

Construction Environmental
Management Plan in support of the
Planning Application for
the new construction works to One
City Road, Manchester – Planning
Condition 8 Revision 1D – 28/06/23



Contents:

1. Introduction
2. A method statement to protect the river Medlock from accidental spillages, dust and debris, including identification of all existing surface water drainage on site
3. Display of an emergency contact number
4. Details of Wheel Washing
5. Dust suppression measures
6. Compound locations where relevant
7. Location, removal and recycling of waste
8. Vehicular routing and phasing strategy and swept path analysis
9. Parking of construction vehicles and staff
10. Sheeting over of construction vehicles
11. Communication strategy with local residents and businesses, which shall include details of the out-of-hours complaint procedure, and how engagement, consultation and notification with local residents and businesses will take place during the works; Development shall be carried out in accordance with the approved construction management plan.
12. Construction Programme and phasing including hours of site opening/operation
13. Site logistics:
 - 13.1 - Site Logistics
 - 13.2 - Storage of plant and materials
 - 13.3 - Security hoarding and maintenance
 - 13.4 - Loading and unloading of plant and materials
 - 13.5 - External Envelope Materials
 - 13.6 - Detail and timing of scaffolding and Access Provisions
14. Environmental Considerations
 - 14.1 - Ecology
 - 14.2 - Community Consultation Strategy
 - 14.3 - Site Waste Management Plan and Waste Recycling
 - 14.4 - Human Impact Management Plan
 - 14.5 - Risk Assessments

APPENDICES

- Appendix 1: Site Logistics Plan
- Appendix 2: Draft Developing Draft Programme 20012/DDP01 Rev 2
- Appendix 3: Traffic Management Plan
- Appendix 4: Swept Path Analysis
- Appendix 5: Best Practice Policy – Water
- Appendix 6: Site Waste Management Procedures

1 – Introduction

This Construction Environmental Management Plan (CEMP) has been produced by Marshall Construction (West Yorkshire) Ltd (MCWY) for the proposed redevelopment of One City Road, City Road East/ Medlock Street, Manchester M15 4PN. It details how construction operations will be planned and controlled to minimise any detrimental impact on local amenities, neighbouring residents/businesses and infrastructure. The plan provides a qualified assessment based on current information and is subject to modification during detailed construction planning and following discussions required with Manchester Highways.

The site is located at the junction of City Road East and Medlock Street near the City centre of Manchester. The current building is accessed from City Road East and Shortcroft Street. An existing building up to 4 storeys with app. 6 storey feature tower on the northern corner currently occupies the site, this is to be demolished and redeveloped with 2No New Office buildings; 1No 15 storeys incl. roof plant plus basement plantroom, the other 11No storeys incl. roof plant plus basement plantroom. The new structure will comprise a steel frame with composite floors around a structural core, the structure will be sat on new pile foundations with a façade mixture of precast feature panels and inset glazing. The offices will include a main circulation and service core with open plan office areas around the cores complete with primary mechanical and electrical services, suspended ceilings and raised access floors.

2 – Method statement to protect the river Medlock from accidental spillages, dust and debris, including identification of all existing surface water drainage on site

Accidental spillages on site – refer to the 'Best Practice Policy – Water' (Appendix 5)
For proposed dust and debris management see section 5 'Dust Suppression Measures' & 14 'Environmental Considerations'

Protection to the river Medlock from accidental spillages and surface/ground water -
At demolition stage all existing drainage will be 'grubbed up' to prevent any surface water entering the river Medlock or existing drainage system. The Site will also be fully hoarded to prevent debris/spillages leaving the site and entering the existing drainage system

Water Management Strategy:

A Water Management Consultant will be appointed to advise on the methodology for managing construction site water and to seek the necessary agreements and discharge licences with the appropriate Authorities.

Pending the advice from the Water Management Consultant our considerations will at least include the following; -

Existing Surface Water on site

Any existing surface water will be pumped via a settlement facility from all the current surface water locations around the site and in to a holding pond constructed within the site area.

This will be carried out prior to any excavation works to ensure that the ground is not disturbed and the water is surface only and not groundwater.

Construction Water from excavations:

Measures to Manage Site Water: Prevention of silt pollution will be considered in relation to discharge of any water from the site.

Prevention of any site water entering excavations where possible will be by using cut off trenches/drainage grips, this will divert clean water away from the construction area. Provision of temporary holding ponds will be formed to pump any construction water to, these will allow silts in the water to settle and discharged in to the existing combined drainage system (existing combined sewer manhole located at the north end of the site) Any water discharged to the combined sewers/United Utility asset will be done so under a temporary trade effluent consent. The flow rate into the drainage system will be identical to the finalised drainage scheme.

Where possible this water will also be utilised where possible for site works such as damping down/ dust suppression and vehicle cleaning/washing.

All facilities provided will be frequently inspected, assessed for effectiveness and replaced/emptied as required. Ongoing maintenance and review will be carried out for all facilities.

Any temporary stockpiles will be sealed with the back of a machine bucket to ensure that water does not percolate through them and avoid sediment run off. Cut off trenches will be provided or silt fencing as required around the base of the stockpiles. The location of stockpiles will be away from the edges of the ponds and a buffer zone provided between them.

Our Best Practice Policy for water included in the Appendices will be considered at all times.

3 – Display of an emergency contact number

Brief details of the scheme will be contained within an A4 flyer that will be available to the general public at locations on the hoardings around the site, this will give details of the scheme being undertaken and project timescales. It will also give contact details of the Senior Site Manager.

We will also issue on a regular basis a newsletter containing a progress update on the current position on site along with details of any forthcoming works that may have an impact on the surrounding businesses. We will again include contact details of our Senior Site Manager for any concerns or queries.

4 – Details of Wheel Washing

Measures will be put in place to ensure that all vehicles leaving the site will as far as practically have their wheels free from mud etc. a jet wash machine will be installed adjacent to the gate houses to enable the wheels to be cleaned as required. The vehicles will be checked for debris before leaving the confines of the site boundaries. Once the tower crane is established the majority of vehicles will remain on the surrounding tarmac road surfacing.

The unloading/ laydown area off Shortcroft Street will be temporarily tarmac surfaced to areas not already surfaced, this area will be continually monitored for dirt and dust and will be cleaned as and when required as will the loading bays on Medlock Street and eventually River Street.

A road sweeper will be engaged as and when required to clean the highway should the need arise during excavation works.

All site roads to be regularly brushed and kept free from mud and dust.

5 – Dust suppression measures

Dust emission mitigation measures will be implemented on site; a 'Dust Management Plan' as detailed below will be applied and managed on site. Once good practice dust control measures are implemented on site, air quality issues are not considered to be a constraint to the planning consent.

Dust Management Plan:

The site will be kept clean and tidy at all times and will accord with any statutory requirements. Dust suppression measures will be employed as and when required which will include high pressure hoses discharging a fine water spray.

Vehicle wheels will be checked for cleanliness prior to exiting the site with wheel cleaning facilities deployed at the exits to ensure no debris migrates on to the public highway. Vehicles delivering and removing materials of a dusty nature will be sheeted over.

Site layout will be planned, where possible, with dust minimisation a main consideration. Site Roads to be regularly brushed and kept free from dust and mud.

Issue	Control Measure
Communications	• Develop and implement a stakeholder communications plan that includes community engagement before work commences on site • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environmental manager / engineer or the site manager • Display the head or regional office contact information
Site management	• Record all dust and air quality complaints, identify causes(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken • Make the complaints log available to the LA upon request • Record any exceptional incidents that cause dust and / or air emissions, either on or offsite, and the action taken to resolve the situation in the log book • Provide a solid 2.40m high hoarding to the site perimeter which will act as a dust barrier
Monitoring	• Undertake daily on-site and off-site inspection to monitor dust, record inspection results, and make the log available to the LA upon request

	• Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the LA upon request • Increase the frequency of site inspections, when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
Site Preparation	• Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible • Avoid site runoff of water or mud • Damp-down as required • Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used • Cover or fence stockpiles to prevent wind whipping
Operating vehicle / machinery and Sustainable travel	• Ensure all vehicles switch off engines when stationary – no idling vehicles • Avoid the use of diesel/ petrol powered generators or vehicles, and use mains electricity or battery powered equipment where practicable • Impose and signpost a maximum-speed-limit of 5mph on surfaced and 5mph on unsurfaced haul roads and work areas • Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials
Operations	• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques • Ensure an adequate water supply on the site for effective dust suppression, using non-potable water where possible and appropriate • Use enclosed chutes and conveyors and covered skips • Minimise drop heights and use fine water sprays wherever appropriate • Ensure equipment is available to clean any dry spillages, and clean up spillages as soon as reasonably practicable using wet cleaning methods

Waste management	• No bonfires and burning of waste materials will be permitted
Construction	• Avoid scabbling (roughening of concrete surfaces) if possible • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out • Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos
Track-out	• Use water-assisted dust sweeper on access and local roads, if required • Avoid dry sweeping of large areas • Ensure vehicles entering and leaving site are covered to prevent escape of materials • Inspect on-site access routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable • Implement a wheel cleaning system

6 – Compound locations where relevant

See item 13 – ‘Site Logistics’

7 – Location, removal and recycling of waste

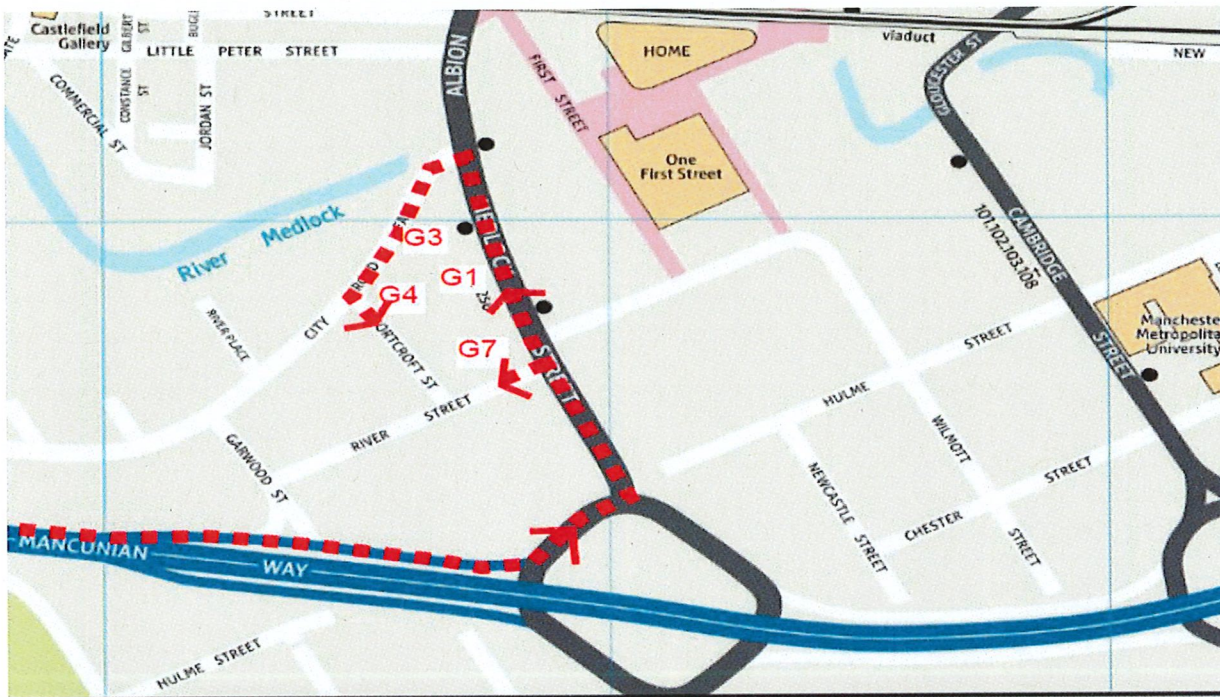
See item 13 & 14 – ‘Site Logistics’ and ‘Environmental Considerations’

8 – Vehicular routing and phasing strategy and swept path analysis

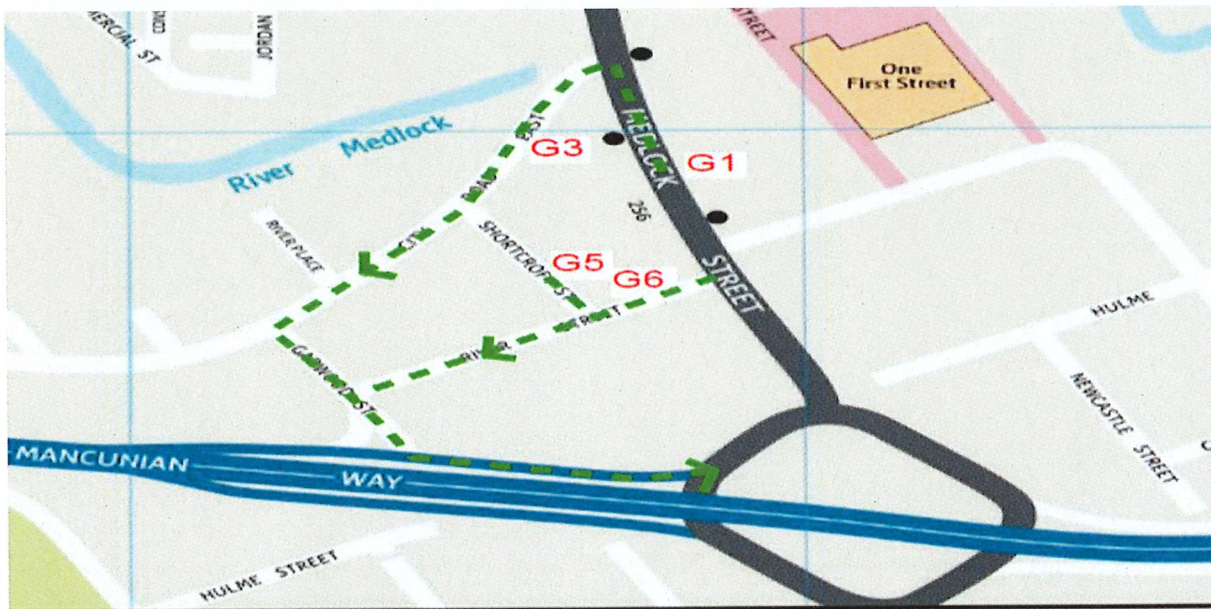
The Traffic Management Plan is a separate document attached (**Appendix 3**) describes how traffic in and around the proposed development will be managed. Swept Path Analysis drawings are to be read in conjunction with the Traffic Management Plan

Attached are 2No sketches showing the proposed delivery access and egress routes. These are also incorporated into the Traffic Management Plan.

Incoming Access & Egress Routes



INCOMING/ACCESS DELIVERY ROUTES



EGRESS DELIVERY ROUTES

Swept Path Analysis drawings for various sized vehicles is appended to the CEMP (**Appendix 4**) See the Traffic Management Plan (**Appendix 3**) that describes how differing sized vehicles will be accessed/managed at the various gates.

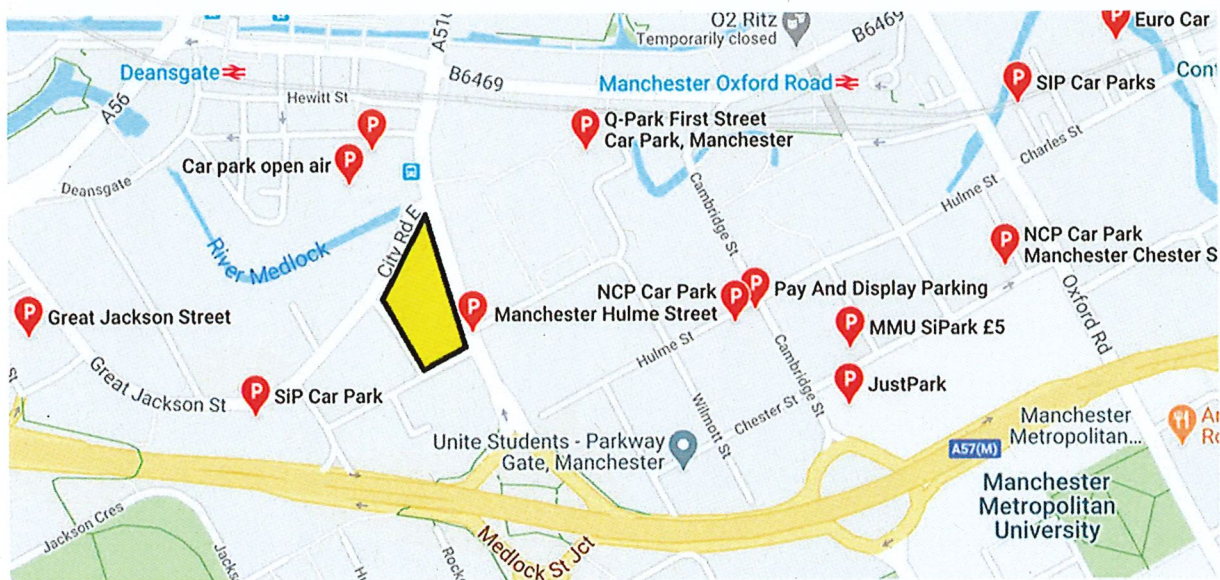
Please note that majority of vehicles can drive through loading zones G1 and G7 within in hoarded areas on the current road surfaces and exit via existing roadways G2 and G6, or access the site directly from the existing roadways G3 + G4 and turn within the site area if necessary and then egress via existing exits G3 and G5 onto the highway network.

9 – Parking of construction vehicles and staff

There will be no parking available on site for operatives/site management or visitors, it is envisaged that operatives/site management and visitor parking will generally be located off-site. There are a number of local pay and display car parks as shown on the diagram below i.e. NCP on Little Peter St, Q Park on Anne Horniman St.

Where vehicles are parked off-site, drivers will be instructed to park courteously and with due consideration to local businesses and amenities. It will be made clear to all Subcontractors and Operatives during their site inductions that they are not to park on the streets on or around the site unless in marked parking bays. Whenever possible, operatives will be encouraged to car share to further reduce the number of vehicles. The site will also promote the use of the 'Park and Ride' facilities along with displaying relevant information such routes and frequencies for the tram, rail and bus routes which are available in the vicinity.

City Road East Local Parking



10 – Sheeting over of construction vehicles

See Item 5 for 'Dust Suppression Measures'

11 – Communication strategy with local residents and businesses, which shall include details of the out-of-hours complaint procedure, and how engagement, consultation and notification with local residents and businesses will take place during the works; Development shall be carried out in accordance with the approved construction management plan.

See item 14 – 'Environmental Considerations'

12 – Construction Programme and Phasing

The new construction works will follow the completion of the demolition works, as there is unlikely to be any overlap due to the access required and the demolition requiring the removal of the buildings including slabs.

There are basement areas for Plant & Services to consider

The Construction programme is based on normal working hours of 0730-1800 Monday to Friday and with deliveries within the same period. The workforce may arrive 30 minutes prior to the above time but will not work outside of these times – noise during the first hour of work will be kept to a minimum.

Occasional work on Saturdays between the hours 0830-1300 is anticipated for moving materials within the site to create space to ease deliveries and traffic congestion for the following week days. Generally, no works will take place on Sundays and Bank Holidays., other than when dismantling the tower crane – this will be subject to further discussion and agreement with Manchester City Council Highways Department & Manchester City Council Environmental Health Department.

When works are required to be completed outside of the aforementioned working hours we will seek approval in advance from Manchester City Council Environmental Health Neighbourhood Services Department and provide a mail-shot to local residents and businesses explaining the need to work out of hours, the type of work to be completed and the likely duration of such works. It is considered that such instances will be limited and will include works such as tower crane erection/dismantling, and when power floating concrete slabs which require continuous works following pouring to achieve the finish whilst the concrete cures, although this will be minimal as the majority of slabs only require a pan finish.

A monthly newsletter will be produced and distributed to all adjacent residential and business properties updating on progress to ensure that the local community are kept up to date with the works.

Making services safe and demolition period (incl. removal of any ACM) carried out as a separate contract, is to finalise but is anticipated at approximately 6 months to complete.

The overall construction programme is anticipated at approximately 48 months following the completion of the demolition; with finishes progressed consecutively.

See attached Draft Developing Draft Programme 20012/DDP01 Rev 2; Appendix 2

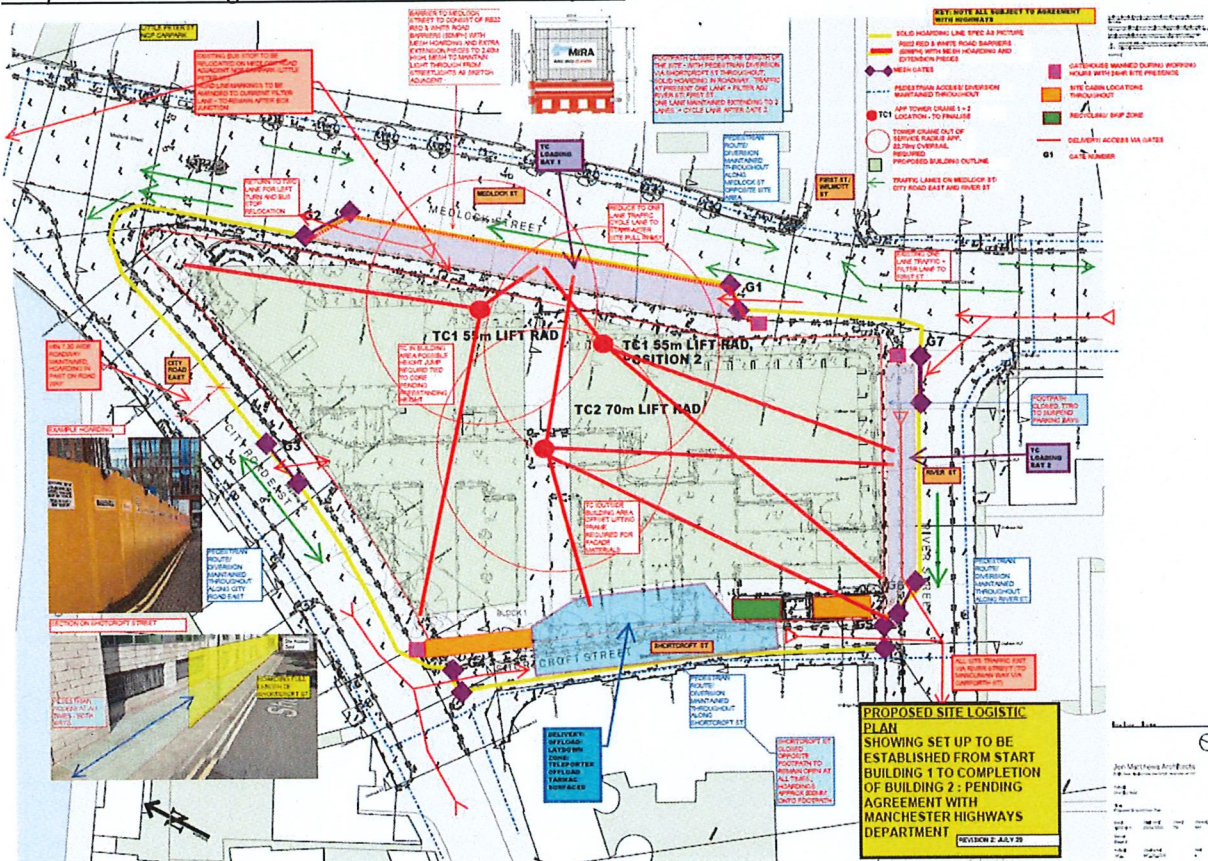
13 – Site Logistics Plan (See Appendix 1)

13.1 – Site Logistics

The 'Site Logistics Plan' below (and Appendix 1) gives an overview of the proposed arrangements, the plan highlights:

- Existing Traffic Routes
- Site Access and Egress Routes
- Approx. Tower crane positions (To be finalised pending final loads, proposing max 2 No cranes simultaneously)
- Solid security hoarding positions, gates and loading bays
- On site cabin locations
- Loading and unloading of plant and materials
- Pedestrian Routes Maintained
- Road, lane & footpath Closures
- Relocation of Existing Bus Stop

Proposed Site Logistics Plan Revision 2: July 20



Initially demolition and plant access will use the existing turning into site off City Road East in the proposed location of gate G3. This access will remain surfaced until sufficient progress has been achieved to the groundworks to Building 1, when the gate will no longer be available.

The access point for all deliveries to and from site will be made either along Medlock Street turning into the loading bay on Medlock Street, gate G1, via the Unloading zone on Shortcroft Street, gate G4 (to be closed to traffic for the duration) or onto River Street, gate G7, pending the delivery, timing and associated building/location.

Gate G4 will be predominantly used for Box van, Transits, flat bed wagons and smaller site deliveries with the majority of HGV's using Gate G1 and G7. A large number of deliveries into G1 and G7 will take considerable time to unload as the tower cranes will be used for unloading and also for erecting i.e. precast sections will have to be unloaded, lifted and fixed into place before the next section can be lifted, the use of G4 for smaller deliveries is therefore essential to be able to progress other works simultaneously and therefore minimise the overall period.

All deliveries/unloading will take place within the hoarded site boundary. Gates G1 and G7 will accept all heavy goods vehicles throughout construction operations. The vehicles will access the loading bays/ loading zone and will drive straight through and exit the hoarded areas onto the highways, therefore there will be minimal turning within the confines of the site; other than via gate G3 early in the programme.

Materials unloaded from G1 and G7 will be either temporarily stored in the (blue) offload/ laydown area off Shortcroft Street or lifted directly onto the building areas using the tower crane – which once the buildings foundations are established will be the only means of unloading from G1 and G7.

The magnitude of the buildings on the site means that during construction of the buildings – particularly when constructing building 2 there will be minimal external space available, for access/ unloading and accommodation and the co-operation of Manchester City Council Highways Department, the local community and considerate planning and liaison will be essential in order to make this a success and to minimise any disruption to all parties.

Deliveries will be organised on an as and when required basis due to the limited storage area. The area off Shortcroft Street between gates G3 and G5 will be utilised for predominantly smaller vehicles and temporary storage and will have a teleporter in service to unload and distribute the materials as required.

Access needs to be maintained to the existing premises and pedestrian routes surrounding the site. Once the external hoarding line has been established all deliveries, access provisions, craneage and accommodation will also be contained within the hoarded area, which will have manned 24hour security. Therefore, once established; using appropriate Traffic Management, deliveries and access to the adjacent properties will not be impacted with regular amendments allowing pedestrians, occupiers and businesses to become accustomed to the layout. Temporary directional signage/ gate numbering will be clearly incorporated on the hoarding.

The Site Logistics Plan arrangement would necessitate the following;

- Road closure along Shortcroft St for the duration of the project,
- Closure of the footpath and part of one lane on Medlock Street including a relocation of the bus stop -this may require alteration of some of the existing road markings on Medlock Street. A minimum of one 'ahead only' lane traffic flow will be maintained throughout on Medlock Street, as the current arrangement up to River Street (with filter lanes). The lane closure will mean that where the number of lanes increases to two lanes after First Street this will still occur but further along Medlock Street after the loading bay; with the relocation of the bus stop.
- Closure of the footpath and part of the road including parking on River Street (access maintained)
- Closure of the footpath and part of the road on City Road East

Discussions will be held with Manchester City Council Highways Department and a TTRO application made to reflect the discussions.

Pedestrian access will be maintained around the full boundary of the site with the exception of a section on Medlock Street on our site side, which will have a diverted pedestrian route via Shortcroft Street. The vehicle delivery proposals avoid any reversing manoeuvres and keeps loading/unloading operations well away from the pedestrians on the surrounding footpaths.

Access and egress to and from site will be properly managed by the site team, who will ensure that all vehicles and pedestrians associated with the works are managed safely and in accordance with the agreed Traffic Management Plan. All vehicles will be checked for cleanliness before leaving site.

13.2 - Storage of Plant & Materials

In order to maximise the available space, materials and plant will only be scheduled for delivery when required and on appropriately sized vehicles to suit the restricted access and working space. Materials will be either stored for a limited period on site, or where practicable, taken immediately to the point of use. No storage of materials will be permitted outside the site boundary. Large bulky items will have designated 'lay-down' areas near the point of use. In all cases, material deliveries will be scheduled to fit with the programme to avoid inundating the site. Also, refer to the site logistics and Traffic Management Plan for delivery procedures to site.

13.3 – Security Hoardings and Maintenance

To the full site perimeter, there will be a 2.4m high solid hoarding along with entrance/exit gates to the delivery/loading zones, these gates will be managed at all times by our dedicated logistics supervisor, security guards and banksmen. The perimeter hoardings and gates will be inspected on a daily basis by our logistics supervisor and any maintenance required will be carried out the same day. The section between G1 +G2 will be a RB22 (50mph) Red & White Road Barrier system with mesh panelling above to approx. 2.40m, the mesh will assist with maintaining streetlight coverage.

The hoardings will be located on concrete blocks to allow flexibility and to prevent the need for to affect the road surfaces or any services below, and also to enable removal and replacement as and when required for plant to access the envelope of the building.

24-hour manned security will be in place throughout the duration of the project with CCTV Cameras to the perimeters.

13.4 – Loading and unloading of plant and materials

A strict delivery procedure will be implemented to ensure that the roads surrounding the site are not overrun with delivery and site vehicles. Our logistics supervisor and banksmen will ensure that traffic flow is maintained on and around the site at all times. The loading and unloading of all plant, equipment and materials will be undertaken within the confines of the site area on temporary hard-core/concrete surfaces to pre-determined Gate locations pending the load and the timing within the programme. No offloading will be permitted along or from the public highway and will only take place behind the hoarding line.

Unloading arrangements will be planned well in advance of all deliveries and will be detailed in the orders provided to suppliers. Subcontractors unloading will also be planned and agreed prior to any deliveries again to pre-determined gate locations, so that the necessary provisions can be implemented. 'Stacking' of deliveries will not be permitted along any of the roads in the vicinity of the site and any unplanned deliveries will not be accepted.

Vehicles will usually be expected to provide integrated loading/unloading facilities i.e. ramps for plant access or mechanical 'hi-ab' for materials. Marshall Construction (West Yorkshire) will have teleporter facilities on site which will be used to off-load agreed deliveries only when integrated loading/unloading methods are unavailable. We will also have use of a tower crane for lifting plant and materials directly from the delivery vehicle located in the required loading bay to the active work fronts.

It is proposed to illuminate the site with 4no flood lights fitted to all four sides of the tower crane masts – currently proposed as up to two cranes erected. One of the cranes erected within building 1 to be relocated within Building 2, pending loadings to be finalised. Bulkhead lights will be fitted around the site hoardings and the site area will be illuminated from low level floodlights - facing into the site, particularly the cabin areas. The buildings will be lit with background fluorescent lighting to ensure safe working access/ egress for all operatives with works being carried out using localised task lighting. Where there is a risk of light pollution or nuisance to the surrounding properties shields will be provided to the lights to mitigate such effects, all lighting will be erected in a way that minimises any over-spilling impact on nearby residents.

Clearly marked traffic routes and offloading/storage zones will be provided, with all traffic being directed to these locations by our site management and the gateman. These site rules will be included within the subcontract orders and will be reviewed in detail at the pre-start meetings. Vehicle routes will be marked and controlled to ensure that vehicles offload in the designated areas, accessed via the prescribed routes. All vehicles entering and leaving the site will be travelling forwards. Vehicles will not reverse on to the carriageway.

We anticipate at the peak of the works there will be in the region of 8 to 10 managed deliveries per day these will be directed/banked in to the unloading zone. (See section 4.2 for further vehicle information)

All subcontractors and suppliers will be required to give 48 hours' notice of deliveries. The movement of materials on site will also be controlled by our Logistics/ Liaison Manager.

13.5 – External Envelope Materials

Pre-cast Concrete Feature Facade

The external pre-cast concrete cladding contractor will specialise in the design, manufacture and installation of architectural precast concrete products. Due to the bespoke nature of the product and the need to ensure client satisfaction, comprehensive systems and procedures are in place during all stages of design, manufacture, transport and installation to ensure high standards are achieved.

Once a mix and finish have been agreed, the aggregates and cement are carefully stored internally and batched to ensure consistent finishes to the panels. There are rigorous quality procedures adhered to during the manufacture process. The manufacturers quality management system is based upon the requirements of ISO 9001:2008 and their quality manual ensures compliance with this and also to comply with the relevant EN regulations of the CE Mark. Once products are complete, they are loaded on to specially designed trailers to reduce the number of loads required and the use GPS tracking on delivery trailers to ensure "Just in Time" deliveries which assists in avoiding congestion on site. Whilst loads are maximised, there is no compromise of safety in any way.

Erection on site is carried with use of the tower crane assisted with mobile craneage located within the site area to lower levels, as required. The precast will be fixed either by means of access from internal floor slabs which eliminates the need for scaffolding on site and reduces the number of personnel required, or by using a mixture of MEWP and Mast Climber Access around the perimeter. Pending the final construction detailing scaffolding may be required to the full building facades to gain access for glazing works. The hoarding lines proposed are to enable suitable access width for plant/ access MEWPs or scaffolding where possible. During the design and manufacture stage, fixings are designed and installed based on the panels size and composition. The risk of damage to panels during handling is minimised as they are installed directly from the trailer onto the building and not stored on site. On occasion, panels may need to rotated prior to installation and this is carried out utilised specialised lifting equipment and craneage. By its nature, the product does not require packaging and this reduces waste on site. The contractors employ excellent site managers and erection teams and these, coupled with the quality procedures detailed above, ensure the maintenance of the appearance and quality of the products at all times.

Curtain Walling/ Glazing

Some of our curtain walling facade fabricators have over 25 years' experience designing, fabricating and installing architecturally pleasing high quality glazing systems in a range of low, mid and high-rise buildings.

The proposals for system section sizes, bracketry and fixings etc would be fully engineered by a structural engineer. Any other calculations/tests required would be undertaken before design commences. All materials would be designed in conjunction with the system house recommendations and tests and can be vetted and approved by the design department of the system house for further client comfort. When ordered, all materials would be fully checked under a ISO9001: 2008 quality management system. They would arrive at the production facility where they would be checked under another ISO9001: 2008 quality management system which would carry on throughout the full manufacturing process and beyond.

All materials would be pre-fabricated thus allowing reduced on-site wastage.

Deliveries would be fully programmed and scheduled with the main contractor to suit the site requirements and logistics. All packing of materials, deliveries, off-loading and site distribution would be in accordance with our risk assessments and method statements which would be fully approved by the main contractor's management team before commencement on site.

To assist with the installation, the use of MEWPs/mast climbers or scaffolding for labour access and mobile micro-cranes and glass lifters to assist in the lifting and positioning of heavier glass items. All operators would be fully trained on the use of the machines and all machines would be fully certified from the hiring company.

Installation of the glazing facade would be carried out by fully trained and competent installation teams fully supervised by fully trained contracts managers and directors.

All installed items are fully inspected by and signed off prior to hand over to the main contractor as complete. As with design, the in-house system offers an on-site service where they will also inspect areas of installation and provide report of compliance with the recommendations.

13.6 – Detail and Timing of Scaffolding + Access Equipment

Pending the final façade sequencing the access requirements may change. The requirements for Mast Climbers or full scaffolding will be determined to suit the details adopted.

Whatever the details access will be required to the facades throughout the façade construction and possibly the frame construction; an access zone within the hoarding line will therefore be required. There will also be scaffold to the leading edge and internal edge protection/handrails.

Mast Climbers/ MEWPs / Scaffolding will be required for the installation the precast feature cladding and also the external glazing.

Pending the final system, Curtain walling & Glazing may be carried out from scissor lifts/access booms at ground level around the perimeter of the building to low level areas, then supplemented with mast climbers/ scaffolding to gain higher level access.

14.0 – Environmental Considerations

All applicable environmental legislation will be identified in a register held on site, this to ensure that all documents are put in place in order to comply with legal requirements. As part of our ISO 14001 Environmental Management System all registers will be updated on a regular basis. This will be audited both internally and externally.

14.1 – Ecology Appraisal

The site is near Manchester the city centre. An Ecological Appraisal will be carried out and will be submitted within the supporting information to the Planning Application.

Any recommendations where required will be actioned as part of our Environmental Considerations.

The site external area is currently utilised as a carpark. There are trees surrounding the site. These will require removal in agreement with the tree officer with cognisance of the bird nesting season.

14.2 - Community Consultation Strategy

General public:

Brief details of the scheme will be contained within an A4 flyer that will be available to the general public at locations on the hoardings around the site, this will give details of the scheme being undertaken and project timescales.

Surrounding Residents and Businesses:

We will make initial contact with the businesses adjacent the site and a letter will be issued advising of the forthcoming development. A separate letter will be issued showing the site

logistics plan' once agreed with Manchester City Council this will also include a list of contact names for the project including levels of authority, mobile phone numbers etc. Prior to commencement on site we will arrange to make a further visit to each individual business and inform them of the scope of works to the development, we will highlight the overall construction period, the site working hours (as previously noted) along with the periods where the noise sensitive works will take place, i.e. piling, groundworks etc. We will advise the measures we are taking on site to reduce as much as possible the noise levels anticipated, this by means of acoustic barriers fixed locally to the noise related activities, along with noise reducing power tools etc.

We will also issue on a regular basis a newsletter containing a progress update on the current position on site along with details of any forthcoming works that may have an impact on the surrounding businesses.

14.3 - Site Waste Management Plan (incl. recycling)

As main contractor for the works Marshall Construction will also be principal contractor for the Site Waste Management Plan. Construction site impacts are covered under the monitoring, sorting and recycling of site construction waste, as stated below: -

- Monitoring and reporting energy from site activities
- Monitoring and reporting on water consumption on site
- Monitoring, sorting and recycling construction waste from site
- Adopting best practice policies for air (dust) pollution

The aim of the Site Waste Management document is for the Principal Contractor to provide information, so that they: -

- Have information on the decisions taken by the design team and client during the design phase which relate to Waste Management.
- Can provide an updated Site Waste Management Plan on behalf of the client before work commences on site.
- Can develop the Waste Management Plan, which will be a working document especially in respect of: -
 - Recording waste removed from site.
 - Regularly review the plan.
 - Record the types of waste produced and whether they have been reused, recycled, or otherwise disposed of, and the means of that disposal.
- Can complete and review the plan at the completion of the works as required.

As part of our ISO 14001 accreditation, we carry out a SWMP irrespective if the regulations apply.

Waste Management:

Waste generated during the construction phase is to be cleared on a daily basis. Each floor plate will have a designated waste area that will see bins located within it that can be emptied at the end of each shift. Waste removal may need to occur several times a day during high waste activities, this will be carried out via the hoists and as such general operatives will be employed to ensure this will occur. The waste will enter in to a designated skip zone. Site Waste Management will be controlled by the use of separate skips for the differing types of waste generated, these being:

- Metal
- Timber
- Hardcore
- Gypsum
- General Waste

All carriers of waste will hold a valid waste transfer licence and provide certification to the main contractor for all elements of the process. Detailed below is a table depicting the envisaged construction waste generated:

Material	Disposal to	Recycled/re-use	Recycled by	To land fill
Masonry	Hardcore skip/wagon	Recycle	Off-site contractor	
Broken-out concrete	Hardcore skip/wagon	Recycle	Off-site contractor	
Timber battens	Timber skip	Recycle	Off-site contractor	
Suspended ceiling grid	Metal skip	Recycle	Off-site contractor	
Metal curtain wall system including metal panels	Metal skip	Recycle	Off-site contractor	
Glass within the curtain wall system	Glass skip	Recycle	Off-site contractor	
Plantroom metal roof and wall cladding	Metal skip	Recycle	Off-site contractor	
Steel frame and metal cladding	Metal skip	Recycle	Off-site contractor	
Plasterboard	Special skip	Recycle	Off-site contractor	
General waste	General waste skip	Part Recycle	Off-site contractor	Part Landfill
Flat roof materials	General waste skip	Part Recycle	Off-site contractor	Part Landfill
PFS Steel frame	Metal skip/wagon	Recycled	Off-site contractor	

- Hazardous Waste - Separate skips/containers will be provided for any hazardous waste such as paint tins, mastic etc.

All carriers of waste will hold a valid waste transfer licence and provide certification to the main contractor for all elements of the process.

The New Construction Works

Masonry

The layout of internal blockwork partitions has been illustrated on the floor layout plans. The intention is to show an economical layout of blockwork between returns and openings which reduces the need for cutting. The contractor is also expected to use their experience to minimise blockwork waste.

Partitions & Plasterboard

The plasterboard dry lining lightweight partitioning: it is assumed the main contractor will set out the laying of sheets to minimise waste.

Curtain Walling/Windows/doors

Curtain Walling, Windows and internal doors will all be factory made and should be subject to factory quality control and waste management procedures.

Surface Finishes

Waste from sheet flooring and wall finishes will be reduced by limiting the number of colours used in the project.

Furniture / equipment

Equipment will be grouped where possible to minimise unnecessary service runs.

Mechanical and Electrical Installations

Pipework, thermal insulation, ductwork, and electrical containment will be ordered in section lengths to suit the installations, in order to minimise off-cut waste. Any metallic off-cut waste will be recycled where practical to do so. Production of waste material will be further minimised by off-site fabrication of ductwork, flues and pipework headers.

Recycled Materials

Where possible, practicable and without compromise to the specification, encourage the use of recycled materials.

Timber from Sustainable Sources

All timber will be procured from sustainably managed sources and in line with Marshall Construction Timber Policy

We aim to use timber procured from sustainable sources on our construction sites. Our policy forms an important part of our environmental management system and is one of our environmental targets that have been set so all staff need to be aware and familiar with this policy.

In order for purchased timber to be classified as sustainable timber it has to have a chain of custody certification number. This means that the timber has been tracked through the production process from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution.

All timber will be purchased in line with either the FSC or PEFC accredited schemes that certify the timber

Other timber may be used so long as documented evidence can be provided to prove it is from a sustainable/legal source

Waste Licences

Waste permits, exemptions and licences will be monitored and verified throughout the development once the organisations have been identified.

See Appendix 6 for the 'Site Waste Management Procedures'

14.4 - Human Impact Management Plan

We envisage that during the works at One City Road there will be limited disruption once the pedestrian diversion from Medlock Street is established around Shortcroft Street as this will be maintained throughout. The site hoardings and signage will encourage pedestrians to use the required routes around the building, these routes will be lit and made clear by signage along the hoardings. Discussions are required with Manchester Highways and TfGM to relocate the existing bus stop on Medlock Street further along Medlock Street i.e. adjacent the NCP Carpark on Little Peter St or a location to be agreed.

There will be a 2.4m high solid hoarding positioned at the extents depicted on the site logistics plan (See Appendix 1) complete with sound barriers fixed to the rear.

This logistics plan also demonstrates the proposed site management of delivery vehicles along with associated pedestrian walkways.

The hoarding system will generally be a 2.4m high solid hoarding supported by concrete blocks along with entrance/exit gates to the loading zones. This will be to the full perimeter except between G1 & G2 which will be a Road Barrier system with mesh panelling above to a height of approx. 2.40m, the mesh will assist with maintaining streetlight coverage. All gates will be managed at all times by our dedicated logistics supervisors.

Footpaths will remain in use all around the building (Except the site side on Medlock Street) as will foot access to adjacent properties. Clear Vehicular access will be maintained wherever possible and a flexible traffic scheme proposed to try to achieve this. However, there may be instances where vehicles may be temporarily held, again this will be minimised and prevented where possible. Regular liaison with the residents/ businesses will assist in mitigating traffic issues.

Any deliveries entering or leaving the site will be controlled by our gatemen and marshalled by banksmen where necessary.

Pedestrians may be held back temporarily for safety reasons using retractable barriers whilst deliveries access/leave the site. This will be from the City Road East (G3) initially and from the exits G5 & G6 onto River Street, and will only be for a matter of minutes, as full access routes will be restored as soon as the vehicle has safely moved onto site or the highway. General access around these entrances will be available at all times.

All subcontractors and suppliers will be required to give 48 hours' notice of deliveries, no articulated lorries will be allowed on site unless prior agreement with our site management, and the sizes will be checked and assessed on a daily basis to suit the operations and the progress made. The movement of materials on site will also be controlled by the logistics manager/banksmen and gatemen.

Access to the building will generally be from within the confines of the site hoarding however there may be instances where temporary access is required and the hoarding line

moved out for a short period and returned as soon as possible. This will be in full agreement with Manchester City Council Highways Department who will be consulted throughout the development.

Continual dialogue and monthly newsletters etc. will be issued to the surrounding premises and businesses so that they are aware of the proposals throughout the scheme.

As part of our site management structure, we will have a resident Logistic/ Liaison Officer who will be in regular contact with the surround businesses and premises keeping them informed of current progress on site along with details of any forthcoming works that may have an impact on the surrounding businesses.

A strict delivery procedure will be implemented to ensure that the roads surrounding the site are not overrun with delivery and site vehicles. We will ensure that all deliveries to site are made after 8am and no later than 5pm (wherever possible we will arrange for deliveries to take place between 9am and 4pm) so as not to disturb the surround businesses, these stipulations will be included with the subcontractor/supplier orders, any deviation from these times will result in the delivery being turned away. No offloading will be permitted along or from the public highway. Once established Pedestrian access routes will be maintained around the site at all times.

Roads around the site will be regularly brushed (and daily when conditions necessitate) and will be kept free from dust and mud.

Clearly marked traffic routes and offloading/storage zones will be provided on-site, with all traffic being directed to these locations by our site management and the gateman. Vehicle routes will be marked and controlled to ensure that vehicles offload in the designated areas, accessed via the prescribed routes. All vehicles entering and leaving the site will be travelling forwards. Vehicles will not reverse on to the carriageway.

We anticipate at the peak of the works there will generally be 8 to 10 managed deliveries per day these will be directed/banked up to the unloading zone.

Site accommodation due to the logistics of the site and due to the magnitude of the buildings a number of cabins will be positioned on the site off the existing Shortcroft Street, these will be for site operative's welfare i.e. toilets, canteen drying room, and the main office accommodation. Additional offices may be in rented premises local to the site. The site will be manned 24hours/day with a number of gatehouses located around the site, these will be the first point of call should any resident or pedestrian have an issue. The security guard will then contact the Logistics/Liaison Manager.

14.5 - Assessment of Envisaged Risks

Prior to commencement on site a Construction Phase Health and Safety Plan will be produced by the Principal Contractor (MCWY), the contents of this will be:

- Responsibilities
- Standards
- Continuing design development
- Safe building method
- Review of the Health and Safety plan (Pre-construction)
- Development and implementation procedure
- Information, co-ordination and co-operation
- Welfare

- Training
- Contractors Site Rules
- Monitoring
- Health and Safety File

Risk assessments and method statements for every element of the works will be produced by the individual contractor carrying out the task, these will be assessed and commented on by a qualified member of the MCWY team, controls will be implemented on each risk assessment to reduce the risks to as low as reasonably practical. The contractor carrying out the individual tasks will be responsible for carrying out the works in accordance with their risk assessments and method statements. Any deviation or unforeseen condition from the agreed risk assessment and method statement will result in the immediate suspension of the works, the contractor will then be requested to revert back to the agreed method statement or re-submit a new proposal for assessment by MCWY.

An assessment of the envisaged Trades and Associated Risk Levels has been assembled on the schedule below:

One City Road

Assessment of Trades and Associated Risk Levels

Jul-20

Trade	Level or risk			Type of Contractor	Risk Assessment Produced by	Risk Assessment reviewed by	Responsible for actions & Implementation of the RAMS	Comments
	High	Medium	Low					
Site Set Up - cabins				Own labour	MCWY	MCWY	MCWY	
Perimeter Hoardings & Gates				Own labour	MCWY	MCWY	MCWY	
Temporary Electrics/Plumbing				Domestic S/C	S/C	MCWY	S/C	
Initial setting out				Own Engineering	MCWY	MCWY	MCWY	
Piling				Specialist	Specialist	MCWY	Specialist	Although categorised as high risk, controls will be implemented to reduce the risks as low as practicably practical
Excavation				Domestic S/C	S/C	MCWY	S/C	
Groundworks/drainage/foundations				Domestic S/C	S/C	MCWY	S/C	
Tower crane erection/dismantle				Specialist	Specialist	MCWY	Specialist	Although categorised as high risk, controls will be implemented to reduce the risks as low as practicably practical
Steel Erection				Specialist	Specialist	MCWY	Specialist	Although categorised as high risk, controls will be implemented to reduce the risks as low as practicably practical
Pre-cast Panels and stairs				Specialist	Specialist	MCWY	Specialist	Although categorised as high risk, controls will be implemented to reduce the risks as low as practicably practical
Erection/dismantle of passenger/goods hoist				Plant provider	Specialist	MCWY	Specialist	Although categorised as high risk, controls will be implemented to reduce the risks as low as practicably practical
Core drilling of service holes				Domestic S/C	S/C	MCWY	S/C	
Mechanical installation				Specialist	Specialist	MCWY	Specialist	Any high level access will be gained by mechanical lifters
Electrical installation				Specialist	Specialist	MCWY	Specialist	Any high level access will be gained by mechanical lifters
Plumbing installation				Domestic S/C	S/C	MCWY	S/C	
Stud partitions/plasterboard tape and joint				Domestic S/C	S/C	MCWY	S/C	Any high level access will be gained by mechanical lifters
Lift installations				Specialist	Specialist	MCWY	Specialist	Although categorised as high risk, controls will be implemented to reduce the risks as low as practicably practical
Fire protection/fire stopping				Domestic S/C	S/C	MCWY	S/C	Any high level access will be gained by mechanical lifters
Suspended Ceilings				Domestic S/C	S/C	MCWY	S/C	
Raised Access Floors				Domestic S/C	S/C	MCWY	S/C	
Decoration				Domestic S/C	S/C	MCWY	S/C	
Joinery Works				Domestic S/C	S/C	MCWY	S/C	
Ceramic tiling				Domestic S/C	S/C	MCWY	S/C	
Floor finishes				Domestic S/C	S/C	MCWY	S/C	
Fixture & Fittings				Domestic S/C	S/C	MCWY	S/C	
New incoming mains electricity				Specialist	Specialist	MCWY	Specialist	
New incoming mains water				Specialist	Specialist	MCWY	Specialist	
New incoming mains gas				Specialist	Specialist	MCWY	Specialist	
New incoming telecoms				Specialist	Specialist	MCWY	Specialist	

APPENDIX 1: SITE LOGISTICS PLAN REV 2

APPENDIX 3: TRAFFIC MANAGEMENT PLAN

The logo consists of the word "MARSHALL" in a bold, black, sans-serif font, centered within a white rectangular box. This box is itself centered within a larger, thick yellow rectangular border.

MARSHALL

CONSTRUCTION GROUP

PROPOSED DEVELOPMENT

ONE CITY ROAD, MANCHESTER.

TRAFFIC MANAGEMENT PLAN

Revision Record:

<i>Revision:</i>	<i>Date:</i>	<i>By:</i>	<i>Summary of Changes:</i>
-	15.7.20	SJH	Draft initial issue for comment/approval.

Contents

1.0	Introduction	1
1.1	Introduction and Purpose	1
1.2	Site Location.....	1
1.3	Scope of Works	1
2.0	Key Staff.....	2
2.1	Roles and Responsibilities.....	2
3.0	Traffic Management Plan	2
3.1	Proposed Site Access/Egress	2
3.2	Planned Road Closures and Temporary Traffic Regulation Orders (TTRO's).....	4
3.3	Contractors Parking.....	4
4.0	Vehicle Routes.....	5
4.1	Proposed Delivery Route	5

1.0 Introduction

1.1 Introduction and Purpose

- 1.1.1 This Construction Traffic Management Plan has been produced by Marshall Construction (West Yorkshire) Ltd (MCWY) for the proposed office development at One City Road Manchester.
- 2.1.2 The scheme is pending planning and comprises the demolition of existing buildings at One City Road construction of 2No new office buildings; 1No 15 storeys incl. roof plant plus basement plantroom, the other 11No storeys incl. roof plant plus basement plantroom.
- 3.1.3 The purpose and aim of this plan is to demonstrate how construction traffic will be planned and controlled to minimise any disruption to neighbouring properties and the local road network.
- 4.1.4 The plan will layout intended delivery routes along with anticipated closures to facilitate the construction process and to ensure the continued safe movement of traffic/pedestrians throughout.

1.2 Site Location

The site is located at the junction of Medlock Street and City Road East on the approach to Manchester City Centre. Medlock Street leads directly to/ from Medlock Street Junction of the A57(M) Mancunian Way Ring Road. The current building is accessed from an entrance on City Road East.

- 1.2.1 Site address: One City Road, City Road East/ Medlock Street, Manchester M15 4PN

1.3 Scope of Works

1.3.1 Demolition of the existing buildings at One City Road (works carried out in conjunction with a specialist demolition contractor prior to construction works progressing)

2.3.2 Construction of 2No CAT A office buildings; 1No 15 storeys incl. roof plant plus basement plantroom, the other 11No storeys incl. roof plant plus basement plantroom.

- Demolition prior to construction works
- Substructure works (piling, foundations and basement excavation)
- Superstructure works
- Roof structure and coverings
- External envelope
- Internal finishes
- Fit out as required
- Complete external Areas

2.0 Key Staff

2.1 Roles and Responsibilities

2.1.1 Table 1 (below) identifies MCWY roles associated with the works:

Table 1: MCWY Personnel

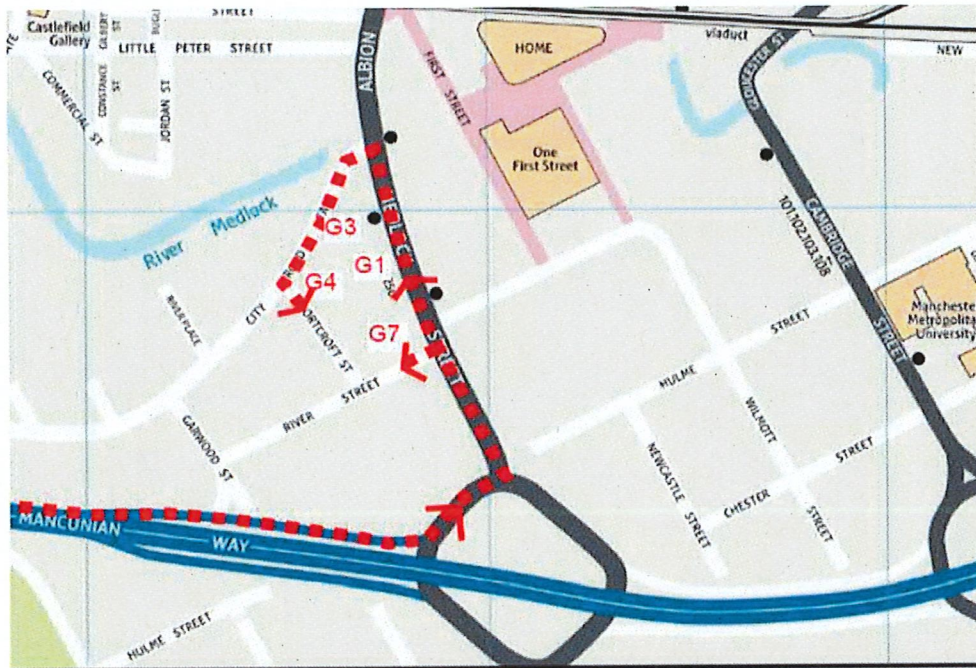
Name:	Role:
T.B.A	Contracts Manager
T.B.A.	Project Manager
T.B.A.	Site Managers
T.B.A.	Safety Manager
T.B.A.	Traffic Marshall/ Logistics/ Liaison
T.B.A	Planning

3.0 Traffic Management Plan

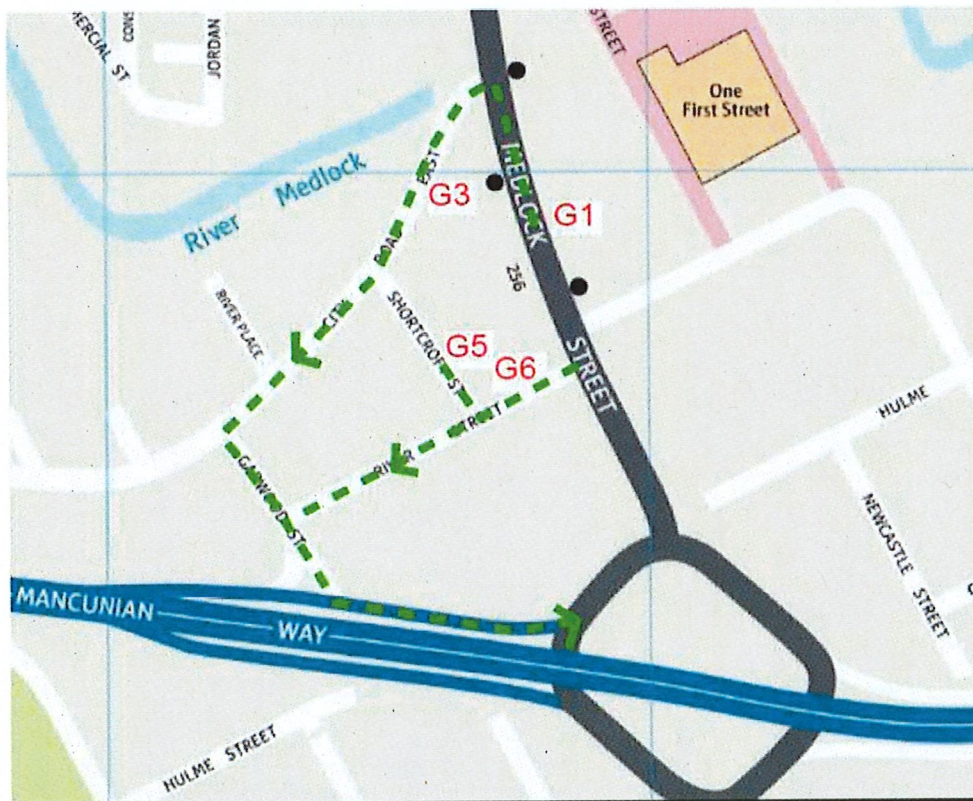
3.1 Proposed Site Access/Egress

3.1.1 Details of the proposed access/egress arrangements are as the attached diagrams.

Incoming Access & Egress Routes



INCOMING/ACCESS DELIVERY ROUTES



EGRESS DELIVERY ROUTES

- 3.1.2 The access point for all deliveries to and from site will be made from the Medlock St Junction of the Mancunian Way (A57(M)) along Medlock Street A5103, straight into the loading bay (gate G1) on Medlock Street, or turning into City Road East (gate G3) and then into Shortcroft St (gate G4) - which is proposed to be closed to traffic both ways, or into River Street (gate G7) loading bay – pending the load and stage of construction.
- 3.1.3 Gate G4 will be predominantly used for Box van, Transits, flat bed wagons and smaller site deliveries with the majority of HGV's using Gate G1 and G7. A large number of deliveries into G1 and G7 will take considerable time to unload, as the tower cranes will be used for unloading and also for erecting i.e. precast sections will have to be unloaded, lifted and fixed into place before the next section can be lifted, the use of G4 for smaller deliveries is therefore essential to be able to progress other works simultaneously and therefore minimize the overall period.
- 3.1.4 All delivery vehicles will be directed to a pre-determined delivery/unloading zone gate number and then unloaded within the hoarded site boundary. Gates G1 and G7 will accept all heavy goods vehicles throughout construction operations and will vary pending the load and timing as previously noted. The vehicles will either drive straight through or initially be turned within the confines of the site (i.e. excavation plant) and leave via City Road East (gate G3) or River Street (gates G5 & G6) back to the Mancunian Way via Garforth Street, or leave the Medlock Street Loading Bay (gate G2) and then to the Mancunian Way via City Road East – all vehicle movements on the highway will be forward facing (with no reversing manoeuvres)
- 3.1.5 The above arrangement would necessitate the following:
- Road closure along Shortcroft St for the duration of the project,
 - Closure of the footpath and part of one lane on Medlock Street including a relocation of the bus stop -this may require alteration of some of the existing road markings on Medlock Street. A minimum of one 'ahead only' lane traffic flow will be maintained throughout on Medlock Street, as the current arrangement upto River Street (with filter lanes). The lane closure will mean that where the number of lanes increases to two lanes after First Street this will still occur but further along Medlock Street after the loading bay; with the relocation of the bus stop.
 - Closure of the footpath and part of the road including parking on River Street (access maintained)
 - Closure of the footpath and part of the road including parking on City Road East

Discussions will be held with Manchester City Council Highways Department and a TTRO application made to reflect the discussions. Line-markings will be altered as required and temporary double yellow lines will be provided around all the hoarding lines. All line

amendments and car parking bays will be reinstated on completion of the project. We will ensure that on-going liaison and discussions are carried out with both Highways and the Network Resilience Teams well in advance of the commencement of the works on site, we will also arrange a pre- start meeting with both teams to review in detail the overall site logistics, licences in place, TTRO applications and working hours for the various work element. Constant liaison with both Highways and the Network Resilience Teams will be maintained throughout the duration of the project.

- 3.1.6 A swept path analysis if required by Highways will be carried out to suit proposals following discussions regarding the proposed site set up/ access routes.

Please note that majority of vehicles can drive through loading zones G1 and G7 within in hoarded areas on the current road surfaces and exit via existing roadways G2 and G6, or access the site directly from the existing roadways G3 + G4 and turn within the site area if necessary and then egress via existing exits G3 and G5 onto the highway network.

- 3.1.7 Pedestrian access will be maintained around the full boundary of the site with the exception of a section on Medlock Street on our site side, which will have a diverted pedestrian route via Shortcroft Street – this will be lit and maintained throughout. The vehicle delivery proposals avoid any reversing manoeuvres and keeps loading/unloading operations well away from the pedestrians on the surrounding footpaths. Access and egress to and from site will be properly managed by the site team, who will ensure that all vehicles and pedestrians associated with the works are managed safely and in accordance with the agreed Traffic Management Plan.

Access needs to be maintained to the existing premises and pedestrian routes surrounding the site. Once the external hoarding line is established all deliveries, access provisions, craneage and accommodation will also be contained within the hoarded area, which have manned 24hour security. Therefore, once established; using appropriate Traffic Management, deliveries and access to the adjacent properties will not be impacted with regular amendments allowing pedestrians, occupiers and businesses to become accustomed to the layout. Temporary directional signage/ gate numbering will be clearly incorporated on the hoarding

- 3.1.8 Deliveries and access will be maintained to adjacent businesses and residents located on Medlock St, City Road East and River Street. Temporary traffic management will be installed during erection of hoardings and may be required by the Statutory Service providers and pending any drainage connections otherwise based on this proposal the effect on existing properties will be minimal and will constantly be considered during our daily planning and site management throughout.

3.1.9 We will engage with all the business surrounding the site and will review their deliveries and access requirements and concerns should they have any.

3.1.10 Access and egress to and from site will be properly managed by the site team, who will ensure that all vehicles and pedestrians associated with the works are managed safely and in accordance with the agreed Traffic Management Plan.

All deliveries will be scheduled to arrive at a pre-determined gate location and will be checked for cleanliness before leaving site.

3.1.11 Routes for emergency services will be kept clear at all times.

3.1.12 The local fire service will also be notified of the works prior to commencement on-site.

3.1.13 We believe that establishing the access and egress locations as shown on the Site Logistics Plan is the least disruptive to existing residents. Consideration will also be made with regards to adjacent developments in progress and access discussions with Manchester City Council Highways Department. We are also conscious of the traffic speed regulations/restrictions surrounding the site.

3.1.14 As set of dilapidation photographs will be carried out prior to commencement of works on site, these will be available for review by Manchester City Council Highways Department at any point throughout and on completion of the project.

3.2 Temporary Traffic Regulation Orders (TTRO's)

3.2.1 A TTRO application will be made to Manchester City Council Highways Department for the Road closure along Shortcroft St for the duration of the project, The Closure of the footpath and part of one lane on Medlock Street including a relocation of the bus stop which may require alteration of some of the existing road markings on Medlock Street. The Closure of the footpath and part of the road including parking on River Street with access maintained, and The Closure of the footpath and part of the road including parking on City Road East

3.2.2 Discussions will be held with both Manchester City Council Highways Department and the Police to agree suitable times and routes for the movement of any abnormal loads.

3.2.3 MCWY will, so far as is reasonably practicable, implement measures to mitigate any disruption to the local road network and take due cognisance of pedestrians, cyclists and other road users as appropriate.

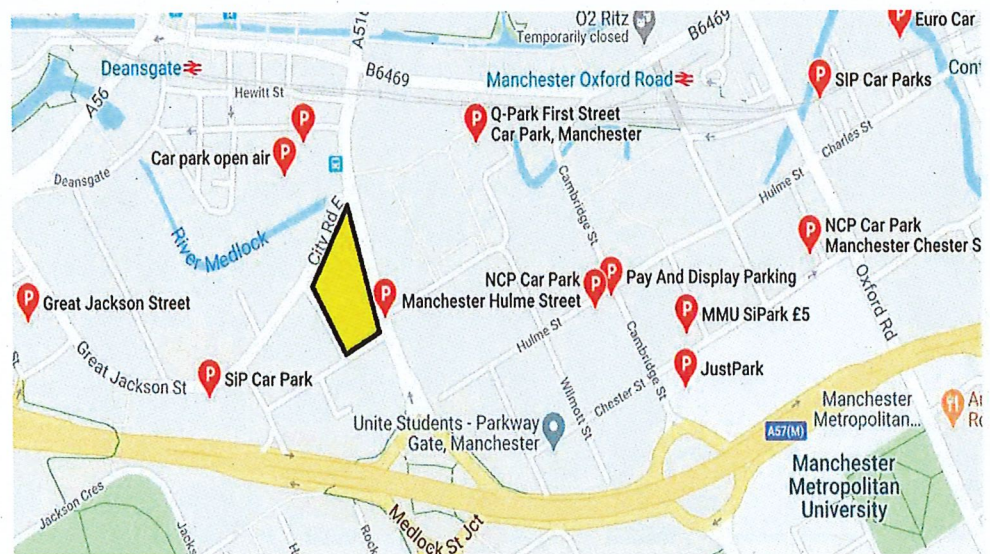
3.2.4 MCWY will endeavour to maintain private accesses affected by the temporary traffic management schemes. Pedestrian access to neighbouring properties will be maintained at all times.

3.2.5 All traffic management works will be completed by trained and competent personnel from a specialist subcontractor - Chapter 8 signage will be displayed and existing signage altered, amended and maintained as agreed with Highways.

3.3 Contractors Parking

3.3.1 The space available on site will become limited as the scheme progresses and as a result of the magnitude of the buildings. Following the demolition and site preparation works there will be no provision for contractors parking on-site. However, the site is well served with public transport links Train, tram and bus. In addition, there are numerous pay and display car parks within the local vicinity. It will be made clear to all Subcontractors and Operatives during their site inductions that they are not to park on the streets on or around the site unless in marked parking bays. There are a number of local pay and display carparks as shown on the diagram below i.e. NCP on Little Peter St, Q Park on Anne Horniman St.

City Road East Local Parking



4.1 Vehicle Routes

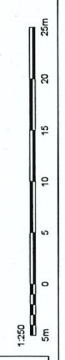
4.1 Proposed Delivery Route

4.1.1 As part of our subcontract orders we will stipulate that all deliveries to and from site will be made via the A57(M) Mancunian Way leaving at the Medlock Street Junction following the A5103 (Medlock Street) upto the site

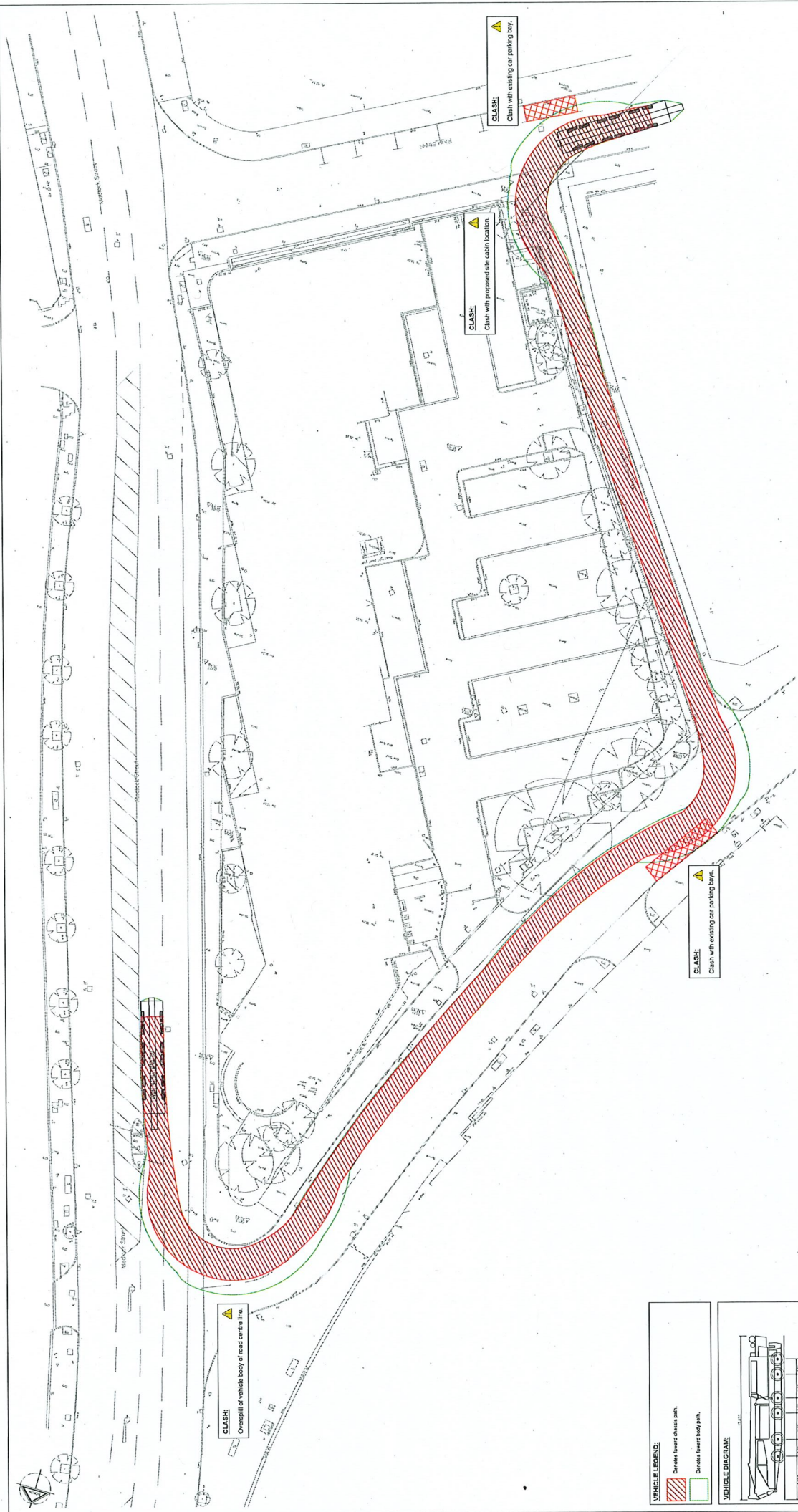
4.1.2 To minimise disruption to the local road network during peak periods, the delivery of materials to site will be between 0900 hours and 1600 where practicable.

- 4.1.3 Wherever possible, deliveries will be scheduled to evenly spread the volume of construction traffic throughout the programme, so that any peaks are avoided.
- 4.1.4 Our site management will implement a robust scheduling system. Each subcontractor will be required to schedule deliveries well in advance of their arrival on-site.
- 4.1.5 Delivery planning will also form a key part of discussions held within subcontractors at their progress meetings.
- 4.1.6 Detailed instructions on delivery arrangements (to predetermined gates and times etc.), and vehicle routing will be issued to all site personnel, subcontractors and supplies involved with the project.

APPENDIX 4: SWEEP PATH ANALYSIS



VEHICLE LEGEND: Diagonal hatched orange path. Diagonal hatched blue path. Diagonal hatched yellow path.	VEHICLE DIAGRAM  Overall Length 4.50m Overall Width 2.027m Overall Body Height 2.437m Max Track Width 2.139m Wheelbase 2.510m From King Pin to King Pin Turning Radius	PLEASE NOTE - VEHICLE TRACKING Existing site information has been provided to Booth King to assist in the design of the proposed road layout. The information ourselves we cannot guarantee the accuracy of the vehicle tracking. It is recommended any vehicle accessing the site complete an on site assessment.	PLEASE NOTE - TOPOGRAPHICAL INFORMATION The Topographical and buried services shown on this drawing were provided to Booth King by other parties. Booth King cannot guarantee the accuracy of the information shown. The position and alignment of services may differ from that shown and other buried services may be present. The contractor must verify the location of all buried services before commencing any work. The contractor must ensure that the work could present a major health and safety risk plus associated liabilities
--	--	--	---

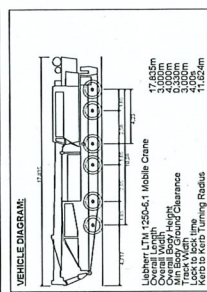
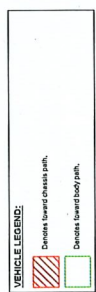


CLASH:
Overlap of vehicle body of road centre line.

CLASH:
Clash with proposed air cabin location.

CLASH:
Clash with existing car parking bay.

CLASH:
Clash with existing car parking bay.



PLEASE NOTE - VEHICLE TRACKING

Existing site information has been provided to Booth King by others. Booth King have not verified the accuracy of the information ourselves we cannot guarantee the accuracy of the vehicle tracking.

It is recommended any vehicle accessing the site complete an on site assessment.

PLEASE NOTE - TOPOGRAPHICAL INFORMATION

The Topographical and buried services shown on this drawing were provided to Booth King by others. Booth King have not verified the position and alignment of services may differ from that shown and other buried services may be present.

The contractor must verify the location of all buried services before any excavation or piling work begins. Damage to existing services may result in injury to health and safety risk plus associated commercial penalties.

bk boothking
PARTNERSHIP LIMITED
CONSULTING CIVIL & STRUCTURAL ENGINEERS
MANCHESTER
Tel: 0161 604 7287
Edinburgh
Tel: 0131 220 1547
office@booth-king.co.uk
www.booth-king.co.uk

TITLE: Liebherr LTM 1250 17.84m Swept Path Analysis

SCALE @ A1	DATE:	REVISION:	STATUS:
1:250	CJM	P01	N/A

DRAWING NO: 14681-BKP-ZZ-XX-DR-S-0702

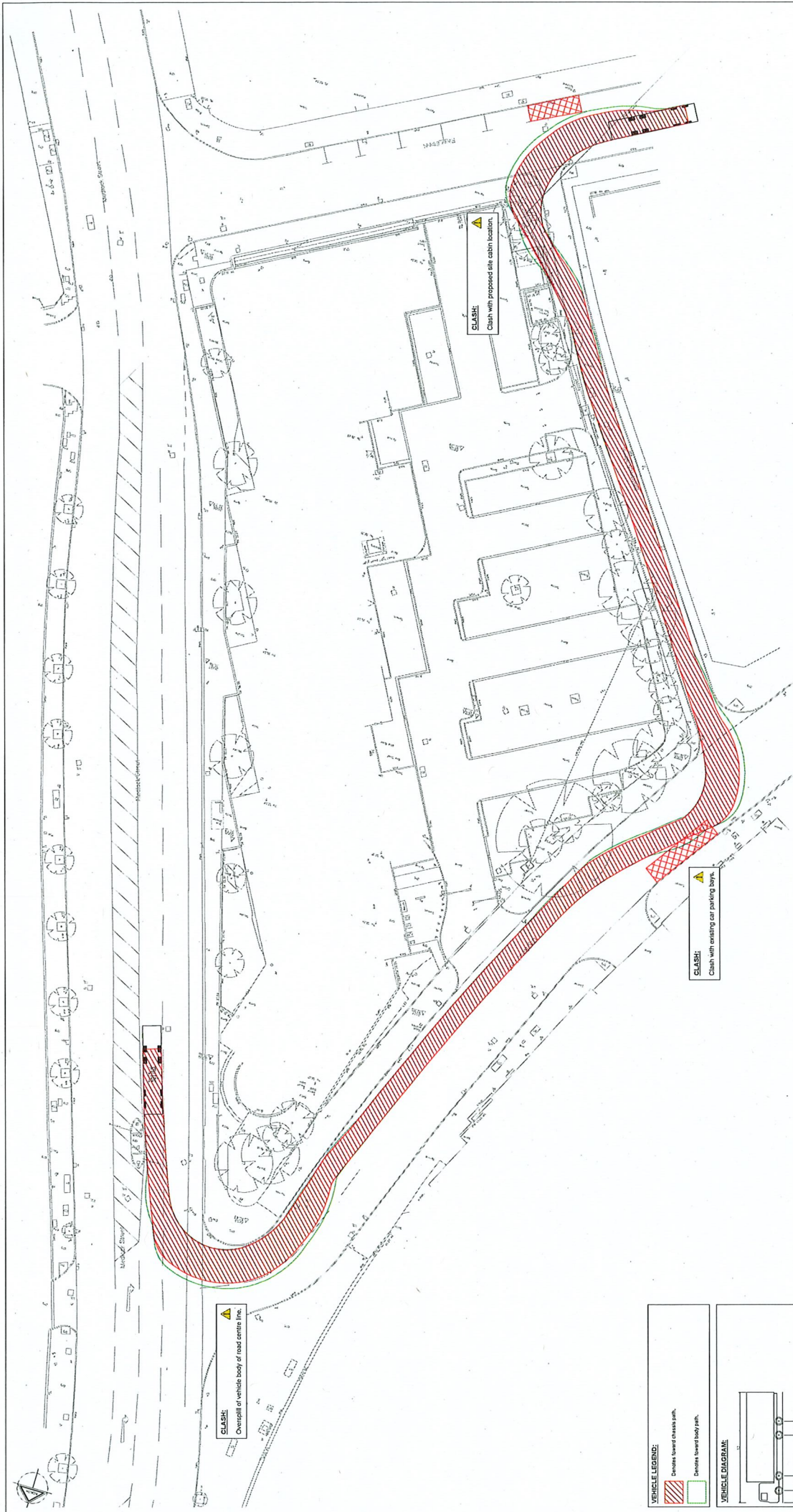
PROJECT: 1 City Road Demolition

ISSUED FOR COMMENTS ONLY

REV.	DATE	PRELIMINARY ISSUE	CJM	INITIALS
P01	13.02.23	REVISION DETAILS		

- NOTES**
- Do not scale from this drawing.
 - This drawing is copyright and is sent to you in confidence. It must not be copied, used or disclosed, in whole or in part to third parties without the written consent of Booth King Partnership Limited. It must be returned on request.
 - This drawing is to be read in conjunction with all relevant contractual documents.
 - Anyone using this drawing must be aware of their legal duties under the Construction (Design and Management) Regulations 2015. It is the Contractor's responsibility to ensure that they do not have sufficient information to safely complete the works detailed on this drawing. They should contact the Engineer.
 - All works are to be carried out in accordance with the Building Regulations for demolition and the approval of Building Standards.





VEHICLE LEGEND:

	Default forward chassis path.
	Default forward body path.

VEHICLE DIMENSIONS:

	Rigid Truck Overall Length 12.000m Overall Width 2.400m Overall Height 3.000m Overall Body Height 2.400m Track Width 2.400m Wheelbase 4.000m Turn Radius 11.000m
--	--

PLEASE NOTE - VEHICLE TRACKING

Existing site information has been provided to Booth King Partnership Limited (BKPL) by others. As BKPL have not verified this information ourselves we cannot guarantee the accuracy of the vehicle tracking.

It is recommended any vehicles accessing the site complete an on site assessment.

PLEASE NOTE - TOPOGRAPHICAL INFORMATION

The Topographical and level information shown on this drawing is provided to Booth King by others. Booth King have not verified this information and therefore we cannot guarantee its accuracy. The position and alignment of services may differ from that shown and other dated services may be present.

The contractor must verify the location of all buried services before any excavation or groundworks are carried out. In accordance with the Building Regulations (as amended) and to the approval of Building Standards, all works are to be carried out in accordance with the Building Regulations (as amended) and to the approval of Building Standards.

- NOTES**
- Do not scale from this drawing.
 - This drawing is copyright and is sent to you in confidence. It must not be used for any other purpose without the written permission of Booth King Partnership Limited. It remains the property of Booth King Partnership Limited and must be returned on request.
 - This drawing is to be read in conjunction with all relevant contractual documents.
 - Where using this drawing must be aware of their legal duties under the Construction (Design Management) Regulations 2015. Where no specific information, BKPL are not Principal Designers.
 - If the Contractor considers that they do not have sufficient information to safely complete the works detailed on this drawing, they should contact the Designer for further information.
 - All works are to be carried out in accordance with the Building Regulations (as amended) and to the approval of Building Standards.

ISSUED FOR COMMENTS ONLY

REV.	DATE	PRELIMINARY ISSUE	REVISION DETAILS	CJM	INITIALS
P01	13.02.23				

bk boothking
PARTNERSHIP LIMITED
CONSULTING CIVIL & STRUCTURAL ENGINEERS

MANCHESTER
Tel: 0161 624 7287

RAMSBOTTOM
Tel: 01793 822 022

EDINBURGH
Tel: 0131 230 1547

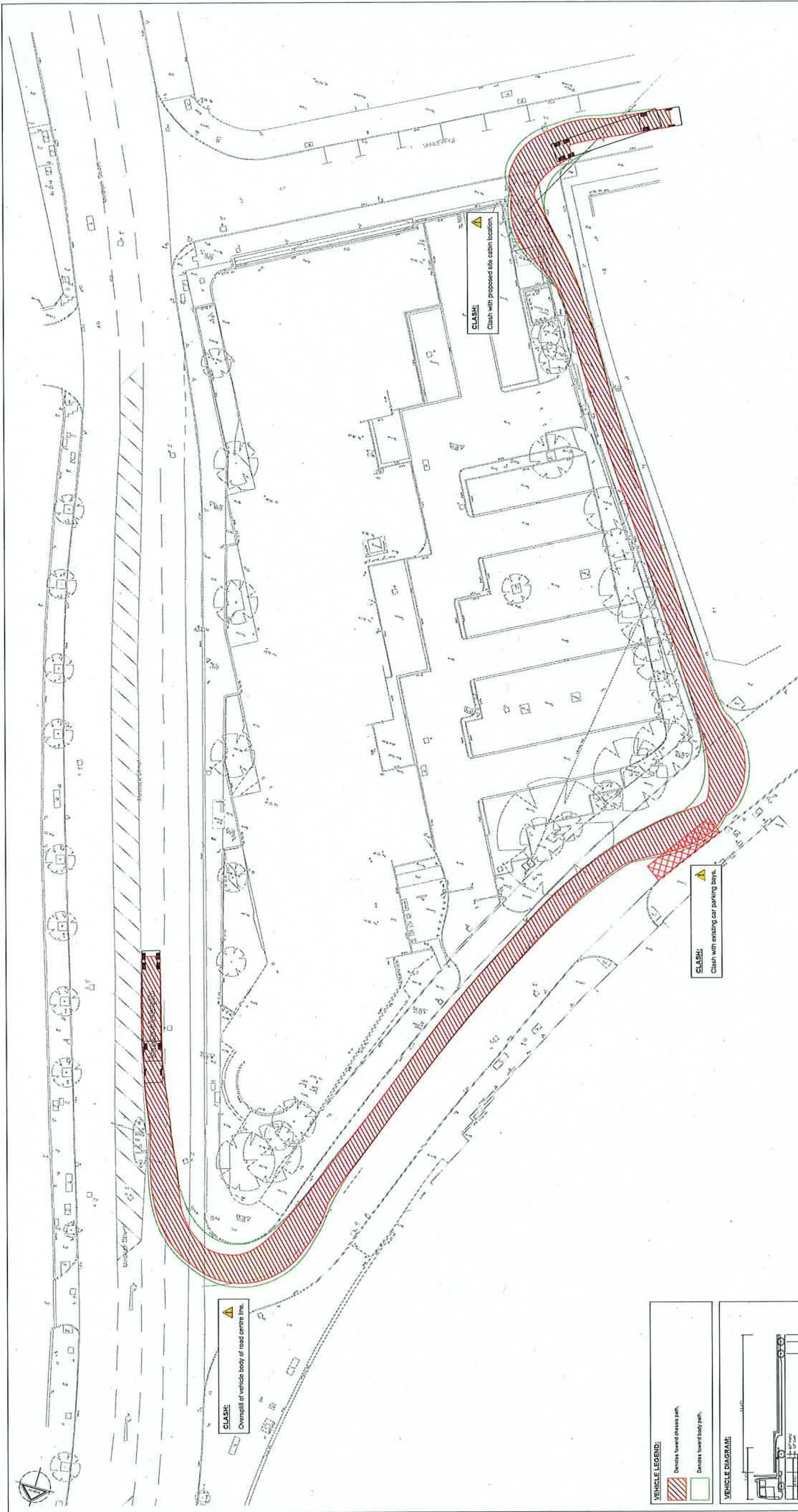
offices@booth-king.co.uk
www.booth-king.co.uk

PROJECT: 1 City Road
Demolition

TITLE: Rigid Truck 12m
Swept Path Analysis

SCALE @ A1	DRAWN	DATE	REVISION	STATUS
1:250	CJM	13.02.23	P01	N/A

DRAWING NO: 14681-BKP-ZZ-XX-DR-S-0703



VEHICLE LEGEND:

- Denotes towed chassis path.
- Denotes towed body path.

VEHICLE DIAGRAM:

Generic Low Loader with Trailer Steering (18.0m)
Overall Length 18.0m
Overall Width 2.40m
Max Ground Clearance 0.350m
Max Towing Capacity 6.00t
Max 180° Turning Radius 6.50m

PLEASE NOTE - VEHICLE TRACKING

Existing site information has been provided to Booth King for the purpose of generating this information. It is recommended that any vehicle accessing the site complete an on site assessment.

PLEASE NOTE - TOPOGRAPHICAL INFORMATION

The Topographical and buried services shown on this drawing were provided to Booth King by others. Booth King have not verified this information. It is recommended that any vehicle accessing the site complete an on site assessment.

The Contractor must verify the location of all buried services before any excavation or piling work begins. Damage to existing services, including but not limited to, gas, water, electricity, and telecommunications, may result in injury, death and safety risk plus associated commercial penalties.

- NOTES**
- Do not scale from this drawing.
 - This drawing is copyright and is sent to you in confidence. It must not be copied, reproduced, or used in any way without the written permission of Booth King. It is the property of Booth King and must be returned on request.
 - This drawing is to be read in conjunction with all relevant contractual documents.
 - Anyone using this drawing must be aware of their legal duties under the CDM Regulations 2015, and the need to refer to the relevant website for further information.
 - If the Contractor considers that they do not have sufficient information to safely complete the works detailed on this drawing, they should contact the Engineer.
 - All works are to be carried out in accordance with the Building Regulations (as amended) and to the approval of Building Standards.

ISSUED FOR COMMENTS ONLY

REV.	DATE	PRELIMINARY ISSUE	CJM
P01	13.02.23		
REV.	DATE	REVISION DETAILS	INITIALS

bk boothking
PARTNERSHIP LIMITED
CONSULTING CIVIL & STRUCTURAL ENGINEERS

MANCHESTER | RANESBURY | EDINBURGH
Tel: 0161 604 7097 | Tel: 01752 622 022 | Tel: 0131 229 1547
office@booth-king.co.uk

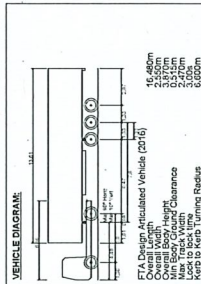
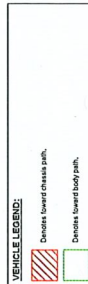
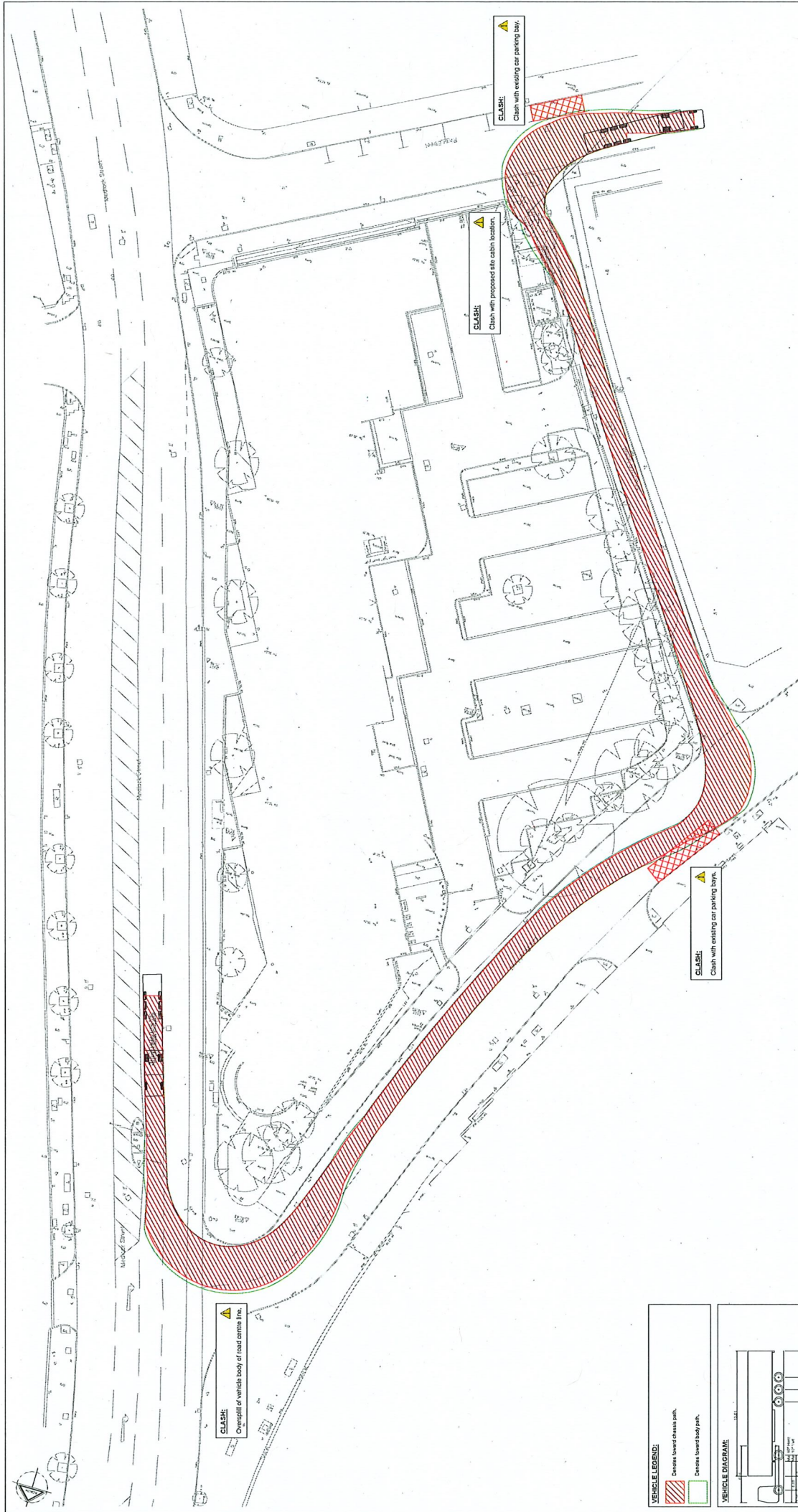
**Low Loader (18m)
Swept Path Analysis**

SCALE @ A1: DRAWN: CJM DATE: 13.02.23 REVISION: P01 STATUS: N/A

PROJECT: 1 City Road Demolition

DRAWING No: 14681-BKP-ZZ-XX-DR-S-0700





PLEASE NOTE - VEHICLE TRACKING

Existing site information has been provided to Booth King Partnership Limited (BKPL) by others. As BKPL have not verified this information ourselves we cannot guarantee the accuracy of the vehicle tracking.

We recommend any vehicles accessing the site complete an on site assessment.

PLEASE NOTE - TOPOGRAPHICAL INFORMATION

The Topographical and built services shown on the drawing are provided to Booth King by others. Booth King have not verified this information and therefore we can not guarantee its accuracy. The information may differ from that shown and other built services may be present.

The contractor must verify the location of all buried services before any excavation or piling works begin. Damage to existing services could present a major health and safety risk plus associated commercial penalties.



NOTES

- Do not scale from this drawing.
- This drawing is copyright and is sent to you in confidence. It must not be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or by any information storage and retrieval system, without prior written permission. It remains the property of Booth King Partnership Ltd and must be returned on request.
- This drawing is to be read in conjunction with all relevant contractual documents.
- Any changes to this drawing must be made in accordance with the Building Regulations 2010 and the Building Regulations 2010. The Building Regulations 2010 are the minimum standard for building work and the Building Regulations 2010 are the minimum standard for building work.
- If the Contractor considers that they do not have sufficient information to complete the works detailed on this drawing, they should contact the Employer for further information.
- All works are to be carried out in accordance with the Building Regulations (as amended) and to the approval of Building Standards.

ISSUED FOR COMMENTS ONLY

REV.	DATE	PRELIMINARY ISSUE	REVISION DETAILS	CAN	INITIALS
P01	13.02.23				

bk

boothking
 PARTNERSHIP LIMITED
 CONSULTING CIVIL & STRUCTURAL ENGINEERS
 MANCHESTER
 Tel: 0161 624 7287
 Edinbrough
 Tel: 01753 822 022 | Tel: 0131 230 1547
 office@booth-king.co.uk
 www.booth-king.co.uk

PROJECT:
 1 City Road
 Demolition

TITLE Articulated Vehicle 16.5m Swept Path Analysis		SCALE & DRAWN 1:250 CUM	DATE 13.02.23	REVISION P01	STATUS N/A
DRAWING NO: 14681-BKP-ZZ-XX-DR-S-0701					

APPENDIX 5: BEST PRACTICE POLICY – WATER

Best Practice Policy – Water

MARSHALL

CONSTRUCTION GROUP

- Waste water from wheel washing operations will be prevented from entering the surface water drainage system or the ground either by collection or diverting into foul water sewer (with permission from the Local Drainage/Water Authority).
- Fuel, oil and chemical storage on site is to be secure. Site storage to be on an impervious base within a secondary containment such as a bund or in a bunded tank. Stored above any floodwater level and where possible away from high-risk locations (i.e., 10m from watercourse or 50m from well/borehole). All hoses, buckets etc should be kept within the bunded area. Rainwater should be prevented from entering the bund where possible.
- Spill kits and emergency response procedures to be provided and established.
- Re-use collected water for damping down.
- Storage of oil and chemicals to be a minimum of 10m away from a watercourse.
- All oil tank deliveries to be supervised to help avoid spillages.
- Oil Tank and Chemical deliveries are to be clearly labelled with the nature and volume of their contents (Material data sheets provided) and the existing levels checked prior to delivery to prevent overfilling tanks.
- All oil/chemical storage to be secure and regularly checked for leaks, vandalism, damage or deterioration (any damaged drums to be immediately removed by licensed contractor).
- Plant and wheel washing (including concrete wagons) to be carried out in a designated area min. 10m from a watercourse or surface water drain (run off to be collected in a sump and water re-used where possible. No detergents will be used.
- Consideration to be given to any discharge rates applicable to the development when pumping water to watercourses. These rates are not to be exceeded. Use of inappropriate pump rates may cause disturbance to watercourse beds/ banks and erosion
- All foul sewage will either pass to the local foul sewer or be collected and disposed of by a licensed contractor
- Aim to establish the final surface water connection prior to the requirement to drain the clean roof water so that this can be diverted directly to the drainage system via the approved connection to keep the water discharged clean and away from the construction area.

- Silt management must be considered (Silt is a non-toxic pollutant)

Silty water is to be disposed of to a foul sewer (with permission), a settlement tank or over a grassed area (consideration to be given to the possible presence of other contaminants and advice sought)

Water should be prevented from entering excavations by using cut off trenches and drainage grips.

Prevention of silt pollution will be considered in relation to discharge of any water from the site, the use of pump sumps in excavations, pumping to a silt removal/ settlement facility/ holding pond will be considered where possible.

Apply for/agree appropriate licences to discharge with the required water/ drainage authority

The amount of exposed ground and soil in stockpiles from which water drains is to be minimised (incl. time). Seeding, covering or Silt fences - constructed from a suitable geotextile- to be used in prolonged periods. Stockpiles to be sealed to prevent water percolating through them.

Regular visual checks to be conducted to ensure that the systems in place are effective and replaced/emptied as required. Ongoing maintenance to be reviewed and carried out

- Any events that have had or could have an environmental impact are to be reported to the Environment Agency 0800 80 70 60 and to the Company Environment Manager

Nov 22

APPENDIX 6: SITE WASTE MANAGEMENT PROCEDURES

SITE WASTE MANAGEMENT PROCEDURES

MARSHALL

CONSTRUCTION GROUP

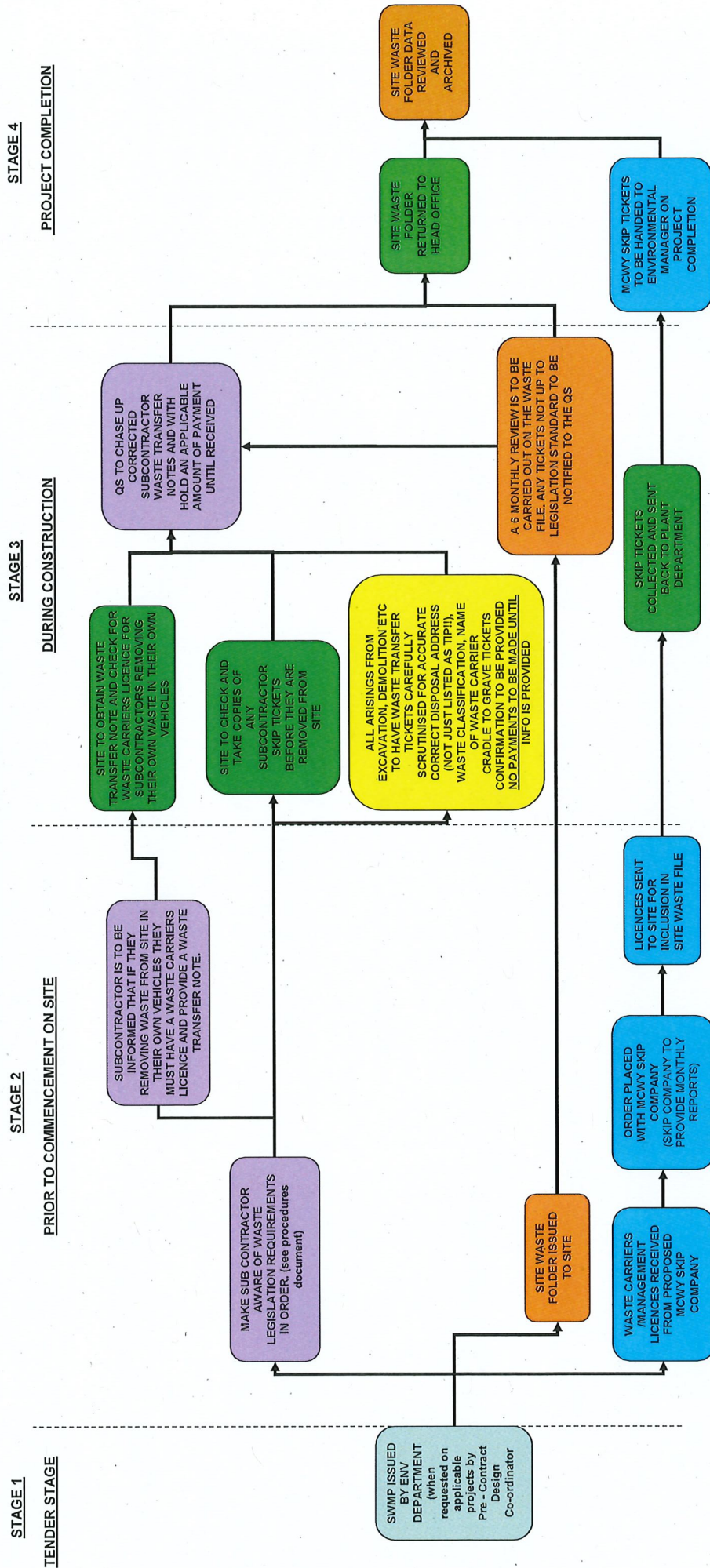
ACTION

From the 1st December 2013, it is no longer a legal requirement to produce a Site Waste Management Plan (SWMP). However, certain projects may still require a SWMP due to specific BREEAM requirements or pre-commencement planning conditions. This needs to be reviewed on each project at the tender stage. Notwithstanding the above, MCWY are legally responsible for disposing any waste generated from our activities on-site and at head office in accordance with the Waste Regulations 2011 and the Environmental Protection Act 1990. We have a duty of care to ensure that any waste produced directly from our own activities and the activities of our subcontractors whilst on-site is disposed of correctly, which is why the following procedures need to be complied with. A breach of the duty of care is an offence, with a penalty of an unlimited fine if convicted on indictment.	ALL DEPARTMENTS
<u>Stage 1 – Tender Stage</u>	
If a SWMP is required, the pre-contract department should request the environmental department (Sarah Thomson) to produce a plan in line with the project's requirements. The SWMP will then be issued to site as a standalone document within the site waste folder (see below). The SWMP will then be periodically updated by the environmental department during audits carried out on the site waste file as the project progresses.	PRE-CONTRACT ENVIRONMENTAL DEPARTMENT
<u>Stage 2 – Prior to Site Commencement</u>	
Regardless of whether a project specific SWMP is required, prior to commencement each site will always be issued with a site waste folder (green file) alongside the standard health and safety file (red file). This folder should be used to file waste transfer notes, along with other relevant documentation (waste carrier's licences, permits etc.) throughout the project. When placing subcontract orders, each order must contain a copy of MCWY's <u>Subcontractor Site Waste Management Requirements</u> procedures document (issue 5 dated 22/01/18). This procedures document details the information required by MCWY when	ENVIRONMENTAL DEPARTMENT PROJECT QS

F. A declaration/statement confirming that we have fulfilled our obligations to apply the waste hierarchy. G. Estimated quantity of waste H. Waste transfer note unique reference number I. A signature/name of the person removing the waste J. Date/time the transfer took place	SITE MANAGEMENT
Please refer to example waste transfer note enclosed for your assistance.	
Subcontractors who remove waste off-site using their own vehicles/transport must be registered as an upper tier waste carrier with the Environment Agency. A waste transfer note, containing the information listed above, should still be produced and copies taken by MCWY site management to document the movement of waste. A blank waste transfer note is enclosed for reference/information.	SITE MANAGEMENT
The above process applies to all construction waste removed from site, including arisings generated from excavation works, any demolition works, road sweeping residues (if originating on-site) and the disposal of site effluent.	SITE MANAGEMENT
THE ABOVE REQUIREMENTS DIFFER WHEN DISPOSING HAZARDOUS WASTE. FOR FURTHER INFORMATION, PLEASE CONTACT THE ENVIRONMENTAL DEPARTMENT	
The removal of spoil generated at the site preparation/earthworks stage is a particularly critical period when large volumes of waste material are removed from site. Prior to commencement on-site, the project design coordinator responsible for placing the bulk earthworks/site prep. order should obtain copies of the proposed subcontractors waste carriers licence and details of where the waste is to be transported to. These details should be forwarded on to the environmental department (Sarah Thomson) to verify.	DESIGN COORDINATOR
Once verified, the environmental department will produce a duty of care waste transfer note which documents the transfer of waste from MCWY to the relevant earthworks subcontractor. This document should be forwarded to site and filed in the relevant section of the green file.	ENVIRONMENTAL DEPARTMENT
The project QS should obtain confirmation from the site perpetrator/bulk earthworks subcontractor that the individual transfer notes received on-site have been sent to the relevant disposal site as specified on the duty of care documentation. A 'cradle-to-grave' audit should be submitted by the subcontractor with each valuation. If this information is not provided, an appropriate amount of monies should be withheld until the correct documentation has been received and checked.	PROJECT QS

Original copies of waste transfer/consignment notes from waste produced directly by MCWY (skip tickets, road sweeper tickets, effluent tank servicing, hazardous waste collection etc.) should be sent into the plant department (Jeff Kaye) weekly with the site returns. The original copies will be filed within the plant department until the project reaches completion. When complete, the original copies will be passed on to the environmental department (Sarah Thomson) and placed in the site green file prior to archiving. Periodic site audits will be carried out by the environmental department to ensure that the site green file meets the required standard. Should any waste transfer documentation not meet the legal requirements, the project QS (if subcontractor related) or plant department (if related to waste directly produced by MCWY) will be informed of the specific deficiencies. The project QS or plant department must then obtain the corrected information from the appropriate party and withhold an appropriate amount of payment until the corrected information has been received and approved by the environmental department. Once the corrected information has been received and approved, the project QS or plant department should forward the corrected information to site for inclusion in the green file.	SITE MANAGEMENT PLANT DEPARTMENT ENVIRONMENTAL DEPARTMENT PROJECT QS / PLANT DEPARTMENT PROJECT QS / PLANT DEPARTMENT
<u>Stage 4 – Project Completion</u>	
Once the project is complete, the site green file(s) should be sent back to head office, marked for the attention of the environmental department (Sarah Thomson), where the data will be assessed. Following assessment, the files will be stored in the archives for a minimum of three years from the project completion date. After this period has elapsed, the files can be disposed of.	SITE MANAGEMENT ENVIRONMENTAL DEPARTMENT

SITE WASTE MANAGEMENT PROCEDURE CHART



Legend



MARSHALL CONSTRUCTION (WEST YORKS) LTD
 HUDDERSFIELD ROAD, ELLAND,
 WEST YORKS., HX5 9BW
 TEL.: 01422-375533 FAX.: 01422-377270

MARSHALL

CONSTRUCTION GROUP

Common Construction EWC Codes

Material	EWC Code (*hazardous material)
Biodegradable waste	20 02 01
Bricks	17 01 02
Chlorofluorocarbons, HCFC, HFC	14 06 01*
Concrete	17 01 01
Construction materials containing asbestos	17 06 05*
Contaminated soil and stones	17 05 03*
Gypsum plasterboard	17 08 02
Halogenated solvents and solvent mixtures	14 06 02*
Insulation	17 06 04
Insulation containing asbestos	17 06 01*
Interceptor sludges	13 05 03*
Mixed concrete, bricks, tiles and ceramics	17 01 05
Mixed construction & demolition waste	17 09 04
Mixed metals	17 04 07
Mixed municipal waste	20 03 01
Pressure containers containing dangerous substances (empty canisters)	16 05 04*
Mixed packaging	15 01 06
Paper and cardboard	20 01 01
Plastic	17 02 03
Septic tank sludge	20 03 04
Soil and stones	17 05 04
Solvents	14 06 03*
Street-cleaning residues	20 03 03
Tiles and ceramics	17 01 03
Wood	17 02 01

Please note that the above list is not exhaustive, for further information contact Sarah Thomson at head office.

