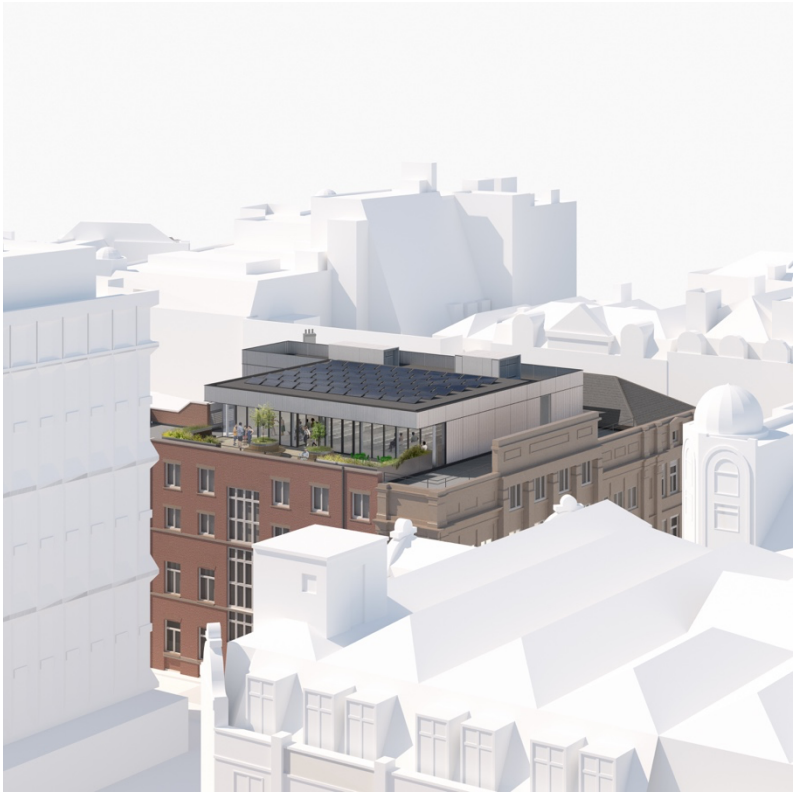
DRAFT

Methodist Central Hall, Manchester



Construction Environmental Management Plan

This Construction Environmental Management Plan (CEMP) has been developed to demonstrate how the Methodist Central Hall refurbishment project will be delivered to satisfy the requirements of both Central Hall and Manchester City Council. It will examine the project delivery in detail to explain how we will satisfy planning condition of the relevant application (reference TBC)

The key requirements of condition TBC are:

- Contractor contact details, working hours and communication strategy with residents/stakeholders
- Site security
- Maintaining air quality
- Dust suppression measures and details of wheel washing
- Compound locations where relevant
- Location, removal and recycling of waste - SWMP
- Loading, unloading and storage of plant and materials – site logistics
- Parking of construction vehicles and staff
- Construction methodology including servicing and lighting
- Programme of works including scaffolding
- Human Impact Management Plan

Construction Environmental Management Plan for the works
Project Particulars

The project

The project consists of TBC

The Client

Central Hall Manchester

Central Buildings,
Oldham Street
Manchester, M1 1JQ

Contact: TBC
Email: TBC

The Principal Contractor

TBC

Contact: TBC
Email: TBC

Site location

The site is located within the plot of land bounded by Oldham Street to the north west, Dale Street to the north east, and Spear Street to the south east. Central Hall presents frontages to all three streets and is abutted to the south west by existing buildings.

Insert site location plan:

Construction programme

Our tender construction programme for the works fully details the procurement, design, and the build sequence of the project with the critical path, testing/commissioning and snagging of the works.

The proposed programme period is **TBC weeks** commencing TBC. A copy of the programme is provided at Appendix 1.

Proposed hours of working and delivery times

Working hours: Monday to Friday, 8.00am to 6.00pm. Saturdays 8.00am to 1.00pm.

No working on Sundays and Bank Holidays

No out of hours working unless by prior agreement

Access to the site

Access to the site will be via TBC

Our site logistic plans are shown below. Full-sized copy has been included at Appendix 2.

Insert site logistics slides here:

Traffic Management

The development site is located in a busy part of Central Manchester, surrounded on three sides by major thoroughfares It is important that the construction works do not cause a negative impact to the health, safety, environmental quality and day-today operation of our neighbours and the public in general. In our role as Principal Contractor we will liaise with neighbours and stakeholders to ensure disruption from our activities is kept to an absolute minimum.

A full detailed Traffic Management Plan will be produced prior to the works commencing. This plan is to be implemented from contract start-up and will be updated on a regular basis in line with the changing construction sequences. The plan will contain details of the site set up for all the deliveries, crane locations, storage areas, vehicle/pedestrian routes, emergency vehicle, refuse collection routes, and fire escape routes for works in the site boundary and to the external work areas.

Traffic routes will be planned and reviewed as the construction works progress. We will ensure that turning areas and pedestrian routes are safe for all parties and that there is an emergency procedure in place, developed and kept up to date during the construction process. Emergency procedures will be relayed to our site works and visitors during the safety induction process.

We will carefully plan and co-ordinate all works to ensure that inbound/outbound deliveries are not impeded. We will provide banksmen with vehicles at all times.

Clear way-finder signs and speed restriction signs will be visible along the external roads to guide delivery drivers to the site compound and offloading zone.

Freight Vehicle Safety Requirements will be implemented on our site and we ensure that our supply chain delivery partners are all FORS registered, with CLOCs standards being implemented on site.

Delivery vehicles and construction plant will have need to transit roads and footpaths used by the public, Central Hall staff, visitors and construction personnel and it is essential that all pedestrians are protected against coming into contact with vehicles. Where practicable, we will always favour the approach of providing physical segregation to achieve this – such as chapter 8 barriers and fenced-off traffic routes. However whilst this may be straightforward to implement on within the confines of our site, it may not be feasible off-site for example within public realm areas. In such cases, we will ensure that all vehicles are escorted by a banksman. The safety of the public outweighs the need to move vehicles, so where possible vehicle movements will be restricted, but when this is not possible the vehicles will be stopped from moving until it is safe to carry on.



Adequate safety fencing, safety and way-finder signage, and clear pedestrian routes with anti-trip feet will be provided:

All material and subcontractor orders will contain a directional map to the site. The orders will clearly indicate the site landline number, site manager's name and mobile phone number, and confirmation where the parking is on the construction site.

A weekly schedule of deliveries will be produced two weeks in advance of the works; the schedule will have delivery times clearly stated on it and it will be issued to all relevant parties.

The day before a delivery is due the site manager will contact the delivery company to confirm they will be arriving at their allocated time.

All deliveries will be planned and coordinated in advance to ensure there is access and safe transportation to the construction site. Where possible deliveries should take place to miss peak traffic times.

We will produce a Delivery and Servicing Plan (DSP), prior to the works commencing on site which will include detail of delivery scheduling for large items and the grouping of smaller deliveries with common suppliers to reduce the number of required journey to and from site. The DSP is therefore used as a management tool during the construction works to reduce the impact of delivery and servicing activities within the site area and on the surrounding highways.

The delivery and servicing register will be completed throughout the project period. It will record all movements to and from site in accordance with our commitment to 'Construct CO2' registration. In this way, our carbon output is monitored and reviewed against the targets we have benchmarked from our previous projects.

Delivery routes

Access to the site will be via TBC. We will instigate a left turn only policy for vehicles leaving the site.

Insert delivery access route plan here:

HGV offloading and turning area

Insert details

Areas and methods for loading and unloading plant and materials on site Insert details

Areas and methods for storage of plant and materials on site Insert details

Site Logistics

Our Site Logistic plan shows the proposed location of our site accommodation. The site accommodation will be stacked in order to maximise space; a stair and gantry access platform will be provided. The site accommodation function is to provide:

- heated and ventilated mess rooms
- catering facilities
- clean toilet and facilities
- adequate hot/cold water for hygiene
- a drinking water supply
- dry work clothes storage.

The site accommodation will consist of two canteens, drying room, containers, offices and meeting space to accommodate 15 people. The company provides its own welfare facilities that meet legal standards and are regularly maintained by our in-house facilities department.

This accommodation will be positioned directly from the back of our HIAB delivery vehicle with the appropriately trained and competent driver plus certified lifting chains or straps. The site compound and cabins will be of secure construction and locked at night with security shutters on doors and windows.



Site management procedures include fitting meters to site power and water supply to enable us to measure and record our usage. This data is converted into a benchmark relating to the number of personnel on site per month. We use this information to compare projects and share best practice to establish methods of reducing site usage.

Other environmental measures include movement sensor lighting, timers on power supplies, pressure sensitive taps to reduce water usage, and thermostats in cabins.

The site office, car parking area and rear of the site will be delineated with heras fencing. Where appropriate the existing 3.5m high security fencing will be retained and used. way-finder and safety signs will be position on the site boundaries and adjacent to the site entrances. Working areas will be securely locked at night to ensure unauthorised entry is prohibited.





The site accommodation provides:

- heated and ventilated mess rooms
- adequate hot/cold water for hygiene
- a drinking water supply
- catering facilities
- Anti bac stations
- clean toilet and facilities
- dry work clothes storage
- relevant health, safety and welfare information noticeboard.

Temporary site lighting

Temporary site lighting will be required to the pedestrian walkways, the compound and within the building work area. Site lighting will be from flood lights fixed to the outside of the cabins. These lights will be on PIR controllers and timers. They will be located with their heads angled downwards to ensure the surrounding properties are not affected by high lux levels of light. The pedestrian walkway lighting will be at low level and be in the form of strip lighting.

Lighting within the building will be provided by strip lighting and will be turned off at 6.00pm daily.

Site access, compound and parking

Safe pedestrian and vehicular access, including emergency and refuse collection vehicles, will be maintained at all times.

Our aim is to have an excellent relationship with the Client and local residents, which will be maintained throughout the project, we will work with the Client and their requirements and not jeopardise our relationships through inconsiderate or poorly planned/coordinated activities.

Car Parking for site personnel will be off site, utilising the public parking provision in the surrounding area. There will be no parking within the confines of our site compound. There is a finite volume of car parking available in the immediate vicinity so we will look to reduce our impact by implementing car-sharing initiatives to reduce the number of cars travelling to and from site.

Fire prevention

We will complete a fire risk assessment and ensure that this is reviewed as the construction works progress. No smoking will be permitted within the site confines and no burning of any materials will take place. Waste and storage will be kept to a minimum to ensure the fire loading is as low as possible. Hot works will only be carried out under a ‘hot works’ permit, which will be signed off daily, and we will have a qualified Fire Marshal on site at all times.

We have a duty to prevent personal injury or death and damage to the Works or other property from fire. We will comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by the Construction Confederation and The Fire Protection Association (The 'Joint Fire Code').

The Fire and Emergency procedures will include the site-specific safety induction, training and instruction of staff, operatives and visitors, the location of the assembly point, instructions on what to do in an emergency, the identification of fire points, alarms and firefighting equipment, and also any special arrangements for the evacuation of high risk areas.

Other key elements to cover in the plans are the position of site cabins/welfare, a location plan of the fire points, emergency access routes for emergency vehicles and the location of existing fire escapes from the Central Hall building. All fire routes must be clearly marked, maintained and kept unobstructed at all times.

All escape routes will be adequately lit and safety signs positioned to direct all personnel to a point of safety. All access routes will be cleaned, maintained and kept clear of all debris. As the works progress the emergency routes may change to suit the works.

The site will be a no smoking zone.

Construction methodology

Introduction Site preparation and enabling works Substructure works

Structural Alterations and enhancements

Superstructure works Roof and walls construction Upper floor mondifications MEP works Internal finishes External works

Waste Management

Despite the fact that production of Site Waste Management Plans (SWMP) is no longer mandatory, we as a matter of routine have continued to generate them for every project we undertake. We utilise a standard SWMP template which forms part of our ISO 14001 accredited Environmental Management System – a copy is provided at Appendix 3. The plan allows for early identification of recovery and re-use opportunities, an examination of how design might be developed to minimise waste production (through for example standardisation of dimensional setting out to suit material modules), landfill diversion targets, and details of the proposed waste management contractors.



In terms of on site management of waste, we engage the services of one of our approved waste management contractors. For this project we will use Premier Waste Skip Hire from Hyde. Premier are currently supplying a number of our projects in the area and return recycling rates of at least 95% for all waste removed from site. We receive monthly reports which describe how this has been achieved, the data from which is input to, and forms the backbone of, our own SWMP.

To assist in the recycling process our preferred approach is to segregate waste streams at source by providing dedicated skips within our waste management compound, tailored to the material generated at the time. So at varying stages of a project we may have skips for concrete and masonry, timber, plasterboard as well as general waste. These will be located in the on site compound area shown in red hatching o our site logistics plan. Where spatial constraints dictate that we cannot accommodate individual recycling skips, we rely upon our appointed waste management contractor to separate and recycle waste at their off-site plant, providing us with monthly break down reports to describe the recycling volumes of the various waste streams generated.

Upon completion of projects, the results from the Site Waste Management Plan are compared with the site targets. We use Smartwaste and WRAP guidelines to benchmark levels for the amount of waste produced.

Environmental Considerations

Environmental monitoring

The main areas covered by this Construction Environmental Management Plan include the following, plus details of the baseline monitoring that will be carried out and the mitigation measures to be implemented prior to works commencing:

- pollution to water courses
- control of dust
- noise and vibration

- cleanliness of the highways

Daily measurements will be undertaken using real time/visual/olfactory methods during periods when ground works are being undertaken and the monitoring frequencies are likely to be increased (up to several times daily) depending on nature of site works.

Monitoring is required to assess compliance with short-term exposure standards and address problems early on. Timely action can be taken to prevent complaints and avoid causing concern for those working near the site.

Within the site boundary, dust monitoring shall be carried out by the use of Frisbee type gauges (directional dust) at the predetermined locations. A visual assessment of fugitive dust will be undertaken.

We will install a portable weather station with data logging capacity in the site office to monitor daily wind speed and direction, barometric pressure, temperature, and rainfall in order to assess parameters which are likely to affect pollutant emissions from the proposed works. These parameters can provide directional information about fugitive dust and particulate matter emissions.

All field monitoring data and laboratory results will be provided in PDF or Excel format and will be added to the single dataset of analytical results for the site. Results will be compared with earlier results for the same locations to the National/European Air Quality Standards. Where no standards are available, long-term exposure standards are derived from other sources:

- Environment Agency/ Defra Contaminated Land TOX reports for inhalation TDI's
- WHO Air Quality Guidelines for Europe ▪ US EPA Integrated Risk Information System ▪ CAR 2012.

If any significant variations arise, an explanation will be sought and the site manager will, within 24 hours, make available the findings to the Manchester EA. Details of the limitations and mitigating measures for dust nuisance are detailed later.

Daily environmental records

The Daily Environmental Record (DER) will be tailored to the specifics of this project to include site information together with the following additional items:

- daily checks/remedial measures to safety fencing/barriers
- dust monitoring at the pre-determined locations
- weather forecasting information, current weather conditions and actions taken to reduce potential for nuisance
- noise monitoring at pre-determined locations
- daily checks for debris on the public highway leading to the site ▪ daily plant inspection records.

The DER will be developed to provide an all-encompassing and auditable record of our operations on site.

The DER will be made available to the Client as required.

Daily and weekly environmental records will be maintained by us during the entire duration of the site works.

Operational control measures

Our Project Manager will maintain contact with local residents/businesses in the immediate area so that any concerns on environmental impacts may be addressed at an early stage.

Regular visits from the regulatory authorities will be encouraged so they will be confident that controls are in place and monitoring is being carried out; this will aid the authorities in responding to any enquiries from the public.

A proactive approach will be taken to keep all neighbours informed. We will issue newsletters to local residents/businesses to keep them informed of the progress on site.

Prevention of pollution of watercourses

Proximity to public realm highways gullies and RW outlets means that pollution prevention and surface water control will be of paramount importance. We will adhere to the principles prescribed by the now withdrawn Environment Agency Pollution Prevention Guidelines 5 and 7 as we consider them to reflect best practice.

A designated fuelling area will be located on site away from any water sources. We will ensure that any fuel required for plant will be stored in double bunded tanks placed within areas of bunded impermeable surfacing. These areas will be situated away from existing or new manholes/gullies. Safety and warning signs will be placed in the designated areas to warn of the danger of spillages.

Refuelling shall be undertaken so that any spillage is collected on a spill tray and disposed of offsite to a licensed refuse facility. Tool box talks shall be held in order to ensure that the operatives are fully aware of correct refuelling procedures.

Environmental spill kits will be available on site for the full duration of the works and our staff members will be trained in their use.

Any spillages shall be reported immediately to the site manager, immediately cleaned and cleared in an approved manner, and any contaminated sub-soil disposed of in the correct manner. Depending on the nature of the spillage we will inform the Environmental Agency.

New manholes will have their metal covers fitted and new gullies will have a plywood cover over them to prevent waste products being poured down them.

Adequate skips and hazard waste collection drums for paint tins and the like will be provided and disposed of off-site.

No washing out of paintbrushes, tins, plastering equipment and the like will be permitted unless it is done in the allocated location and skip provided.

Air quality

In order to mitigate the impact of dust generating activities, site-specific measures in accordance with best practice guidelines will be implemented.

A Risk Assessment and associated Method Statement (RAMS) will be developed for all activities involved in the works and these measures will be incorporated in the Works. Generation of unknown odours may be unavoidable during excavations. We will deploy a water bowser with an adapted spray bar system to dampen down surfaces and consequently mitigate dust and ensure consistent moisture conditions; this plant mitigates dust/odour nuisance by blanketing the ground with a fine spray of water droplets.

All cutting of blocks, concrete, tarmac and the likes will be carried out with wet cutting equipment fitted with dust suppression kits.

NO2 exhaust emissions will be controlled by limiting the use of ICE-powered non-road mobile machinery, reverting to electric and battery operated wherever possible. Where this is not possible, we will ensure that run times are limited – machinery will not be left idling for example – and that all plant is of modern, efficient design and well maintained at all times.

All personnel will be reminded of good practice and standards through a series of “Tool box Talks” and safety inductions.

Noise and vibration

We will ensure that noise control complies with the recommendations of BS 5228-1, in particular clause 7.3, to minimise noise levels during the execution of the works. Noise testing will be completed as works commence using the Site Managers noise meter reader and controls will be put in place where noise exceeds 85 dB(A) when measured from the site boundary. Additional controls such as acoustic screens will be used to contain the noise if required. Radios or other audio equipment will be prohibited and we will not permit employees to use such equipment whilst on site.

All vehicles and mechanical plant used for the purpose of the Works shall be fitted with noise control devices (silencers, SMART reversing alarms) and shall be maintained in good and efficient works order.

All compressors shall be `sound reduced’ models fitted with properly lined and sealed acoustic covers which shall be kept closed whenever the machines are in use, and all ancillary pneumatic percussions tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers.

Machines in intermittent use shall be shut down in the intervening periods between work or throttled down to a minimum, and plant and vehicles started up sequentially rather than all together.

Onsite and offsite noise levels will be monitored regularly. Site activities will be restricted to site working hours approved by Planning/EA.

As far as reasonably practicable, we shall not exceed the vibration dose values as specified in BS 6472-1: 2008. As a minimum, we shall take noise readings at the pre-determined locations daily.

In order to mitigate the impact of noise and vibration activities, site specific measures in accordance with Best Practicable Means (BPM) will be implemented and shall include the following:

- scheduling of construction delivery vehicles to least noise sensitive times of the day
- time slots for large deliveries to ensure that convoys of vehicles do not arrive simultaneously
- use of sufficient clear signage to ensure that construction vehicles use only the designated routes
- restrictions on times when construction traffic can use the designated access highway to site

Regular communication will be maintained with the local residents/businesses for the entire duration of the works. A phone number and contact person shall be provided and displayed on the site entrance for the public to use out of hours.

The internal modifications required will mean some breaking and drilling works will be required. Vibration monitoring will be in place for the duration of these works. If obstructions are encountered and need to be removed, specific risk assessments and method statements will be put in place prior to these works commencing to clearly detail how the vibration will be mitigated to the normal parameter levels allowed on construction sites.

Dust control

If material is being removed from site, then this operation shall be undertaken using **covered vehicles** to minimise dust liberation.

Dust control measures shall be undertaken including as a minimum, the damping down of the site with water during periods of dry weather and when excavation works are undertaken.

The following monitoring works shall be undertake:

- daily visual and odour diary
- weekly monitoring of dust site wide and at receptor locations
- occupational dust monitoring at the down-wind boundary of the site, for total inhalable and respirable dust.

Based on a subjective assessment, if dust levels are a nuisance site wide, especially at the site boundary, then contingency measures for dust control shall be implemented.

Monitoring data from the site will be compared to exposure standards, which form the basis of the trigger levels. If the trigger levels are exceeded then we will re-assess the working practices on site.

Trigger levels will be set according to 2 levels of control as follows:

- Level 1 - To protect workers on site, based on occupational exposure standards. Parameter measured being close to or at the exposure standard. Action will be to investigate reasons and modify ongoing works
- Level 2 - To protect nearby sensitive receptors. Parameter above exposure standard. Action will be to stop the site works, investigate the reason and modify ongoing works.

Measures to avoid the deposit of extraneous materials on the highway

The nature of the refurbishment works mean that highway cleanliness is unlikely to be a major risk as there is not a great deal of bulk excavation and earthworks involved. Nevertheless all traffic activities need to be controlled and monitored so daily inspections of the site entrances and public highway will be undertaken and a photographic record taken of each inspection.

We will be responsible for providing a banksman, an operative, and an attendant road sweeper as required for the duration of the works. They will be tasked to keep the site entrance and public highway/car parks free of mud and debris at all times.

We will ensure that all roads and paths are maintained in a clean condition throughout the project including damping down and any damage to roads or footpaths will be made good upon completion.

We will utilise an on-site jet wash facility which will be established close to the site entrance and be used to clean vehicles before they leave site. We will prevent the transfer of dust and mud out of the site by regularly sweeping and cleaning access roads.

The wheel wash operative will ensure the roads/footpaths are kept clean at all times and an attendant road sweeper will be available to clean the road should any debris get onto the public

highway. The road sweeper will also periodically clean the existing road gullies adjacent the site entrances.

At completion of the works a road sweeper with a gully sucker attachment will clean the existing road gullies adjacent the site entrances.

Project Communications

Our aim as the Principal Contractor is to ensure the project is managed to achieve a target of zero accidents and zero risks to health. Good communication and liaison between the Client, Project Manager, John Turner Construction and the design team members is critical to the smooth running of the contract.

Site liaison and meetings

During the mobilisation period and all during the refurbishment works, communication and liaison between all parties will be key to success. By forming close links with Central Hall Building Management staff, other stakeholders and adjacent property owners, we will get a clear understanding of their concerns, thus allowing us to work with them to avoid any disruptions to their everyday operations, and they will get an understanding of the construction process, programme dates and our delivery requirements.

Weekly meetings will be held to review the construction programme, risks, key dates and the duration of each construction activity will be discussed and the implications on the surrounding areas of the site can be assessed. This will allow the risks to be considered, the risk register to be updated and preventative controls put in place prior to the works being undertaken on site.

We will ensure that we are aware of any planned events during the construction works. To avoid any interruption to these planned events, good planning and communication is essential. By discussing these events early we can all work together to understand which construction activities and deliveries are happening, and then assess the risks and put in place risk mitigation measures.

It is essential that we comply with all the Health, Safety and Environmental requirements especially whilst working outside our site boundary between the separate site areas. Good programming, communication, RAMS and a knowledge of the surrounding building uses will help prevent any incidents/accidents. We will hold regular safety and co-ordination meetings with all contractors and sub-contractors working on the site and ensure there is a flow of information between all parties regarding the health and safety on the project.

All personnel working on site must have our safety and site safety induction prior to starting work.

Daily liaison

In addition to the formal weekly meeting, we will hold a daily informal meeting with our subcontractors, where a daily task sheet will be issued indicating the day's activities, along with any sensitive or high risk works planned. Immediate issues and concerns can also be addressed at this time.

Contractor progress meetings

We will hold a monthly Project Progress meeting on site along with the Client and full project team. We will provide a contractors report with an update on programme, the progress, discuss any concerns, actions and outstanding information.

Community Communications

Details relating to the project and contact details for our site Project Manager will be clearly displayed via a sign board at the site boundary. This will include out of hours emergency and John Turner Construction head office contact details. The site will be registered with the Considerate Constructors Scheme (CCS) and all associated banners and signage material appropriately displayed. The CCS information poster also includes contact telephone number for our site Project Manager. Our commitment to the scheme is to achieve *Performance Beyond Compliance,* with a benchmark score of minimum 37/45.

Communication with local stakeholders and businesses will be embraced. We will ensure this via the following means:

- Clearly displaying the contact details of our site management team at the site boundary
- Carrying out initial letter drop and subsequent newsletter updates to all local residents and businesses
- Distributing the CCS complaints/Compliments form and encouraging feedback
- Circulating our own CCS questionnaire which can be returned anonymously via a post box at site boundary
- Attending residents meetings and workshops to share progress on the scheme and deal with any queries and concerns
- We welcome the opportunity to deliver talks and careers advice at local schools and other organisations and will explore the potential for such engagement once started on site
- Our Local Labour Proposal (LLP), will describe the commitment we will make in respect of creating local jobs, opportunities and apprenticeships during our time on this project. We will communicate this via newsletters and promotional signage displayed at the site boundary.

Appendix 1 Programme of Works

Appendix 2 Site Logistics Plans

Appendix 3 Site Waste Management Plan Template