

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Project Name:	Gateway 36, Barnsley
Project Number:	G1144
Senior Project Manager:	Gordon Fawcett

Prepared by
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Document Status

Rev Date	Status	Prepared By	Checked By	Approved By
22/9/2022	Draft for Comment	GF	GE	GE
06/10/2022	Update for early start	GF	GE	GE
11/01/2023	Incorporate BMBC comments	GF	GE	GE
28/02/2023	Incorporate BMBC Ecologist comments	GF	GE	GE

Project Revision Record

Rev	Date	Page Numbers Altered	Revision Summary
A	22/9/2022	Initial draft for review	
B	06/10/2023	all	CoreSP CEMP incorporated
C	10/01/2023	16 – 25,	BMBC highways comments addressed
D	28/02/2023	10, 15-20,	BMBC ecologist comments addressed plus general update

Extract Taken from Planning Application

- 4 Prior to the commencement of development hereby approved, a Construction Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the local planning authority. The CEMP shall include measures to residential amenity, and to protect the adjacent Dearne Valley Wetlands SSSI and nearby Short Wood and Hay Green LWS from habitat degradation during construction operations including from dust deposition, accidental damage or pollution incidents. Thereafter the development shall proceed in accordance with the approved plan.
- Reason: To reduce or remove adverse impacts on health and the quality of life, especially for people living and/or working nearby, and to ensure that the SSSI and LWS are not degraded during construction operations including through habitat degradation arising from dust deposition, accidental damage, or pollution incidents and in accordance with Poll1 and BIO1.**

Site Location:	Gateway 36 Phase 3 A1695 Dearne Valley Parkway Hoyland Barnsley S74 9LH
Client:	Firethorn Ltd
Principal Contractor:	Glencar Group 5th Floor, St. James Square Manchester M2 6DN
Brief Description of Works:	Enabling works package including bulk earthworks, reinforced slopes, FW drainage diversion, Temporary works & RC Wall construction Construction works including erection of warehouse facility with lorry / car parking and access spur road.
Document Owner:	Gordon Fawcett Senior Project Manager Glencar
Site based Responsible Persons for Glencar	Gordon Fawcett – Senior Project Manager
Signature of Document Owner	
Environmental Agency – incident hotline	0800 80 70 60
Environment Agency – Flood Warning	0845 988 1 1 88

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Introduction

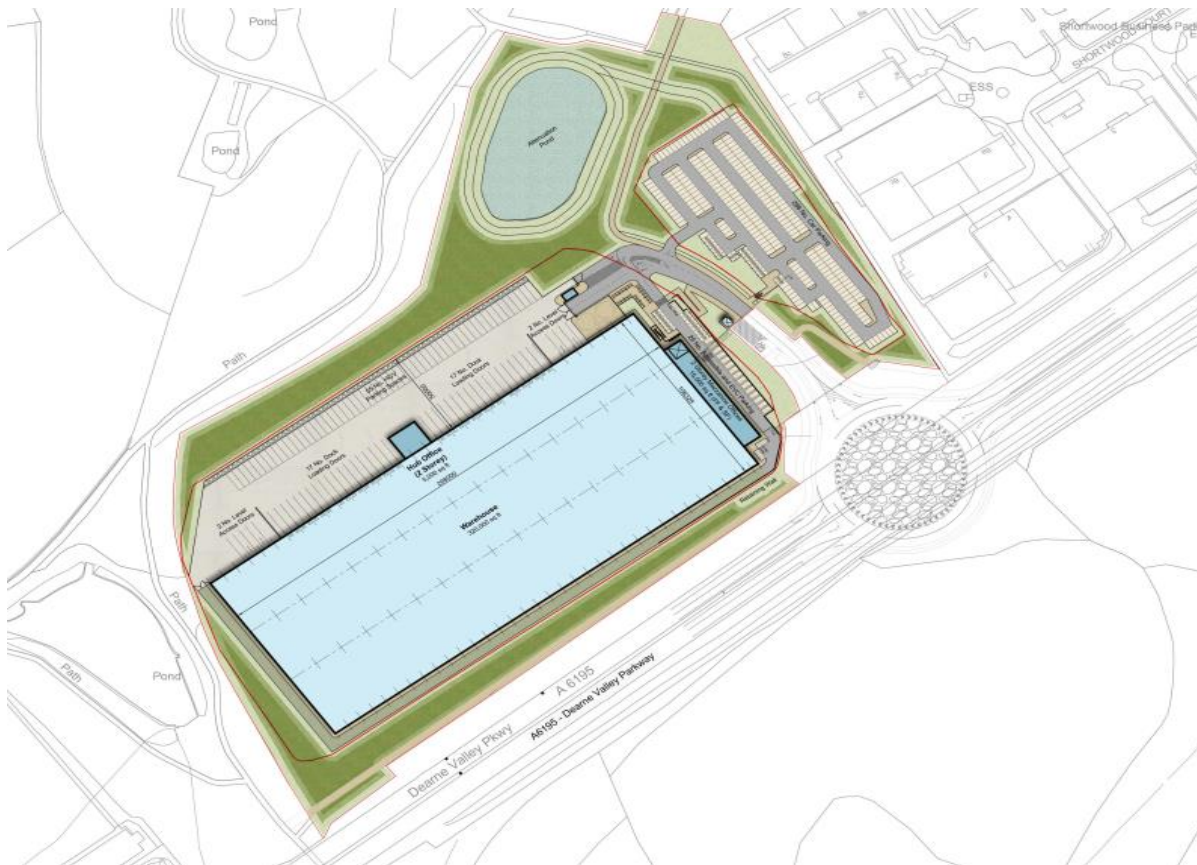
Works:

Proposal: Erection of 1no. building for industrial (class E(g)(iii)/B2) or storage and distribution (class B8) use with associated spur road, yard, parking, landscaping and drainage infrastructure (Reserved matters of the outline part of hybrid planning permission 2019/1573 for Phase 3 seeking approval of appearance, landscaping, layout and scale) (Amended Plans)

At: Land to the north of Dearne Valley Parkway. Gateway 36 Phase 3, Hoyland, Barnsley

Location:

Gateway 36, Dearne Valley Parkway, Hoyland, Barnsley, S74 9LH



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

Works package includes the following:

- Bulk Earthworks (Cut & Fill operations to form building plateaus, Service yards, Carparking areas).
- Reinforced slope construction.
- Foul water diversion working in conjunction with Galliford try / Yorkshire Water.
- Temporary Works & RC wall construction Including Soil nailing
- Cladded Steel frame warehouse, office accommodation inc. lift and services
- Goods yard, carparking, access road and services

Project Team

Contact	Role	Organisation	Telephone	Email
Jon Cumberlidge	Building Control (Approved Inspector)	C3 Design Approvals		
Richard Osbond	Structural and Civil Engineer	Curtins		
Neil Wilkinson	Structural and Civil Engineer	Curtins		
Matthew Lomas	Structural and Civil Engineer	Curtins		
Rob Molyneux	Wellness	Delta Simons		
Callum Campbell	Mechanical and Electrical Engineer	Engineering Services Partnership (ESP)		
Hugo Briars	Client (purchaser)	Firethorn Developments Ltd		
P Martin	Client (purchaser)	Firethorn Developments Ltd		
James Hutchison	Ecologist	FPCR Environment and Design		
Rui Sun	Fire Engineer	Hydrock		
Hamish Robertshaw	Planning Consultant	Johnson Mowat Planning		
Hugh Sibbald	Project Manager / Quantity Surveyor	Quartz Project Services Ltd		
Keith Sarchett	Project Manager / Quantity Surveyor	Quartz Project Services Ltd		
Simon Brereton	Project Manager / Quantity Surveyor	Quartz Project Services Ltd		
William Arnold	Project Manager /	Quartz Project Services Ltd		

	Quantity Surveyor			
Wendy McClure	BREEAM Consultant	Synergy Building Services		
Adam Cooper	Principal Designer Advisor (to UMC Architects)	The Construction Consultants		
Steve Faulkner	Principal Designer Advisor (to UMC Architects)	The Construction Consultants		
Ben Costello	Architect / Principal Designer	UMC Architects		
Dean Butler	Architect / Principal Designer	UMC Architects		
Tim Reid	Landscape Architect	Urban Wilderness		
Neil Moore	Utilities Consultant	William Downie Associates (WDA)		
Alan Connell	Structural and Civil Engineer	Fairhurst		
Hugh O'Niell	Structural and Civil Engineer	Fairhurst		
David Lawrence	Structural and Civil Engineer	Fairhurst		
Tom Kearsley	Operations Director	Glencar Construction		
Gary Edwards	Operations Manager	Glencar Construction		
Gordon Fawcett	Senior Project Manager	Glencar Construction		
Simon Moody	Senior Quantity Surveyor	Glencar Construction		
Ben Fisher	Quantity Surveyor	Glencar Construction		
Nick Page	Site Manager	Glencar Construction		

Project Programme

10th October '22 (Enabling) to 2nd January '23

3rd January 2023 to 28th August 2023

Site Working Hours

Monday to Friday, general activities

0800 to 1800 Monday to Friday

Saturday, by arrangement in advance

0900 to 1300

Sundays and / or Bank Holidays

No working

Extract Taken from Planning Application 2021/1691

- 12 Construction or remediation work comprising the use of plant, machinery or equipment, or deliveries of materials shall only take place between the hours of 0800 to 1800 Monday to Friday and 0900 to 1300 on Saturdays and at no time on Sundays or Bank Holidays.
Reason: In the interests of the amenities of local residents and in accordance with Local Plan Policies GD1 General Development Policy and POLL1 Pollution Control and Protection.

Existing Environment

The site, off Dearne Valley Parkway (A6195), is located close to Junction 36 of the M1 Motorway. The centre off Barnsley is located 6 miles to the north. The centre of Rotherham is approximately 9.3 miles to the south- east. Barnsley Roundabout (Junction 36, M1) is located approximately 1 mile to the south-west of the site.

2no open water courses situated approximately 200m to the north of the site boundary.

OS Grid Ref: **SE 35274 01413 (a)** Altitude: **101 m**

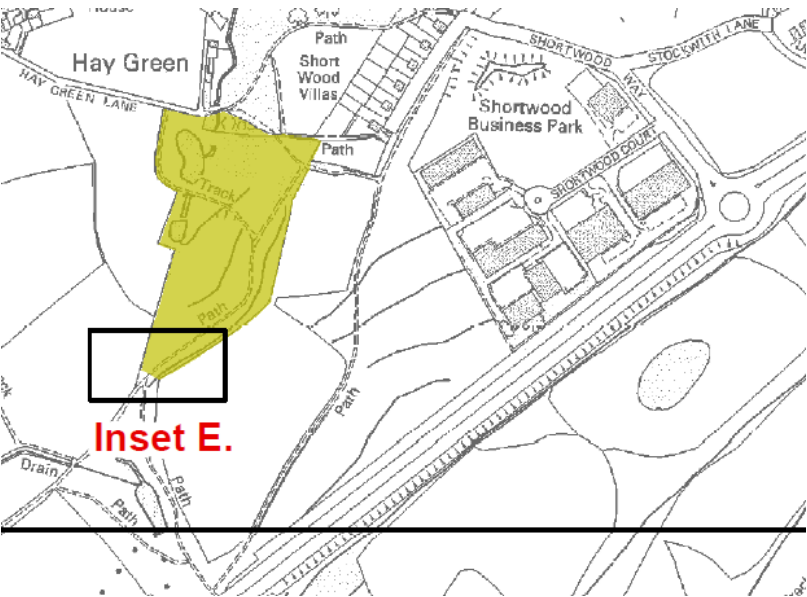
OS Grid Ref: **SE 35258 01329 (b)** Altitude: **103 m**

1no open water courses situated approximately 50m to the west of the site boundary.

OS Grid Ref: **SE 35185 01064 (c)** Altitude: **128 m**



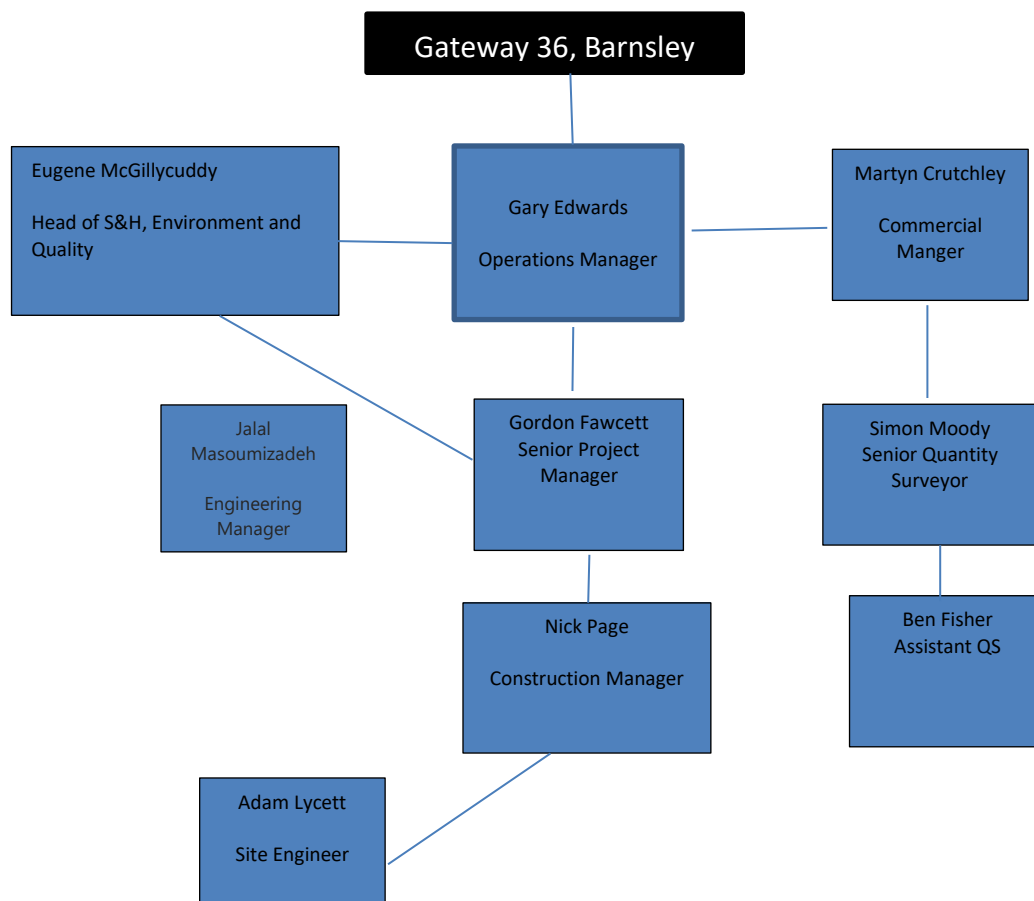
Adjacent Dearne Valley Wetlands SSSI (unit 21) – shown in green below.



Management of the Works

Management Structure

The following management structure has been applied to this project:



Responsibilities

The Directors have overall control over the Company's affairs. This includes its Environmental Management Systems (EMS), although the day-to-day management of this function is undertaken by the Company's Safety and Environmental Department.

Overall responsibility for all environmental related issues lies collectively with the Directors. Responsibility for environmental matters associated with the organisation's operations lies specifically with the Operations Board.

Senior Management shall take part in the regular review of the Environmental Management System and the company arrangements that are in place to ensure its application. Members shall attend pre-contract meetings at Head Office, prior to the construction phase of all projects where site-specific environmental matters are discussed.

During the construction phase Senior Management shall attend monthly meetings which shall include a review of the environmental performance of Glencar and its sub-contractors on every construction site that is 'live' at that time.

Senior Management shall attend management review meetings where overall environmental performance is reviewed.

Manager of Safety

Responsible for the production, implementation, and review of the organisation's Environmental Management System.

All matters concerning environmental management shall be overseen by the Manager of Safety. He will maintain a sound knowledge of Environmental Law and Industry Standards through training and/or research and, using this knowledge, shall provide advice and environmental assistance to Directors and employees of the organisation.

The Manager of Safety shall liaise with the Contracts Managers to establish training requirements for employees.

The Manager of Safety shall also plan, schedule, carry out and document periodic environmental audits on the organisation's live construction sites.

The Commercial Manager

The Commercial Manager shall have a prominent role in the selection procedure for suppliers and sub-contractors.

Prior to appointment, the Commercial Manager shall ensure that the sub-contractor has been notified of all site specific hazards that are salient to the operation for which that contractor is being considered.

Upon receipt of the bid the Commercial Manager shall ensure that the sub-contractor has allowed sufficient resource in the bid to minimise any potential adverse environmental impact.

Contracts Managers

Contracts managers will work closely with the Manager of Safety to ensure sufficient resources are provided on all construction projects to ensure that all operations that are proposed on site can be carried out with minimal environmental impact.

They will also ensure that adequate resources are provided to reduce the environmental impact where this is practicable.

Contracts Managers shall ensure that Project Specific Risk Assessments and Method Statements are prepared. They shall also attend on-site progress meetings with sub-contractors and assess their environmental performance.

Construction Managers, Site Managers

The Construction Manager/Site Manager shall be responsible for the appropriate allocation of resources on their site to ensure that all operations carried out on site are executed with minimal environmental impact. Such coordination will include the deployment of other site supervisory staff such as Foremen to specific sections or phases of the project.

Construction/Site Managers shall ensure that site supervisory personnel are aware of their roles and responsibilities as laid out in this document and that they discharge their environmental management duties effectively.

Construction/Site Managers shall work closely with the safety/environmental department

personnel from the pre- contract stage of a project through to completion. They shall attend pre-contract meetings as well as monthly progress meetings. They will be responsible for the on-site compliance with this Environmental Management System.

Construction Managers' and Site Managers' environmental duties on site include, but are not restricted to:

- ☐ Liaise with the client and any other third party to address any site-specific matters.
- ☐ Monitor the performance of sub-contractors employed on site in terms of compliance with environmental requirements and competency. Their findings shall be reported during site progress meetings and monthly progress meetings at Head Office.
- ☐ When acting as Principal Contractor, develop the Site Waste Management Plan during the construction phase of the project.
- ☐ Ensure environmental incident reporting procedures are implemented where necessary

Site Supervisors

The Site Supervisor will be responsible for the day-to-day management of environmental matters on their site (or in their section or phase of a construction project where there is a Construction Manager or Project Manager resident) – Where there is no resident Construction Manager or Project Manager, the Supervisor's environmental duties will also include those outlined in the previous section headed Construction Managers and Project Managers.

When working on site there are several specific matters to which the Site Supervisor must attend. These include, but are not restricted to, the following: -

- ☐ Ensure that all plant, vehicles, and work equipment are in good working order. This includes plant/equipment that is brought to site externally (i.e. hired plant). Ensure that regular inspections of plant/equipment are carried out to ensure that the equipment is in good order and is not likely to spill or otherwise release fluids such as fuels and oils, or that exhaust, noise or other emissions are not excessive. Such inspections shall be recorded in the plant and work equipment inspection registers.
- ☐ Ensure that all surface water runoff is controlled so that it does not adversely affect any open water courses, natural habitats or any other existing features or ecosystems.
- ☐ Ensure that all surface water accumulations (e.g. rainwater in excavations) are properly managed and that no silted water is allowed to discharge into an open water course.
- ☐ Ensure that all discharge consents are in place where appropriate.
- ☐ Ensure that all persons new to site receive a site-specific environmental risk awareness briefing and are inducted to site by a member of the site supervisory staff. The induction shall outline specific site rules, site specific environmental hazards and any emergency procedures in place.
- Carry out regular on-site environmental risk assessments throughout the project duration as new hazards present themselves and monitor and review those assessments that are already in place. A

record of these assessments (including a summary of environmental hazards and control measures) shall be made in the project's Risk Assessment documents

- ☐ Communicate the findings of risk assessments to the operatives (or other personnel) to which they relate.
- ☐ Carry out periodic toolbox talks or other relevant environment related briefings on site. Such briefings shall be delivered to the site workforce.
- ☐ Ensure that all mandatory prohibition, warning signage and statutory notices are displayed and maintained in good condition.
- ☐ Report all environmental incidents, near misses or dangerous occurrences to the safety/environmental department regardless of whether any environmental impact occurred or not.
- ☐ Ensure that comments noted on environmental audit reports are addressed and that written confirmation of such is sent back to the author of the report.
- Ensure that waste on site is kept to an absolute minimum and that the waste that is generated is reused or recycled where practicable and to ensure that where waste must be exported from site it segregated appropriately to facilitate recycling elsewhere. Waste data will be logged on the 'Site Waste Management Plan' [SWMP].
- ☐ Ensure that waste carriers and the recipients of site generated wastes hold the appropriate licenses or exemption certificates.

Note that the above list is not exhaustive and other environmental matters must also be addressed as site conditions dictate.

General Operatives

Every operative shall receive a site induction which shall take the form of specific environmental risk awareness training.

Operatives shall ensure tools and equipment are without defect prior to their use, maintain them in good condition and report any defects that could potentially cause environmental harm (e.g. fuel leaks) to the Site Supervisor without delay.

Full co-operation with all matters regarding environmental management is required from operatives at all times. Cooperation with Site Supervisors shall be maintained to allow compliance with legal duties.

Any environmental hazard, (or potential hazard), observed on site must be reported to the Site Supervisor so that the appropriate measures can be taken to reduce or eliminate any risk to the environment. Environmental incidents, near misses or dangerous occurrences are to be reported regardless of whether any environmental impact occurred.

If it is believed that a task an operative is required to undertake may present an environmental risk, it is the responsibility of each individual or workgroup to cease task and report their concern(s) to any

member of the site supervisory staff.

Environmental Manager

Responsible for ensuring that the requirements of this Environmental Management System are implemented on all live construction sites and at the organisation's other premises.

The Environmental Manager will maintain a sound knowledge of environmental Law and industry standards through training and/or research and using this knowledge shall provide advice and environmental assistance to other employees of the organisation. He will also assist with the periodic review of the Organisation's Environmental System.

He will also ensure that, where appropriate, Environmental Plans (including Site Waste Management Plans) are prepared and implemented on the construction phase of a project. The Environmental Manager will also liaise with Contracts Managers and Site Supervisors to produce task specific environmental risk assessments and method statements for site based work activities.

The Environmental Manager will investigate and record environmental incidents if and when they occur. This will include "near misses" where there is evidence that an uncontrolled event had a clear potential for environmental harm to have been caused, albeit that no harm was caused.

Environmental Managers shall also conduct and document periodic environmental audits on the organisation's live construction sites.

The Environmental Manager will also act on behalf of the Manager of Safety in his absence.

Protecting existing Habitats

A copy of this CEMP will be held at the site office for reference.

The Principal Contractor will monitor the ecological issues during site clearance and construction. Throughout construction all workers should work with due care and attention with respect to the potential presence of fauna and protected species on site. Any observations of protected species must be reported immediately to the Principal Contractor, who will contact the ECoW for further advice.

Weekly checks of the fencing demarcating the Site/Biodiversity Protection Zones and Root Protection Areas will be made by the Principal Contractor, and this will ensure the integrity and correct positioning of protective fencing and repairs are made to the fencing as necessary.

The Adjacent Dearne Valley Wetlands SSSI (unit 21)

The potential for impacts during construction activities on the SSSI and other retained habitats adjacent to all working areas will be minimised through the ongoing maintenance of protective fencing as described above (and refer to site security section of this document) and the following methods.

Fencing will be located so that it prevents any inadvertent damage to the SSSI, retained or created habitats throughout the construction, particularly in locations where vegetation is to be removed or during works adjoining and in proximity to retained habitats.

Good practice in line with Guidance for Pollution Prevention should be followed at all times.

Materials and fuel will all be stored away from the SSSI area. Methods to avoid accidental pollution or contamination of retained habitats on or off site, including from surface runoff includes but is not limited to the following:

- Any environmentally hazardous material will be kept in dedicated stores, and storage tanks should have appropriate bunding to prevent run-off into retained habitats.
- Fuel stored on site will be stored in double bunded fuel tanks. Spill kits will be readily available at each storage location.
- There should be no uncontrolled run-off of water or mud from the Site
- Once hard surfaces are constructed in the form of roads, silt run-off preventative measures in the form of metal plates secured to gulley frames with terram are to be utilised throughout the construction period
- During works machinery will not be refuelled within 30m of the retained habitats to prevent spillage.
- All machinery will be regularly checked for oil leaks or similar, which, if found, must be prevented from entering the retained habitats either through immediate repair of the machinery or through use of a drip tray/spill kit or similar.
- Any spillages (e.g. diesel) should be cleaned up immediately. Efforts will be made to stop a spill at the source. If the primary container or secondary containment have been breached or failed for any reason, the spill will try to be contained where it's happening. This will reduce the quantity of material released, reducing the amount of spilt material that can cause pollution
- If it is not possible to stop the spill at source, significant attempts will be made to stop it as close to the source as possible. If possible, the spilling material will be safely moved into another container to limit the size of the spill. Use of a suitable container and pump may be required.
- In the event of a spillage on site, the material should be contained (using an absorbent material such as sand or soil or commercially available booms). Sorbents will be used to soak up a spill and stop it spreading on hard surfaces. Using sorbents generates waste and this method will only be used on small spills, or where a spill has been contained to stop any further spread. All used sorbents will be disposed of at an accredited site for disposal

An area of the Site lies adjacent to the SSSI. Wherever possible, works will be planned to minimise dust generating activities within 50m of the SSSI. Where this is unavoidable the following precautions should be considered, as relevant:

- Consider the use of temporary solid screening such as monoflex sheeting, erected along the Site boundary fencing, wherever activities within 50m of the SSSI boundary are anticipated to create significant levels of dust for extended periods to help reduce dust transference outside the Site .

Fencing to be kept clean using wet methods

Stock piles of materials likely to generate dust will be maintained at least 30m away from the boundary, or covered, seeded or fenced with solid fencing to stock pile height

Haul routes will avoid the area and be located at least 50m from the SSSI and will include a speed limit of 10Mph for surfaced or unsurfaced roads in accordance with best practice.

Wheel washing and damping down of surfaces will be undertaken during dry periods to suppress dust within 50m of the SSSI

Open loads will be covered within 50m of the SSI

An adequate water supply for dust suppression will be made available, including mobile water bowser

HGV Routing Plan

Movement of traffic to and from site will be restricted and controlled at sensitive times, (to be developed and agreed with Council designated representative) and in any event deliveries will be programmed so as not to conflict with peak periods of the day.

After reviewing the traffic conditions at the site boundary, there are no closures currently present on Dearne Valley Parkway which is the road required to be used to access the site both as the existing, proposed, and final solution.

Deliveries to site will be planned and coordinated with each individual sub-contractor to avoid congestion on this main access route given the further restricted nature of the current ongoing construction works.

Deliveries should be made after 7.30am and prior to 4pm to avoid the morning and evening traffic, however it should be appreciated that due to logistics (hold ups in other traffic or at other drop off locations) this will not always be possible, but in the main, will be the case.

There has been no sign of school children walking near the site or along the HGV routes and it would therefore appear that school opening/closing times should not inform the strategy.

We will utilize a booking in system (with deliveries advised 24 hours in advance) so site is ready to receive deliveries and bring them immediately within the site boundary upon arrival.

Vehicles will not be stacked along the road, restricting access for road users, they will be brought straight into site. Within the site boundary there is a 60m length of tarmac road, which can be used for holding vehicles before they move onto the main site. The same area will be used to hold vehicles for inspection, before being washed down or released onto the highway.

The supply chain will be briefed on the delivery routes to site, any restrictions on timing of such, and the protocol to be followed upon arrival at site. This will be provided at the point of order. Given the size of delivery vehicles and their starting location it is anticipated that the route to be briefed to contractors will be accessing Dearne Valley Parkway from the Birdwell Roundabout, which is linked to J36 of the M1 motorway.

Should any abnormal loads be required (initial indications are that this should not be the case), the necessary liaison will be undertaken with the relevant parties and agreements obtained.

Site Access Points & Traffic Management

The site will initially be accessed from the existing roundabout entrance on Dearne Valley Parkway via the site entrance gates. This is the arrangement in place for the ground reclamation scheme which has been ongoing during 2022.

We will install 2.4m high plywood hoarding with vehicle and personnel access gates, both will be supervised by the site gateman. The fence will be installed on weighted concrete blocks. This will allow for the fence to be moved should the design of the site entrance change. The hoarding will have all statutory signage including speed restriction signs (5mph), defib notices and the site / office contact details

The vehicle gate will be mesh, to allow full visibility of any vehicular movements. The personnel gate will be unlocked during the working periods, so access will be available to visitors.



Delivery vehicles will be controlled to ensure that unloading only takes place within designated times and within the site boundary. The site entrance gate has been set back from the roundabout, so that vehicles waiting to enter site to not cause a hazard on the highway.

Vehicles will enter site as soon as the area is clear and gates will be manned with a permanent gateman to ensure deliveries are brought onto site as soon as possible. All subcontractors will be required to produce a delivery schedule for their materials which will be monitored at their weekly meetings and must book delivery slots with our operational team. Efficient and accurate scheduling of deliveries will minimize the storage capacity required, double handling and congestion around the site and surrounding roads and highway infrastructure.

Site storage of materials and plant will be very carefully controlled by restricted allocation of zones to particular trades. Detailed plans of the site will be drawn up regularly to reflect the changing conditions of site.

Initially, works will focus on formation of the building footprint. When the first 50m of the footprint is stabilized and stone capped, it will be used as a laydown area for the groundworks and steel erection teams. The laydown area will then progress across the footprint as the construction works follows it.

By the time that the concrete and steel structure is 50% installed, the goods yards and carpark will be stoned up, providing adequate storage away from the access road.

Site Compound and Parking

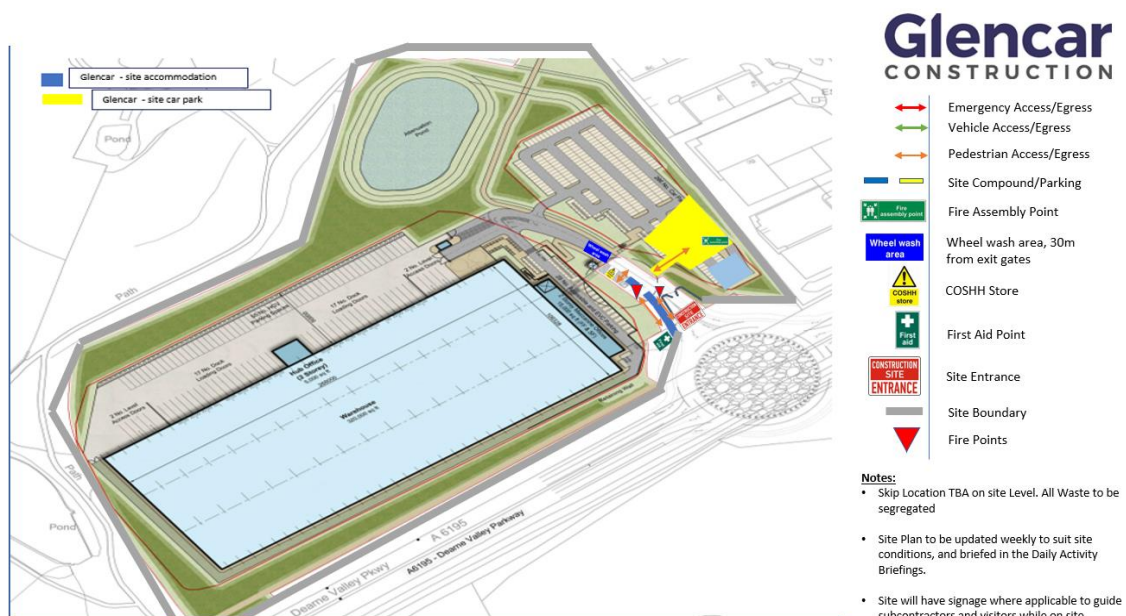
During **PHASE 1** of the works, the site compound will be located adjacent to the site entrance, to allow easy monitoring of personnel and site traffic. A gate house will be positioned adjacent to the site hoarding to record all vehicle access and egress.

The intention is to have all carparking and compound on prepared stoned up (MOT type 1) areas as soon as possible after contact commencement before the main superstructure works start - when the majority of the deliveries/vehicle movements occur.

Operative vehicle parking will be constructed in the SE corner of the permanent car park, with an access ramp from the road as soon as vehicles pull into site. This will allow vehicles to be recorded by the gateman and prevent domestic vehicles using the same route as the main deliveries.

The main material deliveries will proceed straight onto the building footprint for unloading and distribution.

Wheel washing facilities will be positioned within the site area, 30m away from the main access gates. Water bowser will be located adjacent to the site cabins, which will be filled regularly from the Yorkshire Water standpipe. Part of the gateman's duties will be to monitor vehicles before they leave the site for mud / debris on the wheels and ensure that wheel / jet wash is utilised when required, and that the site road sweeper is correctly utilised. This will ensure that the site access and highway is maintained free of debris. In addition to this, if we have days with particularly heavy traffic / deliveries planned, we will have a road sweeper in attendance we have access to road sweepers.

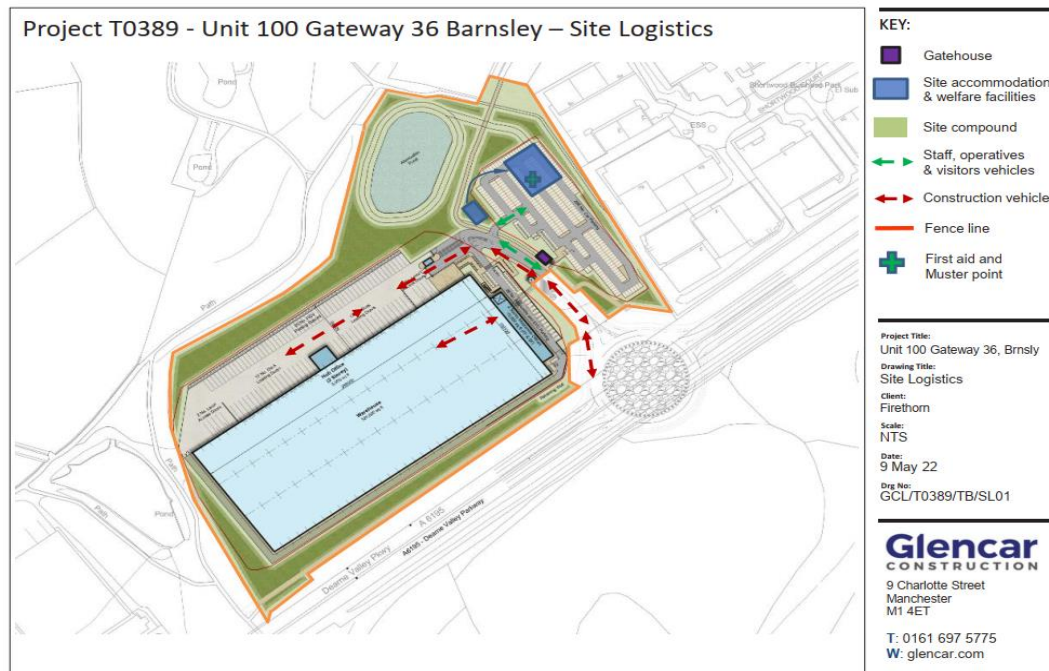


Site Plan Revision Date: 28th February 2023

This will serve two purposes, it will provide a clean, tidy, safe environment for operatives working on the site, and will also remove the risk of fines migration (mud on road) and dust being created by construction traffic.

Working with our waste partners Fletcher Waste Management, skips will be positioned around site for construction waste. Waste will be segregated on site where possible, but FWM have a separating facility off site to ensure that as much waste as possible is recycled / reused.

PHASE 2 of the compound arrangement will come into being in March 2023. By this time, the drainage and pond works will be complete, and the northern half of the carpark will be constructed, to allow the more substantial compound to be installed on the NE corner of the carpark.



At the point of compound change, the cabins and carparking will be transferred onto completed tarmac areas. This will reduce the opportunity for any dust / debris to be transferred around the site.

The gatehouse and water bowser for the wheel washing facility will stay as Phase 1 arrangement

The procedures put into place for maintaining security, logging vehicles and visitors, and road cleanliness during Phase 1 will continue

Visitor and Operative Records

Visitors and Operative Parking shall be as per the above plan, everyone visiting site will be required to sign in at the entrance and park in the designated spaces adjacent to the site cabins.

These records will be used for logging vehicle mileage and CO2 emissions and will form part of the NZC calculations.

Erection and Maintenance of Site Security

The operatives will utilise a safe system of work to ensure the general public are segregated from the works site. All boundaries of the project will be secured by heras fencing, except for the main site entrance which will have plywood hoarding in Glencar corporate colours.

Where tree protection fencing is required to prevent accidental impacts and protect roots, heras fence will be also utilised and where possible trees will sit outside the site boundary fence.

Tree protection fencing will consist of Heras type panels complete with additional units included at every fifth panel to form a triangle which will provide stability and limit potential movement of such. All fencing will be visually inspected daily and maintained accordingly, with records kept on site. Gates will be kept closed when not in use and locked securely at the close of each working day and a gateman will be in place during the day, with CCTV coverage for out of hours until the site starts to be enclosed, whereupon a static guard will be used.

Storage of Plant, Materials and Fuel

Site storage of materials and plant will be very carefully controlled by restricted allocation of zones to particular trades. These will generally be stored adjacent to the works on the hard standing / working platform. This will obviously fluctuate depending on activities on site and the stage of the project and hence will change almost on a weekly basis as the work progresses.

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

Spill prevention and emergency arrangements

During induction to site and as part of task specific risk assessments, all personnel shall be made aware of 'Spill Kit' locations and how to check and replenish these items if used. Drip trays/Plant Nappies shall be used and all plant items, [with the exception of motor cars], shall be equipped with spill kits including plant such as portable generators and pumps. All fuels shall be stored where any spills can be contained. This will be within an impermeable bund, or mobile fuel bowser with a secondary containment system (double skin bund). No fuel or oil will be stored at track locations. Fuel will be brought to the track sites in a purpose built, bunded fuel carrying vehicle in quantities that are proportionate to site usage. In the event of an environmental spill the procedure shall be:

- STOP WORK immediately
- If spillage is flammable, remove or extinguish all possible sources of ignition.
- Identify the source of pollution and if possible, isolate the source.
- Contain the spillage – use earth/sand to construct a bund around the spill to stop it spreading or where available use the spill kit.
- Contact the Project Manager immediately.
- Put on appropriate PPE.
- Protect sensitive areas (e.g., watercourses or surface water drains – use drain covers or use earth/sand to construct a bund).
- Clean up the spill. Use absorbent granules/pads to mop up spills. Large pools of oil or spills

which cannot be absorbed should be removed using a gulper.

- Dispose of all contaminated materials (soil/absorbent materials) correctly – those containing substances such as oil, diesel or paint will be hazardous waste.
- Never hose a spill into the drainage system. Always use absorbent materials.

The Site Supervisor shall take all reasonable measures to ensure that:

- Any release is contained and that harm to human health and the environment is minimized, both within and beyond the site boundary.
- Once the release has been contained, any environmental damage is appropriately remedied (with advice from the Environment Agency as required).
- Contaminated clean up materials are handled, stored and disposed of as hazardous waste in accordance with the Hazardous Waste Regulations.
- Environmental incidents are fully investigated. Such investigation (with help from the Environment Manager or Manager of Safety) shall determine:

(i) Whether the incident is of a 'major' or 'minor' nature. (All incidents requiring action beyond site boundaries shall be classified as 'major').

(ii) The cause of the incident

(iii) If existing emergency procedures are adequate or need revising.

An Environmental Complaint/Incident Report is completed and issued to the Manager of Safety.

Any pollution incident classified as 'major' is reported to the relevant regulatory authority (Environment Agency),

the Client and the Manager of Safety as soon as possible.

Sub-contractors working on behalf of the organisation are made aware of the contents of this procedure and that they are required to comply with its provisions.

Dust Control

The control of dust arising from the construction works will be controlled in several ways depending on the work source causing/providing the dust and the timing/stage at which the construction works are at. Dust created by the stoning up process will be suppressed by water bowser with spray attachment. The soils on site are to be cement stabilized, which will bind the material and prevent most of the dust generation. Materials from excavations will be temporarily stockpiled, before being removed from site. A point of work risk assessment will be done to determine if the spoil arisings need damping down.

Dust Assessment

Environmental risk assessments are completed for every contract and particular attention is focused on statutory nuisance. Dust monitoring will be undertaken regularly in line with the control methods detailed in the risk assessment. Records of this will be maintained on site and available on request. If excessive dust levels are reached, works will be temporarily suspended whilst the Environmental Coordinator is consulted, and further appropriate dust measures are implemented to enable works to recommence. This will be recorded.

Additional dust monitoring will be carried out by Glencar Construction Environmental Coordinator on a regular basis. Control methods as necessary will be identified.

Mitigation Measures

Measures that may be taken include, but are not limited to:

Haulage Routes, Vehicles and Construction Plant

Potential dust Source	Control Measure	Responsibility for implementation
Haul roads and traffic routes	Scheduled deliveries to avoid standing traffic on routes to site.	Project Manager
Vehicle waiting areas and hard standing	Vehicles will be directed into site and unloaded. If waiting is required engines will be switched off	Project Manager
Site traffic	Speed restrictions will be in place including signage and managed by site personnel to avoid back up	Project Manager
Public roads	Gateman/Traffic controller to be aware of scheduled deliveries and coordinate traffic and operations affecting access	Project Manager
Road cleaning	Road sweepers to be employed on a regular basis for cleaning access roads to site. These operations will be increased when critical activities occur	Project Manager
High level walkways and surfaces (Scaffolding and others)	Operatives will be briefed at induction to the requirements of debris control and cleanliness	Project Manager

Static and Mobile Plant Emissions

Potential dust Source	Control Measure	Responsibility for implementation
Visible exhaust smoke	All standing/waiting traffic to have engines switched off. All plant brought to site to be well maintained and suppliers advised of this at order stage	Project Manager
Maintenance	All plant and equipment to be maintained off site	Project Manager
Servicing	All plant and equipment to be serviced off site	Project Manager
Operating time	All operations will be conducted in line with the planning conditions and all sub contractors being made aware of restrictions at order stage	Site Team
Exhaust time	Operating plant to be monitored to ensure it is not left running unnecessarily	Project Manager
Exhaust direction and heights	Exhausts from plant will be in line with manufacturers specifications and directed from ground to atmosphere	Project Manager
Location of plant and equipment	Plant and equipment operating close to other businesses and sensitive receptors will be kept to critical activities only.	Project Manager

Surfacing and Coatings

Potential dust Source	Control Measure	Responsibility for implementation
Bitumen over heating	Control of tar boilers. Ensure equipment is in good working order	Project Manager
Fume Production	Ensure protection is in place at all times while heating or maintaining heat	Project Manager
Small accidental fires	Have emergency procedures in place and brief at induction and toolbox talks. Monitor RAMS	Project Manager
Housekeeping	Monitored through regular inspections	Site Team
Direct application of open Flames (torching)	Avoid overheating and keep to a minimum	Project Manager

Material Handling

Potential dust Source	Control Measure	Responsibility for implementation
Material Handling operations	Handling and movement of materials to be kept to a minimum through planning	Project Manager
Transport of powdery materials	Loose materials to be moved in containers or remain wrapped until use. Bulk cement to be in tankers.	Project Manager
Transport of aggregates	Use enclosed or sheeted vehicles	Project Manager
Handling areas	Keep areas clean and free from dust	Project Manager
Vehicle loading	Use methods that minimise the creation of dust. Damp down with water in necessary	Project Manager
Filling Skips	Use enclosed skips where possible	Project Manager
Reducing the spread of dust across the site	Use damping down methods	Project Manager

Storage of Powder Materials

Potential dust Source	Control Measure	Responsibility for implementation
Bulk Cement	To be delivered and stored in tankers/silos	Project Manager
Silos	To be kept in good condition. Regular checks for damage	Project Manager
Accidental spillage when filling or operating silos	Emergency preparedness plan in place identifying R+R	Project Manager
Dry materials > 3mm	Storage to be kept to a minimum. Use materials at point of delivery	Project Manager
Dry materials < 3mm	Storage to be kept to a minimum. Use materials at point of delivery	Project Manager
Storage	Store materials away from site boundaries and sensitive receptors	Project Manager

Stockpiles

Potential dust Source	Control Measure	Responsibility for implementation
Stockpiles	Stockpiles will be kept away from sensitive receptors and kept to a minimum; damping down systems will be implemented. Materials with potential to cause dust should be removed from site as soon as possible, unless being re-used on site. Bunds should be employed to prevent run-off from entering sensitive receptors should this pose a risk.	Project Manager
Building stockpiles	Ensure any stockpiling is done so that the angle of repose is not such that slippage will occur	Project Manager
Short term stockpiles	Ensure that these are kept to a minimum and avoided by use of material at source	Project Manager
Long term stockpiles	Ensure that these are kept to a minimum and avoided by use of material at source	Project Manager

Site Establishment and Restoration on Completion

Potential dust Source	Control Measure	Responsibility for implementation
Earthworks	Will be completed in sections to minimize over exposure and as program phasing.	Project Manager
Completed earthworks	To be reinstated as soon as possible in line with program	Project Manager
Storage mounds	Any mounding will be sealed	Project Manager

Landscaping	To be in line with program and design. No screening to be on site	Project Manager
Transitory soil mounds	Not required	Project Manager
Crushing and screening	Crushing and screening operations to be kept away from sensitive receptors. Ensure compliance with the EPA 1990	Project Manager

Construction and Fabrication Process

Potential dust Source	Control Measure	Responsibility for implementation
Cutting, grinding, drilling, sawing etc.	Consider prefabrication to avoid cutting. Quality checks to prevent errors and re-work. Use dust suppression sprays. Use exhaust ventilation. Robust design to prevent cutting	Project Manager
Dust control exhaust ventilation	Always use diamond cutting blades and water sprays	Project Manager
Cutting roads, pavements, blocks	Always use diamond cutting blades and water sprays	Project Manager
Angle grinders	Always use diamond cutting blades and water sprays	Project Manager
Mixing of granular materials	Use premixed materials. Mix under controlled conditions. Store dry powder materials in a safe dry environment	Project Manager
Painting and decorating	Use of suppression or extraction equipment should be used. Vacuum cleaning where possible	Project Manager
Plastering rendering, finishing and fitting	Housekeeping to control dust related activities	Project Manager
Electrical plumbing systems requiring chasing into walls	Use of suppression or extraction equipment should be used. Vacuum cleaning where possible	Project Manager
Fire proofing and insulation	Use of suppression or extraction equipment should be used. Vacuum cleaning where possible	Project Manager
Cleaning	Avoid dry sweeping use vacuum control where possible	Project Manager

Surrounding Area

The area surrounding the site comprises of the following.

- **North** – Open woodland / fields
- **East** – Open woodland / fields
- **South** – Industrial
- **West** – Main Road and industrial

Construction methodologies will be made as efficient as possible to minimize noise impacts to surrounding areas.

Locations closest to the scheme are likely to be subject to the highest construction noise levels, although the existing topography and existing infrastructure providing natural screening. The level of impact will vary, dependent on the current ambient noise levels for given areas. Given the existing background levels of noise from road traffic and Construction activity, coupled with that elevation being shielded by both a bund and planted areas, it is not envisaged that the works will impact the neighboring properties to a significant extent.

All measures to minimize construction noise will be taken according to best practicable means, as described in the mitigation measures section.

A more detailed Noise Assessment will be carried out by the Environmental Coordinator upon commencement and at regular intervals throughout the construction process.

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

- Appropriate choice of plant and equipment.
- Regular plant maintenance to keep plant in good working condition and reduce noise from machinery.
- Careful phasing of the proposed operations; and
- Provision of temporary barriers where sensitive receptors exist

The site staff will be utilising methods of mitigation outlined, alongside regular monitoring and utilising feedback from residents.

This regular noise monitoring will be carried out by the Environmental Coordinator. This may be substituted by sub-contractor's noise readings as stated in their method of work.

Operating methods of noise reduction

Ensure that all staff and operatives are briefed on the requirement to minimize nuisance from site activities, this will be mentioned within the site inductions, a program of toolbox talks and all method statements. Any significant changes in numbers of workforce on site will force a review of the monitoring program.

No equipment shall operate other than at the manufacturers' rated working levels; site staff shall not 'rev' equipment unnecessarily.

No plant and equipment shall be left running if not required for immediate use. Where this is not practicable, equipment shall be set to idle in the quietest manner to minimize noise emissions and CO2 emissions.

Resilient materials will be used where possible to reduce impact noise where materials are being moved or dropped e.g. lining chutes and dumpers.

Noise Reduction of Stationary Plant and Tools

Noise reduction measures for tools are as follows:

- Use of hydraulic or electric tools where possible.
- Use of alternative quieter equipment for concrete breaking/cutting.
- Fitting suitably designed sound reduction equipment to reduce noise without impairing efficiency.
- Use of damped tool piece or saw blade.
- Enclose in a suitably designed portable or fixed acoustic enclosure with suitable ventilation (with due regard to the health and safety of operatives).

These measures will be considered for selected where appropriate by the Site Manager.

Control of Noise Propagation on Site

Temporary acoustic barriers, such as hoardings or mounds when positioned close to the source or the receiver will assist in the reduction of noise levels experienced at nearest receivers. The degree of protection will be limited to 5-10dB(A) and care must be taken to avoid reflecting noise and increasing the problem elsewhere

Barriers should be:

- A fairly uniform panel, free from holes with no gaps or openings at joints (uneven ground may leave gaps to be filled).
- Stable and robust enough to stand up to site conditions.
- Of a height and width more than enough to completely cut off sight of the source from the receiver, and
- Preferably at right angles to the line of sight of the receiver.

Waste Management (Recycling/Disposal)

An important part of the site management process involves site cleansing, rubbish removal and recycling. We will produce a detailed Site Waste Management Plan which will include details of how we intend to reduce, re-use, recycle and manage site waste. This will be produced and implemented to comply with environmental legislation.

The adopted plan will involve the following provisions:

Buying and Storing Materials

- Order the amount of materials you need as accurately as possible
- Arrange for 'just in time' deliveries to reduce storage and material losses
- Consider the source of materials.
- Consider the packaging used for materials delivered to the site -can this be reduced or recycled
- Ensure that deliveries are rejected if damaged or incomplete
- Make sure storage areas are safe, secure and weatherproof (where required)
- Store liquids away from drains and in bunded areas to prevent pollution.

Site Activities

- Ensure options for the use of reclaimed and recycled construction materials, that meet the materials specification, are considered.
- Recycle suitable spoil, demolition materials, pruning, and surplus construction material arising from the works on site to avoid the need to transport materials.
- Keep the site tidy to reduce material losses and waste.

Training and awareness

- Promote good practice awareness as part of health and safety induction / training for workers onsite.

Waste Segregation

- Segregate different types of waste as they are generated using different skips where possible (given the space available).

The responsibility of updating the SWMP belongs to the Glencar Project Manager. An untidy site is NOT TOLERATED by Glencar Construction Ltd.

Concrete wash-off Materials

Where concrete is to be delivered to site, a provision of a facility for the catchment of 'wash-off' water and concrete residues from the delivery vehicle/concrete skip/other site plant, will be made.

Control Measures:

The type of catchment facility will be at the discretion of site management, but will typically be either a shallow sump excavated within the site periphery, [but away from any watercourse], lined with two layers of visqueen, [perpendicular to each other], into which wash-off materials can be discharged; or an 8 cubic yard skip, lined with visqueen into which the truck operator can 'wash off' his vehicle hopper.

Wash-off materials will be kept to a minimum, allowed to dry out after discharge and removed from site by a registered waste carrier for appropriate disposal/recycling. Under no circumstances will concrete waste or wash-off water be discharge near to, or into a surface watercourse or sewer.

Light Control / Pollution.

Lighting must be able to provide safe working conditions for staff, and therefore the following

measures will be put in place when situating & using site lighting.

- All lighting will be situated in such a manner as to provide as much lighting as is necessary for the work & no more, thereby reducing the risk of light pollution & the use of unnecessary numbers of generators.
- The lights will face downwards/sideways so that they do not shine into any nearby premises. Where this is not possible, hoods or louvres may be employed.
- Appropriate selection of innovative site lighting methods e.g. LED to improve the energy efficiency of the site and minimise the spread of the light beyond where required
- Lighting will be turned off at the end of each shift, unless otherwise required for security arrangements.

Site Clearance

- Clearance of the site vegetation is to take place outside of the bird nesting season.
- There are no demolition works to be undertaken.
- Any suspected Asbestos / or Asbestos containing materials which are discovered on site will be treated as Asbestos until proven otherwise. Areas will be segregated, with an exclusion zone established around the affected area until such time that a specialist team can be deployed to remove the material as per the Control of Asbestos Regulations 2006.

Communication

Group communications to GCL

Alerts are issued via a HSEQ **Bulletin** to communicate urgent environmental information. These are issued to all staff via email, and hard copies displayed in all site cabins.

The Environmental Coordinator will contact any external body such as (Natural England, Environment Agency, Local Authority) when an imperative issue arises, thus keeping continual communication channels open.

Communication with Operatives

It will be mandatory, for all sub-contractors and operatives working on the site to undergo a formal **induction** prior to entering the site where all relevant health, safety & environmental information for the site will be briefed. **Toolbox talks** will also be delivered, and records maintained.

Communication with the Local Community

Local residents and businesses that could be disturbed by the works will receive a hand delivered **newsletter** detailing the scheme, including details of proposed start and completion dates and a summary of the work schedule along with contact details for a representative of Glencar. Letters are delivered at least 14 days prior to the start of the works and at regular intervals throughout the works.

A **complaints log** exists on each site that records any feedback from local residents along with any measures taken to resolve the problem. Glencar staff are encouraged to respond proactively to any complaints in a timely and fair manner. All environmental complaints are

shared to the Environmental Coordinator to assist with an appropriate response.

During and prior to construction, contact with the public may be necessary. This will be done through site notices, leaflets/ sufficient notice. Complaints will be taken seriously and resolved by the Technical and Construction Team for matters relating to the site development.

A **noticeboard** will be affixed to the hoardings on the site. This will contain:

- Contact details of the Project Manager
- Contact details for the Head Office
- Notification of any work opportunities
- Most recent environmental dashboard that contains information regarding waste and carbon data