Fusion Student Accommodation Tower- Manchester

Construction Management Plan

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1.0 Introduction

1.1 Statement of intent and overall control strategy

Domis are committed to maintain a dynamic and robust integrated management system. This will ensure that we deliver everything we do in a safe sustainable manner and to a high standard which meets or exceeds our customer's expectations.

We are committed to achieving excellence through:

- Preparing and implementing programmes and systems to benefit the integrated management system to ensure that it is continually improved and remains effective.

- Establishing and setting objectives and targets and closely monitoring their implementation.

- Empowering our people and our supply chain to be proactive in suggesting improvements to the processes, procedures, and related documentation.

- Developing and training our people in both quality management and delivery.

- Engaging with our people on all matters to improve and embed learning across the business.

- Providing sufficient resources to enable this policy to function effectively and to ensure that this policy is regularly reviewed and communicated to all employees, our supply chain and stakeholders.

- Complying with applicable regulatory, customer and other requirements.

- Conducting regular internal audits and management reviews.

- Seeking feedback on performance from stakeholders, our supply chain and employees.

- Implementing mechanisms which encourage the identification of best practice and drive innovation.

- Generating a commitment amongst all employees and our supply chain to provide the service delivery and workmanship required by our customers.

Domis's policy will be delivered by generating a culture which actively encourages exemplary management practices and insuring the real involvement and participation of all our people, our supply chain, and stakeholders.

1.2 Existing development site

The current site located on South Deansgate, as covered under planning permission 129406/FO/2021 (as amended).

1.3 Summary of new works proposed

The project involves the construction of a new student accommodation tower including 509 student bedrooms with associated amenity/ancillary spaces including three external landscaped terraces over Ground + 27 stories located on Deansgate South.

2.0 Overview - Nuisance mitigation measures

2.1 Health and safety

The risks associated with each identified hazard and their specific management controls are recorded on the Overall project Risk Assessment form held in the Contract Management Plan.

Control measures are generally; activity risk assessments, point of work risk assessments, method statements, inspection and test plans, and permits. Information from the assessment is issued to subcontractors to identify the particular control documents required before starting the work. Records of the preparation, approval, receipt, issue and communication of all risk assessments, method statements and permits are maintained on file.

2.2 Minimising disruption to ongoing use of adjacent buildings

The continuity of existing site operations will be at the heart of all our planning and delivery of the project. We will use the following hierarchy:

1. Protect and maintain all existing adjacent buildings operations and services.
2. Protect and maintain all existing highway and footpath operations and services contained within.
3. Use construction methods that are appropriate when working close to site users and staff.
4. Plan and communicate on the above basis.
5. Deliver, monitor and control activities.

We will continue to develop our plans in more detail as we move through to the next stage ensuring that, at any one point in time, all site users can continue to access the site unimpaired, that all site ME&P services remain live, that deliveries and visitors can access necessary areas and that site fire escape and muster points are protected.

Clear and safe dividing lines between site and construction operations will be created and adapted to suit controlled changes.

2.3 Dust and Mud

Good practice measures will be adopted at the South Deansgate development to control the generation and dispersion of dust such that significant impacts on all permanent and transient stakeholders is minimised.

The hierarchy for mitigation will be:

- Prevention
- Suppression
- Containment

The following section provides detail on the Generic Mitigation to be incorporated into the Proposed Development:

- *Communication*

Develop and implement a stakeholder communications plant 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 environment manager/engineer or the site manager.

Display the head or regional office contact information.

- *Planning*

Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include as a minimum the measures recommended in this table.

- *Site Management*

Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.

Make the complaints log available to the local authority when asked.

Record any exceptional incidents that cause dust and/or emissions, either on- or off-site, and the action taken to resolve the situation in the log book.

- *Monitoring*

Undertake daily on-site and off-site inspection, where receptors (including roads) are

nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100m of the site boundary, with cleaning provided if necessary.

Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.

Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if at a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.

- *Preparing and Maintaining the Site*

Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.

Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.

Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.

Avoid site run-off of water or mud.

Keep site fencing, barriers and scaffolding clean using wet methods.

Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used onsite cover as described below.

Cover, seed or fence stockpiles to prevent wind whipping.

- *Operating Vehicle/Vehicle Movements*

Ensure all vehicles are well maintained and switch off engines when stationary – no idling vehicles.

Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.

Impose and signpost a maximum speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).

Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.

Use of ultra-low sulphur diesel in all non-road mobile machinery where available.

- *Operations*

Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.

Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

Use enclosed chutes and conveyors and covered skips.

Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fin water sprays on such equipment wherever appropriate.

Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

- *Waste Management*

Avoid bonfires and burning of waste materials.

The following section provides detail on the Activity Specific Mitigation to be Incorporated into the Proposed Development:

- *Demolition*

Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.

Avoid explosive blasting, using appropriate manual or mechanical alternatives.

Bag and remove any biological debris or damp down such material before demolition.

- *Earthworks*

Only remove the cover in small areas during work and not all at once.

- *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, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.

For small supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.

- *Trackout*

Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.

Avoid dry sweeping of large areas.

Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.

Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.

Record all inspections of haul routes and any subsequent action in a site logbook.

Install hard surface haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.

Implement a wheel washing system for routine use (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.

Access gates to be located at least 10m from receptors where possible.

All construction activities will be subject to the production of a detailed method statement and risk assessment by specialist subcontractors, these will include the measures being proposed for eliminating, reducing or controlling dust and any proposals for monitoring

where deemed necessary.

These method statements are subject to approval by the Domis Construction Operations Team and our Safety Advisor and agreement will need to be reached prior to any work being carried out.

2.4 Fire protection

On contract commencement the Project Manager will appoint a competent person to act as Fire Safety Coordinator to control fire evacuation and muster checks.

The Project Manager and the Fire Safety Coordinator will conduct a fire assessment to determine all potential fire hazards, the employees and other site users at risk and the fire safety arrangements. This will be recorded on the Fire Assessment and Arrangements Form.

Following completion of the Fire Assessment and Arrangements an action plan will be produced by the Project Manager and Fire Safety Coordinator to ensure all potential hazards are eliminated and all fire safety controls are in place prior to taking occupancy.

The Project Manager and Fire Safety Coordinator will ensure the content of the completed Fire Assessment and Arrangements is added to the Contract Management Plan.

The Project Manager will ensure the fire arrangements form part of the induction process and that all individuals are aware of the fire evacuation process. The Project Manager will ensure a drawing showing site / office layout and fire fighting arrangements is displayed at strategic locations. A Fire Notice is available to record this.

The Project Manager will nominate and arrange training for Fire Wardens. Consideration must be given to cover holiday and illness absences. The names of the Fire Wardens will be communicated. A Fire Notice is available to record these. The Fire Wardens will attend the relevant training, ensuring they fully understand the content and their overall responsibility.

The Fire Safety Coordinator will establish a Fire Safety Inspection Record for each location for each calendar year. This will be used to record Weekly Checks; Emergency Evacuation Drills and Annual Equipment Checks

The Fire Safety Coordinator (or his nominee) will undertake weekly checks on Fire Extinguishers; Fire Escape Routes; Fire Signs; Fire Alarms and Fire Brigade Access. This will be recorded on the Fire Safety Inspection Record

The Fire Safety Coordinator will undertake practice emergency evacuations at approximately six-monthly intervals for locations where there is a static workforce, for locations where there is a high turnover of staff this frequency will be increased. During the emergency evacuation the Fire Wardens will adequately perform their duties and feedback any issues to the Fire Safety Coordinator.

Where the alarm goes off for an unknown reason, but it becomes apparent there is not and emergency situation the alarm should be allowed to continue, and the building evacuated to prevent confusion in the evacuation and treated thereafter as a practice drill. The Fire Safety

Coordinator will record the details on the Emergency Evacuation Record and the Fire Safety Inspection Record. Where actions have been identified these will be transferred to the Fire Assessment and Arrangements Form.

The Fire Safety Coordinator will ensure all fire-fighting equipment is tested on an annual basis by a competent person. These will be recorded on the Fire Safety Inspection Form. The Fire Assessment and Arrangements will be reviewed on an annual basis or after any event which may affect its content, such as alteration or substantial changes in occupancy.

2.5 Light pollution

Site lighting will be carefully considered to ensure the required level of safety and security is achieved without causing excessive nuisance to neighbours. Floodlights will be located to provide the necessary site illumination and the lamp-heads will be specified to minimise overspill and directed to shine onto site. All tower cranes will have air-craft warning lights fixed to the upper part of the crane and jib.

2.6 Ground and watercourse pollution

Method statements for the works will be devised to take account of contamination risk and the effective management of that risk:

- All materials / processes will be handled / undertaken strictly in accordance with the suppliers / manufacturer's recommendations.
- All bulk solid, granular, liquid materials will only be stored on site in (limited) quantities necessary to meet the requirements of the construction process.
- All liquid materials will be stored in suitable containers, adequately bunded to comply with Health, Safety and Environmental legislation / recommendations.
- Sensitive areas will be subjected to specific protection regimes.
- Spillage reaction / clean-up plans will be in place to be undertaken by a trained squad of personnel.
- Specialist cleaning equipment will be placed in key locations around site to minimise any spillage should it occur.
- All waste materials will be controlled / sorted into the appropriate waste containers on site prior to removal by an authorised / licensed waste carrier.
- Interceptors will be used to remove solids etc from any site discharges, which may, with the agreement of the Local Authority be made into the surface water drainage system.
- Silt traps to be provided to all gullies
- DEFRA and local standards to be complied with.

2.7 Trees and existing hedge rows

Trees and existing hedge rows will be removed as required by the approved Landscape plans.

2.8 Site Housekeeping

Throughout the project we will encourage and enforce an excellent housekeeping regime. A strategy will be developed and incorporated into the Site Rules which will be sent to suppliers

and supply chain partners alike. The strategy will also form an essential part of the supply chain / suppliers pre-order interview.

We will ensure that all operatives engaged on the works are familiar with the work in progress, skilled at their task, aware of their duties and responsibilities to others and knowledgeable of the Site Rules. All persons working on site will attend the site safety induction and commit to the site rules.

2.9 Waste management proposals

We will operate a site wide waste segregation removal procedure. Recycling areas will be located on the service yard level and ground floor of the site. Waste wheelie bins will be situated in designated areas which will be filled by the subcontractors and taken by them to the recycling areas.

Waste reports will be created on a monthly basis which will detail the quantity, type and percentage of waste being produced, with the percentage of recycling achieved.

Waste control will be reviewed with the contractors during the procurement process to minimise packaging on deliveries and encourage removal of their own waste such as plasterboard, pallets, paint pots and cable drums.

The specialist contractors will work with the design team during the design stages to find the most efficient and economical solutions in reducing waste during the construction phase. In addition, the strategy for maximising the levels of works through prefabrication off site will further reduce waste generation.

2.10 Liaison with community And Public Complaints Procedure

We will keep our neighbours well informed before and during the construction phase through various means: A member of the Domis team will be designated as the Project Community Liaison Manager responsible as a single-point contact to ensure good neighbour relations. A regular residents' meeting will be established at a frequency agreed with the residents to bring them up to speed with project progress and key elements of the work. It also provides an open discussion for residents to voice concern or highlight issues.

Newsletters will be widely distributed to identify completed works and focus on forthcoming activities to give neighbours early notice of such works. Information displays in prominent locations will contain various project-specific information.

A 24-hour emergency/complaint contact number will be established and displayed on the site hoarding/entrances to allow concerns to be raised, these will be actively dealt with by the Domis Project Community Liaison Manager until the issue is resolved with the initial response to be made within 24 hours (unless urgent) of the receipt of the call.
A record of all complaints received will be logged and kept on file in the site office for the duration of the project.

3.0 Construction Logistics and Construction Processes

This section contains statements and plans for traffic management and construction logistics for the works. Statements and plans to cover the following:

3.1 3rd Party Consultation

We have consulted with and will continue to consult with various 3rd parties over the construction of Fusion Student accommodation development. Central to these discussions is to agree detailed phasing and traffic management plans for the wider developments as a whole.

3rd parties include:

Manchester City Council Due to the ATF Cycle scheme that runs through the City We consulted and have proposed a traffic management plan and updated TTRO application that is based on the minimal interference with transport network and the council lead scheme. This application was made after discharge of Condition 8 and in close consultation with (MCC) Deansgate and City ward (Ben Phillips) – Events and Coordination Specialist) – a copy of the following documents are attached:

- Approvals for an updated Traffic Regulation Orders and/or Temporary Traffic Regulation Orders copies of which are attached to this plan.
- Consultation with neighboring properties and notification of each in advance of TROs/TTROs coming in to force.

Existing accommodated developments

There are a number of accommodated schemes around the development each of which will be contacted prior to works commencing, with regular newsletter updates being provided.

3.2 Site Vehicle access restrictions and logistics plans

Access and egress from site is shown within the attached logistics and traffic management plans. No parking for operatives on site will not be permitted, they will have to use the existing public car parking in the city or public transport. There are a number of public car parks in close proximity of the site and the train and tram networks are all within walking distance, e.g.Deansgate rail and tram stations.

3.3 Site Vehicle Management/Logistic plans

We have detailed below the agreed routes into site and the “laybys” for vehicles to be unloaded from South Deansgate, ensuring we have accommodated the requirements of principles of the construction chapters within the EIA, one-off deliveries will have to be

co-ordinated with Manchester City Council.

3.4 Tower Cranes

We have developed our lifting strategy around a two tower crane approach to the project;

TC1 will be erected to construct the slip formed core and then mount a Tower Crane TC2 on top of the core which will be utilised to construct the frame and unload bathroom pods and façade elements.

Tower crane locations are shown within the logistics plan in appendix A.

Road Closures will be required to rig and de-rig the cranes will be agreed with MCC once exact dates are known, at present the erection and dismantle dates are as follows:

3.5 Site Accommodation and Welfare

The proposal for the main site accommodation and welfare is as follows, the main management office is located in Albion Wharf as indicated on the logistics plans and the site welfare and supplementary offices are being concluded, either in arches close by or one of the office/areas for let within close proximity of the development.

3.6 Enabling Works

Once the foundation design is complete, an extensive enabling works package will be formulated including demolition of existing walls, ground improvement, obstruction removal, retaining wall removal, reduced level excavations, and piling mat construction.

3.7 Piling and substructure Works

The piling rig and concrete agitator will be delivered and operated within the site boundary, working on the designed piling mat. Following completion of the piling, substructure works will commence consisting of reinforced concrete pile caps, ground beams, retaining walls and ground floor slab.

3.8 Slip Formed Core.

The Tower crane will be erected in time to commence construction of the slip form rig. During the Pre-Construction period we will design and procure the equipment, ensuring that the structural stability of the cores is maintained in its temporary condition. The rig will be fully encapsulated to ensure that no materials fall out or blow off the structure.

3.9 Floor Construction

Once works have commenced on the construction of the floor slabs and level 4 has been cast the self-erecting 4 storey external protection screens will be erected at second floor level and will be jacked up to suit the progress of the frame. The self-erecting climbing screens will ensure that the work floors are fully protected against falls of debris and dust. When the climbing screens pass the completed floor, they will be replaced by fixed screens. That will not be removed until the facade is watertight.



The slip form rig will be de-constructed and craned off the top of the core, and the capping slab installed.

3.10 Hoists.

A passenger and goods hoists will be installed.

3.11 Unitised Curtain Walling

A team will work ahead of the installation fitting brackets to line and level into the pre-cast halfen channels cast into the floor slab.

The unitised curtain walling will either be installed using the method of positioning the individual curtain walling panels on a sliding table, connecting on to the overhead floor crane and pushing the units out over the floor edge, turning the panels and connecting them to the lower floor, whilst securing them using the overhead fixing bracket. The process will be repeated until the whole elevation is complete. For the high level glass panels we will need

to utilise the Tower Crane to lift them in to position or a lifting frame and running rail as described below.



For the top floor unitised curtain walling a lifting frame that will be linked to an overhead running rail may be used, the panels will be unloaded at ground floor level and be taken through the building to the rear area and positioned in the designated lifting zone. Each panel will be lifted up the building to the floor level and then moved horizontally into the correct position and permanently fixed in to place.

3.12 Lift Installation

When we have completed the core structure and capped at roof levels and have sufficiently advanced the floor slabs, we will commence with the installation of the passenger lifts. Owing to access restrictions and handling of materials we will fit out each lift shaft, before commencing the next and so on. By completing the lifts early we will get beneficial use of the lifts progressively.

3.14 Fit Out

Prior to commencing the unitised façade we will deliver the student bedroom pods and then once we have a fully watertight floor, we will deliver the complete high-level corridor services, including any temporary electrics, power and lighting.

The first fix will commence with the metal stud walls, one side of plasterboard and the noggin brackets that carry the electrical back boxes as well as any structural supports required for door frames, kitchen units etc.

The completed first side boarded apartment will be handed over to the Mechanical and Electrical contractor for their first fix works to all services as well as ventilation and ductwork, electrical, comms and control wiring, sprinkler pipework and all pipework including all testing prior to handing back for second side boarding and ceiling works. The apartments will be plastered, and mist coated when dry. The walls will be snagged and repaired where necessary ahead of 2nd fix joinery, kitchen installation and final decorations. Final fix electrical and lighting will be followed by floor finishes, builders clean and commissioning of services. The team will instigate an inspection and snagging process with the client team to clear all defects before final sparkle clean and lock up of the completed apartment.

As the bedrooms are completed, we will finish the corridor fit out, including lift architraves etc and protect any finished surfaces necessary. From completion of the apartments, we will instigate an inspection process to ensure the integrity of the bedrooms up until overall final project practical completion.

4.0

Appendix A

Project logistics plans

Appendix B

Traffic Management and hoarding plans