



7th June 2021

T1 Water St, Manchester.

Application Reference Number LPA Ref: 125655/FO/2019

Condition Reference 15. Construction Management, Methodology and
Programme Plan (information to Discharge Condition)

1.0 Introduction

This document describes the proposed methodology of construction and the programme duration for key activities to be carried out on the site at T1 Union.

The main aim throughout the build is to minimise impact on the surrounding properties and businesses as well as on the local highway and public spaces adjoining the development.

The following narrative explains in detail this methodology and timescales envisaged at the time of planning prior to more detailed proposals as we commence on site. This detailed proposal will include Project Management, Construction phase Health and Safety, Environmental management, and impact as well as site waste management, logistics and traffic management.

2.0 Emergency Contact and Public Relations

During the construction of the development Renaker will ensure that on the site hoarding and on signage by the main gates an emergency 24 hr a day telephone number will be displayed. This number is **0845 076 6405**. Details of the call will be handled by our trained and briefed customer care call centre and the correct Renaker Build Ltd member of staff notified.

3.0 Programme

The construction programme will span a period of 143 weeks, within which there will be elements of ground works, frame construction, façade cladding and internal fit out. The plan is to complete the concrete frame elements of the development in as short a programme period as possible as generally these activities constitute the noisiest and most disruptive works and the shortest period therefore minimises the affect on local business’.

The proposed key dates and durations are shown below

- | | | |
|--------------------------|---|-----------|
| 1. Superstructure works | - | 14 Months |
| 2. Façade works | - | 20 Months |
| 3. Fit out to completion | - | 21 Months |

The above durations are shown as items and certain elements will run concurrently to achieve the 33 months overall development period.

4.0 Hours of Work

The above durations and programme are based upon normal working hours in line with Manchester City Council Guidance of 7.30hrs to 1800hrs Monday to Friday and 9.00hrs to 14.00hrs on Saturdays. Access to site will be permitted 30 minutes prior to working day commencing with noise being kept to a minimum for the first hour of each shift. Any further out of normal hours working will be generally limited to internal fit out operations. A further 30 minutes is proposed at the end of each shift for the site to be shut down and for operatives to leave the development.

We acknowledge the proximity of the neighbouring businesses and other construction sites. As such will always endeavour to ensure the programme and working hours are adhered to in order to respect our neighbours.

During times when the site is not in operation (i.e. outside of the hours stipulated above or during public / bank holidays) then a full time security guard will be present on site. The guards duties will involve regular patrols around the development and the site compound as well as the perimeter hoarding.

5.0 Construction Methodology

The following is a brief over view on the methodology to be adopted for the construction and fit out of the residential and communal elements of the development. The section also looks at general logistics as well as traffic management for the movement of materials to and the disposal of waste from the build.

5.1 Site Logistics

The site forms part of the wider Manchester Goods Yard Development and is constructed above the existing 2 storey basement constructed as part of that development.

Hoarding will be installed to the perimeter of the development using a combination of traditional painted timber hoardings and high visibility “red and white” steel hoardings. These will separate the ongoing MGY development from the T1 site

The existing footpath on the site side of Water Street is already closed and hoarded to the gutter line on Water Street. It is envisaged to establish an access onto the site a vehicle gate will be formed into the hoarding on Water Street along with a corresponding egress gate. The existing hoarding will be removed, and a new hoarding line established approximately 1.5m into Water Street maintain a safe zone between the works to the Water Street elevation. Gates will be permanently manned with trained, vehicle banksmen controlling all vehicle movements in line with schedules issued by the logistics manager.

The public will continue to utilise the footpath on the other side of Water Street closest to the River Irwell as per the already existing arrangement.

We have engaged in initial discussions with MCC highways department, and the relevant licence application and fees will be finalised and submitted, following the completion of the contractual arrangements with our client.

This reduction in the road width closure is proposed to come into force in August 2021 and will be managed by our site team. Any additional licences associated with the construction phase will be agreed with Manchester City Council highways department and relevant diversion / notification signage put in place.

It should be noted that we have strong working relationships with MCC Highways and will fully comply with their requirements and ensure that at no time do we compromise the access requirements of either Laing O'Rourke, Lend Lease or any other highway user who are also utilising Water Street for key deliveries.

Appendix 1 of this document contains our site layout plan and the traffic management plan dealing with this proposed Highway narrowing as discussed with MCC on a recent site visit / meeting.

Pedestrian access across to the site will be via a new turnstile positioned at and within the perimeter hoarding. It is critical that we always have a definitive list available of personnel on site to comply with emergency procedures. The turnstiles utilise biometric access controls thus restricting public and unauthorised access.

There is no parking available on or adjacent to the site, thus parking arrangements will be made for staff either on one of Renaker's other local sites or by leasing spaces on one of the local car parks. Parking on the highway will be restricted to deliveries about to enter the site for offloading and at no point will this compromise 3rd party access.

As part of our strive to contribute to the local, national and world wide environmental strategies, and become an environmentally friendly contractor, our own staff, as well as those from sub contractor's and visitors will be encouraged to use the offering of public transport serving the development. This may include the major bus routes running in to the nearby city centre Bus terminus, or the rail link at both Salford and Deansgate stations, (both of which are a short walk away). Those individuals who have no other choice but to travel by private car will be encourage to car share and this will form part of our main site induction and sub-contractor tender documentation.

Material storage will again be shared with our existing Greengate development utilising the warehouse facility adjacent to the Greengate offices. Full time warehouse staff are employed to ensure that all vehicle movements to and from this facility along with the management of the offloading process are safely managed to minimise any interface with the public.

The existing ground floor slab will be used for storage from commencement on site, using a small low height manitou, fork lift truck, operated by a certified, directly employed driver. All our site forklifts are taxed and insured to operate on the highway and on the water street site this may be necessary due to the highly restricted storage areas.

Gatemen will additionally be responsible for keeping the highways clean of any detritus emanating from the site. Road sweepers may be utilised if required although given that the basement is complete and slabs back to ground level it is unlikely that mud will find its way onto the highway. Should a road sweeper be utilised then our own “scarab” machine will be transferred from its base at our Greengate warehouse to attend.

All loading and unloading of material deliveries will occur within the extended site boundary or at the warehouse storage facility.

Waste materials will be placed in skips, and these will be removed on a regular basis. Food waste from canteens and eating areas will be contained within large wheeled lidded bins and these will be exchanged weekly under a separate order from the general site waste. This eliminating the risk of rats and other vermin. Additionally, a pest control operative will visit the site regularly to assess and control the risk. This will be especially important on this site due to its proximity of the river where pests can be common.

The site will employ security guards during non-working hours to prevent and discourage nuisance. Regular patrols will take place throughout the shift. As an additional measure, CCTV will be installed to elements of the site and compound to aid early identification of potential issues.

5.2 Crane

It is our intention to utilise a single luffing tower crane erected adjacent to the main tower utilising the base already in-situ from the Careys basement works.

3rd party checks and certification of this base will be attained before erection progresses.

This will be erected to a height of 72m HUH and with a jib length of approximately 55m. The crane will climb once following the introduction of a temporary tie to its final height of 108m HUH.

The design and layout of the crane will be submitted to Manchester City Council, highways Dept for information prior to erection. The length of the jib allows the servicing of the entire site whilst also allowing the unloading of wagons from within the narrow section of road closure. It will not be permitted to lift loads above a live carriageway. A SMIE system will be adopted to prevent this, as well as ensuring there is no oversailing of adjacent land and properties. The tower crane will have several flood lights installed on its mast that will be active during working hours in the wintertime only. These will be switched off at night-time with low level lighting providing security and access lighting for our security guard.

5.3 Wheel Wash

Given the logistical restrictions of the site it will not be possible to utilise a wheel wash. However as noted above given the scheme is complete to ground level excavation will be minimal and we would seek to manage site cleanliness utilising:

1. Dedicated gateman at each access position who will ensure the standard and cleanliness of each vehicle is to the correct level before allowing it to exit site.

2. A jet wash unit located by the main exit gate for use by the gate man to wash down wheels, vehicle body and undercarriage. This waste water gets collected and recycled and cleansed in an approved silt buster system prior to discharge to public drains in accordance with a UU discharge licence.
3. As required sweeping of the surrounding highway by road brush to maintain a clean and debris free highway (note – this is the last resort measure and mitigation measures above should be employed to prevent the need for external highway cleaning)

5.4 Construction

The works generally comprise of the following

- Installation of tower crane
- Construction of in-situ concrete frame, concrete stair cores and floors to roof level by concrete pump and jump form construction. Activities fully enclosed by climbing screen system.
- Waterproof Roof coverings
- Installation of aluminium and glass cladding to facades including windows and grilles
- Installation of external hoists to facilitate the movement of site operatives and materials to the upper floors.
- Installation of internal mechanical and electrical systems including 4 main lifts
- Fit out of apartments including walls, floors, ceilings, bathrooms, kitchens, and final finishes
- Removal of Tower crane
- Installation of permanent roof mounted “crane” system (BMU)
- Completion of internal finishes to communal space
- Completion of communal external space and links
- Decant from site and full occupation of the development

5.5 Infrastructure

The works generally comprise of the following

- Internal and rainwater drainage connections to existing main drains installed by Lendlease.
- Electrical connection and formation of new integrated substation with transformer.
- Mains water connection to main situated in Water Street.
- Gas connection to existing main situated in Water Street.
- Telecoms and data infrastructure connections, to water Street footpath, requiring new draw pits to be determined.

5.6 Traffic Management Plan

Whilst the T1 development relies entirely on deliveries along Water Street, it is evident from the construction activities that are using the highway that the overall traffic use has not been overly disrupted. Significantly with water Street this not providing public access beyond the Victoria and Albert hotel, public use is minimal. A full traffic management plan will be developed to address the following issues

- Integration of traffic management scheme with surrounding construction developments and calming measures
- Access, egress, drop off and turning areas
- Additions, alterations and positions of any temporary signage, road markings or protection barriers.
- Pedestrian access around site and relevant protection, lighting and signage schemes
- Segregation of plant, materials and pedestrians on site and safe access routes between welfare and site areas.
- The provision of car parking, off and on site, and public transport strategy for staff and operatives.
- Loading bays, hoist positions and tower crane areas.
- Any other measures to ensure the safe integration of pedestrians, cyclists and road users both on, off and surrounding the development.

In preparation of the above document, Renaker Build Protocol of timed and booked deliveries, and off-peak deliveries will be incorporated, managed by a full time logistics staff member.

5.7 Deliveries

The key delivery routes for the major materials and items of plant will be via Quay Street and Trinity Way. We will endeavour to deliver outside of peak traffic hours to minimise local disruption and the normal workings of the surrounding properties.

As set out above, deliveries will be taken within the site access or within a possible pull in zone adjacent to the T1 hoarding. Prior to the construction of T2 some material storage will be available within that site footprint.

6.0 Health and Safety

6.1 CDM

The project will be carried out in accordance with the Construction, (Design and Management) Regulations 2015, and all other relevant legislation and guidance

The applicant has been appointed as Principal Contractor by the client, SELECT properties and can demonstrate competency in the management and execution of Health and Safety. Renaker Build Ltd have the correct management skills and procedures in place to control the activities of a complex, high rise city centre construction project.

As demonstrated by the engagement prior to site commencement, the Principal Contractor has been involved in the planning of the project and has the ability to influence the detailed design to remove construction and residual safety risks.

The Principal Contractor will produce a Construction Phase Health and Safety Plan prior to works commencing on site that will be reviewed and signed off by the client and their Principal Designer. This document will form the basis of the procedure for managing health and safety during the

construction phase and will be regularly reviewed by both RBL and the Principle Designer to ensure relevant risks are managed where these can not be eliminated, as the work progresses.

6.2 Construction Materials

There have been no materials at this stage of the design process which are considered to generate a risk to construction personnel which will be unfamiliar to RBL as an experienced contractor. The hazards arising from the use of wet cement, epoxy resins and solvent based paints can be expected and appropriate measures to minimise any risk will be put in place by Renaker Build Limited.

6.3 Site Security and Safety

Protecting the public from risks to their health and safety arising from the construction work is a high priority. Every care will be exercised to prevent risk to members of the public and appropriate action, including the erection of perimeter fencing to a specified standard, will be taken.

Vandalism and theft of plant, equipment, materials and fuel is possible throughout the duration of the development. Renaker Build will take appropriate action, as described in previous sections, to ensure the site is secure at all times from unauthorised access. As described previously, the site will have metal turnstile access system controlled by an individual biometric system. In the event of an operative being removed from site the system can be updated to prevent this operative being able to access the site in the future.

We would consider the provision of CCTV if required to main site points and compound areas to assist in the prevention of unauthorised activities.

7.0 Environmental Management.

An Environmental Plan, in line with the Renaker Build Ltd environmental management system, will be developed to address and monitor the following issues;

- Applicable environmental legislation
- Pollution
- Nuisance (Noise, vibration, dust, emission and light)
- Public Relations.

7.1 Environmental Legislation

Applicable environmental legislation will need to be identified in a register, to ensure that appropriate systems are put in place in order to comply with the legal requirements in question.

7.2 Pollution

Renaker Build Ltd will establish procedures, to ensure the prevention of water and ground pollution, relating to the following risk activities;

- Concrete works (including washing out of concrete delivery vehicles and pumps)

- Storage and movement of fuels, oils, chemicals and other such fluids
- Cleaning (including plant, machinery and wheel washing)

It is particularly relevant on the T1 site given its adjacency to the River Irwell, that the environmental risk is considered. The risk of an Environmental incident is significant as surface water discharge from the site is directly into the canal basin and then makes its way to the river. As such it may be necessary to protect the Surface water manholes from site generated water discharge via temporary interceptors and catch pits. This will be assessed in more detail as the environmental plan is developed in detail.

7.3 Nuisance

The principle concerns relating to the nuisances of noise and vibration come from construction activities such as demolition, excavation, cutting, breaking out and plant movements. Mitigation measures will be considered to include low noise options, noise attenuation techniques and carrying out certain activities during agreed hours of the day.

The principal concerns relating to air quality and emissions from construction activities in the form of dust and fumes. The degree of dust deposition is usually dependant on the nature of the works. Increased levels of dust are most likely to occur during site activities related to demolition (of which there are limited planned on site) piling, moving construction traffic and ground works.

Blown dust from upper concrete slabs can also become a nuisance for adjacent properties. To mitigate this a regime of damping down may be required and all slab edge protection will need to be sealed to the slabs to prevent either wet or dry residue being blown onto adjacent buildings.

In order to minimise the dust and fumes, Renaker Build will consider the following;

- Providing a hard surface where vehicle movements occur
- Control measures and dust suppression techniques
- Minimising stock piling and positioning in a manner that reduces risk of dust arising through wind action
- Measures such as screening and covering
- Installation of appropriate body wash facilities
- Keep adjacent roads and pavements clean
- Ensure plant is turned off and not left running when not in use
- Selection of electrically powered plant where possible in lieu of diesel or petrol plant
- Ensuring no waste or unwanted construction materials are burned on site

Vibration risk will be managed by the selection of correct techniques and the monitoring of these techniques to ensure actual performance is aligned with theoretical principles.

7.4 Dust Management Plan.

The main hoarding will be a combination of solid construction along with perforated screening. This will assist in controlling the amount of dust that could leave the site.

Initially dust could be generated by minor excavation operations establishing working platforms. Dust suppression (damping down) may be necessary during this activity due to time of the year (predominantly summer) when this will be carried out.

Other activities that could generate dust and the mitigation required are:

- Concrete frame construction. Limited amounts of dust, possible damping down if required
- Glazed façade. Cast in items for fixings will eliminate drilling.
- Concrete drilling Early design works to ensure element cast into slabs.
- Waste / skip management All skips will be covered ahead of any movements off site.

7.4 Public Relations

The contractor will ensure that contact is made and maintained with local businesses to ensure they are kept up to date with general progress on the site. This is especially important for major work elements such as concrete works and tower crane erection and removal due to our proximity to adjacent properties. The key interface here will be the Victoria and Albert Hotel, located on Water Street, who will inevitably have numerous deliveries

Additionally, contact will be maintained with representatives from the adjacent developers and contractors who are active in the area. These include but will not be limited to:

- Laing O'Rourke
- Lend Lease
- Allied London.
- Numerous fit out contractors who will be deployed on the MGY site

As identified in section 2 RBL make a 24/7 phone number available to facilitate communication of any complaints. These are routed back to the site management team from the head office thus ensuring that business leaders are also aware of any complaints and can ensure that they are dealt with in a timely and professional manner.

Within our induction process we make specific reference to interfaces with both the residents in the adjacent block and the passing public, and how we expect our site operatives to be always respectful and well mannered. Clear references on employers PPE can assist us to identify perpetrators of any complaints, and these can be dealt with via our internal disciplinary process that can ultimately lead to removal from site.

We will also make every effort to ensure local footpaths are kept clean of any rubbish that could emanate from our construction site. This will be done via regular inspections and a cleaning regime, as necessary.

8.0 Waste Management Strategy

In line with the “Site Waste Management Plan Regulations 2008”, a site waste management plan (SWMP) will be developed by the principal contractor and shared with Manchester City Council.

8.1 Operational Waste Removal

Waste generated during the construction phase is to be cleared on a daily basis to a main holding skip. 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. During high waste activities, such as dry lining, this waste removal may need to occur several times a day via the hoists and as such general operatives will be employed to ensure this will occur. Hazardous waste will be stored and disposed of separately but main waste will enter a common skip where our supplier will sort at their transfer station before issuing us recycling data.

To reduce the volume of waste sent to landfill, waste from site will be segregated at the waste transfer station into the following categories.

- CAT A: Hazardous waste – Paint tins, mastic etc
- CAT B: Metal
- CAT C: Timber
- CAT D: Plasterboard
- CAT E: General Waste

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

Appendix 1

Proposed Hoarding and Site compound Layout



Appendix 2

Proposed Traffic Management Plan for T1 Development.

