Wilmslow Road, Manchester Demolition and Construction Management Plan

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1.0 Introduction

The Construction Management Plan provides a brief overview of the system and procedures to manage the construction operations on site, ensuring that all Watkin Jones standards and protocols are adhered to and ensuring the development stages are managed in the most safe and efficient manner possible.

2.0 Site Location

Figure 1 - Site Location Plan

Site location and description

The site is located within Fallowfield, immediately west of the University of Manchester Fallowfield Campus, sitting just off the main arterial route through Rusholme and Fallowfield, Wilmslow Road. The site is bounded by Langley Road to the south and fields and dense trees of Platt Field Park to the west and north. The site is located along a central bus route which travels directly to the Universities and Manchester City Centre.

The site currently consists of the union of Shop, Distributive and Allied Workers (USDAW) Head office and associated car parking. The site comprises of an early 19th century villa building with low-rise, late 70s extension office units along with cleared areas used for car parking. The current proposal seeks to retain and refurbish the villa building; and clear the extension buildings and redevelop the site for a student accommodation scheme.

The house was originally known as 'Oakley', and is the sole surviving example of the three, neighboring early C19th Villas built between 1818-1842. The property was built for a wealthy industrialist, but soon after became home of a successful Manchester-based textile mill owner

and a noted philanthropist, but since 1920 it has been the principle office for USDAW. The building has no current identified heritage status.

Site access constraints

Vehicular access to the Application Site is currently afforded via three bellmouth accesses off Langley Road. The first, located 37m west of the Langley Road junction with Wilmslow Road, serves the main car parking area, and is circa 3.7m wide with 2-3m radii. The second, located a further 58m west, serves a roller shutter door to the main office building, and is 4.3m with 2m radii. The third, located a further 43m west, is located to the western edge of the site, servicing another car parking area, and is 4m wide with 2m radii. These accesses are gated.

Additionally, two pedestrian accesses to the USDAW building are available off Langley Road, located between the eastern most car park access and service vehicle access. Both pedestrian accesses are gated. An historic vehicular access point in the form of a dropped kerb arrangement is available to the site's Wilmslow Road frontage. It is understood that this access is no longer in use to vehicles and is gated and locked shut at all times.

Langley Road is a two-way route of circa 6m width, with 2m footways and street lighting to both sides. The route is subject to a 20mph speed limit, enforced by signage. Double yellow lines protect waiting/parking at Langley Road's junction with Wilmslow Road, the Ridge Road side road connection, and site access junctions. The remainder of the route is not subject to any parking controls. A high level of on-street parking has been observed during University term time, associated with the terraced properties located along the southern side of the route, noting that the majority of these properties are student rentals.

Langley Road forms a priority-controlled give-way junction with the A6010 Wilmslow Road at the south-eastern corner of the application site. Wilmslow Road is one of the principle radial routes running north-south from Manchester City Centre in the north, through Rusholme, Fallowfield, Withington and Didsbury to the south. To the north of Rusholme, Wilmslow Road becomes Oxford Road and runs through the main University of Manchester and Manchester Metropolitan University City campuses.

The Wilmslow Road/Oxford Road corridor represents a major bus route with continuous bus priority measures, including bus lanes and advance bus signals in both directions. Additionally, the section of Oxford Road between Whitworth Park and the City Centre is subject to bus gates, which permit only buses, black cabs and pedal cycles from 06:00-21:00 daily (with some sections of this route having bus gates in one direction only).

The Site frontage to Wilmslow Road is characterised by a long bus stop of circa 50m on the northbound carriageway. The bus stop includes bus shelter, seating, timetable displays and bus boarding kerbs, and is located within a segregated bus lane. Immediately north of the Application Site, the bus lane terminates, with the re-joining of the Wilmslow Road carriageway being signal controlled. The bus lane recommences circa 75m north.

Access to the wider road network, Wilmslow Road and A6010 can be accessed to the south and east of the site respectively. These provide links to the wider road network to the centre of Manchester and the motorway network at Junction 19 of the M6 via the M56.

Conclusion

The site represents a very good opportunity for development in terms of construction access, with good connections to the road.

The scheme will involve the construction of the followings:

- 425 Student beds comprising 60 studio apartments and 365 en-suite cluster bedrooms– within 3 no. new build blocks, where Block A is 12 storey Tower block, Block B & C are 4 Storey
- Internal Amenity spaces and management facility are located within the Villa building
- Complementary cycle parking provision, with a landscaped courtyard.
- 7 car parking spaces including disable parking

Programme Duration – 104 Weeks which includes the demolition

A detailed construction programme is being developed by Watkin Jones and while the principle of the above dates will remain the same the timescales may change as the logistics of developing the site are finalised.

Construction Phasing

The development will be built in two main phases;

Phase 1 – Demolition: Period of 9 weeks

Phase 2 – Construction: Period of 95 weeks

3.0 Traffic Systems and Restrictions

Site Access

The site is proposed to be accessed off Langley Road with crane off-loading inside of hoarding line. The site perimeter will be delineated with a solid timber hoarding. Site space is restricted and needs to be considered so an efficient site setup will be utilised.

Construction vehicle access

Construction vehicles will enter the site off Langley Road via Wilmslow Road, entering through the main gates, which open inwards onto the site. To facilitate the proposed site compound, parts of the footpaths will be temporarily closed for safety reasons, with pedestrians diverted onto the opposite side and/or to have a full-time Traffic Marshall to supervise this activity.

No parking will be made available on the construction part of the site for any contractors, Watkin Jones staff or visitors. If parking is required, they will be encouraged to utilise public car parking facilities in the vicinity and avoid parking in nearby residential areas. Where possible, contractors will be encouraged to use public transport. However, during the construction period of the development, drop off facilities will need to be made available on site for the following vehicles:

- Deliveries on low-loaders
- Concrete tippers
- Contractors vans
- Mobile Cranes

The low loaders, mobile crane and concrete tippers will all need access to the site via Langley which will remain open throughout the duration of the works.

A temporary road closure to Langley Road may be required to erect the tower crane, but this will be negotiated with highways at the relevant time.

Watkin Jones will provide appropriately trained staff to act as car park marshals and banksmen to manage delivery vehicles and ensure safe access is maintained always.

Prior to commencement of work a highway condition survey will be carried out on the adjacent roads including the footpaths within the site's locality. Inspections will be undertaken by Watkin Jones and any damage caused directly by Watkin Jones's construction works will be remediated to its condition prior to the works upon completion of the contract.

Projected construction traffic flows

The construction traffic will primarily comprise the following types of vehicles:

- Materials and plant delivery (concrete tippers and low loaders)
- Contractors vehicles (transit vans)
- Visitors (cars)

It is anticipated that the development will create the following vehicle movements (per day):

Vehicle Type	Enabling Works / Demolition	Substructure	Superstructure & Build
HGV	8	16	20
Light Commercial	10	14	15

Construction traffic

- The movement of heavy goods vehicles associated with the transportation of material to and from the site shall be restricted to the hours of Monday – Friday 08:00-18:00;
- Saturday 'core hours' will be 08:30 – 13:30. No activities will take place outside of these times, including Bank Holidays unless prior authorisation has been received from the Planning Authority.
- During the large concrete pours, concrete deliveries will be required throughout the day. The number of HGV vehicular movements is unlikely to exceed four (two in and two out) per hour during the peak periods.

Scheduling of Deliveries

Strict material delivery scheduling and booking systems will be imposed on the project to ensure congestion is avoided and ensure the availability of the tower cranes for timely material unloading.

It is envisaged to locate a nearby off site wait area to call in vehicles as needed.

All deliveries to site will be scheduled by WJ's site logistics co-ordinator and all unscheduled or non-agreed deliveries will be turned away. All Suppliers and subcontractors will be notified in advance of the desired location for delivery. Direction and access point maps with site delivery rules and times will be sent out with each order.

All gates on site will open inwards and a suitably trained traffic marshal will be posted at the main access and direct and control traffic on a daily basis during normal working hours. They will be clearly identifiable to the public and drivers. The traffic marshals will ensure all deliveries are removed from the public highway and onto site upon their arrival.

Whilst the majority of site vehicles will remain on the highway within the site hoarding there may on occasion be vehicles that drive onto the site itself, Construction vehicles that are required to access and exit the site will be subject to a visual wheel inspection and if required these will be jet washed to ensure all vehicles leave site in a clean and safe condition. In addition and during wet season/earthworks road sweeper will be employed.

Routing strategy for HGV's

All HGV's will be directed to travel to site via the A6010, Wilmslow Road and Langley Road. All delivery vehicle will enter exit the site via main gate off Langley Road with turning around space on site, which will allow traffic to join back onto Wilmslow Road via Langley Road.

To avoid congestion of delivery vehicles and blockages of nearby roads, deliveries will be scheduled, and any clashes will be dealt with by requesting drivers to wait at a nearby safe holding area away from the site and traffic.

Any abnormal loads to be delivered will be notified in advance to the local authorities/Police (i.e. vehicles wider than 3m, longer than 16.5m or higher than 4.4). It is envisaged that abnormal movements associated with assembly and removal of the cranes will occur overnight. Watkin Jones will make contact with West Midlands Police on such matters and be fully co- operative with any unforeseeable matters.

Pedestrian Routes

The pavements directly surrounding the site will be remained outsite of site hoarding line. It is proposed that pedestrians would be safely diverted, via temporary pedestrian crossings at both ends of the site and directional signage will be installed for the duration of the footpath closure if required.

Contractors Vehicles and Visitors

WJ's operative staff, subcontractors and visitor's cars will not be permitted to park on the site. They will be directed to use a nearby public car park. Subcontractors will be notified in advance of the location of available car parks. Direction and access point maps with site delivery rules and times will be sent out with each order.

Subcontractors with non-portable tools/heavy equipment will be allowed to access the site in order to off-load their equipment before parking off site. This is not expected to be more than about 10 vehicles per day.

The access onto site will be strictly monitored and enforced by WJ staff so sub-contractors will not be able to bend rules and park.

It is anticipated that the development will create the following personnel movements per day:

	Enabling Works / Demolition	Substructure	Superstructure & Build
Personnel on Site	20	55	165

Emergency services

Access for emergency services on site will be via Langley Road and the main site entrance gates. Local Emergency Services will be notified of the access points before work starts on site. The traffic marshal will ensure that safe access routes are maintained for emergency services.

Site contacts

Watkin Jones will ensure that contact details are posted on the site notice boards, which will provide details and dates of any construction activities that may affect the general public.

Watkin Jones will send out letters to local businesses and residences advising them of the anticipated start date.

4.0 Local Environmental Considerations

As the site is located within an area characterised by a mix of residential use and nature park, it is our intention to minimise the impact that the construction process could cause to the local environment and the businesses, by this we will ensure to follow the relevant Standards and Acts. All care will be taken not to cause the primary environmental nuisances, vibration, noise and dust pollution. Below are some actions that will be carried out to abate these problems should they be required. Reduction in noise disruption will be achieved by:

- Coordinated delivery times and efficient traffic management to prevent queues of traffic accessing the site.
- Ensuring all plant has sound reduction measures (mufflers, baffles or silencers).
- Utilising construction techniques that minimise the production of noise.
- Utilisation, where possible, of pre-fabricated components.
- Utilisation of baffle system during the demolition process.
- Strict adherence to the site working hours.

Potential construction phase air quality impacts from fugitive dust emissions were assessed as a result of demolition, earthworks, construction and trackout activities. It is considered that the use of good practice control measures would provide suitable mitigation for a development of this size and nature and reduce potential impacts to an acceptable level. . Therefore, no ongoing monitoring is required. A range of measures to minimise or prevent dust emissions will be implemented throughout the demolition and construction of the development.

There is the potential for fugitive dust emissions to occur as a result of construction phase activities. These have been assessed in accordance with the methodology outlined within the Institute of Air

Quality Management (IAQM) document 'Guidance on the Assessment of Dust from Demolition and Construction V1.1.

The IAQM guidance provides potential mitigation measures to reduce impacts as a result of fugitive dust emissions during the construction phase. These have been adapted for the development site as summarised in Table 1 below. These may be reviewed prior to the commencement of construction works and incorporated into a Construction Environmental Management Plan or similar if required by the LA.

Table 1. Fugitive Dust Emission Mitigation Measures

Issue	Control Measure
Communications	• Develop and implement a stakeholder communication plan that includes community engagement before work commences on site • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager • Display the head or regional office contact information • Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the LA
Site management	• Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken • Make the complaints log available to the LA upon request • Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book
Monitoring	• Undertake regular on-site and off-site inspection, where receptors are nearby, to monitor dust, record inspection results and make the log available to the local authority when asked • Carry out regular site inspections, record inspection results, and make an inspection log available to the LA upon request • Increase the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions

Issue	Control Measure
Site preparation	• Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible • Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site • Fully enclose specific operations where there is a high potential for dust production, and they are active for an extensive period • Avoid site runoff water or mud • Remove material that have a potential to produce dust from site as soon as possible, unless being re-used on site
Operating vehicle/machinery and sustainable travel	• Ensure all vehicles switch off engines when stationary - no idling vehicles • Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable • Implement a Travel Plan that supports and encourages sustainable travel
Operations	• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques • Ensure an adequate water supply on the site for effective dust suppression, using non-potable water where possible and appropriate • Use enclosed chutes and conveyors and covered skips • Minimise drop heights and use fine water sprays wherever appropriate • Ensure equipment is available to clean any dry spillages, and clean up spillages as soon as reasonably practicable using wet cleaning methods
Waste management	• Avoid bonfires or burning of waste materials
Demolition	• Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust) • Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fin water droplets that effectively bring the dust particles to the ground. • Avoid explosive blasting, using appropriate manual or mechanical alternatives • Bag and remove any biological debris or damp down such material before demolition.
Earthworks	• Re-vegetate earthworks and exposed areas/soil stockpiles to stabilises surfaces as soon as practicable • Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable • Only remove secure covers in small areas during work and not all at once

Issue	Control Measure
Construction	• Avoid scabbling (roughening of concrete surfaces) if possible • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out • Ensure bulk cement and other fine powder material are delivered in enclosed tankers and stored in silos with suitable emission control system to prevent escape of material and overfilling during delivery • For smaller supplies of fine powder material ensure bags are sealed after use and stored appropriately to prevent dust
Trackout	• Use water-assisted dust sweeper on the access and local roads, as necessary, to remove any material tracked out of site • Avoid dry sweeping of large areas • Ensure vehicles entering and leaving site are covered to prevent escape of materials • Implement a wheel washing system, if required

In addition to the above provisions the following measures will be taken to reduce any further negative effects on the environment:

- Ensuring all contaminants kept on site are safely stored with the necessary procedures put in place for leaks and spillages etc.;
- A waste management system will be implemented onsite.
- An Ecology survey will take place to investigate the presence of ecological or invasive species and a detailed report with photographs will be produced and will be thoroughly reviewed with the WJ team before works start.

Watkin Jones treat environmental issues seriously and will carry out good management practices to minimise the effects of noise and dust on the environment and local community.

To ensure good lines of communication with the local community the following procedure will be put in place to address comments and complaints:

- Monthly meetings will be offered to the local community should a need for engagement be identified. These meetings are a point where concerns can be voiced and more detailed information pertaining to the build programme can be reviewed, critical impact milestones such as the erecting and dismantling of the tower crane can be discussed in advance of the site activity.
- For emergency concerns a direct contact phone number to the Site Manager / Site Secretary is listed on the monthly newsletters and will be clearly displayed at the site entrance on the notice board.
- When a comment or complaint is registered the Site Manager will look to address the concern immediately or within 24hrs, depending on the severity / complexity of the issue and report back to the complainant when the issue is resolved.

The identified land uses on-site are considered unlikely to have generated significant site-wide contamination. There is considered to be the potential for small scale and localised impacted ground from the historic and current activities including residual foundations and Made Ground from the previous phases of development. The site is located in an area of similar land-use and therefore similar contaminative potential. The Site Investigations report produced by Tier Environmental confirms the potential for contamination on the Site. A preliminary risk assessment of potential 'source, pathway, receptor' linkages has been undertaken which suggests a moderate to low risk to human health and other receptors.

Recommendations

Whilst the on-site presence of contamination is considered to represent a potential environmental risk, it is considered that this can be minimised by an outline remediation strategy.

Temporary Drainage Measures

Watkin Jones will ensure that temporary drainage is utilised to prevent excessive run off from concrete slabs on the site onto highways surfaces.

5.0 Site Setup

It is proposed to hoard the open and accessible perimeter areas of the site allowing space for a two-crane setup to facilitate the construction of buildings and its elevations, providing a safe segregation to third parties. Temporary footpath closures and / or diversions may be required to erect a safe hoarding line. Necessary licenses will be applied for at the appropriate time.

Site Security

The site will be secured by timber hoarding panels with gates as necessary to facilitate deliveries and emergency egress.

Security will be maintained by the use of a secure gate system with 24/7 security. All vehicular gates will be locked at all times and controlled by the traffic marshal. Emergency doors will only be utilised in an emergency and not accessible from the outside.

Site notice boards will be displayed at the site entrance and will display the project particulars, contact details, access and egress procedure, site rules and all necessary health and safety information. These boards will also allow notices to be posted to provide local residents with information on any construction activities which may affect them.

All site activities are to be contained within the fence line and a comprehensive traffic management plan will be implemented to ensure no disruption is caused to traffic or pedestrians on the adjoining roads or walkways. Specific areas will be designated for loading, unloading, storage, offices and welfare facilities.

Liaison and Good Neighbour Policy

Watkin Jones pride themselves on the good rapport we have established with a variety of different neighbouring parties on all of our construction schemes and aim to continue this.

Consultation with the local residents, businesses etc will take place in the near future.

Information will be distributed to the neighbours on a regular basis through our Monthly News Letter to advise them of our planned operations and any impact they will have upon them.

The members of the public will be able to communicate with us via our contact and on site security can be contacted out of working hours.

The contact number will be posted on our hoarding and distributed to the neighbours in all of our regular news letters.

Considerate Constructors Scheme

The Watkin Jones Group is a Member of the '*Considerate Constructors Scheme'*.

The Group have experience of working within Local Authority Considerate Constructors Schemes. We will register this development for participation in the scheme, embracing all the good practices outlined. We aim to achieve a minimum score of 7 out of 10 in each section of the CCS.

Protection of Third Parties

All site activities are to be contained within the hoarding line and a comprehensive traffic management plan will be implemented to ensure no disruption is caused to traffic or pedestrians on the adjoining roads or walkways. Specific loading and unloading areas have been designated inside the site boundary. Where construction or demolition works are to be carried out above any adjoining buildings, roads or pedestrian walkways and there is a risk of falling materials, monaflex sheeting or debris netting will be installed as a safety precaution.

6.0 Local Authority Planning Requirements

Site Manager Details

TBC

Watkin Jones Group

55 Ffordd William

Morgan St Asaph

Business Park

Denbighshire

LL17 0JG

Tel. 01745 538200 / Mob: TBA

Fax. 01745 585495

Location of Large Notice Board

The notice board will be erected on the site boundary hoarding adjacent the entrance along Wilmslow Road & Langley Road, and will clearly identify the name, telephone number and address for services of the site manager. The notice board will also include the Monthly Newsletter and Considerate Constructors Scheme information.

Hoardings

All boundaries of the project will be closed off using timber hoarding. All hoarding will always be maintained and kept in good repair and painted white. Notice boards displaying contact details and considerate constructor posters will be fixed to the hoarding.

Contact will be made with the Local Authority to ensure that any site setup is discussed and agreed with them.

Restriction of Vehicles Accessing Site/ Damage Prevention

Where possible vehicles will be subject to size restrictions (max 15.5m Articulated Lorry) to ensure no damage occurs to adjacent streets during the construction period. To prevent any damage from occurring the smaller 12m Rigid Lorry will be utilised from the outset.

Protection of Services

All services in association with the structures are to be isolated safely by Watkin Jones. Written confirmation will be kept on site as a reference.

Conclusive service plans including drainage are have been applied for and will be available detailing live services in the pavement and to existing properties. The pavement services are not affected by the development. The site area will be scanned to verify that no services exist, but any services encountered will be diverted or protected on a bespoke basis dependent on type & location.

Disposal / Storage of Rubbish

An important part of the site management process involves site cleansing, rubbish removal and recycling.

A detailed Site Waste Management Plan will be produced in accordance with Watkin Jones Environmental Policy.

This will include details of how we intend to reduce and manage site waste:

- The reuse of demolition waste on site as pile materials where suitable.
- Enforcing good housekeeping measures e.g. proper storage of materials to minimise spillage.
- Correct storage of building material can significantly reduce the waste generated as well as contribute to a safe working environment. Where possible the site should adopt a “just in time delivery” service to eliminate the need for storage.
- The use of raw materials as per manufacturer’s instructions.

- Monitoring the generation of waste in order to identify trends and areas for further investigation.
- An area will be designated by the site manager within the site for the safe storage of building materials to reduce the waste generated through poor storage. It is estimated that up to 13% of materials delivered to a construction site go into a skip without ever being used.
- Unused blocks and bricks should be taken back to the storage area to encourage their reuse within the project; used timber should be de-nailed and stored correctly, in preparation for reuse.
- Identifying recyclable and salvageable materials and where feasible find secondary or alternative uses.
- Segregating waste types to facilitate recycling activities.
- Working with suppliers/ subcontractors to minimise surplus material delivered to site.
- Working with suppliers to ensure only the necessary minimum of packaging is used. Consideration of alternative materials with lower wastage levels.
- Ensuring that all Duty of Care and other legal requirements are complied with during the disposal of wastes.
- Consulting with suppliers to determine correct/ appropriate disposal routes for waste products and containers.
- Assessing the project design to identify ways in which waste generation through raw material wastage and from temporary and permanent works activities can be avoided and minimised;
- Setting waste reduction targets as well as educating and informing site staff.
- Reducing usage of diesel, electricity and water on site by adopting good practices and management procedures

General construction waste management will be provided by a package contractor who will be managed by our site logistics co-ordinator.

Where gypsum plaster products are used, the specialist contractors will be required to arrange recycling directly with themanufacturer.

Data will be provided by the waste management contractor on the level of waste produced and the level to which this material has been recycled.

It will be the responsibility of each section manager to keep the site area under his control safe from build-up of rubbish.

Sorting and recycling of construction waste.

Waste produced on site is classified in accordance with the European Waste Catalogue (EWC) and the List of Waste Regulations 2005. This will ensure that waste produced on site is disposed/ recycled or recovered in the correct legal manner.

The colour coding of waste skips as developed by the Institute of Civil Engineers will be adopted on this site and will be as follows:

- White: Gypsum – gypsum and plasterboard products.
- Grey: Inert – clean concrete, rubble, hardcore, brick and block etc. that will not decompose or create a hazard when buried.

- Black: Mixed general waste – any waste except contaminated waste that cannot be recycled in other skips on the site.

- Blue: Metal – all types of clean metal, including rebar offcuts, scrap metal (no empty paint tins, as these are considered hazardous) etc.
- Green: Wood – all types of clean, untreated timber or wood products (treated timbers may contain hazardous preservatives.)
- Brown: Packaging – cardboard, paper products etc. (not polythene sheeting or ties, this should go in the "mixed" skip.)
- Orange: Hazardous – only for contaminated waste such as asbestos, paint tins, mastic tubes, tarmac, or any product fitted with a COSHH label etc.

Inert waste
The recycling of waste on site is encouraged throughout the company, this begins at tender stage where we try to identify the materials which can be reused on site such as soils, rubble from demolition, car park surfaces and natural rock all of which we process on site into a reusable material, the site build levels could be rationalized in design to limit the cart off.

Wood Recycling
All of our sites have a wood/timber rack this is to ensure that the wood/timber delivered is stored correctly and that off cuts are de nailed and stored in the rack in preparation for re use within the project.

Brick and Block
We encourage all sites to re-use all of the waste bricks and blocks through arranging for the materials to be placed on pallets and returned to the brick storage area, the site manager then identifies areas which these products can be reused within the building. Any brick and blocks which cannot be re used are taken off site by a skip contractor for reprocessing into crushed or 6F2 type material.

Metals
All metal waste arising on the site will be segregated and removed for re processing.
Polythene and hard plastics.
Polythene and hard plastics are separated at source and placed in skips; the skip contractors then shred and bale the plastics before they send it off to be recycled into new plastic products.

Soils and Spoil
Before any soil is removed from site it is tested at an accredited laboratory to determine its true characteristics and thus ensure the material is disposed of at the correct licensed facilities. Only registered haulers are used to transport the soils off site and a waste transfer note is issued for each load.

Plasterboard
Watkin Jones and its sub-contractors will work alongside British Gypsum to ensure all of the plasterboard waste from this site is recycled into new board.

Site Fires
Watkin Jones has a strict policy of no burning of waste materials on site.

Safe Pedestrian Access

Hoarding Licenses from the Local Authority will be agreed and applied for and the conditions will be fully complied with by Watkin Jones, ensuring all road markings and

signage are not obscured. The extent of the hoarding line will be agreed with the Local Authority for pedestrian safety.

Location of Workers Conveniences

The position of the workers conveniences will be shown on the logistics plan.

Vehicle Site Ingress and Egress

Vehicle site ingress and egress plans will be provided. To prevent any damage from occurring, smaller wagons will be utilised from the outset. If damage to the existing footpath or kerbs was caused, WJG would make good these areas.

Proposed Truck Movements and Timings

Delivery of materials and plant will be carefully scheduled as not to cause congestion to the surrounding areas. A number of deliveries are envisaged per day and smaller vehicles will be utilised from the outset, but any damage to the footpaths or kerbs would be rectified by WJG, and smaller wagons used if needed.

All suppliers' vehicles are FORS registered, this is backed up within the CCS (Considerate Constructors Scheme). All Watkin Jones suppliers purchase orders to state FORS registered as a necessity.

Dust and Sediment Control

Item 5 covers dust and sediment control.

Traffic Management Measures

There are requirements for temporary traffic management measures for a partial / full road closure as there will be two tower cranes on this site. All deliveries will be unloaded within the site boundary. All site deliveries will be scheduled, and site access controlled by security operatives.

Transport Management Groups

Watkin Jones will ensure there is a representative of the company at all required CTMG or Construction Coordination Group meetings.

Vehicle Safety Measures

Before leaving site, all vehicles are visually checked for safety purposes to ensure they do not pose a risk to the public. Watkin Jones also have a dedicated plant department who oversee the maintenance and safety of our own vehicles, as well as ensuring that any sub- contractor vehicles have been sufficiently maintained.

7.0 Working Hours

Operations creating noise which is audible at the site boundary should not occur outside the hours of 08:00 to 18:00 Monday to Friday and 08:30 to 13:30 on Saturdays and at no time on Sunday's or Public Holidays. A sound/ noise meter will be kept on site at all times to check noise levels at the site boundaries during certain operations, ensuring a maximum noise level of 75dB LAeq.

8.0 Notifications

During the contractor mobilisation period, following award of contract and possession of the site, communication will be set up with the following authorities:

- Notice will be served to the Health and Safety Executive;
- Meeting with building control and planning authorities;
- Meeting with local environmental health officer;
- Meeting with local Police and Fire Brigade;
- Liaison with local residents and retail operators;
- Notification to the emergency services giving full details of the construction works;
- Considerate Contractor Scheme enrolment;
- Highways Authority;

9.0 Site Surveys

Before work starts, we will produce:

- A dilapidation survey of adjoining properties, adjoining public roads and paths, illustrating their current state;
- A plan and level survey of the construction area;
- A survey of the existing surface and foul water system;
- An underground service survey (after demolition);
- Ecology checks
- Further SI required?

10.0 Materials Control and Storage

Delivery vehicles will be controlled to ensure that unloading only takes place within designated times of 08.00 – 17.00 Monday to Friday, 08.30 -13.30 Saturday and in the correct location. We will endeavor to achieve off peak hours where possible. All subcontractors will be required to produce a procurement schedule for their materials which will be monitored at their weekly or fortnightly meetings and must book delivery slots with our traffic controller.

"Just in Time" scheduling of deliveries where possible will minimize storage capacity required, double handling and congestion around the site.

Where "Just in Time" deliveries are not economic or practical, site storage of materials and plant will be very carefully controlled by restricted allocation of zones to trades. Detailed plans of the site will be drawn up outlining areas available for moving and storing materials during the various stages of the contract.

Wherever possible materials will be delivered shrink-wrapped and palletized to be unloaded and distributed safely by crane or hoist.

Diesel fuel for site plant will be stored in sealed tanks inside bunded walls in accordance with Watkin Jones Environment Policy. The use of diesel driven plant and equipment will be kept to an absolute minimum. Wherever possible equipment and plant will be electrically powered to reduce noise and prevent emissions.

11.0 Secure Storage of Materials, Plant, Tools, Chemicals and Gases

Secure storage of materials, plant, chemicals and gases will be controlled in accordance with our health and safety procedures and environmental policy.

12.0 Induction/ Site Rules / Consultation

Every person who enters the project will receive a specific project induction before they are allowed to leave the compound and commence work on site.

Inductions will provide an introduction to the project, a description of the project risks and a review of the individual's competency. Site Access will only be permitted following site induction from Watkin Jones management personnel. All site operatives and visitors will be inducted prior to commencement on site in a clearly defined facility without exception.

Our induction talks for operatives new to the site will include site rules which cover among other things:

- Behaviour toward others on site andnearby;
- Drugs and alcohol;
- Smoking areas;
- PPE and safety issues;
- Welfare facilities and use of;
- Security issues;
- Emergency procedures;
- Good and bad practice

Watkin Jones will ensure that all inducted operatives understand English.

Watkin Jones will hold regular consultation meetings with the workforce to assess safety performance on site and review were can be improved, which will be open to all on site. In

addition to this Watkin Jones will actively encourage the use of a 'comment box' so that site observations can be forwarded and actioned in a confidential manner.

Watkin Jones require regular 'tool box talks' to be undertaken by the principal contractor and all subcontractors to site operatives outlining a variety of relevant Health and Safety issues. A 'Tag' turnstile will be used to record all entry and egress of workers and staff.

13.0 Health and Safety

To minimise risk and control exposure, our health, safety and environmental department will give advice at planning stages on all activities and all health and safety requirements. H&S is diligently monitored throughout our projects and reported to the main board.

Watkin Jones treats safety as a high priority and has developed a successful programme of initiatives in order to improve health and safety awareness and performance on all of our projects. These work by actively encouraging site operatives to think in a manner

that assesses personal safety and the safety of others, not only on site but also throughout their lives.

The layout of the site accommodation ensures that all staff, visitors and operatives will have the ability to store and retrieve the correct PPE before entering the construction area.

First Aid

The majority of Watkin Jones site management are qualified First Aiders and as a company, Watkin Jones strive to increase the percentage of competently trained site staff. The site will have First Aid attendance at all times.

Noise and Hearing Protection Zones

A sound/ noise meter will be kept on site at all times to check noise levels at the site boundaries during certain operations, ensuring a maximum noise level of 75dB LAeq. Inside the site, and closer to noise sources, hearing protection zones, where hearing protection must be provided and worn if noise levels reach 80 – 85 Db, will be set up. Watkin Jones will endeavour to follow the Control of Noise at Work Regulations throughout the project.

Careful planning and use of appropriate plant and equipment normally keeps these requirements to few and very short periods.

Covid-19 Safety

Watkin Jones Group are committed to doing whatever it takes to protect all staff, subcontractors, customers and our business partners from COVID 19. With this in mind the control measures that we've put in place have been given COVID-Secure accreditation by British Safety Council (BSC) after an independent audit of our management response to the pandemic has been conducted by BSC's health and safety specialists.

All sites are working to the latest revision of the Construction Leadership Council's Covid-19 Site Operating Procedures and are rigorously adhering to social distancing regulations. Daily briefings are being conducted to highlight, and reinforce, safe working procedures. COVID 19 Risk Assessments will be conducted and implemented to protect all site workforce during the outbreak. This will cover the following;

- Anyone attending site must complete the risk assessment and comply with all guidance and requirements. Travel arrangement will be assessed, and non-essential travels shall be avoided
- All activities on site shall adhere to social distancing rules and will be in line with Public Health England (PHE) guidelines where it is not possible to follow the social distancing guidelines in full in relation to a particular activity, consider whether that activity needs to continue for the site to continue to operate, and if so, take all the mitigating actions to reduce the risk of transmission.
- Enhanced cleaning procedures should be in place across the site, particularly in communal areas and at touch points

- All facilities including toilets, changing facilities, drying rooms and canteen arrangements will be restricted with number of people using at any one time following the social distancing/hygiene rules.

- All those coming to site to have been briefed that they must not come to site if they have a high temperature or a new persistent cough or a loss of taste. Temperature readings will be taken before entering the site.
- Regular briefings on Covid-19 measures in place and precautions to be followed to be carried out.
- Providing First Aid on site shall avoid cross contamination/spread of virus by using appropriate PPE and if possible remove the casualty to a location away from others or clear others from the area.

Monitoring will be carried out on a daily basis and Watkin Jones will implement any necessary changes based on the advice provided by the government, public health agencies and industry bodies.

14.0 Construction Activities

The construction of the development will be carried out in accordance with detailed method statements and risk assessments approved by Watkin Jones management and in accordance with this construction management plan and Watkin Jones Health, Safety and Environmental Procedures.

15.0 Asbestos

Construction and Maintenance Workers

Contamination may pose a short-term or long-term risk to workers during construction and maintenance. The potential risks shall be specifically assessed as part of the health and safety evaluation for the works to be permed in accordance with prevailing legislation. Site practices shall conform to the specific legislative requirements and follow appropriate guidance. (e.g. HSE, 1991; ciria, 1996)

On the basis of the results obtained in site investigation by Tier Environmental, the following potential exposure risks to construction and maintenance workers are highlighted:

- Site wide elevated PAH concentration s in the Made Ground; and,
- Localised low-level chrysotile asbestos firbre bundles in the Made Ground.

The Control of Asbestos Regulations 2012 should be adhered to. A summary of complying with CAR: risk assessments, licensing and training is provided in Appendix B.

Removal of Asbestos Materials

The stripping, removal and disposal of all asbestos materials will be completed in accordance and in compliance with all relevant Statutory Instruments, Regulations, British Standards and Codes of Practice. Particular attention will be paid to the following:

- Health and Safety at Work Act 1974

- Control of Pollution Act 1974: Control of Pollution (Special Waste) Regulations 1980
- Health and Safety Executive: "Approved Code of Practice and Guidance Note for Work with Asbestos Insulation and Asbestos Coatings"
- The Asbestos Research Council- Control and Safety Guide No 9: "The Cleaning of Premises and Plant in accordance with the Asbestos Regulations"
- Control of Asbestos Regulations 2012 ref SI 2006/2736
- Approved Code of Practice and Guidance: Working with materials containing Asbestos (L143)
- Asbestos: The licensed contractors' guide (HSG247)

Licensed contractor will be appointed for the removal and disposal of asbestos materials in compliance with appropriate regulations and acts as detailed above.

The contractor will be on the approved list of Contractors for Asbestos Removal Works as designated by the Health and Safety Executive. The Contractor will provide copies of all licenses, permits and the like prior to commencement of the works.

The works will be for the complete removal of all premises within the boundary of the site and removal off site to the appropriate licensed tip of all asbestos materials identified in the contract information and any materials found in the course of the surveys or subsequent works. An detailed Asbestos Management Report will be provided by the demolition contractor providing the extent and nature of the asbestos present within the buildings.

The appointed demolition contractor are to ensure that the methods adopted for the stripping, removal and eventual disposal of the asbestos will be of a standard acceptable to the Health and Safety Executive and compliant with Waste Management regulations, best practice and any planning/building control requirements.

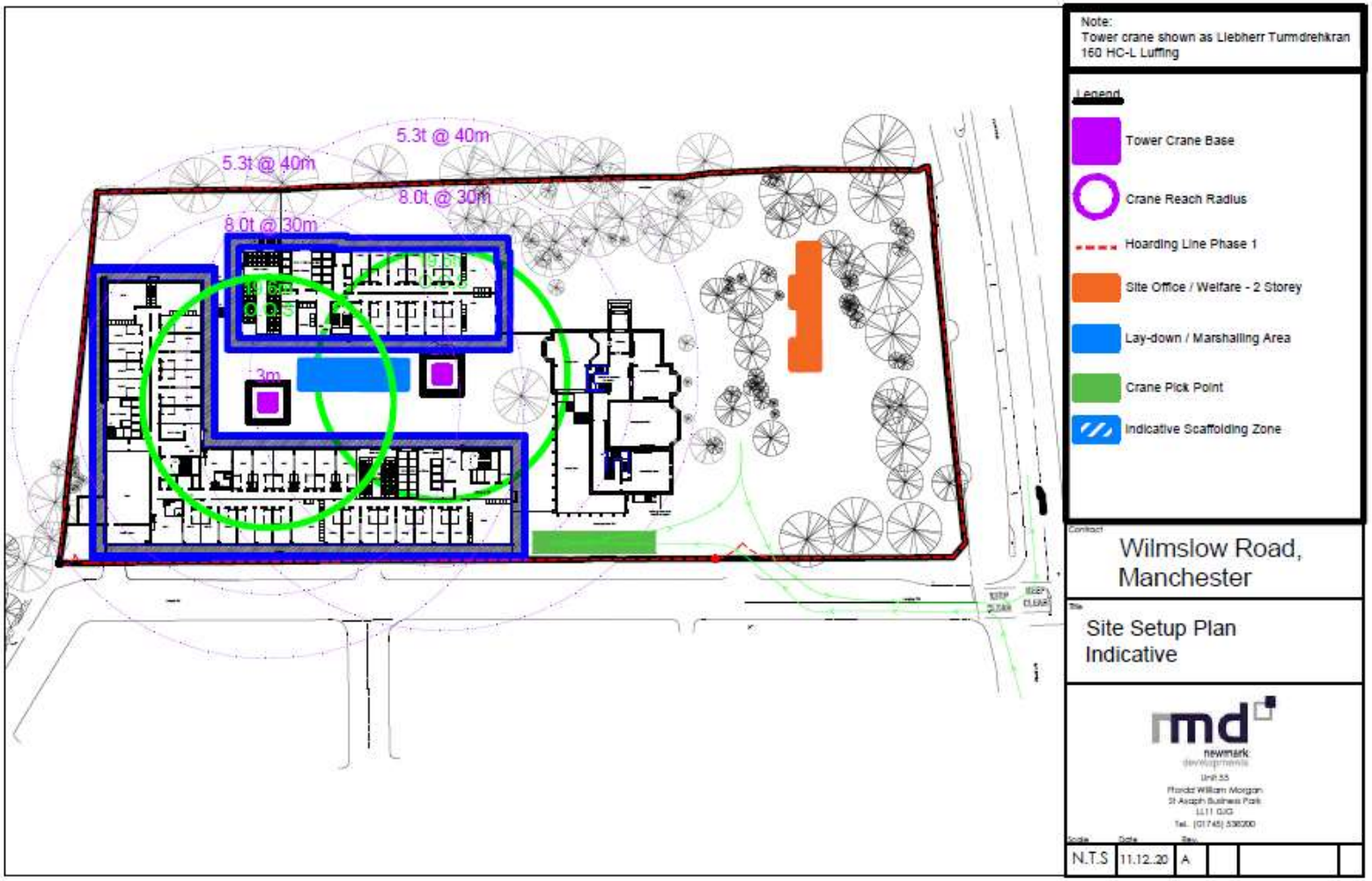
The appointed demolition contractor is responsible for advising the Health and Safety Executive, in writing, of the date and time where commencement of the works is proposed in accordance with Approved Code of Practice and guidance: working with material containing Asbestos (L143).

16.0 Construction Programme

An indicative construction programme is shown as follows:

- Construction Commencement (Inclu. Demolition) – November 2021
- Construction Completion – August 2023

APPENDIX A – INDICATIVE SITE SETUP PLAN



APPENDIX B – COMPLYING WITH CONTROL OF ASBESTOS REGULATION 2012

Complying with Control of Asbestos Regulations (CAR): Risk Assessments, Licensing and Training

This appendix outlines CAR risk assessments and where they should be applied in relation to assessing and remediating brownfield sites. The information below details the different classifications of work with asbestos under CAR, summarises the legal requirements for asbestos awareness training for all involved in the investigation and management of asbestos containing soil (ACS), and details the potential requirements for suitable proficiency training relating specifically to ACS.

CAR RISK ASSESSMENTS

A CAR Risk Assessment is required for any work which may expose employees to asbestos. It is recommended that a precautionary approach is adopted if there is any doubt about risks associated with asbestos.

There are three main activities for potential asbestos exposure during work on brownfield sites:

- Site reconnaissance visits;
- Site investigation works; and
- Site remediation.

CAR risk assessments are needed at each stage but may be incorporated during the site investigation stage into the overarching health and safety risk assessments.

The CAR risk assessment must:

- Identify the type of asbestos to which employees are liable to be exposed, where possible, or assume it is present in different forms;
- Determine the type and extent of exposures to asbestos that may occur during the work
- Identify the steps to be taken to prevent exposure or reduce it to the lowest level reasonably practicable; and,
- Consider the effects of control measures that have been or will be taken.

The CAR risk assessment should include any information used to inform the risk assessment such as asbestos reports or desk study information. In the event that this information is not available, the assessor should be assumed that all forms of asbestos may be present on Site.

For all investigation and remediation of ACSs, a detailed written work plan should he produced and followed as detailed on the HSE website and in the CAR.

The CAR risk assessments for specific investigations or remediation projects, will determine whether or not work is 'licensable work' (LW), notifiable non-licensable work' (NNLW) or 'non-licensed work' (NLW). In addition, training requirements are also defined by the CAR risk assessment.

Some examples of control measures that apply during site reconnaissance, site investigation works and site remediation are given below and should be applied depending on the asbestos risks identified for the Site at each stage of investigation:

- Avoiding stirring up dust;
- Cleaning footwear after site works;
- Removing and bagging any overalls for disposal/laundering;
- Respirators and hygiene facilities for high risk sites;
- Segregated welfare units;
- Wetting ground
- Minimising soil disturbances;
- Implementation or retention of capping/break layers;
- Implementation of awareness training;
- Air monitoring;
- Managing stockpiles;
- Area segregation;
- Wheel washing
- Road washing/cleaning

It is important to note that during Site reconnaissance visits, Site investigation works and Site remediation that asbestos should not be considered in isolation and control measures are likely to form part of a wider health and safety precautions.

Respiratory protective equipment (RPE)

RPE is the last line of defence and its requirement would be defined by the CAR risk assessment. HSE (2013b) advises that RPE should have an assigned protection factor of 20 or more for all work with asbestos. In certain instances, full face-piece, positive pressure respirators with a protection factor of 40 are necessary (to EN 12942:1998, TM3).

Suitable types of RPE for most ***short*** duration non-licensed asbestos work:

- Disposable respirator to standards EN149 (type FFP3) or EN1827 (type FMP3)
- Half mask respirator (to standard EN140) with P3 filter
- Semi-disposable respirator (to EN405) with P3 filter

These filters are not suitable for people with beards/stubble or for long or continuous use.

LICENSING

CAR defined certain types of activities involving asbestos as 'licensable work' (LW) or as 'notifiable non-licensable work' (NNLW). All other work would be 'non-licensable work' (NLW).

LW is defined as:

- work where exposure is not 'sporadic and low intensity'
- work where the risk assessment cannot demonstrate that the control limits (four hour and 10 minute limits) will not be exceeded
- work on asbestos coating
- work on AIB or insulation where risk assessment is either of first two points above or not of short duration (where short duration is defined for any work liable to disturb asbestos as taking less than two hours per week (including ancillary work) and no one person carries out that work for more than one hour').

NNLW includes work with:

- AIB or asbestos insulation of short duration that is not licensable
- fire-damaged asbestos cement or asbestos cement damaged so as to create significant dust and debris
- asbestos ropes, yarns, woven cloths in poor condition or handling cutting or breaking up the materials
- asbestos papers, felts and cardboard in poor condition, unencapsulated or not bound into another material.

Work with weathered asbestos cement, air monitoring and collecting samples of ACM in buildings would not normally be notifiable.

It is impossible to specify definitively what activities will and will not be licensable. This decision should be made as part of the CAR risk assessment. CAR is not primarily aimed at work with ACSs and there is little published information on airborne asbestos concentrations during work with ACSs. Nevertheless, CAR will require some remediation projects, and occasionally site investigations, to be LW. Investigations on other sites may involve NNLW. The decision as to whether work is LW or NNLW should be made during the CAR risk assessment by those in charge of the brownfield site investigations and remediation projects.

TRAINING REQUIREMENTS

Asbestos health and safety courses are offered by a number of providers in the UK. Training courses that include the problem of identifying ACMs in soil should be undertaken at regular intervals by those involved in the investigation, assessment and management of sites where ACs are known or suspected. It is the role of the employer to identify the level of training required for an employee based on their role, experience and duties. Reference to Regulation 10 of CAR should be referred to for more information on training requirements.

Recognising asbestos within soils is challenging due to the heterogeneity of such soils and the discolouration of asbestos by smeared soil. Specific training for ground workers should include understanding fibre release potential, potential control measures in the field, how to take representative ACSs safely, sample labelling and what analytical tests are available and when the y should be implemented.

Health and safety training required under CAR includes asbestos awareness, non-licensable work (including notifiable non-licensable work) and licensable work with asbestos.

In addition to health and safety training, some staff involved in the technical identification on site of ACMs, sampling and analysis may require technical proficiency training (competency training).

Training vs. Competence

HSE (2005) identifies that 'training alone does not make people competent. Training must be consolidated by practical experience so that the person becomes confident, skilful and knowledgeable in practice on the job'. It is critical that ACS surveyors demonstrate competency with details of relevant field experience alongside training and examples of previous works/references.