

No. 3 Circle Square, Manchester

Construction Management & Methodology Plan



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1.0 Document Control

<u>Revision</u>	<u>Date</u>	<u>Author</u>	<u>Section Amended & Notes</u>

2.0 Introduction

The purpose of this Construction Management and Methodology Plan is to address the detailed procedures, sequencing and construction methodology anticipated by the project team engaged in the planning, liaison, and construction of the No. 3 Circle Square building.

The plan outlines proposals on traffic and environmental measures to be adopted during construction and provides supplementary information to the Environmental Statement on construction related issues.

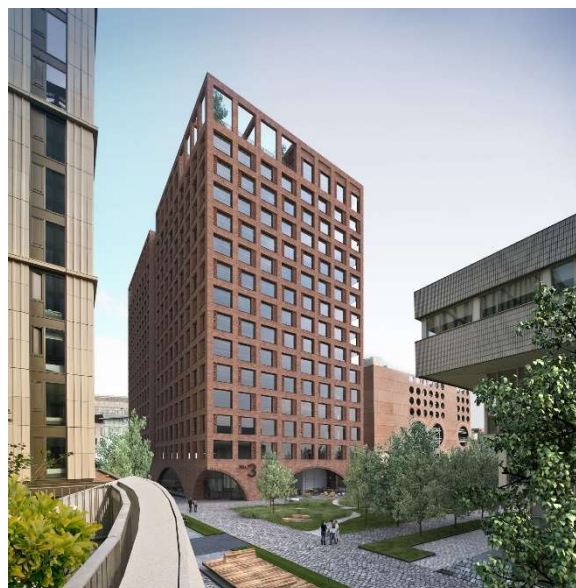
Detailed consideration of potential impacts during the construction process and any necessary mitigation measures are provided in each relevant section of this plan.

The main aim throughout the construction period is to minimise impact on the surrounding properties and roadways for the duration of the work.

It is not to be confused with the Construction Phase Health & Safety Plan, which will provide the contractor with a mechanism to comply with its legal responsibilities when acting as principal contractor in respect to the Construction (Design & Management) Regulations 2015.

The CMP considers all aspects and stages of the construction process, being;

1. Substructure
2. Superstructure – Pre-cast twin wall Core & RC Frame
3. Envelope – Roof & Façade
4. Internal Fit Out & Commissioning
5. External works & Symphony Gardens

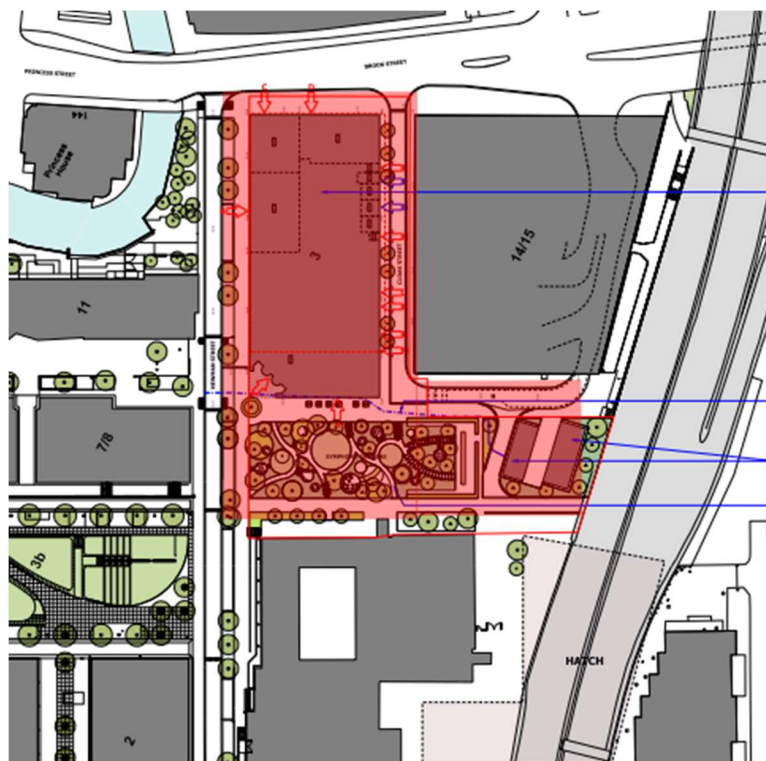


3.0 Site Details

3.1 Site Location

The site is located within the existing Circle Square Development located between Oxford Road, Princess St and near the Mancunian Way.

The No. 3 Circle Square project is bound by Newham Street to the northwest and Princess St to the northeast, the NCP car park/Premier Inn to the southeast and the Manchester Technology Centre to the southwest (the location is shown below in red).



3.2 Description of the Site & Boundaries

From the knowledge taken from visits and inspections on site and as shown on the architect's drawings and pre-construction information issued, we have formulated a logistics plan for managing the site during the construction works.

It is envisaged and planned that the main access to the site will be from Newman St via Oxford Road. We will operate a one-way system on site meaning vehicles will exit the site onto Princess St.

Site Boundaries

The site will be fully secured by self supported hoarded to all elevations. The fencing shall be fully maintained throughout the works and inspections recorded and actioned on a weekly basis. Formal procedures will be instigated and maintained to control access to the works and to prevent and safeguard against any unauthorised entry on site. Site security measures will also be reviewed and deployed for the periods when construction works are not on-going to ensure the site always remains secure and safe.

It is imperative that the access way and entrance is kept clean and well managed at all times and to aid this all deliveries to site will be pre-booked in via an online system to mitigate the flow and quantities of construction traffic and deliveries to eliminate any congestion or build-up of site traffic outside of the site boundary.

A detailed traffic management plan will be implemented prior to works commencing on site and monitored throughout the works on a daily basis. This plan will also be communicated through our procurement manager to all subcontractors before orders are agreed and placed.

3.3 Pre-Start Survey

Prior to commencement, full surveys will be carried out to record the following, which will be agreed with the appropriate client's representatives:

- The condition of any adjoining buildings, features, roads, hard standings, and boundaries (Dilapidation survey).
- The location / depth of all existing main services, drainage, and manholes – details shall be obtained from the relevant authorities or other owners.
- All service authorities and adjacent landowners shall be notified of the proposed works not less than one week before commencement of activities.

Documentation

All relevant documentation should be in place prior to commencement on site, including the F10 document, Outline Construction Phase Health & Safety Plan, Designers Risk Assessments and a Site Waste Management Plan. A site-specific Environmental Impact assessment will also be carried out. All existing drawings will be obtained from the design consultants prior to the planning and execution of the works along with the following documentation:

- Planning Approval
- Building Regulation Approvals – this will be reviewed regularly to ensure that we have provided the clients representatives with any information they require to satisfy the Building Control Inspector.
- Topographical Surveys
- Dilapidation Survey.
- Drainage Surveys.
- Existing Service Survey.

- Environmental Assessment Report.
- Waste Management Plan.
- Ecology Report.
- Any Environmental Clearance Reports from previous enabling works.

4.0 Scope of The Works, Programme & Construction Methodology.

When considering the programme and methodology for this project, the development offers a set of challenges for the construction team.

The city centre location combined with the close proximity of main roads and neighbouring properties means that our proposals need to be clear from the start in order to minimise disruption to the surrounding area.

We have developed our programme and methodology with these issues in mind and are confident that our experience and expertise in working these sorts of constraints will enable us to develop a strong relationship with the local area and provide a spectacular new building.

We have built up a detailed design, procurement & construction programme showing all activities, their durations, and the relationship between them. The durations have been calculated using historic output data combined with expert feedback from our supply chain. Taking these things into account we are confident that we have produced a robust programme that will deliver No. 3 Circle Square in 26 months.

4.1 No. 3 Circle Square

4.1.1 Substructure

The initial works will involve the installation of the piling mat in November 2022, from here in early 2023, piles and substructure works will be carried out and completed. Initially we will focus on completing the foundations for the core as this will enable us to begin the concrete core as the remainder of the substructure works are being completed. A tower crane will be erected in to facilitate the concrete core construction.

4.1.2 Superstructure – Concrete core and steel frame

Once the core foundations are completed and while the remaining pile caps and ground beams are being installed, the concrete core slip form will commence. When the concrete core is completed, the steel frame construction will commence and another tower crane will be erected and used for the steel frame installation. The precast stairs will be installed using the first tower crane and when completed, both tower cranes will then be used for the erection of the steel frame.

The concrete composite floors will start installation once the steel frame is up to level 8 and both activities will be completed in phases around and up the building until completion

4.1.3 Envelope – Roof & Façade

Works to the envelope include the installation of the weather boarding system, window installation, brickwork and curtain walling. These works will commence from mid-late summer of 2023 and all works will be completed from fixed mast-climbers located around the building perimeter.

Due to logistical constraints, there will be limited storage on site, a lot of the materials will be stored off site where practical and delivered to site on a 'just in time' basis.

Works to the roof structure will be progressed in late spring of 2024 on completion of the roof slab. Rain water will be controlled during the build process by utilising temporary water proofing, drainage solutions and de-watering techniques so as to remove any unnecessary build up of water on site.

The envelope works are expected to be complete by the late summer of 2024 when the mast climbers working platforms will be removed.

4.1.4 Internal Fit Out & Commissioning

Internal fit out works include the installation of substations, partitions and ceilings, M&E installations, wall and floor finishes and internal Joinery. The fit-out works will run concurrently with the envelope works, albeit staggered slightly for sequencing and water tightness purposes. Careful coordination of the fit-out works will be implemented due to the restricted footprint of the build and again, materials will be delivered to site on a 'just in time' basis. Offsite construction methods will be encouraged where possible.

M&E central plant will be delivered to site in time for installation and commissioning periods. The M&E commissioning period will take place towards the end of the fit-out phase. Witnessing and statutory authority inspections will conclude the commissioning process.

4.1.5 External Works & Symphony Gardens

As part of the overall development there is hard landscaping around the building, the forming of a new road and the construction of Symphony Gardens. All these works will commence towards the end of the project in late summer of 2024 and will be completed as part of the overall project for the end of 2024.

Execution of the Works

Specific Method Statements and Risk Assessments will be provided for all activities prior to commencement of the works. Method Statements for activities identified as requiring special attention or high-risk by the Principle Designer or GMI site management team will be reviewed by GMI's health and safety manager and submitted to the Principle Designer for review / approval if deemed required and necessary.

Completion of Activities

At completion of activities and before any subcontractor leaves site, GMI will carry out detailed inspections of the works completed and produce snagging lists for subcontractor action in line with our integrated Quality Management System and audit.

The design team will also be advised at this stage and will be requested to make any comments and observations.

Handover

It is intended that all snags will have been actioned and final cleaning completed to present to the client's team for acceptance. 10 to 12 weeks prior to PC, a handover workshop will be facilitated to promote and manage a 'soft landing' approach to completion.

Site Management Plan

It is proposed the project will be managed by a strong management team, led by a visiting Construction Director, and a site-based Senior Project Manager and supplemented with experienced internals and frame / façade senior site managers.

The site team will also be supplemented with experienced specialist third party consultants such as Net Zero Carbon, MEP, etc. These services will enhance and support the project team throughout the full project duration.

5.0 New and Existing Utilities

Prior to commencing the main project works, a full review of underground services will be undertaken, and any services that will affect the construction works will be either diverted or lowered.

New services will be brought into the site via the most appropriate route. All works will be co-ordinated with the surrounding building operators and fully compliant with best practice for these operations.

6.0 Hazard / Risk & Environmental Management and Controls

Policy's & Procedures – all schemes follow the GMI Management "Risk Control Planning" policy no. QES1_2_3. Consisting of; Design, Pre-Commencement, Operations, Environmental, Supply Chain.

Workshops & Meetings – Pre-construction – Highways, Neighbours, Full Design-Build & Client Team, Key Sub-contractors, Commercial. During Construction – feedback sessions, item in all meeting minutes.

Control Log – Risk Registers (updated & live), safety audits.

Risk Assessments and Control Procedures - Element specific risk assessments will be developed during the course of the works in conjunction with the specialist sub-contractors, these will be in line with requirements of the construction phase health and safety plan, the designers risk assessments etc. With particular attention being given to the adjacent boundary conditions and the unique solution needed for each elevation.

Below are some key areas where, in conjunction with the design team and our supply chain, we are currently further developing site control procedures.

Site Specific items - relating to Health and Safety where particular attention will be given during pre-construction phase that the team will develop specific Method Statements and Risk control procedures to manage;

- Public Safety in and around the entrances to site and the site boundaries.
- The proximity of the adjacent main roads and associated control measures implemented to ensure no disturbance of the service.
- The presence of local businesses, offices and accommodation in and around the construction site.
- Public realm and existing footpaths around the perimeter of the site.
- Erection / Dismantling and management of on-site Tower Crane.
- Managing and ensure that the existing fire escapes from neighbouring buildings are not hindered or compromised at any time during the works.
- Maintained Pedestrian access to the completed residential block (by others) for the duration of the works on site.

Whilst this list is not exhaustive, it will be used as discussion points for the team developing the project Construction Phase Health and Safety Plan.

6.1 Working Hours

The construction hours will be as set out in the planning approval; however, we anticipate these to be in the realm of;

07.30am – 6.00pm Monday to Friday

08.30am – 2.00pm Saturday's

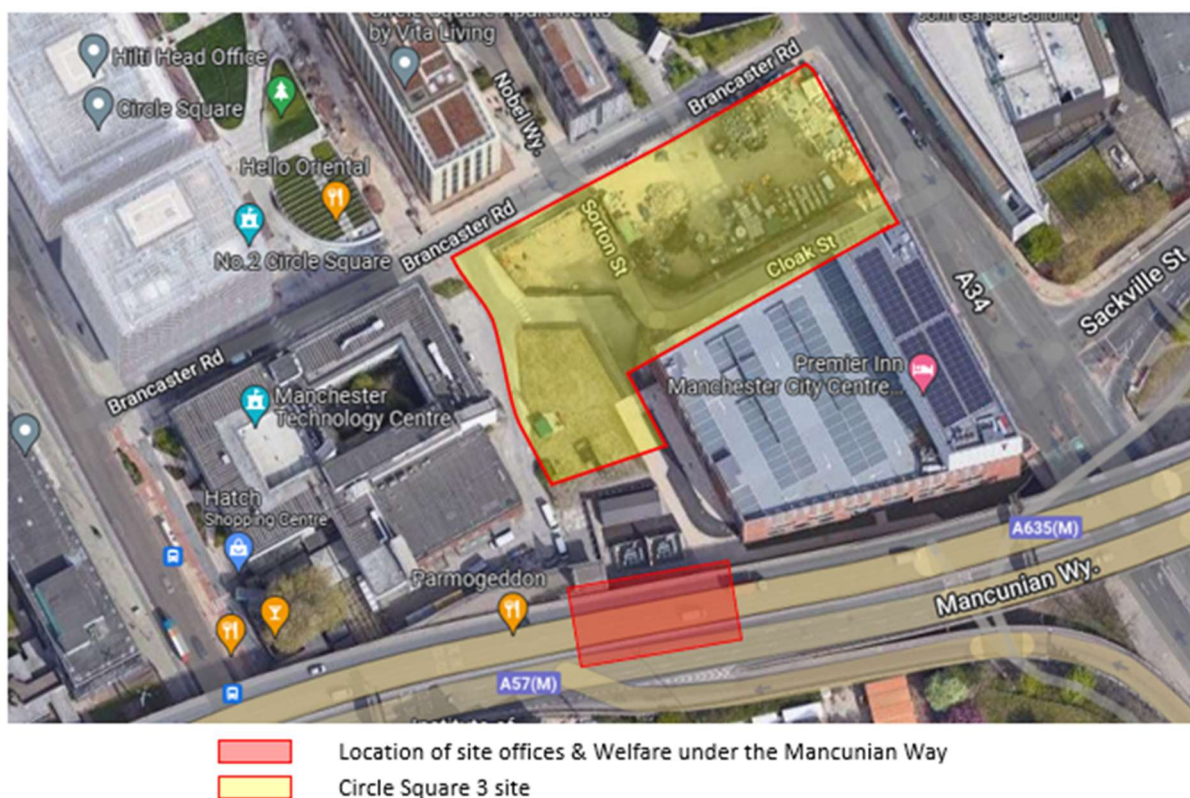
Closed / No Working - Sundays and Bank Holidays.

There may be certain circumstances where construction work will be required to take place outside of these hours.

The exact phasing and timescales of this will be communicated to our neighbours and direct to the relevant Environmental Health Officer for the area for the necessary section 60 approval if deemed required.

6.2 Construction Site Accommodation Welfare and Storage

For the duration of the project, we will be locating our site offices and welfare on the existing Bruntwood car park located under the Mancunian Way and the location is shown below. The offices and welfare are in close proximity to site and provide ample accommodation for site staff, operatives, and visitors alike. Access to the sites from here will be through a pedestrian access gate located in the hoarding of both the welfare area and site. Further details of this can be found in the 'Contractors Staff and Operative Site Access' section of this document.



Material storage on the site is limited, all supply chain members will co-ordinate their respective needs with the site gateman and deliveries team. All deliveries will need to be booked in on an online delivery system. This will help alleviate construction traffic in the surrounding area. Materials will be offloaded from the vehicle directly to the point of use wherever possible.

6.3 Car Parking for Contractors Staff and Operative

There is no provision for parking within the footprint of the sites or the construction welfare compound. However, there is a multi storey car park next to the project and it will provide safe and controlled contractor parking.

All contractors and staff will be encouraged to use public transport (readily available in the area) and to vehicle share to reduce on the carbon impact. We will provide secure cycle storage within our welfare compound and there are safe cycle routes within the area.

Contractors Staff and Operative Site Access

Generally pedestrian access will be restricted to the pedestrian entrances where a security turnstile system will be in operation. Workers will be logged in whilst all visitors will report to the designated gate person to be escorted to the site offices for induction. At all times pedestrians and vehicle movements shall be kept segregated as far as reasonably practical. Public transport will be promoted throughout the scheme as there are several public transport options readily available.

A secure turnstile with biometric access onto the site working areas from the public realm to prevent any unauthorised access.

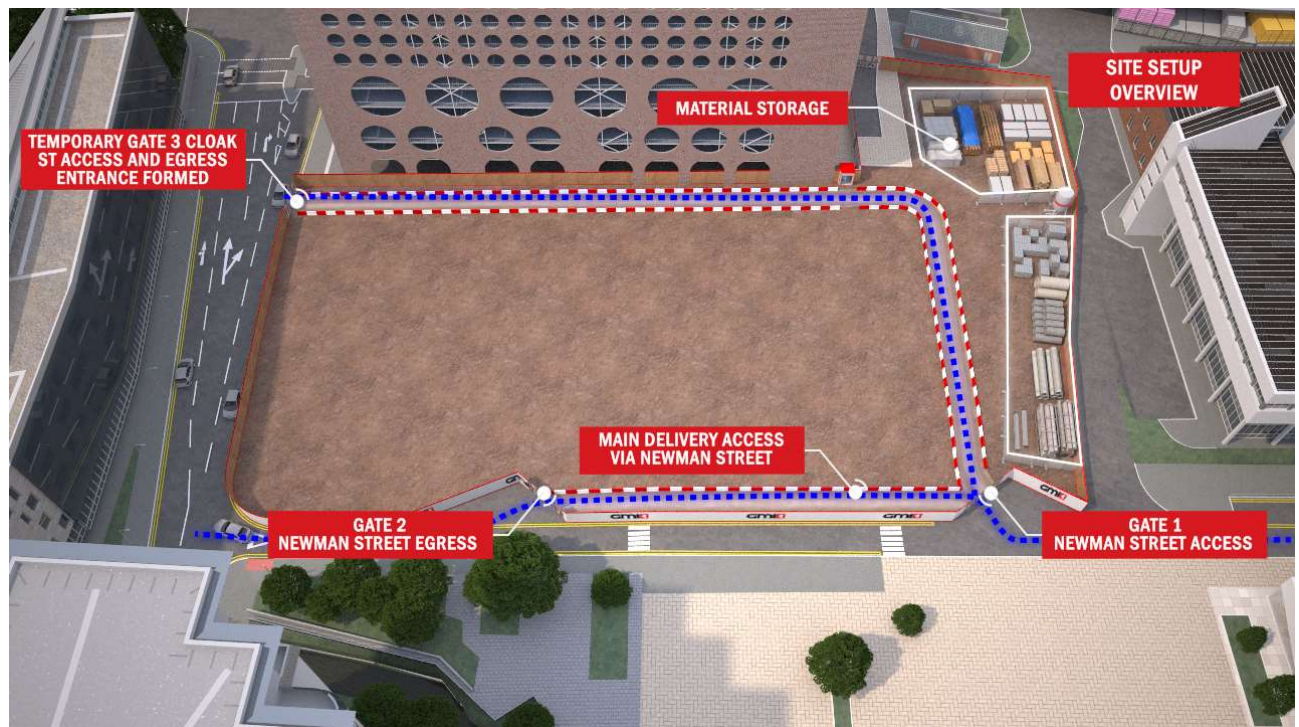
There will be no access granted unless authorised by GMI, this will be following a site safety induction and in the case of visitors, escort onto site by competent team members. There will be access through the turnstile and then a designated walkway to the site, the turnstile will be both the point of access and egress from site and will record the personnel for emergency evacuation purposes as well as recording data for capturing the carbon footprint of the site and information in relation to the projects social impact plan.

The site will also be monitored out of hours by a tag guard system whereby if the motion sensors/beams are broken, a locally appointed security guard will be immediately notified and attend site to investigate and deal with the situation as necessary, as the work progresses the security will upgrade to that of a static guard.

Cyclists - There are no cycle lanes currently around the perimeter of the site boundary however our site gatemen and banksmben will be observant of cyclists when directing public and vehicle movements alike.

6.4 Deliveries, Highways & Safety

To facilitate the safe construction of the development, we will operate a one-way delivery system for access and egress onto site. Deliveries will access the development from Oxford Rd, onto Newham St and into site, deliveries will then exit the site onto Princes St, either via Newham St or directly from site onto Princess St. A footpath or partial footpath closure will be required on Princess St for the duration of the project (full details to be finalised with MCC Highways). The outlined traffic management plan is shown below.



Delivery routes/information will be provided to all contractors with an emphasis on utilising the main route (Oxford Rd and egress via Princess ST). Any significant deliveries (Cranes/ Piling Rig) will be coordinated with neighbouring sites to mitigate any disruption.

6.5 Plant and Equipment

All the plant and equipment on site will be maintained in accordance with the PUWER Regulations. All plant will also be operated by competent and trained personnel who will also carry out their weekly and daily maintenance checks. No plant will be operated on the highway unless they hold the relevant licenses.

Fuel Storage - All fuels will be stored in a double bunded container with a capacity of 110% and kept padlocked shut when not in use. Drip trays will be used underneath the containers to contain any drips of fuel. A designate fuel storage area will be set up on the project away from any surface water drainage to ensure refuelling is carried out in a controlled environment. A spill kit will also be located in the controlled zone and in the event of a spillage, the site management will be notified immediately, and the fuels cleaned up immediately.

6.6 Construction Environmental Management Plan

The development of a 'Construction Environmental Management Plan' will be undertaken for the site during the procurement phase of the scheme.

The CEMP defines responsibilities and methods during the construction phase of this development to manage potential impacts on the environment and operation of all surrounding stakeholders.

The CEMP addresses the following issues associated with the development:

- Dust Emissions
- Noise Control
- Control measures for adjacent canal
- Ecology
- Water Pollution
- Waste Management
- Contaminated Land
- Community Responsibility

Compliance with this document is a requirement for GMI and all its sub-contractors operating on the site. By using our GMI company Construction Environmental Policies and Procedures as an operational framework we will integrate the specific requirements of this CEMP into site specific operational procedures on the project.

All proposed sub-contractors on the project have confirmed their compliance with both GMI's Environmental Policies and the CEMP.

Emergency Contact Details

Senior Project Manager – Adrian Cronin - 07890040177

Considerate Contractors

The project will be registered with the Considerate Contractors Association and we will aim to achieve a score rating of 'Excellent' or as a minimum 'Very Good'.

Neighbours

GMI acknowledge the presence and the importance of the existing properties / businesses / offices and accommodation adjacent and surrounding the proposed site and we will be considerate of their needs and the needs of their customers / staff at all times throughout the construction phases.

Any local residents and neighbours will be updated regularly on site activities and progress as the works progresses. GMI encourage open and clear channels of communications with all stakeholders.

GMI will identify any potential risks which may arise from neighbouring land users / projects or businesses and ensure adequate arrangements are in place to mitigate those risks. These risks along with the mitigation measures will be clearly defined within the Construction Phase Plan and shared with all stakeholders.

Regular liaison between all parties on site will be organised and managed by GMI with site meetings held to discuss ongoing works and plan ahead to any forthcoming works which may have an impact on others. All works will be coordinated with the relevant parties to ensure that risks are identified and adequately controlled.

GMI propose regular coordination meetings with neighbouring properties to ensure no disruption is caused and the day-to-day logistics can be discussed in detail. Any complaints from neighbouring properties will be dealt with by the project lead in timely manner. Complaints will be acknowledged immediately and dealt with within 48 hours. A GMI contact telephone number will be provide to the neighbouring properties and displayed on the external site notice board.

GMI operate an 'open door' policy with all of the workforce and subcontractors with regards to Health and Safety and encourage positive collaboration and intervention. All Health and Safety information will be displayed on a site notice board on the external perimeter of the site boundary for all to access and review.

The site will be kept clean and in good order at all times. The Site facilities, offices, toilets and drying rooms will always be maintained to a good standard. All surplus materials and rubbish will be managed and controlled to ensure they do not spill over into the site surroundings.

7.0 **Avoiding Mud & Dirt on Highways**

Our strategy for minimising mud on the highway is to keep construction traffic on surfaced routes to and from the site. As vehicles enter the site they will do so on this protected surface, this will therefore minimise the opportunity for mud to enter the highway. The gateman will check each vehicle as it exits the site and is escorted back out onto the highway. Additional regular checks will be made by the site management of the surrounding roads to ensure they are kept in a clean state. We will ensure that mud and or debris will not be allowed to get onto the highway.

At the commencement of the works onsite and prior to any main excavation works taking place and to mitigate any mud on the roads, a jet washer will be used to clean the wheels of vehicles before exiting site onto the highway. Once the site operations are well underway it will not be necessary as vehicles will be fully on hard surfaced roadway.

As an additional precaution, a road sweeper will be deployed as and when required to ensure that the exit road and any other surrounding roads are not affected.

Concrete Wash Out - The concrete washout will be undertaken on site. A specific washout skip will be positioned within the compound area during concrete pours. Concrete vehicles will be offloaded and cleaned within the site compound thereby ensuring no debris or spills are deposited on the street / highway.

	CONSTRUCTION MANAGEMENT PLAN		GMI Construction Group PLC Ltd
			Management System
			Rev 1. 23/06/2022

7.1 Measures to control the emissions of dust and dirt during construction

The site management team will conduct regular checks for the potential generation of dust on site. Any dust generated during the initial groundworks phase will be controlled by either towable water bowsters to suppress the dust across site, hose pipes or constant water spray/mists set on the hoarding to dampen down the site.

Any other dust that is created from the use of concrete or wood cutting will be controlled by water suppression bottles or on tool local exhaust ventilation system.

When very windy conditions prevail and there is a potential of dust being blown up onto the highway, work will stop until the situation can be appropriately controlled / remedied including any necessary liaison with Manchester City Council's Highways Department if needed.

The control of dust will also include the following items;

- Protection of surfaces and exposed material from winds until disturbed areas are sealed and stable
- Dampening down of exposed stored materials, which will be stored as far from sensitive receptors as possible;
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place;
- Avoidance of activities that generate large amounts of dust during windy conditions;
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery;
- Avoid dry sweeping;
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use;
- Ensure vehicles entering and leaving the site are covered to prevent escape of materials during transport;
- Minimisation of vehicle movements and limitation of vehicle speeds to 5mph

Compliance with current legislation on dust control including the Environmental protection Act 1990 and the Control of Act 1974 will be ensured.

7.2 Noise and Vibration

The working hours on site are described in paragraph 6.1 above. There may be a requirement to work occasionally outside of these working hours. Noise monitoring will be carried out and recorded throughout the project.

It is not anticipated there will be much vibration created during the construction works, however we have included for vibration monitoring during the piling works.

Again, we will ensure compliance with current legislation on dust control including the Environmental protection Act 1990 and the Control of Act 1974. Relevant codes of Practice set out procedures for dealing with the control of noise on construction and demolition sites as per BS5228: 2009 noise and Vibration Control on Construction and Open Sites.

7.3 Waste and Recycling

All waste generated during the construction phase will be disposed of using skips that have been supplied by reputable suppliers. Waste management licenses and waste carrier's licenses will be obtained from all suppliers prior to removing the waste from site thus ensuring that all waste has been dealt with in accordance with the regulations.

Any hazardous waste i.e. empty spray paint cans, oily rags etc will be disposed of in the site hazardous waste drums. Once these are full, they will be collected and disposed of by GMI's designated waste management contractor.

Some of the waste produced during the construction phase will be recyclable and the waste collection contractor will segregate (off site) all the waste that can be recycled. All spoil arisings from the groundworks will either be removed from site or used as capping material where permitted. Designated skips will be used to recycle other waste.

Effective management of waste on site will consist of the following measures;

- Closed skip container (food waste etc.)
- Regular clean-up of the site
- Careful handling and transportation to avoid damage
- Efficient ordering
- Off-site manufacturing (where possible).
- Skips will be located in the site storage compound.

Contact Details.

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