

## THE GRANGE, CENTRAL ST MARTINS, LONDON.



### Demolition Methodology

#### Welfare Provision

**Covid 19:** All JRL Sites now operate according to our Covid 19 Risk assessment and the Site Operating Procedures from the Construction Leadership Council. All welfare will be regularly cleaned and hand sanitisers provided.

Additional welfare units will be provided and staggered breaks used to ensure that social distancing is carried out in the welfare area.



The provision of decent and clean welfare facilities is a basic duty of employers and right of people at work. This applies equally to construction sites. The JRL Group policy is that we will always ensure that there are good standards of welfare provided for any one working for or on behalf of us.

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**Toilets**

- There will be separate rooms provided for men and women
- The Toilets must be kept in a clean and orderly condition.

**Provision of Washing Facilities**

- There will be suitable and sufficient washing facilities which are readily accessible.
- Showers will be provided in the immediate vicinity of WCs and changing rooms.
- The washing facilities must include a supply of hot and cold water, soap and towels

**Drinking Water**

- There will be an adequate supply of clean drinking water from mains and water coolers
- That the drinking water will be clearly marked, and cups will be provided

**Changing Rooms and Lockers**

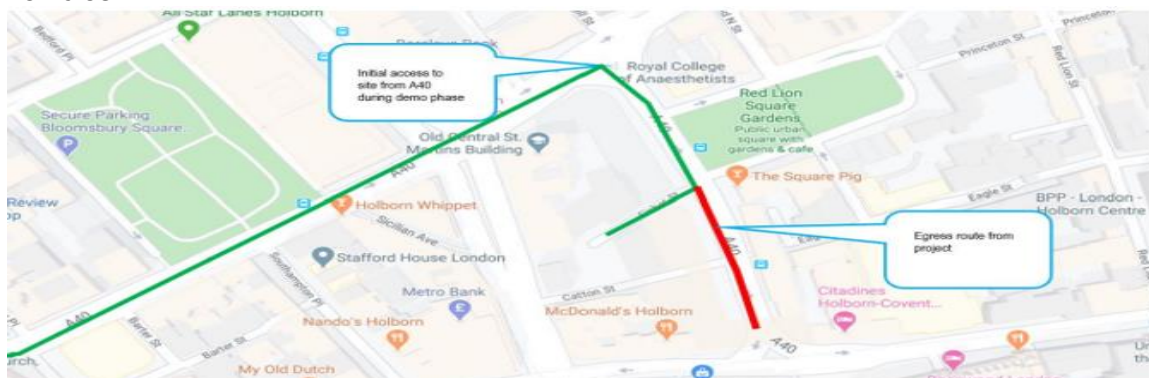
- Suitable changing rooms must be provided and separate for men and women.
- The changing rooms will have seating and, a means of safely drying clothing.
- Lockers or other arrangements will be provided for storing clothing.

**Facilities**

- No smoking will be allowed except designated smoking areas.
- There will be adequate tables and chairs.
- We will provide a suitable way of preparing and eating meals, as well as boiling water, microwaves and Kettles

**Access and Egress to the Site****Vehicular / Pedestrian Segregation**

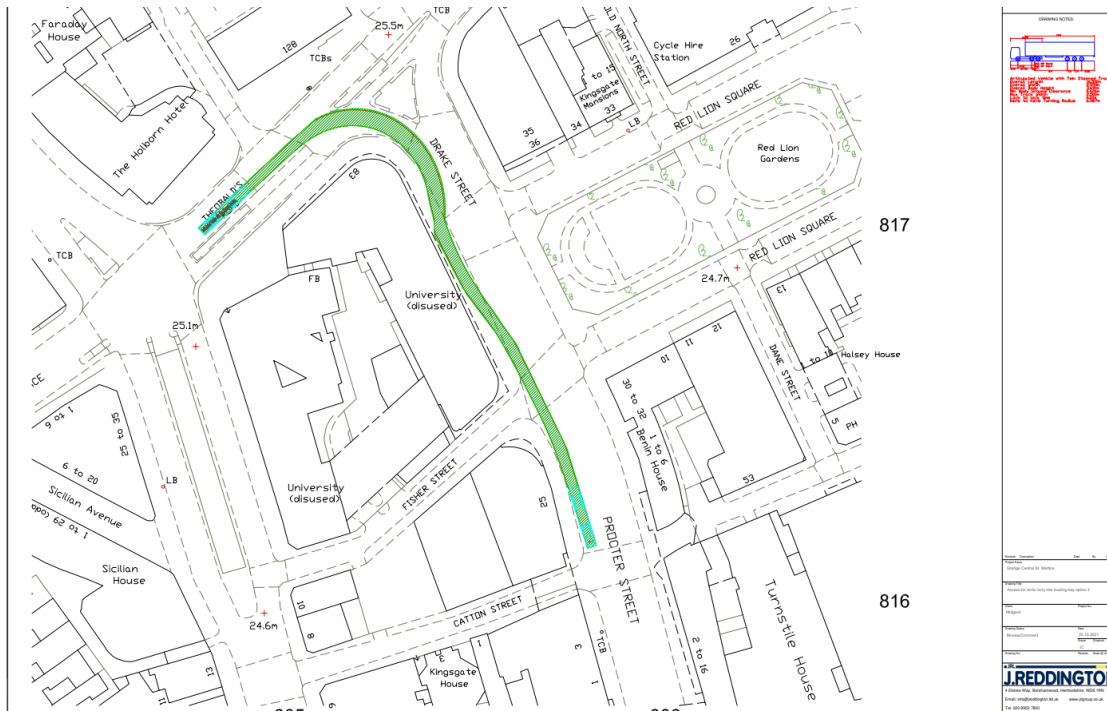
Vehicles and pedestrians should, wherever practicable, not share access / egress or circulation routes and vehicles shall enter/exit the site at a separate location to pedestrians. Protected pedestrian routes will be established within the site to ensure segregation from vehicles.

**Delivery Co-ordination**

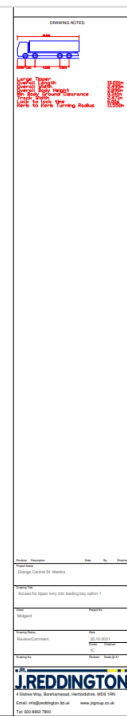
Site access / egress for all materials and waste will require tight control. Early Doors deliveries will be utilised for large deliveries. All delivery vehicles will drive into site with the assistance of the traffic marshal to the designated loading/unloading area. Traffic Marshalls

## Manoeuvring of Vehicles









### Vehicle Arrival and Dispersal

All vehicles shall approach the site, along the A40 turning at Proctor St if required and from here onto Fisher Street. Turning right into the site. Directed by prominent signage and controlled by attendant banksmen, vehicles shall enter and exit the site in accordance with the current traffic management plan. Deliveries will be booked in 24hr in advance with Security.

### Vehicle Access & Egress

Upon reaching the site vehicles shall be met by a vehicle gateman who will check the delivery against his records before assisting the vehicle with the manoeuvre required to enter site. It will, therefore, be necessary for vehicles to drive in and drive out in a one way direction as described above. To ensure this manoeuvre is achieved with maximum efficiency and in the safest possible manner the assistance of at least one vehicle banksman will be required.

### Traffic Management Operatives

All vehicle entrances and exits shall be manned by security traffic marshals responsible for receiving and dispersing vehicles. Duties will include checking that vehicles arrive in accordance with the planned delivery schedules, advising drivers of site rules, issuing vehicle passes and directing to the appropriate off-loading zone. When leaving, marshals will collect passes, confirm the legitimacy of any plant or materials being removed from site and check vehicles' cleanliness before finally dispersing back onto the public highway. Marshals will also be responsible for directing and banking vehicles to ensure that manoeuvres are executed safely, minimising the risk to the general public.

### Site Logistics Responsibilities

#### Site Manager

The Site Manager shall appoint a Site Traffic Coordinator [STC]. The site manager may decide to undertake these duties. The STC will implement and maintain the Traffic Management Plan (TMP) arrangements and makes sure that the TM scheme on the public highway complies with Chapter 8 of the Traffic Sign Manual.

#### Site Traffic Coordinator [STC]

The STC will be responsible for the implementation and maintenance of the TMP to make sure that the scheme is compliant to Chapter 8 of the Traffic Sign Manual.

The STC will be identified by wearing a blue hardhat and yellow Hi visibility vest with 'Site traffic coordinator' written on the back. If this role is being undertaken by the Site Manager then the higher ranking Black hat will be worn to identify the supervisory figure. The STC will brief the Gateman/Traffic Marshall in the contents of the TM plan and any changes when they happen.



**SITE TRAFFIC COORDINATOR**  
**BLUE HELMET**

**Traffic Marshals [TM]**

The Traffic Marshal will be responsible to the Site Manager/STC for the policing of the gate and the control of movement of vehicles and mobile plant entering and leaving the site.

He will also inform the relevant site personnel of visitors and deliveries and direct them to the appropriate destinations on site, via the correct routes. He will be a competent Traffic Marshall (given suitable training and instruction). The TM will be identified by wearing a yellow hardhat and an orange Hi-Viz vest or coat with the words 'Traffic Marshall' written on the back of it, to denote his position.

**Traffic Banksman [TB]**

The Traffic Banksman will be responsible to the Site Manager/STC for the control of all vehicles and mobile plant within the site. The TB will work closely alongside the TM to ensure the fluid and safe movement of traffic into, around and off the site.

He will be a competent Traffic Banksman (given suitable training and instruction). The TB will be identified by wearing a Red hardhat and an orange Hi-Viz vest or coat with the words 'Traffic Banksman' written on the back of it, to denote his position.

**Traffic Routes**

The Traffic Management Plan requires that the works will be organised in such a way that the traffic routes are suitable for the passage of vehicles using them with regard to locations and width of lanes.

Traffic routes will not be approved unless:

Vehicles can use the traffic route without causing danger to themselves or other road user. Pedestrian access or egress is sufficiently separated from vehicle routes as will enable the pedestrian to see any approaching vehicle or plant.

There is sufficient separation between vehicles and pedestrians, or where this is not reasonably practicable or in an emergency there are other means for the protection of pedestrians;

There are effective means of warning of the approach of any vehicle.

**Site Access Routes for all Vehicles****Vehicles**

Any vehicle being used for construction work will:

- Be driven in a manner that is safe.
- Be loaded in a way that it can be driven, operated or towed safely.
- Have suitable steps taken to prevent unintended movement of the vehicle.
- Have the person in control of the vehicle the capability to give adequate warning to any person liable to be at risk from the movement of the vehicle.
- Be fully aware of weight restrictions and exclusion zones on the site.
- Be fully aware of the TM plan speed restrictions on approach to the site and speed restriction on site - 5mph.
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To that end no person shall;



- Be allowed to ride on, or in a vehicle unless a proper place has been provided for that purpose.
- Be required or permitted to remain on any vehicle during the loading or unloading of any loose material, unless a safe place has been provided for that purpose.
- Where any vehicle is being used in the proximity of any excavation, edge of ramp or embankment, suitable and sufficient measures will be taken to prevent the vehicle overrunning the edge

### **Vehicle Analysis**

Anticipated traffic movements will vary throughout the programme period, as will the size and type of vehicle. As a general rule the number and size of vehicles will be greater during the earlier phases of the project whilst our scope of the ground and structural works are underway. Traffic will decrease as the internal and finishes works are carried out.

To quantify the possible impact we attach a Histogram showing the anticipated traffic that will be generated by our various elements of the project, and the type of vehicles that might be expected to service each of these trades.

Note: Please refer to the Transport Assessment as previously carried out by ARUP.

### **Site Entrance**

The site is such that there will be one main access route. The pedestrian access to the site is via a separate entrance through original building access on the corner of Southampton Row and Proctor St. The pedestrian entrance is as close as possible to the welfare facilities to allow a safe access to these facilities for the operatives to change and ensure they have the correct Personal Protective Equipment on prior to entering the site itself.

At the site entrances any visitors will be ushered through a safe segregated walkway to the site offices to meet with the site management for a site induction.

The gates will be controlled all the time via the Gatemen/Traffic Marshals. When the Gate is not in attendance then the gates shall be closed. The main site entrance for this stage will be via Fisher St.

### **Loading and unloading arrangements – Site deliveries/collection activities**

All delivery vehicles will drive into site with the assistance of the traffic marshal to the designated loading/unloading area. Traffic marshals will halt pedestrians and cyclists while vehicles are entering and leaving the site. Once the vehicle is unloaded or loaded, the vehicle will leave site under the TM's guidance.

As a general rule, construction vehicles will only be allowed to park on site for the purposes off loading and unloading. All sub-contractors are to inform site management of any deliveries coming to site.

The TM will be responsible for the control and coordination of all aspects of material deliveries and movement.

### **Details of how pedestrian and cyclist safety will be maintained**

When vehicles are entering or leaving the site, these will be supervised by a Traffic marshal. The general public/pedestrians will have right of way along the pathways that surround the site. The construction site gates will be kept closed and monitored by site security, only when deliveries are made to the site will they be opened to allow vehicles onto the site, at which time barriers will be put across the pavement to prevent access by pedestrians. These barriers will be manned by our site security. All delivery vehicles will be supervised/controlled by a banksman.

The Project Manager will also ensure that the external perimeter of the site is regularly patrolled (twice a day) to ensure that any debris is kept clear of the pavements.

With regard to cyclist safety, our banksman will pay special attention to any pedestrians or cyclist when vehicles are moved onto or off the site.

### **Control of dirt, noise and dust on the public highway**

Mud and debris on the road is one of the main environmental nuisance and safety problems arising from construction sites. JRL Demolition will make provisions to minimise this problem.

In the early stages of the project when ground works are being carried out, the area outside the vehicle gates will be constantly swept and washed down. Where possible jet washers will be used to wash down all vehicles that enter/leave the construction site.

We will also make provision for cleaning the adjoining roads daily and/or as required by an approved road sweeper. We will insist on all muck away lorry's be fully sheeted to minimise the risk of any mud over-spilling onto the highway.

We will consider spraying a fine spray to suppress dust on the following:

- Unpaved areas that are subject to traffic or wind.
- Spoil and aggregate stockpiles.
- During loading/unloading of dust generating materials.

### **Plant and Vehicle Movements**

Plant movements are to be managed by the JRL supervisors and managers in the following way:

All plant movements on site wherever possible shall operate a one-way system

Whenever there is a need to reverse a vehicle then a fully competent 'Traffic Banksman' will be in attendance. The driver is to adhere to the Traffic Banksman instructions.

If the driver cannot see the traffic banksman then the driver is to stop.

All on-site vehicles are to have 'Flashing Amber Beacons' and an all-round vision aids such as extra mirrors like Frizzle mirrors [convex], reversing cameras or banks-men.

All site personnel are to wear yellow Hi-Viz vest or coat unless they are traffic marshals/banksman where the Hi-Viz is to be orange with the words in black stating what they are (e.g. Traffic Marshall).

The segregation of the pedestrian on site will be by a segregated walkway running from the gate to the site facilities.

The walkway will be constructed from fixed scaffold tubes and green debris netting.

Trained competent operators will only operate mobile plant. Plant Operators will be identified by wearing a grey hard hat and a yellow hi visibility vest with 'Plant Operator' written on the back.



### **Site Security and Initial Site Set Up**

#### **Maintaining Site Security**

In order to maintain site security it is important that vehicle areas provide access to vehicular traffic only. Pedestrian access should be prohibited at these points. Vehicle access gates should be kept closed, opened only to receive or disperse vehicles. Vehicle access will be manned during site operational hours.

The site will be established as the first activity on the contract, adequate welfare facilities will need to be installed focussing on the peak numbers of labour, which for a demolition contract is normally within the first third of the contract period. It is the responsibility of each individual within the Group to take accountability for their safety and those around them. Our Operations Director, Andy Moore, will have overall responsibility for the implementation of our health and safety management systems on site. Supporting Andy will be our Health and Safety Managers All staff will attend a site specific induction and regular toolbox talks highlighting the key hazards and site rules. Part of the initial works of the site will be to enrol the project in the Considerate Constructors Scheme.

All JRL Demolition sites of a suitable duration are enrolled in the scheme as a matter of course. All on site personnel are encouraged to come up with suggestions on how we can continually improve our performance and be more considerate.

## Fire Safety

JRL Group will produce a fire plan which will be displayed on site notice boards and included in the site induction. Any Fire Safety duties performed by personnel will be undertaken in accordance with the Fire Plan.

Fire marshalling duties will be undertaken by appropriately trained and certified operatives.

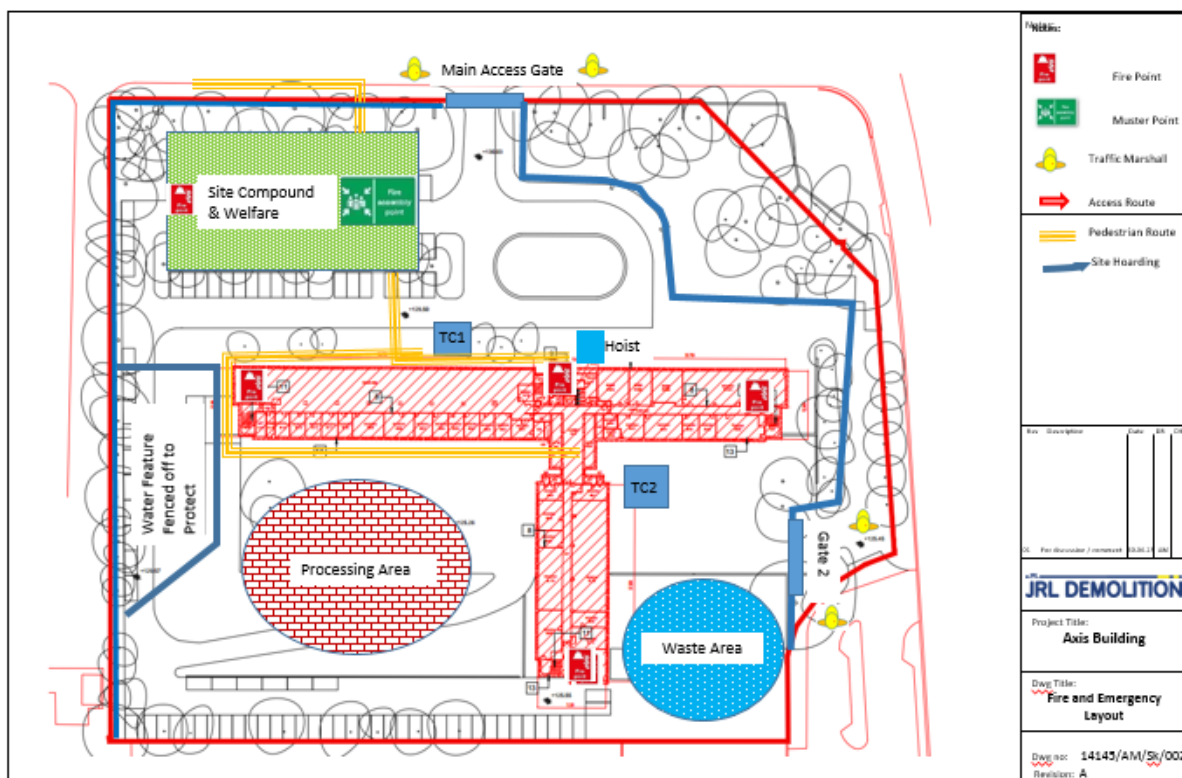
Additionally, JRL Group will carry out regular reviews / updates of the Fire Plan to ensure it remains current.

JRL Group will provide Bull Site Hub fire points, which will be strategically located throughout the work areas. Fire points will include, as a minimum, fire point stand, fire extinguishers (1No CO2 and 1No water), sand bucket, interlinked fire alarm and back panel for fixing appropriate signage (evacuation route, emergency procedures, etc.).

Appropriate signage will be positioned around the demolition area to effectively communicate the plan to the operatives. Emergency escape routes and exits will also be prominently signed.

In addition, the existing fire escape routes will be kept clear and maintained at all times.

These will be indicated on the fire plan and briefed to all operatives during the induction.



### **Existing Site Services**

The importance of the isolation of incoming and shared high risk utilities will be an absolute priority during this phase of the works. In conjunction with the isolation any necessary temporary supplies will be installed to ensure an adequate supply of water for damping down at all loading and demolition faces and adequate provision for the welfare and site accommodation. All services will be isolated back to the point of entry to the building for use as temporary builder's supplies.

### **Gas and Electrical Supplies**

Our in-house specialist M&E contractor Ark will be employed to isolate the remaining services back to the incoming heads. All gas mains will be purged prior to disconnection. Ark will also install the temporary power and water supplies to the site accommodation and power to the work areas.



On receipt of the instruction to proceed, ARK will survey each area to determine the locations of the Meters the readings and the MPAN numbers of the Electric Meters. Photographic records will be used to compile a full report of the current situation with the meters. This information will allow each individual service provider to attend site and remove their assets.

Our Utilities Tracker Document will be used to manage this process. The electricity supply to the units will be able to be made dead from the incoming Heads, this will allow a 110v supply and a water supply to be installed to the working floors to allow the commencement of the Soft Strip and Asbestos removal. The soft strip period will serve as the window for the service providers to reclaim their assets.

Water connections will be managed in the same way



## Hoarding erection

A 2.4m high timber hoarding will be erected on precast concrete blocks along the agreed boundary line. The hoarding will be erected, painted and completed prior to moving removing the heras fencing.

## External Protection Scaffold

Prior to the full demolition of the main building the south elevation will be wrapped with scaffold, and monarflexed to provide screening and dust protection.

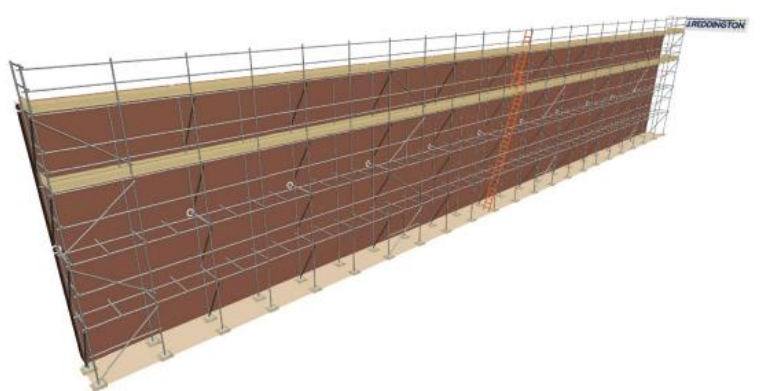
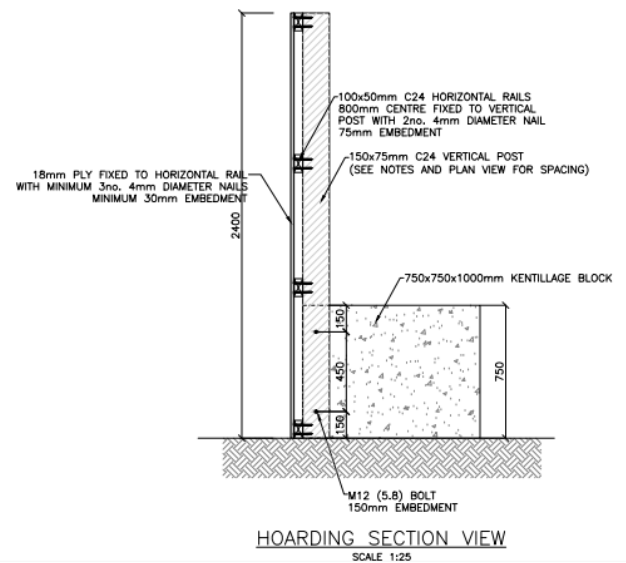
A full height scaffold will be designed to the latest NASC guidance and BS EN12811-1, TG20:21

and constructed to all external and internal elevations including where required scaffold fans and tunnelling to maintain pedestrian access.

The scaffold will be erected in strict accordance with the current codes of practice and will operate the Scafftag system.

The scaffold will generally be constructed in floor level lifts and tied to the structures by a system of wrap around box ties to the columns. The box ties will include check fittings for additional safety.

The scaffold will be fully Monarflex sheeted to contain noise and dust as far as is practicable.



### **Soft Strip**

The soft strip will be carried out in 2 phases to ensure that the asbestos removal contractor can access the required area ASAP, whilst the contract commences. It is the intention to commence initial soft strip in the link bridge area, the theatre and moving on to the red lion building and running in conjunction to allow access to all areas for the asbestos removal as early as possible. The initial soft strip will comprise of the removal of theatre seating no load bearing partitions, flooring and non-fixed furniture. Prior to any soft stripping commencing then the areas will be clearly marked up as "to be removed" to ensure no existing asbestos within the buildings is disturbed. The procedure above will be repeated for the areas required and handed over to the asbestos contractor to ensure all safe removal of existing asbestos under controlled conditions where only trained personnel will be permitted within the areas.



Computer/raised floors will be lifted and palletised for removal to the lift shaft. This will allow the cabling and pedestal below the raised floor to be removed and bagged for disposal. Care will be taken that once the computer floor is removed the underlying subfloor may be uneven and have trip hazards that require addressing. Ceilings will be dropped to the floor palletised and cleared via the hoist to allow burners access to the ceiling plant. This plant will be cut down using reciprocating saws where possible. Larger plant will be cut using oxy propane burning. Under strict hot works permit procedures.

The soft strip will be carried out in two phases by operatives skilled in works of this type. Phase One will comprise all combustible materials and be completely removed prior to the commencement of Phase Two. Phase Two will be predominantly the mechanical and electrical installation, which will involve the use of 'hot works'. Phase Two will be carried out under a strict 'Hot Works Permit Regime'.

### **M&E Removal on the Floors**

Once the Ceiling tiles and Grids and the Raised Flooring has been removed the Floor M&E will be visible. This will then be removed by a deplanting gang. The below floor cables will be cut using reciprocating saws and small tools. This will provide a stable platform for the access towers to allow the above ceiling plant to be cut down. The above ceiling plant will be cut using reciprocating saws where possible to clear the majority of the light plant back from the heavier gauge installations. The heavier plant will be cut using oxy propane torches

and sectioned into handle able sizes prior to removal by the chute. The ceiling will then be cleared of fixings as the works progresses.

### Basement De-Planting Works

The basement M&E plant will be drained down and certified as dead by our internal M&E Company ARK. This will allow the plant to begin to be removed. Access will be provided to the basement area for small excavators and skid steers.

Large sections of plant will be cut out or unbolted. The sections of the plant will be cut along the same lines as the installations i.e. at flange locations or as a whole item such as splitting a motor from the pump it powers. This can then be moved using a bobcat with a fork lift attachment. Skids and dolly boards will be used to move the plant out of the building to a 20t excavator that will process the material into recyclable sections



Plant will then be cut out in large sections to be removed from the building using bobcats and mini excavators. This will then be reprocessed by a larger machine with a scrap shear before being placed in bins for recycling.

## Tower Crane Erection



### TC Options - Demolition

Demo Crane option 3 –  
On top of lift core.

Tower section is 2.3m by  
2.3m

Lift shaft is only 2.35m  
wide.

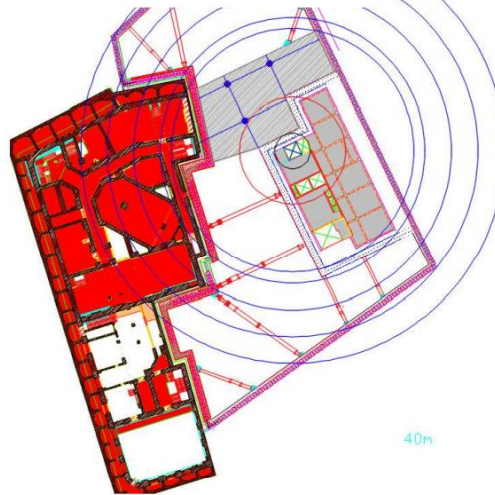
This location gives better  
coverage than stair core.

Core walls are 200mm  
thick

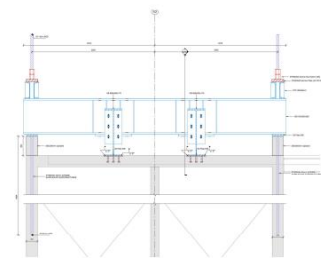
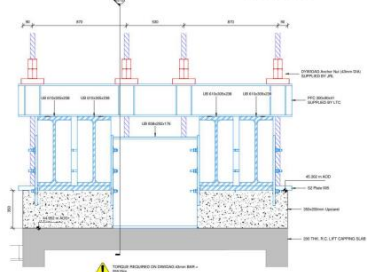
Additional bracing may  
be required down the  
shaft, to compensate for  
this load case.

Eléments de tour / Tower section / Tourmât / Éléments de mâti / Elements of mast

O	11.8	2.27	2.27	5044
D	5.5	2.27	2.27	2540
P	3	2.27	2.27	1545
R	11.8	2.27	2.27	5700
A	11.8	2.27	2.27	4000
T	6	2.27	2.29	4000
I	12	2.27	2.29	4100
U	6	2.31	2.34	4200
Z	6	5.81	2.34	1000
2R	6	2.91	2.34	4002



**JRL GROUP**



Tower cranes will be used to lift down the panels from the higher floors of the blocks. The cranes will be designed and erected by our in-house crane company London Tower Cranes. Each block will have a dedicated tower crane to service the demolition.

### Temporary Works Required

As part of the site establishment temporary works register will be set up. This will include major items such as the hoarding and scaffolds to the perimeter of the building. The stability of the structure during demolition will be considered by our temporary works engineers at the start of the contract. Given previous experience of similar structures, we anticipate that the floors of the blocks will require propping with Peri type props and header timbers. The design and location of our props will allow machinery to sit on the working floor and demolish the floor above. This gives the advantage for the working floor remains consistent throughout the process and does not require consideration of plant being sat on the floor in its temporary condition.

A full temporary works report is currently being compiled and no works will commence on the demolition phase until full design and calculations sign off has been achieved from our structural engineers.



## Demolition

The Grange Buildings are made up of mixed construction.

The Red Lion building is pot floor, with structural concrete topping and structural screed where the pots will be removed from the floors below to allow access for the asbestos removal and this will be carried out under controlled conditions. The Red Lion building is only being part demolished as per the demolition illustrations below. Propping will be installed as required by our structural engineers design.

The theatre is a mainly steel structure with brick clad panels and where this will be demolished in the traditional method where scaffold protection will be erected to the outside and protection decks to the internal. The demolition will then be progressively carried out clearing material from the decks as we progress.

The Link Bridge is a reinforced concrete frame with large panel infills. The Height of the building and the weight of the panels require that a top down methodology is used for the demolition

The floor constructions require a temporary works solution and careful selection of plant and the propping regime. Prior to commencing the temporary works design the floor of each block will be analysed by a structural engineer to ascertain their capacities both intact and in the temporary condition. Floors will then be propped to ensure that the workface remains stable throughout the demolition works. Starting at the roof, we will make a hole through to allow access for the machinery to be placed on the top floor of each area



### Stage 1

Break openings in floor slab using mini 360o excavator fitted with impact breaker big enough to lower plant on to level below.

### Stage 2

Excavator now fitted with concrete muncher and/or hydraulic impact hammers will pulverise the upper floor and the arisings will be allowed to drop on the working slab level.



The roof will then be removed by mechanical means onto the top floor. . The materials forming the roof will be segregated and vertically removed using the attendant Tower Crane. Before the roof is removed the Panel walls of the working floor will be propped back into the floor to ensure stability once the roof of that floor is removed. The bolts retaining the panels will be cut once the propping is in place and the Panel secure on the tower crane ready to be

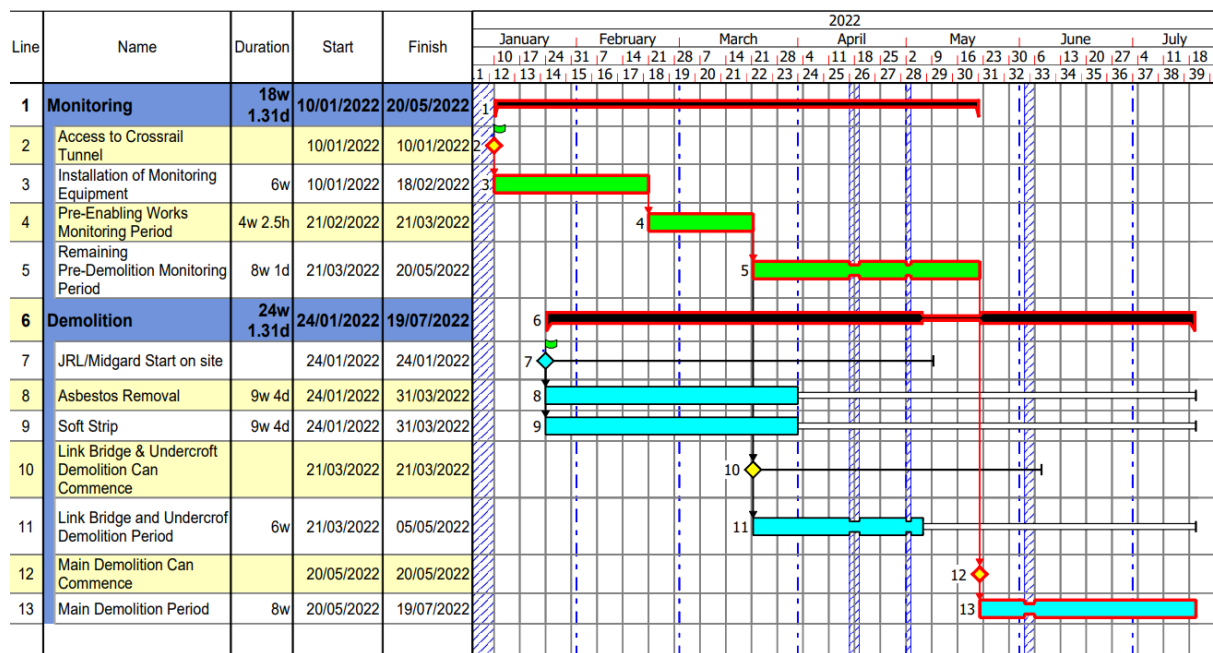


lifted down. The panels will be removed from the floor to ground level for reprocessing. This process will repeat for each floor down to the Third floor level when it will be possible to continue the demolition using a standard demolition rig to demolish the remaining structure to ground floor level. The ground floor slabs will then be cleaned and where retained voids filled to ensure that the site is safe for handover.

### Demolition Phasing

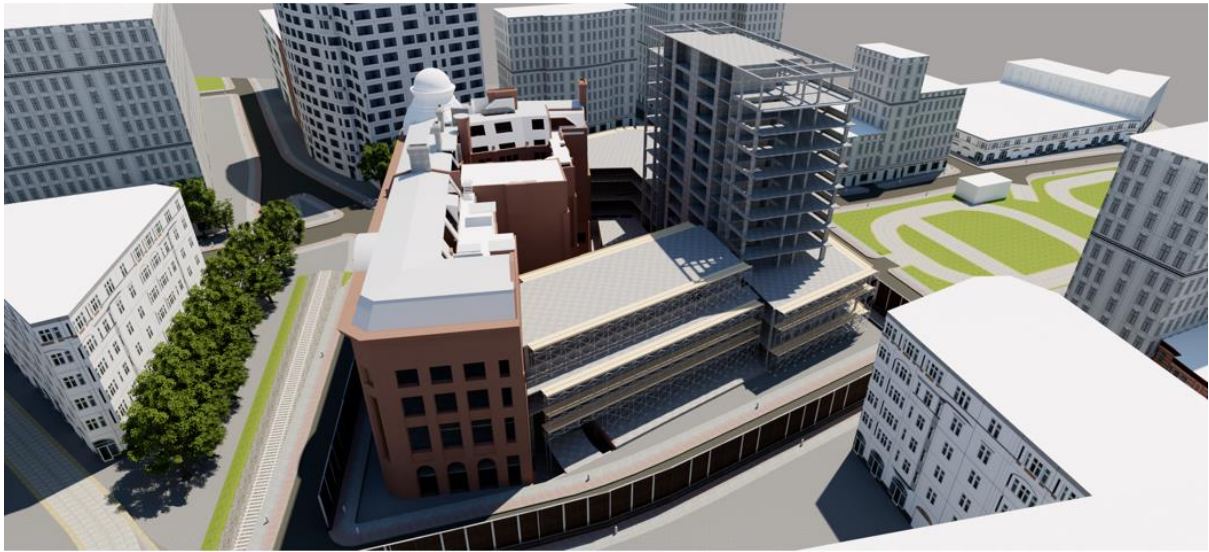
Please note that JRL group confirm the Crossrail phasing requirements and that no structural demolition works will commence until full permissions are received with all monitoring data satisfied.

Please see below sub programme with relevant dates:



Based on the above sub programme our demolition programme reflect as summarised below:

1. Soft strip/asbestos commencement 24<sup>th</sup> Jan 2022
2. Phase 1 demo (link bridge and undercroft) 21<sup>st</sup> March 2022
3. Phase 2 rest of building 20<sup>th</sup> May 2022







## Slab and Foundation Removal

A trained operative shall first scan the area with a cat scan and genny device insuring to the best of his knowledge there are no live hidden services.

The higher slabs shall then be broken using a hydraulic breaker. Where possible the slab is to be pulled up using the excavator bucket. This will help to reduce the noise and vibration created from the Hydraulic breaker. This will expose the footings and pile caps of the building. These excavations will be battered back to allow the machines to work. And suitable access provided for any personnel required. The pile caps will be broken out away from the centreline of the building and in such a way that the area above the sewer is the last part to be removed.

The footings throughout the footprint of the building are to be removed. All concrete shall be heaped into an allocated position ready to be loaded into lorries for removal. The work area shall then be graded off and tracked in leaving it in a tidy state. The area will be examined for signs of oil contamination and if necessary sampling of the contamination arranged. Where unforeseen contamination is expected works shall cease until the material is sampled and the risks assessed.



### Loading Away Arisings

We will have a water supply at hand for dust suppression to ensure that dust impact on the environment is reduced to a minimum.

Material will be loaded away as work proceeds in order to maintain a clean and unobstructed work environment

A road sweeper will be on call at all times to ensure the public highway is kept clean. In addition vehicles will have their wheels washed as they exit the site should this be necessary

All soft strip and hazardous materials will be removed off site in a timely fashion to minimise the risk of fire and contamination.



### Water Management



Gullies that are within the demolition zone will be sealed to prevent the ingress of debris to the sewer system. This will be by use of a gully guard or similar system. Where gullies are outwith the demolition debris zone they will be cleaned about and filled with sandbags to prevent debris from being able to access the drainage system. The gullies will continue to drain water through the sandbags to maintain surface water drainage and prevent a build-up of surface water that can run off. At the end of the demolition the sand bags will be removed from the gullies and the gullies re-cleaned out as required.



### Site Waste Management Plan

A project waste champion will be appointed to ensure procedures are kept relevant and up to date and also to ensure waste materials leaving site are recorded for project benchmarking purposes. The client shall appoint a waste 'champion' to be responsible for the development of the Site Waste Management Plan and subsequent implementation and compliance. This may be the principal contractor but an alternative appointment may be made to ensure design and pre-construction activities are incorporated.

### Managing complaints

A key tool in the successful management of these concerns will be the establishment and visible implementation of a robust Good Neighbour Policy. Neighbourhood liaison is extremely important and signs will be erected to the site hoarding that will notify of 24 hour contact details.



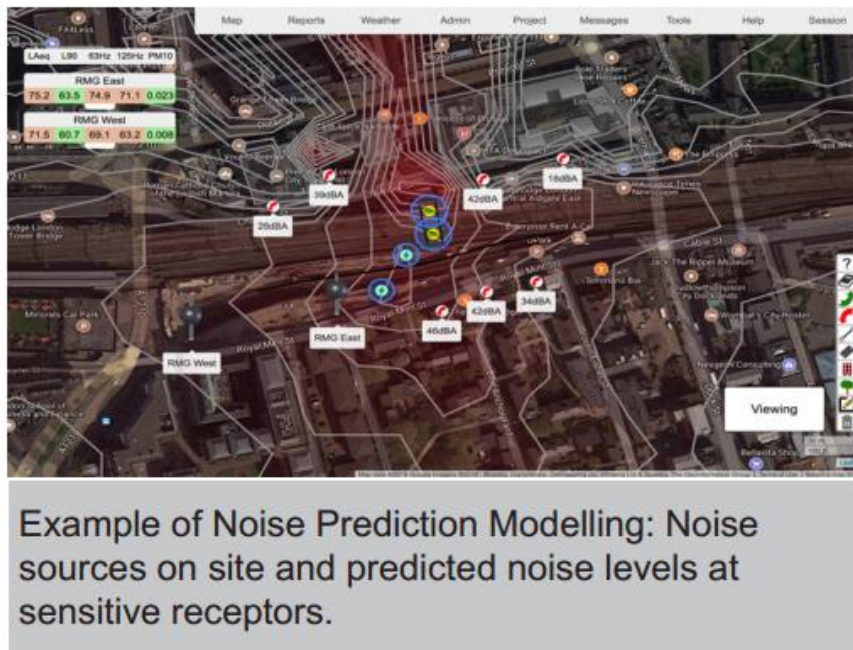
A pre commencement meeting will be held with local residents and residents associations and a liaison group established prior to the commencement of works to explain the proposed works; thereafter liaison meetings will be held with regular newsletters are to be distributed to neighbours. In addition newsletters will also be posted on the site notice boards/hoardings. All works are to be proceeded with appropriate neighborhood liaison. The newsletter will include details on progress, contact details and alerts to potentially noisy works or other disruptions. In addition email notifications will be sent to site neighbours.



Any complaints will be entered into the complaints logbook and fully reported including the remedial action taken; they will also be raised and discussed at residents meetings.

### **Environmental Performance**

On all our projects we implement SPael Sound Mapping software. SPael Sound Mapping software is a web tool for predicting and monitoring noise, vibration, air particle density and meteorological conditions. It is based around a map interface, allowing the user to create virtual environments.



This software allows us to produce a virtual model of our site and demonstrate visually to local council, residents and other relevant stakeholders the impact of our proposed activities. The SPael system is fully equipped with real-time monitoring and text/email alert system to ensure our noise, vibration or air particle density limits are not breached.

### **Noise Monitoring and Mitigation**

We will implement a robust noise monitoring regime to minimise the effect that our operations may have on the local community. During our residents meetings we will communicate the likely noisy activities and explain in comparable terminology what is the likely and permissible noise they will encounter i.e. plant noise through a shut window will be no greater than a hair-dryer at peak. This communication will continue throughout the works via our fortnightly Newsletters distributed to local residents.

Noise limits will be agreed during the Section 60/61 process and monitored weekly to ensure compliance. We will record all monitoring activities and distribute the results within our progress reports.

Key noise mitigation measures will include:

- Only using modern machinery
- Utilise machinery with silencers

- Use acoustic mats around machinery to further reduce sound levels.

We will introduce quiet times during the day to allow respite from the noisier elements of works.

## Dust Minimisation

We will minimise air pollution from dust and emissions arising from all site activities to increase air quality. We will develop and implement a robust site specific dust mitigation strategy. This will be adhered to at all times and briefed to all workers at a site specific induction and via environmental tool box talks.

The demolition works will be planned to carry out the works and potentially dusty works during the most suitable weather conditions, while also considering the local surroundings.

We will implement the following to minimise, mitigate and control dust during our works:

- Use M back pack vacuums for general cleaning of site instead of sweeping.
- Cover materials leaving the site
- Securely cover skips where dust or loose detritus can become windblown.
- Minimise the drop heights to control the fall of materials.
- Regularly dampen down surfaces within in the skips with water.
- Stockpiles will be kept damp or covered and to a minimum.

## Vibration

We will implement the following:

- Use silent/less percussive de-constructive demolition methods.
- Utilise tower cranes for all vertical material movement

## Noise Monitoring

No vehicle will be allowed to wait in the neighbouring streets. In addition, we will implement a just in time waste removal regime, with each vehicle allocated a timeslot to attend site where they will be loaded up with demolition waste for removal. Through using our in-house fleet, we have greater control on managing just in time logistics.

## Lighting

Lighting will be provided to the site boundaries. On the boundary adjacent to the footpaths and roads, notably Navigation Street, vandal proof bulkhead light fittings will be positioned at 5m centres.

Where the works interfere with current lighting levels alternative sources will be provided to ensure that illumination will be the minimum sufficient to ensure the safety of the passing public, including disabled people, and security.

Precautions will be taken to avoid shadows cast by the site hoarding on surrounding footpaths, roads and amenity areas. Site lighting will be positioned and directed to ensure that it does not intrude on adjacent buildings, wildlife sites and other land uses, or to cause distraction or confusion to passing traffic on adjoining public highways. Our temporary works design for the site set up and boundary will ensure that any artificial light emitted will not be prejudicial to health or be a nuisance as required by the Environmental Protection Act 1990.

It is not anticipated that site generated debris will be transferred to the local road network as all demolition material will be deposited into container vehicles. The debris will be thoroughly dampened at the work face to avoid any nuisance during the loading operation. Should the road be affected in any way by our activities, cleaning measures will be implement

On a regular basis, our roll on/off vehicles will attend site to remove all collected rubbish. The waste is transported from site and deposited at a licensed transfer station where it will be segregated for onward transportation to various recycling houses. Residual waste is sent to landfill. Waste segregated on site will be collected by other registered carriers and transported either to a licensed transfer station or directly for recycling / reuse.

**Waste**

The project team will be committed to maintaining the highest environmental standards and demand the same standards throughout the supply chain. In conjunction with the logistics provider, regular audits will be conducted on preferred waste carriers, transfer stations and landfill sites. These audits are intended to confirm compliance with legislation and to ensure every effort is being made to maximise the recycling of waste generated from site.

Best practice dictates that waste segregation should be undertaken at source. This does not simply mean 'on site' but actually at the point of waste generation at the workplace. Segregation at source is the only methodology that does not require a secondary process to sort collected mixed waste.

**Site Waste Management Plan**

A project waste champion will be appointed to ensure procedures are kept relevant and up to date and also to ensure waste materials leaving site are recorded for project benchmarking purposes. This may be the principal contractor but an alternative appointment may be made to ensure design and pre-construction activities are incorporated.

**Water Management:**

Gullies that are within the demolition zone will be sealed to prevent the ingress of debris to the sewer system. This will be by use of a gully guard or similar system. Where gullies are outwith the demolition debris zone they will be cleaned out and filled with sandbags to prevent debris from being able to access the Axis Building drainage system. The gullies will continue to drain water through the sandbags to maintain surface water drainage and prevent a build-up of surface water that can run off. At the end of the demolition the sand bags will be removed from the gullies and the gullies re-cleaned out as required.