Construction Management and Phasing – Site 10b

Introduction

1.1 This document describes the proposed construction programme and key activities that will be undertaken

1.2 The following figure is included with this document:

- Figure 5.1 – Logistics plan

1.3 The main aim throughout the construction period is to minimise the impact on the surrounding properties and roadways for the duration of the work. Close collaboration with all project teams of all construction projects will be maintained at all times to achieve this aim.

1.4 The following narrative explains this methodology and timescales envisaged at the time of the planning application. More detailed proposals will be developed once contractors are appointed and prior to commencement on site. This will include preparation of detailed plans to incorporate Construction Management, Construction Phase Health and Safety, Environmental Management as well as Site Waste Management, Logistics and Traffic Management.

Programme

1.5 The total construction programme will span a period of approximately two and a half years within which there will be elements of ground works, foundations, frame construction, façade cladding and internal fit out. The scheme is anticipated to be delivered in a single phase.

1.6 This is an indicative construction programme and the Applicant highlights that there are multiple risks involved in the development process. The Applicant notes that this programme may ultimately be extended in the event delays caused by sustained periods of poor weather, unexpected ground conditions or other abnormals, volatility in economic and housing markets, political uncertainty, and the availability of funding.

1.7 The programme is based upon normal working hours in line with Manchester City Council Guidance of 7.30hrs to 1800hrs Monday to Friday and 0800hrs to 1400hrs on Saturdays.

1.8 On Sundays and Bank holidays noisy working will generally not be planned. On some occasions there are certain operations that maybe required to proceed during these periods, for example tower crane erection and dismantling. These will be infrequent and will be agreed with the Environmental Health Officer (EHO) and local residents through a series of neighbourly engagements. The frequency of these will vary and respond to demand. Access to the Site will be permitted 30 minutes prior to working day commencing with noise being kept to a minimum for the first half hour of each day.

1.9 We acknowledge the close proximity of the neighbouring properties and as such will endeavour at all times to ensure the working hours are adhered to in order to protect their amenity.

Construction Methodology

1.10 The following is a brief overview of the methodology to be adopted for the construction and fit out of the Proposed Development. The section also considers general logistics as well as traffic management for the movement of material to the disposal of waste.

Site Logistics

1.11 The Site has been cleared previously and was recently used for public car parking. It is proposed to temporarily close a linear section of road on Willmott Street. This will be a hoarded delivery bay with a gate in and gate out. Traffic will arrive from Willmott Street north (adjoining River Street) and depart onto Hulme Street east. The gates will be manned during working hours.

1.12 It is envisaged that the temporary site establishment and welfare space will consist of good quality temporary cabins. The welfare facilities will be suitably sized to suit the anticipated number of operatives. The welfare facilities will be located close to the Site.

1.13 Material storage will be generally contained within the Site boundary with access through the site entrance gates for deliveries. When the concrete frame reaches podium level, small low height forklift trucks will be employed to store materials both within the below ground floor car parking provision for the façade construction and fit out elements of the works.

1.14 Any temporary public road or footpath closures associated with the construction phase will be agreed with Manchester City Council highways department and relevant diversion signage put in place.

1.15 Access to the site entrances will be controlled by biometric scanner through a secure metal turnstile. This will monitor operative's movements and prevent unauthorised public access to the Site. The main gates will be locked secured at all times with the exception of when a delivery is being made. The gates will be manned by qualified banksmen who will co-ordinate traffic, bank deliveries as well as ensure the road and pavement areas are kept clean.

1.16 Where required, appropriate wheel and vehicle wash facilities will be in place to ensure delivery wagons leave the Site clean and tidy with regular cleaning of Wilmott Street using road sweepers.

1.17 Loading and unloading of material deliveries will occur within the site boundary unless exceptional circumstances require special measures to be instigated.

1.18 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 a smaller covered skip to prevent vermin.

1.19 The Site will employ security guards as appropriate 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 to aid early identification of potential issues.

Construction

1.20 The works generally comprise of the following:

- Creation of piling mat substrate and formation for tower crane bases.
- Bearing piles and associated pile caps set out across the expanse of the ground floor slab.
- Installation of tower cranes.
- Construction of in-situ concrete frame, concrete stair cores and floors to roof level by concrete pump and jump-form construction.
- Roof coverings.
- Installation of brickwork facade including windows and discrete MVHR grilles.
- Installation of internal mechanical and electrical systems including main lifts.
- Fit out of apartments including walls, floors, ceilings, bathrooms kitchens and final finishes.
- Installation of façade access measures.
- Removal of Tower cranes.
- Completion of internal finishes to communal space.
- Removal of permanent hoardings and temporary gates.
- Completion of public realm and S.278 works
- Phased decant from site leading to the full opening of the development.

Infrastructure

1.21 The works generally comprise of the following:

- Drainage connections to a UU main combined drain from River Street.
- Electrical supply incoming of Wilmott Street. Connected into substation
- Mains water will be sourced from the identified supply currently in Willmott Street.
- Telecoms and data infrastructure proposed to be sourced from Wilmott Street

Traffic Management Plan

1.22 The Site is served primarily from Wilmott Street. It is envisaged that deliveries will arrive via Medlock Street, through River Street and on to Wilmott Street. Traffic will leave via Hulme Street east, through Cambridge Street and onto the Mancunian Way as applicable.

1.23 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.
- Temporary and/or permanent alterations to local traffic routes (both vehicular and pedestrian).
- Additions, alterations and positions of any temporary signage, road markings or protection barriers.
- Pedestrian access around site and relevant protection, lighting and signage schemes.
- Temporary suspension / relocation of any parking bays or bus stops.
- 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.

1.24 In preparation of the above document a protocol of timed and booked deliveries, off peak deliveries and prefabrication will be incorporated.

Deliveries

1.25 Delivery routes for the major materials and items of plant will be as per the section above (item 1.22). The Principal Contractor will endeavour to deliver outside of peak traffic hours to minimise local disruption and the normal workings of the surrounding properties.

Parking

1.26 There will be a limited number of visitor and key staff parking within the compound area. Site personnel will be encouraged to utilise the extensive public transport options available to them. Any personnel who have to attend by car will be asked to avoid parking in residential areas and instead utilise nearby formal carparking areas.

Health and Safety

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

1.28 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 periodically reviewed as the work progresses.

Construction Materials

1.29 The materials selected at this stage of the design process do not generate a risk to construction personnel using the appropriate PPE and following manufacturers guidance.

Site Security and Safety

1.30 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 dust & noise control & the erection of perimeter fencing to a specified standard, will be taken.

1.31 Vandalism and theft of plant, equipment, materials and fuel is possible throughout the duration of the development. The Principal Contractor 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 proximity fob system. In the event of a lost or stolen data the system can be updated to prevent fraudulent use.

1.32 The provision of CCTV would be considered if required to main site points and compound areas to assist in the prevention of unauthorised activities.

Environmental Management

1.33 An Environmental Plan will be developed to address and monitor the following issues:

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

Environmental Legislation

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

Pollution

1.35 The Principal Contractor will establish procedures, to ensure the prevention of water and ground pollution, relating to the following risk activities:

- De-watering of the site (if required).
- Soil contamination remediation.
- Earthworks (including piling, spoil movement and removal, and movement of contaminated soils).
- 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).

Nuisance (Noise, Vibration & Dust)

Noise & Vibration

1.36 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.

1.37 In order to minimise the noise, the Principal Contractor will provide the following:

- Any compressors brought on to the Site to be silenced or sound reduced models fitted with acoustic enclosures;
- All pneumatic tools to be fitted with silencers or mufflers where available;
- Care to be taken when erecting or striking scaffolds to avoid impact noise from banging steel. All operatives undertaking such activities to be instructed on the importance of handling the scaffolds to reduce noise to a minimum;
- The majority of deliveries to be programmed to arrive during normal working hours only. Care to be taken when unloading vehicles to minimise noise. Delivery vehicles to be routed so as to minimise disturbance to local residents. Delivery vehicles to be prohibited from waiting within or in the vicinity of the Site with their engines running;
- All plant items to be properly maintained and operated according to manufacturers' recommendations in such a manner as to avoid causing excessive noise;
- Where possible, all plant to be sited so that the noise impact at nearby noise sensitive properties is minimised;
- Local hoarding, screens or barriers to be erected as necessary to shield particularly noisy activities; and,
- Problems concerning noise from construction works can often be avoided by taking a considerate and neighbourly approach to relations with the local residents. Where possible, works should only take place during given periods, e.g. during normal construction hours and not at night.

1.38 In order to minimise the vibration, the Principal Contractor will provide the following;

- Adoption of low vibration working methods. Consideration should be given to use of the most suitable plant;

- Where processes could potentially give rise to significant levels of vibration, on - site vibration levels should be monitored regularly by a suitably qualified person;
- Where piling is to take place, any obstructions should first be removed;
- The provision of cut-off trenches in order to interrupt the direct transmission path of vibrations; and,
- Application of piling techniques aimed at reducing resistance to penetration e.g. pre-boring for driven piles and adding water to the hole for impact bored piles.

Dust

1.39 The principle concerns relating to air quality and emissions from construction activities are 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 none planned on site) piling, moving construction traffic and ground works.

1.40 In order to minimise the dust and fumes, the Principal Contractor will provide 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 wheel and body wash facilities;
- Keeping of adjacent roads and pavements clean;
- Ensure plant is turned off and not left running when not in use; and,
- Selection of electrically powered plant where possible in lieu of diesel or petrol plant.

Public Relations

1.41 The Principal Contractor will ensure that regular contact is made with local residents and community groups to ensure they are kept up to date with general progress on the site. This is especially important for major work elements such as piling and tower crane erection due to our close proximity to adjacent buildings. The Principal Contractor display a contact number on hoardings which will be operational 24/7.

Waste Management Strategy

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

Operational Waste Removal

1.43 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 percentages and data.

1.44 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

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

Summary

1.46 The Construction (Design and Management) Regulations 2015 will apply to this project and all appropriate controls and systems will be in place to comply with the standards of the Regulations and associated guidance.

1.47 Every stage of the project will be pre risk assessed and appropriate controls applied, sub-contractors will be pre vetted and will be subject to extensive pre contract requirements of information transfer and risk assessment.

1.48 A fundamental aspect of the Principal Contractor's role is the development of a Construction Management Plan, which will take account of all known risks, which have been identified at pre-construction stage by the Principal Designer/CDM Consultant, the Design Team and also through site investigations.

1.49 The Construction Management Plan will describe arrangements and procedures for managing these key risk areas in more detail, as well as any future risk, and also the resources, including personnel, which will be applied to the scheme and which will ensure the Health and Safety of all those working on or affected by the project works.

1.50 The Principal Contractor will have an on-going process of monitoring health and safety standards throughout its organisation. This is normally done directly (on site) by the site management team through regular inspections, toolbox talks etc. and also via the risk assessment process both during the completion of risk assessments and then by monitoring the effectiveness of risk control measures, which have been implemented. Site managers will also undertake regular reviews of safety on site, including any accidents or incidents and any matters raised will be dealt with accordingly.

1.51 Health and safety is also incorporated as a fundamental aspect of the overall project review. The Applicant will appoint a Principal Contractor that can demonstrate competency in the management and execution of Health and Safety. The Principal Contractor will work closely with the Principal Designer at this early stage of the project and will influence the detailed design to remove construction and residual safety risks.

1.52 At the earliest opportunity (prior to commencement of construction operations), the Principal Contractor will enter into dialogue with all relevant parties, including neighbours to ensure there is effective coordination throughout all stages of the build.

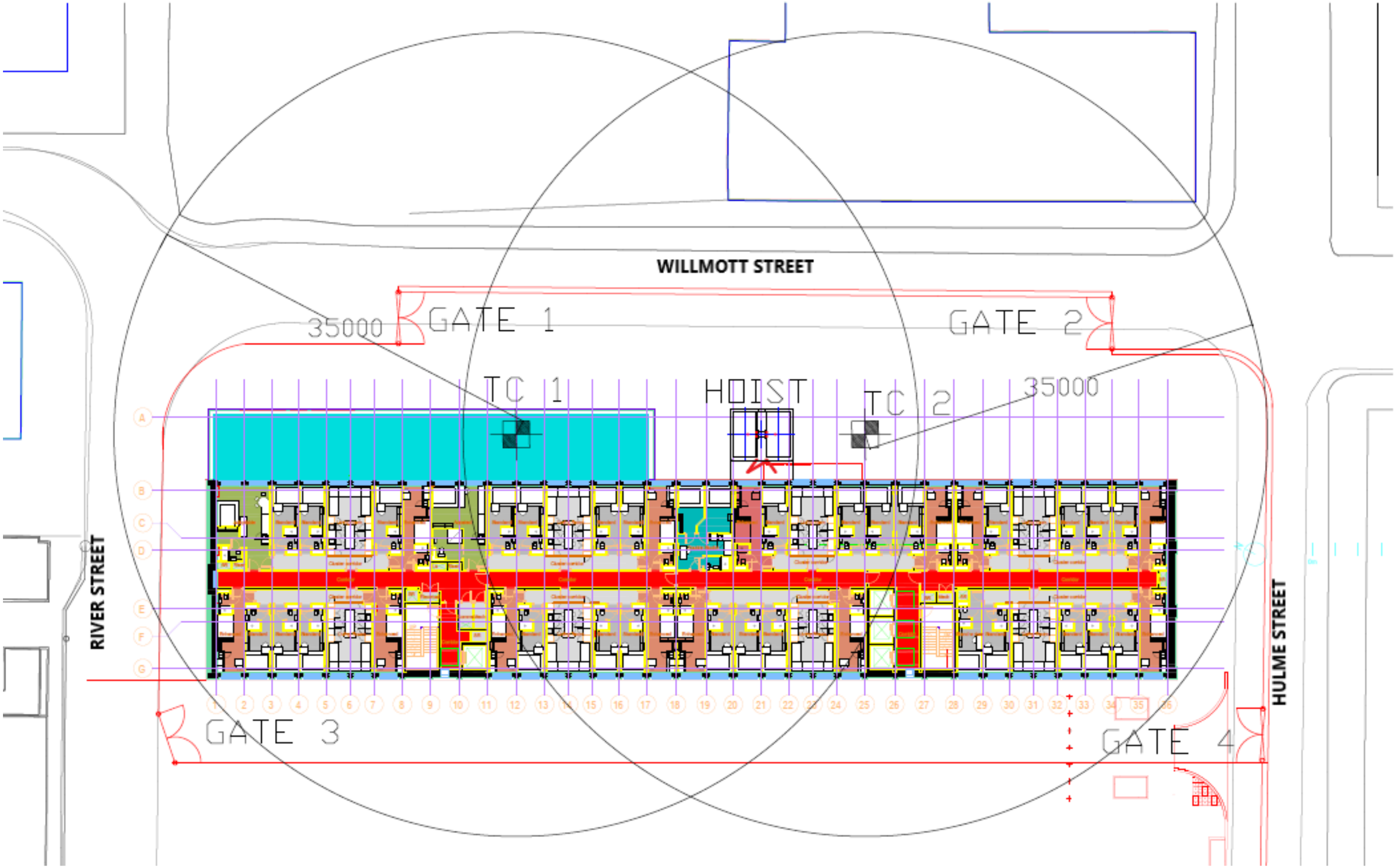

Fig 5.1 Logistics Plan