

CONSTRUCTION MANAGEMENT PLAN

Project:

Unite Students
Parkway Gate
Manchester
M15 6JH

Client:

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Principal Designer:

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Commencement: Monday 12th July 2021

Duration: 56 Weeks

Completion: Friday 29th July 2022

Version/Status:	01			
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Approved	Adam Crabtree			
Date of Issue	8 th March 2021			

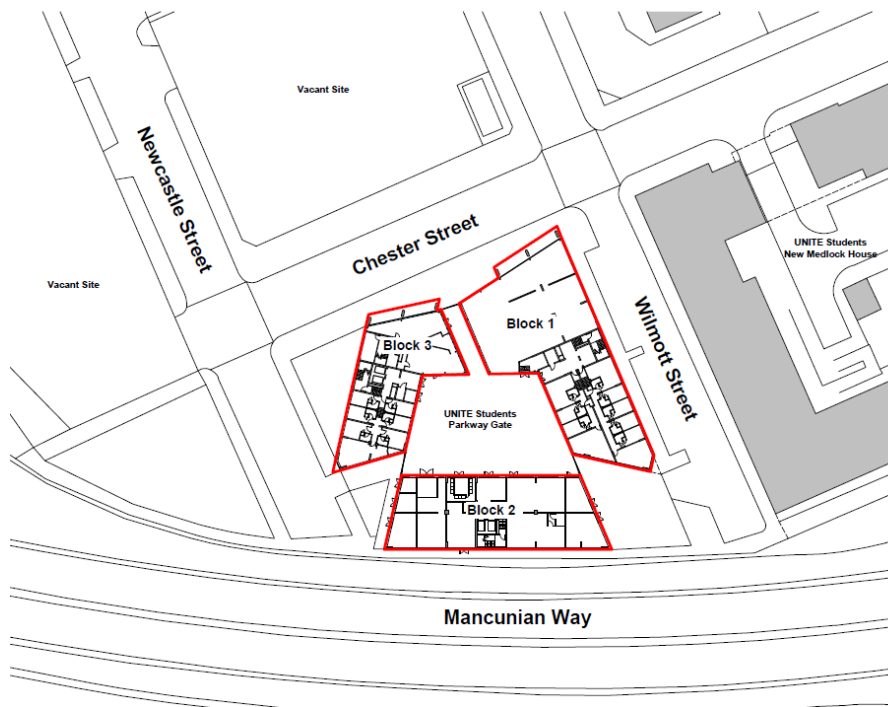
PARKWAY GATE CLADDING REPLACEMENT SCHEME – CONSTRUCTION MANAGEMENT PLAN

This Construction Management Plan has been prepared to demonstrate the proposed methodology for undertaking; the cladding replacement works under LPA ref. 128675/LP/2020, the consented works under LPA Ref. 121186/FO/2018 and the works which form part of this application for additional bedrooms in the roof voids and redundant plant space, at the existing 17, 15 & 13 storey student accommodation blocks adjacent to the A57(M) Mancunian Way in the heart of Manchester.



Location of Work

The site is located on a parcel of land adjacent to Mancunian Highway, Chester Street and Wilmott Street in Manchester.



Description of Work

The existing buildings at Parkway Gate are situated on a parcel of land adjacent to Mancunian Way, Chester Street and Wilmott Street, close to the city centre of Manchester. The works comprise the full height envelope replacement of all three existing buildings at Parkway Gate. Block 1 being 17 storeys in height, Block 2 15 storeys in height and Block 3 13 storeys in height. The work will involve the removal of existing full height cladding, curtain walling, punched windows and inner leaf construction, followed by the installation of new inner leaf, cavity insulation, carrier system, cladding, curtain walling and punched windows (these works were confirmed not to constitute development under the issue of a certificate of lawfulness for the proposed development under LPA Ref. 128675/LP/2020. In addition, this phase of construction works will also include those consented under LPA Ref. 121186/FO/2018 and this current application for additional works in the roof voids and redundant plant space.

The works are due to commence on Monday 5 July 2021 for a period of 56 weeks and programmed for completion on Friday 29th July 2022.

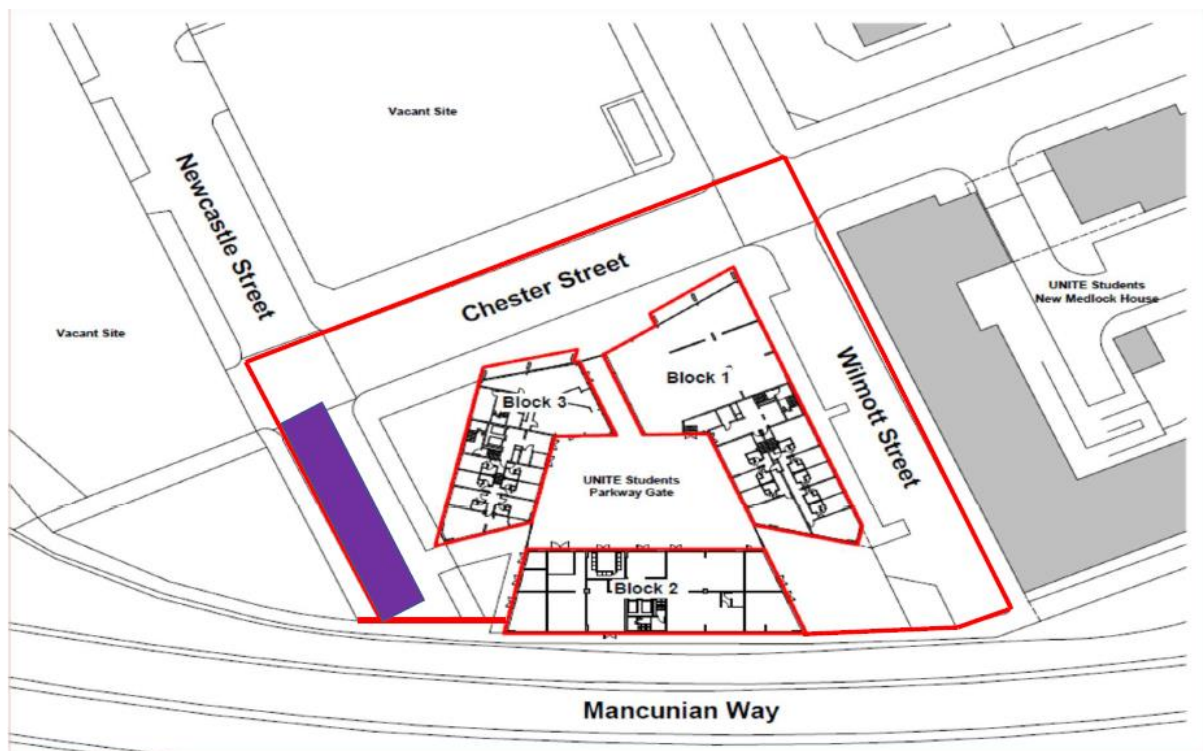
- **Building Envelopes:** Removal of full height cladding, insulation and SiPS panels to all three blocks, including removal of the full height curtain walling to the three elevations of Block 2. Installation of new SFS/cemboard, carrier system, insulation, fire barriers and cladding to all blocks, with new full height curtain walling to Block 2. The existing Corten cladding panels to Block 1 are also to be retained for re-installation. In addition, the introduction of windows to the student bedrooms proposed in the roof voids;
- **Internal Works:** A new reception and common room to be formed by linking the existing reception area with the existing commercial space as consented under LPA

Ref. 121186/FO/2018 alongside the additional bedrooms within the roof voids and redundant plant space;

- **Commissioning:** Air test, pre-commissioning, final testing & commissioning, end user training, operation & maintenance manuals, building log book.
- **External Works:** Refurbishment of hard & soft landscaping within enclosed courtyard, including provision for external furniture.

Proposals for Site Establishment & Accommodation

It is the intention to locate our main site offices and welfare facilities on an area adjacent to the main buildings at Parkway Gate on the dead section of Newcastle Street (see below). Site facilities will be provided for the full duration of the Project and will consist of self-contained units providing serviced office and welfare facilities.



As part of ISO14001, RG Group will record monthly meter readings of all energy and water used for the site, to ensure that energy usage targets are not exceeded.

The site welfare facilities will provide canteen, toilet facilities & drying room. The RG Group offices will include a meeting room, toilet facilities & kitchen. The facilities will be supplied with mains electric, water and sewer services from the adjacent mains.

The offices will be equipped with telephones, IT facilities, printing & photocopying capabilities and a first aid facility.

Sequence of Work/Methodology:

The following methodology is to be read in conjunction with the Construction Drawings, Site Logistic Layouts and Construction Programme.

RG Group envisages a start on site date of Monday 5th July 2021 and an anticipated completion date of Friday 29th July 2022, with a pre-construction period commencing on Monday 8th March 2021.

During the pre-construction period and prior to commencing on site RG Group shall carry out the following:

- Place orders with initial subcontractors such as Perimeter Hoarding, Soft Strip & Demolition, External Cladding, External Glazing, Mastclimbers, Perimeter Scaffolding, Goods Hoists and Building Services;
- Arrange office & welfare facilities;
- Mastclimber and Goods Hoist suppliers that have been approached during the tender stage have quoted a **4 week** lead in on machinery.
- Carry out site investigation works to identify exact location of existing services. A ground penetrating radar survey will be carried out to assist in this process.
- Carry out measure survey of existing internal layout of buildings.
- Carry out intrusive survey of existing curtain walling installation and internal dryline partitions.
- Further develop the construction programme directly with associated specialist subcontractors & suppliers aiming to avoid potential delays and pinch points;
- Submit the Construction Phase Health & Safety Plan to the Principal Designer for approval.

Prior to starting on site a joint written and photographic dilapidation survey will be carried out in association with the Client's representative of the surrounding area along the boundaries of the site where the new construction activities interface with the existing finishes.

RG Group shall also look to contact Manchester City Council Highways Department in order to progress arrangements for closing the highway on Wilmott Street, Chester Street and Newcastle Street, together with suspension of the kerbside parking bays on Wilmott Street. It will also be necessary to apply for a hoarding licence and scaffold licence during the pre-construction period. Once arrangements are in place, the site hoardings shall be erected and any temporary traffic restrictions enforced.

Demolition and Soft Strip of Existing Buildings

To facilitate the removal and replacement of the building envelope, it will be necessary to divorce the internal partitions from the external envelope construction. This will require the safe removal of approximately 600mm width of suspended ceiling and dryline partition on every floor of each of the 3No. blocks at Parkway Gate. In the early stages of the Project the waste materials generated from the ceiling and wall removal will be transported to ground level via the existing passenger lifts. A goods hoist will be installed as early as possible in the programme of works and will replace the passenger lifts for transporting materials vertically when available.

Once the internal walls have been divorced from the external envelope, the soft strip of the internal rooms and circulation spaces will commence and will include the removal of fixed & loose furniture, soft flooring and internal doors & frames. Similarly to the wall and ceiling removal, all waste will be transported to ground via a combination of passenger lifts and goods hoists.

As part of the works, it will be necessary to remove an existing staircase in Block 3 that currently serves a meeting space on Level 2 from the ground floor. The existing stairs are made from hot rolled steel and will be removed by flight from Level 2 to ground utilising proprietary lifting equipment designed for use within a confined area. The resultant void will be infilled with a composite concrete floor slab as part of the works.

New Substructure Works

The new substructure works are very minor and are required to create a link between Block 1 and 3 on the Chester Street elevation of the Project to form the new reception and common space at Parkway Gate. The works will consist of some minor pad and strip foundations, drainage alterations and a small area of new ground floor slab.

The foundations will be excavated by mechanical means, with the resultant spoil removed from site, with concrete poured into the foundations directly from the agitator of the ready mixed concrete delivery vehicle. Holding down bolts will be cast into the concrete in readiness for the hot rolled steel link frame.

It will be necessary to carry out some very minor drainage alterations in existing areas of the ground floor in all three of the blocks at Parkway Gate. This is primarily in areas where new bedrooms have been introduced and will involve cutting through and breaking out small areas of existing ground floor slab, excavating down to existing drainage and diverting existing drainage to the newly design "pop-up location. Upon completion of the new drainage works, the drains will be backfilled with suitable fill and the ground floor slab will be reinstated.

New Superstructure Works

The new superstructure works at Parkway Gate comprise of alterations to the existing structure at roof level of each block where additional student bedrooms are being introduced and the introduction of new structure between Block 1 and Block 2 to link the two blocks together in forming the new reception and common space at ground floor level.

Alterations to the existing steelwork at roof level will be required to facilitate the introduction of a number of new windows, predominantly comprising of the reconfiguration of the steel bracing to accommodate the new windows.

The new structure at ground floor level will comprise of a new structural steel infill frame and composite concrete roof deck. The steel will be erected from the courtyard at Parkway Gate, with the concrete to the composite roof deck also poured from the courtyard area.

Building Envelope Works

The envelope to the existing buildings comprises of a number of different treatments, ranging from curtain walling, strip windows, punched windows and rainscreen cladding. Block 1 is predominantly Corten steel cassette panels, insulated metal panels and a combination of punched and strip windows. Block 2 is predominantly curtain walling and insulated metal panels, with punched and strip windows. Block 3 is predominantly insulated metal panels with punched and strip windows. The inner leaf of all three blocks has been formed utilising SiPS panels. The SiPS panels are made up of 2No. layers of Oriented Strand Board (inner and outer face) sandwiching 100mm PUR insulation.

Access to de-construct the existing elevations will be predominantly from mastclimbers, with mobile elevated work platforms utilised to supplement the mastclimbers at the beginning of the Project. On the main elevations of the blocks, it will also be necessary to utilise double stacked mastclimbers, with single stacked machines used mainly for gable end works.

Access to the Willmott Street, Chester Street and Newcastle Street elevations of the envelope will require full road closures. We will liaise with Manchester City Council to arrange the closures in advance of the Project commencing, as the proposed hoarding line follows the line of the existing kerblines and existing hoarding line (Chester Street) to an adjacent site. Access to the Mancunian Way elevation of Block 2 will require a scaffold crash deck to the full length of the elevation to allow the mastclimbers to be built from the deck level. This is required, as the pedestrian footpath adjacent to Mancunian Way is to be maintained throughout the work.

The new inner leaf of the envelope to each block will be formed employing a stick built structural framing system (SFS) faced with a cement particle board and including a vapour control layer. Access to construct the SFS will be predominantly from mastclimbers, with mobile elevated work platforms utilised to supplement the mastclimbers at the beginning of the Project. On the main elevations of the blocks, it will also be necessary to utilise double stacked mastclimbers, with single stacked machines used mainly for gable end works.

As noted above, we have a combination of Corten steel cassette panels, insulated metal panels and a combination of punched windows, strip windows and curtain walling, with the inner leaf of all areas of the envelope being made up of a panelised structural framing system (SFS), faced with cement particle board. The vapour control layer and cement particle board will be fixed to the SFS in accordance with the design and the structural openings formed for the windows and areas of curtain walling. At this stage, the unglazed window units will be fixed in the pre-formed openings and sealed to the cement particle board with an EPDM membrane to create an airtight seal. The window units will then be fully glazed essentially making the window opening weathertight and therefore allowing internal works to commence when sufficient numbers of windows have been installed. Each floor level, rather than each elevation, will be complete prior to moving to the next level. The new windows to all blocks will be fixed from the top level of each block working towards ground floor level, whereas the full height curtain walling to the three elevations of Block 2 will be installed from Level 1 to roof level.

Works to complete the external envelope involve the installation of new low level curtain walling and new external doors at ground floor level. The curtain wall frame system will be installed and fixed to the SFS in accordance with the design and sealed to the substrate with an EPDM membrane to create an airtight seal. The curtain walling will then be glazed and the glazing joints capped to complete the installation. The external door frames will also be fixed to the SFS and sealed using an EPDM membrane, with the door hung and adjusted to ensure the door operates correctly and the building can be secured.

Internal Works

These works shall commence at the earliest opportunity once the building becomes provisionally weathertight. The first work activity associated with the internal finishing of the building will be to install the new sprinkler pipework, ventilation duct and make alterations to the existing pipework, above ground drainage and electrical containment, followed by alterations to the electrical wiring and data installations.

As the 1st fix services progress, the new plasterboard lining to the newly install SFS will be installed, with the previously removed internal partition walls re-constructed. Once the 1st fix services are complete in the ceiling void and signed off, the re-installation of the plasterboard ceilings will then commence. When sufficient areas of plasterboard walls/ceilings become available, a plaster skim coat finish will be applied to patch the finished walls.

Following completion of the skim coat plaster, the 2nd fix works such as joinery, 2nd fix mechanical & electrical installation, mist coat decoration can commence. The 2nd fix works shall be coordinated between all trades so that a methodological sequence can be adopted throughout the building.

Once initial finishes have progressed sufficiently, final fix works such as final fix services, refurbishment, final fix joinery, decorations, soft flooring and fixtures & fittings will commence. Finally, window blinds/curtains, internal signage, snagging and building cleaning will take place once all other works have been completed. Upon completion of the internal finishes of each room they shall be locked off and remain secure until ready for final commissioning. Testing & commissioning of the mechanical & electrical services will be an on-going activity towards the end of the project and as systems become available.

To facilitate efficient progress of the internal works, materials will be transported vertically via 1No. passenger goods hoist/block. At a point in the programme of works, it will be necessary to remove the hoists and complete the envelope works in time for the final handover. At this point, it is intended to utilise the permanent passenger lifts within the buildings, of which there are 2No. in each block. The lift cars will be fully lined out with 18mm plywood to protect the wall and floor finishes prior to the lifts being put into use. Once all materials have been installed, the lift protection will be removed ready for final handover.

Commissioning Management

Approximately 12 weeks prior to completion we shall provide a detailed commissioning and 'soft landings' programme which will detail the testing and commissioning procedures to be employed by the services installations subcontractors and also detail our final works in completing the finishing's within the building, including our quality checking regime, final cleaning and handover procedures. At the appropriate point in time an area of completion will be offered to the client for snagging, following quality checking and cleaning.

During the final period of works, we shall instigate a series of training sessions which will allow the Unite Students staff and facility managers to familiarise themselves with the new building systems and its operation.

Completion - Commissioning Management

The Project Manager and the Package Managers will ensure that service installations are installed and checked and where appropriate, tested in accordance with the specification. Inspection and Test Plans will be produced by the building services contractor prior to commencing works.

The Project Manager will ensure that progressive snagging of installed services is completed within the timescales agreed by the Client and their representatives. Our commissioning regime is tightly monitored throughout the build process, this is via our onsite Package Managers and our subcontractor's Commissioning Manager. The commissioning process is programmed to suit both the build and handover milestones, thus delivering a fully compliant designed and working system to meet the client's expectations.

To ensure systems are available for commissioning, the systems to be commissioned are pre-commissioned by the subcontractors Commissioning Manager. Pre-commissioning is carried out on each individual system installed and the individual subcontractors provided with a list which highlights any items that require to be rectified to allow formal commissioning to commence.

Commissioning Programme

As soon as practicable after the specialist commissioning contractor or the designated subcontractor's personnel are appointed, the Project Manager will agree a commissioning programme for the contract. The commissioning programme must include the following information:

- Power/fuel required dates
- Pre-commissioning period
- Commissioning period
- Witnessing periods
- Client demonstration
- Client training

Witnessing/Recording/Demonstration

The Project Manager will ensure that the appropriate party witnesses all commissioning and that results are properly recorded. Draft copies of all test certificates which form part of the Contract Quality Records, should be retained on file. All instruments used for testing must be in a known state of calibration. Records of electrical witnessing/testing will be made. The Project Manager will arrange for installations to be demonstrated to the Client or representative by the appropriate specialist following commissioning of the systems. The 'as fitted drawings' and O&M Manuals must be available in either draft or final form before demonstrations are carried out. The Project Manager is responsible for managing the witnessing of any whole system testing required by the Building Control or Fire Authority.

External Works

The existing hard landscaped areas within the central courtyard are to be refurbished as part of these works and will comprise of the replacement of the existing hard surfacing and introduction of various soft landscaping beds and various items of external furniture.

Initially, the existing hard surfacing will be lifted by mechanical means and disposed off site. The area will then be regraded to falls to suit the existing ground floor levels and existing gully levels. As this work proceeds, works to lay the new hard surfacing will commence. At this point the planting beds bordered by the hard surfacing will be filled with topsoil and cultivated ready for planting, with items of external furniture also located in position. Upon completions of the landscaping, the whole area will be washed down with a power washer.

Vertical Transportation of Materials

Due to the nature of the work and particularly the replacement of the external envelope, RG Group will install mastclimbers to the main elevations of all three buildings to service the removal of the external cladding, windows, curtain walling and SiPS Panels, followed by the replacement inner leaf, which in this case will be SFS/Cemboard and the installation of the replacement windows, curtain walling and cladding systems. The mastclimbers will generally be founded at Ground Floor Level, with the exception of the front elevation of Block 2 where the mastclimber will be erected from a fully designed scaffold crash deck. The crash deck is required, as the pedestrian footpath to the front of Block 2 is to remain open for the duration of the works. Mobile elevated work platforms (scissor lifts) maybe used for the removal of the low level cladding until such time as the mastclimbers have been installed and become available for use. Material goods hoists will be installed and utilised for the distribution of materials vertically, such as plasterboard, building services equipment and fitted

furniture and will be supplemented by the use of the existing passenger lifts. The location of the mastclimbers are indicated on the site logistics plan located in **Appendix A**.

Traffic Management Principles

The site logistics plan located in **Appendix A** outline RG Groups proposals for managing and controlling of site traffic and captures all temporary road & footpath closures and parking bay suspensions that is required to allow the Project to be delivered safely.

The purpose of this plan will be to set out how the site is to be organised to eliminate and control risks from site transport.

This will be achieved through careful management, programming and coordination of the construction works. In order to minimise the impact of construction traffic on the existing roads and highway network the following principles will be actioned:

- Several parking bays on Wilmott Street (18No.) will be suspended for the duration of the works;
- Temporary road and footpath closures will be implemented on Wilmott Street, Chester Street and Newcastle Street for the duration of the works. On the request of Manchester City Council Highways Department, a cycle route will be maintained on Chester Street.
- Delivery vehicles whenever practical will avoid “peak public traffic hours” to reduce traffic congestion and nuisance to the existing surrounding road and highway networks;
- To minimise the volume of construction traffic from outside the area, local suppliers and subcontractors will be used whenever practical and suitable to do so;
- The approaches to the site shall be suitably signed by RG Group to ensure that delivery / contractor vehicles stick to the correct route to site;
- The site entrance will be appropriately signed to ensure no accidental entry by the general public;
- The site entrance will be signed for “Emergency Access Point” for safe access and egress of emergency vehicles;
- Delivery vehicles will be unloaded within the offloading areas detailed on the site logistics plan located in **Appendix A**. All offloading operations will be managed by a dedicated, trained banksman;
- To avoid construction traffic congestion and nuisance to the surrounding area all suppliers and subcontractors will be made aware of the traffic routes;
- Clearly marked out storage areas shall be located away from pedestrian traffic;
- Site vehicle routes will be segregated from pedestrians;
- Crossing points will be established in areas with good visibility and appropriate signage;
- Trained and competent banksmen will be deployed to monitor vehicle movements;
- RG Group adopt an operating policy that only persons with the relevant CITB/CTA/CPSA qualifications can operate plant on site;
- Due to the nature of the refurbishment Project, it is not envisaged that wheel washing facilities will be required, as all site areas hard landscaped areas which negates the risk of taking mud and debris onto the public highway.

For environmental and road safety issues all refuse containers leaving the site will be appropriately covered to avoid debris littering the surrounding roads and highways.

The primary access for all RG Group construction traffic will be via entrance gates in the perimeter hoarding on Wilmott Street and Chester Street. Egress from the site shall be via the same gate. The primary access and egress for pedestrians will be via pedestrian access located on Newcastle Street.

Pedestrian Routes

Site pedestrians will be kept separate from vehicles on site by using separate site entry and exit points and barriered footways. A pedestrian entrance onto site will be located near the site offices & welfare accommodation. The location has been indicated on the site logistic plans located in **Appendix A**.

Pedestrians will have a good view of any vehicles at gates and other crossings. Where necessary banksmen or signallers will be provided, especially for high-risk situations such as reversing or where visibility is restricted.

No reversing of vehicles without a banksman will be permitted. Vehicles will not be permitted to reverse onto a public highway unless absolutely necessary and only under the supervision of a banksman. No reversing of vehicle signs will be displayed at the site entrances.

Adequate lighting will be provided if necessary as well as other suitable warning signs. Banksmen and signallers will be trained in their duties. Vehicle drivers and visiting drivers will be informed about site transport rules during the site induction. Roads and walkways used by pedestrians or public vehicles will be kept free of obstructions.

Pedestrian & vehicular routes outside of the site boundaries shall be maintained at all times. RG Group Site Management shall carry out regular inspections of the site hoardings to ensure that all walkways are kept clear and that the hoarding is maintained in a good condition.



Designated pedestrian crossing points during the construction works, shall be monitored by a designated banksman who will ensure that existing roads and footpaths are not blocked during the construction. The site logistic layouts indicate the anticipated crossing positions during the project.

Due to the nature of the refurbishment Project and as space on site is limited, there will be no parking allowed on site at Parkway Gate. All parking will be off-site, with several off-road car parks and on road parking available in close proximity to the site.

Procedure for Removal of Surplus Materials

All debris, redundant materials, etc. will be collected on site within each working area on a daily basis and removed from the building to designated rubbish skip locations. The Site Waste Management Plan (SWMP) shall be maintained and enforced on the site for the segregation and recycling of site waste.

All non-hazardous materials will be collected by a waste management contractor and taken back to a waste transfer station where approximately 98% of RG Groups construction waste shall be recycled and diverted from landfill. Monthly reports will be issued by the waste management contractor which shall identify types and tonnage of waste streams collected. These figures will be input into the Site

Waste Management Plan which is monitored and reviewed on a regular basis to ensure that recycling targets are achieved.

All hazardous materials and their containers are disposed of using sealed lockable rubbish skips, and are sent off site in a safe and competent manner, as approved by the relevant Waste Regulation Authority and in accordance with current legislation.

No burning of waste is permitted within the vicinity of the site.

RG Group's Project Manager is responsible for ensuring that all waste is disposed of in a safe and competent manner, using only approved and licenced waste carriers and retains all waste transfer documentation on site for audit purposes.

RG Group will provide labour to maintain the general cleanliness of the site. Individual sub-contractors will be responsible for maintaining their own working areas and operations in a clean and safe condition.

Waste Management

In line with Sustainable Construction strategy and the Site Waste Management Regulations 2008, RG Group shall implement a SWMP for the project. Its full and proper implementation by the Designers, RG Group and Supply Chain will bring benefits to all parties involved. These benefits include but are not limited to:

- Full attention to the waste minimisation hierarchy – eliminate, reduce, reuse, recycle & dispose.
- Environmental benefits such as reduction in vehicular movements to and from site.
- Cost benefits to both the Client and RG Group.
- Meeting the requirements of RG Group quality & environmental systems.
- Greater control over risks in relation to materials and waste on site, good housekeeping assists with safety.
- A demonstration of waste minimisation and compliance with relevant legislation including duty of care and statutory licences.

In brief, the overall aim of the SWMP will be to avoid waste, reduce the impact of the construction works on resources, the environment and minimise waste management costs through SMART objectives. Waste will be avoided or minimised throughout the entire design and construction process so that the focus for direct costs is into the quality of the build and not what is being disposed off-site. Late changes in specification when materials are already on site are considered to be wasteful. Poor or incorrect storage of materials is wasteful.

The likely waste classification and likely origins are listed below:

Potential Waste Type	Waste Colour Code and Category	Likely Origin of Waste
Timber	ACTIVE	During construction works
Concrete / Bricks / Blocks	INERT	During construction works
Metals	ACTIVE	During construction works
Sub-soils	INERT and ACTIVE	During construction works

Plasterboard	ACTIVE	During construction works
Mixed	ACTIVE	During construction works
Packaging	ACTIVE	During construction works
Hazardous	ACTIVE	During construction works

RG Group are well versed with the BREEAM requirements in relation to waste minimisation. Our SWMP's are robust enough to qualify for BREEAM credits.

RG Group responsibilities throughout the duration of the Project:

RG Group will ensure that:-

- A waste champion is appointed for the project to drive the waste minimisation culture on the project;
- All waste removed from the site is dealt with in accordance with the waste Duty of Care in Section 34 of the Environmental Protection Act 1990, and the Environmental Protection (Duty of Care) Regulations 1991, that materials are handled efficiently to minimise wastage and that all waste arising from site will be managed appropriately;
- All different type of wastes & waste streams likely to be produced are identified and shall arrange for appropriate storage and disposal measures in line with Duty of Care;
- An estimation of quantities involved for each proposed waste stream is provided;
- Targets and measurement criteria for the waste streams are set at the start of the Project;
- A record will be kept of who removes the waste, what type of waste are removed, and where the waste goes off site;
- Any waste produced during the construction process is either re-used, recycled or disposed of correctly;
- The SWMP will be monitored on a regular basis to ensure that the plan reflects the progress of the works;
- The Client is informed upon the progress of the SWMP at regular meetings;
- The SWMP is reviewed upon completion of the Project to learn any lessons where things could be done better, with regard to amount of recycling undertaken and costs involved;
- The SWMP is kept on file for a period of two years after practical completion.

All personnel will be made aware of the relevant requirements of the SWMP at the initial site induction and in subsequent toolbox talks. The SWMP will be made available in the site office for inspection at any time.

Noise Control

RG Group are mindful of the disruptive effect that excessively noisy operations can have on the occupants of adjacent areas and property and accordingly the project team will ensure that all work will be carried out in accordance with BS 5228 “Noise Control on Construction and Open Sites – Part 1”. Notwithstanding the above the following noise control procedures are applied to all RG Group sites:



- 1) All current legislation, noise abatement orders, guidance notes and codes of practice will be consulted and strictly adhered to;
- 2) Where necessary noise levels will be monitored and noise assessments carried out;
- 3) Noisy plant and equipment will be located to provide minimum disturbance;
- 4) Plant, wherever practicable, will be electrically powered;
- 5) All plant and machinery will be fitted with efficient exhausts, silencers and mufflers and maintained in good condition;
- 6) All compressors used on site shall have ‘sound reduced’ units fitted with acoustic linings or enclosures and all ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturer;
- 7) Acoustic screens / barriers will be erected around excessively noisy plant.

Specialist subcontractors will be required to address noise and the ways it will need to be controlled within their method statement. PPE will only be considered as a last resort and must be worn where identified.

Control of Dust (Air Pollution)

RG Group will ensure that any dust caused by the construction works will be kept to a minimum wherever possible. Excessive dust generated from construction operations shall be controlled by dust suppression measures where required. In order to control the dust on site, RG Group will ensure that the following conditions are adhered to:

- Site vehicles shall not travel over un-watered haulage roads during periods of dry weather;
- Dust suppression equipment shall be used on all drilling / cutting machines;
- All loaded vehicles shall be adequately sheeted before leaving site.

Control of Vibration

Vibration caused by the construction works shall be kept to a minimum wherever possible.

Equipment and working methods shall be planned in such a way as to prevent the loss or damage to any property, caused by vibration transmitted through the ground. During these operations RG Group site management shall closely monitor the vibration for possible damage to surrounding buildings and will ensure that all work will be carried out in accordance with BS 5228 “Vibration Control on Construction and Open Sites – Part 2”. Notwithstanding the above the following noise control procedures are applied to all RG Group sites:

Mitigation of Incidents in Respect of Water Resources & Flood Risk

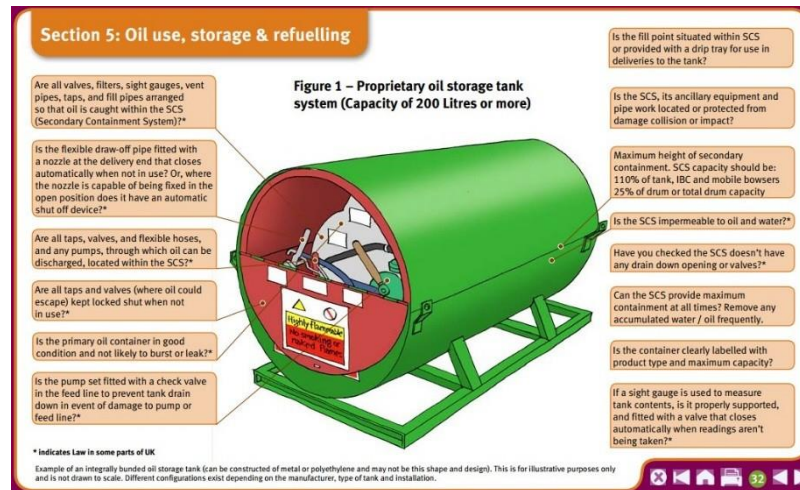
The storage of materials may lead to the accidental release of contaminated run-off during a rain event. There is also the potential for pollution or sediments from run-off to enter surface watercourses during normal rainfall events.

RG Group shall allow for temporarily plugging all drains, gullies etc to any external areas to prevent the discharge of contaminated surface water into the drainage system.

Risks to the local environment will be effectively controlled by employing standard, good practice management practices and controls such as:

- Regularly maintaining construction plant to reduce the risk of hydrocarbon contamination;
- Storing, handling and managing materials with due regard to the sensitivity of the local environment and thus the risk of accidental spillage or release;
- Locating above ground storage tanks on designated areas of hardstanding;
- Storing liquids such as fuels, degreasers, solvents, lubricants and paints in segregated, bunded enclosures;
- Ensuring that any tanks storing more than 200 litres of oil on-site have secondary bunding. Bunding will be specified as having a minimum capacity of not less than 110% of the container's storage capacity or, if there is more than one container within the system, of not less than 110% of the largest container's storage capacity or 25% of their aggregate storage capacity, whichever is the greater;
- Appropriately siting and supervision of refuelling areas;
- Ensuring only a minimum quantity of fuel is retained on-site to reduce potential for release in the event of an incident;
- Avoiding servicing of plant as far as practically possible to reduce potential for oil and fuel spills. If required drip trays will be used for plant servicing and repair on-site;
- Immediately reporting any spillage via site management team and addressed using site spill kits and an incident report prepared;
- Siting storage points away from existing drainage;
- Ensuring only trained operatives dispense fuel and chemicals and ensuring any runoff passes through soil interceptors.

A plan for implementing flood risk management at the site must be produced to ensure that appropriate measures to mitigate environmental, health and safety concerns are acted on if a flood warning is received.



Site Security

All Subcontractor personnel and visitors will be required to enter the site by way of the main site access turnstile and report to the Construction Manager. All site personnel and visitors are required to sign in on the site register.

On first entering the site, operatives and visitors are required to undergo a site induction. The site induction will be carried out by an authorised member of the RG Group Project team and is intended to make all personnel aware of Health and Safety issues relevant to the site. On leaving the site all personnel and visitors must sign out on the site register.

RG Group reserves the right to request proof of identity from any visitor and to carry out random searches on any person or vehicle leaving the site.

At the end of each working shift a designated member of the RG Group project team will tour all working areas to ensure the following:

- all access points to the building(s) are secure;
- all access points to any perimeter scaffolding have been removed;
- all plant and machinery has been left in a disabled condition;
- all small tools and equipment has been locked in the secure storage units.

The main site vehicle and pedestrian gates shall be securely locked at the end of each day.

Hoardings & Screens

In order to provide security and protection to the general public a perimeter hoarding will be provided and located to the boundaries of the site as detailed on our site logistics plan contained in **Appendix A**. The exact line of the fencing may well be adapted and moved during the life of the contract to suit the site constraints and access requirements. Any such movement shall be after direct liaison with the Client and Manchester City Council Highways Department.



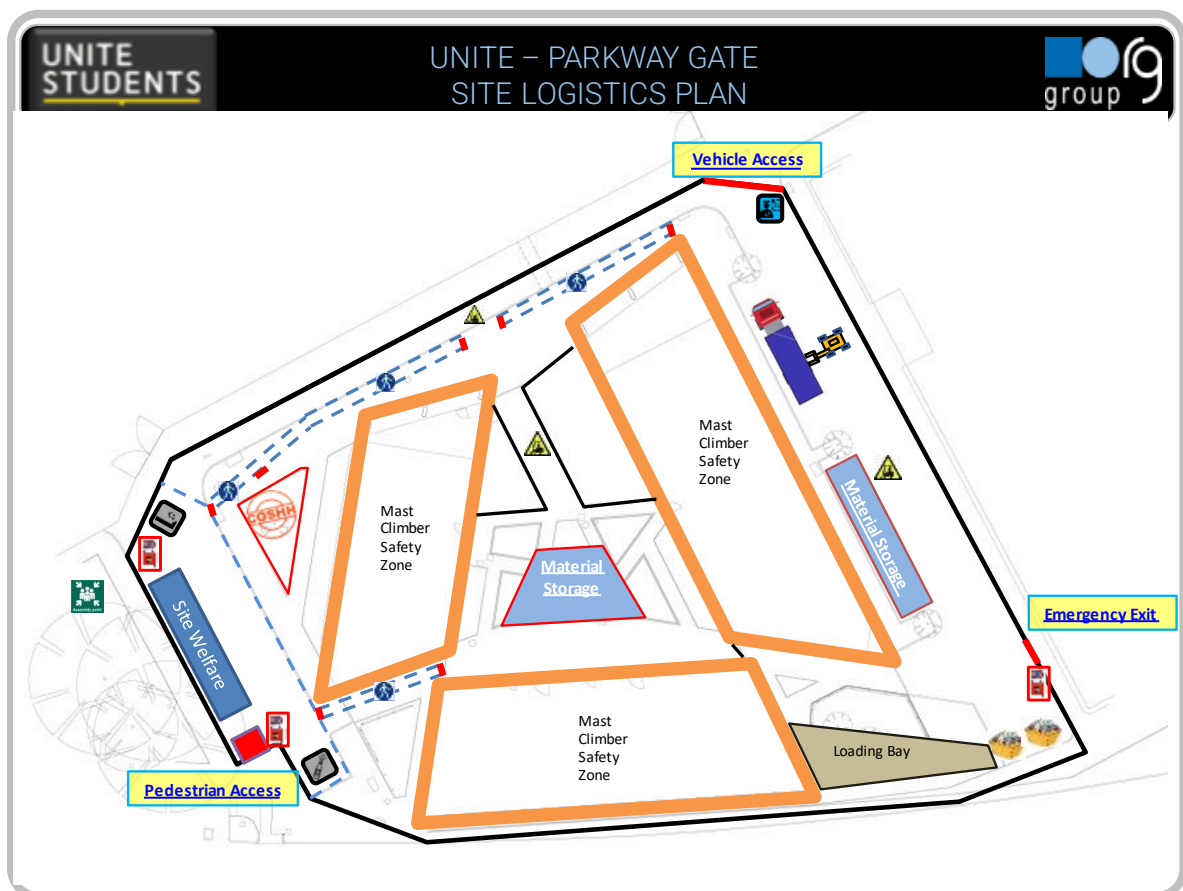
Access Scaffolding Arrangements

RG Group will provide general access scaffolding and equipment for the works as appropriate. All scaffolding work will be designed and carried out by a recognised scaffolding company with appropriately trained operatives. Safety inspections will be carried out by the scaffolding company on all erected scaffolds on a weekly basis.

Scaffolding provided by RG Group will include:

- Scaffold crashdecks to mastclimber elevations;
- Scaffold crashdeck to the front elevation of Block 2 will facilitate an unfettered pedestrian thoroughfare on Mancunian Way;
- Guardrail edge protection to all floor levels until such time as the new inner leaf of the external envelope has been installed;
- Guardrail to opening in slab following removal of existing stair flights.

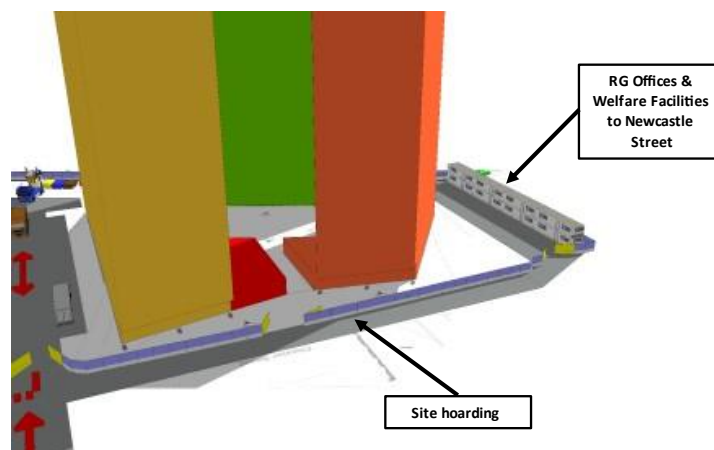
Appendix A – Site Logistics Plan



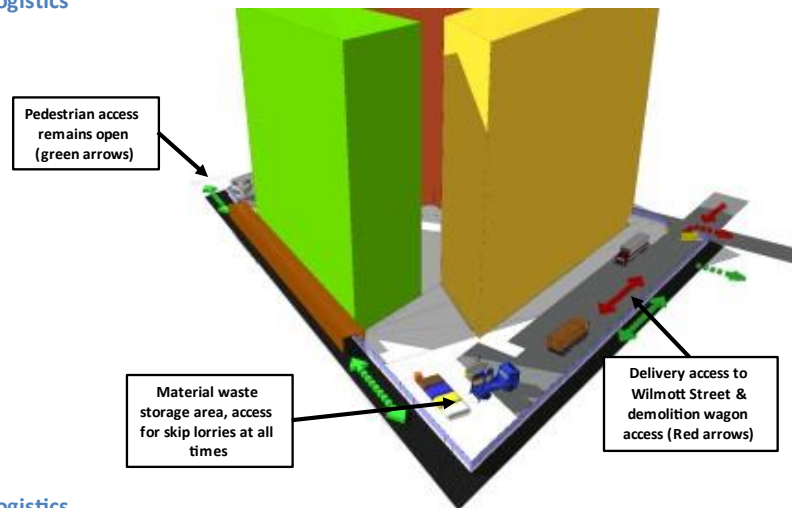
Existing Site



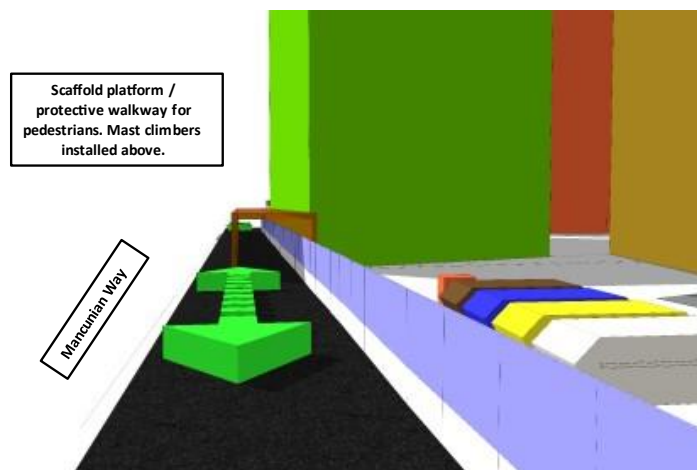
Site set-up



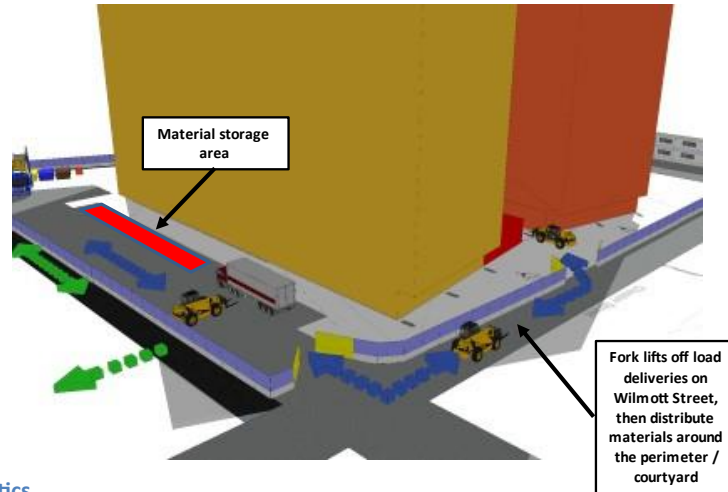
Logistics



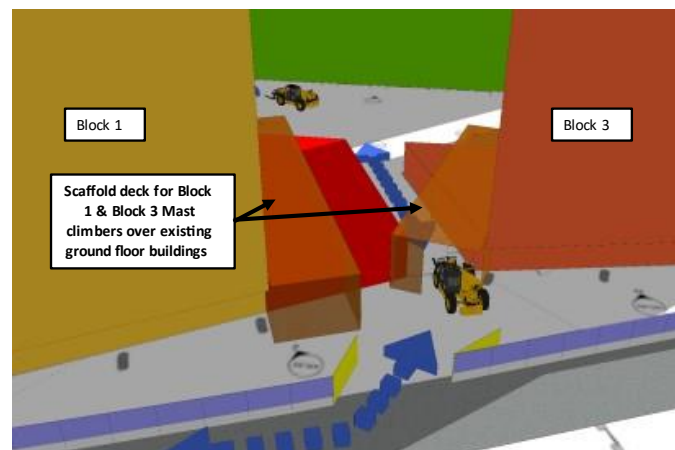
Logistics



Logistics



Logistics



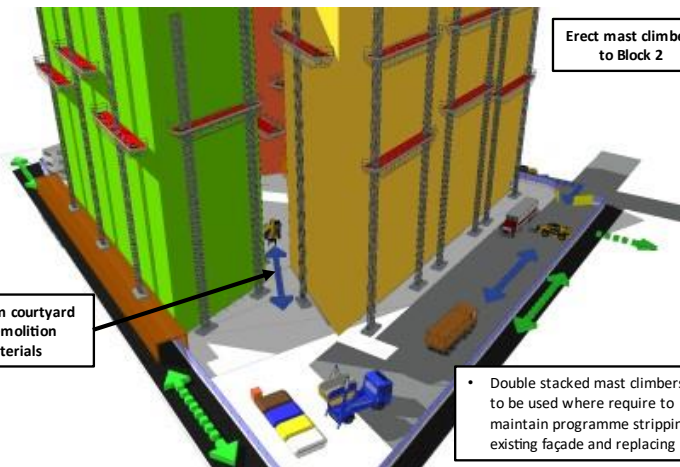


Phasing



Erect mast climbers to Block 1

Phasing



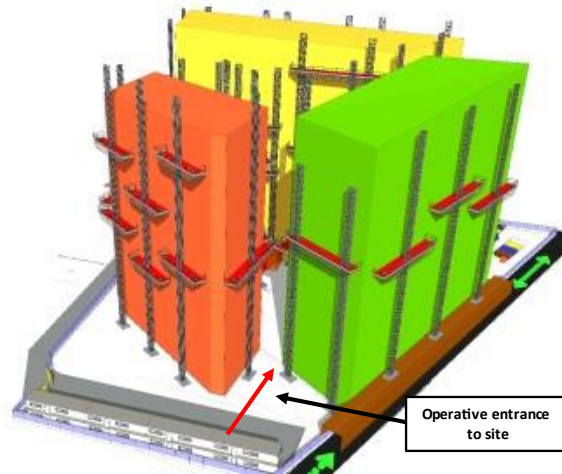
Erect mast climbers to Block 2

Exit from courtyard for demolition materials

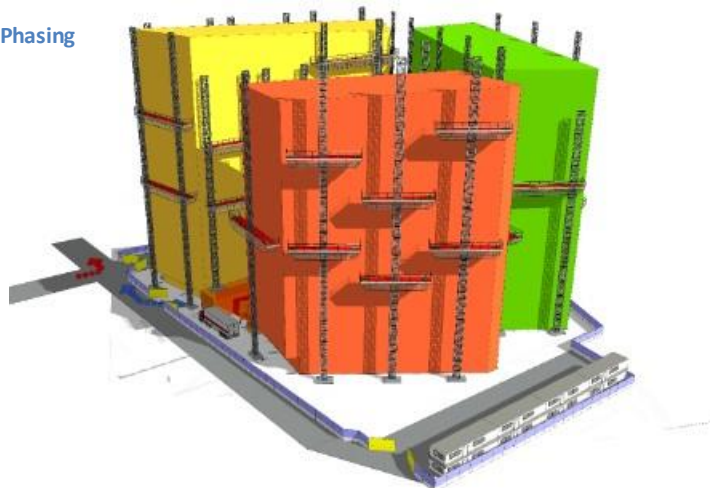
- Double stacked mast climbers to be used where require to maintain programme stripping existing façade and replacing

Phasing

Erect mast climbers
to Block 3

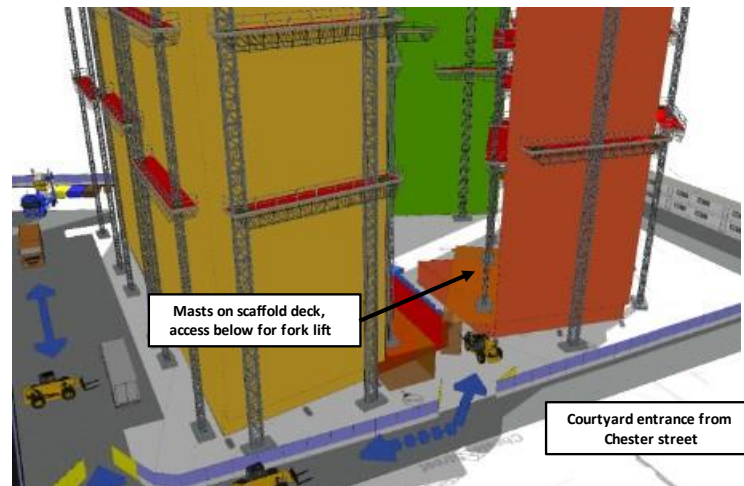


Phasing

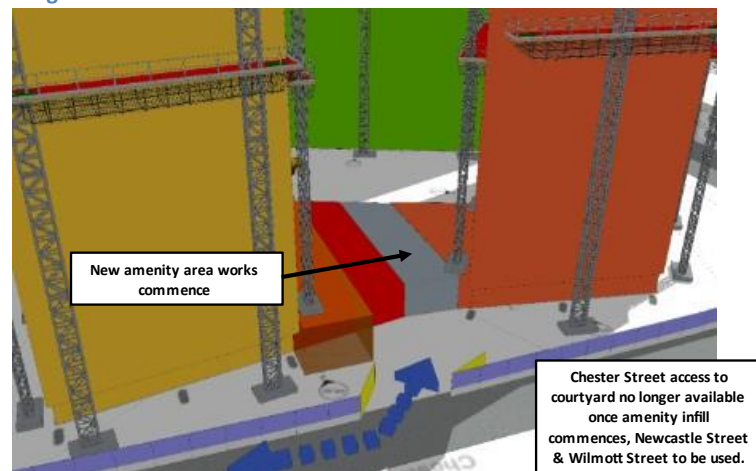




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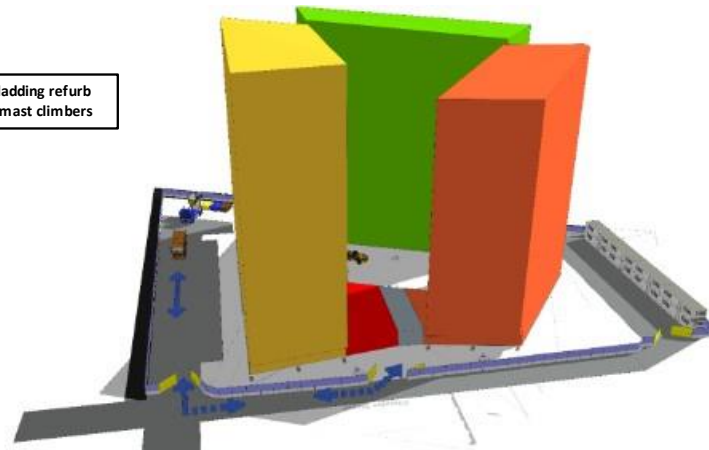


Phasing



Phasing

Complete cladding refurb
& remove mast climbers



Phasing

Project Complete

