



Rylands Building, Manchester.

Client: AM Alpha

Construction & Methodology Statement

Rev E – 12th June 2023

Updates highlighted in RED text.

- Including extracts from the BWB Air Quality Assessment. See section

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1.0 Rylands Building, 109 – 127 Market Street, Manchester. M60 1TA

1.1 Introduction

The purpose of this Construction Management Plan is to discharge pre-commencement Planning Condition No.06 and to provide confidence to Manchester City Council regarding Russell's Construction delivery of Rylands Building Project

Planning Condition No.6 details:

*Prior to the commencement of the development a detailed construction management plan outlining working practices during development shall be submitted to and approved in writing by the local planning authority, which for the avoidance of doubt should include; *Display of an emergency contact number; *Details of Wheel Washing; *Dust suppression measures; *Compound locations where relevant; *Location, removal and recycling of waste; *Routing strategy and swept path analysis; *Parking of construction vehicles and staff; *Sheeting over of construction vehicles; *Mitigation against risk of accidental spillages into watercourses *A detailed demolition method statement and vibration monitoring, to ensure protection of listed building during demolition and construction works and fit out works; *Communication strategy with residents and local businesses which shall include details of how there will be engagement, consult and notify them during the works; *Agreed safe methods of working adjacent to the Metrolink Hazard Zone and shall be adhered to throughout the construction period; the retention of 24hr unhindered access to the trackside equipment cabinets and chambers for the low voltage power, signalling and communications cables for Metrolink both during construction and once operational. * Details of the loading and unloading of plant and materials; * Details of the storage of plant and materials used in constructing the development; * construction and demolition methods to be used; including the use of cranes (which must not oversail the tramway); * Details showing the erection and maintenance of security hoarding at a minimum distance of 1.5m from the kerb which demarcates the tramway path, unless otherwise agreed with Transport for Greater Manchester; *The provision of a "mock up" security hoarding to review and mitigate any hazards associated with positioning next to an operational tramway prior to permanent erection; *A scheme for the protection or temporary relocation of the Overhead Line Equipment Building Fixing (approval to be in consultation with Transport for Greater Manchester). Development shall be carried out in accordance with the approved construction management plan*

1.2 Description of the project

Rylands Building is a large Grade II listed building that occupies a full city block in Manchester city centre. The site extends to 0.44 Hectares and is bounded by Tib Street, Market Street, High Street and Bridgewater Place on the south west edge of the Northern Quarter and is within the main retail district of the city centre.

The proposal is the refurbishment, renovation and repurposing of this former textile warehouse comprising sub-basement, basement, ground and seven upper floors. The refurbished development will consist of 10 levels of commercial office space above a retail ground floor and a basement leisure use. The sub-basement provides cycle storage and other office well-being facilities along with plant and refuse storage. The top four levels of office accommodation are provided in a rooftop extension. Further key interventions include providing a new primary vertical circulation core, the introduction of large central stepped atrium within the existing building, winter gardens to the sixth floor, and repurposing of the ground floor into a retail arcade with active connections to adjacent public realm.

1.3 Indicative Programme

Please find attached Draft Tender Programme – Appendix 1

Key dates listed below which are currently indicative and may change marginally:

- Site set up – 22/05/23
- Demolition complete – 20/05/24
- Roof extension complete – 05/08/24
- Tower crane removal – 10/12/25
- Fit out start -14/01/25
- Envelope complete – 09/01/25
- Project completion – 30/06/26

1.4 Site Layout / Phasing Drawings

Please find attached Site Layout / Logistics drawings – Appendix 2

1.5 Working Hours

The Project working hours are such that the construction work will normally take place only between the following hours

Monday to Friday *	07.30 to 18.00
Saturday *	08.30 to 14.00
Sunday / Bank Holidays	No work

Prior approval may be sought to work outside of these hours (for example abnormal construction plant manoeuvres, conclusion of concrete finishing, plant break-downs etc.)

*Workforce may arrive on site 30 minutes prior but no working outside these times, unless changed by prior agreement. Noise to be kept to a minimum in the first hour. Reason - To safeguard the amenities of the occupiers of nearby residential accommodation during the construction phase.

Any agreement for working out of the above hours needs to be made via LOOH : https://www.manchester.gov.uk/info/100006/environmental_problems/2956/tackle_a_noise_problem/13

LOOH contact below:

Jon Mathers
Licensing & Out of Hours Compliance Officer
The Neighbourhoods Service
Growth and Neighbourhoods
Manchester City Council
Web: <http://www.manchester.gov.uk>
Email: jonathon.mathers@manchester.gov.uk
0161 234 1220
07932 469655

Works adjacent to the metro link lines MUST be completed under network shutdown and as such may only be carried out at a time specified by the network operator. This is likely to be overnight. Operations that this may affect include but are not limited to the following:

- Scaffold erection & alteration
- Erection of hoarding
- Re fitting of ground floor shop frontage and façade
- Works to upgrade pavement finishes

- Repair works to the high-level clock

These operations will be reviewed and agreed with MCC in advance of them taking place.

1.6 Parking of Vehicles of Site Operatives and Visitors

No parking will be available on site. Russell's management team will make use of surrounding public transport and multi storey car parks. Several additional passes will be held to accommodate visitors.

Site operatives will be encouraged to commute via public transport within close proximity to the site – Piccadilly/Victoria Station and Metrolink adjacent the development. If this is not feasible Car Pooling and parking off site.

2.0 Site Waste Management Plan

The management and disposal of waste generated on the Rylands Project will be managed in accordance with the Russells Waste Management Policy (please see Appendix 4).

Following selection / confirmation of the relevant sub-contractors & suppliers, we will develop a Site Waste Management Plan. The 'template' for the Rylands Building Site Waste Management Plan may be found in Appendix 4.

We will appoint a specific member of the Russells Construction Site Management Team as "Waste Management Co-ordinator".

Refer to Appendix 4 – Site Waste Management Policy

3.0 Air Quality Plan

The following few paragraphs detail how air pollution will be managed and controlled during the Rylands Building works.

Background Definitions:

Statutory Nuisance

Dust, steam, smell or other effluvia from industrial, trade or business premises which are prejudicial to health, are defined as statutory nuisances under Section 79 of the Environmental Protection Act (EPA). In addition, smoke (including soot, ash, grit), fumes and gases from any premises may also be a nuisance. The person responsible (in practice the contractor doing the work in question) can be required, by the local authority, to put a stop to the nuisance through an abatement notice. An aggrieved individual may apply to the magistrates for an abatement order. Breach of a notice or order is a criminal offence.

Clean Air Act

The Act is the main legislative means of control over smoke, grit, dust and fumes, and is generally enforced by local authorities. The main provisions of the Act co-exist with the statutory nuisance provisions of the EPA.

The Act applies to emissions of dark smoke from industrial or trade premises which originate from sources other than chimneys. Demolition has been found to be a trade process, and a bonfire on a demolition site emitting dark smoke could be found to be within the compass of the Act. There are, however, regulations which exempt emissions from the burning of timber and most other waste resulting from demolition of a building or of a site and also emissions from tar, pitch, asphalt or other matter used in connection with surfacing.

Some construction processes on the Rylands Building Project may release pollutants into the atmosphere, for example dust from earthmoving. However, there is a clear need to keep them to a minimum to avoid undue nuisance to neighbouring areas and the workforce also to ensure that the more dangerous pollutants, for example paint sprays and sprayed formwork oils, are not released or are at least controlled.

Control and mitigation measures as set out in the BWB Air Quality Assessment will be adopted as per the appended report with RWBHO comments.

Potential Hazards to Consider on the Rylands Project include, but are not limited to:

- Dust from earth moving operations
- Brick and silica dust
- Toxic substances in the ground or services
- Cement filler and plaster
- Solvents, glues and paints
- Weed-killers and other similar chemicals
- Fumes from welding
- Sprayed formwork oils
- Sprayed paint and other sealants

Control Measures we will adopt, include:

- Materials Management Plan (developed in conjunction with WSP – Geotechnical Consultant)
- Site visits / inspection via WSP – Geotechnical Consultant
- CoSHH assessments undertaken prior to certain activities commencing
- Dust from earthmoving and other vehicles on site – damp down using bowsers, or similar solution.
- Wood dust from joinery or other woodworking – use dust extractors on cutters and saws
- Site Standards will ban the use of fires on site as a waste disposal measure
- Securing of all loose materials that could become airborne in high winds
- Where possible, positioning of plant in order to ensure that exhaust fumes or dust etc. are vented away from occupied buildings and ensure they are fully maintained to avoid any nuisance
- Vehicles carrying dusty materials will be suitably sheeted, as may be appropriate limit and enforce the speed limits of vehicles over unmade surfaces#

Review of BWB Air Quality assessment: (Full document – Appendix 8)

BWB provided a range of potential mitigation measures in their appended report, however based on our practical experience, and in line with British Best Practice standards, these have been discredited in this scheme due to the nature of the works to be undertaken and due to the unique nature of the site and surrounding environment. For example, it is not possible to fit a wheel wash at the entrance to the site and furthermore The Rylands Project will not have haul roads and as such specific speed limits cannot be implemented. Russell WBHO will of course maintain best practise standards with regards to cleanliness of the surrounding roadways and provide cleaning as and when required.

Please see the below extract (Tables 4.4 & 4.5 with RWBHO Comments in RED text)

Table 4.4: Mitigation Measures for a Low Risk Site

Category	Mitigation Measures	
	Highly Recommended	Desirable
Communication	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environmental manager/engineer or the site manager. Accept	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 highly recommended measures in this document. The desirable measures should be included as appropriate for the site. Only implement if necessary.
	Display the head or regional office contact information. Accept	
Site Management	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce	None
	emissions in a timely manner and record the measures taken. Accept	
	Make the complaints log available to the local authority when asked. Accept	
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book. Accept	
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspections results, and make an inspection log available to the local authority when asked. Accept	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 to be provided as necessary. Accept
	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. Accept	
Preparing and maintaining the site	Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. Accept	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extended period. Accept where practicable.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. N/A not applicable to this site.	Keep site fencing, barriers and scaffolding clean using wet methods. Fencing and barriers will be maintained as required.
	Avoid site runoff of water or mud. Issue not expected on this site.	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 on-site cover as described below. Accept
		Cover, seed or fence stockpiles to prevent wind whipping. N/A

Category	Mitigation Measures	
	Highly Recommended	Desirable
Operating vehicle/ machinery and sustainable travel	Ensure all vehicles switch off engines when stationary – no idling vehicles. <i>Accept</i>	Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas. <i>N/A - Issue not expected on this site.</i>
	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable. <i>Accept - Mains electricity to be used where possible</i>	Ensure equipment is readily available on site to clean any dry spillages - cleaning up spillages as soon as reasonably practicable after the event using wet cleaning methods. <i>Accept</i>
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.	<i>Accept</i>
	Ensure an adequate water supply on site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	None <i>Accept</i>
	Use enclosed chutes and conveyors and covered skips.	<i>Accept</i>
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	<i>Accept</i>
Waste Management	Avoid bonfires and burning of waste materials. <i>Accept</i>	None

Table 4.5: Mitigation Measures Specific to Construction and Trackout

Category	Mitigation Measures	
	Highly Recommended	Desirable
Construction (Low Risk Site)	None	Avoid scabbling (roughening of concrete surfaces) if possible. Accept
		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. Accept
Trackout (Low Risk Site)	None	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any materials tracked out of the site. This may require the sweeper being continuously in use. Accept
		Avoid dry sweeping of large areas. Accept
		Ensure vehicles entering and leaving the sites are covered to prevent escape of materials during transport. Accept
		Record all inspections of haul routes and any subsequent action in a site log book. Accept
		Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

N/A - Issue not expected on this site.
Wheels will be cleaned if necessary.

4.0 **Traffic Management plan.**

Public Highway Interface

We have engaged with Utilities Design & Planning Ltd. (UDP Ltd.) to carry-out key pavement / highways management works.

An application is to be submitted for a closure of:

- Partial closure of Bridgewater Place
- Partial closure of pedestrian zones on Tib Street
- Loading bays on Tib Street
- Temporary removal of some road signs, parking bays, bollards etc. along Tib Street.
- Removal of street furniture to Market Street
- Partial closure of foot paths on Market Street and High Street

(See Appendix 3 for Traffic management plans including main traffic routes to site)

5.0 **Storage of plant & Materials**

Materials will generally be stored within the site boundary.

Materials will then be transported to the relevant floors via a goods hoist. Due to the tight nature of the project all deliveries will need to be booked in through the Russells site management team to prevent any back log or congestion inside the site boundary/surrounding public highway.

All deliveries of goods & materials for the frame contractors will be through site entrance. Materials will be transported via the tower crane as per the logistics plan appended in Appendix 2 at the back of this document.

6.0 Construction and demolition methods.

Refer to “Contractors Task Method Statement for Demolition” within Appendix 5.

A specialist contractor is to be appointed to complete the demolition works. Required to complete the works in this method will be:

- Adequate mains water supply.
- Temporary discharge licence for disposal of treated run off water
- Filtration system capable of treating run off water and discharging into existing combined sewer system at an adequate rate.

Specific RAMS to cover the removal of the existing rooftop structures and of the alterations throughout the building will be developed following appointment of the specialist sub-contractor and in advance of the works commencing. In general, the Method Statement will address the following:

- Delivery of equipment to roof level
- Prevention of debris falling beyond the building perimeter
- Public protection measures
- Access and egress arrangements
- Temporary works & fall prevention
- Debris clearance & removal

Specific RAMS can be made available upon request.

Construction of the new 4 storey extension will begin upon completion of the demolition operation. Piling from Sub-Basement floor level, then commence the production of the new slip form cores.

The 4 storey extension will be completed as a steel frame construction from the 7th floor following the formation of Core 1 & 2. the crane will be positioned inside the footprint of the building (See appendix 2).

7.0 Human Impact Management Plan

On the Rylands Project, we will manage “Human Impact” in two key ways:

- Environmental Impacts
- Community Plan

We will identify and manage environmental ‘impacts’ and ‘aspects’ throughout the project

The following areas will be considered:

Aspect: The part of Russells activities that can interact with the environment.

Impact: The effect on the environment, good or bad, that results from Russells activity

Noise: Under section 60 and 61 of the control of pollution act 1989 permissible levels of environmental noise as agreed with the local authority must be adhered to.

Waste and Resource Use: including minimisation, recycling, disposal, selling ‘waste’, waste streams, compliance, secondary aggregates, timber.

Biodiversity: There are no real biodiversity issues on site.

Land Management: Rylands Building has been considered during the design and will be managed to ensure no damage or alteration will be caused by the construction of the project to adjacent land / properties.

Community: Russells will liaise with the local community to discuss the impact the project will have on the local environment and local businesses and maintain a good working relationship with the local community & businesses.

We will develop an Aspects and Impacts Register (A&I Register), this will form part of our detailed Health, Safety & Environmental Construction Phase Plan. The Russells Health, Safety & Environmental Advisor or Sustainability Manager will provide support as necessary, throughout the life of the scheme.

Control measures to reduce the risk will be implemented and the risk regularly reassessed to ensure the control measures have, in fact, reduced the risk.

The Rylands Building Site Management Team will ensure that the A&I Register is monitored and regularly reviewed (especially when there is a change in work activity or location).

24 hour contact numbers and email address will be displayed on the site entrance so members of the public are able to contact the RWBHO team.

7.1 Community Plan

Russells recognise that we can have a significant impact on the communities in which we operate and by engaging, respecting and understanding our community stakeholders we can make a positive contribution to their environment and quality of life.

8.0 Hoardings

All areas of the construction site will be clearly demarcated / secure at all times (from non-construction related persons or vehicles), also to keep all construction activities confined within the defined areas.

Hoarding will be temporary 'Herras' type fencing during initial weeks, then switched to 2400mm tall timber hoarding. Metal solid panel hoarding may be used in non-public facing areas.

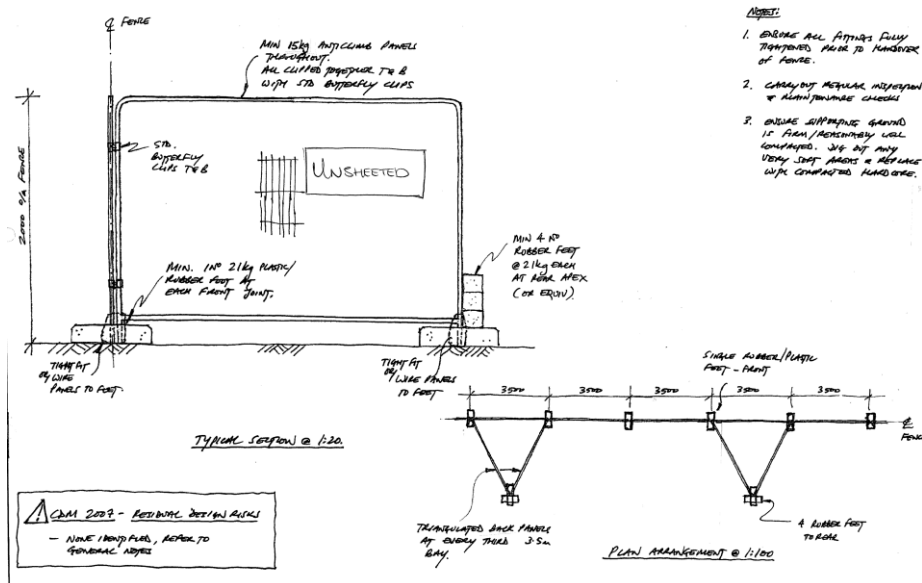
Timber hoarding will be painted white. Any branding will be subject of negotiations between RWBHO and MCC.

Hoarding will be inspected daily and inspection register maintained on site.

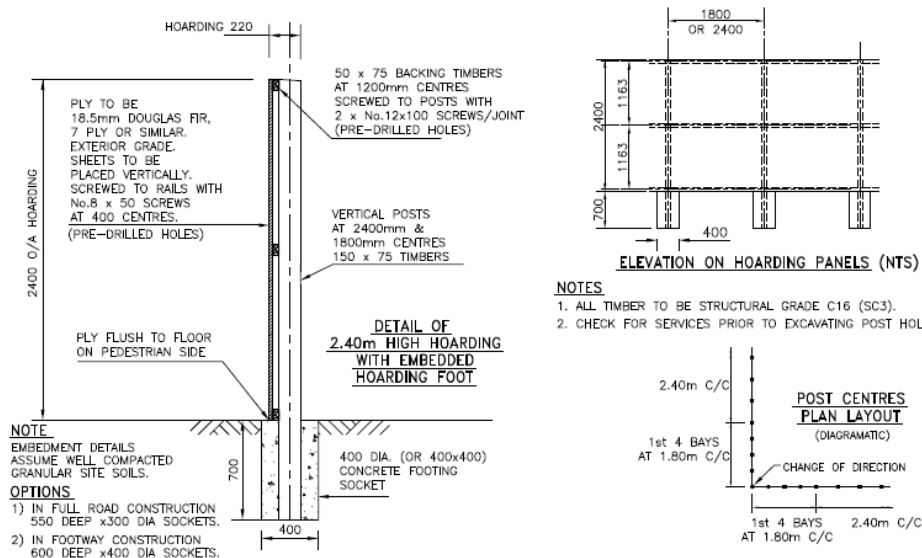
A Temporary works design will be completed by our external Temporary works design consultant in line with the Russells temporary works policy. Typical details are identified below:

See below typical hoarding details:

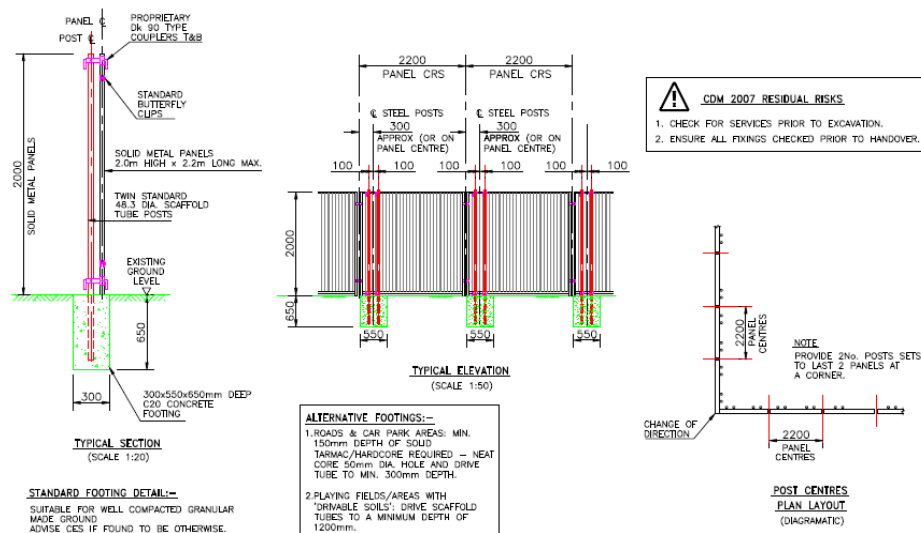
RWBHO Typical Herras Fencing:



RWBHO Typical Timber Hoarding:



RWBHO Typical Solid Metal Hoarding:



See appendix 2 – “logistics plan” for site/hoarding layout. Hoarding line along Bridgewater place will be illuminated to ensure area remains safe/well-lit during the works.

9.0 Dust & Dirt

Dust will be controlled for the duration of the job by water suppression especially during hot dry days. Road sweepers will be brought to site as required to keep the site clean and dust build up to a minimum.

Water suppression will be used during clean up works to prevent exposure to silica dust to working operatives and people in the nearby vicinity.

The site will be kept clear and tidy at all times throughout the day, operatives will collect all rubbish and ensure all wagons are clean and fit for road use prior to leaving site. Any dirt/rubbish on the nearby roads and footpaths which are the responsibility of Russells will be cleaned.

If necessary, specific mechanical dust extraction and mitigation measures will be used to remove airborne dust.

Façade cleaning operations will not produce significant dust due to the cleaning process using only water. Localised areas of stone repair and replacement will be risk assessed on an individual basis.

Scaffolding surrounding the building will receive a full wrap of Monarflex sheeting that will provide a further barrier to the migration of any airborne contaminants beyond the perimeter of the building.

In addition to the scaffolding, the work to replace the windows will be undertaken in a ‘Just-In-Time’ approach. This ensures that the existing windows will remain in place until such time as the new windows are ready to be installed. This will further contain dust & dirt to within the building.

Control and mitigation measures as set out in the BWB Air Quality Assessment will be adopted as per the appended report with RWBHO comments.

10.0 Recycling & Disposal

Due to the tight nature of the project there is limited space for the storage of waste/recycling skips. We will be storing 'wheelie' type container bins on the ground floor to be loaded from the upper floors and to be cleared from site by the appointed waste management company at regular day intervals.

11.0 Cranes

11.1 Mobile Cranes

The list of operations which are currently envisaged to require a mobile crane are:

- Roof plant removal
- Lifting the Brokk's and Bobcat's onto the roof
- Erection of hoist to 4 storey extension.
- Installation and dismantle of the tower crane.

All lift plans will be covered by a trained competent appointed person and covered by a temporary works check certificate in line with the Russell's temporary works policy.

11.2 Tower Crane

We have assessed the various crane types and have decided that the Luffing Jib Crane, is most suited to our requirements and will help maximise the efficiency in construction of the structural frames. The crane will be sited within the footprint of the building for the construction phase until the completion of the 4 storey extension.

The crane will be positioned within the new atrium void to minimize works following removal.

The crane will be fitted with automated limiting (SMIE) system which will prevent any oversailing past the site boundary.

Refer to Appendix 6 - Crane Plan

12.0 Scaffolding / Access

External working platforms / access will generally be via a mixture of:

- Hoist
- Scaffold fans to be constructed for protection whilst the scaffold is being erected as last line of defence for falling materials.
- Scaffold to full perimeter
- Cradles to complete the façade as required.

The presence of the adjacent Metrolink infrastructure on Market St and High St has been considered and incorporated in to the scaffold proposal. Key considerations include:

- Working adjacent to HV cables
- Protection to network assets (such as OHLE cables)
- Pedestrian movement to all elevations
- Pedestrian safety on the Market St / High St corner
- Hoarding lines
- Maintaining line-of-sight for metro link driver / operators.

NOTE: The OHLE cable fixing points have been examined and found to be 'face fixed' in all locations. There is no risk of disconnection through internal works. Externally the OHLE cables

and fixings will receive signage and protection measures in line with Metro link requests and as per the previously issued Scaffold Methodology Statement Rev D 01/06/2023. (Appendix 10)

13.0 Noise Assessments and Use of Vibrating Tools and Equipment Procedures.

NOISE

Russells Ltd and its sub-contractors will ensure that, where reasonably practicable, nobody on site is exposed to noise in excess of 80dB(A). Where noise levels are suspected to be at or above 80dB(A) the direct employer will be responsible for ensuring a suitable noise assessment is carried out. Suitable hearing protection must be made available to all affected personnel on request. Sub-contractors undertaking work that continuously exceeds the noise level of 85dB(A) hearing protection zones must be set up with clear warning signs positioned.

Completed Workplace Noise Assessments or Sub-contractors equivalent will be filed in the site H&S file.

On completion of the noise assessment Russells Ltd and its sub-contractors will provide relevant information, instruction and training to employees at risk from excessive noise levels.

Suppliers of plant will be required to supply guidance on anticipated noise levels.

All compressors, percussion tools & vehicles will be fitted with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.

Under Section 60 and 61 of the Control of Pollution Act 1989 permissible levels of environmental noise may have been stated by the local authority, in this instance the levels must be adhered to.

Except where expressly permitted, no operations which are audible at the adjacent noise sensitive buildings shall be carried on:-

- outside the hours of 08.30 hours to 18.00 hours Monday to Friday and 08.00 hours to 14.00 hours on Saturdays.

USE OF VIBRATING TOOLS AND EQUIPMENT PROCEDURES.

Russells Ltd and its sub-contractors will, through the careful planning and design of the works, take reasonable steps to eliminate the need for vibrating tools and equipment to be used on site. Where this cannot be achieved equipment suppliers will be required to provide adequate information to allow Russells Ltd or its sub-contractors to carry out a suitable risk assessment. Affected personnel will be trained on vibration reduction techniques and, where appropriate, included in a health surveillance scheme.

Completed Vibration Exposure from Powered Hand Tools Assessments will be recorded in Form HS 031 or Sub-contractors equivalent together with a daily record that operatives have not exceeded the 'exposure limit value' while on site. Completed records will be filed in the site H&S filing system. Where applicable evidence of health surveillance should be provided.

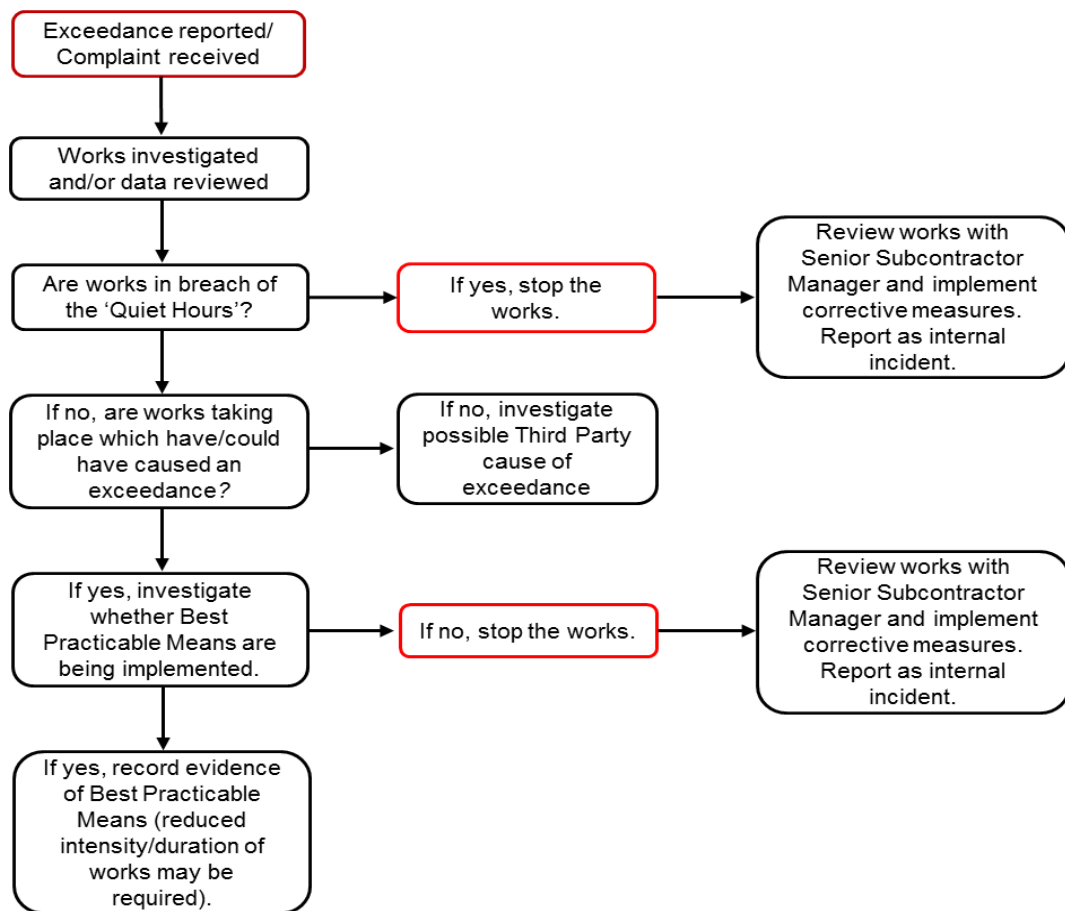
14.0 Consultation & Complaints

Russells manage public relations proactively through liaison with neighbours via newsletters, letters and community meetings. Contact details are provided on the public noticeboard for the public to directly contact us. Any complaints are logged and investigated by Russells with corrective action implemented as required. In the event of a complaint, the complainant should be directed to the most senior member of the Project team on Site. The following details should be taken (if the complainant is willing to provide them):

- Full name
- Address
- Contact telephone number
- Date/Time of the alleged incident
- Description of the complaint
- Location of the alleged incident
- Date/time complaint received

All personal data shall be managed in compliance with the Data Protection Act 2018.

All exceedances and complaints are to be investigated according to the following process



Appendix 1 – Draft Tender Programme

Refer to separate document

Appendix 2 – Site Logistics Plan

Refer to separate document

Appendix 3 – Traffic Management Plan

Refer to separate document

Appendix 4 – Site Waste management Policy

PR-EN013 – Site Waste Management Procedure

1. Responsibilities

- a. The requirements for a SWMP is no longer a legal requirement since January 2014, however can be requested by the client or required for BREEAM certification. It is an offence by the principal contractor if the waste produced is not recorded and waste described on the Waste Transfer Notes. In a principal contractor role, RUSSELLS is responsible for:
 - obtaining relevant information from sub-contractors;
 - updating the SWMP as the project progresses;
 - identifying waste removal contractors;
 - keeping the SWMP up to date;
 - ensuring that other sub-contractors know where the SWMP is kept;
 - allowing other sub-contractors and the client access to the SWMP during the project;
 - handing the completed SWMP back to the client at the end of the project, if required/requested
 - keeping a copy of the SWMP for two years.
- b. Ultimate responsibility for achieving the above lies with the business Managing Director. Operational responsibility must be assigned to the Project Lead who will implement Russells areas of responsibility of the SWMP.
- c. This person needs to:
 - negotiate during the tender process to define contractual responsibilities for completion and maintenance of the SWMP;
 - be able to communicate to everyone working on-site and motivate them to follow the SWMP;
 - be able to provide or source the necessary resources and training;
 - have a good knowledge of the contract and the various parties involved.

2. General

- a. The SWMP must identify:
 - the person responsible for waste management on-site;
 - the types of waste that will be generated;
 - waste management options for these waste streams;
 - the use of appropriate and licensed waste management contractors and sites;
 - a plan for monitoring and reporting on the quantity of waste.
- b. To be effective, it is vital that the SWMP is simple and easy to follow, with clear procedures for waste management.
- c. A SWMP involves the following stages:
 - writing the SWMP;
 - assigning responsibility for implementation;

- identifying likely waste arisings, types and amounts;
- determining the best waste management methods (on-and off-site) for the different wastes;
- optimising the supply and procurement of materials;
- communicating the plan on how it will be implemented;
- setting up systems to segregate and handle wastes on-site to encourage recovery;
- making sure the site complies with the Duty of Care;
- collecting data on waste generated during the project;
- reviewing and updating the SWMP upon a change in the project, waste management status
- drawing up recommendations for future projects.

3. Creating the SWMP

- a. The responsibilities for the production of the SWMP must be agreed at the start of the contract. The principal contractor is responsible for its production, implementation and use.
- b. If the SWMP is written at the pre-planning stage to take account of design and waste minimisation issues, then the developer or client or the architect's representative may be responsible, if the client requires a SWMP to be in place at this stage.
- c. If the SWMP is written at the tender stage or at the beginning of the construction phase, then the principal contractor will be largely responsible. The principal contractor may also have to develop and use any SWMP produced by the client. Sub-contractors will need to comply with the principal contractor's SWMP.
- d. It is important that the person or team writing the SWMP has adequate knowledge of waste issues and the construction programme. Ideally, they must also be responsible for implementation of the SWMP.
- e. The writer of the SWMP should be supported by the wider project team, which must be consulted in a partnership approach.
- f. The project team may include:
 - client;
 - design team;
 - regulators;
 - project team members;
 - HSEQ department;
 - sub-contractors (especially the demolition contractor);
 - relevant supply chain organisations,
- g. To ensure the SWMP is completed fully, a SWMP checklist should be used.

4. Making the SWMP work

- a. The SWMP must be:
 - viewed as common practice on-site;
 - embedded within the businesses existing policies and site procedures.
- b. It is essential that the SWMP is supported by the management team and accepted by the project team (including sub-contractors). It is also important that the SWMP is communicated effectively to everyone on-site and be made widely available. Training should be given as required and records kept of this training.

5. Identifying likely waste arising, types and amounts

- a. Knowledge of the types of waste and the estimated amounts arising from each part of the work programme is essential in order to determine:
 - what types/numbers of containers are needed for the different project stages;
 - when best to implement segregation for different waste streams.
- b. Estimates should be recorded using table on the “Waste Data Chart” once the waste types have been identified. Waste can be split into three categories; Demolition, Excavation, Construction.

6. Planning for waste management

- a. The various options for the likely waste generated on-site should follow the waste hierarchy e.g. initially prevent and reduce waste; followed by re-use and recycling (on-and off-site); recovery of energy and finally disposal.
- b. Planning for waste management will help to:
 - decide whether any specialised equipment is required on-site, e.g. a mobile crusher for recycling aggregates;
 - provide advance warning if exemptions or licences are required;
 - plan for the appropriate use of space and containers.
- c. This information can be combined with the waste estimates to set targets for:
 - segregation on-site;
 - recycling of materials;
 - diversion of waste from landfill.

7. Optimising material supply and procurement

- a. The amount of waste generated on-site can be reduced significantly by looking at the way in which materials are procured and supplied to site.
- b. Wastage rates for materials can be reduced through:
 - better ordering systems;
 - less packaging;
 - take-back schemes.
- c. The business individual with the procurement responsibilities may therefore become part of the SWMP process.

8. Communication and training

- a. Communication of the SWMP is essential in order for all Russells’ staff, subcontractors and third parties to be aware of their responsibilities. The SWMP can be communicated through means such as site induction, toolbox talks and project review meetings. The SWMP must be held on site and be readily available to all sub-contractors and other third parties.

9. Segregation of materials and waste handling on-site

- a. To promote effective waste management, where practicable, waste materials must be segregated on-site. Information on construction recycling segregation is available in the CIRIA Environmental Good Practice on Site Pocket Book.

10. Working with sub-contractors

- a. All Russells' appointed sub-contractors must segregate the waste they produce where stated in the SWMP.
- b. Where sub-contractors remove their own waste, they must provide a waste transfer note containing the legally required information as per Environmental Protection Act 1990, Section 34; and the necessary certification.

11. Hazardous waste

- a. All hazardous wastes must be segregated in separate skips for disposal.
- b. Hazardous waste skips must have adequate identification signage and be secure.
- c. Avoid contaminating other wastes with hazardous materials (to avoid even higher disposal costs).
- d. Where sub-contractors remove their own waste, they must provide a hazardous waste consignment note containing the legally required information as per The Hazardous Waste (England and Wales) Regulations 2016; and the necessary certification. All 5 section must be completed.
- e. For advice on all aspects of hazardous waste, including the rules governing its transfer off-site and disposal, contact the HSEQ Department.

10. Complying with the Duty of Care

- a. A SWMP must provide a framework to ensure that Russells complies with the Duty of Care requirements. These include:
 - ensuring that all wastes are stored safely and securely;
 - checking that all waste contractors have the appropriate licences;
 - filling out waste transfer notes properly;
 - filling out consignment notes for hazardous waste properly;
 - keeping copies of all waste transfer notes for two years, and hazardous waste consignment notes for three years.
- b. Practical ways for complying with Duty of Care requirements can be obtained from the business Health and Safety Department. Or by information available in the CIRIA Environmental Good Practice on Site Pocket Book.

11. Data collection and analysis

- a. Collection and analysis of data is required to monitor the effectiveness of the SWMP. A designated person is required to collect and report on relevant data at site level.

11.1 Data collection

- a. Data on the waste generated from the project may include:
 - i. type of waste generated on-site;
 - ii. amount of waste generated on-site;
 - iii. segregation rates;
 - iv. re-use on- and off-site, recycling rates and diversion of waste from landfill;
 - v. wastage rates of different materials;
 - vi. costs and savings;
 - vii. waste movements;
 - viii. sources of waste;
 - ix. waste profile over the course of project;
 - x. levels of damaged materials.
- b. The appointed waste management contractor may be able to provide waste data as follows:

- i. the type of waste generated (broken down by EWC codes);
- ii. tonnages generated/removed;
- iii. amounts recycled (typically for the waste facility overall and not per construction site).

11.2 Data analysis, benchmarking and setting targets

- a. Waste generated as part of the project must be analysed to:
 - i. provide feedback about the SWMP to site workers, clients, designers and other members of the project team;
 - ii. monitor performance in minimising waste;
 - iii. set realistic targets within the SWMP;

11.3 Key performance indicators

- a. KPI data can be used to compare performance across projects, against previous projects and - if appropriate - national averages. The two most common are typically:
 - i. volume of waste (m3) per £100,000 of project value;
 - ii. volume of waste (m3) per 100 m2 of project floor area.

12. Updating the SWMP

- a. Once the SWMP is implemented it must be reviewed by the project team to ensure it is:
 - i. being followed;
 - ii. practical and appropriate;
 - iii. amended as necessary.
- b. Whenever waste is removed from the site Russells, as a principal contractor, must record on the site waste management plan
 - i. the identity of the person removing the waste;
 - ii. the types of waste removed; and
 - iii. the site that the waste is being taken to.
- c. At project completion, Russells as principle contractor to sign the SWMP and explain deviations applied, if any.
- d. When any waste is removed the principal contractor must record on the plan
 - i. the identity of the person removing the waste;
 - ii. the waste carrier registration number of the carrier;
 - iii. a copy of, or reference to, the written description of the waste required by section 34 of the Environmental Protection Act 1990; and
 - iv. the site that the waste is being taken to and whether the operator of that site holds a permit under the Waste (England and Wales) Regulation 2011 or is registered under those Regulations as a waste operation exempt from the need for such a permit.
- e. As often as necessary to ensure that the plan accurately reflects the progress of the project, and as a minimum within six months, Russells, as the principal contractor must:
 - i. review the plan;
 - ii. record the types and quantities of waste produced;
 - iii. record the types and quantities of waste that have been—
 - (a) re-used (and whether this was on- or off-site);

- (b) recycled (and whether this was on- or off-site);
- (c) sent for another form of recovery (and whether this was on- or off-site);
- (d) sent to landfill; or
- (e) otherwise disposed of; and

iv. update the plan to reflect the progress of the project.

13. Record Keeping of Waste off Site

The responsible person will be required to create the Waste Transfer Consignment Notes and include an accurate description of waste which will also be described on the Waste Carrier tickets who is removing the waste off site. The Waste Transfer Consignment Notes must be issued as a season ticket for a period of maximum 12 months given that the waste description remains unchanged.

Russells Waste Transfer Notes will be kept electronically for the required 2 years. The responsible person will issue the WTN to the Registered Waste Carrier to complete the WTN by signing the Transferee section.

The waste figures recorded will then be transferred into the SWMP.

The original Waste Carrier tickets are sent into the Russells Head Office and is stored with the invoices and can be pulled up by the Russells Financial Department if requested by a third party. Some of the waste carrier contractors keep records of waste movements electronically which can be accessed by Russells remotely.

14. Applying the lessons learnt

- a. It is important that recommendations and lessons learnt from the implementation of one SWMP can be applied to other sites, throughout the business and throughout Russells.
- b. This can be achieved by various means:
 - i. debrief the client and project team in terms of the successes, targets, recommendations, good and bad practice.
 - ii. Include the SWMP as an agenda item for post-contract reviews.
 - iii. establish benchmarks and new targets based on SWMP experience, aiming for continual improvement.
 - iv. sharing best practice within Russells to improve SWMP efficiency.

15. Further Information Sources

- a. Further free advice on how to reduce the volume of raw materials and other resources used during a construction build is available from Government website - <https://www.gov.uk/waste-legislation-and-regulations>

16. Document retention

- a. Waste Transfer Notes must be retained for a period of two years

Appendix 5 – Demolition Plan
Refer to separate document

Appendix 6 – Crane Plan

Refer to separate document

Appendix 7 – Environmental Management Plan

Refer to Separate document

Appendix 8 – Air Quality Assessment

Refer to separate document

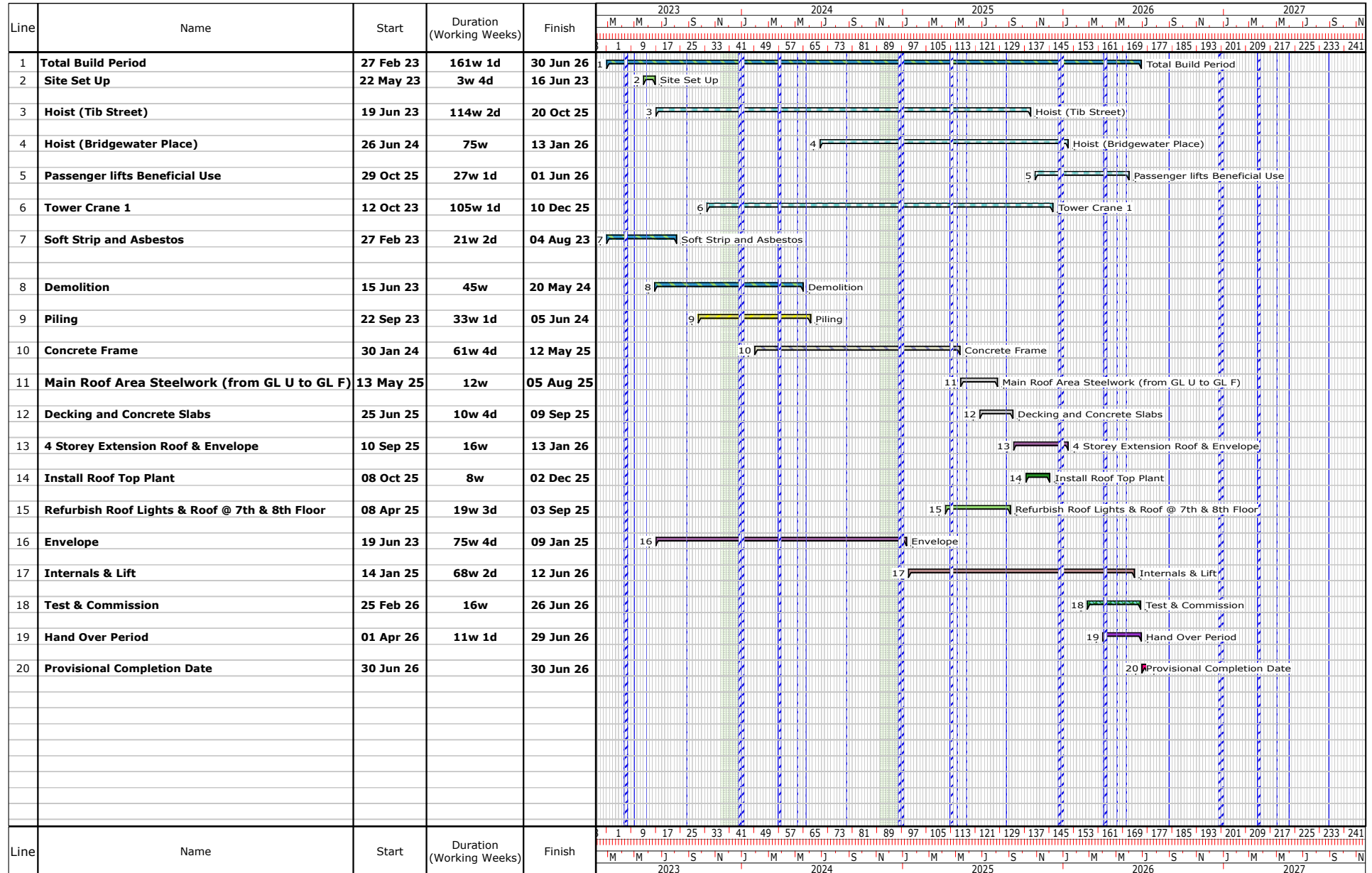
Appendix 9 – Woolgar Hunter Vibration Monitoring File note

Refer to separate document

Appendix 10 – Scaffold Methodology statement Rev D 01.06.2023

Refer to separate document

Rylands Building Manchester



Draft Tender Programme

Print Date: 17/02/2023

Drawn by: KM

17/02/2023

Page Number:

1 of 1

Programme Reference:

22-61 rev



RussellWBHO

Rylands Building
Manchester
Logistics Plan
Rev: E 31.01.2023

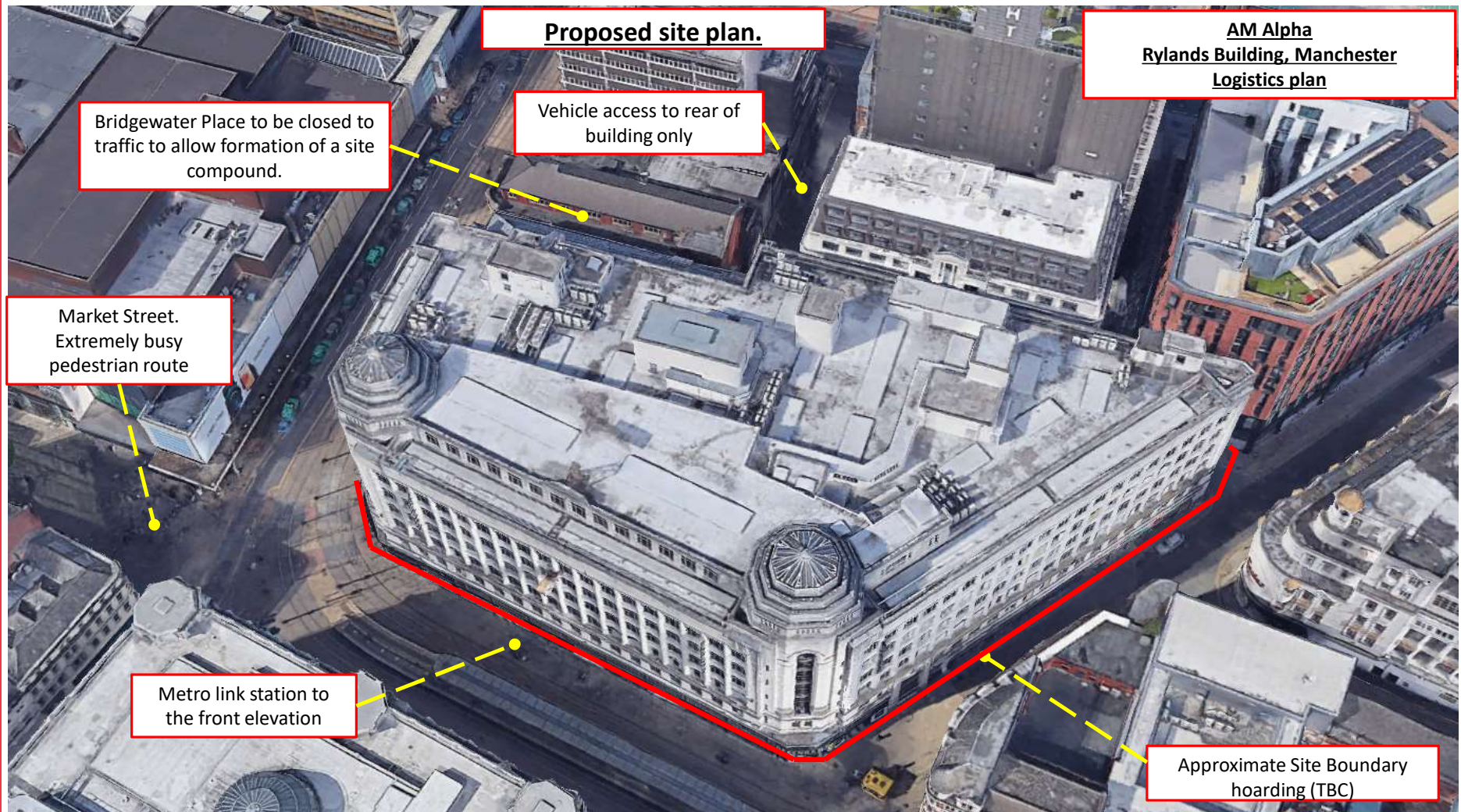


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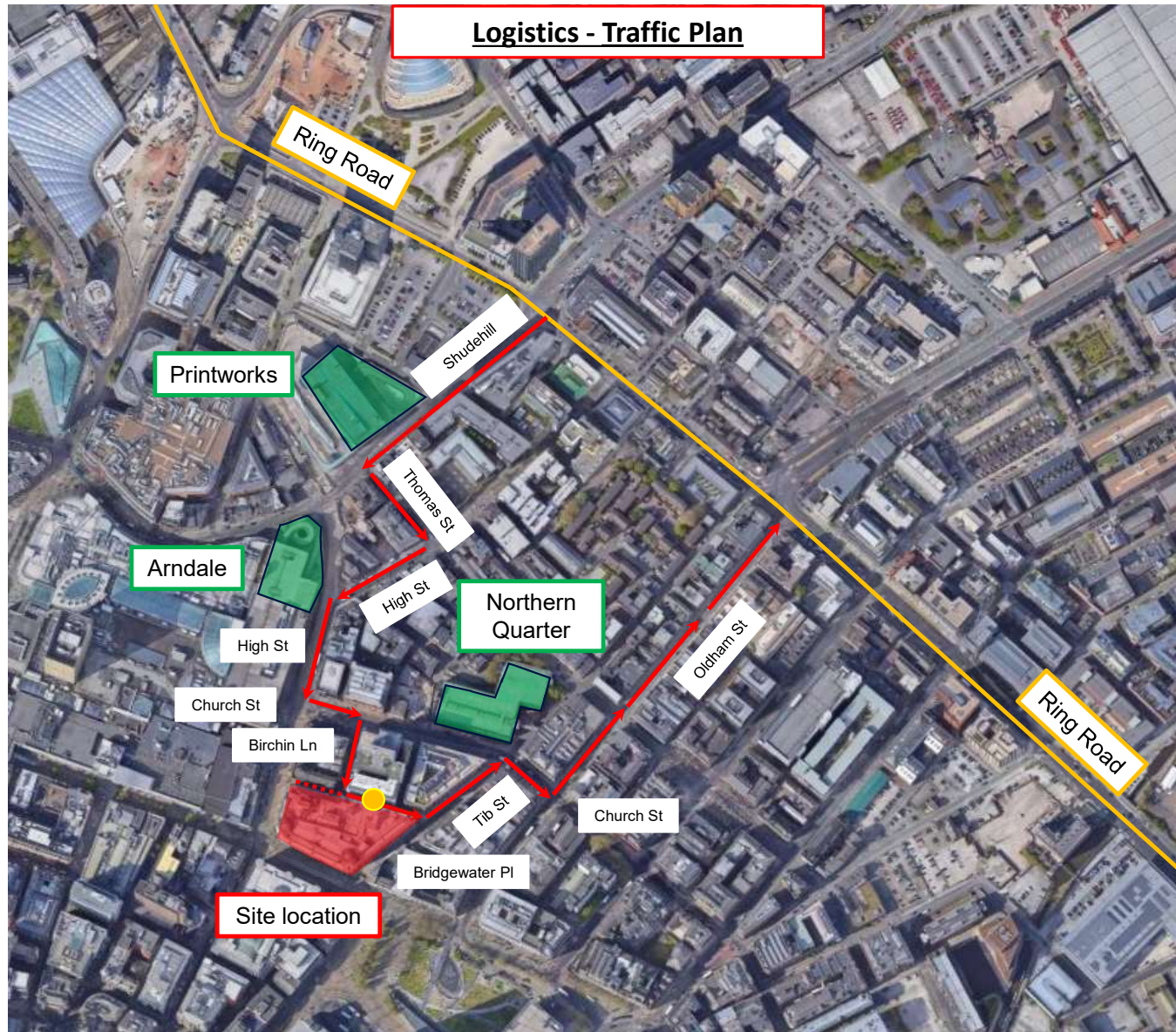


Introduction

- Development of a former department store in Manchester.
- Retail leisure units to ground and basement
- Welfare zone in Basement with cycle ramp from ground
- Plant area in sub basement
- Cat A Office fit out above
- 4 storey new build extension to roof, formed of steel frame, concrete floors and unitized façade.
- Formation of winter gardens to 6th floor
- Glazed atrium providing light to all floors and winter gardens to upper levels
- Heritage features to be retained and refurbished.
- Exterior to be cleaned & refurbished.

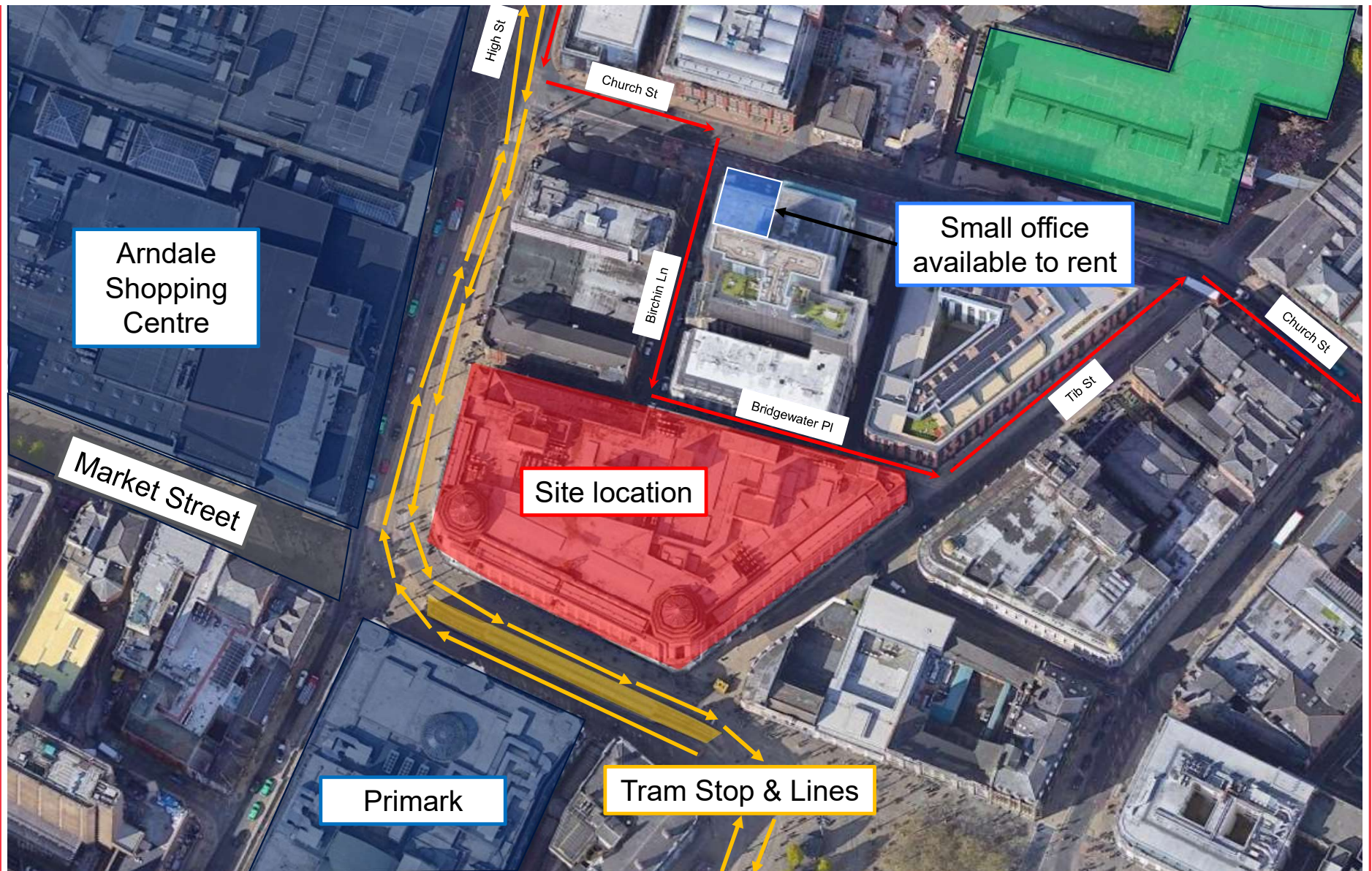


Logistics - Traffic Plan



Key

- Inner ring road
- Route to & from site
- Site location
- Car Parking
- Pick up location
Bridgewater Place



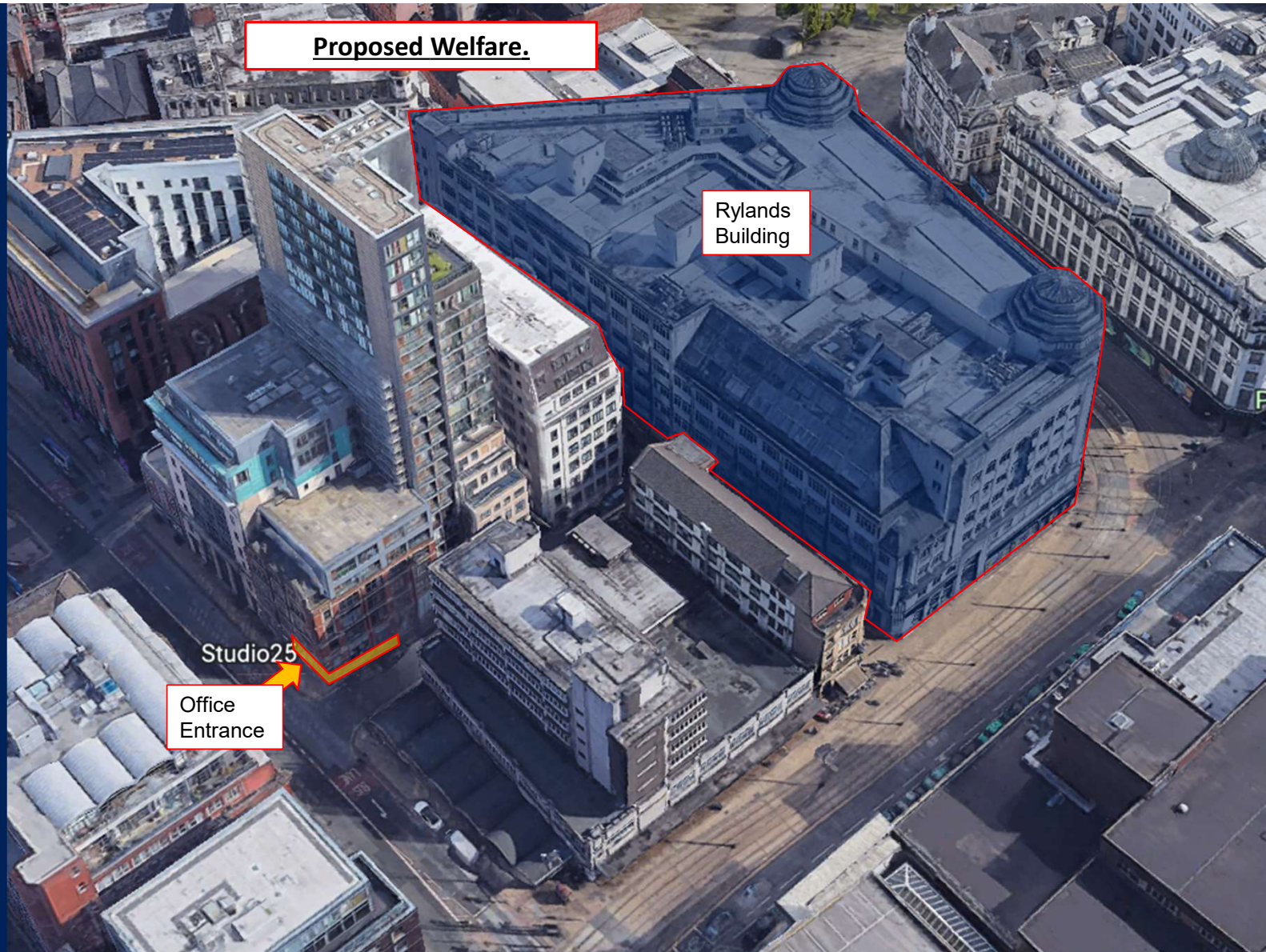
Rylands Building

109 – 107 Market Street
Manchester
M60 1TA

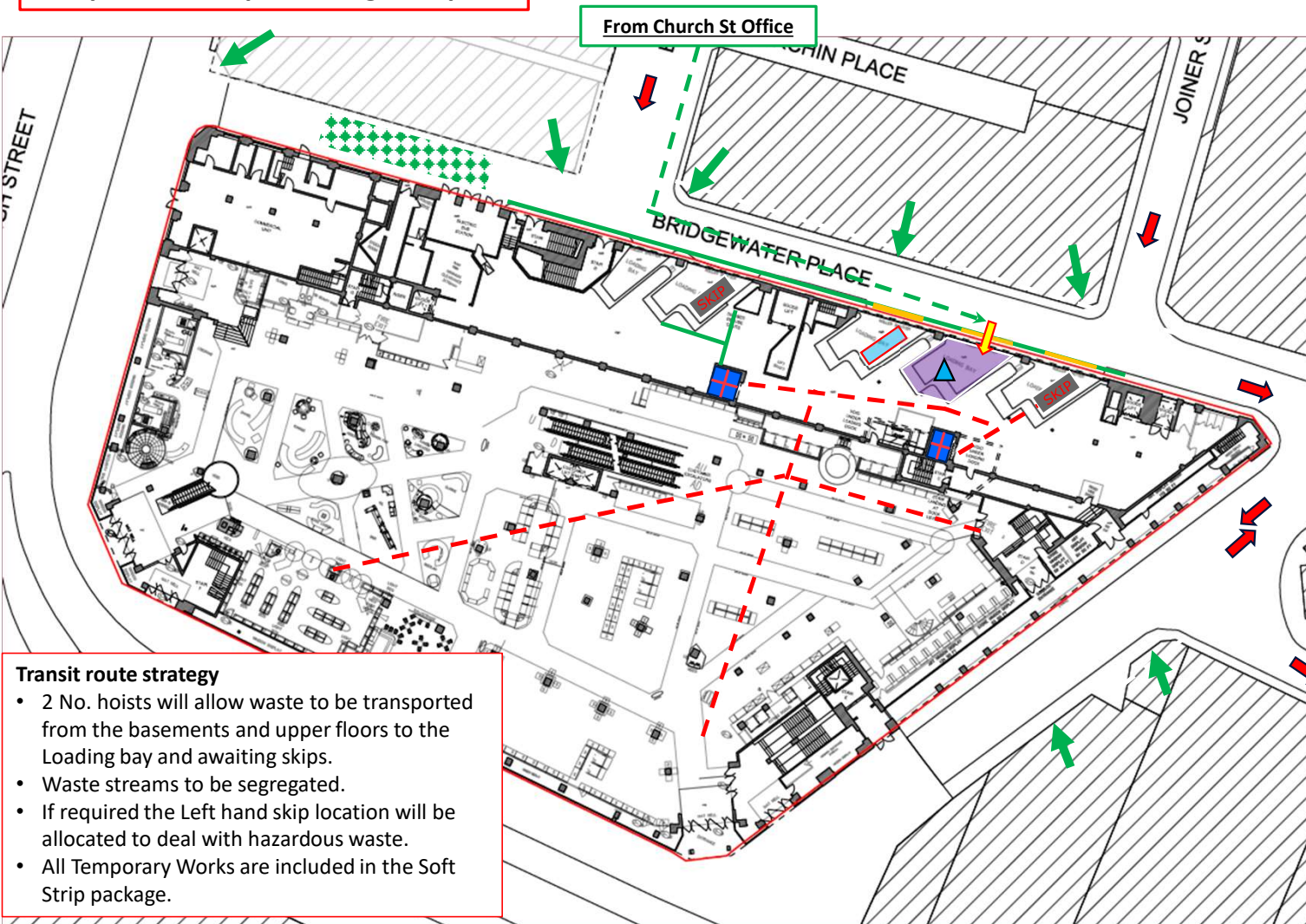
Deliveries to:
Bridgewater Place
Via Tib Street

PCSA Office Location

Lower Ground Floor Office,
20 Church Street,
Manchester M4 1PN



Proposed PCSA period Logistics plan



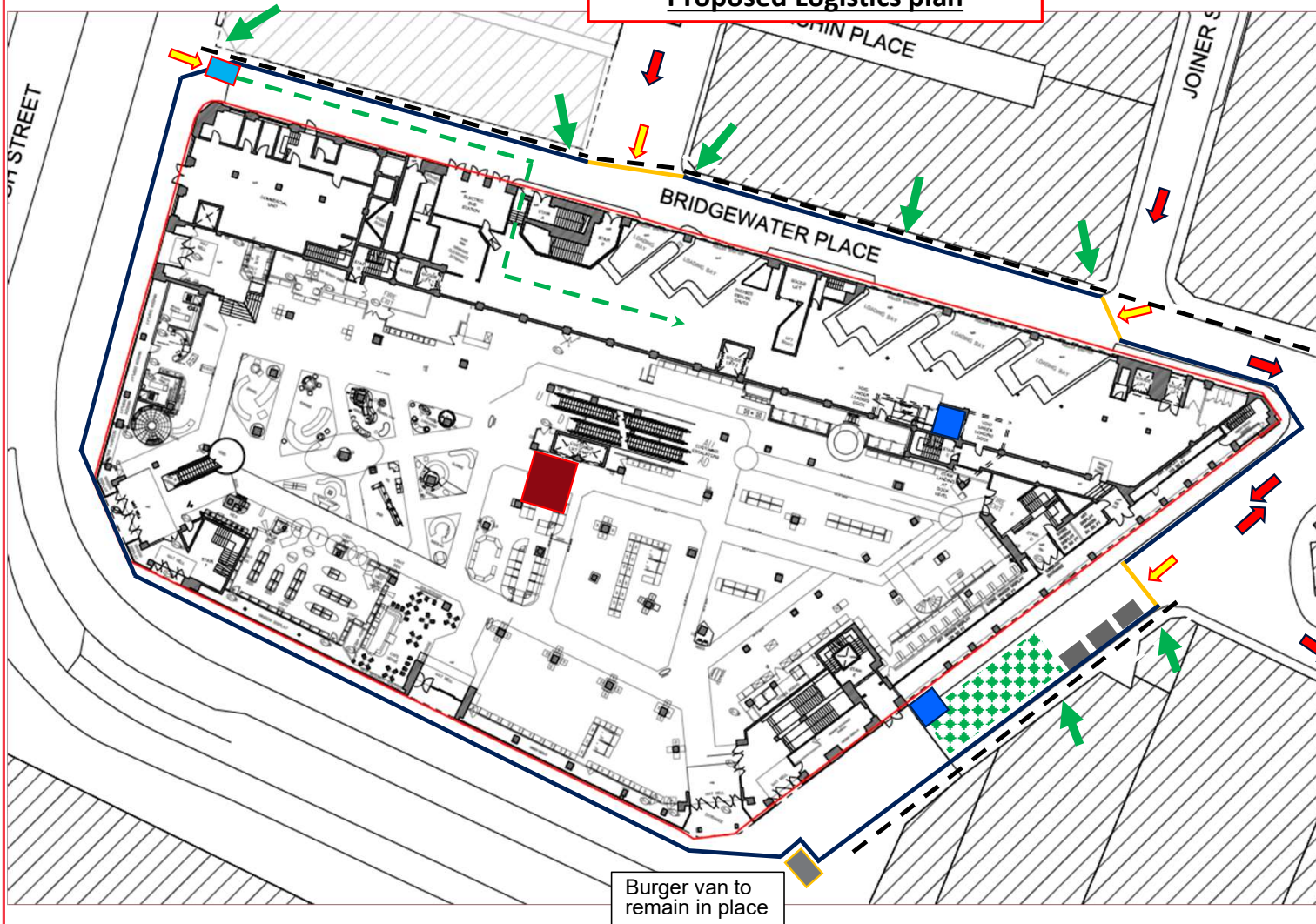
Key

-  Site Boundary
-  Solid Hoarding
-  Heras Fencing
-  Vehicle Gates
-  Guard / Gateman
-  Site Skips
-  Toilets
-  Muster Point
-  Site welfare
-  Hoist – Materials
-  Waste drop shaft
-  Waste transit route
-  Site Pedestrians
-  Site access / Egress
-  Highway traffic
-  Adjacent building exits

Transit route strategy

- 2 No. hoists will allow waste to be transported from the basements and upper floors to the Loading bay and awaiting skips.
- Waste streams to be segregated.
- If required the Left hand skip location will be allocated to deal with hazardous waste.
- All Temporary Works are included in the Soft Strip package.

Proposed Logistics plan



Key

- Site Boundary
- Solid Hoarding
- - - Heras Fencing
- Vehicle Gates
- ▲ Guard location
- Site Skips
- Turnstile
- Muster Point
- Site welfare
- Hoist – Materials
- ▨ Exclusion zone
- - - Site Pedestrians
- - - Public Pedestrians
- Site access / Egress
- Highway traffic
- Metro line Exclusion zone
- Adjacent building exits
- Tower Crane Void

PCSA Welfare – Church St Office

Facilities:

Sub-Con office – 8-10 people

RWBHO Office – 8 People

Mess facilities – 16 people

Drying room / Lockers

Kitchen

Single accessible WC

Lockable store room

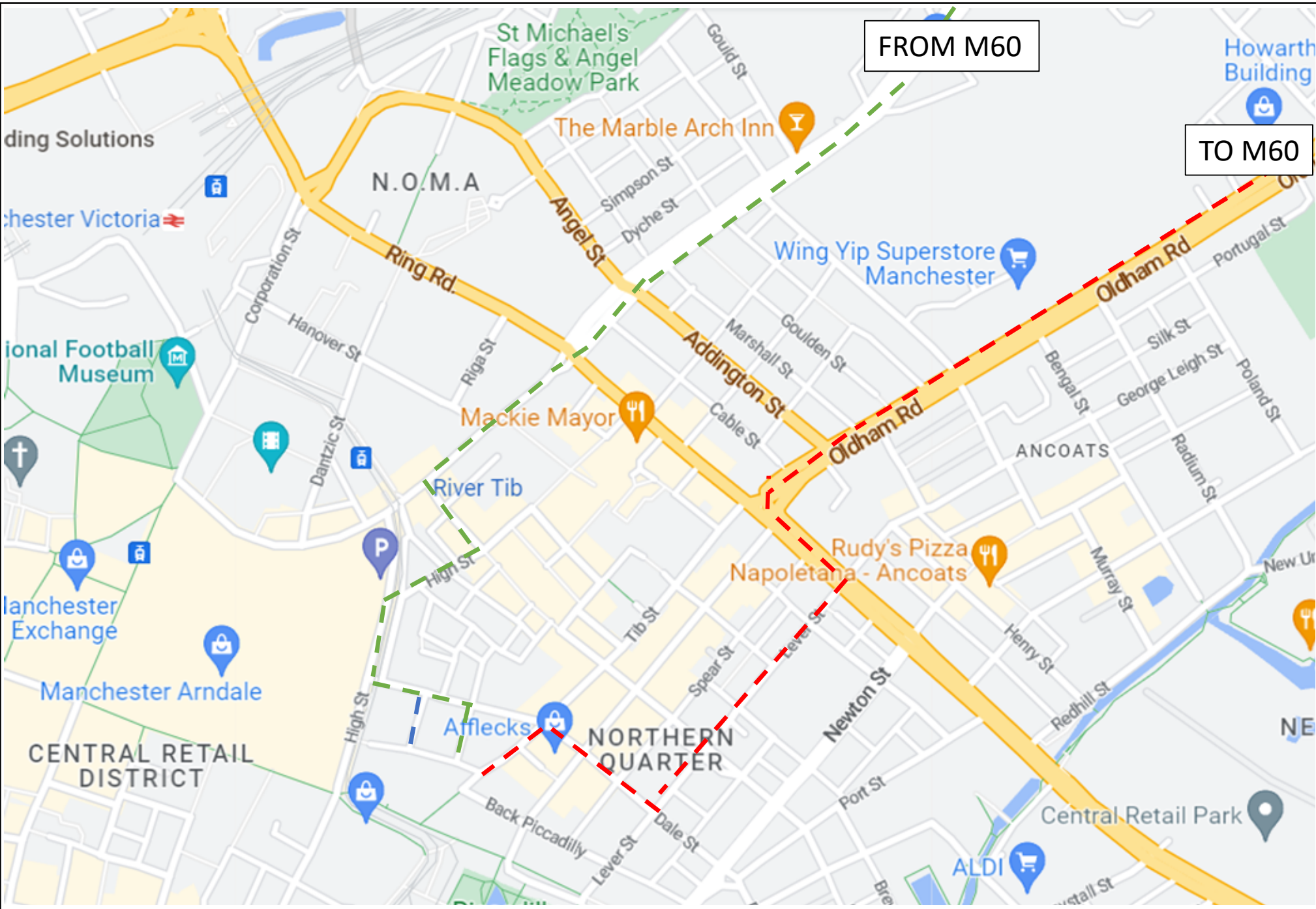
Comms cupboard + incoming Data

First Aid -
Defib -



First aid
station





Key

- Delivery access (Primary)
- Delivery access (Secondary)
- Exit from Site



Drawing title:

Rylands Building – Site access plan

Revision: Rev 01

Scale: NTS

SITE WASTE MANAGEMENT PLAN



Project Name	22798 - Rylands Building
Client	AM Alpha
Address	CD9 Properties (Manchester) Ltd, PO Box 296, Sarnia House Le Truchot, St Peter Port, Guernsey, GY1 4NA
Produced By	Leo Frechou
Date	21/02/2023

Position	Name	Contact Details & Company	Action	Date	Signature
Project Manager	Peter Cresswell	pcresswell@russellwbho.co.uk	Review		
Env. / Health and Safety Manager	Leo Frechou & Darren Williams	HSEQDepartment@russellwbho.co.uk	Review		
Construction Manager	Peter Girven	pgirven@russellwbhop.co.uk	Review		

The Purpose of this document is to:
Assist Russells Ltd in the development and implementation of the controls required to manage and reduce waste creation, recycling and disposal.
Ensure that all duty holders are aware of their legal duties in respect to dealing with waste and environmental protection.
Provide guidance in how to identify and manage all aspects of waste control to ensure compliance with legislative requirements.

RUSSELLS COMMITMENTS

- Russells Ltd will:
- Ensure that development plans meet the relevant environmental sustainability policies of the local planning authority
 - Ensure that environmental criteria are included in the design brief, in particular:
 - Reduction of demolition arising and construction waste sent to landfill
 - Selection of new and recycled-content construction materials
 - Reduction of carbon emissions from energy use
 - Reduction of demand for potable water
 - Management of operational waste
 - Ensure our sub-contractors and suppliers:
 - manage the construction process so as to minimise pollution and the production of waste
 - Communicate their environmental policy to all consultants, sub-contractors, suppliers and agents
 - Give consideration only to those who can demonstrate that they share and will implement environmental standards consistent with our own
 - Reduce the use of energy, water and other natural resources
 - Reduce the production of waste, recycle waste wherever possible, and dispose of the rest according to the best practicable environmental option
 - Implement any necessary remedial action for contaminated or hazardous substances and materials and, following acquisition

The Site Waste Management Plan will be reviewed on a regular basis. A full analyses of the waste management employed under this project will be undertaken.

We will continually review the type of surplus materials being produced and where we can change the site set up to maximise on re-use or recycling. **The use of landfill will be the last resort.**

The plan will be communicated to the whole project team (including the client). Business wide updates including the KPIs will be communicated and discussed at IMS and Management meetings.

The plan will also be analysed by the Environmental Manager to produce KPIs and will be responsible for transferring and advising any best practice and solutions throughout the company.

DUTY OF CARE

All those who produce or handle wastes from demolition, earthworks and construction activities have legal responsibilities – Duty of Care – for its safe keeping, transport and subsequent recovery or disposal. Failure to comply can result in an unlimited fine.

Duty of Care is a legal requirement under Section 34 of the Environmental Protection Act 1990. Detailed requirements for waste transfer notes are set out in the The Waste (England and Wales) Regulations 2011.

Russells Ltd and the appointed approved waste carrier for the project will sign a declaration stating that they are aware of their duties for compliance with the relevant Statutory Requirements.

LIAISON WITH THE HSE/EA

Operatives shall be reminded that HSE/EA inspectors may visit the site and full cooperation must be provided by the operatives if inspectors request information on any health and safety issue, including waste management.

The Site Manager MUST hold this Site Waste Management Plan on site together with records of waste disposal, and if applicable waste savings and recycling.

Failure to provide this waste plan on request can result in an on the spot fine, (fines can be imposed on a weekly basis), and/or prosecution for breach of a statutory requirement which could result in an unlimited fine and/or imprisonment.

NATURE OF THE PROJECT

The works consists of the conversion of the existing Grade II Listed former Debenhams building into retail space to ground and two basement levels, and CAT A office space to the seven floors above. This includes the construction of a four-storey extension to the top of the building and a glazed atrium running up the entire height of the building.

PROJECT AIM

We are committed to implement Russells Ltd Environmental Policy and the project Site Waste Management Plan (SWMP) so that it is effective, accurate and economical and ensure that the procedures put into place are working and are maintained. Prior to the project start, assumption of total waste will be recorded. This will then be compared with the actual result at the end of the project.

The target for the amount of non-hazardous construction waste being generated is calculated by not exceeding 6.5 tonnes or 7.53m3 per 100m² (of the gross internal floor area).

We aim to achieve at least 90% by weight or 85% by volume of key non-hazardous construction waste generated by the project shall be diverted from landfill and either:

- a) Reused on site (in-situ or for new applications)
 - b) Reused on other sites
 - c) Salvaged/reclaimed for reuse
 - d) Returned to the supplier via a 'take-back' scheme
 - e) Recovered from site by an approved waste management contractor and recycled.
- For demolition projects, in addition to the above requirement for construction-related waste, 95% by weight or 90% by volume of non-hazardous demolition waste will be aimed to be achieved to be diverted from landfill.

The location of licensed waste sites and waste carriers / contractors registration details and validity are checked from the following sources prior to work start on site:

Environmental Agency: Public Registers <https://www.gov.uk/access-the-public-register-for-environmental-information>
Northern Ireland Environmental Agency: Registered Waste Carriers http://www.ni-environment.gov.uk/waste-home/public_reg/reg-waste-carrier-transporter/carriers.htm
SEPA: Registered Waste Carriers http://www.sepa.org.uk/waste/waste_regulation/waste_carriers_and_brokers/who_is_registered.aspx
Licensed Waste Sites: Waste Directory <http://www.bremap.co.uk/>

SITE WASTE MANAGEMENT PLAN IMPLEMENTATION CHECKLIST

Checks – please tick ✓ yes or no	Yes	No
For offsite or disposal are all the waste destination details verified?	☐	☐
Has a waste segregation / collection area been prepared?	☐	☐
Has the waste area been adequately sign posted?	☐	☐
Has the Environmental file system been set up?	☐	☐
Have all necessary staff and sub-contractors had the SWMP transmitted?	☐	☐
Have all the SWMP training / induction procedures for staff been met?	☐	☐
Have all the SWMP training / induction procedures for sub-contractor/s been met?	☐	☐
Has the SWMP been approved by the Contracts Manager?	☐	☐

DISTRIBUTION & RESPONSIBILITIES

The Environmental Manager will distribute copies of this plan to the Client, Contracts Manager, Site Manager and Health and Safety Manager. The site manager will ensure that each Subcontractor where relevant/applicable will have a copy of the SWMP. This will be undertaken every time the plan is updated.

Position	Responsibility
Project Lead	Create and issue the SWMP for the project. Ensure that the SWMP is implemented and that the site personnel (including sub-contractors) are working to the SWMP. Appoint a member of the site management team to manage and update the SWMP.
Site Manager(s)	Implement the control requirements of the Site Waste Management Plan Maintain sufficient skips on site to facilitate effective recycling and removal of waste materials from site Maintain records of waste materials and how they are controlled Acquire copies of all Waste Transfer Notes Monitor the use of building materials to meet specified targets, and identify suitable materials for re-use Provide records of the waste controls and waste transfer notes for inspection by the EA and Russells H&S.
Environmental / H&S Manager	Audit site to be in compliance with Waste and Environmental legislative requirements and Russells Policies & Procedures are being met and adequate, realistic targets are being established.

INSTRUCTION & TRAINING

The Site Manager will provide on-site briefing via induction of appropriate separation, handling, recycling, re-use and return methods to be used by all parties and at appropriate stages of the project where applicable.

Toolbox talks will be carried out regularly on waste issues and all subcontractors will be expected to attend. This will ensure that everyone feels they are included and that their participation is meaningful.

CONTRACTOR SITE WASTE MANAGEMENT RULES

- Keep the site tidy and collect up your waste regularly.
- Store your materials in the designated area to prevent damage and loss.
- Reduce the amount of waste produced reusing larger cut-offs elsewhere, rather than disposing of and throwing away.
- Don't throw materials into the wrong skip.
- Don't contaminate one waste with another.
- Don't give any waste away, as all waste taken from site needs to be accompanied by the appropriate paperwork.
- If you have been given the responsibility for disposing of your own waste, you must provide evidence to the Site Manager that this has been carried out legally via waste carrier licences, waste transfer notes, etc.
- Don't burn waste on site – it is illegal.

DUTY OF CARE DECLARATION

All reasonable steps will be taken to ensure that the waste from this project will be dealt with in accordance with the waste duty of care in:			Person managing waste for the Project		
Section 34 of the Environmental Protection Act 1990		The Waste (England and Wales) Regulations 2011		Signature	
• Section 34 of the Act sets out a statutory Duty of Care for all those producing or dealing with waste		• A Waste Transfer Note must be completed for al transfers of waste.		Name	
• All producers of waste must ensure that waste is stored appropriately and only transferred to authorised carriers for disposal.					
• The Act places the responsibility of the disposal of the waste with the producer.				Date	
A Waste Transfer Note should contain a description of the waste, details of the transferee, the uplifter, carriers licence number or exemption and details of the place of transfer.					
All materials will be handled efficiently and waste managed appropriately.					

WASTE MANAGEMENT ON SITE

If waste materials cannot be salvaged through elimination, reduction or reuse, the materials must be recycled and disposed of through approved disposal and recycling companies only.

Where possible, skips will be segregated for timber, metal, plasterboard and general construction waste. Skips will be removed and replaced when full. The waste disposal company will segregate and recycle the waste and produce a monthly report showing the amount of material diverted from landfill. A separate skip will be maintained by the sub contactor for the disposal of plasterboard which must be kept separate. Recycling and waste bins are to be kept clean. It is envisaged that the only waste leaving site will be in the skips provided.

Asbestos waste must be removed by a trained and competent contractor in accordance with the current Asbestos Regulations. An Asbestos and Refurbishment Survey has been carried out prior to works starting on site.

Where chemicals are to be disposed of, arrangements should be made with the recycling and removal companies for any special handling requirements. Florescent tubes should be recycled through the M&E contractor, where the contractor undertakes his own recycling. The tubes shall be recorded as for any other waste material.

Empty paint cans should be considered as 'hazardous' and arrangements should be made through a specialised waste removal contractor to have the waste removed.

All costs for arranging hazardous waste, e.g. chemicals, paint, etc., should be recovered from the relevant sub-contractor who generated the waste. Alternatively, any sub-contractor generating hazardous waste materials may make their own arrangements for removal of that waste from a site, AS LONG AS APPROVED DOCUMENTATION CAN BE PRODUCED SHOWING THAT THE MATERIALS HAVE BEEN DISPOSED OF THROUGH A LICENCED RECYCLE STATION.

Some wastes, e.g. Lead, Asbestos and the materials identified as Hazardous Waste, have their own specific regulations which must be implemented in addition to the requirements of this Plan.

NOTE: - Copies of documentation regarding any waste materials removed from site by any sub-contractor must be provided to the Site Manager and recorded in the site Environmental file system.

All waste materials removed from site MUST be recorded on the waste register and MUST have a Transfer Note.

The Transfer Note MUST include:

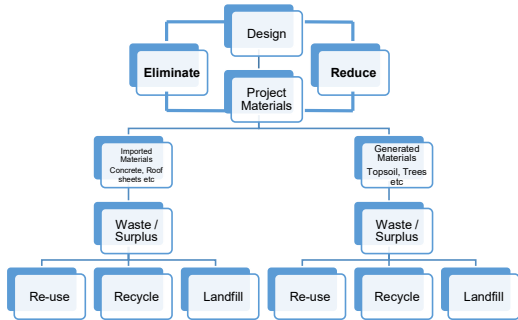
- a) Hierarchy of Waste
- b) What the waste is, how much there is and its 6-digit European Waste Code
- c) What sort of containers it is in
- d) The time, date and place the waste was transferred
- e) The names and addresses of both parties involved in the transfer
- f) Details of which category of authorised person each one is, e.g. producer, registered waste carrier, waste licence holder
- g) If either of the persons is a registered waste carrier, the certificate number of the registration
- h) If either of the persons has a waste management licence, the licence number of the facility
- i) Where appropriate, the name and address of any broker involved in the transfer of waste
- j) Signatures of both parties, and the transfer notes should be kept for a period of at least 2 years

PROJECT WASTE POLICY

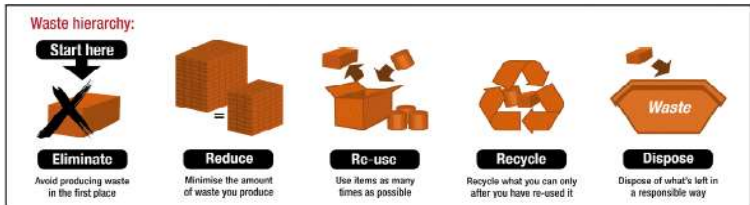
The Russells Ltd's Waste Management Policy is to:

- Meet all waste and environmental legislative requirements
- Identify the options to eliminate or control waste production associated with the company's activities.
- Identify the Company and sub-contractor activities which could produce waste
- Identify the types of waste that may be produced
- Identify the quantities of waste that may be produced
- Set measurable and realistic targets to be met
- Identify the control measures required to manage waste elimination and disposal
- Inform all relevant parties involved in the generation of waste of the control measures that must be followed
- Monitor and audit the control measures
- Review and adjust the Plan on a regular basis to take account of non-compliances, improvements and any changes to legislative requirements

WASTE MANAGEMENT CYCLE



WASTE HIERARCHY



Waste Chart



WASTE TARGETS & ACTUAL FIGURES (Tonnes)

Project Name	22798 - Rylands Building	Job Ref. No.	22798
Project Address	CD9 Properties (Manchester) Ltd,	Internal Floor Area	33400 m ²
	PO Box 296, Sarnia House Le Truchot,	Site Area	33400 m ²
	St Peter Port, Guernsey, GY1 4NA		

Person Responsible for Waste Management	Peter Girven
---	--------------

<u>Waste Contractor Details</u>	A	B	C	D	E	F
Contractor Name and Details	Reddish Vale (Soft Strip) Various - Please refer to Project Env. File					
Waste Carrier Registration Number	As above					
Expiry Date	As above					
Transfer Site / Recycling / Landfill Sites	Various - Please refer to Project Env. File					
Site Licence / Permit	As above					

Excavation / Demolition / Construction Waste (Tonnes)

[illegible]

Targets	Tonnes	Volume
Russells Company Waste Target per 100m ² Internal Floor Area (Weight/Volume)	6.50	7.53
Project Overall Waste Targeted based on Internal Floor Area	2171.00	2515.02
Non-Hazardous Construction Waste Diverted from Landfill Target (%)	90	80

<u>Overall Waste Figures (Tonnage)</u>	
Excavation Waste	0.00
Demolition Waste	0.00
Construction Waste	0.00
Landfill	0.00

Total non-hazardous construction waste / 100m2	0.00
Total Non-Haz Contruction Waste Diverted From Landfill (%)	#DIV/0!
Total Waste Diverted From Landfill (%)	#DIV/0!

EWC Code	Types of Waste Arising
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and Ceramics
17 01 07	Mixture of Concrete/Bricks/Tiles&Ceramics
17 01	Inert
17 02 01	Timber
17 02 02	Glass
17 02 03	Plastic
17 03	Asphalt & Tar
17 04 07	Mixed Metals
17 05 04	Soils
17 06 04	Insulation
17 08 02	Gypsum
17 09 03	Hazardous Waste
17 09 04	Mixed Construction & Demolition Waste
08 01 12	Waste Paint & Varnish (Non-Haz)
13 01 13	Oils
15 01 06	Packaging
16 02	Electrical and Electronic Equipment
16 10 02	Liquids
20 01 11	Floor Coverings (Soft)
20 03 01	Canteen/Office/Adhoc Waste
20 03 07	Furniture
08 01 21	Sodium Hydroxide, Solid
12 01 16	Lead Paint - Grit Blasting
-	Empty
-	Empty

CONSTRUCTION

DEMOLITION

EXCAVATION

OVERALL WASTE FIGURES (TONNAGE)

[illegible]

Rylands Building
109 – 127 Market Street
Manchester.
M60 1TA



Contractors Task Method Statement.

For Demolition

By: Peter Cresswell
Date: 24/02/2023
Rev: Rev A

i) Introduction / Context

a.

Russells WBHO Ltd has been commissioned by AM Alpha Ltd to undertake works to refurbish and extend the Rylands Building located on Market street in Manchester, within the building and to the façade and roof areas. The extant building group includes a grade-II listed structure, which is built of a reinforced concrete & steel frame covered with a masonry & stone façade envelope with concrete floor construction.

b.

The investigations and subsequent conservation-led repairs will enable the future use of the building group in accord with the approved Planning Permission and Listed Building Consent. The detailed specifications and implemented works will secure the future performance and lasting repair of the structural components of the building to facilitate its sustainable use.

c.

The works will require some intrusive investigations to better understand the condition and the physical dimensions of some of the building components which are to be repaired. Where possible non-destructive means will be used to gain a full understanding of the building's structure, to confirm the proposed conservation repairs.

d.

Prior to works being carried out on site, methodologies will be prepared in consultation with the appointed design team, and specialist sub-contractors to provide full details of the extent of the works and the working methods to be utilised.

The key areas covered within this document are:

- Demolition activities.

ii) Overview

a.

Demolition and structural alterations are required within the building in order to facilitate the main works. These can be split into 6 main categories:

1. Rooftop structure removal & alterations
2. Suspended slabs (including beam, column & stair/lift core removal)
3. Jacketing works to remove concrete from existing internal columns
4. Removal of perimeter internal masonry to column encasements
5. Ground bearing slabs to B1 & B2
6. Foundation removal

b.

The proposed works will be undertaken by a competent specialist sub-contractor following a careful selection process.

The selected Sub-contractor will be advised in due course if required.

Demolition.

iii) Design Team Information

a) The demolition works shall be undertaken in line with the following information.

Design team documents are to be appended to this document:

- Woolgar Hunter Demolition drawings
- Woolgar Hunter Demolition Specification
- Woolgar Hunter Structural Inspection Scope
- Jeffrey Bell Architects Demolition Plans & Elevations

iii) Design Team Information – Structural

Woolgar Hunter Structural engineer (Appendix A)

Organisation	Drawing No	Rev	Title	Purpose
Woolgar Hunter	RYLANDS-WHL-XX-FN-DR-S-17-0996	P06	Foundation Layout Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-B2-DR-S-00-0997	P07	SUB-BASEMENT Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-B1-DR-S-00-0998	P07	BASEMENT Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-00-DR-S-00-0999	P07	GROUND FLOOR Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-MZ-DR-S-00-1000	P07	Mezzanine Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-01-DR-S-00-1001	P07	L01 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-02-DR-S-00-1002	P07	L02 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-03-DR-S-00-1003	P07	L03 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-04-DR-S-00-1004	P07	L04 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-05-DR-S-00-1005	P07	L05 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-06-DR-S-00-1006	P07	L06 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-07-DR-S-00-1007	P07	L07 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-08-DR-S-00-1008	P07	L08 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-09-DR-S-00-1009	P05	L09 Existing	Proposed
Woolgar Hunter	RYLANDS-WHL-XX-ZZ-DR-S-3420	P05	Slab infill details	Proposed
Woolgar Hunter	19602-WHL-XX-XX-SP-S-0012	P02 (V1.10)	Demolition Specification	Formal Issue
Woolgar Hunter	RBM-WHL-XX-XX-SP-S-0015	V1.20	Structural Inspection Tender Reduced Scope	Tender

iii) Design Team Information – Architectural

Jeffrey Bell Architects (Appendix B)

Organisation	Drawing No	Rev	Title	Purpose
JBA	1526_AL[03]100	A	PROPOSED DEMOLITION PLAN SUB BASEMENT	Design intent Stage 4A
JBA	1526_AL[03]101	A	PROPOSED DEMOLITION PLAN BASEMENT	Design intent Stage 4A
JBA	1526_AL[03]102	A	PROPOSED DEMOLITION PLAN GROUND	Design intent Stage 4A
JBA	1526_AL[03]103	A	PROPOSED DEMOLITION PLAN MEZZANINE	Design intent Stage 4A
JBA	1526_AL[03]104	A	PROPOSED DEMOLITION PLAN FIRST FLOOR	Design intent Stage 4A
JBA	1526_AL[03]105	A	PROPOSED DEMOLITION PLAN SECOND FLOOR	Design intent Stage 4A
JBA	1526_AL[03]106	A	PROPOSED DEMOLITION PLAN THIRD FLOOR	Design intent Stage 4A
JBA	1526_AL[03]107	A	PROPOSED DEMOLITION PLAN FOURTH FLOOR	Design intent Stage 4A
JBA	1526_AL[03]108	A	PROPOSED DEMOLITION PLAN FIFTH FLOOR	Design intent Stage 4A
JBA	1526_AL[03]109	A	PROPOSED DEMOLITION PLAN SIXTH FLOOR	Design intent Stage 4A
JBA	1526_AL[03]110	A	PROPOSED DEMOLITION PLAN SEVENTH FLOOR	Design intent Stage 4A
JBA	1526_AL[03]111	B	PROPOSED DEMOLITION PLAN ROOF	Design intent Stage 4A
JBA	1526_AL[03]112	A	PROPOSED DEMOLITION ELEVATION A SOUTH	Design intent Stage 4A
JBA	1526_AL[03]113	A	PROPOSED DEMOLITION ELEVATION B EAST	Design intent Stage 4A
JBA	1526_AL[03]114	A	PROPOSED DEMOLITION ELEVATION C NORTH	Design intent Stage 4A
JBA	1526_AL[03]115	A	PROPOSED DEMOLITION ELEVATION D WEST	Design intent Stage 4A

iv) Implementation Methodology

a)

Prior to any work commencing the RWBHO team will brief all operatives on the approved Task Method Statements. All site operatives will be made aware of the Heritage significance of the building group and specifically those elements affected by their planned works. This aspect will also be covered in the pre-start induction and relevant activity briefings.

b)

Individual Task Method Statements should include a detailed description (if necessary, including sample photographs of typical / similar works) to enable the client team to fully understand the extent of works to be undertaken. This should include:

1. **Location of the works** – marked up drawings to be provided of the work locations. Where possible photos of the actual work area suitably marked up should be provided as part of the Contractor's Methodology.
2. **Description of the works to be undertaken**, including whether material is to be removed as part of the investigations and how this will be recorded and transported from the work area.
3. **The materials and specification of the repair/reinstatement works.**
4. **Equipment** – Details of the equipment required to undertake the works included where necessary proof of calibration of testing equipment.
5. **Attendances required** – to include lighting power, ventilation, communications and access.

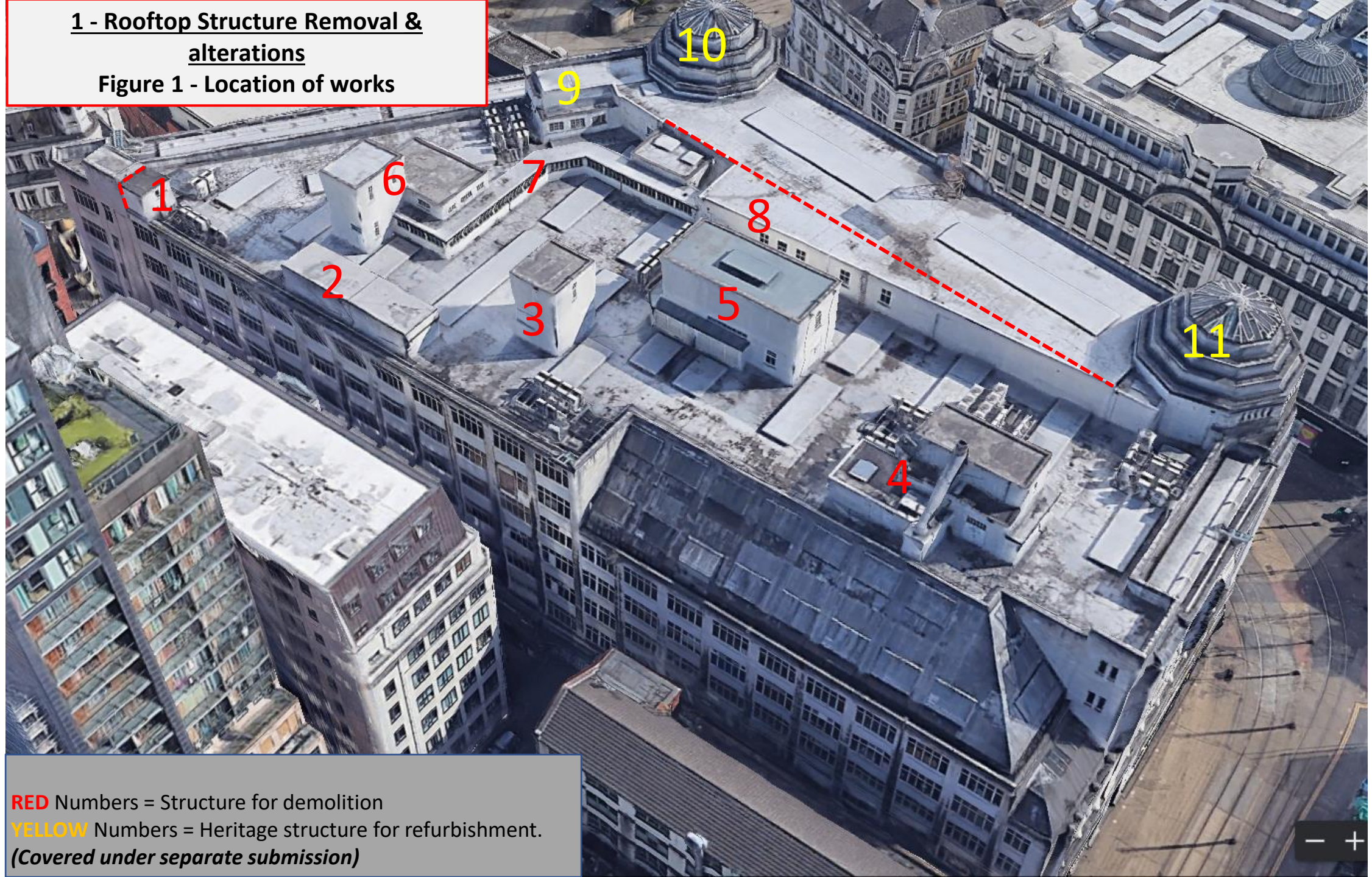
iv) Implementation Methodology

The following key elements will be described below.

1. Rooftop structure removal & alterations
2. Suspended slabs (including beam, column & stair/lift core removal)
3. Jacketing works to remove concrete from existing internal columns
4. Removal of perimeter internal masonry to column encasements
5. Ground bearing slabs to B1 & B2
6. Foundation removal

1 - Rooftop Structure Removal & alterations

Figure 1 - Location of works



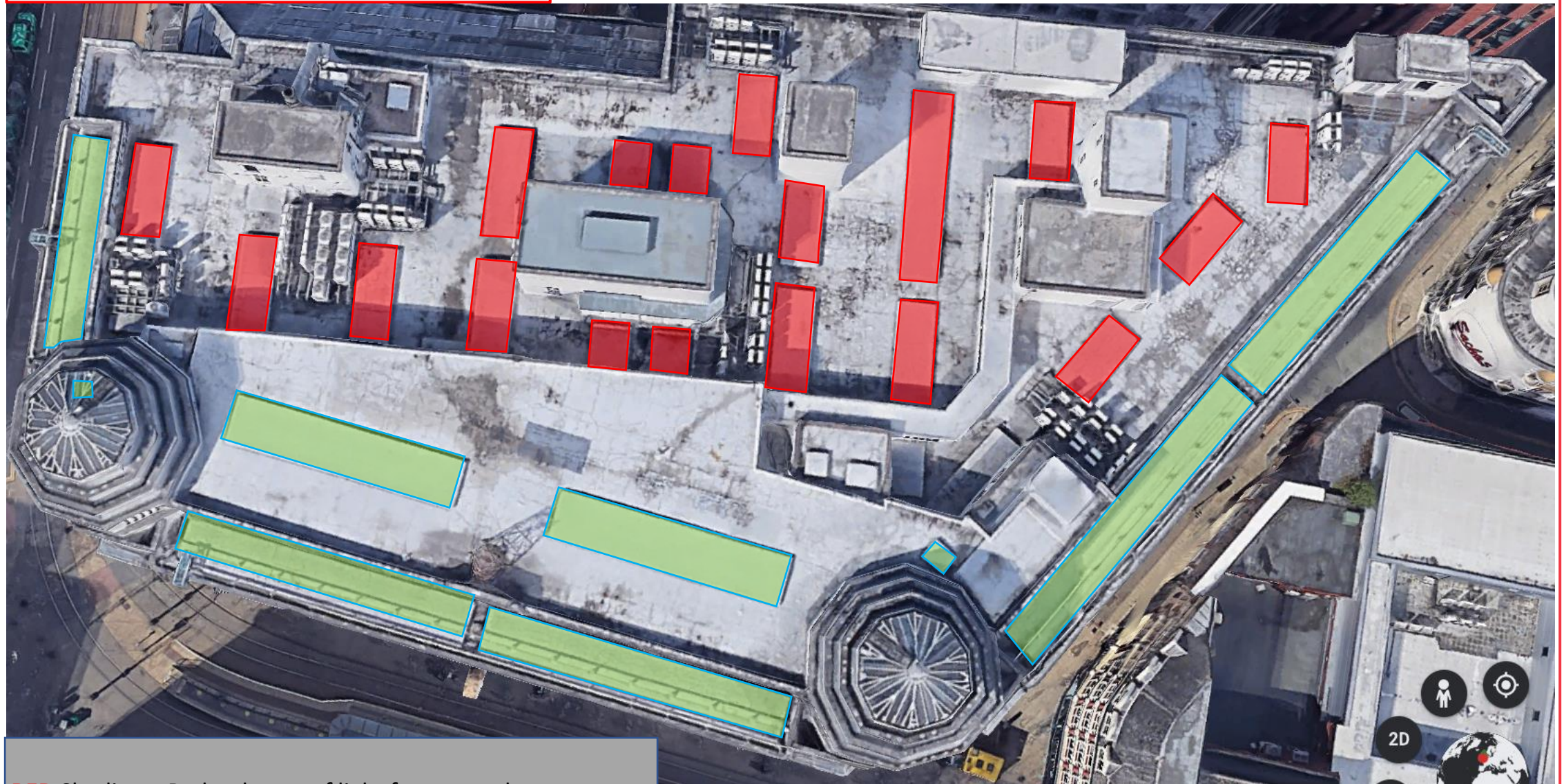
RED Numbers = Structure for demolition

YELLOW Numbers = Heritage structure for refurbishment.

(Covered under separate submission)

1 - Rooftop Structure Removal & alterations

Figure 2 - Location of works



RED Shading = Redundant roof light for removal
GREEN Shading = Roof light for refurbishment

Description of works to be undertaken

All rooftop structures as indicated in the previous pages from the 7th floor Structural Slab Level are to be removed in their entirety. This will include the following elements:

- Brickwork masonry infill walls
- Concrete encased steel beams & columns
- Reinforced concrete slabs
- All roof coverings
- Identified glass block redundant roof light structures

Sequence of works:

Generally the structures will be removed in numerical order as noted in Figure 1 & 2 above. These may be overlapped for programme purposes.

- Scaffolding will be erected to the perimeter of each structure as required
- Internal crash decks will be fitted
- Operatives will utilise a range of mechanical and handheld equipment to remove sections of masonry, concrete & steel.
- A drop shaft will be created within one of the existing lift shafts (scheduled for removal later in the works)
- Rubble and debris will be removed to the drop shaft as it is produced so as to maintain a clean & tidy work zone.
- Sections of steel and large items will be carefully lowered to ground floor loading bay by the hoist.
- Scaffold & crash decks removed & re-erected at next location
- All remaining voids will receive edge protection.

Heritage considerations: (covered under separate method statements)

- The existing North & East façade walls adjacent to location 1 (shown in Figure 1) will receive temporary works to protect until incorporated in to the extension works.
- The existing Level 7 dining room adjacent to location 8 (shown in Figure 1) will receive temporary works and weather protection to protect until incorporated in to the main works.

Repair & reinstatement works

For demolished Structures:

- It is not envisaged that any of these structures will require a strategy for reinstatement or repair.

Proposed Plant & Equipment

It is envisaged that the following items of plant & equipment will be used. (Numbers to suit requirements)

- Mobile Crane (from street level) as required.
- BROKK 170 (remote operated breaker)
- 1t Bobcat for rubble movement
- Materials hoist
- Scaffolding for access, safety platforms & handrails
- Petrol cut off saws
- Gas cutting equipment (for steel & rebar removal)
- Hand tools
- PPE as required
- Task lighting as required
- Water dust suppression as required
- Skips

The sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

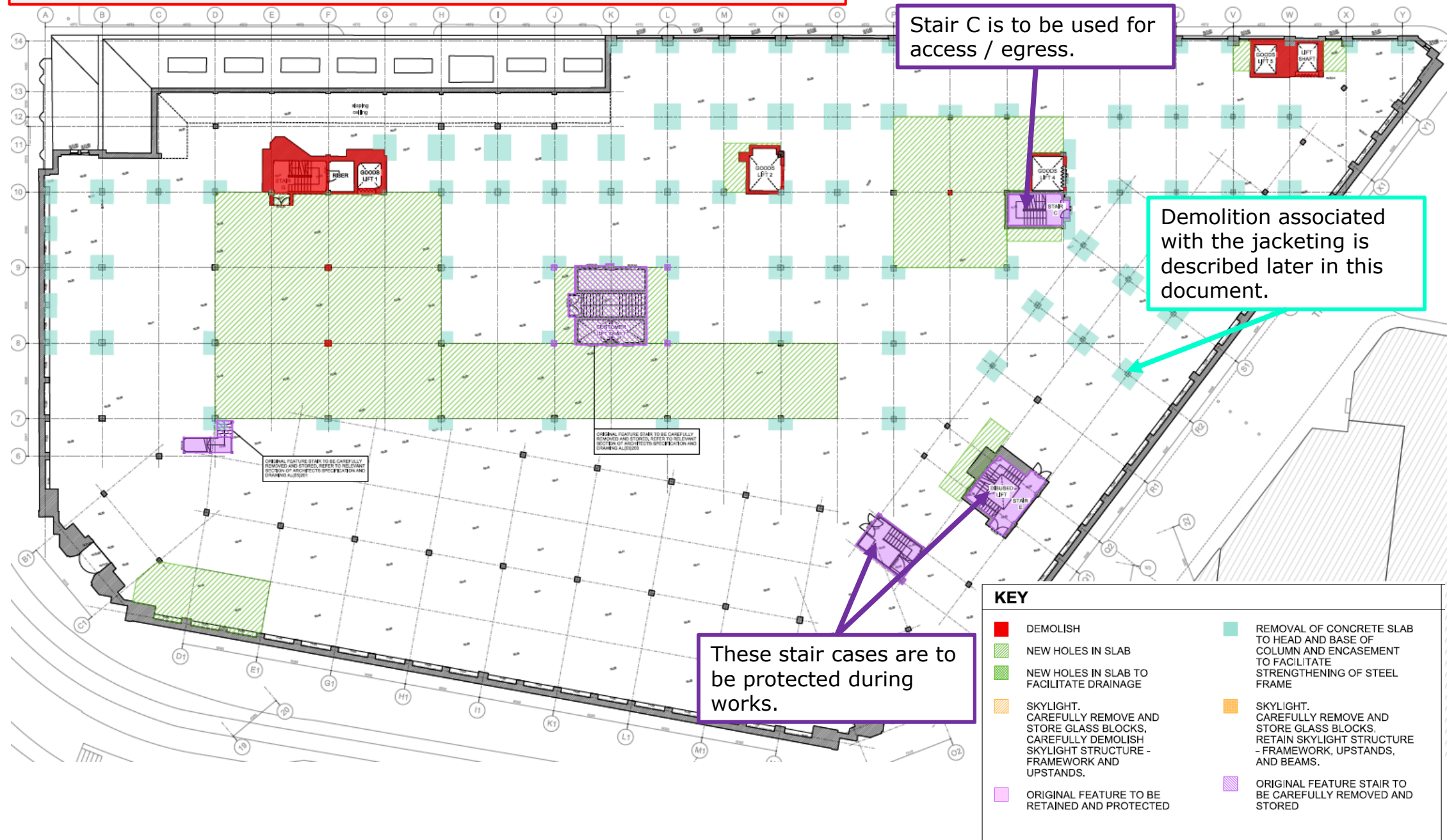
Attendances

The proposed following attendances will be required to undertake the demolition works.

- Welfare (mess facilities, WC's, changing & drying, secure entry gate)
 - Scaffold access platforms & handrails
 - Supervision
 - Contract lift crane visits as required for plant movements and removal of heavy / large items
 - Safety lighting
 - WES+ fire alarm system
 - Fire extinguishers
 - Walkie talkie radios
 - Segregated waste removal
 - Vibration Monitoring
- The Main Contractor & sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

2 – Suspended slabs (including beam, column & stair/lift core removal)

Figure 3 – Typical upper floor.



2 – Suspended slabs (including beam, column & stair/lift core removal)

Description of works to be undertaken

Slabs, beams, columns, lift shafts, staircases, and risers are to be removed on each level from B1 to level 7 as shown in the appended Woolgar Hunter and Jeffrey Bell Architects drawings and information.

This will include the removal of the following elements.

- Brickwork masonry infill walls
- Concrete encased steel beams & columns
- Reinforced concrete slabs & stair structure
- Steel stair structure

Sequence of works:

Generally the features will be removed from top to bottom (i.e. 7th floor working down) The following general sequence will be adopted on each level:

- Heritage features will be either carefully removed to storage or protected as required.
- Handrails will be erected to the perimeter of each proposed void
- Internal crash decks will be fitted to the floor below
- Operatives will utilise a range of mechanical and handheld equipment to remove sections of masonry, concrete & steel.
- The drop shaft (as used in the roof structure removal work) will be utilised for waste clearance
- Rubble and debris will be removed to the drop shaft as it is produced so as to maintain a clean & tidy work zone.
- Sections of steel and large items will be carefully lowered to ground floor loading bay using the hoist.
- Scaffold & crash decks removed & re-erected at next location
- Handrails retained for edge protection.

Heritage considerations: (covered under separate method statements)

- The existing staircase including column encasements, feature lift door sets and isolated features within the main lift core GL 8-9/J-L will be carefully removed to storage before demolition works commence.
- The stair between GL 6-7/C-E will be carefully removed to storage before demolition works commence.

2 – Suspended slabs (including beam, column & stair/lift core removal)

Repair & reinstatement works

For Structural alterations:

- It is not envisaged that any of the features being removed will require a strategy for reinstatement or repair.

Proposed Plant & Equipment

It is envisaged that the following items of plant & equipment will be used. (Numbers to suit requirements)

- Spider Crane (from level above) as required.
- Large petrol clipper saw
- BROKK 170 (remote operated breaker)
- 1t Bobcat for rubble movement
- Materials hoist
- Scaffolding for access, safety platforms & handrails (as required)
- Petrol cut off saws
- Gas cutting equipment (for steel & rebar removal)
- Hand tools
- PPE as required
- Task lighting as required
- Water dust suppression as required
- Skips

The sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

Attendances

The proposed following attendances will be required to undertake the demolition works.

- Welfare (mess facilities, WC's, changing & drying, secure entry gate)
 - Scaffold access platforms & handrails
 - Supervision
 - Safety lighting
 - WES+ fire alarm system
 - Fire extinguishers
 - Walkie talkie radios
 - Segregated waste removal
 - Vibration Monitoring
-
- The Main Contractor & sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

3 – Jacketing works to remove concrete from existing internal columns

Figure 4 – General view of internal columns.



Description of works to be undertaken

Removal of concrete fire protection encasement for all columns identified in the appended drawings.

This will include the removal of the following elements.

- Careful removal of the timber skirting.
- Careful removal of dado rail.
- Un-reinforced concrete encasements
- Feature plaster details (if applicable)
- Isolated slab removals to facilitate reinstatement & strengthening works

Sequence of works:

Generally, the columns will be undressed as programme dictates. The concrete encasement is a non-structural element and does not affect the stability of the building.

The following general sequence will be adopted on each level:

- Heritage features will be either carefully removed to storage or protected as required.
- Handrails will be erected to the perimeter of each proposed void
- Operatives will utilise a range of mechanical and handheld equipment to remove sections of concrete.
- The drop shaft (as used in the roof structure removal work) will be utilised for waste clearance
- Rubble and debris will be removed to the drop shaft as it is produced so as to maintain a clean & tidy work zone.
- Scaffold / access equipment will be re-located to the next location
- Handrails retained for edge protection.

Heritage considerations: (covered under separate method statements)

- The existing skirting boards, dado & feature plaster will be removed to storage and replaced to suit the architects requirements.

3 – Jacketing works to remove concrete from existing internal beams & columns

Repair & reinstatement works

For Structural alterations:

- It is not envisaged that any of the features being removed will require a strategy for reinstatement or repair.

Proposed Plant & Equipment

It is envisaged that the following items of plant & equipment will be used. (Numbers to suit requirements)

- Spider Crane (from level above) as required.
- Large petrol clipper saw
- BROKK 170 (remote operated breaker)
- 1t Bobcat for rubble movement
- Materials hoist
- Scaffolding for access, safety platforms & handrails (as required)
- Petrol cut off saws
- Hand tools
- PPE as required
- Task lighting as required
- Water dust suppression as required
- Skips

The sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

Attendances

The proposed following attendances will be required to undertake the jacketing works.

- Welfare (mess facilities, WC's, changing & drying, secure entry gate)
 - Scaffold access platforms & handrails
 - Supervision
 - Safety lighting
 - WES+ fire alarm system
 - Fire extinguishers
 - Walkie talkie radios
 - Segregated waste removal
-
- The Main Contractor & sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

4 – Removal of perimeter internal masonry to column encasements

Figure 5 – General perimeter columns

Existing windows to be removed & disposed of.
(level Grd – 6 only)

Skirting board to be carefully removed.



Description of works to be undertaken

Removal of masonry encasement for all columns identified in the appended drawings.

This will include the removal of the following elements.

- Careful removal of the timber skirting.
- Careful removal of dado rail (if applicable).
- Masonry column encasements (as per detail)
- Feature plaster details (if applicable)
- Isolated slab removals to facilitate reinstatement & strengthening works

Sequence of works:

Generally, the columns will be undressed as programme dictates. The masonry is a non-structural element and does not affect the stability of the building or facade.

The following general sequence will be adopted on each level:

- Heritage features will be either carefully removed to storage or protected as required.
- Handrails will be erected to the perimeter of each proposed void
- Operatives will utilise handheld equipment to remove masonry.
- Recovered full bricks will be retained for future re use.
- The drop shaft (as used in the roof structure removal work) will be utilised for waste clearance
- Rubble and debris will be removed to the drop shaft as it is produced so as to maintain a clean & tidy work zone.
- Scaffold / access equipment will be re-located to the next location
- Handrails retained for edge protection.

Heritage considerations: (covered under separate method statements)

- The existing skirting boards, dado & feature plaster will be removed to storage and replaced to suit the architects requirements.

4 – Removal of perimeter internal masonry to column encasements

Repair & reinstatement works

For Structural alterations:

- It is not envisaged that any of the features being removed will require a strategy for reinstatement or repair.

Proposed Plant & Equipment

It is envisaged that the following items of plant & equipment will be used. (Numbers to suit requirements)

- 1t Bobcat for rubble movement
- Materials hoist
- Scaffolding for access, safety platforms & handrails (as required)
- Petrol cut off saws
- Hand tools
- PPE as required
- Task lighting as required
- Water dust suppression as required
- Skips

The sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

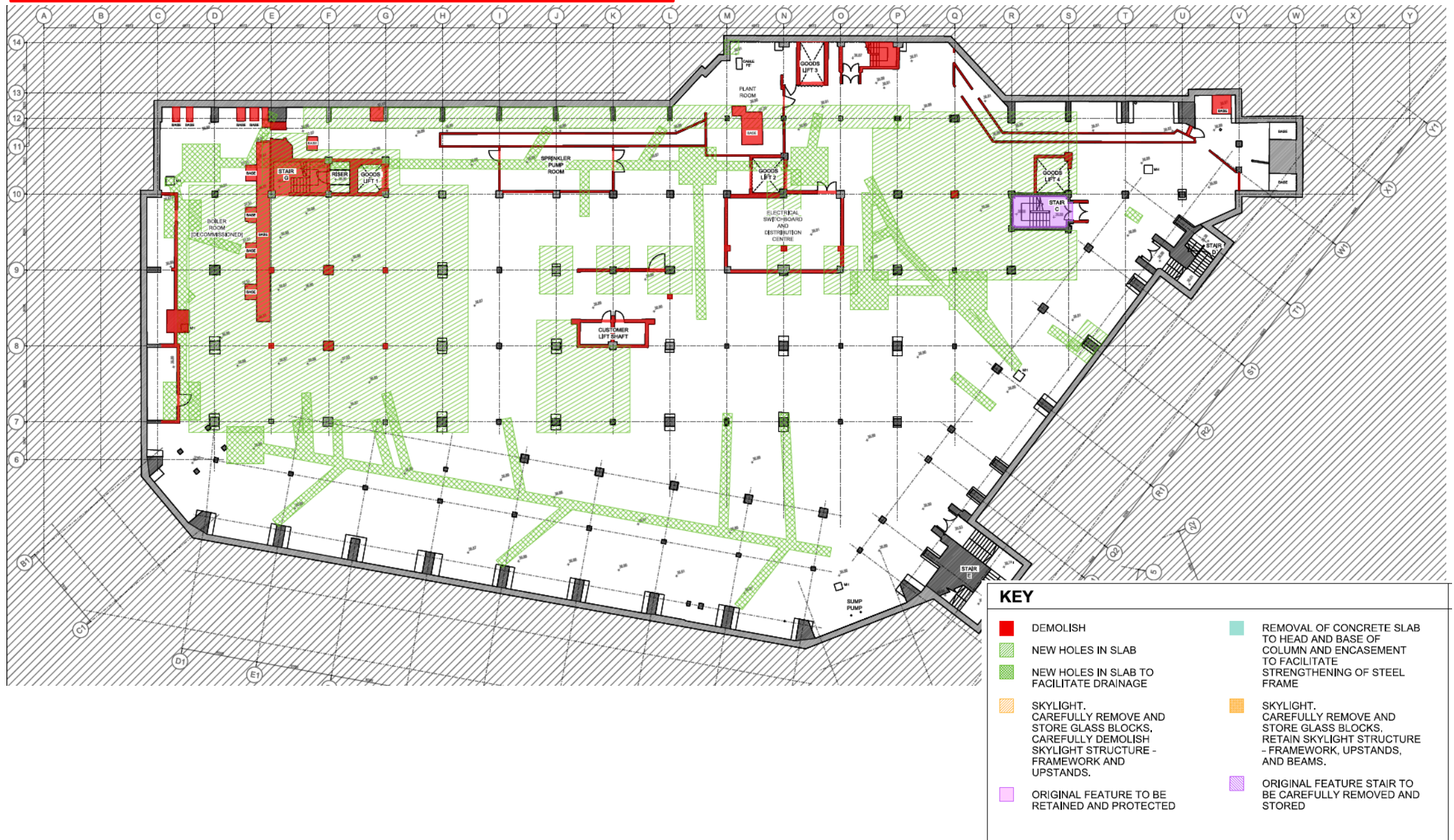
Attendances

The proposed following attendances will be required to undertake the structural alteration works.

- Welfare (mess facilities, WC's, changing & drying, secure entry gate)
 - Scaffold access platforms & handrails
 - Supervision
 - Safety lighting
 - WES+ fire alarm system
 - Fire extinguishers
 - Walkie talkie radios
 - Segregated waste removal
-
- The Main Contractor & sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

5 – Ground bearing slabs to B1 & B2

Figure 6 – Slab removal at B2 level



Description of works to be undertaken

All Ground bearing Slabs as indicated in the appended information (and as noted in Figure 6) are to be removed. (beams, columns, lift shafts, staircases, and risers are to be removed as per item 2 above)

This will include the removal of the following elements.

- Reinforced concrete slabs

Sequence of works:

Generally the slabs will be removed as dictated by the programme but will follow the following sequence:

- Handrails will be erected to the perimeter of each proposed excavations.
- Operatives will utilise a range of mechanical and handheld equipment to remove sections of concrete & steel reinforcement.
- Rubble and debris will be removed to the adjacent conveyor as it is produced so as to maintain a clean & tidy work zone.
- Sections of steel and large items will be carefully lifted to ground floor loading bay using the hoist.
- Handrails retained for edge protection.

Heritage considerations: (covered under separate method statements)

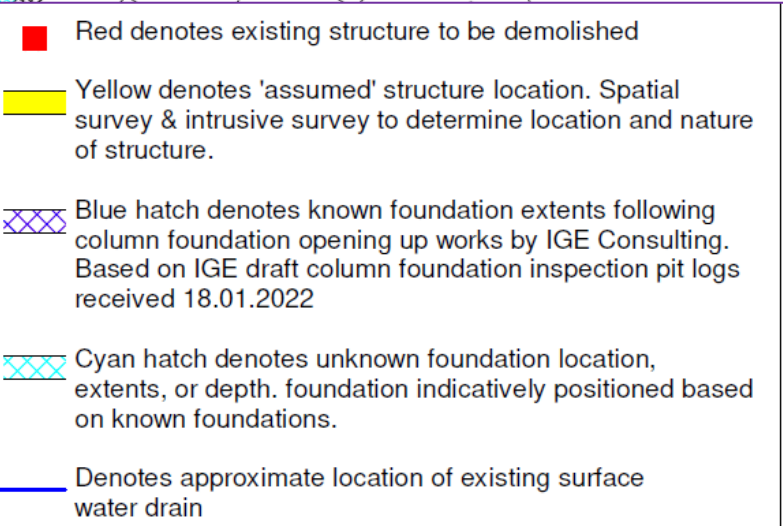
- There are no items for heritage consideration within B1 or B2.

Attendances

The proposed following attendances will be required to undertake the structural alteration works.

- Welfare (mess facilities, WC's, changing & drying, secure entry gate)
 - Scaffold handrails
 - Supervision
 - Safety lighting
 - WES+ fire alarm system
 - Fire extinguishers
 - Walkie talkie radios
 - Segregated waste removal
 - Vibration Monitoring
-
- The Main Contractor & sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

Figure 7 – Foundation removal



Description of works to be undertaken

All foundations as indicated in the appended information (and as noted in Figure 7) are to be removed. This will include the removal of the following elements.

- Reinforced concrete bases
- Steel grillage

Sequence of works:

Generally the slabs will be removed as dictated by the programme but will follow the following sequence:

- Handrails will be erected to the perimeter of each proposed excavations.
- Operatives will utilise a range of mechanical and handheld equipment to remove sections of concrete & steel reinforcement.
- Rubble and debris will be removed to the adjacent conveyor as it is produced so as to maintain a clean & tidy work zone.
- Sections of steel and large items will be carefully lifted to ground floor loading bay using the hoist.
- Handrails retained for edge protection.

Heritage considerations: (covered under separate method statements)

- There are no items for heritage consideration within B1 or B2.

Attendances

The proposed following attendances will be required to undertake the structural alteration works.

- Welfare (mess facilities, WC's, changing & drying, secure entry gate)
 - Scaffold handrails
 - Supervision
 - Safety lighting
 - WES+ fire alarm system
 - Fire extinguishers
 - Walkie talkie radios
 - Segregated waste removal
 - Earthwork support as required.
 - Vibration Monitoring
- The Main Contractor & sub-contractors task-specific RAMS will detail the proposed provision in greater detail. These will be available upon request prior to the task commencing.

v) Recording

- a.
A full condition survey of each level of the building has been undertaken and is available upon request.
- b.
Whilst works are ongoing progress reports and photographs will be taken and recorded for Quality Assurance purposes in line with the Russell WBHO procedures. These are available upon request.

vi) Protection

- a.
Surrounding heritage protected finishes will be kept safe and free from damage. Specific information relating to protection of the specific items is covered under separate methodology.
- b.
The only element of existing heritage importance that need to be protected are:
- The heritage stair on level 5 to 6, including column surrounds and lift doors and architraves
 - Heritage stair level 6 -7
 - Heritage Stair core 3
 - Level 7 heritage area
 - Additional items as noted in the SLHA heritage report.

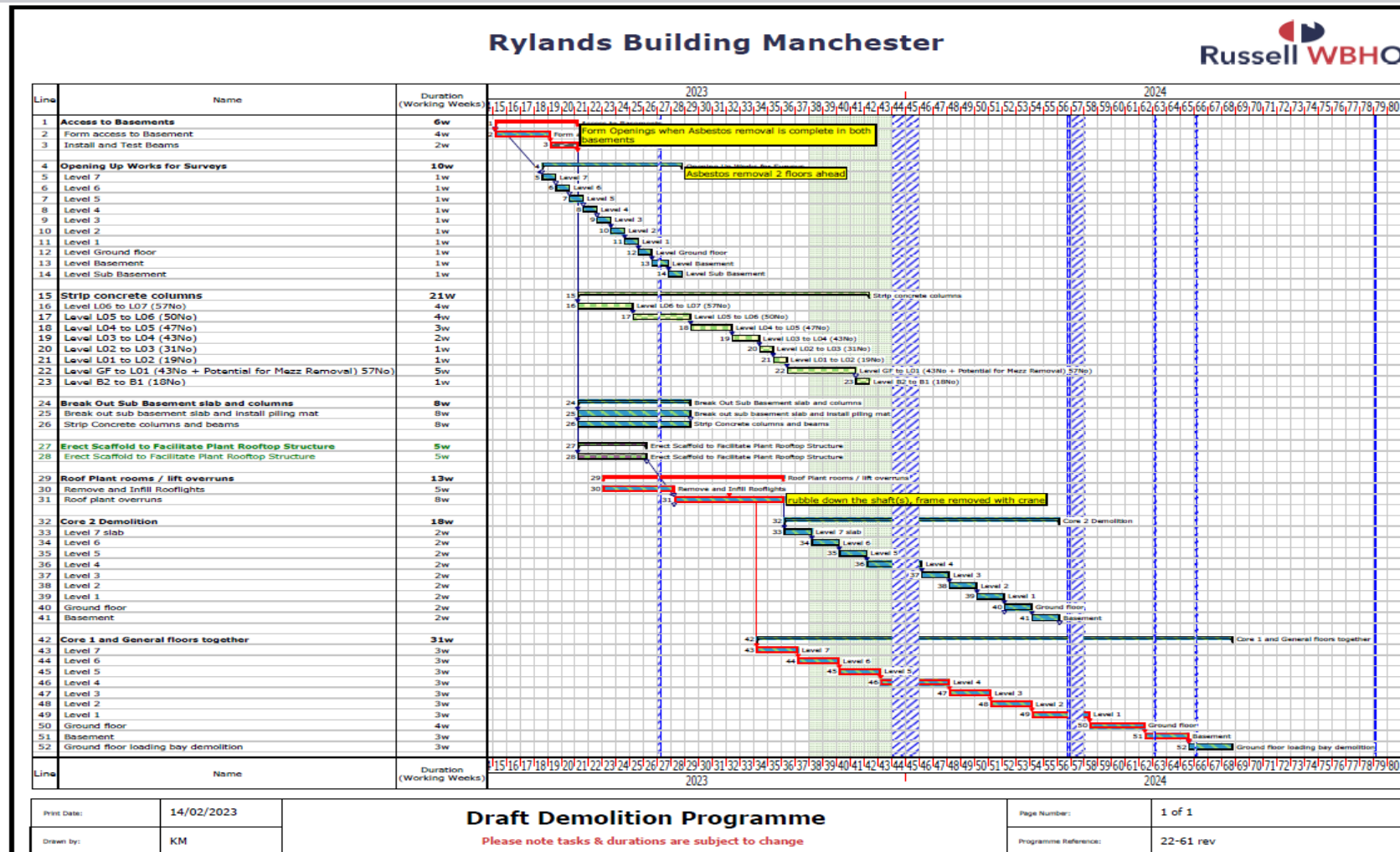
vii) Re-instatement Proposals

- a.
 - All of the demolition works will be undertaken to enable the development of the project.
 - It is not anticipated that any reinstatement or repair will be required following the structural alterations and demolition works described above.

viii) Construction Programme

a.

The programme of works is as follows: (This may be subject to change to suit project constraints)



ix) Competency of those involved

- a.
- All operatives working on the project will be required to attend a site induction led by Russell WBHO before starting work.
 - All operatives will be required to hold a valid current CSCS card and competence cards suitable to their trade and the equipment they are using.
 - All operatives will be required to sign up to the approved Risk Assessment and Method Statement prior to starting work.
 - All work operations will be overseen by a supervisor working directly for the sub-contractor and by Russell WBHO Site / Project management
 - All work activities will be reviewed at regular intervals by Russell WBHO safety team to ensure safe working practices in accordance with the approved RAMS.

b.

Where additional competence is required this will be noted accordingly.

x) Technical compliance

- a.
The Specialist Sub-contractors Task Method Statement should refer to the relevant technical compliance required the following trades:
- b.
- Scaffolding erection for crash decks as per the Russell WBHO temporary works design and sign-off procedure.
 - The temporary works procedures and the temporary works design for this element will be made available on request.
 - HSE guidance documents
 - British standard for demolition
 - Federation of Demolition Contractors
- c.
The Specialist sub-contractor's RAMS & Health and Safety information will be made available upon request.
- d.
Plant & Equipment:
- As noted above.

xi) Management of Heritage Risks

a.

The Specialist Sub-Contractors Task Method Statement should note identified heritage risks associated with the specific task and how they shall be managed throughout the duration of the works.

- There are no other elements of risk to heritage items that have not already been discussed within this document.

xii) Supervision & monitoring of work.

a.

Russell WBHO will provide supervision as required to undertake the works in a safe manner. In brief this will comprise of but not be limited to the following:

- 1 No. Contracts manager – Occasional site visits and high level review of works and safety procedures.
- 1 No. Project manager – Regular site visits and in depth review of works and safety procedures.
- 1 No. Site manager – Multiple Daily site visits and intimate knowledge of works and safety procedures.
- 1 No. Assistant site manager – Multiple Daily site visits and knowledge of works and safety procedures.
- 1 No. Site Operative – Based on site and responsibility for implementing cleanliness requirements and general tasks.

b.

All specialist Sub-contractors will also provide supervisors for each of their teams.

This will be in the form of either working or non working foreman. They will be responsible for implementing the works safely and in accordance with the drawings and approved Risk Assessment and Method Statement.

c.

Each specialist sub-contractor associated with the works will be required to undertake Quality Assurance to ensure that the works have been undertaken in accordance with the drawings and specification and to prove (if required) that suitable working standards have been met without the need for possible destructive investigations.

xiii) Environmental

- a.
The environmental protection for all operatives:
Russell WBHO require all operatives to have a minimum 4-point Personal Protective Equipment (PPE): Hard Hat, Hi-Viz, Gloves, Safety boots.
- b.
- Additional PPE specific to the specific tasks (e.g. harnesses, coveralls, RPE) should be also highlighted in the Task Method Statements and worn to suit.

xiv) Dust

a.

It is likely that works to remove concrete in the various locations will generate a significant level of airborne dust.

- Sub-Contract RAMS will detail the control and mitigation measures necessary to ensure dust and in particular silicates are suitably managed to ensure the safety of operatives and building users.
- Russell WBHO will ensure strict adherence to the approved RAMS.

b.

Any requirements for extract ventilation will be noted within the specific Sub-Contract RAMS and implemented if required.

xiv) Temperature & Humidity

a.

The environmental conditions within the building will be monitored. If conditions of temperature, humidity, cleanliness etc become an issue they will be addressed as and when required.

- It is not anticipated that there will be any issues with temperature or humidity during the works.
- Cleanliness of the work zones will be continuously monitored and a standard maintained.
- If work areas become untidy, Russell WBHO management will issue a 'Stop & Tidy up' notice.

xvi) Approval, Review & Briefing

- a.
Russell WBHO will ensure that activity specific Health & Safety method statements for each works operation will be prepared by the sub-contractor appointed to carry out the works. These will be reviewed for approval. Only once approved will the sub-contractor be permitted to commence works operations.
- b.
Where relevant and applicable to a Planning Condition or Listed Building Condition the sub-contractor's Task Method Statements will be submitted to Manchester City Council for approval. This could result in some delay in sign-off for commencement of particular tasks.
- c.
All operatives working with the Task Method Statement will be fully briefed on the document and will sign a briefing sheet to confirm their understanding.
- d.
Regular activity briefings will be issued to the operatives by the Specialist Contractors Supervisors and [insert lead contractor's name] Managers to identify any changes from the previous day and health and safety issues or any changes to the heritage considerations.

Protection of specific heritage items on the 7th & 6th floor.

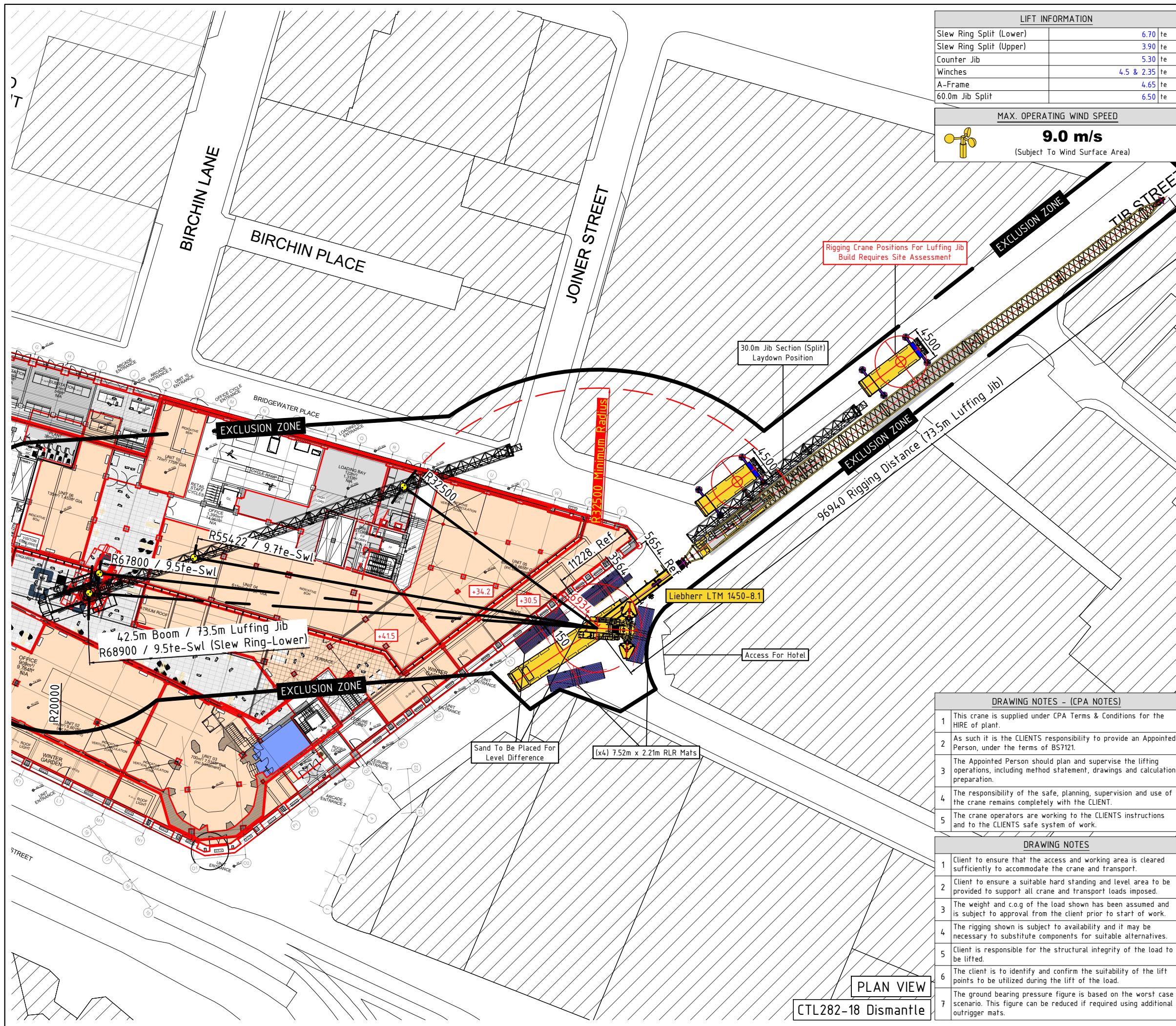
7th floor heritage area.

Staircase 6th to 7th floor.

Staircase 5th to 6th floor.

Column encasements 5th & 6th Floor.

Stair 3.



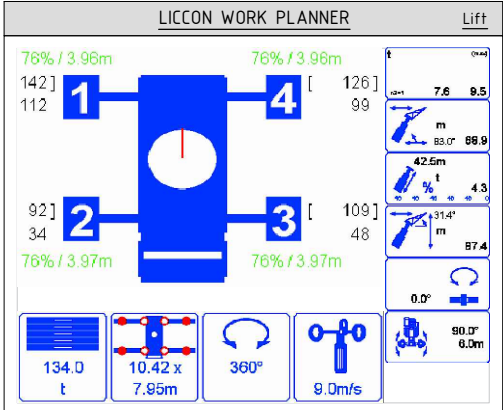
LIFT INFORMATION		
Slew Ring Split (Lower)	6.70	te
Slew Ring Split (Upper)	3.90	te
Counter Jib	5.30	te
Winches	4.5 & 2.35	te
A-Frame	4.65	te
60.0m Jib Split	6.50	te

MAX. OPERATING WIND SPEED		
	9.0 m/s	(Subject To Wind Surface Area)

MAIN CRANE DATA (DIN ISO 75%)	
Crane Model:	Liebherr LTM 1450-8.1
Lifting Configuration:	TN
Outrigger Base Centres:	10.42 x 7.95 m
Counterweight:	134.00 te
Main Boom Length: (x.x°)	42.5 m
Telescopic Sections:	46 46 46 46 0 %
Adaptor:	X m
Jib Length: (x.x°)	73.5 m
Hookblock Type: (SWL)	12.4 te
Outrigger Mats:	X m
Additional Mats:	7.52 x 2.21 m

LIFT DETAILS - CRITICAL LIFT	
Item To Be Lifted:	Slew Ring (Lower)
Radius:	68.90 m
Item Weight:	6.70 te
Lifting Tackle:	0.20 te
Stowed Fly / Superlift Red:	0.00 te
Hookblock:	0.70 te
Total Lift Weight:	7.60 te
Gross Capacity:	9.50 te
(%) Of Capacity:	80.00 %

OUTRIGGER LOAD / MAT INFORMATION	
Max Outrigger Force:	142.00 te
Weight Of Mat(s):	7.50 te
Max Force: (Incl. Weight Of Mat)	149.50 te
Standard Mats: (L x W)	0.00 x 0.00 = 0.00 m²
Additional Mats: (Additional)	7.52 x 2.21 = 16.62 m²
Max. G B P: (L x W)	#### te/m²
Max. G B P: (Additional)	9.00 te/m²



Rev	Date	Detail	Drawn	Chkd	Appr
P	21.11.22	Preliminary - Issued For Client Approval	ML	BB	X

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Select

Original Size A3 / Do Not Scale

Client: Select Plant Hire Ltd

Site: Rylands Building Manchester

Project: CTL282-18 Dismantle

Scale: 1:500 Status: **PRELIMINARY**

Title: CTL282-18 Dismantle Using Liebherr LTM 1450-8.1 (TN N-73.5m)

CAD No: 03-22-ML- 0388-00 Sheet Number: 1 Rev: P

File Location: C:\Users\m\Documents\Ainscough Crane Hire LTD\CTL282-18 Dismantle - Dismantle - Rylands Building, Manchester\01 - Drawings\1388-00

- DRAWING NOTES - (CPA NOTES)**
- This crane is supplied under CPA Terms & Conditions for the HIRE of plant.
 - As such it is the CLIENTS responsibility to provide an Appointed Person, under the terms of BS7121.
 - The Appointed Person should plan and supervise the lifting operations, including method statement, drawings and calculation preparation.
 - The responsibility of the safe, planning, supervision and use of the crane remains completely with the CLIENT.
 - The crane operators are working to the CLIENTS instructions and to the CLIENTS safe system of work.

- DRAWING NOTES**
- Client to ensure that the access and working area is cleared sufficiently to accommodate the crane and transport.
 - Client to ensure a suitable hard standing and level area to be provided to support all crane and transport loads imposed.
 - The weight and c.o.g of the load shown has been assumed and is subject to approval from the client prior to start of work.
 - The rigging shown is subject to availability and it may be necessary to substitute components for suitable alternatives.
 - Client is responsible for the structural integrity of the load to be lifted.
 - The client is to identify and confirm the suitability of the lift points to be utilized during the lift of the load.
 - The ground bearing pressure figure is based on the worst case scenario. This figure can be reduced if required using additional outrigger mats.

PLAN VIEW

CTL282-18 Dismantle

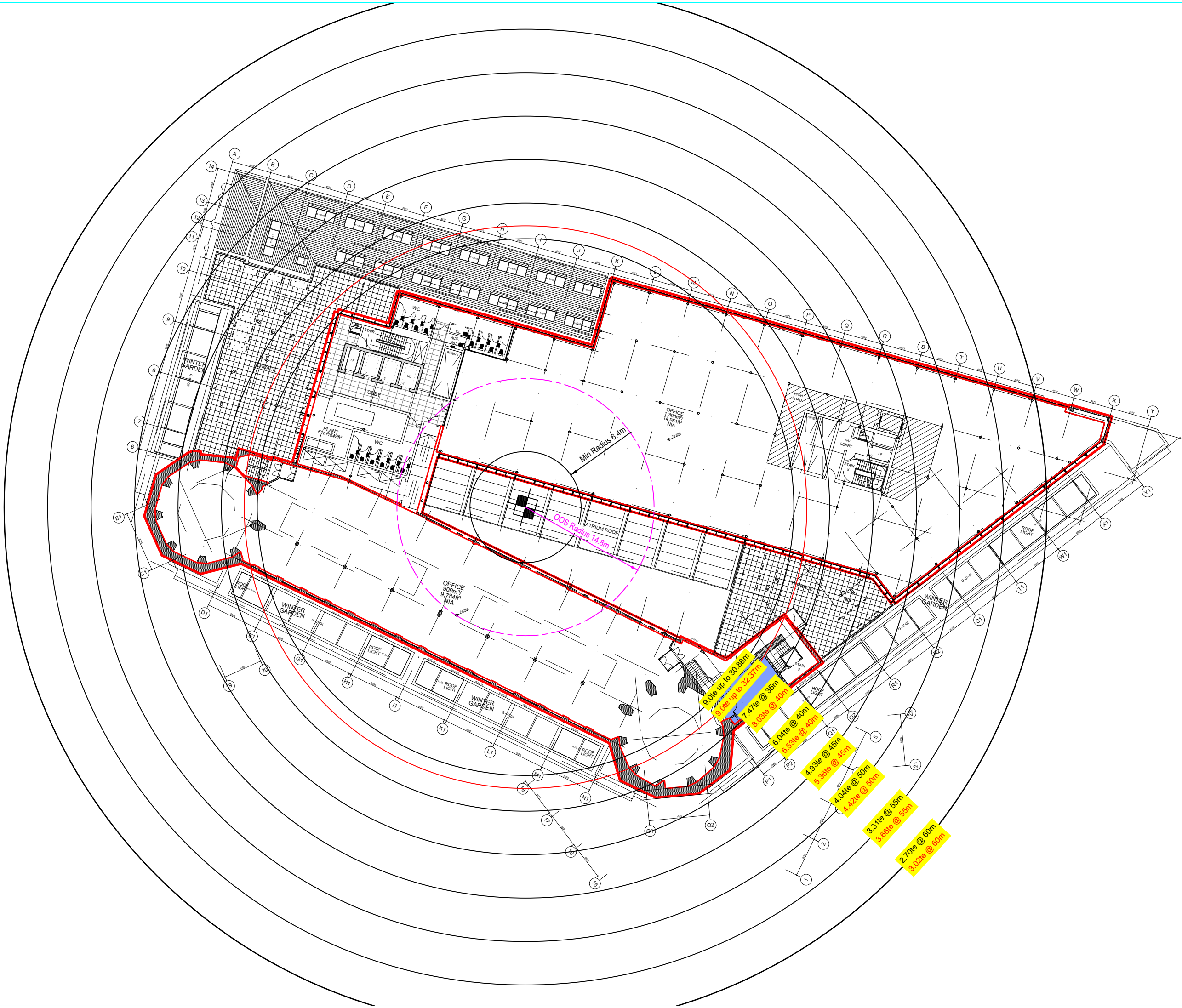


AINSCOUGH
CRANE HIRE LTD

HEAVY CRANES DIVISION (03)

Unit U, Leyland Business Park
Centurion Way
Leyland
Lancashire PR25 3GR
Tel: 0845 1130468
Fax: 0845 1130469





TOWER CRANE SPECIFICATION	
Crane Number:	TC1
Crane Make & Model:	Terex, CTL 282-18
Jib Length:	60m
Mast Height:	66.4m
Mast Configuration:	1 X HD23-26.6 + 10 x HD23-22.6
Base Type:	F.A's
Number of Falls:	2
OOS Radius [To Hook]:	14.8m [Reduced]
OOS Jib Angle:	77°
Balance Weight:	2000kg

NOTES

Tower Crane design standard considered: FEM1.005 C25 Suburban Terrain. The use of suburban terrain category is subject to the production of a site specific wind report confirming the suitability of the terrain category and the agreement of the crane manufacturer.

Agreement of oversail of crane jibs outside of the site boundary is the responsibility of site.

The Terex Power Plus lifting capacities shown allow an increase of +10% over the standard capacities. This is achieved by reducing the operational speed of the crane in order to reduce the stresses in the crane structure. Note, that the maximum lifting capacity of the crane does not increase. The TPP duties are shown in red.

The lifting capacities shown have been reduced for the weight of the hoist rope when the hook is at crane base level.

TC1 is assumed to be founded at +36.890m AOD

In order to achieve the reduced out of service shown on TC1, a balance weight must be suspended from the hook block.

03	PRELIMINARY	15.11.22
MM	TC POSITION REVISED	MM
02	PRELIMINARY	07.10.22
HL	TC POSITION UPDATED - TC1 NOW 800mm FROM GL7	BG
01	PRELIMINARY	06.10.22
HL	SITE LAYOUT UPDATED	BG
00	PRELIMINARY	16.08.22
MM		XX
XX		
Revision:	Description (Purpose of Issue):	Date
Originator:	Revision Item:	Authoriser
Checker:		

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1. This drawing is based on the following information and is to be read in conjunction with all other relevant drawings. Any discrepancies, errors or omissions to be brought to the attention of Select Plant Hire Company Ltd.

2. All dimensions to be checked before commencement of work on site.

Originator:
SELECT PLANT HIRE COMPANY LIMITED

Logo:



Address:
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Explore Industrial Park,
Explore Way,
Workshop,
Nottinghamshire,
S80 3DT.

Contact Details:
t: +44 (0)945 873 5936
f: +44 (0)1777 353026

Client:	RUSSELL WBHO
Project:	RYLANDS BUILDING MANCHESTER
Drawing Title:	TOWER CRANE LIFTING CAPACITIES PLAN DRAWING
Quote Number:	XXXXXX
Filename:	RWBHO-RBM-LC-001
Scale At A3:	1:450
Revision:	03



Rylands Building Environmental Management Plan (EMP)

Rev A - 11/05/2023



Introduction

This EMP will detail the measures that will be in place for water management and pollution prevention during works undertaken and controlled by Russell WBHO and to ensure that sufficient measures are in place to minimise the risks of pollution and comply with relevant legislation requirements.

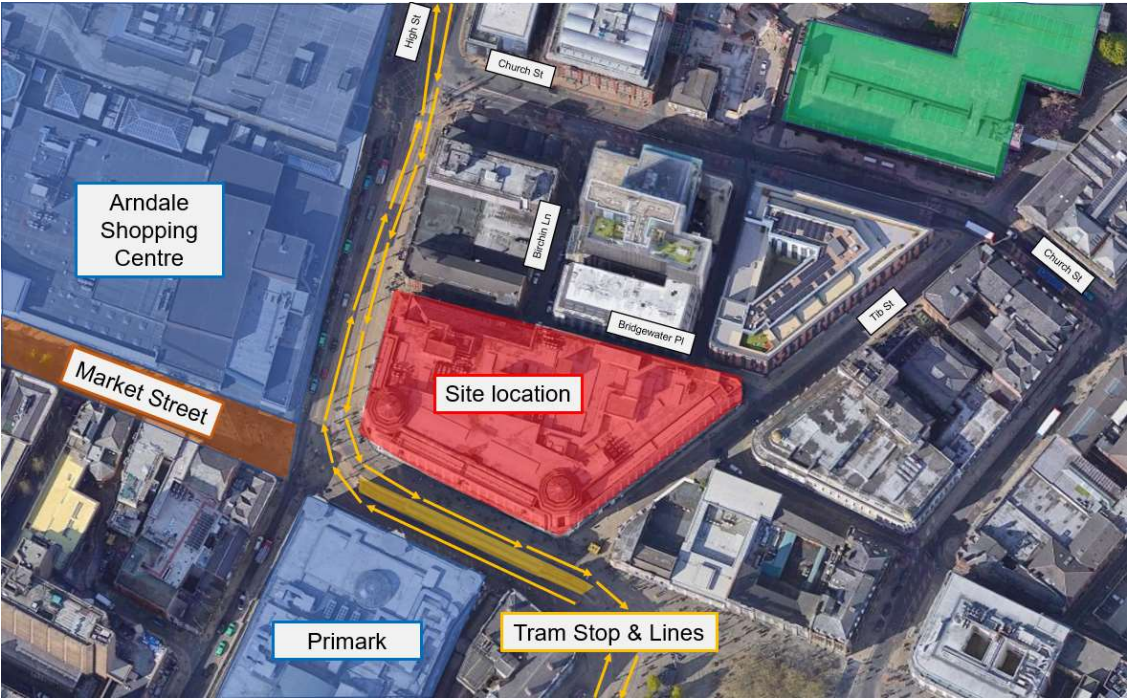
Russell WBHO use the source-pathway-receptor model to identify the pollution risks on site and the environment surrounding our site boundary.

The model will determine the suitable control measures and monitoring requirements. Controls will be applied using hierarchy measures, i.e. applying control measures at source first. If this is not possible then at pathway and if still not possible then at receptor.

Project Description

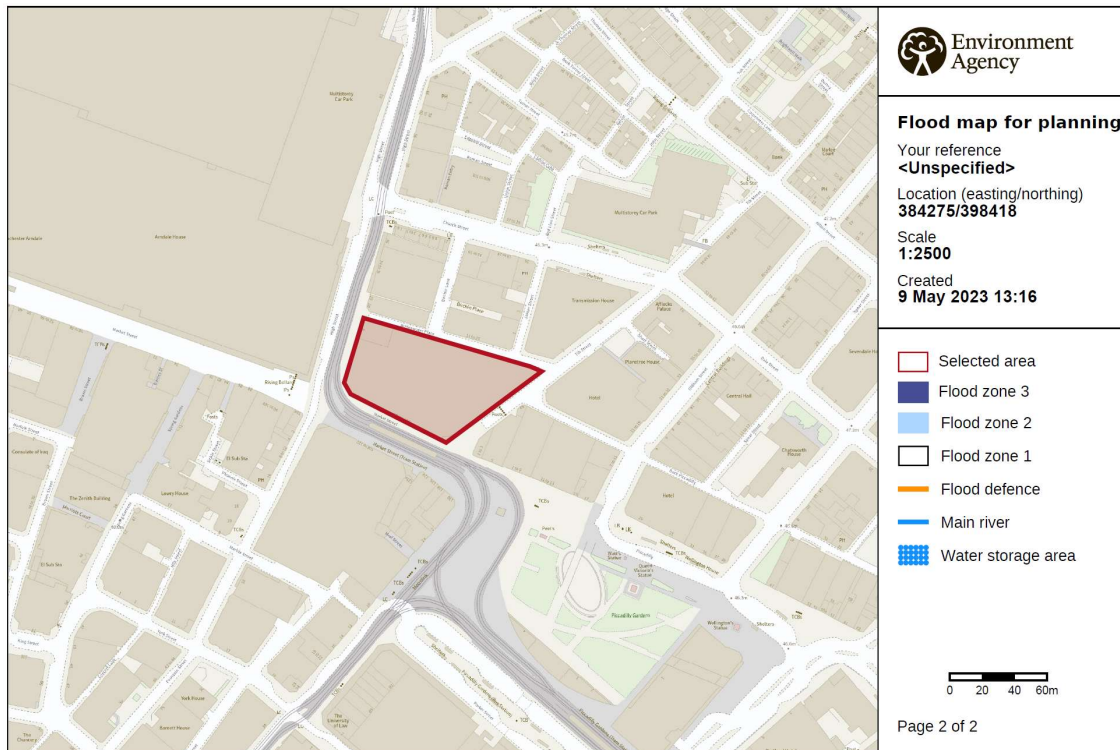
The works consists of the conversion of the existing Grade II Listed Rylands building into retail space to ground and two basement levels, and CAT A office space to the seven floors above. This includes the construction of a four-storey extension to the top of the building and a glazed atrium running up the entire height of the building.

Ryland Building Site



Source	Pathway	Receptor
Flood Zone	Flooding onto site back into the drainage system	Watercourse Aquatic life

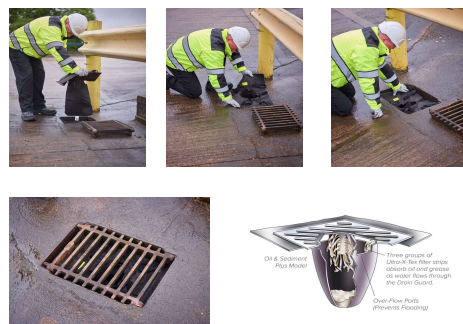
There is no flood risk for the project (Not in Flood zone 1, 2, or 3). Below image has been taken from Gov.uk's "Check the long term flood risk for an area in England" webpage.



Pollutant	Source	Pathway	Receptor
Silt	Vehicle Movements Wheel Wash Site run-off	Surface Water Drains Foul Drains Combined Sewer Drains	Watercourse Aquatic life

The surface water gullies will be identified and protected. We will place geotextile type drain guards within the gullies which will be a final protection measure.

Site deliveries will be on existing hardstanding surface which will reduce the risk of any mud being tracked onto the carriageway. Mobile pressure washers will be used to clean the wheels of delivery vehicles in conjunction with the use of vacuum road sweepers, if required.



Pollutant	Source	Pathway	Receptor
Fuel	Vehicle Movements Re-fueling Fuel Storage	Surface Water Drains Foul Drains Combined Sewer Drains	Watercourse Aquatic life

A number of absorbent spillage kits will be provided on site for any spillage possibility. Competent persons will be trained on how to use the spill kit.

Fuel bowzers will be double bunded and located at least 10m from any surface water gullies. And the fuel storage area will be impermeable.

Plant nappies will be placed under portable generators and will be used at all times during refuelling.

Typical response kit on site will be:

- Grab Bag -----
- 90 or 120 litre bin -----
- Granules -----
- Drain Pad -----



Pollutant	Source	Pathway	Receptor
Chemicals / COSHH	Storage Concrete Pump / Wagon Wash-out Skip Seepage	Groundwater Surface Water Drains	Watercourse Aquatic life

Concrete wash out must be on an impermeable surface and placed in a concrete skip for removal by certified waste carrier. Nearby surface water gullies must be protected and maintained on regular basis.



Skips must only be removed once the wash-out water and concrete have set. If this does not happen, the wash water must be removed as hazardous waste by a registered waste carrier. To reduce the setting time, a solidifying agent may be used during large concrete pours where there will be a high number of concrete wagon movements.

General waste skips will be located in the site compound and not near any surface water drainage gullies. If this is not possible then suitable protection will be installed.

Air Pollution

Pollutant	Source	Pathway	Receptor
Dust & Fumes	Moving Vehicles Demolition	Ecology Respiratory	Habitats Operatives Public

BWB Consulting carried out an Air Quality Assessment in August 2020, ref: MCP2087.

The Institute of Air Quality Management (IAQM) guidance was used to identify the potential dust magnitude:

Dust Risk Table to Define Site Specific Risk

Activity	1. Dust Emission Magnitude	2. Sensitivity of the Area	3. Risk Of Dust Impacts
Dust Soiling Effects on People and Property			
Construction	Small	High	Low Risk
Trackout	Small	High	Low Risk
Human Health Impacts			
Construction	Small	Medium	Low Risk
Trackout	Small	Medium	Negligible

Mitigation Measures

Communication with the client, contractors and neighbouring residents will be carried out and will be fundamental to the implementation of the measures identified. The necessary contact information will be displayed at site and contained within newsletters.

The site management team will record any complaints received and will ensure these are addressed promptly.

The site will be inspected on a daily bases to ensure dust mitigation measures are in place and remain effective, especially during the demolition of structures – concrete & brick dust.

Operations will be planned and co-ordinated to ensure dust mitigation measures are in place and maintained. During demolition operations, dust may be suppressed with the use of dust suppressors. Dust uplift from the carriageway is not envisaged, however if required a combination of dampening down and road sweepers will be used. Any cutting, grinding or sawing equipment must be fitted with either dust extractor or water suppression. If this is not feasible due to the equipment type, then water sprays or local extraction will be considered.

We will ensure there are adequate water supplies and that they are available at key locations.

Stationary vehicles will be switched off (no idling). A traffic management plan will be displayed on our site noticeboards and issued to suppliers in advance. Our vehicle marshals will direct traffic and ensure pedestrian segregation is enforced. The maximum speed limited is 10mph.

The following traffic management controls will be implemented:

- Site traffic will be restricted to 10mph for all delivery vehicles
- A full time operative will be employed to manage all material deliveries to site. The will:
 - Monitor speed
 - Monitor wagons for any adverse environmental impact
 - Check wagons before leaving site to ensure wheels are clean
 - Check wagon sides to ensure there is no loose debris.
 - Clean the wagon wheels if required
 - Inform the site manager of any breaches that require immediate rectification

Daily checking rota for the security of the site hoarding/fencing, security of waste bins, silt traps/nets, storage containers and the good order of the refuelling area must be enforced.

Pollutant	Source	Pathway	Receptor
Noise	Operations above 80db	Hearing	Operatives Public

The protection against noise of person living and working in the vicinity of, and those working on, construction and open sites will be in accordance with 'BS 5228:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites (Part 1: Noise)

Russell WBHO and its sub-contractors will ensure that, where reasonably practicable, nobody on site is exposed to noise in excess of 80dB(A). Where noise levels are suspected to be at or above 80dB(A) the direct employer will be responsible for ensuring a suitable noise assessment is carried out. Suitable hearing protection must be made available to all affected personnel on request. Sub-contractors undertaking work that continuously exceeds the noise level of 85dB(A) hearing protection zones must be set up with clear warning signs positioned.

Completed Workplace Noise Assessments or Sub-contractors equivalent will be filed on the projects' Sharepoint Site.

On completion of a noise assessment Russell WBHO and its sub-contractors will provide relevant information, instruction and training to employees at risk from excessive noise levels.

Acoustic screening will be used where deemed necessary to ensure noise trigger levels are not exceeded. Suppliers of plant will be required to supply guidance on anticipated noise levels.

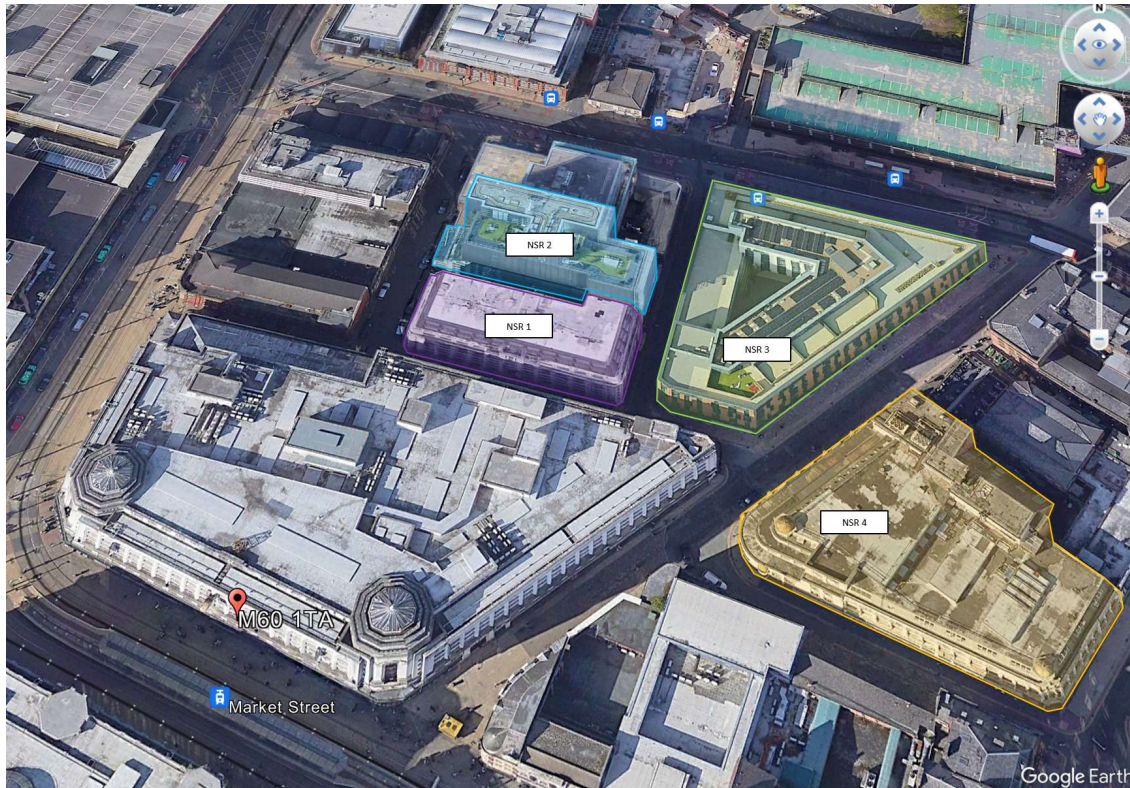
All compressors, percussion tools & vehicles should be fitted with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.

Except where expressly permitted, no operations which are audible at any adjacent noise sensitive buildings shall be carried out:

- Outside the hours of 07.30 hours to 18.00 hours, Monday to Friday and 08.00 hours to 14.00 hours on Saturdays.

The nearest noise sensitive receptors (NSR) are:

- NSR 1 – Dwellings at Bridgewater Place – North
- NSR 2 – Light Apart Hotel
- NSR 3 – Residential Apartments – North/East
- NSR 4 – Sacha's Hotel – East



Daily noise monitoring will be carried out and readings recorded. The trigger level for noise at the NSR's will be 75 dB L_{Aeq}.

Ecological Pollution

Pollutant	Source	Pathway	Receptor
All the above mentioned	Site operations	Inhalation Absorption	Protection Species / Trees

The mitigation controls contained within this document will be monitored for effectiveness.

A Bat survey was undertaken by Urban Green in September 2020. The report concluded that bat roosts are likely absent from all roof structures and that no further surveys are deemed necessary.

In the unlikely event that a bat or evidence thereof is discovered during works to the roof features, works will cease and the advice of a bat-licenced ecologist sought.

Waste Management

Russell WBHO understands that there is no legal requirement to produce a project specific Site Waste Management Plan (SWMP) but experience has shown that this approach works for both Russell WBHO and our clients. The aim of the SWMP is to reduce the amount of waste produced during a project by setting out how materials, and any resulting waste, will be managed. The plan is a live document and will be updated during the construction process to record and confirm how materials are reused, recycled or disposed of.

Only Environmental Agency licenced waste carriers will be used and their certification is checked on the Environmental Agencies Public Register. Waste Transfer Notes are issued and signed by Russells and the waste carrier to comply with 'Duty of Care'

No illegal waste deposits will occur. Waste bins and skips will be provided in suitable locations, preferably as far as possible from the surface water drains.

Hazardous waste is preferred to be removed by sub/contractors, but skips can be provided after consulting with site management.

Concrete waste will be controlled in accordance with latest requirements as set out by the Environmental Agency. Lined concrete skip for concrete wash out will be provided, identified and at least 10m from a surface water gully. If not possible, then suitable protection will be put in place. The skip must only be removed once the concrete has set.

Collection will be at regular intervals by a certified licensing waste contractor. Waste transfer notes will be completed for a maximum 12 month period unless the waste contractor is changed or different waste is removed from site. Waste Carrier Tickets will be issued upon the removal of waste and waste bins clearly labelled.

Vibration

Specific measures implemented to minimise any negative impacts associated with the Project regarding vibration are summarised below:

- Where reasonably practicable, plant and/or methods of work causing significant levels of vibration at sensitive premises should be replaced by other less intrusive plant and/or methods of working;
- Use of non/low impact construction techniques to be employed wherever practicable;
- Minimise the intensity of causal works where practicably possible;
- Equipment likely to cause significant vibration will be moved as far away from sensitive receptors as practicably possible;
- Ensure good maintenance of plant and vehicles;
- Coordination with affected parties to arrange specific working arrangements and newsletters to be distributed in good time to notify of significant works; and
- Neighbourhood nuisance to be an agenda item at monthly safety and team meetings

Internal Complaints Procedure

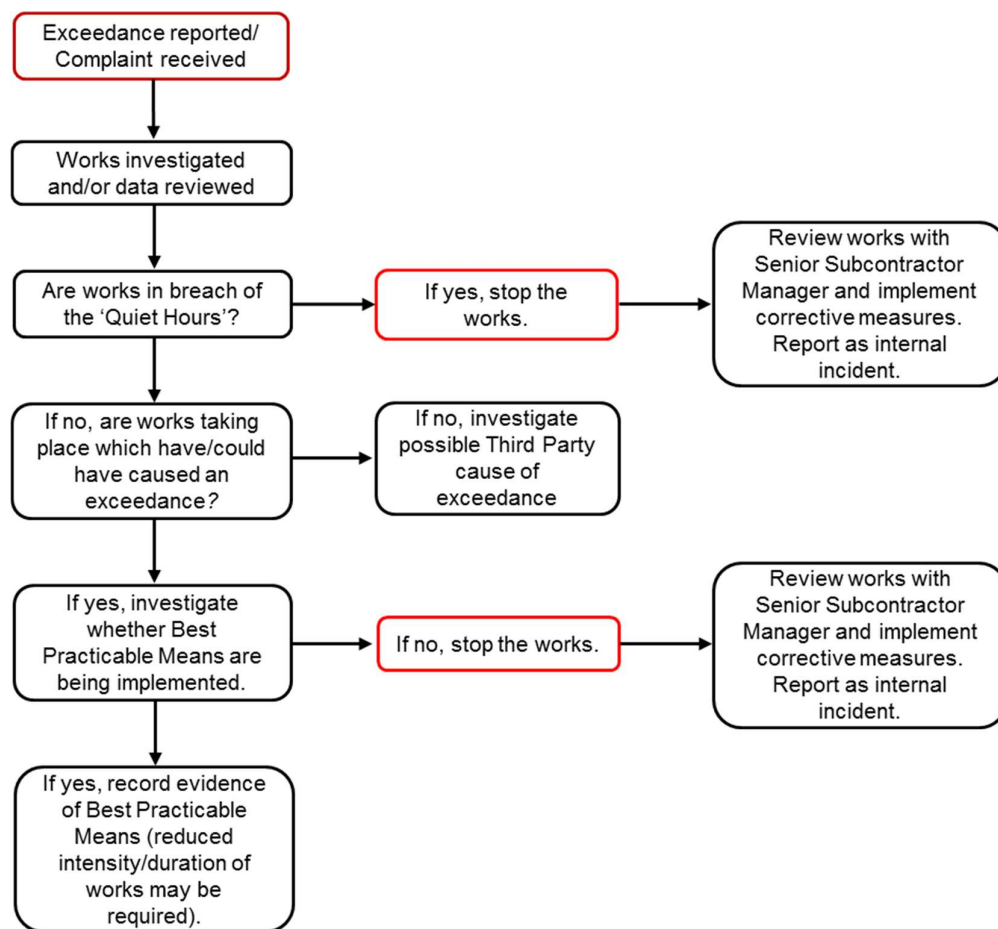
Russells manage public relations proactively through liaison with neighbours via newsletters, letters and community meetings. Contact details are provided on the public noticeboard for the public to directly contact us. Any complaints are logged and investigated by Russells

with corrective action implemented as required. In the event of a complaint, the complainant should be directed to the most senior member of the Project team on Site. The following details should be taken (if the complainant is willing to provide them):

- Full name
- Address
- Contact telephone number
- Date/Time of the alleged incident
- Description of the complaint
- Location of the alleged incident
- Date/time complaint received

All personal data shall be managed in compliance with the Data Protection Act 2018.

All exceedances and complaints are to be investigated according to the following process





BETTER SOLUTIONS, INTELLIGENTLY ENGINEERED

ENVIRONMENT

CD9 PROPERTIES

RYLANDS BUILDING

Air Quality Assessment

MCP2087

RWBHO Commented document 05/06/2023
Appendix 8 of the Constuction Management Plan Rev D



CP9 PROPERTIES
RYLANDS BUILDING

AIR QUALITY ASSESSMENT

Birmingham
Livery Place, 35 Livery Street, Colmore Business District, Birmingham, B3 2PB
T: 0121 233 3322

Leeds
Whitehall Waterfront, 2 Riverside Way, Leeds
LS1 4EH
T: 0113 233 8000

London
11 Borough High Street
London, SE1 9SE
T: 0207 407 3879

Manchester
11 Portland Street
Manchester, M1 3HU
T: 0161 233 4260

Nottingham
Waterfront House, Station Street, Nottingham NG2 3DQ
T: 0115 924 1100

August 2020

DOCUMENT ISSUE RECORD

Document Number:	RBM-BWB-ZZ-ZZ-RP-LA-0001_AQA_S0_P02
BWB Reference:	MCP2087-001

Revision	Date of Issue	Status	Author:	Checked:	Approved:
1.0	25/08/2020	Issue	F. Hoyle MSc, BSc (Hons), MIAQM, MEnvSc	C. Meddings MSc, BSc (Hons), CSci, MIAQM, MEnvSc	C. Meddings MSc, BSc (Hons), CSci, MIAQM, MEnvSc

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EXECUTIVE SUMMARY

BWB Consulting Limited was appointed by CD9 Properties to undertake an air quality assessment for a proposed restoration and refurbishment of the Rylands Building, Manchester to provide active retail and leisure uses on the ground and basement levels, with Grade A office space provided on the upper floors.

The proposed development Site is located within the administrative area of Manchester City Council and lies at the junction of Market Street and High Street. The Site is located within the Greater Manchester Air Quality Management Area which is designated for the potential exceedance of the annual mean nitrogen dioxide (NO₂) air quality objective.

A qualitative construction phase dust assessment was undertaken in accordance with Institute of Air Quality Management guidance and measures were recommended for inclusion in a Dust Management Plan to minimise emissions during construction activities. With the implementation of these mitigation measures the impact of construction phase dust emissions was considered to be 'not significant' in accordance with Institute of Air Quality Management guidance.

Servicing and delivery trips associated with the proposed development will remain similar to those currently experienced at the Site. It was confirmed that the trips associated with the proposed development would not exceed the relevant Institute of Air Quality Management and Environmental Protection UK screening criteria. Therefore, detailed dispersion modelling of development-generated road traffic was not undertaken.

The suitability of the proposed development for its proposed sensitive uses was considered through a review of local air quality monitoring data in the vicinity of the Site. Pollutant concentrations in the vicinity of the Site were confirmed to be below the relevant short term air quality objectives applicable at the Site. The Site was therefore considered suitable for the proposed uses with regard to air quality.

The proposed development will be heated using Air Source Heat Pumps and therefore it is considered that there are no significant building emissions associated with the proposed development that may influence local air quality.

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Figure 1.1: Site Location Plan

Figure 4.1: Construction Phase Dust Assessment Distance Buffers

APPENDICES

APPENDIX A: Glossary of Terms

APPENDIX B: Consultation

1. INTRODUCTION

Appointment & Background

- 1.1 BWB Consulting Limited was appointed by CD9 Properties to undertake an air quality assessment for the proposed restoration and refurbishment of the Rylands Building in Manchester ('the Site').
- 1.2 The assessment considers construction phase dust impacts and operational phase road traffic emissions. A qualitative construction phase dust assessment was undertaken in accordance with relevant guidance. An operational phase road traffic emissions screening assessment was undertaken to consider the requirement for a detailed assessment of additional vehicles generated by the proposed development. Additionally, a qualitative review of local air quality monitoring was undertaken to consider the suitability of the Site for the proposed uses.
- 1.3 This report is necessarily technical in nature, so to assist the reader, a glossary of air quality terminology can be found in **Appendix A**.

Site Setting

- 1.4 The Site is located at the junction of Market Street and High Street in Manchester city centre and is located within the administrative area of Manchester City Council (MCC). **Figure 1.1** details the location of the proposed development. The Site currently comprises an operational retail store housing Debenhams.
- 1.5 The Site is bound to the north by Bridgewater Place with commercial, retail and residential uses beyond. To the east of the Site lies Tib Street with retail, commercial and leisure uses beyond. The southern boundary of the Site lies adjacent to Market Street and the Market Street Metrolink stop with retail premises beyond. The western boundary of the Site leads on to the High Street with the Arndale Centre retail premises beyond.
- 1.6 Principal air pollution sources in the vicinity of the development are likely to comprise road traffic. The Site is located within the Greater Manchester Air Quality Management Area (AQMA), which was designated for the potential exceedance of the annual mean air quality objective for nitrogen dioxide (NO₂).

Proposed Development

- 1.7 The proposed development comprises the restoration and refurbishment of the Rylands Building, including a four storey roof-top extension. The proposals will see the ground floor and basement levels as an active retail and leisure use, whilst the upper floors will be Grade A office floorspace.

Figure 1.1: Site Location

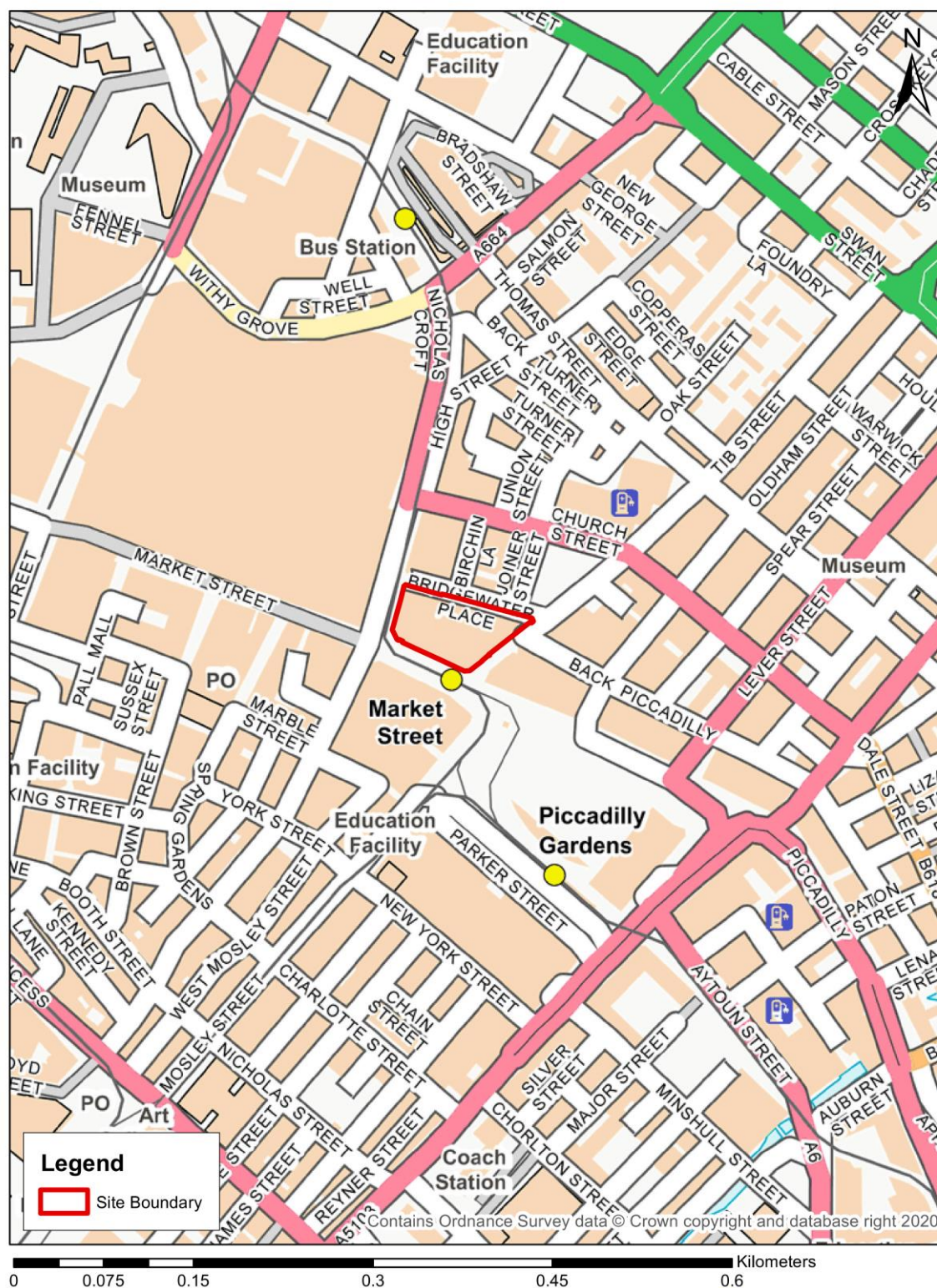


Figure 1.1 - Site Location

Drawn by: FH
Date: 17/08/2020

2. LEGISLATION, PLANNING POLICY & GUIDANCE

National Legislation and Planning Policy

The UK Air Quality Strategy

- 2.1 European Union (EU) legislation forms the basis of air quality policy and legislation in the UK. The EU 2008 ambient Air Quality Directive¹ sets limits for ambient concentrations of air pollutants including nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}). The air quality standards and objectives are prescribed through the Air Quality (England) Regulations 2000², as amended, for the purpose of the Local Air Quality Management Framework.
- 2.2 The UK Government are required under the Environment Act 1995³ to produce a national Air Quality Strategy (AQS). The AQS was first published in 1997⁴ and was most recently reviewed and updated in 2007⁵. The AQS provides an overview of the Government's ambient air quality policy and sets out the air quality standards and objectives to be achieved and measures to improve air quality.
- 2.3 Part IV of the Environment Act³ requires local authorities in the UK to review local air quality within their administrative area and, if relevant air quality standards and objectives are likely to be exceeded, designate Air Quality Management Areas (AQMAs). Following the designation of an AQMA, local authorities are required to publish an Air Quality Action Plan (AQAP) detailing measures to be taken to improve local air quality and work towards meeting the relevant air quality standards and objectives.

National Planning Policy Framework

- 2.4 The National Planning Policy Framework (NPPF)⁶ was amended in February 2019 and sets out the Government's planning policies for England and how these are expected to be applied.
- 2.5 With regard to assessing cumulative effects the NPPF⁶ states:

"Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.

[...]"

- 2.6 The NPPF⁶ recognises air quality within Section 15: Conserving and enhancing the natural environment, and states that:

¹ European Parliament (2008) Council Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe

² HMSO (2000) Statutory Instrument 2000 No. 928, The Air Quality (England) Regulations 2000 (as amended), London: HMSO

³ HMSO (1995) The Environment Act 1995, London: TSO

⁴ Department of the Environment (DoE) (1997) The UK National Air Quality Strategy, London: HMSO

⁵ Department of the Environment, Food and Rural Affairs (Defra) (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, London: HMSO

⁶ Ministry of Housing, Communities & Local Government (2019) National Planning Policy Framework, HMSO London

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

[...]

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

[...]

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.

[...]

Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."

Planning Practice Guidance

2.7 The Planning Practice Guidance (PPG) for air quality⁷ was updated in November 2019 and provides guiding principles on how the planning process can take account of the impacts of new development on air quality.

2.8 The PPG⁷ sets out the following with regard to air quality and planning:

- *"What air quality considerations does planning need to address;*
- *What is the role of plan-making with regard to air quality;*
- *Air quality concerns relevant to neighbourhood planning;*
- *What information is available about air quality;*
- *When could air quality considerations be relevant to the development management process;*
- *What specific issues may need to be considered when assessing air quality impacts;*

⁷ Department for Communities and Local Government (2019) Planning Practice Guidance Air Quality

- *How detailed does an air quality assessment need to be; and*
- *How can an impact on air quality be mitigated".*

2.9 The PPG⁷ sets out the pollutants for which there are legally binding limits for concentrations and those which the UK also has national emissions reduction commitments.

2.10 The PPG⁷ states that development plans may need to consider:

- *"what are the observed trends shown by recent air quality monitoring data and what would happen to these trends in light of proposed development and / or allocations;*
- *the impact of point sources of air pollution (pollution that originates from one place);*
- *the potential cumulative impact of a number of smaller developments on air quality as well as the effect of more substantial developments, including their implications for vehicle emissions;*
- *ways in which new development could be made appropriate in locations where air quality is or is likely to be a concern, and not give rise to unacceptable risks from pollution. This could, for example, entail identifying measures for offsetting the impact on air quality arising from new development including supporting measures in an air quality action plan or low emissions strategy where applicable; and*
- *opportunities to improve air quality or mitigate impacts, such as through traffic and travel management and green infrastructure provision and enhancement".*

2.11 The PPG⁷ also states what may be considered relevant to determining a planning application and these include whether a development would:

- *"Lead to changes (including any potential reductions) in vehicle-related emissions in the immediate vicinity of the proposed development or further afield. This could be through the provision of electric vehicle charging infrastructure; altering the level of traffic congestion; significantly changing traffic volumes, vehicle speeds or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; could add to turnover in a large car park; or involve construction sites that would generate large Heavy Goods Vehicle flows over a period of a year or more;*
- *Introduce new point sources of air pollution. This could include furnaces which require prior notification to local authorities; biomass boilers or biomass-fuelled Combined Heat and Power plant; centralised boilers or plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a Smoke Control Area; or extraction systems (including chimneys) which require approval or permits under pollution control legislation;*
- *Expose people to harmful concentrations of air pollutants, including dust. This could be by building new homes, schools, workplaces or other development in places with poor air quality;*
- *Give rise to potentially unacceptable impacts (such as dust) during construction for nearby sensitive locations;*

- *Have a potential adverse effect on biodiversity, especially where it would affect sites designated for their biodiversity value".*

2.12 The PPG⁷ provides guidance regarding what should be included within an air quality assessment. Examples of potential air quality mitigation measures are also provided.

Local Planning Policy

2.13 The Manchester Local Plan guides development within Manchester. The Core Strategy⁸ was adopted in 2012 and forms part of the Manchester Local Plan, covering a period of 15 years from 2012 to 2027.

2.14 The Core Strategy includes the following policy with regard to air quality:

"Policy EN 16 - Air Quality

The Council will seek to improve the air quality within Manchester, and particularly within Air Quality Management Areas, located along Manchester's principal traffic routes and at Manchester Airport. Developers will be expected to take measures to minimise and mitigate the local impact of emissions from traffic generated by the development, as well as emissions created by the use of the development itself, including from Combined Heat and Power and biomass plant. When assessing the appropriateness of locations for new development the Council will consider the impacts on air quality, alongside other plan objectives. This includes cumulative impacts, particularly in Air Quality Management Areas."

2.15 The above policies were taken into consideration throughout the undertaking of the assessment.

Air Quality Assessment Guidance

2.16 The following guidance was utilised in the air quality assessment:

- Defra, Local Air Quality Management Technical Guidance (LAQM.TG(16)) (2018)⁹;
- Institute of Air Quality Management, Guidance on the assessment of dust from demolition and construction (2014)¹⁰; and
- Institute of Air Quality Management and Environmental Protection UK, Land-Use Planning and Development Control: Planning for Air Quality (2017)¹¹.

⁸ Manchester City Council (2012) Manchester's Local Development Framework, Core Strategy Development Plan Document

⁹ Defra (2018) Local Air Quality Management Technical Guidance LAQM.TG(16)

¹⁰ Institute of Air Quality Management (2014) Guidance on the assessment of dust from demolition and construction, Institute of Air Quality Management, London

¹¹ Institute of Air Quality Management and Environmental Protection UK (2017) Land-Use Planning and Development Control: Planning for Air Quality

3. METHODOLOGY

Consultation with Manchester City Council

- 3.1 Consultation was undertaken with the Environmental Protection Team at MCC, in which the proposed assessment methodology was provided via email and a response was received on 13/07/2020¹².
- 3.2 The agreed assessment methodology is detailed below:
- Construction Phase - A construction phase assessment was undertaken and relevant measures to mitigate construction phase dust emissions were recommended. The assessment was undertaken in accordance with guidance provided by the Institute of Air Quality Management (IAQM)¹⁰.
 - Operational Phase Road Traffic Emissions Impact Screening Assessment – An operational phase road traffic emissions screening assessment was undertaken in accordance with IAQM and Environmental Protection UK (EPUK) guidance¹¹.
 - Operational Phase Road Traffic Emissions Exposure Screening Assessment – A qualitative assessment of the suitability of the Site for the proposed sensitive uses was undertaken utilising local monitoring data and comparison to the relevant air quality objectives.
 - Operational Phase Building Emissions – The proposed development will be heated using Air Source Heat Pumps (ASHP) and it is therefore considered that there are no significant building emissions associated with the proposed development. No further consideration of building emissions was undertaken in this assessment.
 - Full details of the methodology used in the assessment as agreed with MCC are provided below and included in **Appendix B**.

Construction Phase Assessment

- 3.3 An assessment of the potential impacts arising from the construction of the proposed development was undertaken in accordance with IAQM Guidance¹⁰. The full assessment methodology is not reproduced within this report but a summary of the assessment steps are provided below:
- Step 1 – screen the requirement for a more detailed assessment. No assessment is required if there are no receptors within a certain distance of the works.
 - Step 2 – assess the risk of dust impacts separately for each of the four activities considered (demolition, earthworks, construction and trackout).
 - Step 2A – determine the potential dust emission magnitude for each of the four activities;
 - Step 2B – determine the sensitivity of the area;
 - Step 2C – determine the risk of dust impacts by combining the findings of steps 2A and 2B.
 - Step 3 – determine the site-specific mitigation for each of the four activities; and
 - Step 4 – examine the residual effects and determine significance.

¹² Consultation email sent to Environmental Protection Team at MCC and response received on 13/07/2020

Operational Phase Road Traffic Emissions – Screening Assessment

- 3.4 Guidance published by the IAQM and EPUK in 2017¹¹ provides a two-stage approach to determine the level of assessment required in the consideration of the impact of development-generated road traffic emissions on local air quality.

Stage 1

- 3.5 The Stage 1 criteria requires that the assessment progress to Stage 2 if any of the following apply:
- The development comprises:
 - 10 or more residential units or a site area of more than 0.5ha; or
 - More than 1,000m² of floor space for all other uses or a site area greater than 1ha;
 - Coupled with any of the following:
 - The development has more than 10 parking spaces; or
 - The development will have a centralised energy facility or other centralised combustion process.

Note: Consideration should be given to the potential impacts of neighbouring sources on the site, even if an assessment of impacts of the development on the surrounding area is screened out.

Stage 2

- 3.6 The IAQM and EPUK guidance¹¹ provides the following indicative criteria to determine whether a detailed road traffic emissions assessment is required for a proposed development.
- 3.7 The Stage 2 criteria relevant to the Proposed Development are:
- A change in Light Duty Vehicles (LDV) of more than 100 Annual Average Daily Traffic (AADT) within an AQMA; and
 - A change in HDV flow of more than 25 AADT within an AQMA.

Operational Phase Road Traffic Emissions – Site Suitability

- 3.8 Local air quality monitoring was reviewed and compared to the relevant air quality objectives to determine the suitability of the Site for the proposed sensitive uses. The current relevant air quality standards and objectives are detailed in **Table 3.1**.

Table 3.1: Air Quality Standards and Objectives (England)

Pollutant	Averaging Period	Air Quality Objective (µg.m ⁻³)	Date to Achieve by
NO ₂	Annual Mean	40	31 December 2005
	1-hour mean not to be exceeded more than 18 times per year	200	31 December 2005

Pollutant	Averaging Period	Air Quality Objective ($\mu\text{g.m}^{-3}$)	Date to Achieve by
PM ₁₀	Annual Mean	40	31 December 2004
	24-hour mean not to be exceeded more than 35 times per year	50	31 December 2004
PM _{2.5}	Annual mean target (15% cut in annual mean (urban background exposure))	25	2010 - 2020

4. CONSTRUCTION PHASE ASSESSMENT

- 4.1 The construction phase of the proposed development will involve a number of activities which have the potential to impact on local air quality. These include emissions of dust generated through demolition, excavation, construction, earthworks and trackout activities, exhaust pollutant emissions from construction traffic on the local highways network, and exhaust emissions from non-road mobile machinery (NRMM) within the construction site itself.
- 4.2 The location of sensitive receptors in relation to construction activities will affect the potential for such construction activities to cause dust soiling, nuisance and local air quality impacts. Meteorological conditions and the use of control measures will also contribute to the effects experienced.

Step 1: Screen the Need for a Detailed Assessment

- 4.3 Step 1 of the IAQM guidance¹⁰ involves a screening assessment to consider whether a more detailed construction phase dust assessment is required.
- 4.4 In accordance with the guidance, a detailed assessment is required if:
- Human receptors are located within 350m of the boundary of the site or 50m of routes used by construction vehicles on the public highways, up to 500m from the site entrances; or
 - Ecological receptors are located within 50m of the boundary of the site or 50m of routes used by construction vehicles on the public highways, up to 500m from the site entrances.
- 4.5 From a review of the Multi Agency Geographic Information for the Countryside (MAGIC) website¹³, no ecological designations were identified within 50m of the proposed development and therefore the impact on ecological designations was not considered further. However human receptors are located within 350m of the Site boundary, with the closest of these receptors located off Bridgewater Place. A construction phase assessment was therefore undertaken.

Step 2: Assess the Risk of Dust Impacts

Step 2A: Define the Potential Dust Emission Magnitude

- 4.6 The dust emission magnitudes for the construction activities were defined using the criteria detailed in the IAQM guidance¹⁰. No external earthworks or demolition of external structures is proposed as part of the development and therefore weren't considered further in the assessment. These criteria and the dust emission magnitude defined for the proposed development are detailed in **Table 4.1**.

¹³ Defra, Multi Agency Geographic Information for the Countryside (MAGIC) [<http://magic.defra.gov.uk/>]

Table 4.1: Dust Emission Magnitude Criteria and Definition

Activity	IAQM Dust Emission Magnitude	IAQM Dust Emission Magnitude Criteria	Project Defined Dust Emission Magnitude
Construction	Large	Total building volume >100,000m ³ , on site concrete batching, sandblasting.	Small:- Total volume of new construction <25,000m ³
	Medium	Total building volume 25,000m ³ – 100,000m ³ , potentially dusty construction material (e.g. concrete), on site concrete batching.	
	Small	Total building volume <25,000m ³ , construction material with low potential for dust release (e.g. metal cladding or timber).	
Trackout	Large	>50 HDV (>3.5t) outward movements in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100m.	Small:- <10 HDV outward movements in any one day
	Medium	10 - 50 HDV (>3.5t) outward movements in any one day, moderately dusty surface material (e.g. high clay content), unpaved road length 50m – 100m.	
	Small	<10 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved road length <50m.	

Step 2B: Define the Sensitivity of the Area

- 4.7 The sensitivity of the study area takes into account the specific receptors in the vicinity of the Site, the proximity and number of those receptors, the local background concentration of PM₁₀ and site-specific factors. **Figure 4.1** was utilised to determine the number of receptors located within the distance bands provided in the IAQM guidance¹⁰ for determining receptor sensitivity. The assessment requires the determination of the sensitivity of the area for the purposes of dust soiling and human health impact and these are presented in **Table 4.2**.

Table 4.2: Determination of the Sensitivity of the Area

Potential Impact	Justification	Sensitivity	
		Construction	Trackout
Dust Soiling	There are >100 highly sensitive receptors within 20m of the proposed development.	High	High
Human Health	There are >100 highly sensitive receptors within 20m of the proposed development. The 2020 background concentration of PM ₁₀ is less than 24µg.m ⁻³ .	Medium	Medium

Figure 4.1: Construction Phase Dust Assessment Buffers

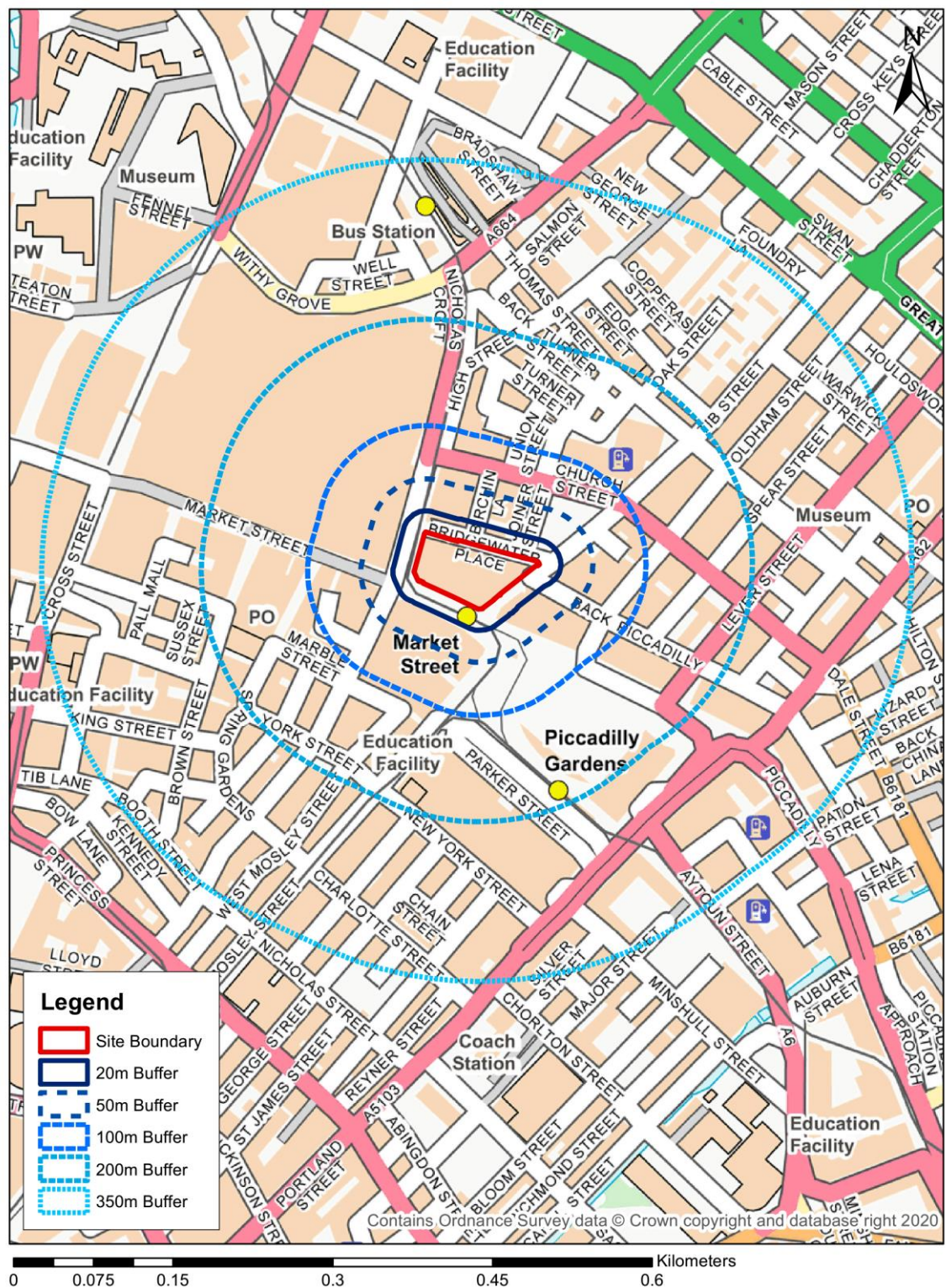


Figure 4.1: Construction Phase Dust Assessment Buffers

Drawn by: FH
Date: 17/08/2020

Step 2C: Define the Risk of Impacts

- 4.8 The dust emission magnitude determined in Step 2A is then combined with the sensitivity of the area determined in Step 2B to define the risk of dust impacts with no mitigation applied. The results of this assessment are detailed in **Table 4.3**.

Table 4.3: Summary Dust Risk Table to Define Site Specific Risk

Activity	Step 2A: Dust Emission Magnitude	Step 2B: Sensitivity of the Area	Step 2C: Risk of Dust Impacts
<i>Dust Soiling Effects on People and Property</i>			
Construction	Small	High	Low Risk
Trackout	Small	High	Low Risk
<i>Human Health Impacts</i>			
Construction	Small	Medium	Low Risk
Trackout	Small	Medium	Negligible

Step 3: Site-specific Mitigation

- 4.9 The risk of dust impacts, defined in Step 2C of the assessment, is used to determine the mitigation measures required to minimise the emission of dust during construction phase activities. The IAQM guidance¹⁰ provides details of highly recommended and desirable mitigation measures which are commensurate with the risk of dust impacts defined in Step 2C for construction and track out activities. Where the mitigation measures are general in nature, the highest risk category was applied in accordance with the guidance¹⁰. The highest risk category identified was 'Low Risk' and the recommended mitigation taken from the IAQM guidance¹⁰ is detailed in **Table 4.4** and **Table 4.5**.

Table 4.4: Mitigation Measures for a Low Risk Site

Category	Mitigation Measures	
	Highly Recommended	Desirable
Communication	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environmental manager/engineer or the site manager. Accept	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 highly recommended measures in this document. The desirable measures should be included as appropriate for the site. Only implement if necessary.
	Display the head or regional office contact information. Accept	
Site Management	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce	None

Category	Mitigation Measures	
	Highly Recommended	Desirable
	emissions in a timely manner and record the measures taken. Accept	
	Make the complaints log available to the local authority when asked. Accept	
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book. Accept	
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspections results, and make an inspection log available to the local authority when asked. Accept	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 to be provided as necessary. Accept
	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. Accept	
Preparing and maintaining the site	Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. Accept	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extended period. Accept where practicable.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. N/A not applicable to this site.	Keep site fencing, barriers and scaffolding clean using wet methods. Fencing and barriers will be maintained as required.
	Avoid site runoff of water or mud. Issue not expected on this site.	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 on-site cover as described below. Accept
		Cover, seed or fence stockpiles to prevent wind whipping. N/A
Operating vehicle/ machinery and sustainable travel	Ensure all vehicles switch off engines when stationary – no idling vehicles. Accept	Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on un-surfaced haul roads and work areas. N/A - Issue not expected on this site.
	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable. Accept - Mains electricity to be used where possible	
		Ensure equipment is readily available on site to clean any dry spillages - cleaning up spillages as soon as reasonably practicable after the event using wet cleaning methods. Accept
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.	Accept None Accept
	Ensure an adequate water supply on site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	

Category	Mitigation Measures	
	Highly Recommended	Desirable
	Use enclosed chutes and conveyors and covered skips.	Accept
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Accept
Waste Management	Avoid bonfires and burning of waste materials. Accept	None

Table 4.5: Mitigation Measures Specific to Construction and Trackout

Category	Mitigation Measures	
	Highly Recommended	Desirable
Construction (Low Risk Site)	None	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.
Trackout (Low Risk Site)	None	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any materials 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 the sites are covered to prevent escape of materials during transport.
		Record all inspections of haul routes and any subsequent action in a site log book.
		Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

N/A - Issue not expected on this site.
Wheels will be cleaned if necessary.

Step 4: Determine Significant Effects

- 4.10 In accordance with LAQM guidance¹⁰ with the implementation of the mitigation measures detailed above, the residual impacts from the construction phase are considered to be 'not significant'.

RWBHO Commented document 05/06/2023

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5. OPERATIONAL PHASE ROAD TRAFFIC EMISSIONS SCREENING ASSESSMENT

- 5.1 The IAQM and EPUK Stage 1 and Stage 2 criteria¹¹ were used to determine whether a detailed air quality assessment was required.

Stage 1

- 5.2 The proposed development comprises more than 1,000m² however, no on-site car parking is proposed and the centralised energy facility currently installed at the Site will be removed as part of the development proposals. The proposed development was not considered to meet the Stage 1 criteria and it was therefore not necessary to proceed to Stage 2.
- 5.3 The project transport consultants, Curtins, advised that the proposed development will retain a similar level of trips associated with deliveries and servicing as the current use of the Site generates. The proposed development also proposes significant cycle parking facilities with 255 cycle parking spaces and shower and changing facilities available. Additionally, the Site benefits from excellent pedestrian and public transport links with Market Street Metrolink stop immediately south of the Site and Piccadilly bus station and Metrolink stop and Victoria and Piccadilly train stations within easy walking distance.

6. OPERATIONAL PHASE ROAD TRAFFIC EMISSIONS SITE SUITABILITY ASSESSMENT

- 6.1 The proposed development will introduce new uses to the Site including a gym and leisure facilities which are considered sensitive receptors with regard to air quality. The proposed uses are considered to be relevant exposure locations for the short term air quality objectives only as people will be present for a short period of time in the pattern of use of the Site.
- 6.2 The suitability of the Site for the proposed sensitive uses was considered through a review of local representative air quality monitoring undertaken by MCC in the vicinity of the Site.

Local Air Quality Monitoring

Nitrogen Dioxide (NO₂)

- 6.3 MCC undertake NO₂ monitoring using an automatic monitor and a co-located triplicate diffusion tube location in Piccadilly Gardens. The monitoring sites are located approximately 45m southwest of the Site. **Table 6.1** details the annual mean NO₂ concentrations recorded in the vicinity of the Site.

Table 6.1: Monitored Annual Mean NO₂ Concentrations 2014 - 2018

Monitor	Grid Reference	Annual Mean NO ₂ Concentration (µg.m ⁻³)				
		2014	2015	2016	2017	2018
MAN3 Piccadilly	384310, 398337	40.0	39.0	40.0	36.0	35.0
MAN59	384310, 398337	36.1	35.9	38.5	35.9	32.2
MAN60	384310, 398337	-	35.8	40.8	35.7	31.6
MAN61	384310, 398337	-	34.9	38.0	36.3	32.1
Annual mean NO ₂ objective 40µg.m ⁻³						

- 6.4 The MAN3 Piccadilly automatic monitor also monitors hourly NO₂ concentrations to enable comparison to the hourly mean NO₂ objective which is considered relevant to short term receptors such as the proposed development. **Table 6.2** details the monitoring data for the MAN3 Piccadilly monitor relative to the hourly mean NO₂ objective.

Table 6.2: Monitored Hourly Mean NO₂ Concentrations 2014 - 2018

Monitor	Grid Reference	NO ₂ Hourly Mean Concentration >200µg.m ⁻³)				
		2014	2015	2016	2017	2018
MAN3 Piccadilly	384310, 398337	2	1	0	1	0
Hourly mean NO ₂ objective 200µg.m ⁻³ not to be exceeded more than 18 times per year						

- 6.5 The monitoring data detailed in **Tables 6.1** and **6.2** illustrate that NO₂ concentrations in the vicinity of the Site were below both the annual and hourly mean NO₂ objectives in 2018 which is the most recent year of monitoring data available. The monitoring data show that annual mean NO₂ concentrations have reduced in the area over the past five years.

Particulate Matter (PM₁₀ and PM_{2.5})

- 6.6 The MAN3 Piccadilly automatic analyser also undertakes monitoring of PM₁₀ and PM_{2.5} concentrations. **Table 6.3** details the annual and daily mean PM₁₀ concentrations recorded at the automatic analyser. **Table 6.4** details the annual mean PM_{2.5} concentrations recorded at the automatic analyser.

Table 6.3: Monitored Annual and Daily Mean PM₁₀ Concentrations 2014 - 2018

Monitor	Grid Reference	PM ₁₀ Annual and Daily Mean Concentrations (µg.m ⁻³)				
		2014	2015	2016	2017	2018
MAN3 Piccadilly	384310, 398337	20.0 (5)	20.0 (3)	20.0 (3)	20.0 (3)	21.0 (2)
Annual mean PM ₁₀ objective 40µg.m ⁻³ . Daily mean PM ₁₀ objective 50µg.m ⁻³ not to be exceeded more than 35 times in a year (detailed in brackets)						

Table 6.4: Monitoring Annual Mean PM_{2.5} Concentrations 2014 - 2018

Monitor	Grid Reference	PM _{2.5} Annual Mean Concentrations (µg.m ⁻³)				
		2014	2015	2016	2017	2018
MAN3 Piccadilly	384310, 398337	12.0	10.0	10.0	8.0	11.0
Annual mean PM _{2.5} objective 25µg.m ⁻³ .						

- 6.7 The monitoring data detailed in **Tables 6.3** and **6.4** illustrate that concentrations of both PM₁₀ and PM_{2.5} in the vicinity of the Site were well below the relevant annual and daily mean objectives over the past five years for which data are available.
- 6.8 In summary, monitored concentrations of NO₂, PM₁₀ and PM_{2.5} in the vicinity of the Site were well below the relevant annual and short term air quality objectives in 2018 and demonstrate trends of reducing or stable concentrations in the area. The monitoring undertaken in the vicinity of the Site is considered to be representative of conditions at the Site due to the proximity of the Site to the monitoring locations. Taking the monitored concentrations into account, it is considered that the Site is suitable for the proposed sensitive uses with regard to air quality.

7. CONCLUSIONS

- 7.1 BWB Consulting Limited was appointed by CP9 Properties to undertake an air quality assessment for a proposed restoration and refurbishment of the Rylands Building in Manchester.
- 7.2 A qualitative construction phase assessment was undertaken and measures were recommended for inclusion in a DMP to minimise emissions during construction activities. With the implementation of these mitigation measures the impact of construction phase dust emissions is considered to be 'not significant' in accordance with IAQM guidance¹⁰.
- 7.3 Servicing and delivery trips associated with the proposed development were identified to remain similar to those currently experienced at the Site. It was confirmed that the trips associated with the proposed development would not exceed the relevant Institute of Air Quality Management and Environmental Protection UK screening criteria¹¹. Therefore, detailed dispersion modelling of development-generated road traffic was not undertaken.
- 7.4 The suitability of the Site for its proposed sensitive uses was considered through a review of local air quality monitoring data in the vicinity of the Site. Pollutant concentrations in the vicinity of the Site were confirmed to be below the relevant short term air quality objectives applicable at the Site. The Site was therefore considered suitable for the proposed uses with regard to air quality.
- 7.5 The proposed development will be heated using Air Source Heat Pumps and therefore it is considered that there are no significant building emissions associated with the proposed development that may influence local air quality.

APPENDICES

APPENDIX A: GLOSSARY OF TERMS

Term	Definition
Air quality objective	Policy target generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedances within a specific timescale (see also air quality standard).
Air quality standard	The concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on the assessment of the effects of each pollutant on human health including the effects on sensitive sub groups (see also air quality objective).
Annual mean	The average (mean) of the concentrations measured for each pollutant for one year. Usually this is for a calendar year, but some species are reported for the period April to March, known as a pollution year. This period avoids splitting winter season between two years, which is useful for pollutants that have higher concentrations during the winter months.
AQAP	Air Quality Action Plan.
AQMA	Air Quality Management Area.
AQS	Air Quality Strategy.
Defra	Department for Environment, Food and Rural Affairs.
Exceedance	A period of time where the concentrations of a pollutant is greater than, or equal to, the appropriate air quality standard.
HDV	Heavy Duty Vehicles, (HGVs + buses)
HGV	Heavy Goods Vehicles.
IAQM	Institute of Air Quality Management.
LAQM	Local Air Quality Management.
LDV	Light Duty Vehicles (motorbikes, cars, vans and small trucks)
NO	Nitrogen monoxide, a.k.a. nitric oxide.
NO ₂	Nitrogen dioxide.
NO _x	Nitrogen oxides.
O ₃	Ozone.
Percentile	The percentage of results below a given value.
PM ₁₀	Particulate matter with an aerodynamic diameter of less than 10 micrometres.
PM _{2.5}	Particulate matter with an aerodynamic diameter of less than 2.5 micrometres.
micrograms per cubic metre (µg.m ⁻³)	A measure of concentration in terms of mass per unit volume. A concentration of 1µg.m ⁻³ means that one cubic metre of air contains one microgram (millionth of a gram) of pollutant.
UK-AIR	UK Air Information Resource – A source of air quality information provided by Defra.
UKAQS	United Kingdom Air Quality Strategy.

APPENDIX B: CONSULTATION WITH MANCHESTER CITY COUNCIL

Freya Hoyle

From: Freya Hoyle
Sent: 13 July 2020 17:07
To: Graeme Souter
Subject: RE: Rylands Building - air quality assessment methodology

Good afternoon Graeme,

Thanks for coming back to me.

I can confirm that the proposals do not include any car parking provision and that servicing arrangements will not increase from those currently experienced at the site with regard to its current use.

I will ensure our assessment includes reference to the short term air quality objectives, drawing on local monitoring data to support the conclusions.

Kind regards,

Freya

Freya Hoyle MSc BSc MIAQM MEnvSc
Senior Air Quality Consultant | BWB Consulting Limited
M 07858 518 152 W www.bwbconsulting.com

From: Graeme Souter <g.souter@manchester.gov.uk>
Sent: 13 July 2020 17:01
To: Freya Hoyle <Freya.Hoyle@bwbconsulting.com>
Subject: Re: Rylands Building - air quality assessment methodology

Hi Freya

Thanks for your email and your proposals.

I assume there will not be any car parking provided and therefore no additional or new traffic movements as a result of the proposed development? I also assume that servicing will be at the same or similar level that won't increase the current site traffic movement level? we will require these assumptions confirming

You will need to include a brief statement with the AQ monitoring figures being used and referenced against the 1 hour mean objectives to demonstrate why a site suitability assessment isn't required but this should only require a brief statement and based on your email is likely we will be able to accept your conclusion that it isn't required.

I can accept your comments regarding construction phase assessment and mitigation of potential fugitive dust emissions and also note and accept your comments regarding the replacement of the boiler

Kind regards

Graeme

Graeme Souter
Neighbourhood Officer - Environmental Protection

Citywide Support Team - Environmental Health
Growth and Neighbourhoods
Manchester City Council
Hammerstone Road
Gorton
Manchester
M18 8EQ

Contact Centre: 0161 234 5004
Direct Dial: 0161 234 1387
Internal 31387
Fax: 0161 274 7309
E-Mail: g.souter@manchester.gov.uk
Website: www.manchester.gov.uk

For the latest support and information about the coronavirus visit www.manchester.gov.uk/coronavirus

On Tue, 7 Jul 2020 at 14:06, Freya Hoyle <Freya.Hoyle@bwiconsulting.com> wrote:

Good afternoon Graeme,

I hope you're well?

BWB Consulting has been appointed to undertake an air quality assessment for the proposed redevelopment of the Rylands Building in Manchester city centre. The building is currently occupied by Debenhams.

The proposals for the site include retention of some retail uses on lower floors which may extend to some leisure uses such as cafes with office uses taking up the remaining floors and roof extension. I have attached the current proposals for the scheme for reference.

An air quality assessment will be submitted with the application and I have set out our proposed methodology and scope of works for this below. I would be grateful if you could advise if you are satisfied with our approach.

Construction Phase:

The proposed development is surrounded by receptors which are considered sensitive to dust and human health effects that may arise from construction phase activities. We therefore propose to undertake a qualitative construction phase assessment utilising the guidance produced by the Institute of Air Quality Management (IAQM). The dust emission magnitude and sensitivity of the surrounding area will be used to identify the potential risk of impacts. Mitigation measures proportionate to the level of risk identified will then be recommended and can be secured through a planning condition.

Operational Phase:

The proposals are in keeping with the uses found in the area. No uses are proposed that are relevant for the annual mean air quality objectives. We note that cafes may be included within the development proposals however, these are only considered relevant for the short term objectives. Monitoring data from the MAN59, MAN60 and MAN61 triplicate monitoring location and the MAN3 automatic monitor were below the annual and hourly nitrogen dioxide objectives, annual and daily particulate matter (PM₁₀) objectives and annual PM_{2.5} objectives in 2018. These monitoring points are considered representative of conditions at the site as they are located within the Piccadilly Gardens city centre area and are only 50m southeast of the site.

Taking into consideration the local monitoring results and the proposals for the site, we do not propose to undertake a detailed assessment of site suitability.

Additionally, we understand that the proposed development currently includes a boiler which will be replaced. The boiler specification is not currently known at this stage however, it has been confirmed that it will be a low-NO_x boiler with significantly lower emissions than those associated with the existing plant and will adhere to the design principles in Defra guidance to enable adequate dispersion. We therefore do not propose to undertake any detailed assessment of on-site emissions.

I trust the above is clear however, if you do wish to discuss anything or have any queries, please don't hesitate to get in touch.

Kind regards,

Freya

Freya Hoyle MSc BSc MIAQM MEnvSc

Senior Air Quality Consultant | BWB Consulting Limited

M 07858 518 152 W www.bwbconsulting.com



COVID-19 BUSINESS CONTINUITY

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file note

Subject: Monitoring Guidance
Project: Rylands Building - Manchester
Reference: RBM-WHL-XX-XX-FN-S-0042_P03
Author: EAJC
Reviewer: NGRC

1.0 Introduction

The purpose of this File Note is to provide the Main Contractor with guidelines for monitoring vibration, and associated limits, while undertaking the development works.

Limitation of vibration is critical to avoid damage to both the existing Rylands Building and any adjacent properties or assets.

A monitoring regime is required to prove that reasonable limits are being met and enhance control the risk of damage. The monitoring regime also protects the PCSA and/or Contractor from spurious 3rd party claims.

This File Note should feed into the PCSA and/or Main Contractor's overall monitoring process for the project, in conjunction with any specific monitoring guidance from adjacent assets e.g. Metrolink.

Monitoring requirements for vibration are also outlined within WH specifications, and proposals should be provided by the relevant subcontractors for agreement of the PCSA and/or Main Contractor and by Woolgar Hunter.

The overarching responsibility for the approvals process for construction related activities must rest with the Main Contractor. While this File Note acts as guidance, it is the responsibility of the Main Contractor to not adversely affect the existing building fabric and protect the public during construction.

2.0 Critical Structures and Infrastructure

The critical elements that require to be protected from damage are as follows;

- The existing, listed façade of the building, to prevent unnecessary cosmetic damage and /or risk of dislodging elements of masonry over the public street.
- The Transport for Greater Manchester (TfGM) Metrolink overhead line assets that are attached to the facade of the building.
- Adjacent public utility services and drainage.
- Adjacent buildings.
- The public footway and roads.

Therefore, vibration needs to be controlled both a ground level and at elevation on the façade.

The most sensitive element is likely to the existing façade, particularly given that two elevations of the building are bounded by Metrolink tracks, which include numerous overhead cable fixing points to the existing façade that also form part of the Metrolink network.

3.0 3rd Party Interface and Agreements

Information within this note and within Woolgar Hunter documentation is based on good practice and is offered as guidance only.

It is, however, the Contractors responsibility and in their best interests, to agree working control limits with all relevant 3rd party asset owners; TfGM, public utilities, local council roads department and neighbouring building owners.

In particular the monitoring and limiting of vibration on the building façade and on the surrounding building perimeter will require agreement with Transport for Greater Manchester (TfGM) for the construction works given the proximity of the Metrolink assets; as outlined in the WH RIBA Stage 2, 3, and 4 RIBA Reports.

The scope of agreement with Metrolink should include façade monitoring, inspections, scaffolding, etc. The interface with Metrolink should be the responsibility of the contractor, to ensure all aspects are co-ordinated, but will be supported by the design team. It is understood that Russell WBHO have already engaged with Metrolink regarding any specific requirements (monitoring or otherwise).

4.0 Sources of Vibration

During the construction works, there will be numerous sources of vibration including, but not limited to:

- Piling works,
- Slab demolition works,
- Excavation works, and
- Column encasement removal works (masonry or concrete).

These works will generate intermittent and continuous vibration levels adjacent to the existing windows, façade, and other assets. This will be dependant on the methods of work and the plant and equipment that is utilised, as well as being influenced by the care with which works are undertaken by individual operatives.

It will be prudent for the PCSA and/or Main Contractor to engage with their supply chain to understand all potential sources of vibration during the works, and to have the appropriate monitoring in place for the duration of the works as part of their review of the proposed method statements.

Where possible the methodology of works should always aim to minimise vibration to limit impact.

5.0 Classification of existing building

ISO 4866 outlines that for a building such as Rylands, that the building is a 'Group 2' modern building and structure and Category 1 structure, with Class A category of foundation, and a Type b soil type. This would indicate that the primary structure is generally placed at 'low risk' from vibrational damage in accordance with the guidance.

However, the façade has experienced historic distress and should be regarded as a relatively 'fragile' element. Before works commence all loose debris, stone, glazing and other related elements that may detach should be secured or removed to mitigate damage during construction works.

It is anticipated that the stand off distances from where works are commencing to the perimeter of the building will aid with mitigating transferral of vibration through to the external environment and the façade of the building.



5.0 Monitoring Regime

Monitoring should be employed for the duration of the construction works to control and minimise the likelihood of structural damage and/or public welfare.

This should comprise:

- Visual monitoring; regular visual monitoring of key elements by site staff with photographic records.
- Positional monitoring; instrumentation surveying of critical elements to confirm any vertical or lateral movement.
- Vibration monitoring; permanent monitors in multiple key positions to confirm ongoing vibration levels.

The Noise and Vibration Report prepared by BWB Ref: MCP2087 provides background readings for both noise and vibration and should be referenced within all monitoring proposals.

The point of monitoring the vibration during the construction works is to act as an 'early warning system'. The vibration monitoring is not a panacea that limits damage but should be used in conjunction with continual review of methodologies to manage and minimise risks of damage.

It should be recognised that it is likely that monitoring procedures may well evolve and develop as the project progresses and as the actual behaviour of the existing structure becomes apparent. This may require more or less onerous limits to be applied to particular activities or locations.

There may be benefit to the contractor installing accelerometers earlier in the contract (during the strip out) to develop a deeper understanding of the behaviour of the building during the works and to correlate against the BWB report with regards background readings. There are locations where steelwork has already been exposed that may be suitable locations.

5.1 Visual Monitoring Positions

A regime of regular inspection should be set up covering

- The external façade.
- Key internal and listed features.
- The surrounding footways.
- Neighbouring buildings.

We would suggest that a regular inspection and photographic report is produced during the works, which serves to protect all parties from spurious claims of damage and provide early working of any developing issue.

5.2 Positional Monitoring Positions

We would propose that a grid of survey targets is set up on the key building facades associated with the works and in co-ordination with the scaffolding design to give a good coverage during the construction works. The arrangement is to be developed in conjunction with main contractor and agreed with relevant bodies.

These positions can then be surveyed in on a regular basis; weekly during critical works, perhaps relaxed during less critical works.

This data will provide evidence of any vertical settlement or horizontal façade movement. It should be presented in graphical form to allow ready comparison with previous readings and easy establishment of trends, taking account of inevitable reading errors.



5.3 Vibration Monitoring Positions

BS 5228 suggests a number of potential positions, which depend on the size and complexity of the building being monitored. In this case we would suggest the following;

- Permanent maintained positions at ground / street level around the perimeter of the building, likely affixed to the perimeter wall but internal to the building. Suggest two positions per façade initially.
- Additional monitoring points at upper floors; it may be advisable to select the floors and locations where the tram cable connections are located for discussions with Metrolink. Suggest two positions per façade initially.
- Mobile monitors that can be positioned next to key assets when working in specific localised positions distant from the 'permanent' monitors.
- Vibration monitoring to be set up not less than 2 weeks before commencement of works, to allow assessment of ongoing background vibration levels.
- Whilst BS7385-1:1990 Cl 7.4.1 notes that the probability of damage tends towards zero where 12.5mm/s peak component particle velocity is adopted. The typical initial limits for vibration on the building façade/perimeter for a building of this age at any level should be set initially at **5.0mm/s** peak particle velocity (PPV) for continuous vibration, and **10mm/s** PPV for transient vibration.

Note:

These limits are based on industry best practice to limit structural damage.

The limits and monitoring regime should be reviewed as the works progress to take account of site conditions.

These limits do not guarantee that damage will not occur, as there may be localised unforeseen defects within the existing building structure and fabric that are exacerbated by the works.

The locations indicated in Appendix A are a combination between RWBHO and WH suggestions in line with the above suggested philosophy. All vibration monitoring locations are subject to approval/agreement with the relevant specialists and all relevant bodies e.g. TfGM.

5.4 Ongoing Reporting

A regular issue of visual, vibration, and positional monitoring records should be issued on a weekly basis at key stages of the project.

The format of this report to be agreed with the Project Manager and Engineer.

5.5 Threshold Exceedance and Damage Mitigation

In the event vibration limits are exceeded, the works in question should be paused to allow assessment of the building/external 3rd party assets. Equally, if defects are noted even where thresholds are not exceeded, works should be paused to allow review and inspection.

The visual and positional monitoring points will allow an assessment of the building/external asset position and condition to be reviewed and any damage noted. Working methodology should be reviewed in the light of the inspection and adjustments made as required to manage and reduce vibration levels. Vibration thresholds can be reviewed on an ongoing basis, either up or down, to react to 'real life' works impact on the building.



3rd parties must be kept apprised on any changes to agreed limits or methodologies.

Should resonance be observed in any form, then works must immediately stop and the building allowed to settle and cease movement.

6.0 End of Works

At the end of the enabling works, the client/ Woolgar Hunter will require receipt of the following items:

- All visual monitoring records.
- All vibration records.
- All positional records.

7.0 References

BRE Digest 403: Damage to Structures

BS 5228 – Code of Practice for Noise and Vibration Control on Construction and Open Sites

CIRIA Technical Note 142: Ground-borne Vibrations Arising from Piling

TRL Research Report 53 – Ground Vibration Caused by Civil Engineering Works

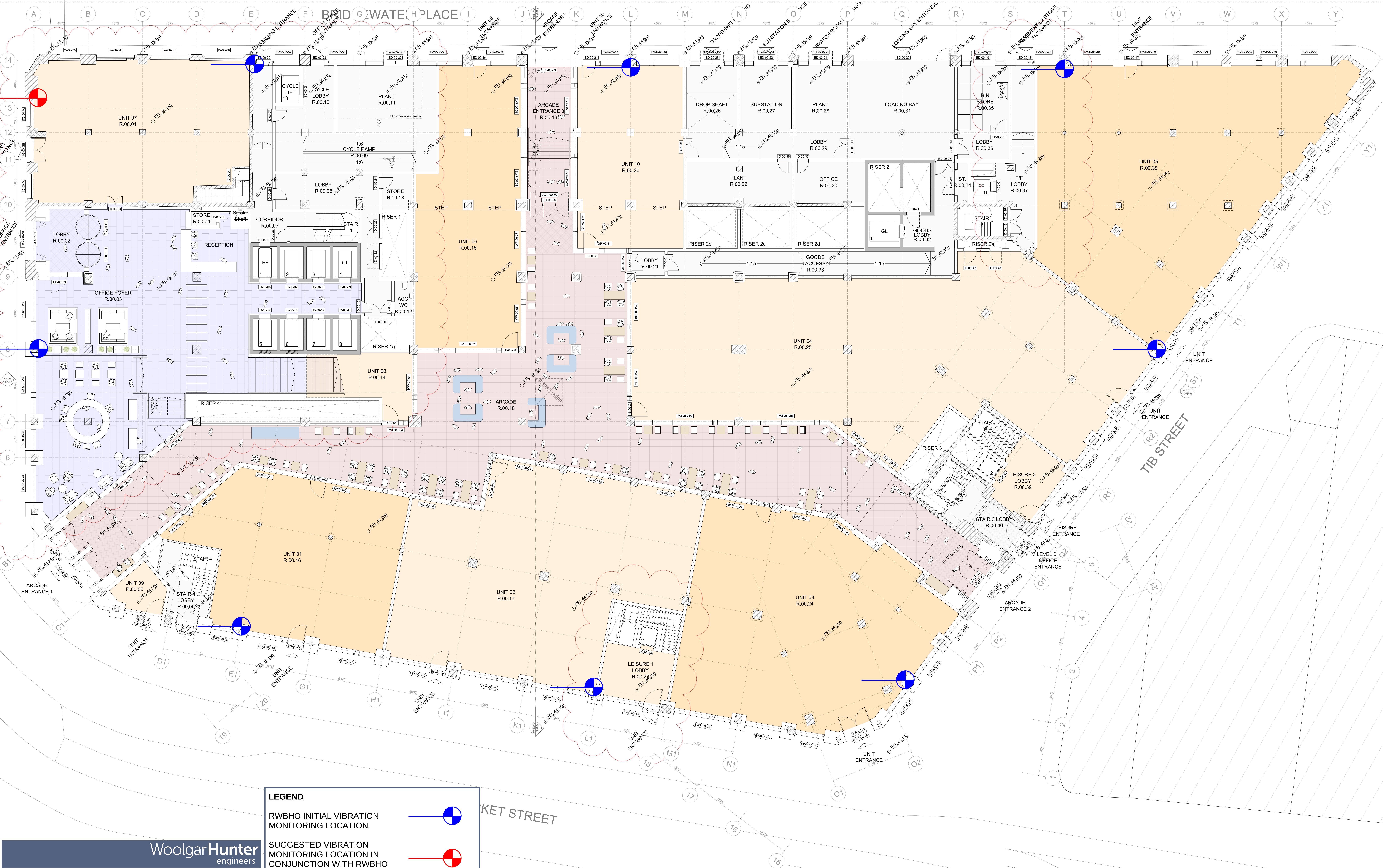
e_{nd}

Ref: EAJC / RBM-WHL-XX-XX-FN-S-0042_P03 / Rylands Building - Manchester / 06 June 2023



Appendix A – Vibration Monitoring Locations





WoolgarHunter
engineers

TITLE: PROPOSED MONITORING LOCATIONS
DOCUMENT NO.: RBM-WHL-XX-XX-FN-S-0042
PROJECT: RYLANDS
PROJECT NO.: 196002
ENGINEER: EAJC
DATE: 26.05.23
CHECKER: NGRC
DATE: 26.05.23

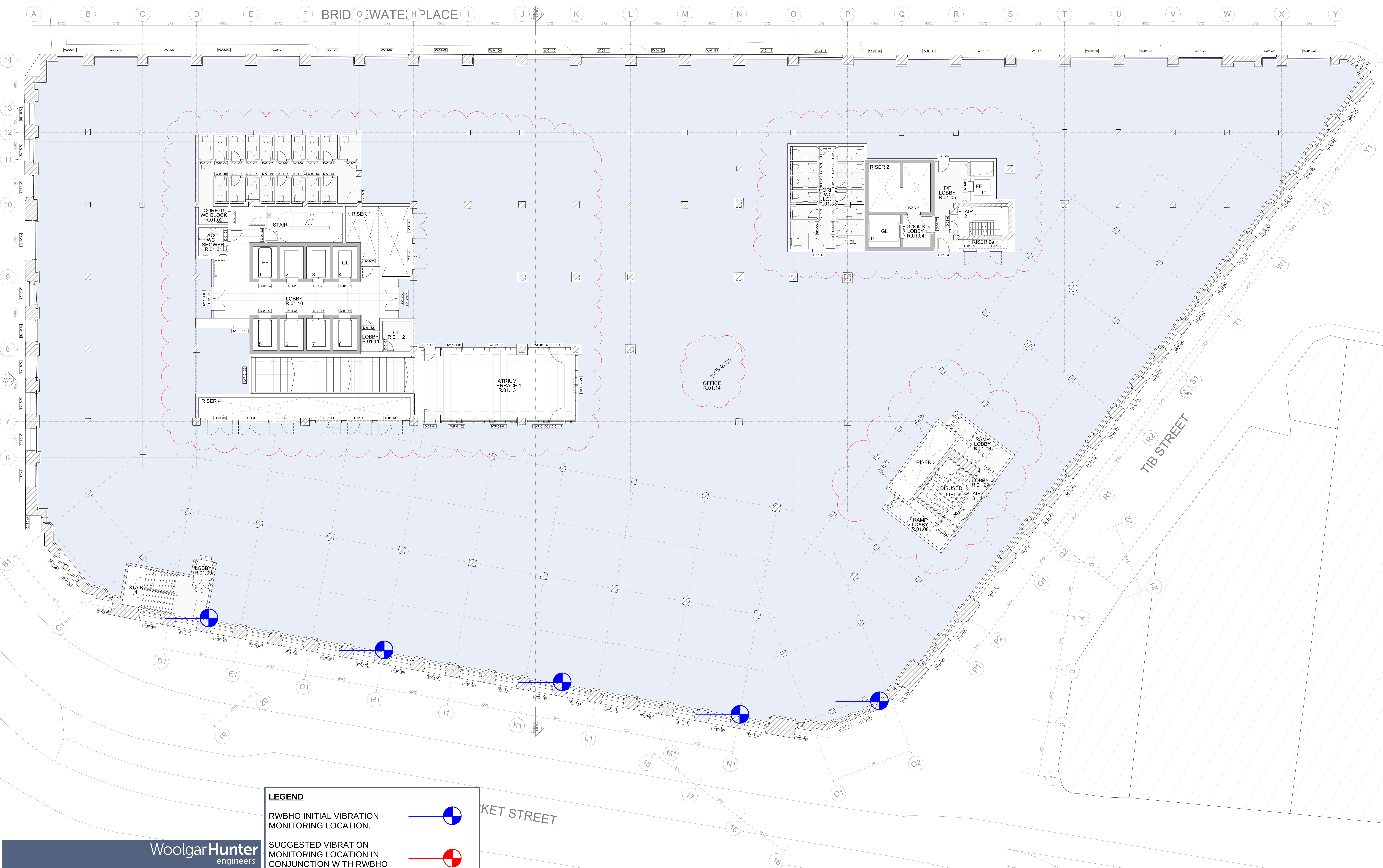
LEGEND

RWBHO INITIAL VIBRATION MONITORING LOCATION.

SUGGESTED VIBRATION MONITORING LOCATION IN CONJUNCTION WITH RWBHO LOCATIONS.

NOTES

PROPOSED MONITORING LOCATIONS TO BE AGREED WITH SPECIALIST AND ALL RELEVANT BODIES E.G. TFGM



WoolgarHunter
engineers

TITLE: PROPOSED MONITORING LOCATIONS
DOCUMENT NO.: RBM-WHL-XX-XX-FN-S-0042
PROJECT: RYLANDS
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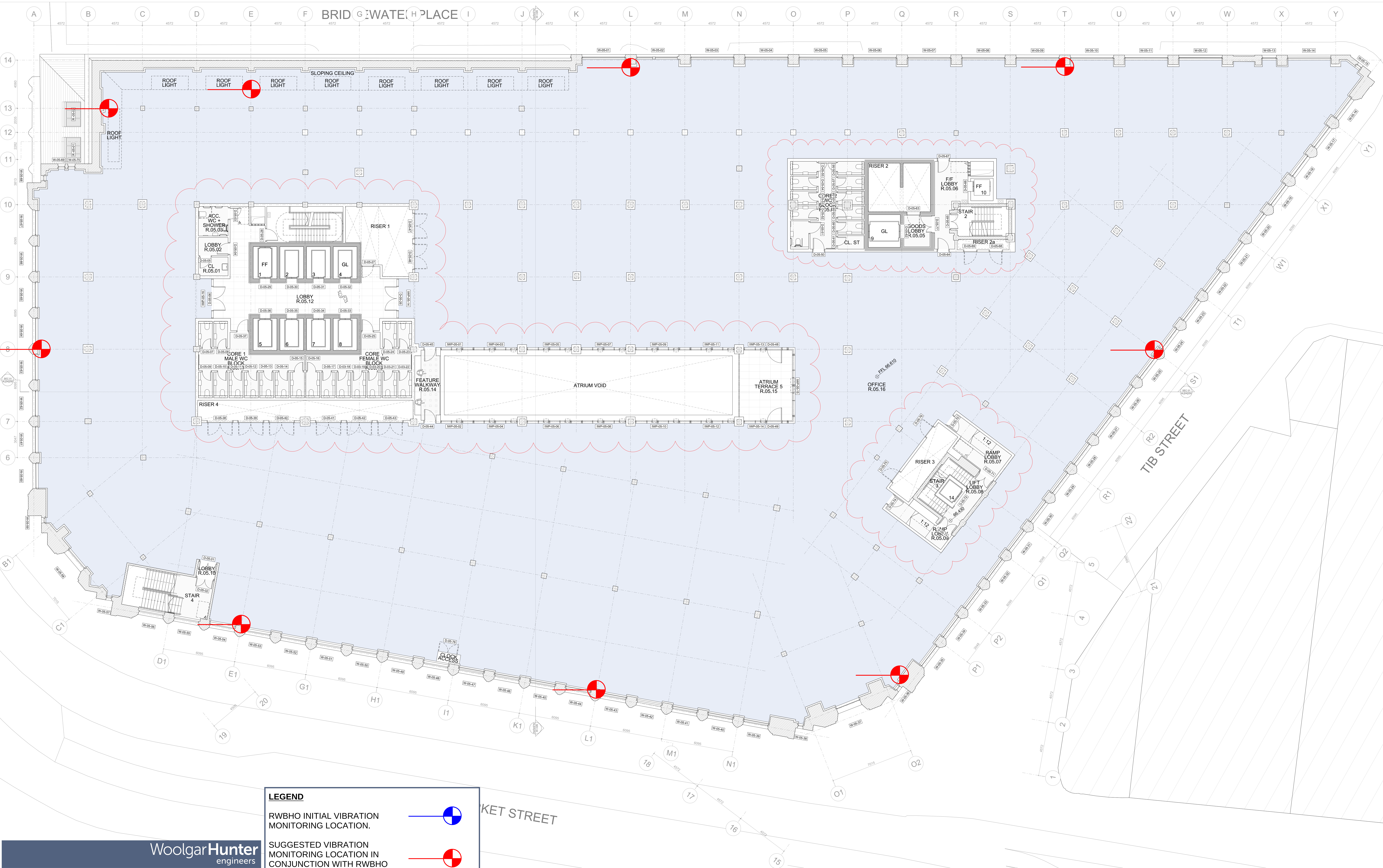
REVISIONS

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1	ISSUED FOR PERMIT	26.05.23
2	FOR CONSULTATION	26.05.23
3	FOR CONSULTATION	26.05.23
4	FOR CONSULTATION	26.05.23
5	FOR CONSULTATION	26.05.23
6	FOR CONSULTATION	26.05.23
7	FOR CONSULTATION	26.05.23
8	FOR CONSULTATION	26.05.23
9	FOR CONSULTATION	26.05.23
10	FOR CONSULTATION	26.05.23

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PROJECT RYLANDS BUILDING, MANCHESTER							SCALE 1:100@A0
CLIENT CD9 PROPERTIES (MANCHESTER) LTD							DATE FEB 2022
TITLE PROPOSED PLAN FIRST							JOB No 1526
							DWG No AL04j214
							REV D
							ISSUE FOR DESIGN INTENT STAGE 4A

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e studio@jeffreymbellarchitects.co.uk



WoolgarHunter
engineers

TITLE: PROPOSED MONITORING LOCATIONS
DOCUMENT NO.: RBM-WHL-XX-XX-FN-S-0042
PROJECT: RYLANDS
PROJECT NO.: 196002
ENGINEER: EAJC
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LEGEND

RWBHO INITIAL VIBRATION MONITORING LOCATION.

SUGGESTED VIBRATION MONITORING LOCATION IN CONJUNCTION WITH RWBHO LOCATIONS.

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PROPOSED MONITORING LOCATIONS TO BE AGREED WITH SPECIALIST AND ALL RELEVANT BODIES E.G. TFGM

REVISIONS

NO.	DATE	DESCRIPTION
1	26.05.23	ISSUED FOR CONSTRUCTION
2	26.05.23	ISSUED FOR CONSTRUCTION
3	26.05.23	ISSUED FOR CONSTRUCTION
4	26.05.23	ISSUED FOR CONSTRUCTION
5	26.05.23	ISSUED FOR CONSTRUCTION
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10	26.05.23	ISSUED FOR CONSTRUCTION

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CLIENT: CD9 PROPERTIES (MANCHESTER) LTD							DATE: FEB 2022
TITLE: PROPOSED PLAN FIFTH							JOB No: 1526
							DWG No: AL04J218
							REV: D
							ISSUE FOR: DESIGN INTENT STAGE 4A

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Rylands Building Manchester Scaffold Methodology Rev: D 01/06/2023

D – Update to hoist landing platform, stone protection and Metrolink support wire clarification of fixing.



Proposed Logistics plan

NOTE: Proposed welfare cabins within Bridgewater St. Building scaffold to provide access as required.

NOTE: Access required to retail unit & marketing suite

NOTE: Hoarding line tight to building at footpath level for Metrolink Line of Sight.
Scaffold above to accommodate

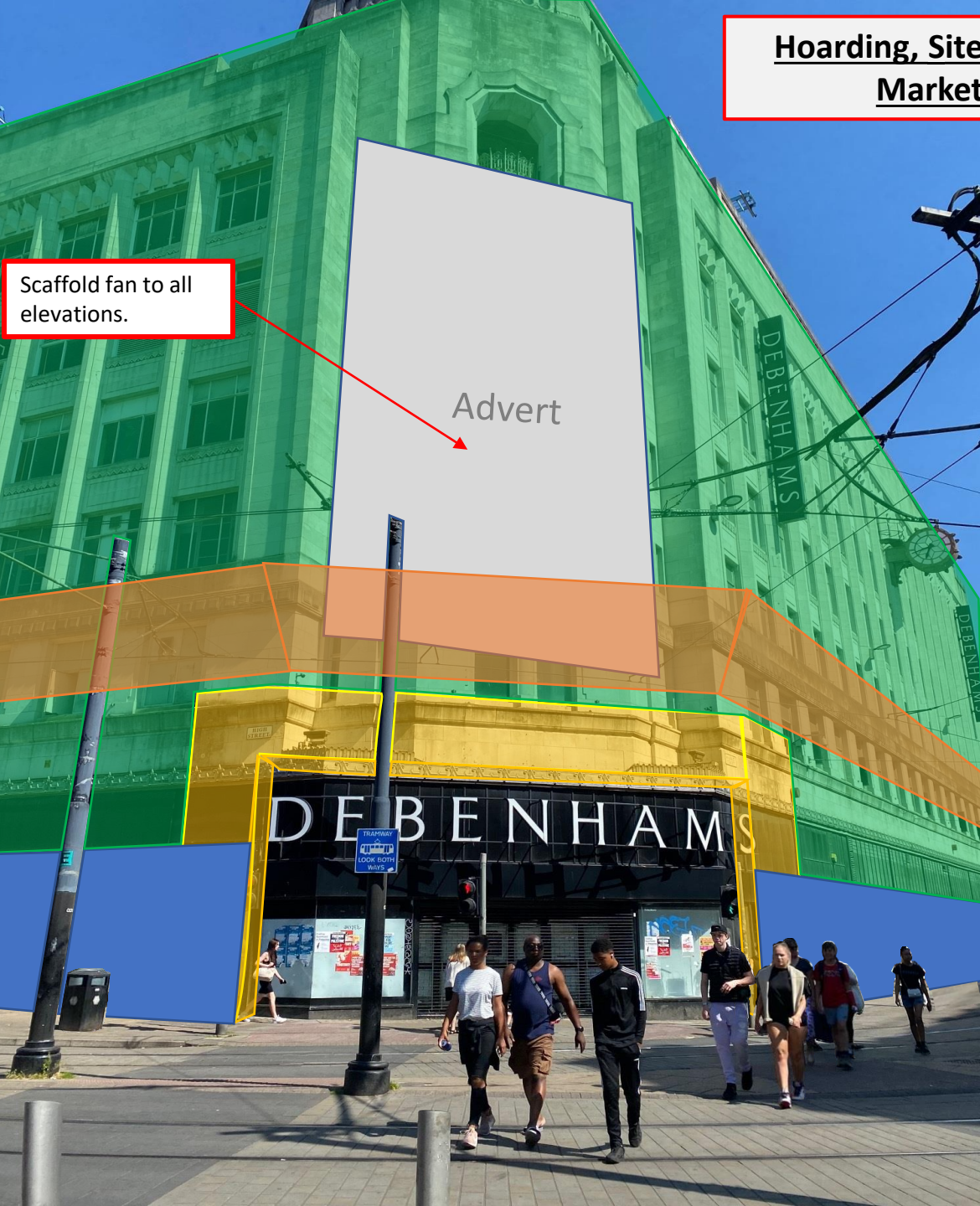
Burger van to remain in place

Key

- Site Boundary
- Solid Hoarding
- Heras Fencing
- Vehicle Gates
- ▲ Guard location
- Site Skips
- Turnstile
- ◆ Muster Point
- Site welfare
- Hoist – Materials
- ▨ Exclusion zone
- Site Pedestrians
- Public Pedestrians
- ➡ Site access / Egress
- ➡ Highway traffic
- Metro line Exclusion zone
- ➡ Adjacent building exits
- Tower Crane Void



Hoarding, Site Security & Scaffold Market St / Hight St



Scaffold fan to all elevations.

Advert

- Façade to be completely scaffolded
 - Monoflex sheeting to be applied
 - To be adapted for renovation work to the clock
 - To be erected in accordance with Metro link guidelines.
 - Advertising banners to be applied to High Street and Tib Street corners.
-
- Market St / High St corner to receive a narrow scaffold for pedestrian movement
 - Solid timber hoarding to be fitted at street level for security
 - Metrolink line-of-sight to be maintained as far as possible.

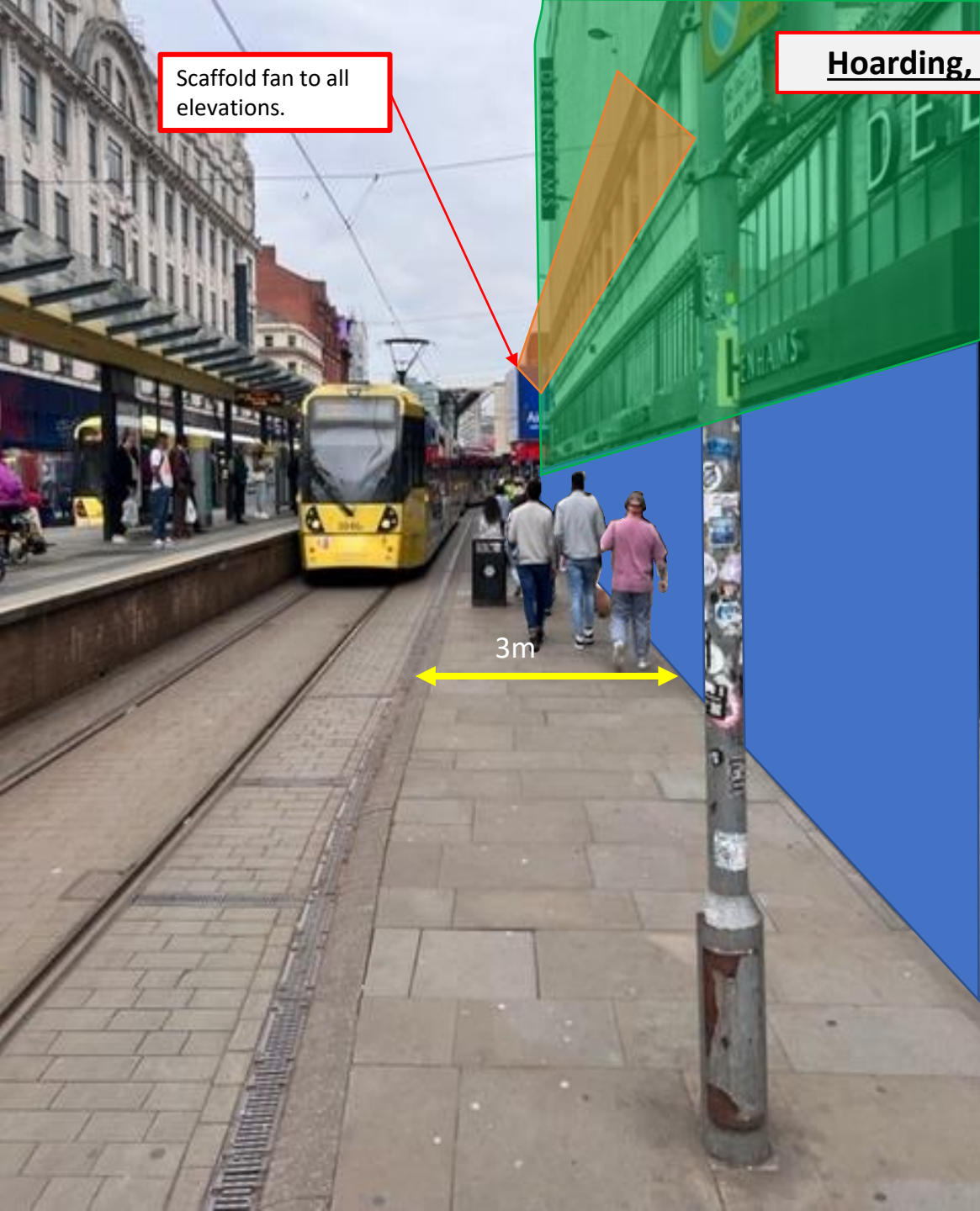


- Example of advertising on adjacent Arndale Centre

Hoarding, Site Security & Scaffold

- 2.4 m high solid timber hoarding
- Safety lights
- Warning signage
- Russells Branding
- Burger Van to remain in place
- 2.0m wide footpath to the side of Starbucks Coffee
- Some street furniture such as bins may need to be removed for pedestrian movement.
- Scaffold built covering full façade
- Sheeted with Monarflex
- Metrolink tie wires to be unaffected by works.





Scaffold fan to all elevations.

Hoarding, Site Security & Scaffold

- Hoarding line set to 3.0m minimum distance for working alongside Metro link
 - All Metrolink cables fixed to the building will be unaffected by the works
 - Street furniture such as bins may need to be relocated to allow for better pedestrian safety.
-
- 2.4 m high solid timber hoarding
 - Safety lights
 - Warning signage
 - Russells Branding
-
- Scaffold to be built behind hoardings as shown
 - Fully sheeted with Monarflex

Bridgewater Place

Scaffold fan to all elevations.

Must be retractable Combi-safe or similar for use of crane at pick up location.

Scaffolding to Bridgewater Place

- To be narrow at the ground to the top of the roller shutter doors to allow movement of vehicles on the carriageway and to allow large skips to use the loading areas within the building.
- Access to the loading bay areas for skip access to be maintained
- Plywood hoarding to 2.4m with full monoflex sheeting above to prevent unauthorized access.
- Vehicle gates to control access and egress to the loading bays and crane pick up point.

Bridgewater Place footpath to remain open for adjacent building egress routes. Lighting to be applied to hoarding.

Manufactured gates to provide access to full opening.

Bridgewater Place roadway to remain open from the junction of Joiner St.

South Elevation (Market St)

Rylands Building
External Scaffold

Full Frame Scaffold (5 boards + 2 Internal boards)

- Fan included
- Beam over where pavement narrows
- Fully sheeted
- Care taken around existing clock
- Internal ladders with self locking hatches
- Out of hours erection up to fan to South and West (Tram)

Cupola Roof (High St)

Heritage Zone roof

CLOCK: Section of façade scaffold to be left out to facilitate the removal of the clock. Scaffold to be infilled after removal and removed again for reinstatement.

Cupola roof (Tib St)

Cupola access

Cupola access

Market St Elevation (Level 7 heritage)

Protection fan

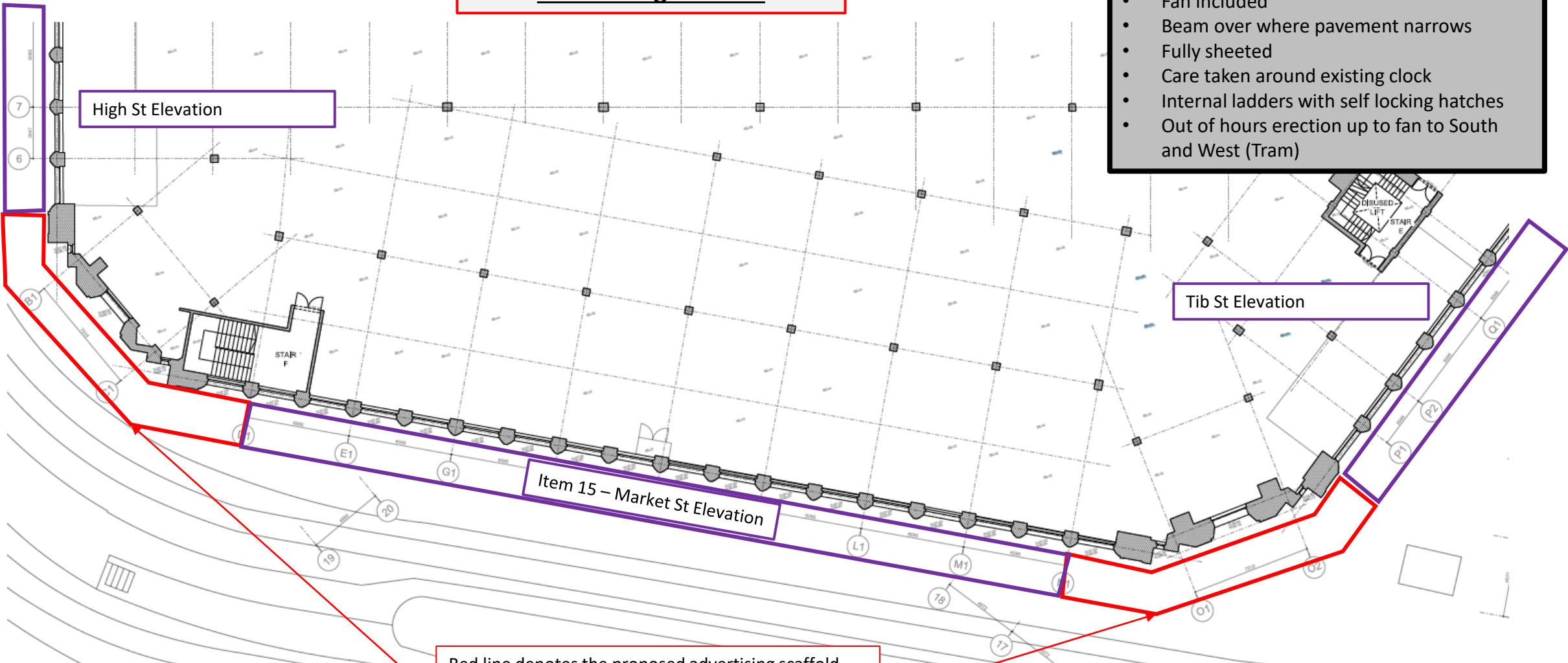
Market St Elevation

Red line denotes the proposed advertising scaffold. Which will need to be erected first with infill, cupolas etc added at a later date.

South Elevation (Market St)

Rylands Building
(Currently Approved)
Advertising Scaffold

- Full Frame Scaffold (5 boards + 2 Internal boards)
- Fan included
 - Beam over where pavement narrows
 - Fully sheeted
 - Care taken around existing clock
 - Internal ladders with self locking hatches
 - Out of hours erection up to fan to South and West (Tram)

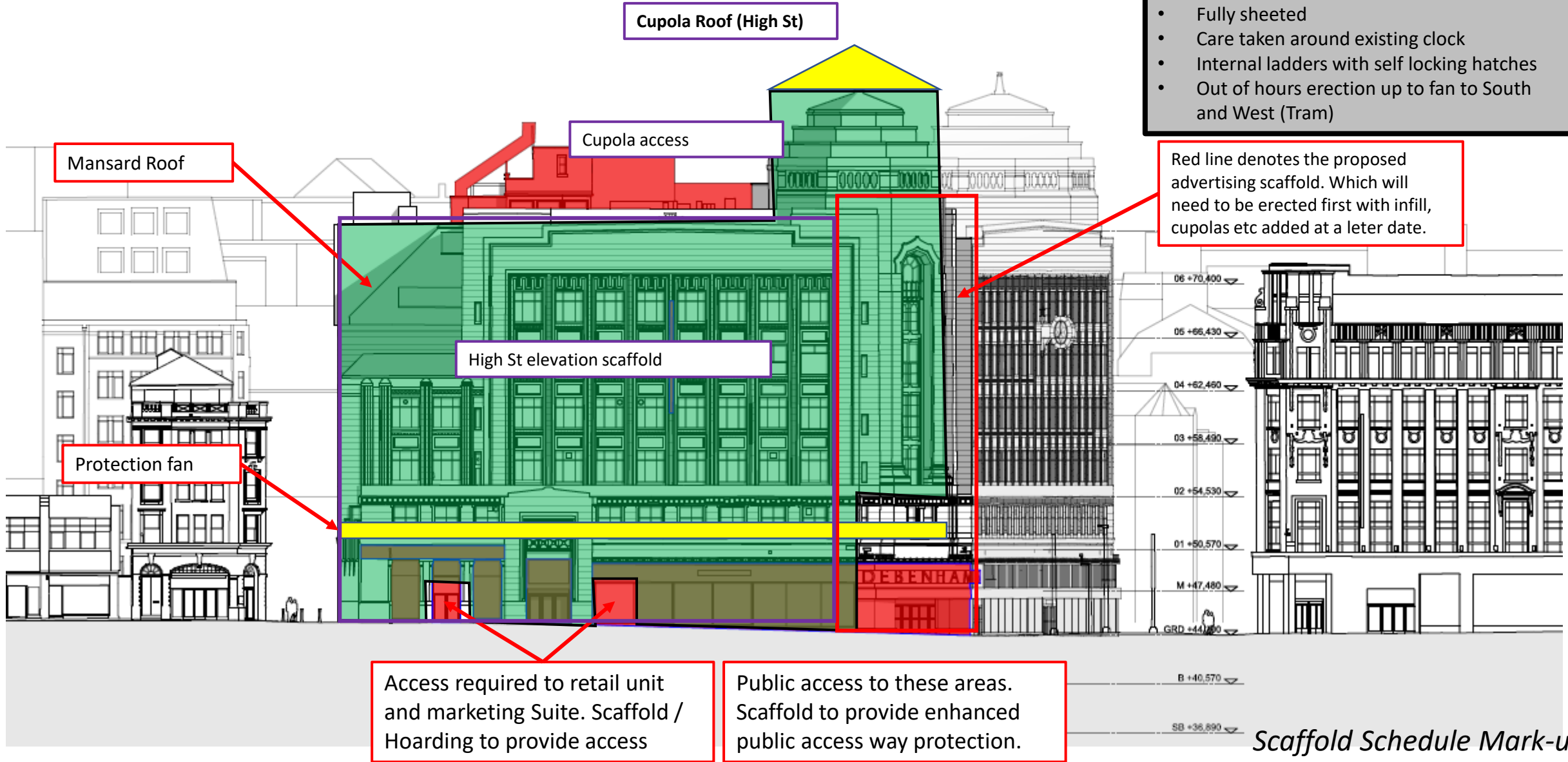


Red line denotes the proposed advertising scaffold.
(in line with current draft design) Which will need to
be erected first with infill, cupolas etc added at a later
date.

West Elevation

Rylands Building
External Scaffold
High St Elevation.

- Full Frame Scaffold (5 boards + 2 Internal boards)**
- Fan included
 - Beam over where pavement narrows
 - Fully sheeted
 - Care taken around existing clock
 - Internal ladders with self locking hatches
 - Out of hours erection up to fan to South and West (Tram)



Cupola Roof (High St)

Mansard Roof

Cupola access

Red line denotes the proposed advertising scaffold. Which will need to be erected first with infill, cupolas etc added at a later date.

Protection fan

High St elevation scaffold

Access required to retail unit and marketing Suite. Scaffold / Hoarding to provide access

Public access to these areas. Scaffold to provide enhanced public access way protection.

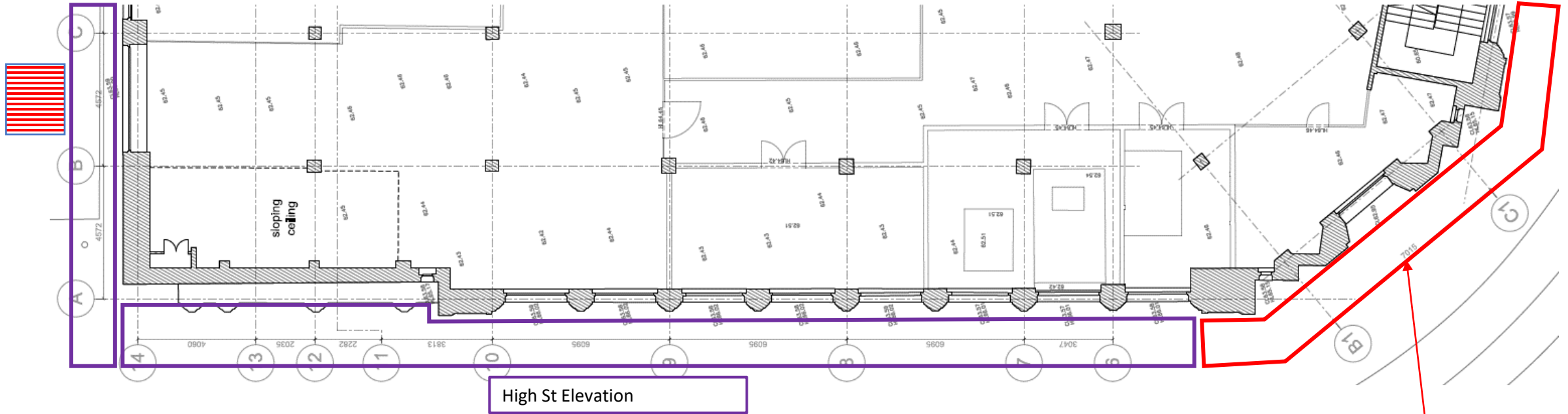
South Elevation (Market St)

Rylands Building
(Currently Approved)
Advertising Scaffold

Full Frame Scaffold (5 boards + 2 Internal boards)

- Fan included
- Beam over where pavement narrows
- Fully sheeted
- Care taken around existing clock
- Internal ladders with self locking hatches
- Out of hours erection up to fan to South and West (Tram)

Bridgewater St (Second Half)



Red line denotes the proposed advertising scaffold.
(in line with current draft design) Which will need to
be erected first with infill, cupolas etc added at a later
date.

East Elevation

Rylands Building
External Scaffold

- Full Frame Scaffold (5 boards + 2 Internal boards)
- Fan included
 - Beam over where pavement narrows
 - Fully sheeted
 - Care taken around existing clock
 - Internal ladders with self locking hatches
 - Out of hours erection up to fan to South and West (Tram)

Cupola & heritage roof
(Tib St)

Cupola access

Tib St hoist stair scaffold

Protection fan

Tib St Elevation scaffold

Tib St Elevation Fan

Red line denotes the proposed advertising scaffold. Which will need to be erected first with infill, cupolas etc added at a later date.

Access to ground floor from Tib St loading area.

South Elevation (Market St)

Rylands Building
(Currently Approved)
Advertising Scaffold

- Full Frame Scaffold (5 boards + 2 Internal boards)
- Fan included
 - Beam over where pavement narrows
 - Fully sheeted
 - Care taken around existing clock
 - Internal ladders with self locking hatches
 - Out of hours erection up to fan to South and West (Tram)

Market St Elevation

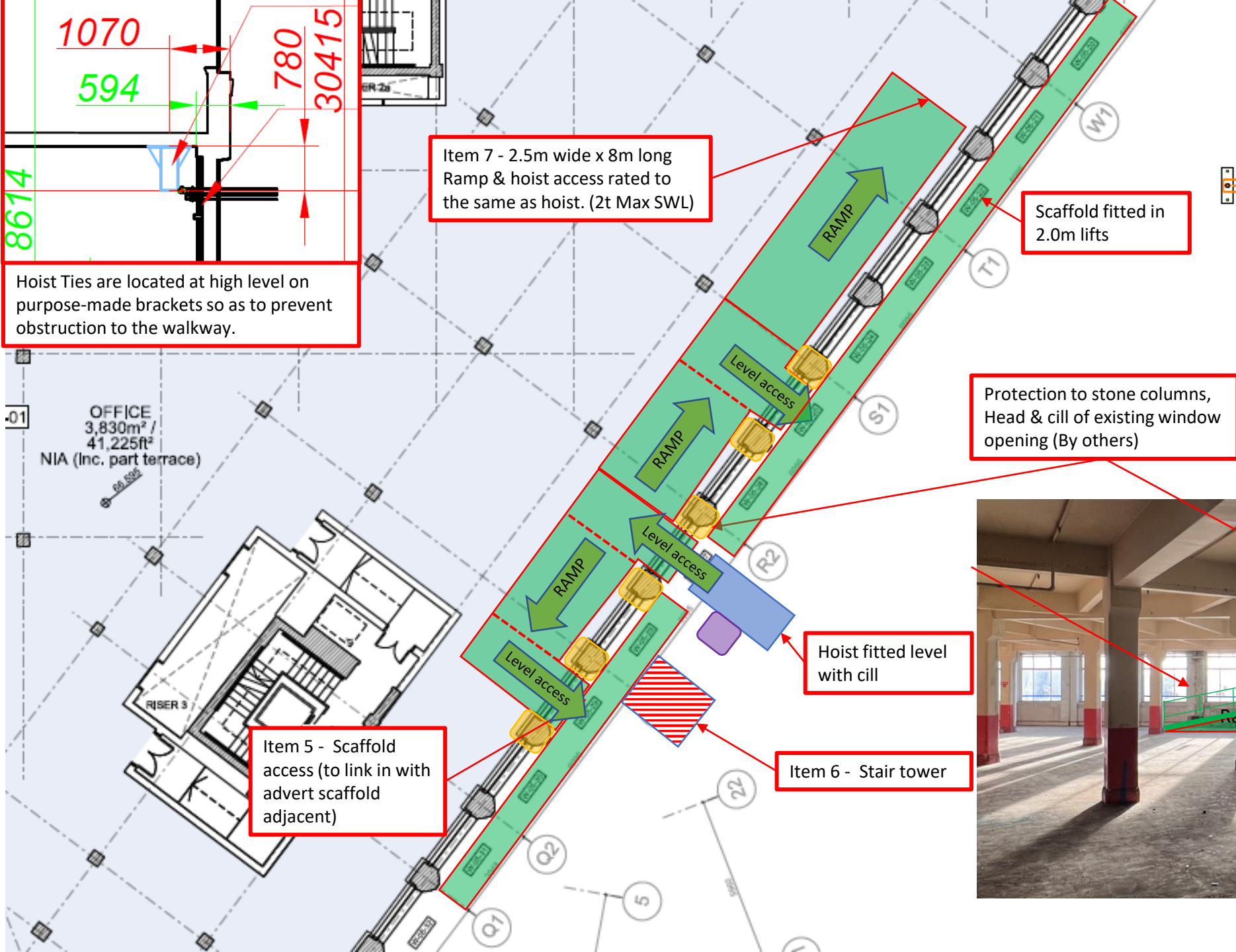
Red line denotes the proposed advertising scaffold.
(in line with current draft design) Which will need to
be erected first with infill, cupolas etc added at a later
date.

Bridgewater St (first half)

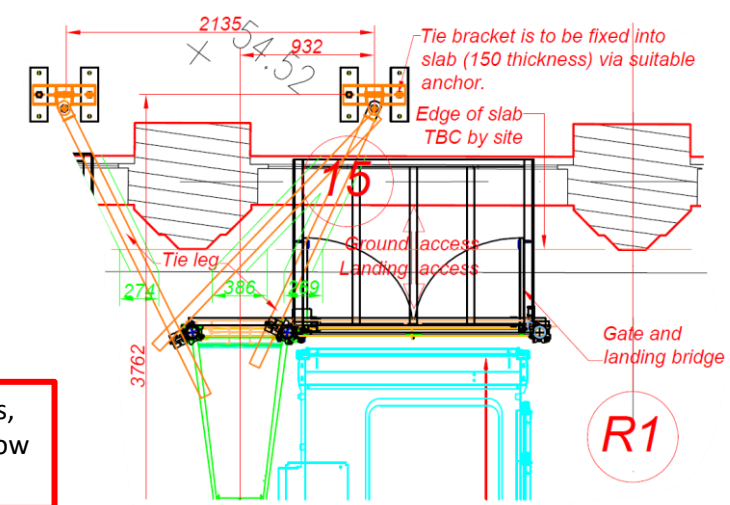
RAMP

Tib St access
Internal ramps & platforms.

Tib St Elevation



Hoist / hacky stair access to all floors (excluding level 6)

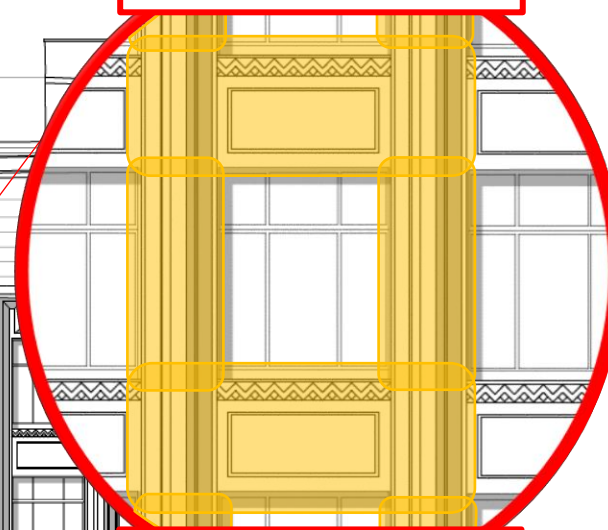


Scaffold Schedule Mark-up

Item 5, 6 – Tib St Hoist / Stair access tower



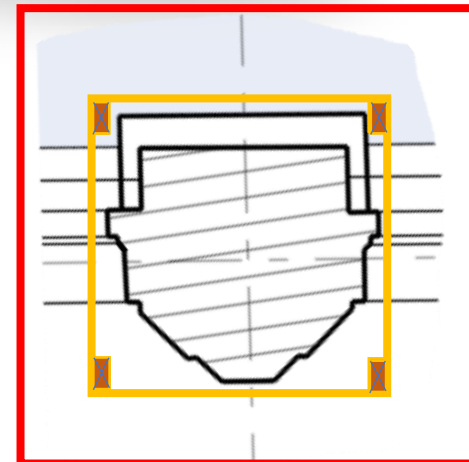
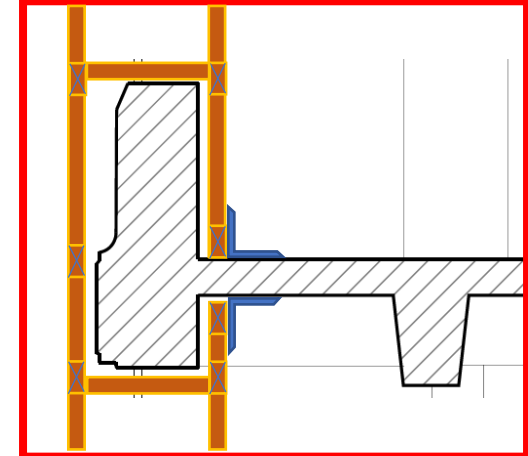
Applies to all floors serviced by the hoist & stair tower.



Protection to stone columns, Head & cill of existing window opening

Protection proposal at access locations.

The protection to the stone head and cill will be 18mm ply fitted to a timber structure that will be tightly fitted around the stone and fixed to the structure using brackets fixed in to the concrete slab internally.



The protection to columns will be 18mm ply fitted to a timber frame loosely fitted around the columns as tight as possible without fixings. The box will be tied to a pre-formed timber frame.

North Elevation

Rylands Building
External Scaffold

- Full Frame Scaffold (5 boards + 2 Internal boards)
- Fan included
 - Beam over where pavement narrows
 - Fully sheeted
 - Care taken around existing clock
 - Internal ladders with self locking hatches
 - Out of hours erection up to fan to South and West (Tram)

Bridgewater St (first half)

Bridgewater St (Second half)

Protection fan

Protection fan

Loading bay doors to remain un obstructed by scaffold.

- HAKI Stairs**
Fitted in 2 No sections.
1. Ground to Second floor
 2. Second floor to roof

Exit door and sub station doors to remain unobstructed.

South Elevation (Market St)

Rylands Building Scaffold

- Full Frame Scaffold (5 boards + 2 Internal boards)
- Fan included
 - Beam over where pavement narrows
 - Fully sheeted
 - Care taken around existing clock
 - Internal ladders with self locking hatches
 - Out of hours erection up to fan to South and West (Tram)

Item 21 – Tib St Elevation

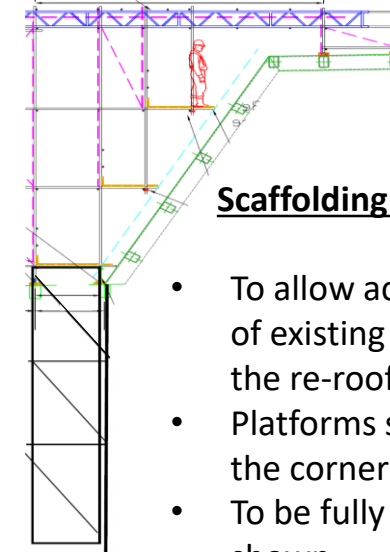
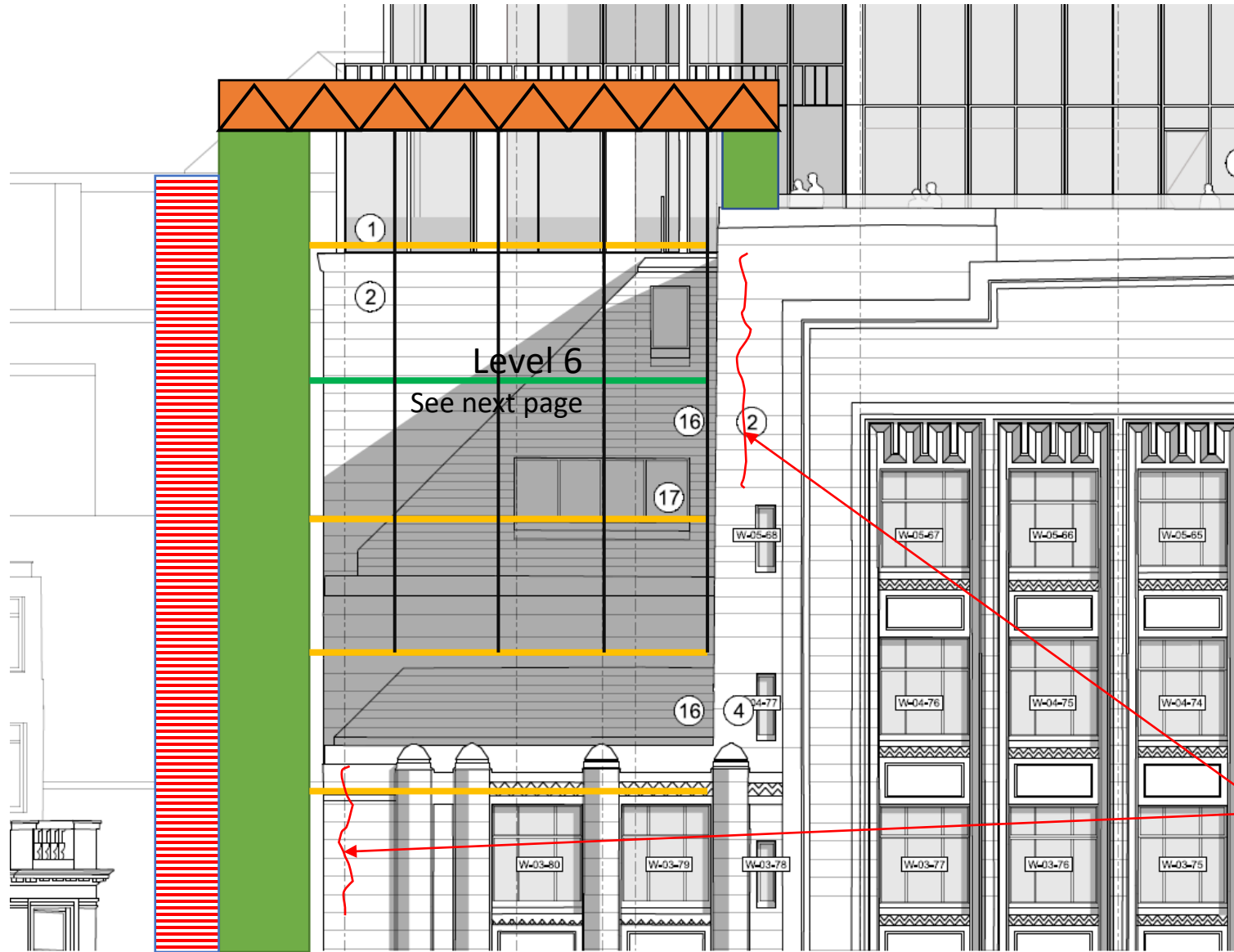
Loading bay doors to remain unobstructed by scaffold.

Exit door and sub station doors to remain unobstructed by external scaffold.

Item 8 – Bridgewater St (first half)

Item 10 – Bridgewater St (Second Half)

Mansard Roof & Stone repair

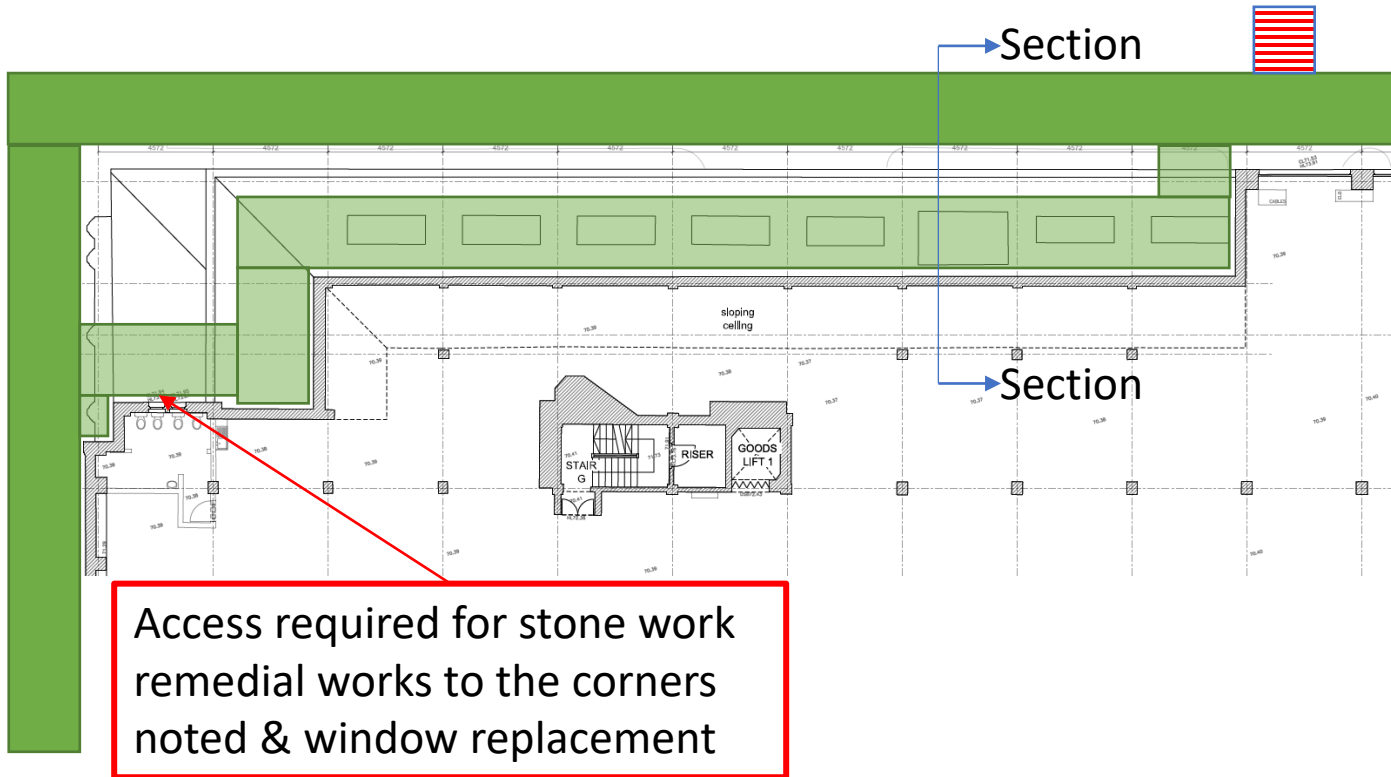


Scaffolding to High-Level Mansard Roof

- To allow access in 2m lifts for the removal of existing coverings, repair works, and the re-roofing activity.
- Platforms should wrap around the roof at the corner of High St / Bridgewater Pl.
- To be fully designed to allow the intent as shown
- Allowance for felt, batten & slate to roof.
- Scaffold to receive a Monarflex covering

Access required for stone work remedial works to the corners noted & glazing replacement

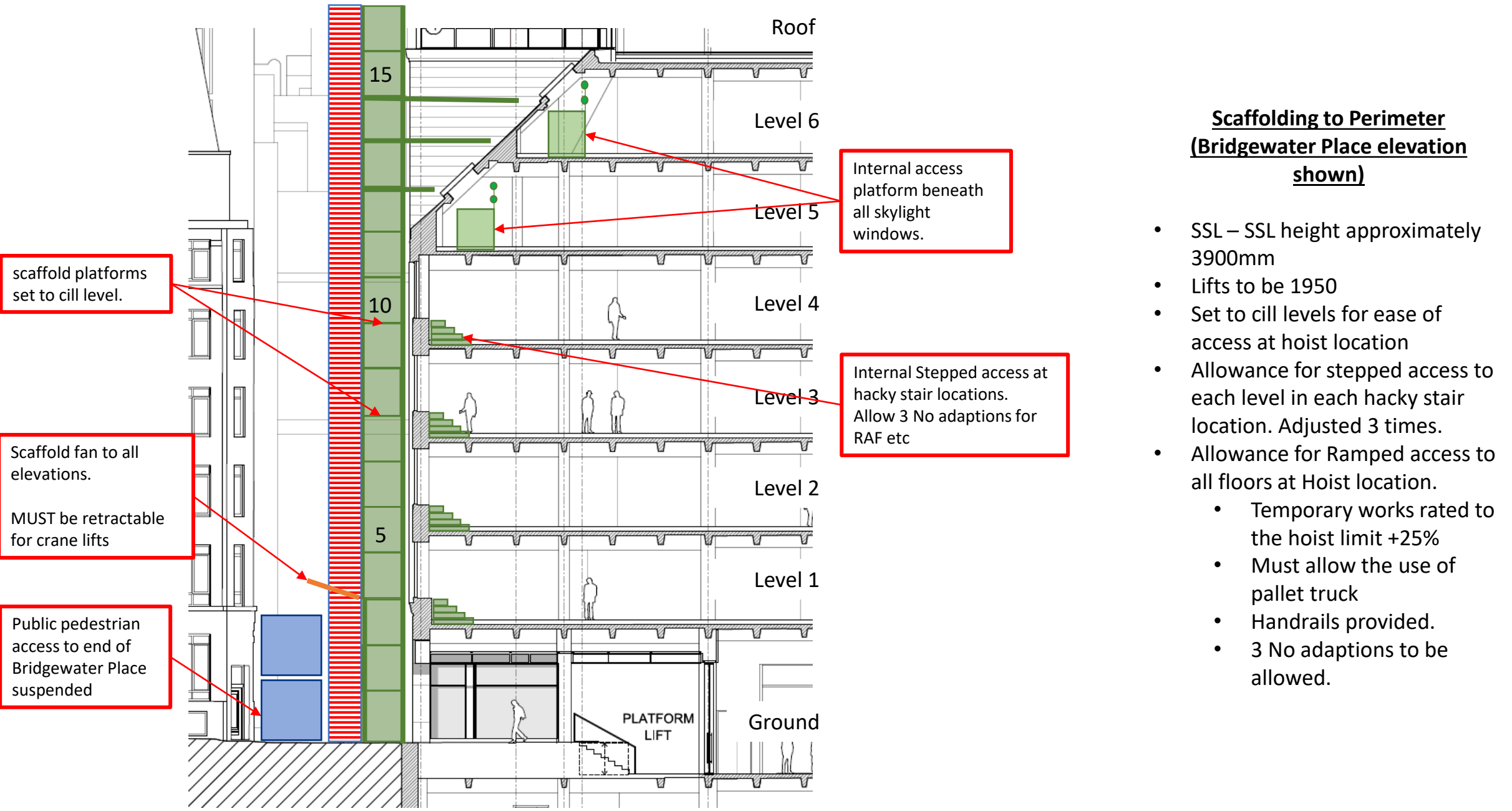
Mansard Roof & Stone Repair
Level 6 (platforms below & above
NOT shown)



Scaffolding to High-Level Mansard Roof

- To allow access in 2m lifts for the removal of existing coverings, stone repair works, and the re-roofing activity.
- Platforms should wrap around the roof at the corner of High St / Bridgewater Pl.
- To be fully designed to allow the intent as shown
- Allowance for adjustment to undertake felt, batten & slate to roof.
- Platforms internally to allow works to roof lights.
- Scaffold to receive a Monarflex covering

Section to show lifts - Bridgewater Place



Scaffolding to Perimeter (Bridgewater Place elevation shown)

- SSL – SSL height approximately 3900mm
- Lifts to be 1950
- Set to cill levels for ease of access at hoist location
- Allowance for stepped access to each level in each hacky stair location. Adjusted 3 times.
- Allowance for Ramped access to all floors at Hoist location.
 - Temporary works rated to the hoist limit +25%
 - Must allow the use of pallet truck
 - Handrails provided.
 - 3 No adaptations to be allowed.

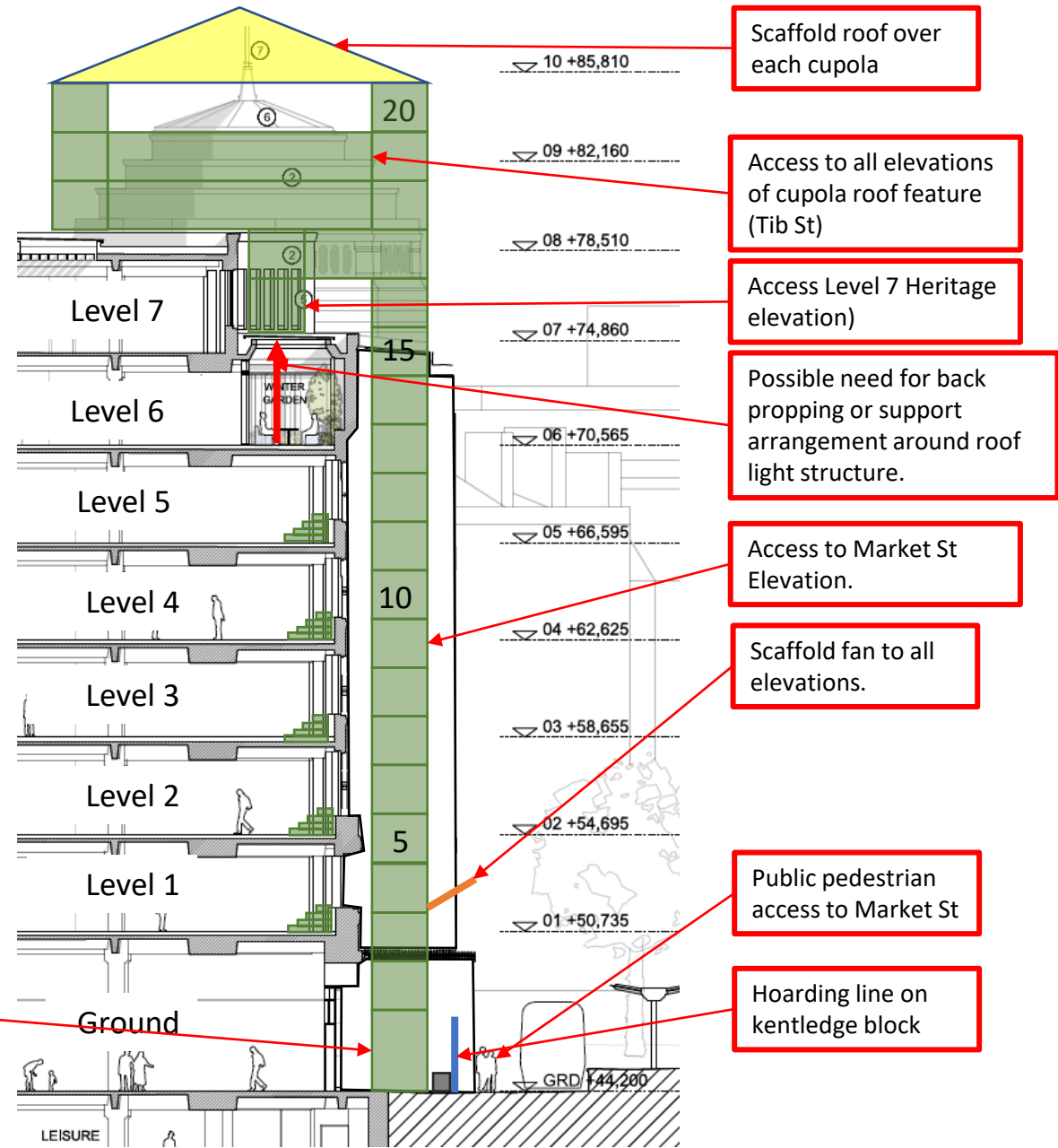
Section to show lifts on Market St

Scaffolding to Perimeter (Bridgewater Place elevation shown)

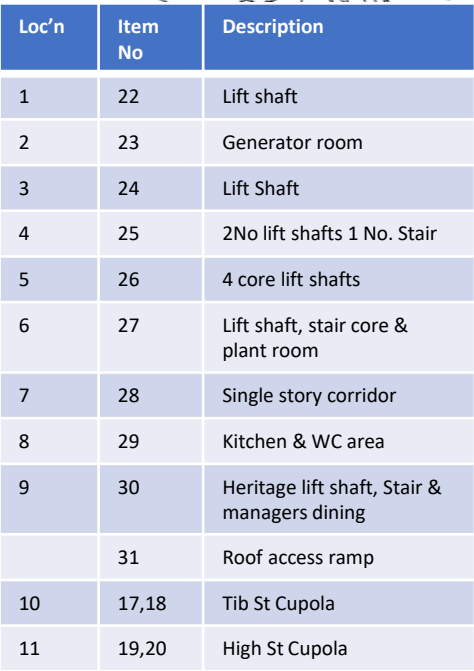
- SSL – SSL height approximately 3900mm
- Lifts to be 1950
- Set to cill levels for ease of access at the hoist location
- Minimum 2 Board hop-ups dressed to the profile of the building
- Allowance for stepped access to each level in each hacky stair location
- Allowance for Ramped access to all floors at the Hoist location.
 - Temporary works rated to the hoist limit +25%
 - Must allow the use of pallet truck
- Allowance for 2 No NICO rails within roof structure to allow fitting of new glass where edge protection cant be fitted.

Allow for spreader beams to span to structure to below pavement light.

Allow for progressive adjustment to allow upgrade of pavement light structure below.

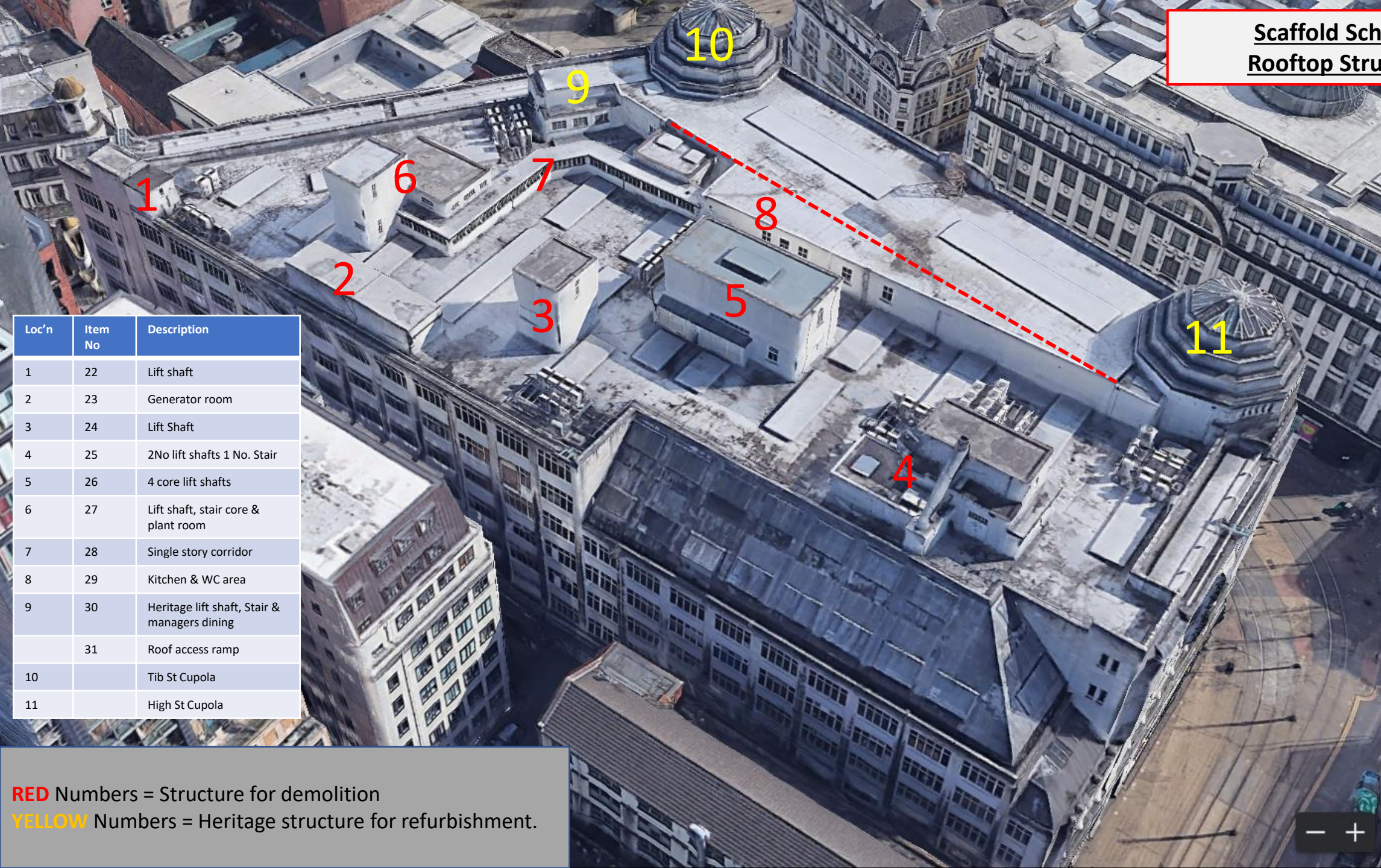


Scaffold Schedule Rooftop Scaffold



- Scaffold to allow hoist and hacky stair to be fitted.
- Platform required to extend above level 7 parapet
- Ramp from platform to roof level (approx. 1.2m height)

Scaffold Schedule
Rooftop Structures



Loc'n	Item No	Description
1	22	Lift shaft
2	23	Generator room
3	24	Lift Shaft
4	25	2No lift shafts 1 No. Stair
5	26	4 core lift shafts
6	27	Lift shaft, stair core & plant room
7	28	Single story corridor
8	29	Kitchen & WC area
9	30	Heritage lift shaft, Stair & managers dining
	31	Roof access ramp
10		Tib St Cupola
11		High St Cupola

RED Numbers = Structure for demolition
YELLOW Numbers = Heritage structure for refurbishment.

Scaffold Schedule Lift core over run example

Double height lift over run

- Approximately 6.0m high.
- Allow for 3 No. lifts.
- Top lift to be level with parapet for demolition activities.
- Ladder access.

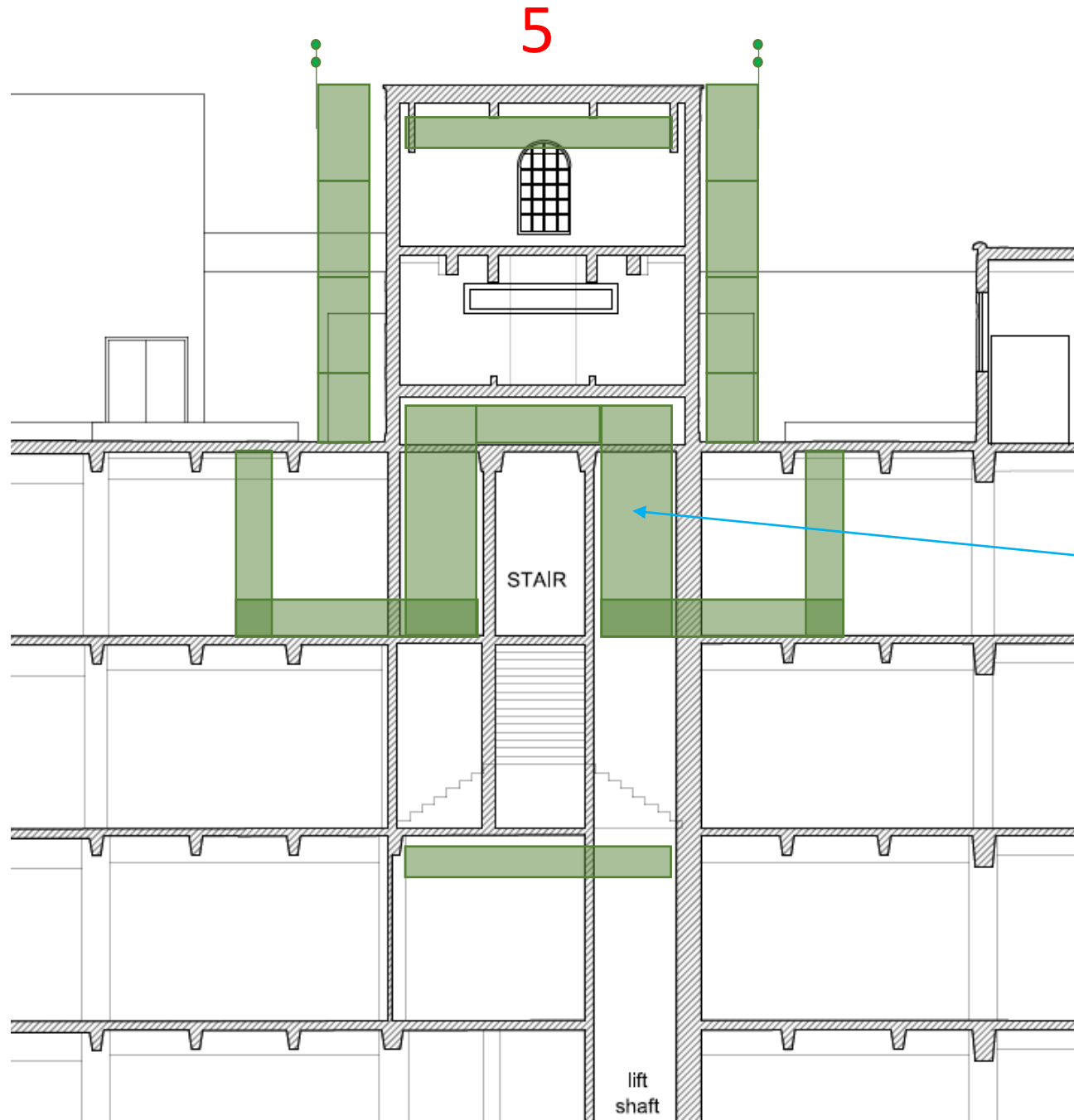
NOTE:

- Smoke clearance vents in to lift shafts below.
- **ALL** Lift shaft cores below will need cantilevered crash decks to protect against falling debris.

Fragile glass block roof TW required to load

Care to be taken when scaffolding around structures.
Back propping allowance to be made below.
Once removed, areas will need a crash deck below and handrail to allow for infill works.

Scaffold Schedule
Lift core over run example

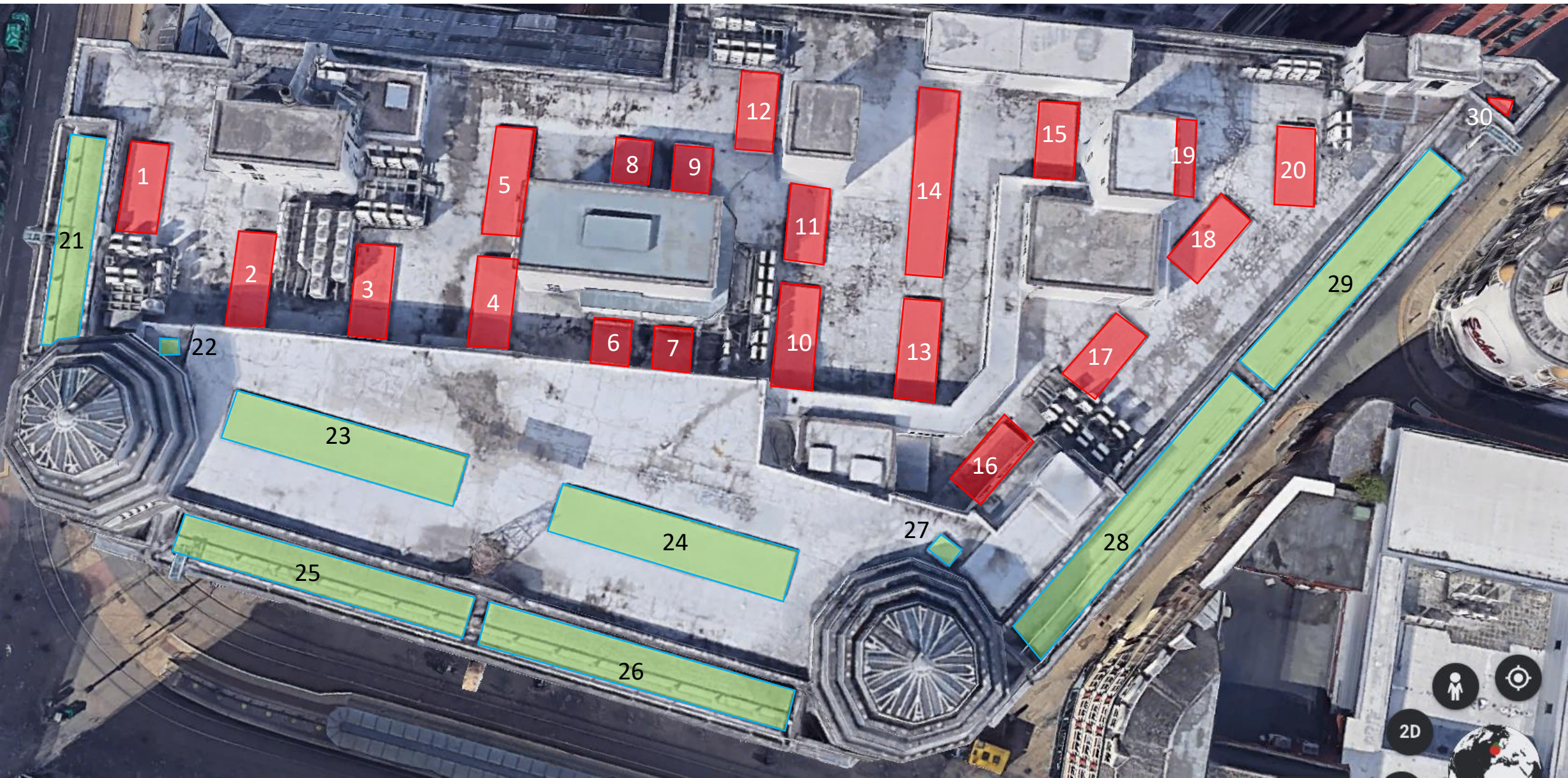


NOTE:

- **ALL** Lift shaft cores below will need cantilevered crash decks to protect against falling debris.
- The main lift core (5) is triple width.
- Contractor to review site conditions and provide a suitable design.

RED item = Removed within demolition works
GREEN item = Retained and upgraded

**Removal & Refurbishment of existing
glazed block roof lights.**

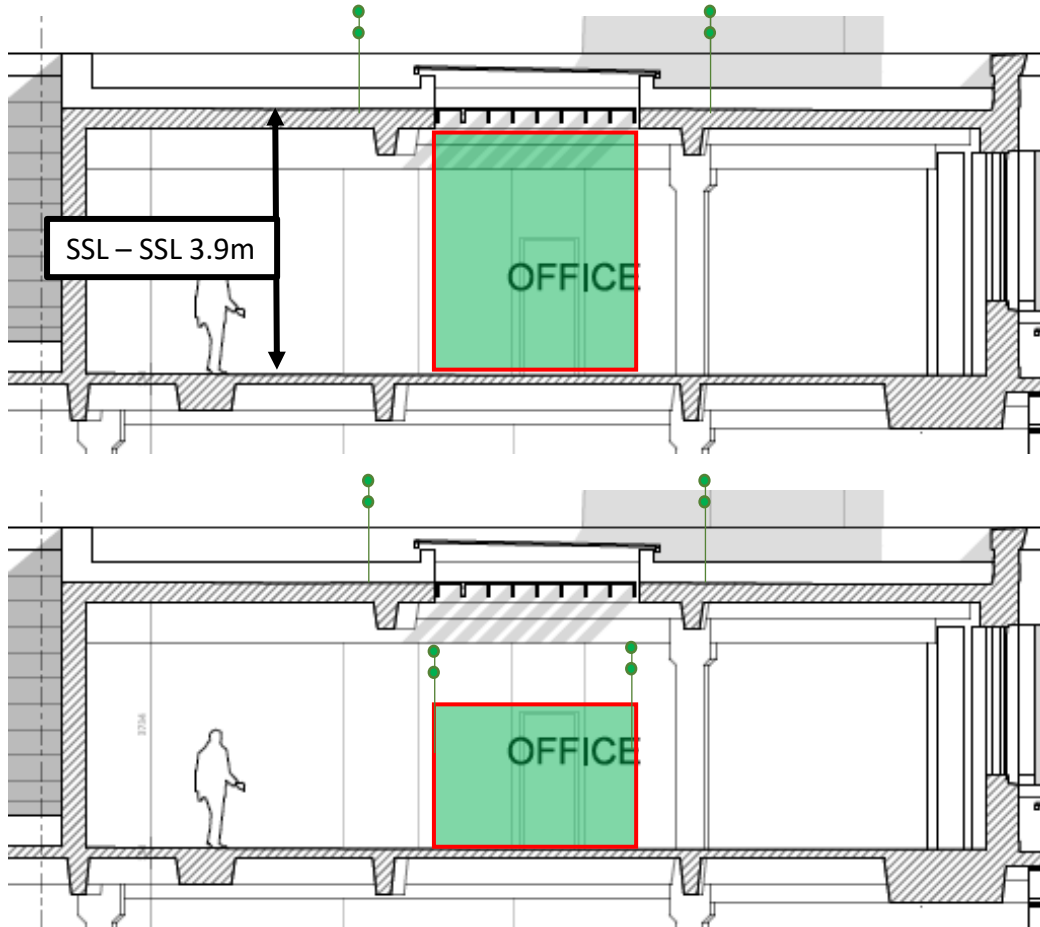


Refurbishment of existing glazed block roof lights.

Lightweight Edge protection allowance following works to roof lights until Practical completion.

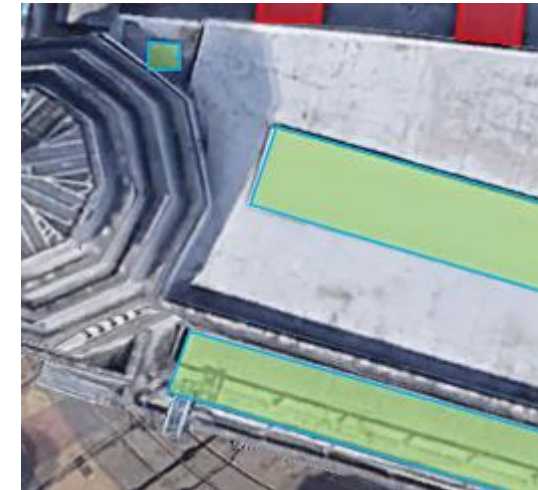
Fragile Roof Light **REPAIR & UPGRADE** sequence

Allowance to be made for erection and 2 amendments to each platform below existing roof lights for retention



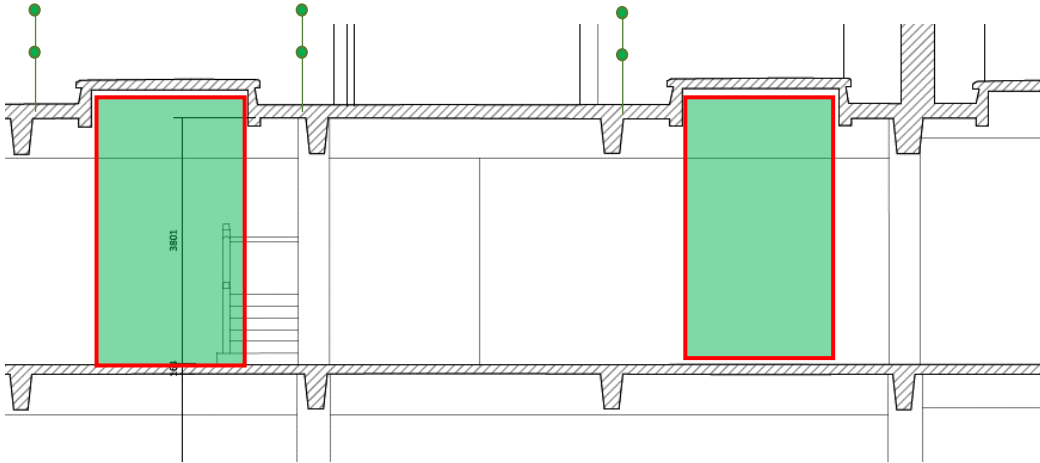
- 1, Crash deck tight to the underside to allow:
 - Removal of existing weathering membrane & build-up.
 - Repair works & cleaning to the existing roof light
 - Installation of the new upstand, glazed-over light & roofing membrane

- 2, Platform adjusted down to provide access for:
 - Repair works and then decoration to the underside.

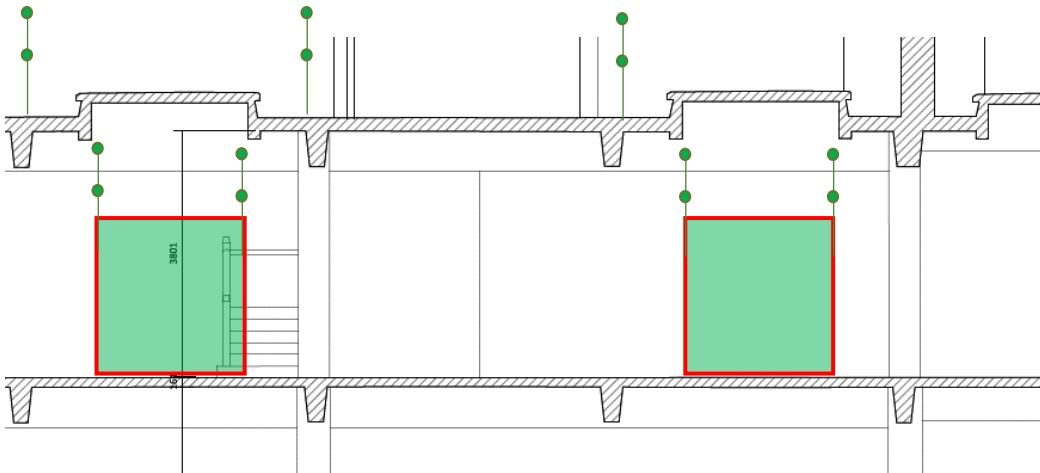


Removal of existing glazed block roof lights.

Lightweight Edge protection allowance following works to roof lights until Practical completion.



- 1, Crash deck tight to the underside to allow:
- Removal of existing weathering membrane & build-up.
 - Removal of existing upstands and roofing membrane build up.

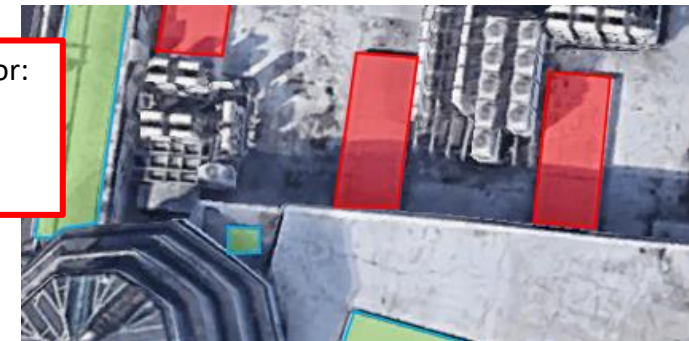


- 2, Platform adjusted down to provide access for:
- Preparation of slab edges.
 - Remove platform
 - Formwork provided by others.

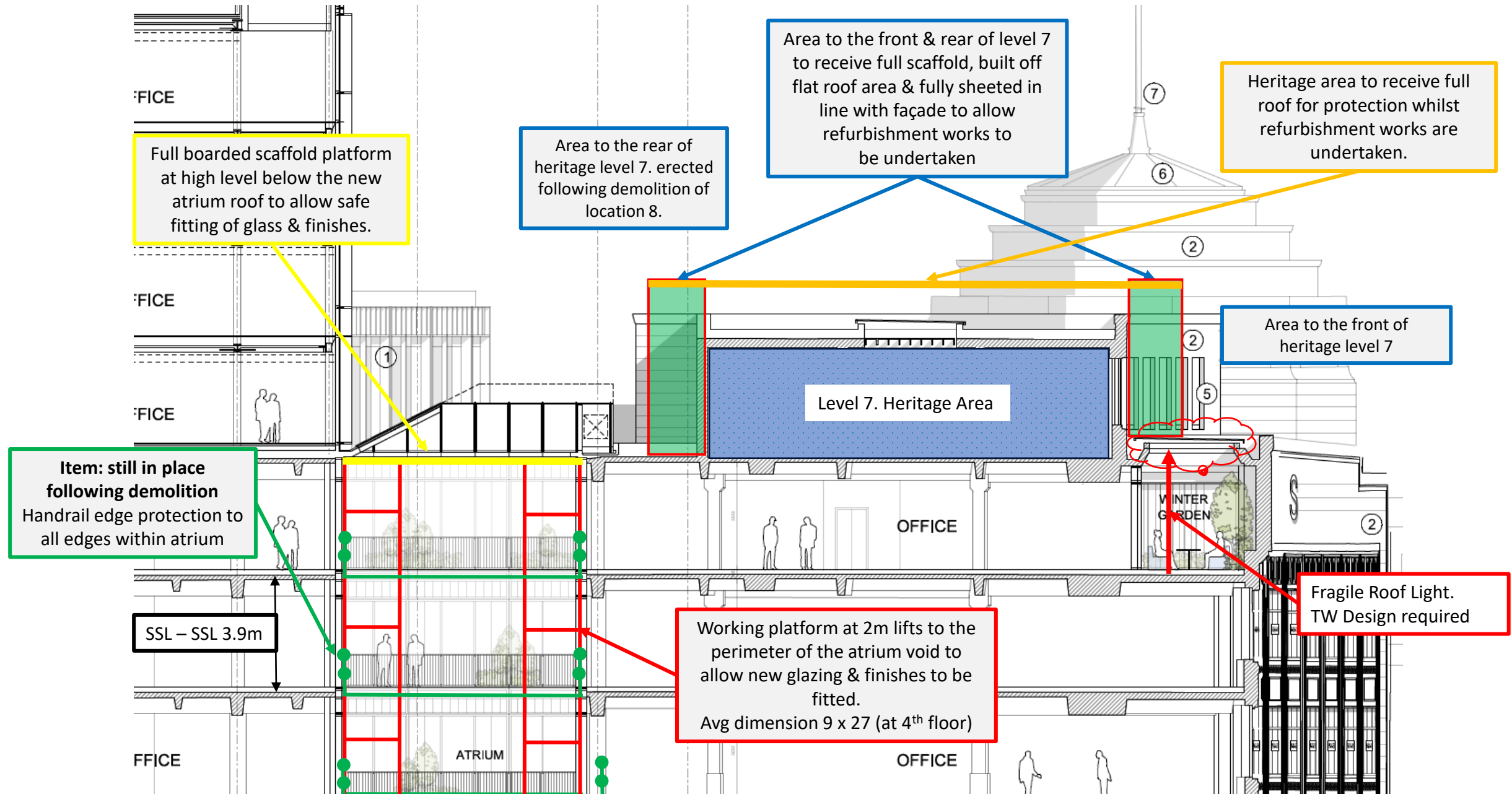
Fragile Roof Light REMOVAL sequence & infill of structure

Allowance to be made for erection and 1 amendment to each platform below existing roof lights for removal.

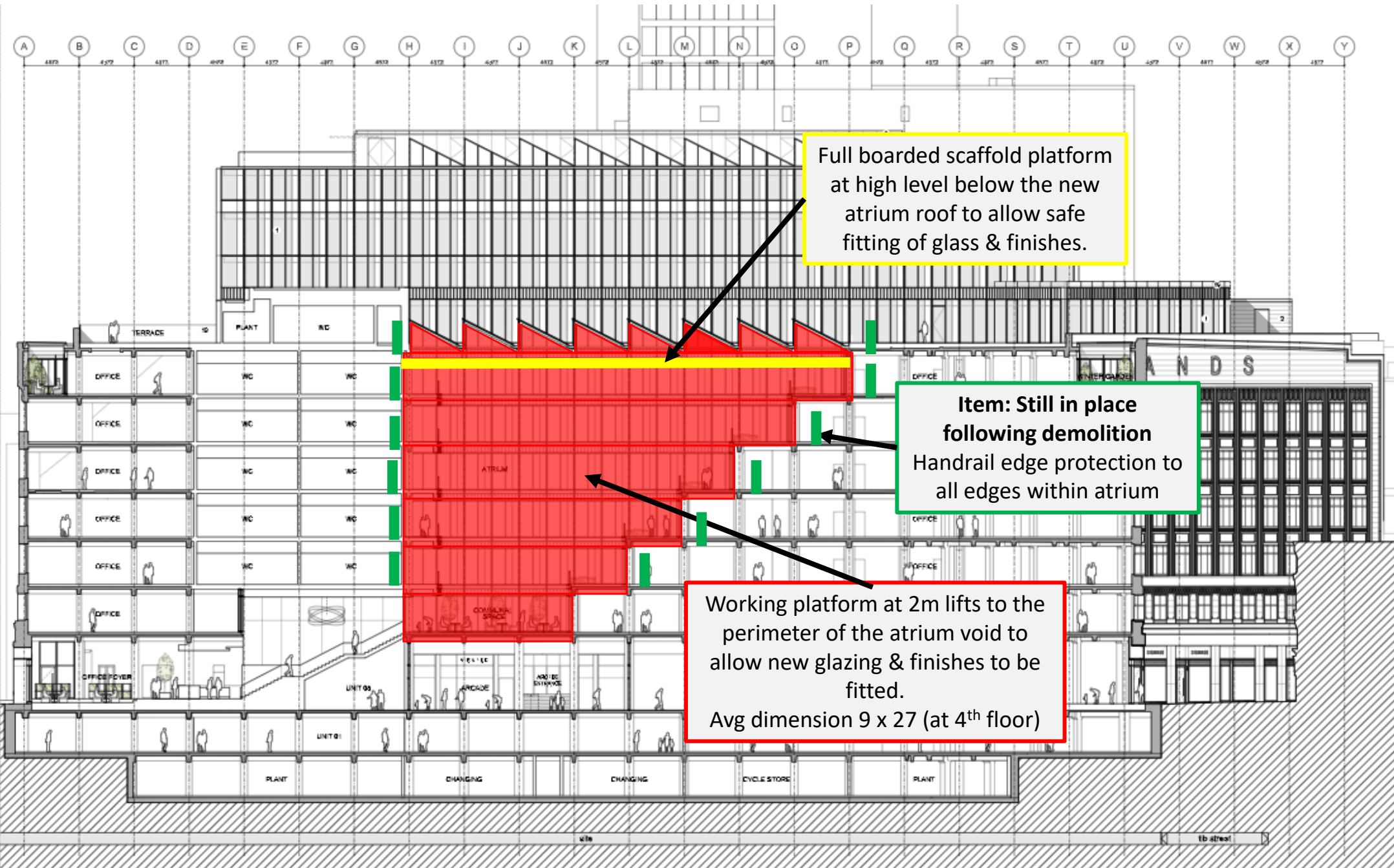
Each to receive ladder access and handrails as required.



Atrium & Level 7 Heritage Area



Proposed works summary.



Access to external elevations for cleaning & window refurb

Scaffold Schedule

Full Frame Scaffold (5 boards + 2 Internal boards)

- Fan included
- Beam over where pavement narrows
- Fully sheeted
- Walk through at pavement level
- Care taken around existing clock
- Stair access where shown
- Out of hours erection up to fan to South and West (Tram)
- Rear elevation Bridgewater Place to receive a narrow scaffold to allow carriageway to remain open. To corbel out at 3rd lift.

Area over Mansard roof to receive access platforms. Ladder beams bearing off roof and on to main perimeter scaffold. No weight to bear on the fragile roof

Cupola turrets and Heritage area of Level 7 to receive fully sheeted weather proof covering to allow refurbishment work to structure & glazing below.

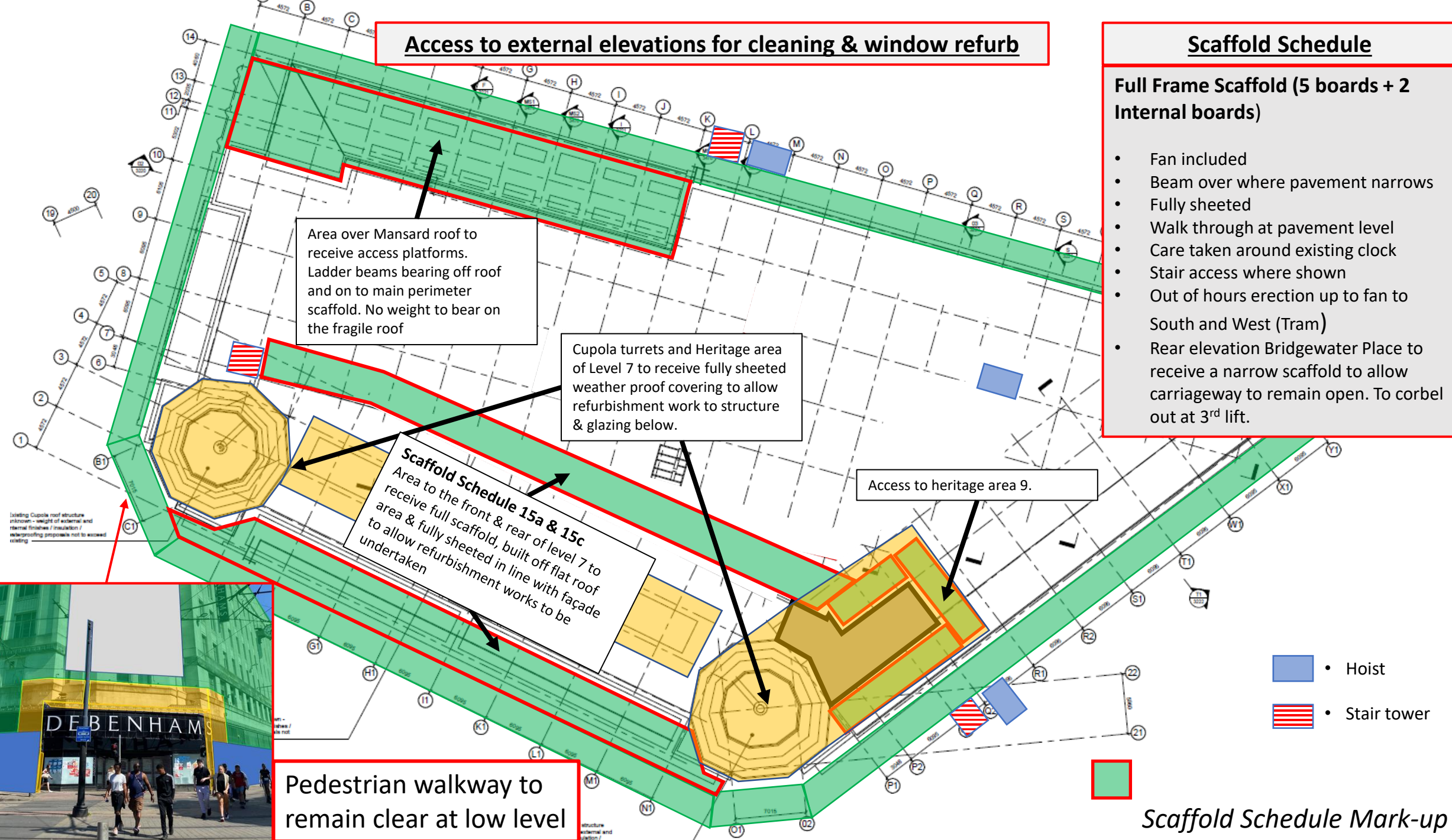
Scaffold Schedule 15a & 15c
Area to the front & rear of level 7 to receive full scaffold, built off flat roof area & fully sheeted in line with façade undertaken

Access to heritage area 9.

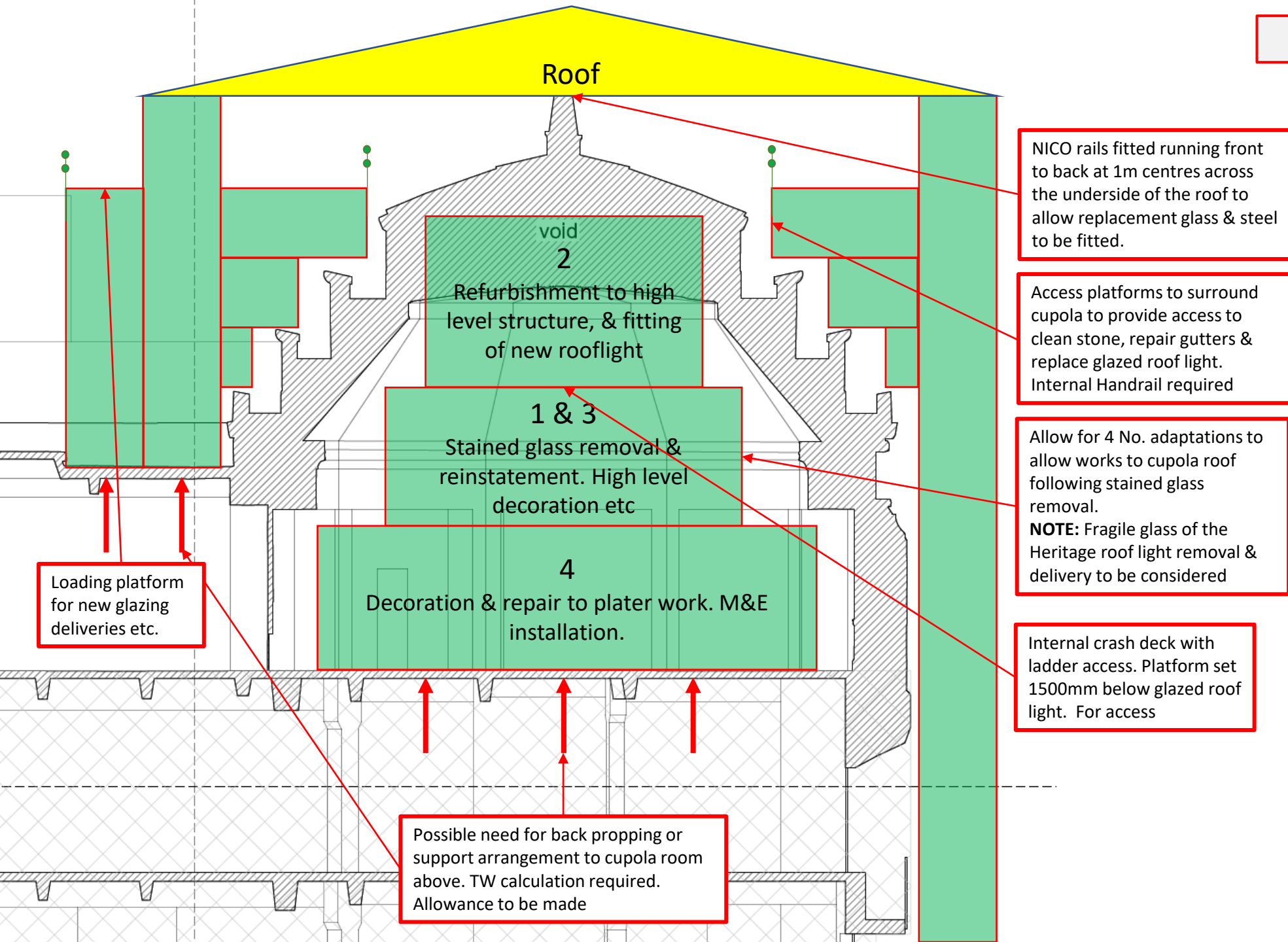
Pedestrian walkway to remain clear at low level

- Hoist
- Stair tower

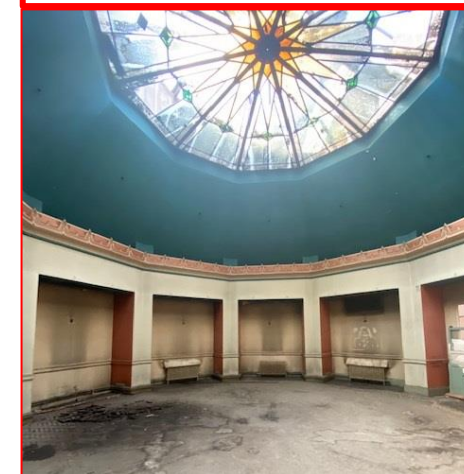
Scaffold Schedule Mark-up



Cupola scaffold (2 No)

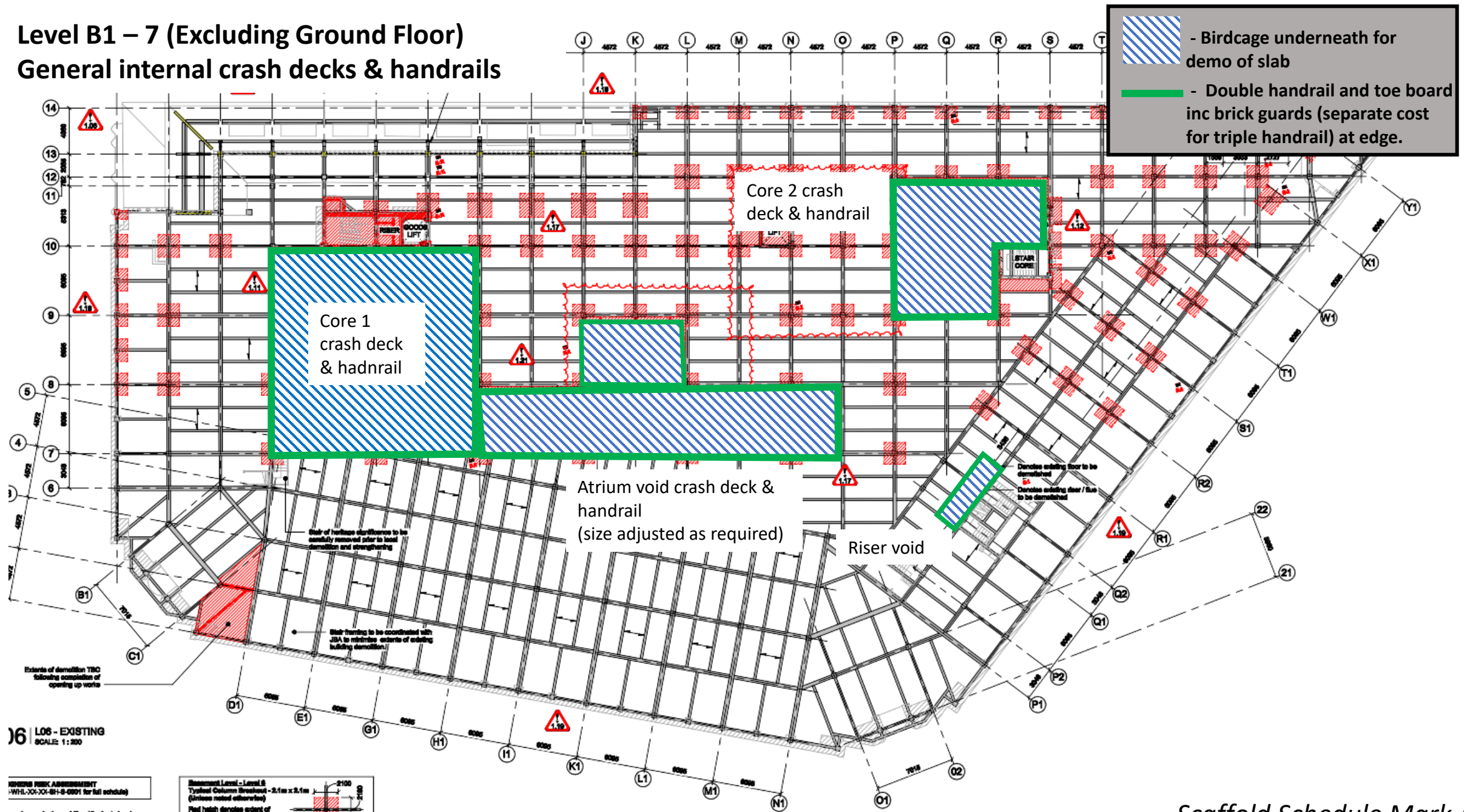


Reference picture

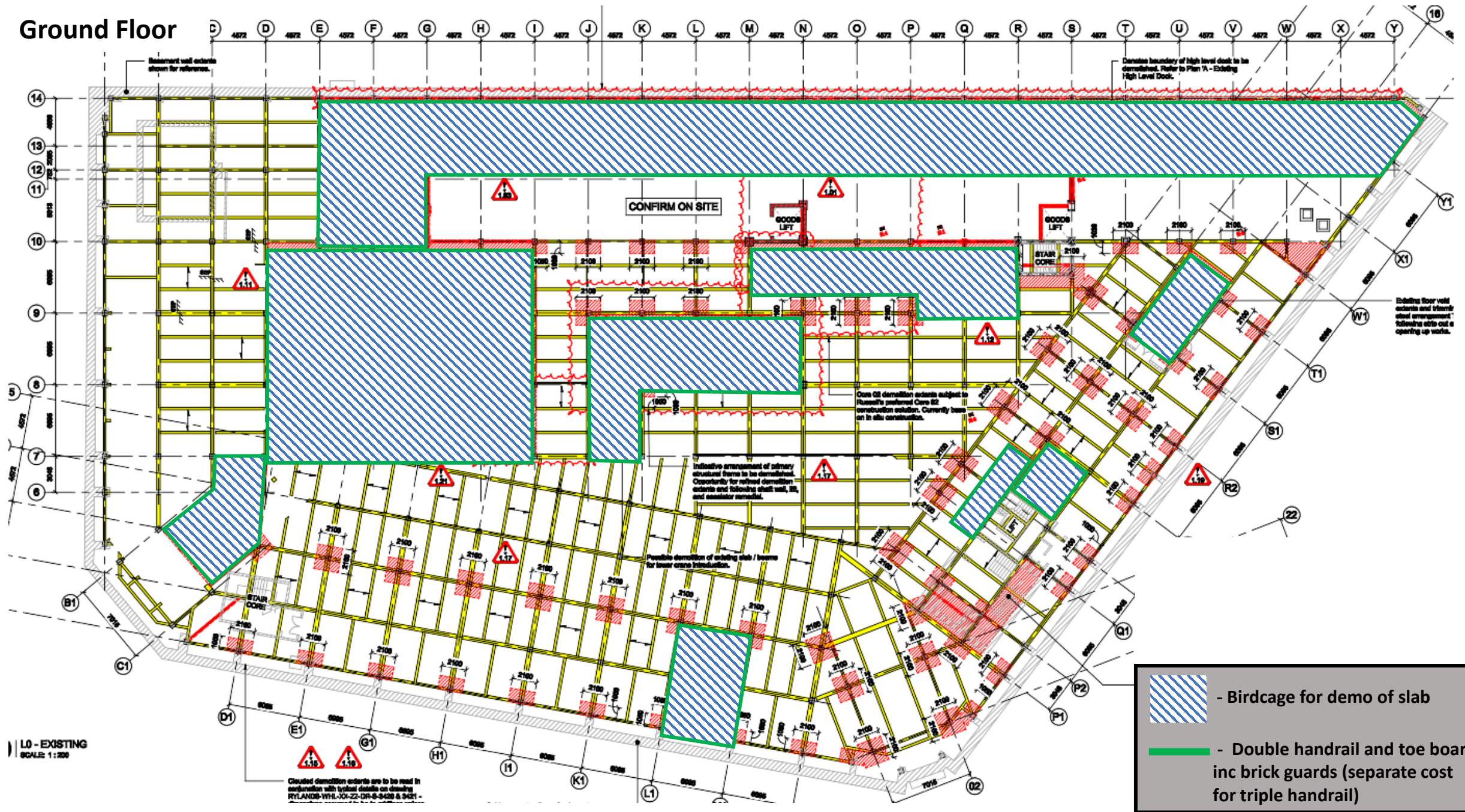


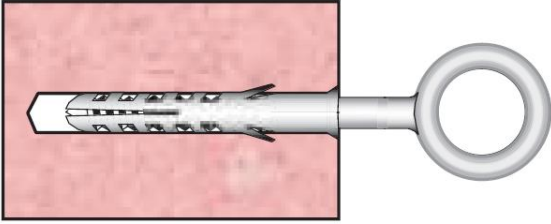
Scaffold Schedule Mark-up

Level B1 – 7 (Excluding Ground Floor)
General internal crash decks & handrails



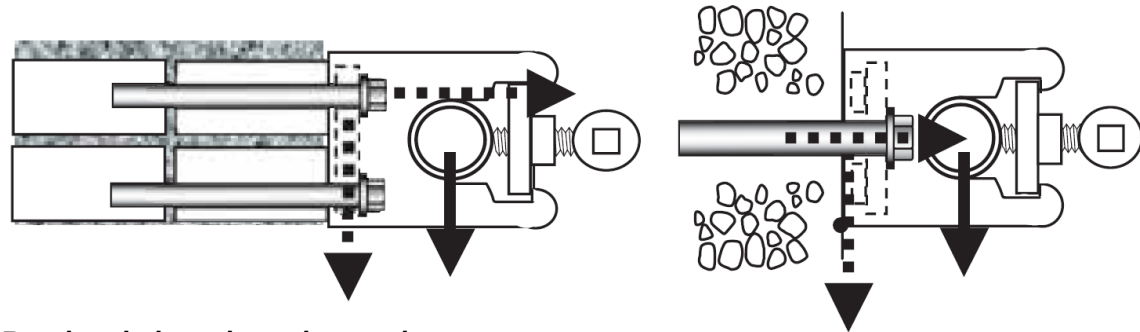
Ground Floor





Nylon plug anchors with screw-in eyes

These anchors are suitable for tying scaffold systems via links with hooks. They work in concrete, brickwork and stonework. **The plastic plug, usually Nylon, exerts a lower stress on masonry than a metal expansion anchor and so is less likely to crack weak bricks or stone.** The eye can be unscrewed after dismantling the scaffold leaving no components to corrode. Eye diameter is typically 22- 24mm which will accept hooks.

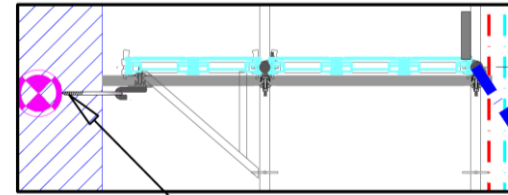


Band and plate shear tie coupler

These couplers are capable of taking tensile loads or shear loads (as shown below) and may be fixed with one or two fixings, depending on type, the latter will share the shear load between the two fixings but centre spacings will not allow a full brick course between anchors, which is recommended. They should be fixed using a suitable anchor through a chair or saddle which spreads the load and allows the bolt head of the anchor(s) to bear properly against the saddle without bending. If these accessories are not used damage to the bolt head is possible.

Scaffold ties, install, removal and repair strategy Example – Advertising scaffold High St / Market St corner

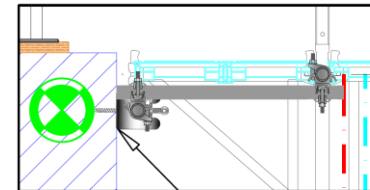
Ringbolt Tie detail



12mm Excalibur EYB Screwbolt

Ringbolt Tie – Provided to every other lift in 4m centres vertically and to each column horizontally as shown in the previous page.

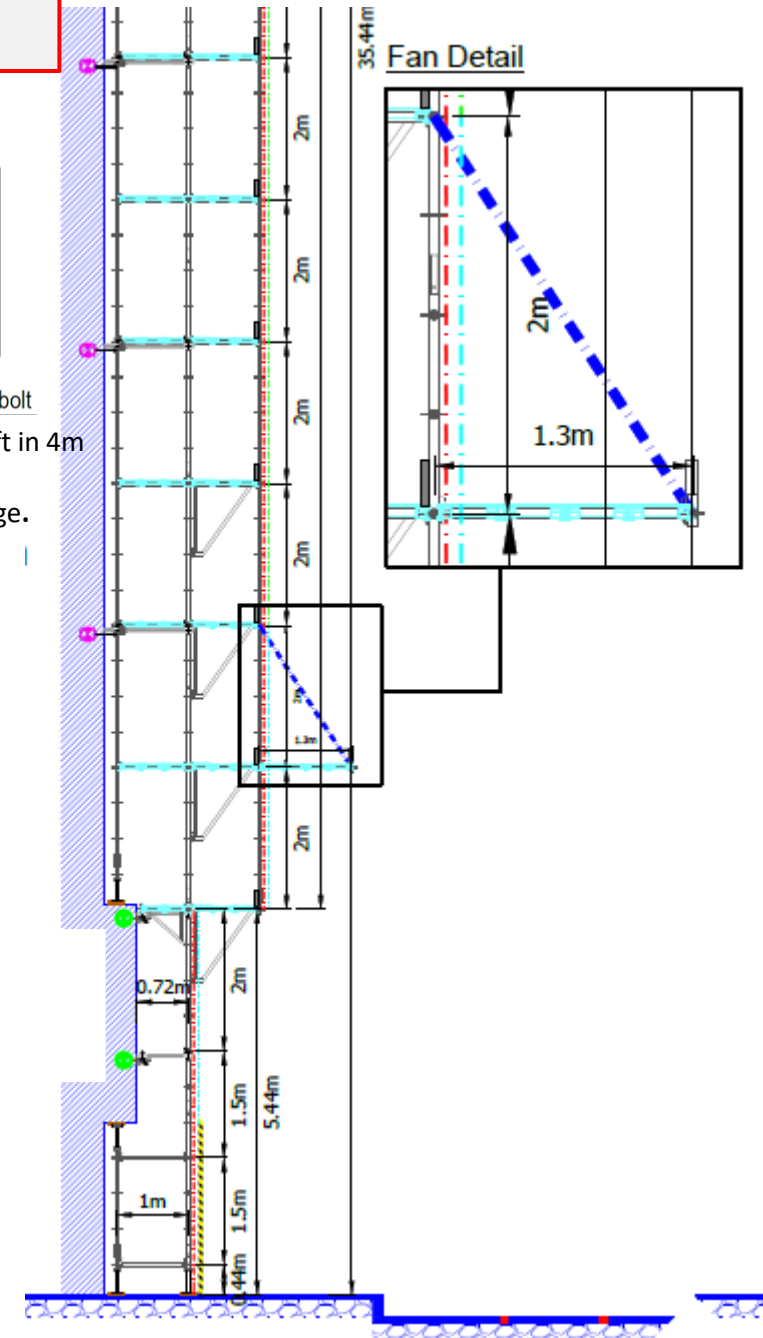
Shear Tie detail



2no. band & plate shear ties required

Shear Tie – Provided to locations where additional bracing is required. In this instance it is due to the singular standard at the corner of Market St / High St. This enables the scaffold to be as slender as possible for external pedestrian movement.

This is in line with recent discussion with MCC.



Scaffold ties, install, removal and repair strategy
Example – Advertising scaffold High St / Market St corner

Repair location example

Before



After

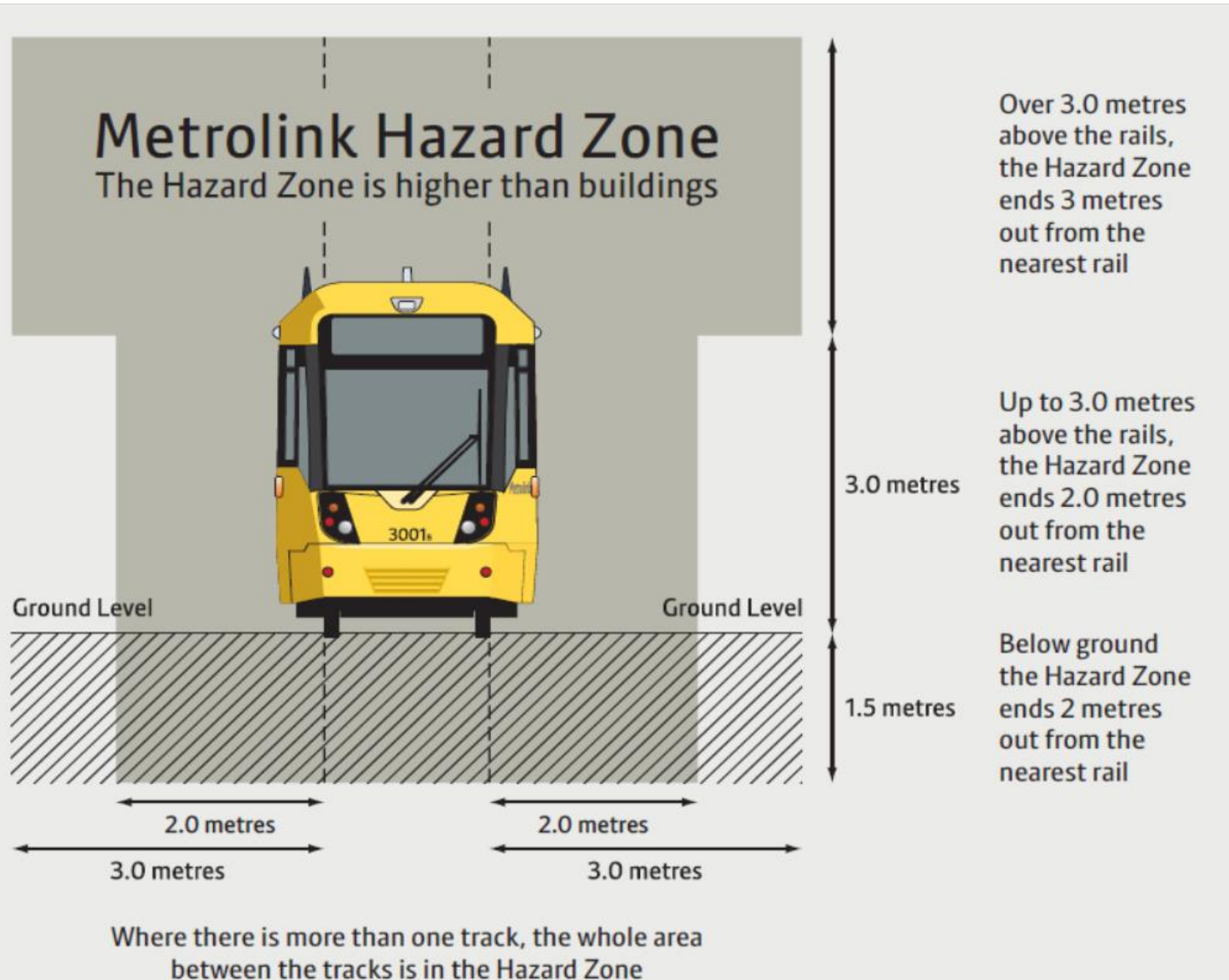


Repair Strategy to stone damage (including scaffold ties).

- The scaffold anchors will be unscrewed from the nylon plugs as work to remove the scaffold is undertaken.
- The Nylon plug will be left in place and the area will be cleaned.
- Stone masons will restore the remaining hole with a repair mortar compound which will be textured and toned to match the surrounding stone so as to present a blemish-free surface.
- Repair Mortar Specification – The stone mason will formulate a repair compound using lime and Portland Stone dust so as to achieve a durable finish. Using a lime-based compound will also ensure that the repair location weathers in the same way as the original stone going forward.
- Achieving a colour match – The stone mason will float the repair compound to bring the original stone to the surface and as such allow the natural colour of the stone to blend the repair into the surrounding stone.

Working adjacent to the metrolink

<https://tfgm.com/public-transport/tram/working-safely>



Health & Safety note:

- The external scaffold on High Street and Market Street are to be built within 5m of a live MetroLink line.
- Scaffold ground to 6.3m (inc Fan) MUST be built under night shift closure of the metro network.
- All scaffold from Fan height and above can be built without working time restrictions or network isolations.

Working adjacent to the metrolink



There are 5 No. Connection points for the metro Link support wires attached to Rylands Building as noted in the marked-up plan below.

The building will receive a full envelope scaffold structure to facilitate the proposed refurbishment works.

In addition to this, a protection fan will be fitted from the next platform above the support wire so as to provide additional protection from the above works.

The scaffold will receive a full wrap of Monarflex sheeting that will guard against construction debris migrating beyond the site boundary.



Support cables are 'face fixed' to the façade.



Fire Rated sheeting details & example.

Technical Data Sheet

MONARFLEX® Super T Plus Flamesafe



Description:

MONARFLEX® design fire retardant scaffold sheeting products that meets some of the strongest requirements there are on the market for longer term usage of more than 12 months. The unique strong and durable eyelets system is placed in patterns that fit most standard scaffold systems.

Properties:

The MONARFLEX® Super T Plus is the strongest product from the broad product range. The combination of high quality components form tough and durable sheeting for very rough and extreme working conditions ex. sandblasting and water-jetting.

Product data		MONARFLEX® Super T Plus Flamesafe		
Composition:				
Top layer	Blown co-polymer LDPE film, white			
Grid layer	Grid, 9x12mm, 1670 dtex, polyester			
Coater layer	Coated co-polymer LDPE film, white			
Eyelet	Blue			
Colour	White			
Description	Reinforce grid is placed between blown film layer and coater layer together with fixing eyelet.			
Technical data	Unit	Value	Tolerance	Test Method
Thickness (film)	mm	0,20	± 5%	EN 1849-2
Width	m	2,25 / 3,0 / 4,0	1,5/-0,5%	EN 1848-2
Length	m	48 / 45 / 40 / 36	1,0/0%	EN 1848-2
Weight per m2 (net)	g/m2	238	+10/-5%	EN 1849-2
Weight per m2(gross)	g/m2	255	+10/-5%	EN 1849-2
Tensile strength	N/50mm	MD 650	± 50N/50mm	EN 12311-1
	N/50mm	CD 700	± 50N/50mm	EN 12311-1
Elongation at Break		MD 15%	± 5%	EN 12311-1
		CD 15%	± 5%	EN 12311-1
Tear resistance	N	Min. 200		ASTM
Eyelet pullout strength	N	Min. 500		
Impact test		Conforms to		BS7955, Annex A
Puncture test.		Conforms to		BS7955, Annex B
Water tightness	2kPA	Pass class W1		EN 1928
Cold Flexibility	°C	-20		EN 1109
Fire properties		Class F		Not tested
Step proof test		NA		SP-0487
Light transmission	%	Min.50	± 10%	Int. Monarflex test
Colour		white		
Fire properties		Conforms to LPS1215		LPS1215
The final product is rolled and wrapped in a protected film and marked with labels.				

Application

MONARFLEX® Super T Plus Flamesafe can be applied both vertically and horizontally. The eyelets form a system that suit most standard scaffold systems. Fixing the sheeting to the scaffold must be done according to calculations taking factors like wind, building season and height of the surrounding buildings into consideration. We recommend the use of 1 fixing/m2 but any fixing must be placed according to calculations for each project.

Monarflex s.r.o., Továrnská 1, SK 943 03 Stúrovo, Slovakia 06



Technical Bulletin



28th September 2022

MediaCo complete the UK's most advanced external banner solution.



Following the Grenfell fire, the UK insurance industry / underwriters have become increasingly diligent over the application of fire rated external banners on buildings. #BUILDINGWRAPS/BRANDING.

The existing Loss Prevention Standard LPS 1215 only applies to Monarflex, and debris netting and not printed building wraps or banners. The only fire rating for external building wraps/banners is TS62 – certify.

12 months ago, MediaCo started the detailed and lengthy application and compliance process to become the first TS62 accredited producer which has been achieved. This process is expensive and requires site audits by Warrington Fire of both the material manufacturer in their country of origin and the print company every year, neither company can change technology or use alternative or additional consumables, otherwise the product would fail inspection.

MediaCo is the first company in the UK to achieve this standard and Manchester City Council have authorised a promotional banner to be installed on their town hall which is under refurbishment, impressive.

For more information contact

Stephen Arthur – Managing Director

stephen.arthur@mediaco.co.uk

End

Advert banner lighting details & example.

LUMILIFE

HIGH EFFICIENCY LED SLIMLINE FLOODLIGHTS

MEAN WELL DRIVER | PC COOLER HEAT SINK | 5 YEAR WARRANTY

APPLICATIONS

- Building facades illumination
- Area Floodlighting
- Industrial Premises
- Small sports ground
- Perimeter & Security lighting
- Amenity

SPECIFICATION

- Efficacy (lm/W): 115
- Voltage (V AC): 100-240V
- Frequency (Hz): 50/60
- Power factor: >0.9
- Rated Switch Cycles: 40,000
- Beam Angle (°): 120
- Colour temperature (K): 6000
- Flicker free Meanwell driver
- Colour rendering index (CRI): 80
- Surge Protection (kV): 6
- Operating temperature (°C): -20 / +45
- Average lifetime (hrs): 30,000
- IP / IK Level: 65/08
- Output Voltage (DC): 30V
- Electrical Safety Class 1

CONSTRUCTION

- Anti Corrosive & Slim Design
- IP65 cable gland
- IP65 black housing
- Tempered Glass
- Polished Aluminium Reflector



SKU CODE	DESCRIPTION	WATTS	LM	INPUT CURRENT (mA)	OUTPUT CURRENT (mA)	WEIGHT (KGS)	SIZE (LXWXH)
FL-SMD-80W-6000K-B	80W LED SMD Flood Light - Mean Well Driver	80	9200	350	2360	2.8	245x254x55mm
FL-SMD-100W-6000K-B	100W LED SMD Flood Light - Mean Well Driver	100	11500	435	2960	3.75	295x320x60mm
FL-SMD-150W-6000K-B	150W LED SMD Flood Light - Mean Well Driver	150	17250	653	4440	4.75	330x430x60mm
FL-SMD-200W-6000K-B	200W LED SMD Flood Light - Mean Well Driver	200	23000	870	5920	5.85	360x470x60mm



Metrolink Support Wire Protection Measure

- The banner would be swapped out on a 14 or 28-day basis depending on the particular advert.
- The work would be done at night so as to avoid any daytime disturbance to the footpath below.
- The banner would be fitted to the top and attached to the banner frame in a top-down manner.
- The exchange process would not affect the metro link cables in any way and there is no requirement for network isolations.

Draft Scaffolding Programme

