Non-Road Mobile Machinery (NRMM)

Similarly to the Ultra Low Emission Zone, the Non-Road Mobile Machinery (NRMM) low emission zone requires that all engines with a power rating between 37kW and 560 kW meet an emission standard based on the engine emission "stage". The power rating can be found on the machine's Vehicle Identification Number (VIN) plates.

NRMM requirements will be met to Stage IV or above. Records will be retained by the Environmental Advisor and reported on the Mayor of London's NRMM portal.

Machines that are not staying on-site for more than 5 days, do not need to be registered. These 5 days are cumulative until the end of the project's duration.

NRMM is defined as any mobile machine, item of transportable industrial equipment, or vehicle (with or without bodywork) that is:

- Not intended for carrying passengers or goods on the road
- Installed with a combustion engine – either an internal spark ignition petrol engine or a compression ignition diesel engine.

Typical machinery required to be registered include:

- Excavators
- Dumpers
- Piling rigs
- Generators
- Mobile cranes
- MEWPs
- Static pumps
- Compressors

- Crushers
- Telehandlers

The plant ID and engine Type Approval Number (TAN) is required for logging the machine on the NRMM portal.

Where an emergency arises on site (eg. site flooding) a short term exemption can be applied for enabling non-compliant NRMM to remain on site for up to 30 days.

9.0 Land Contamination

Where there is potential for contaminated materials to be removed from site, stockpiling of such material will be kept to a minimum and the storage area must be secure to ensure it does not pose risk of leaching into any water courses. When disposing of any contaminated wastes, carriers and disposal sites must be verified for the type of waste stream prior to any removal being undertaken. Prior to any soils being removed from site, a comprehensive test will be carried out to determine whether the soils are inert/hazardous or non-hazardous. The results of this testing will determine which disposal route is most appropriate.

9.1 Planning Conditions

The development works will comply with the requirements of the contamination-related planning conditions (HGY/2018/2223) –

Condition B19:

“The Plot B development hereby permitted may not commence, other than for investigative work, until a monitoring and maintenance plan in respect of contamination within Plot B, including a timetable of monitoring and submission of reports to the Local Planning Authority, has been submitted to and approved in writing by, the Local Planning Authority. Reports as specified in the approved plan, including details of any necessary contingency action arising from the monitoring, shall be submitted to, and approved in writing by, the Local Planning Authority.”

Condition B20:

“If during development, contamination not previously identified is found to be present as Plot B then no further development in respect of that Plot (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall be implemented as approved within Plot B.”

Condition B24:

- a) “Using the information obtained from the previous assessments, an additional site investigation, sampling and analysis shall be undertaken at the Plot as appropriate. The investigation must be comprehensive enough to enable:
 - i. A risk assessment to be undertaken
 - ii. Refinement of the Conceptual Model
 - iii. The development of a Method Statement detailing the remediation requirements
- b) If the risk assessment and refined Conceptual Model indicate any risk of harm, a Method Statement detailing the remediation requirements in respect of the Plot, using the information obtained from the site investigation, and also detailing any remedial monitoring shall be submitted to, and approved in writing by, the Local Planning Authority prior to that remediation being carried out on the Plot.”

Condition B25:

“Where the contaminated land condition above demonstrates that remediation of contamination on the Plot is required, completion of the remediation detailed in the Method Statement shall be carried out and a report

that provides verification that the required works have been carried out, shall be submitted to, and approved in writing by the Local Planning Authority before the development is occupied within Plot B.”

9.2 Ground Conditions

The geology of the area comprises Made Ground overlying superficial deposits of Enfield Silt and River Terrace Deposits. The London Clay is at depth and in the order of 15m thick, underlain by the Lambeth Group, Thanet Sand and White Chalk.

9.3 Contamination

9.3.1 Soil

There was no olfactory or visual evidence of contamination in the soil samples inspected. The test results indicated that concentrations of metals and inorganics are generally within the range that would be expected for general Made Ground with some localised elevated lead results.

9.3.2 Groundwater

Due to the Ferry Island plot being in use by two food outlets and an electronics retailer the investigation was limited to a single borehole FI-BH03 which was installed with a shallow groundwater/gas monitoring standpipe. Elevated concentrations of chlorinated hydrocarbon volatile organic compounds (VOCs) and ammonia were identified within the single groundwater sample taken from FI-BH03. The concentrations of VOCs identified could present a risk to human health via the vapour inhalation pathway and to groundwater receptors. The source of the contamination was unknown. Additionally a concentration of lead in Made Ground exceeded the generic assessment criteria for public open space. The presence of existing infrastructure restricted the number of exploratory holes that could be drilled at the time.

9.3.3 Ground Gas Monitoring

Ground gas monitoring results would place the plot into Characteristic Situation (CS1) which would not require gas protection measures to be installed.

9.3.4 Existing Below Ground Structures

During investigations, two boreholes EBH105 and EBH 105A were aborted at 1.10m and 0.45m depth respectively due to presence of concrete and steel tank obstruction. Two underground storage tanks, assumed to be associated with the former garage onsite were uncovered. It is understood that they could not be removed due to their location and remain in-situ. The presence of these existing below ground structures and infrastructure may have implications for the development and should be appropriately investigated and removed.

9.4 Verification

9.4.1 Watching Brief

It is expected that a watching briefed will be maintained in order to address previously unidentified contamination.

9.4.2 Imported Top Soil

A clean fill (minimum 600mm thickness) with a geotextile liner should be used in all areas of sift landscaping with verification testing provided for the O&M manual.

9.5 Environmental Management during Remedial Works

Measures to prevent the emission of contamination to air and into the wider environment to include (but not limited to):

- Damping down of dry soils/Made Ground materials;
- Odour suppression as necessary during excavation of potentially contaminated materials – damping down and / or misting as appropriate;
- Asbestos in air monitoring during earthworks (including boundary and personal monitoring);
- Use of a wheel wash or road sweeper to address mud on roads;
- Control of water including surface water run-off and water in excavations to prevent escape to adjacent properties and/or watercourses;
- Operation of works only within the times permitted under the planning permission; and
- Details of incident recording procedures.

9.6 Addressing Previously Unidentified “Hotspots” of Contamination

Should an area of contamination be identified by visual or olfactory means during development works, the following procedure shall be followed:

- Immediately stop all works in the area where contamination is suspected
- Immediately inform the Site Agent who should then contact the Environmental Consultant
- The Environmental Consultant shall provide a verbal response outlining immediate actions with regard to Site Health and Safety and to limit the potential for contaminants to migrate
- The Environmental Consultant shall judge each occurrence on merit and should it be deemed necessary the Environmental Consultant shall attend Site to oversee the removal of the ‘hotspot’ and collect validation samples
- Any excavated material should be isolated from all other material at the Site, on plastic sheeting and covered with plastic sheeting until the material can be tested for contamination and an appropriate disposal route can be identified
- Any ‘hotspot’ stockpiles and excavations should be fenced off, have appropriate signage and their locations recorded on a Site drawing
- Should any excavated material be required to be disposed of at an off-Site location, the material shall be isolated from all other material at the Site prior to disposal at a suitably licensed facility. All documentation associated with the movement and disposal of any such material shall be supplied to the Environmental Consultant shall, including waste transfer documentation;
- Subject to appropriate Site Health & Safety controls (typically comprising fencing off the excavation) the excavation will remain open until the validation has been completed. Alternatively, for Site Health & Safety reasons, it may be necessary to backfill the excavation with Site derived material. In this case, the location of the excavation will be accurately recorded and the excavation reopened if required, based on the validation results
- The Regulatory Authorities shall be informed by the Environmental Consultant shall of any remedial activities required and associated validation testing results. Representatives of these organisations may also wish to visit the Site.

9.7 Unexploded Ordnance (UXO)

There is a moderate probability of encountering UXO during the project. It should be noted, however, that if UXO is found, the likelihood of initiating the device and causing an explosion is substantially lower.

Ordnance awareness briefings should be provided to personnel involved in significant excavation works. If unexploded ordnance is discovered, works should stop immediately, prevent access to the area and inform the police.

10.0 Wildlife and Natural Features

The protection of the wildlife and natural features must be adopted on site to ensure that construction activities cause the least damage to the surrounding natural environment. Our Project Team will:

- Liaise with subcontractors to ensure that their activities will not be damaging the flora and fauna on site.
- If protected species are discovered during construction, work will be stopped immediately.
- When trees are found on site, Tree Preservation Order (TPO) is applicable.

10.1 Conservation Designations

10.1.1 Statutory Designations

There are four sites with European or National statutory designation and one Local Nature Reserve within 2 km of the site:

- Lee Valley SPA located 0.8 km to the east
- Lee Valley RAMSAR site located 0.8 km east
- Walthamstow Marshes SSSI located 0.8 km east
- Walthamstow Reservoirs SSSI located 0.8 km east
- Springfield Park LNR located 1.8 km south

10.1.2 Non-statutory Designations

There are twenty-one non-statutory designated sites within 2 km of the site. The two closest non-statutory designated sites are:

- Tottenham Railside's SINC (Borough Grade II) located 0.3 km to the east
- Down Lane Recreation Ground Site of Importance for Nature Conservation (SINC Local) located 0.4 km to the north east.

10.2 Nesting Birds

Under Part 1 of the Wildlife and Countryside Act 1981, disturbance to nesting wild birds, their nests and eggs is a criminal offence. A wild bird is defined as any bird of a species which is resident in or is a visitor to the European Territory of any member state in a wild state. Appropriate steps must be taken by the developer and contractor to ensure nesting birds, their nests and eggs are not disturbed and are protected until such time as they have left the nest. The nesting season is normally taken as being from 1st March - 30th September.

10.3 Badgers and Other Wild Mammals

Measures should be implemented to safeguard wild mammals, including badger, should they enter or utilise the site during the construction works, and to discourage wild mammals from entering the site. This can be achieved by implementing the following mitigation measures:

- Trenches or pits left overnight should be provided with a means of escape for wild mammals should they enter such as a collapsed edge or a flat roughened stable plant (no steeper than 45°) acting as a ramp to the surface.
- Pipes should be capped off overnight to prevent animals entering and becoming trapped.
- All trenches and pits will be inspected each morning to ensure no wild mammals have become trapped overnight. Should a badger become trapped in a trench it will likely dig itself into the side of the trench. Should a trapped badger be encountered, a suitably qualified ecologist should be contacted immediately for further advice.

- The prolonged storage of uncontained and uncovered topsoil in piles on site should be carefully considered and possibly fenced-off if needed as these are readily adopted by burrowing animals such as foxes (*Vulpes vulpe*) for dens.
- Chemicals should be contained in such a way that wild animals cannot access or knock them over.
- Fires should be avoided altogether within the site.
- Loose litter and food should not be left in accessible areas of the site overnight.

10.4 Bats

During both construction and operation, lighting has the potential to disturb commuting and foraging bats. Key considerations of bat sensitive lighting strategy will be:

- Type of luminaire – low pressure or high pressure sodium lamps have the lowest impact on the bats
- Avoidance of light spill – External lighting should only be used in areas where it is required for health and safety reasons. Hoods and cowls for lamps can be installed to focus light on areas where it is required
- Height of lighting column – in general, the lower the height of lighting columns, the lower the impact on foraging and commuting bats;
- Light levels – Lighting should be at the lowest levels allowed, whilst not compromising health and safety.

11.0 Resource Use

JRL Group in line with our Sustainable Procurement Policy and Sustainable Procurement Plan will ensure, where practicable, the use of recycled or sustainable materials sourced from a responsible source, where possible BES 6001 certified. Furthermore, in line with company protocol, all concrete should be obtained from a certified sustainable source, wood must have chain of custody documentation and be FSC/PEFC certified and steel should have CARES Sustainable Constructional Steel or similar certification.

There is little space on site for the storage of bulk materials, therefore deliveries will be scheduled on a “just-in-time” basis. A dedicated area will be maintained for storage of all materials and due care and appropriate handling will be undertaken at all times to reduce any risk of damages and wastage. Packaging of items should not be removed until required, to ensure maximum potential for returning of unused goods.

Midgard will ensure the site maintains “good housekeeping” at all times during the construction process. This will include, but not limited to:

- Smoking and vaping areas with suitable disposal facilities
- Open fires are prohibited at all times
- Rubbish will be removed at frequent intervals with segregation of waste streams where possible
- Site will be kept clean and tidy
- Hoarding line will be inspected, repaired and re-painted as necessary
- Welfare facilities will be kept clean with canteen/food waste disposed of within a covered skip
- Public highways/pedestrian footpaths within the vicinity of site will be kept clean by use of jet washes and road sweepers.

12.0 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.

13.0 Community Liaison

The Site Manager will take charge of all day to day liaisons, with further support from the sustainability team who will be on site on at least monthly basis. A quarterly newsletter, outlining progress, potential disturbances and contact details will be distributed to neighbouring properties, as well as displayed on the sites notice board. The site notice board will also display Contact details for the general public to be able to contact the contractor and ask questions, queries or file a complaint. Further letters will be delivered if any works are to be carried outside of normal working hours (as agreed with London Borough of Haringey Council) or are especially disruptive.

13.1 Complaints Procedure

A complaints procedure will be implemented across the site and will provide a mechanism for local stakeholders to raise the concerns about the project and to receive feedback once those complaints are investigated and closed out.

Midgard's site management team and the sustainability team will to work in collaboration with the Client and the local community. Contact details for the project's community representative will be made available on the site contact boards and regular newsletters.

When a complaint is received the following actions will be taken:

- All complaints must be forwarded to the sustainability team and to London Borough of Haringey Council as soon as they are received regardless of how they are received;
- The site's community representative will record complaints in a site complaint register and this will include time, date, complainant and nature of complaint, and the initial response;
- Where the complaint is in relation to noise, the works will be stopped immediately;
- The site's community representative will initially respond to the complainant within 24-hours of the complaint being raised;
- The site's community representative will review details of activities from the site logs/ from the area involved and this will include details of any site monitoring details from the environmental team;
- An initial root cause investigation will be undertaken with works restarted where the issue can be resolved immediately. Where this is not possible a revised plan of action will be initiated, which could include a modification of the task involved, a change in timing or the implementation of additional mitigation measures. Issues will be escalated to the Head of Sustainability, Site Management and the Client where necessary; and
- The site's community representative will contact the complainant to describe what has been done and to check for further concerns.

If the complaint has been resolved, the complaint record will be closed.

The site management team and sustainability team will review the complaints register on a regular basis to identify any common trends as part of the overall environmental auditing process.

13.2 Considerate Constructors Scheme

The Site will be registered with the Considerate Constructor Scheme and through compliance with the 'Code of Considerate Practice' will develop sound relations with all stakeholders that may be affected by the work. The project is committed to achieving a score of 40+ in Considerate Constructors visits.

14.0 Site Environmental Documentation

All environmental documentation must be kept on site at all times and be available for inspection by internal and external auditors, as well as the client and management. Where any document is amended, previous versions will be superseded and the Environment Manager notified. Site personnel will be made aware immediately, if any significant changes in works procedures are implemented.

Initial start-up documentation will include the following:

- Construction Environmental Management Plan
- Resource Management Plan
- SHE 6E Site Managers Weekly Checklist
- Environmental Emergency Plan
- Aspects, Impacts and Risk Assessment Matrix

15.0 Auditing and Monitoring

A regular audit schedule will be set up at project start. This audit schedule will include both internal inspections and audits for the project. It is the responsibility of the site management to ensure all documentation and evidence required for audit purposes is kept up to date and freely available for inspection at all times.

A weekly site inspection using the SHE 6E Weekly Environmental Checklist will be carried out by a site manager to ensure environmental risks are being managed appropriately. A monthly scored audit will also be carried out by the Environmental Manager to ensure the inspections are being carried out correctly and the site's environmental performance is in line with company policy. The site environmental management system will be audited to the standards set out by ISO14001.

Additional legal compliance audits will also be undertaken at inspection and audit. Any system failures will be documented and appropriate corrective actions issued and implemented. All documents will be filed and retained on site for auditing purposes. Any failure to undertake such monitoring will be deemed as a non-conformance with procedure and appropriate corrective action will be implemented. The action and time limit required shall be specified for each non-conformance and will be addressed as a matter of priority.

16.0 Control of Dust and Emissions

Activity	The Control of Dust and Emissions arising from construction works at Ferry Island
Description	JRL Group intends to use Best Practicable Means BPM, to prevent dust and other pollutant emissions from being carried outside of the site boundary. This method statement is for the duration of the whole contract, but will be reviewed periodically as the contract reaches different milestone stages.
	Pre-Site Preparation All site staff will be fully trained and competent for the role they are to undertake on site. Erect solid barriers to site boundaries. Pre sit planning to ensure all Site fuel, machinery and chemical storage, and dust generating activities should not be located close to boundaries or sensitive receptors where possible. Haul Roads The haul roads will be inspected for potholes, puddles and dusty conditions on a daily basis, well maintained haul roads will reduce the dust levels of construction traffic. Dampening down methods will be a road sweeper on the hard stand haul road into site and the public road leading to site. Site Entrances and Exits

Wheel washing will be in place for leaving vehicles so no fugitive dust particles are taken off site.

Vehicles leaving site with dusty or loose material will all be covered before leaving site.

Excavations and Earthworks

All dusty activities should be dampened down, especially during dry and windy weather.

Minimise the drop heights to control the fall of materials in the air.

Stockpiling will not be required and therefore not permitted throughout the lifespan of the project.

Chutes and Skips

Securely cover skips where dust or loose detritus can become windblown. Minimise the drop heights to control the fall of materials. Regularly dampen down surfaces within in the skips with water.

Waste Management

A site specific Resource Management Plan has been developed and workers will be briefed on what it stipulates through site inductions and tool box talks.

Hazardous or Contaminated Materials

COSHH assessments will be done for materials coming to site to take into account risks to the workforce from exposure to any harmful substances generated by work activities. All Hazardous materials/waste will be properly signed and segregated. In addition all hazardous materials to site are to have the MSDS stored and available within site office and within COSHH stores in case of emergency.

Dealing with spillages

Use bunded areas wherever practicable. Regularly inspect the site area for spillages, ensuring that spillage kits are readily available. Ensure an update to Spill Pollution Incident Report Plan (SPIRP) is posted in and around the COSHH store and ensure all staff are briefed on it. Clean the spillages using the agreed wet handling methods. These will be in the COSHH assessments once the design has established the exact materials to be used.

Inform the Environmental Agency, London Fire and Rescue Service or the Health Protection Agency [HPA] if harmful substances are spilled.

Tarmac Laying and use of Bitumen

Do not overheat bitumen as this may catch fire and cause smoke; always keep the pots covered with lids.

Use great care in all of the processes to prevent spillages and extinguish any accidental fires immediately.

Noise and CO₂ Emission Controls for Vehicles and Plant Construction Traffic, On or off site

All vehicles are to switch off engines when not in use. A strict 5mph limit will be in place through the site, where possible low sulphur fuel will be used. . All plant must have upward facing exhausts to disperse fumes effectively and equipment well and regularly maintained.

Cutting, Grinding and Sawing

Ensure that power tools have suitable and sufficient extraction or water suppression appliances near to face of the works.

Ensure that the extraction fans and filters on the plant are serviced regularly in accordance with the recommended maintenance regimes. Water suppression equipment should also be regularly maintained to ensure the proper level of protection is given.

Breaking down Piles

	JRL Group shall be using a method for breaking down piles designed to crush the pile using hydraulic machine attachments, along with this all the piles will have foam inserts on each up-stand of rebar. The crush action creates a horizontal cut and foam allows large sections of the pile to be extracted. This method will reduce the airborne dust considerably that is usually generated from breaking piles. The pile on occasions may need to be hand trimmed with angle grinder and light breakers. Dust control Both of the aforementioned activities will be subjected to localised water suppression supplied from reusing the ground water from the settlement tank to minimise fresh water use on site. On site soakaways are being utilised for sustainable drainage in addition to this FFP3 rated RPE shall be used by operative whilst using angle grinder.
Responsibilities	Operations Director: Paul Mitchell Environment Advisor: Laura Cabeza Escobar
Risk Assessments	See Risk Assessments: - (BO-JRLG-EM-XX-RA-Z-0001) to (BO-JRLG-EM-XX-RA-Z-0010) inclusive
Controls	Procurement packages will be sent out containing the best practice guidance "The control of dusts and emission from construction and demolition" to the companies who are to make deliveries of materials and plant to site. <u>Along with this method statement.</u> All people are to report to the security main gate for deliveries and visitors to site office. All people coming to site require a site Induction for site workers or site visitors. Site boundaries are to be inspected visually daily and a written inspection every seven days unless adverse weather, or a breach or damage has occurred to the boundary. Pre-planning of deliveries coming to site, must be a strict regime as the site entrance road will not be able to take queuing traffic. Deliveries will be turned away if they cannot be accommodated. Muck away at busy times are to be called on request from the local tip. During wet conditions on site all vehicles will be washed within the wheel wash area. A permanent road sweeper will always be in attendance on site. A site story board telling site operatives and visitors of site activities going on site of the hazards and exclusion zones within the site. Designated smoking areas on site. Smoking anywhere else on site will be instant dismissal. Spill kits will be located near fuel bowzers. Spill kit training and pollution prevention training will be given to all site operatives. If required further dust suppression measures to mitigate dust displacement will be initiated, such as covering up ground or materials, on site, increase water suppression with the use of a mist cannon. Localised dust can be dealt with at source by On-tool extraction: Local exhaust ventilation (LEV) systems can be fitted directly onto tools and works to remove dust as it is produced.
PPE Requirements	White Hard Hats for all site personnel with exemption of the mangers/supervisors who will have black. Yellow High Visibility coats or Surcoats to be worn by all with the exemption of traffic banksmen & crane banksmen who will wear orange ones. Steel toe-capped work boots, shoes or wellingtons with Midsole protection strip for all site personnel. Safety glasses and safety gloves are mandatory at all times also. All other PPE / RPE will be identified through risk assessments and specific safe systems of work

Emergency Arrangements	There is an emergency contingency plan that will be available and briefed at induction, but also named people are responsible for carrying out the actions when an emergency occurs. On site there will be trained people for the use of spill kits and the safe disposal. Trained fire marshals, which will assist in fire drills every six months during the contract. <i>Inform the Environmental Agency, London Fire and Rescue Service or the Health Protection Agency [HPA] if harmful substances are spilled.</i> Inform the London Fire and Rescue Service and Police if a fire or smoke is on site and /or going to be impacting on third parties. Access routes to nearest A&E are displayed in welfare area and on the story boards There will be named, and fully trained first Aiders on site during site hours.		
Temporary amended systems	Exclusion zones will be pre-planned and then displayed on site storyboard and instructed via briefings and clearly designated with appropriate barriers and signage when in use.		
To whom the information has been submitted	• All site personnel • The Client • All third parties should they request it		
Monitoring & Compliance	Carry out daily visual inspections of site activities for dust controls and site conditions and record in site diary. There will be an accurate log kept for complaints from third parties, with a contact number available on the site boundary. Have a five day and daily weather report with wind direction for planning purposes on dust control. Numerous site audits, for safety, environment and quality will be undertaken by JRL Group at group level and external audits will also be conducted via the various organisations that the group belong to and the client wish to audit the site [NHBC, Considerate Constructors Scheme, etc.]		
Prepared by:	Alice Dear	Date:	15/08/22
Operatives / Staff carrying out these works will be informed of the contents of this method statement			
Signed by:		Date:	
(Person supervising the works) For and on behalf of:			

17.0 Appendices

17.1 JRL Group Environmental Policy



Environmental Policy

This statement is a declaration of the director's intent to go above and beyond the organisation's environmental compliance obligations. The JRL Group not only has a responsibility to protect and where possible, enhance the environment, but also recognises its place to influence sustainable design through an informed and engaged workforce. The JRL Group will also strive to continually improve the environmental management system and aim to enhance environmental performance in all construction activities.

The Group will:

- Employ an environment team to oversee all environmental compliance, monitor and report on environmental metrics, meet client requirements and manage, audit and report on the environmental management system to senior management.
- Ensure it has the competencies and resources to effectively implement the environmental management system across the company.
- Comply with all relevant legislation, client and other industry requirements.
- Support a company culture that promotes ownership and responsibility of environmental matters and champion best practise across the company.
- Prevent environmental pollution, with a specific focus on activities associated with fuel storage, concrete, air emissions, noise, vibration and waste management.
- Be prepared to respond immediately in the case of an environmental emergency, by establishing emergency procedures on site and allocating resources to do so.
- Reduce the environmental impacts of our projects by designing out waste and adhering to the waste hierarchy.
- Set annually reviewed measurable and realistic environmental objectives and targets to demonstrate continuous improvement across the JRL Group business.
- Work with our supply chain to source environmentally sustainable materials whilst remaining cost effective.

The Directors, senior management and Environment team are responsible for the management of environmental issues and the implementation of this policy across the company and will ensure the appropriate resources are available. This policy and our overall environmental performance will be reviewed on an annual basis, or if necessary, in light of legislative or organisational changes.

Kevin Keegan
Director
January 2022

RN:BO-JRLG-BM-XX-POL-E-0010	Page 1 of 1	Suitability: A1	Rev: C06
TN:BO-JRLG-BM-XX-FM-Z-0008_A1_C01			Security: Public

17.2 JRL Group Sustainable Procurement Policy



Sustainable Procurement Policy

JRL Group is committed to procuring sustainable, ethical and responsibly sourced materials, goods and services. This means JRL Group takes into account the social, economic and environmental impact purchasing has on people and communities, locally, regionally and globally.

JRL Group considers what products are made from, where they have come from, who has made them, under what conditions they are made, how they are transported and eventually how they are decommissioned, or manufactured into other products. All materials, whether for permanent or temporary use, purchased by JRL Group or through its supply chain will support the requirements of BREEAM or other sustainable schemes.

The specific sustainable procurement practices which JRL Group is committed to at all levels within the Company are as follows:

- Procure durable goods and services, which reflect up-to-date specifications or standards for environmental sustainability (e.g. BES 60001, CARES, ISO 14001, A+ BRE Green Guide rating);
- Promote a level of sustainability awareness amongst JRL Group supply chain partners and encourage them to adopt sustainable practices;
- Include sustainability issues as part of our subcontractor & supplier appointment process;
- Prohibit the use of products or processes, which are potentially damaging to the environment, such as toxic materials or refrigerants with high global warming potential, where a less environmentally damaging alternative is available;
- Reduce the purchase of new products when is possible to re-use or repair existing products;
- Where we have design responsibilities, specify products which have high recycled content and with a high recyclability factor;
- Where possible purchase local materials, products and services;
- Raise awareness of and procure ethical and Fair Trade certified products;
- Purchase only Legal and Sustainable Timber products with a valid CoC Certificate;
- Procure recycled and sustainability certified paper products;
- Reduce the procurement of single-use products and materials with excessive packaging;
- To work with suppliers who can assist the JRL Group with its aspirations to reduce its environmental impacts.

This policy statement will be communicated to all persons working for and on behalf of JRL Group.

Kevin Keegan
Director
January 2022

RN: 60-JRLG-BM-XX-POL-Z-0003	Page 1 of 1	Suitability: A1	Rev: C03
TN: 60-JRLG-BM-XX-FM-Z-0006_A1_C01			Security: Public

17.3 Environmental SHE6E Weekly Checklist

Environment Checklist (SHE6E)				
Site Location:				Date:
Responsible manager:				
Monitoring conducted by:		Signature:		
Monitoring checks		Yes	No	Observations noted and actions required (by who and by when)
1.	Good housekeeping? Hoarding well maintained?			
2.	COSHH – Are there sufficient bunds, drip trays, plant nappies and spill kits?			
3.	Dust - Are grounds watered, stockpiles covered or watered and vehicles covered prior to leaving site?			
4.	Is concrete being washed out into skips or other concrete solution on site?			
5.	Is noise/vibration being monitored on site?			
6.	Are trees/habitats adequately protected? (if applicable)			
7.	Is there any groundwater discharge on site and is there an appropriate discharge licence?			
8.	Is waste segregated where possible and Waste Transfer Notes filed on site?			
9.	Have there been any complaints/compliments from local community?			
10.	Is there an environmental site file containing up to date SHE 6Es, applicable licenses, toolbox talks and utility meter readings log?			

17.4 Environmental Emergency Response Plan

1.0 Scope

JRL Group's Environmental Emergency Preparedness Plan aims to minimise the environmental impact of the potential environmental incidents due to occur during the duration of the works. This document will describe the environmental risks defined as unplanned, undesired events that could result in harm to people and/or damage to the environment.

JRL Group will ensure the site activities comply with legal and contractual requirements and are developed in a way to minimise their impact to the environment and human health.

2.0 Emergency Contact Details

Name	Contact Details
Operations Director	Paul Mitchell 07786 553474
Emergency Services	999/112 Local Hospital: North Middlesex University Hospital 02088 872 000
Environment Agency	0370 850 6506
Head of Sustainability	Andrew Berry 07825 561 657
BREEAM Assessor	Alice Dear 07776 071 560

3.0 Environmental High Impact / Risks

The following environmental high impacts have been identified:

Environmental Risks	Impact / Effect	Control Measures	Response
Fire	Emissions of toxic fumes and smoke to atmosphere.	Fire drills on a regular basis. Site fire risk assessment. Firefighting equipment in agreed locations around the site. Emergency evacuation plan. Trained traffic wardens and first aiders.	Refer to JRL Group <i>Fire & Emergency Plan (H&S)</i> .
Explosion	Emissions of toxic fumes and smoke to atmosphere.	Safe storage and use of flammable substances and compressed gases.	- Contact the alarm. - Activate emergency evacuation plan. - Contact the emergency services.
Discovery of suspect site contamination	Emissions and exposure to contaminated material. Release of toxic substances to	Awareness training to the workforce.	If site contamination is suspected: - Stop all work immediately. - Evacuate personnel to a safe distance. - If safe to do so, cordon off the area to prevent access. - Inform Project Manager and/or Site Supervisor of the incident.

	the environment.		- All personnel are to remain in the vicinity (at a safe distance from suspect material) until actions are agreed. - Complete the incident using the Environmental Incident Form.
Fuel/oil/chemical spillage	Release of chemicals to the environment. Toxic substances entering drainage systems or water courses. Environmental damage to aquatic life.	Hazardous waste containers clearly identified on site. Availability of spill kits to contain spillages and good housekeeping. Clear diagram of the site layout and access details, along with a schematic representation of the site drainage. Emergency spillage control team.	Refer to Section 5 <i>Emergency Spillage Response and Control</i> of this plan the Plan below.
Pollution incident	Release of toxic substances to the environment.	Best environmental practices on site. Control measures specified in the CEMP. Environmental trainings and toolbox talks to all employees.	Contain, recover, clean up and dispose of the pollution that has occurred (provided that this can be done without risk to their health or safety). Complete the incident using the Environmental Incident Form.

4.0 Training

All operatives working on the project must undertake a site induction. The induction will include information with regards to environmental aspects and impacts of the project and the preventive measures to be taken in the event of an environmental incident.

Prior commencement of the works on site a method statement briefing will be provided by the site supervisor and/or health and safety manager. These briefings will comprise the relevant environmental impacts of the activity to be carried out as well as the procedures that must be followed in the event of an emergency.

Environmental toolbox talks will be provided on a monthly basis and emergency procedures will be explained during the induction training. Emergency spillage procedures and awareness training will be regularly provided to the workforce.

Table 3: Responsibilities Matrix

Action	Responsibility				
	SO	SM	EM/A	H&S	PM
Identify the pollution/potential pollution incident.	✓	✓	✓	✓	✓
Conduct regular exercises to test procedures.	✓	✓	✓	✓	✓
Implement immediate pollution control measures.		✓			
Notify emergency services.	✓	✓	✓	✓	
Notify Midgard Ltd Project Manager.		✓			
Plan control/clean-up measures.		✓	✓	✓	
Carry out control/clean-up measures.	✓	✓		✓	
Investigate cause of incident and produce EIR form.			✓		
Recommend preventative action.			✓	✓	
Implement prevention action.				✓	✓
Notify EA in extreme emergency.					✓
SO – Site Operation; SM – Site Manager; EM/A Environment Manager/Advisor; H&S – Health and Safety Advisor; PM – Midgard Project Manager.					

5.0 Environmental Emergency Spillage Response & Control

5.1 Controlling Spillage

In the event of a spillage the following procedure will be carried out:

- Step 1: Assess the situation
- Step 2: Contain the spill and stop it spreading
- Step 3: Report the incident
- Step 4: Clean the spillage up

5.2 STEP 1: Assess the situation

It is important to assess the situation to identify whether the spillage is safe to contain, what has happened and what to report. The following aspects must be considered:

- Has anyone been injured?
- Is the spillage escaping into open water (river, stream, and ditch) or drainage system?
- Is spillage safe to approach or will you need assistance?
- Do you have the correct PPE?
- REMEMBER SAFETY FIRST!!

5.3 STEP 2: Contain the spill and stop it spreading

Should a spillage of a substance harmful to the environment occur anywhere on the site, the following actions must be carried out.

1. Remove and exclude persons from the danger area where appropriate

Assuming the spill incident is safe to approach, it is important to isolate the source and prevent the spillage's spread:

2. Stop flow from source of spill.
3. Contact the Environment Team as soon as practicable.
4. Assemble at the spillage area with appropriate clean-up equipment.
5. If spillage is escaping or is likely to enter into drains or open watercourse use absorbent material to block off flow. Request external assistance to manage effects downstream.
6. Use absorbent granules, sand or other absorbent material to contain spill.
7. When putting the absorbent material on the spill always start from the edges and work inwards.
8. Oil absorbent granules will take time to soak up oil or fuel, allow 5-10 minutes before cleaning up.

5.4 STEP 3: Report the incident

Spill incidents must be reported using the Environmental Incident Form. In most cases it is important to contain the spill first; however, any spill that involves injury, a dangerous situation or escape of material into drains or open water must be reported immediately. The report must include:

- The source of the spill
- The material involved
- How far the spill has spread
- What action has been taken so far
- Contact EA if it has reached drains or watercourses.

5.5 STEP 4: Clean up the spillage

- The spill must be cleaned up as directed by the Environmental Team.
- DO NOT WASH SPILLAGE AWAY INTO DRAIN

Scrape absorbent material up

Use the correct sacks, bins or skips for the disposal of absorbent material – follow disposal instructions properly (as hazardous waste).

Label containers with contents and store in compound for disposal.

5.6 Pollutant Control Table

Pollutants						
Spill Material		Concrete/Cement	Paints	Oil	Silt	Detergent
	Spill on Ground Control Measures					
	Sand	✓	✓	✓		✓
	Straw Bales			✓	✓	
	Absorbent Granules			✓		
	Geotextile	✓		✓	✓	
	Pads, Rolls, Mats			✓	✓	
	Drain Seals	✓	✓	✓	✓	✓
	Earth Bunds	✓	✓	✓	✓	✓
	Spill In Water Control Methods					
	Straw Bales			✓	✓	
	Pads, Rolls, Mats			✓		
	Booms				✓	



17.5 Aspects and Impacts Register

Construction Environmental Management Plan with Construction Logistics Plan Included - Ferry Island



Project Name:	Ferry Island	Prepared By:	Alice Dear
Project Number:	64A00101	Date issued :	15/08/22

Site Activity	Aspect (Causes of Impact)	Effect (Potential Impact)	Likelihood (See note below)	Severity (See note below)	GROSS IMPACT	Environmental Management Best Practices & Control Measures to minimise impact	Likelihood	Severity	NET IMPACT	Legislation Ref (LR-01)	Risks & Evaluation	Opportunities
Demolition	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours. Contractors could develop hearing problems.	3	2	5	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0001 Comply with legislation and contractual requirements	2	1	3	E39 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action
Demolition	Air Emissions	Increased air pollution. Destruction of Ozone Layer	2	3	5	Comply with legislation and contractual requirements	2	1	3	E1, E4 & E35	increased air pollution	Fines and legal implications can be avoided
Piling	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours. Contractors could develop hearing problems.	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0001 Comply with legislation and contractual requirements	2	1	3	E39 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action
Piling	Vibration	Disturbance of individuals in occupied buildings. Disturbance of neighbours.	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0003 Comply with legislation and contractual requirements	2	1	3	E40 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action
Piling	Water Discharge	Water Contamination	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0003 Comply with legislation and contractual requirements	2	1	3	E1, E6- E8, E10, E12, E31 & E43	contamination to soil and watercourses	Fines and legal implications can be avoided
Excavations	Hazardous Generation	Water Contamination Soil Contamination	2	3	5	EBP-01 & RAE1 Comply with legislation and contractual requirements	2	1	3	E18 & E36	contamination to soil and watercourses	Fines and legal implications can be avoided
Construction Phase	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours. Contractors could develop hearing problems.	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0003 Comply with legislation and contractual requirements	1	1	2	E39 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action
Construction Phase	Vibration	Disturbance of individuals in occupied buildings. Disturbance of neighbours.	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-	1	1	2	E40 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action

RN: BO-JRLG-EM-XX-PD-Z-0012
TN: BO-JRLG-BM-XX-FM-Z-0006_A1_C01

Construction Environmental Management Plan with Construction Logistics Plan Included - Ferry Island



						0003 Comply with legislation and contractual requirements						
Construction Phase	Use of Chemicals	Water Contamination Soil Contamination	3	3	6	BO-JRLG-EM-XX-PD-Z-0011 Comply with legislation and contractual requirements BO-JRLG-EM-XX-RA-Z-0002	2	2	4	E34-E38	contamination to soil and watercourses	Fines and legal implications can be avoided
Construction phase.	Air Emissions	Increased air pollution. Destruction of Ozone Layer	2	3	5	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0007 Comply with legislation and contractual requirements	1	1	2	E1, E4 & E35	increased air pollution	Fines and legal implications can be avoided
Construction Phase	Waste Generation	Contamination issues when waste is disposed. Increase of the amount of waste to landfill Increase of cost of disposal of waste.	3	2	5	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0001 Comply with legislation and contractual requirements	1	1	2	E14-E20	contamination to soil and watercourses	Fines and legal implications can be avoided
Construction Phase	Hazardous Generation	Disposal of hazardous waste on landfill.	3	3	6	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0001 Comply with legislation and contractual requirements	2	2	4	E18 & E36	contamination to soil and watercourses	Fines and legal implications can be avoided
Construction Phase	Habitat Destruction	Depletion of living resources. Local damage to vegetation on access roads and site bases. Associated disruption of hydrology and impact on soil and surface invertebrates.	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0010 Comply with legislation and contractual requirements	1	1	2	E29, E30, E32 & E33	depletion of natural habitat	Fines and legal implications can be avoided
Construction Phase	Spillage of Chemicals	Water Contamination Soil Contamination	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0002 Comply with legislation and contractual requirements	1	2	3	E21, E34 & E36	contamination to soil and watercourses	Fines and legal implications can be avoided
Construction Phase	Energy Consumption	Depletion of natural resources (fossil fuels). Global Warming	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0007	1	1	2	E26, E44 & E45	wastage of natural resources and money	Possible reductions in CO2 emissions and the company's carbon footprint
Construction Phase	Water Consumption	Use of natural resources	3	2	5	BO-JRLG-EM-XX-PD-Z-0011	1	1	2	E9, E10 & E12	wastage of natural resources and money	Water usage could be monitored and recycled to avoid over consumption and wastage
Construction Phase	Use of Timber	Use of natural resources	3	1	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0001 Comply with legislation and contractual requirements	1	1	2		wastage of natural resources and money	Only use sustainably sourced timber

Construction Environmental Management Plan with Construction Logistics Plan Included - Ferry Island



Construction Phase	Visual Appearance	Loss of visual amenity	1	1	2	BO-JRLG-EM-XX-PD-Z-0011	1	1	2		complaints from neighbouring public/businesses	Complaints could be avoided and companies image improved
Construction Phase	Water Discharge	Water Contamination Soil Contamination	2	2	4	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0009 Comply with legislation and contractual requirements	1	1	2	E1, E6-E8, E10, E12, E31 & E43	contamination to soil and watercourses	Fines and legal implications can be avoided
Site Offices / Accommodation	Energy Consumption	Depletion of natural resources (fossil fuels). Global Warming	2	1	3	BO-JRLG-EM-XX-PD-Z-0014	1	1	2	E26, E44 & E45	wastage of natural resources and money	Possible reductions in CO2 emissions and the company's carbon footprint
Site Offices / Accommodation	Water Consumption	Depletion of natural resources (fossil fuels). Global Warming	2	1	3	BO-JRLG-EM-XX-PD-Z-0014	1	1	2	E9, E10 & E12	wastage of natural resources and money	Water usage could be monitored and recycled to avoid over consumption and wastage
Site Offices / Accommodation	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours.	1	1	2	BO-JRLG-EM-XX-PD-Z-0014 BO-JRLG-EM-XX-RA-Z-0003 Comply with legislation	1	1	2	E39 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action
Site Offices / Accommodation	Waste Generation	Contamination issues when waste is disposed. Increase of the amount of waste to landfill Increase of cost of disposal of waste.	3	1	4	BO-JRLG-EM-XX-PD-Z-0014 BO-JRLG-EM-XX-RA-Z-0001 Comply with legislation and contractual requirements	2	1	3	E14-E20	contamination to soil and watercourses	Fines and legal implications can be avoided
Site Offices / Accommodation	Use of Paper	Use of natural resources	2	1	3	BO-JRLG-EM-XX-PD-Z-0014	1	1	2		wastage of natural resources and money	Switching to recycled paper could reduce company's carbon footprint
Site Toilets / Canteen	Energy Consumption	Depletion of natural resources (fossil fuels). Global Warming	2	1	3	BO-JRLG-EM-XX-PD-Z-0014	1	1	2	E26, E44 & E45	wastage of natural resources and money	Possible reductions in CO2 emissions and the company's carbon footprint
Site Toilets / Canteen	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours.	1	1	2	BO-JRLG-EM-XX-PD-Z-0014 BO-JRLG-EM-XX-RA-Z-0003	1	1	2	E39 - E42	can be a nuisance to neighbouring public/businesses/fauna	Section 61 can avoid fines and legal action
Site Toilets / Canteen	Waste Generation	Water Contamination Soil Contamination	3	1	4	BO-JRLG-EM-XX-PD-Z-0014 BO-JRLG-EM-XX-RA-Z-0001	1	1	2	E14-E20	contamination to soil and watercourses	Fines and legal implications can be avoided
Site Toilets / Canteen	Spillage of Chemicals	Water Contamination Soil Contamination	1	1	2	BO-JRLG-EM-XX-PD-Z-0014 BO-JRLG-EM-XX-RA-Z-0002 Comply with legislation	1	1	2	E21, E34 & E36	contamination to soil and watercourses	Fines and legal implications can be avoided
Site Toilets / Canteen	Use of Paper	Use of natural resources	3	1	4	BO-JRLG-EM-XX-PD-Z-0014	1	1	2		wastage of natural resources and money	Switching to recycled paper could reduce company's carbon footprint

Construction Environmental Management Plan with Construction Logistics Plan Included - Ferry Island



Site Toilets / Canteen	Water Discharge	Water Contamination Soil Contamination	2	1	3	BO-JRLG-EM-XX-PD-Z-0014 BO-JRLG-EM-XX-RA-Z-0009 Comply with legislation and contractual requirements	1	1	2	E1, E6-E8, E10, E12, E31 & E43	contamination to soil and watercourses	Fines and legal implications can be avoided
Site Toilets / Canteen	Use of Chemicals	Water Contamination Soil Contamination	2	1	3	BO-JRLG-EM-XX-PD-Z-0014	1	1	2	E34-E38	contamination to soil and watercourses	Fines and legal implications can be avoided
Site Toilets / Canteen	Water Consumption	Use of natural resources	2	1	3	BO-JRLG-EM-XX-PD-Z-0014	1	1	2	E9, E10 & E12	wastage of natural resources and money	Water usage could be monitored and recycled to avoid over consumption and wastage
Transport	Vehicle Movements	Traffic Disruption Emissions to air Dust and mud on adjacent roads	3	2	5	BO-JRLG-EM-XX-PD-Z-0011 BO-JRLG-EM-XX-RA-Z-0003 Comply with legislation and contractual requirements	2	1	3	E1	wastage of natural resources, money and potential air pollution	Fines and legal implications can be avoided

Score Criteria			
Likelihood	1. Very unlikely	2. Likely	3. Certain
Severity	1. Minor	2. Moderate	3. Very high
Gross Impact	1-3 Negligible	4 Significant	5-6 Unacceptable

Net Impact Score	Criteria
1-3 Negligible	No additional control measures required.
4 Significant	Aspect should be monitored and additional control measures may be required.
5-6 Unacceptable	Control measures and activity generating this aspect must be reviewed. Works must not take place until the net impact score is reduced to acceptable levels.

Ferry Island, Tottenham Hale.



Construction Logistics Plan (CLP)

Volume 2



Rev 2 Prepared by:	Checked by:	Approved by:
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Suitability	Revision	Security	Date	Notes
A1	005	Public	12-10-22	Amended after planning submission return

[illegible]