

OUTLINE METHODOLOGY

The works involve the demolition down to top of ground floor slab of a single-story former DHL sorting office building, within the Jaguar Land Rover depot.

Hours of work: 07:00am – 17:00pm (Monday to Friday)

EXISTING SITE

The site is located within the Jaguar Land Rover factory in Speke.

The boundaries of the site comprise:

- To the North – JLR Factory Buildings & North Rd beyond
- To the South – Internal road & JLR carpark
- To the East – Internal road & Ford Transmissions Building beyond
- To the West – Middle Rd & various buildings beyond

Access to the site will be via existing security barriers located on Middle Rd off North Rd.

METHODOLOGY

Scope of Works – The demolition works generally comprise, but are not limited to, the following:

- Site establishment (Establish Welfare and erect boundary fencing)
- Service Disconnection verification
- Rubbish Removal
- Asbestos stripping and disposal
- Demolition of building down to existing floor slab level
- Removal of slab and foundations
- Removal of arisings from site
- Backfill any voids with site won material.

SITE ESTABLISHMENT

Temporary welfare facilities will be provided on site, generally in the form of 'portacabin' type units, which will be sited in a suitable area. These facilities will be in accordance with the requirements of CDM 2015, specifically Regulations 4(2)(b), 13(4)(c), 15(11), Schedule 2, HSE publication 'Provision of Welfare facilities during construction work' (CIS 59), and the Workplace [Health Safety & Welfare] Regulations, commensurate with number of personnel on site.

An 'All in One' Welfare unit will be sited at a location agreed with the Client and will provide the following facilities:

- Canteen/ Mess area
- Drying Room
- Office
- Toilet / Washing facilities.
- Tool Store

The welfare facilities will be maintained clean and in good order by the workforce. Electricity will be provided by means of a generator. The water supply will be from existing site services, in agreement with the client. Heras fencing will be placed around the compound.

LIAISON

The site manager will carry out the role of liaison manager for the project. A letter will be drafted and once agreed with the client, delivered to each of the surrounding buildings informing them of the proposed works and anticipated timescale.

The site manager's contact details will be prominently displayed on the perimeter fencing to enable residents to contact him with any queries as to the works.

Any complaints received will be documented in compliance with our procedures, with complainant details, dates, times and the actual complaint.

Copies of these reports will be kept on site for inspection by the client representative and when actioned these reports will duly be completed, signed off and held for record purposes.

INDUCTIONS

All staff and operatives working on the site will be formally inducted by Connell Brothers prior to commencing work on site. Visitors to the demolition site will be required to attend a Connell Brothers induction and will be escorted by a member of staff at all times when on site.

All operatives on site will have asbestos awareness training regardless of their role.

PERSONAL PROTECTIVE EQUIPMENT

All personnel working on site will be required to wear a hard hat, safety boots, Hi-Viz jacket/vest as minimum requirement.

ACCESS & EGRESS

Access to the site will be via an existing security barrier access on Middle Rd. External of the site suitable signage will be placed either side of the main entrance warning other internal road users and pedestrians of the demolition site entrance. When required road plates will be used to protect the existing pavement crossover surface. All vehicle movements on and off site will be controlled by a vehicle marshal.

Pedestrian access will be kept separate from vehicle access.

Vehicle and pedestrian routes internal of the site will be kept separate and demarcated using barriers and signage.

HGV's must turn on their flashing warning lights when approaching the site. Their flashing lights must remain on during all movements onsite, until they exit site back onto North Rd and are driving away from the site. HGV's will be instructed not to exceed 5MPH when traveling within the site.

HGV's will drive into and out of site in a forward gear. All vehicle movements on and off site will be carried out under the instruction of a Traffic Marshall. HGV's must follow the marked internal site traffic routes. Pedestrian and vehicle routes will be kept separate on site.

When not in use the vehicle access gates will be kept closed and locked to prevent unauthorised access.

The surrounding roads will be regularly inspected and when required will be cleaned by a road sweeper.

Delivery / Collection of demolition plant and equipment will be scheduled "out of hours" to avoid disruption to the surrounding road network. A sufficient number of Traffic Marshalls will be on hand to safely manage traffic movements when the plant is being delivered into site.

When removing materials off site HGV movements will be planned and managed. To avoid disruption to the adjacent roads HGV's will not be allowed to park or queue in the roads surrounding the site.

SERVICES

All services will be terminated at or beyond the site boundary by the client prior to the commencement of the demolition works. Written confirmation / certification will be obtained by CBL prior to any demolition works being carried out. CBL's Contract Manager and Demolition Site Manager will check the location of the termination and diversion points to visually verify they have been carried out and that they have carried out in the correct location.

Throughout the works CBL personnel will be vigilant to the risk of previously unknown pipes or cables (service) being uncovered during the demolition works. Any rogue services uncovered will be treated as LIVE until they are verified "dead". Details of retained services and potential of the discovery of rogue services will be explained to Site personnel during their Site-specific induction.

NOISE CONTROL

Due to the nature of the works, it is inevitable that noise will be generated. All necessary measures will be taken to keep noise levels and the exposure of all persons, to the absolute possible minimum, which where practicable will not exceed permitted exposure levels. All endeavours will be made to reduce the impact of noise caused by the works.

Demolition works will be carried out utilising Connell Brothers fleet of modern plant incorporating best practices for noise emissions. Wherever practicable hydraulic concrete crackers will be used to demolish concrete instead of hydraulic breakers. However, when required modern hydraulic breakers (city type) will be used. These have been specially designed with reduced noise emissions for use in city environments.

Noise will also be kept to a minimum by ensuring all plant on the project is serviced in compliance with the manufacturer's specifications. Where noise defects on plant cause levels to be increased, the Site Manager will take immediate action to reduce those levels to a safe limit or protect workers from hearing damage.

Works will be carried out in accordance with '*BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1 Noise*'. Copies of the appropriate regulations and guidance notes will be kept on the site. Any necessary personal protective equipment will be acquired and provided as required.

The Site Manager will ensure that supplies of ear defenders or other hearing protection is made available where it is not possible to reduce the noise level to a safe limit. On issue to operatives and others, the Site Manager will give instruction on their use and maintenance. Employees will ensure that any equipment supplied for the protection of hearing is properly used and maintained.

DUST CONTROL

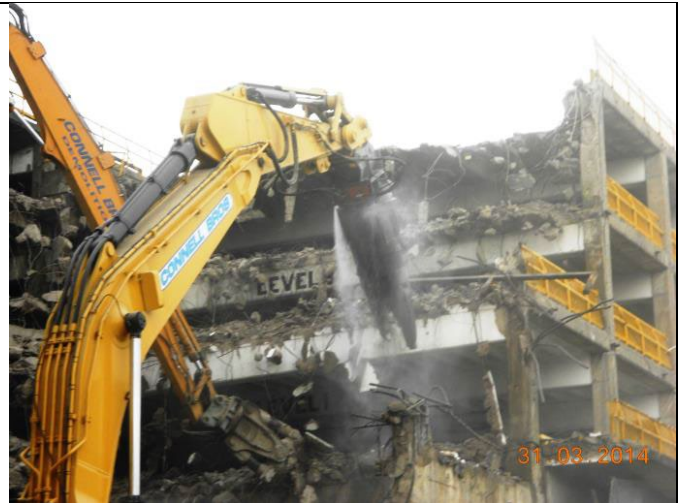
Good working practices and liaison on the works to be carried out and will be employed to cause as little noise/dust disturbance to others. Dust emissions resulting from the works are kept to a minimum by adopting the following control methods:

- The use of modern plant fitted with a powered water suppression system that delivers a fine water spray at the face of the tool during demolition activities.
- Dust will be suppressed by damping down at source using a fine water spray (Dust Bosses – purpose-built state of the art machines that spray a fine water mist in a selected direction to suit the prevailing conditions).
- Whilst crushing utilising a modern crusher incorporating a dust suppression system that produces a fine water spray over the arisings during crushing, together with modern plant fitted with powered water suppression systems and a Dust Boss.
- As far as possible, the site layout will be designed to ensure that storage of potentially dusty materials is remote.
- Wagons will be sheeted over when leaving the site.

- Affected roadways will be swept as required.



Dust Boss producing a fine mist to suppress dust
Town Centre Demolition



Excavator fitted with water nozzles at the tool face
to produce a fine water spray to suppress dust
Town Centre demolition.

VIBRATION

Vibration is inevitable during demolition works. Demolition works will be carried out in accordance with 'BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration'.

Wherever possible structural items removed from the building during the course of the demolition will be lowered to ground and not dropped from a height where occupied buildings are adjacent. All endeavours will be made to utilise hydraulic concrete crushers instead of hydraulic breakers when demolishing concrete structures to reduce possible vibration.

WASTE

As part of Connell Brothers Limited Environmental Policy waste materials are segregated into individual waste streams at source to ensure that as much material as practically possible is diverted from landfill and is reused or recycled.

Waste and arisings will be removed from site with contained skips. All loads will be sheeted over to stop dust and debris being released during transit.

All waste and arisings removed from site will be accompanied by the relevant waste transfer documentation (Controlled waste transfer note for Non-Hazardous waste and Hazardous Waste Consignment Note for Hazardous Waste).

Combustible waste will be removed from site at regular intervals so as to prevent the unnecessary build-up of combustibles materials.

All waste materials will be disposed of offsite to a licensed waste facilities approved by a Waste Regulation Authority and in accordance with relevant regulations.

ASBESTOS REMOVAL

The client is to undertake an asbestos demolition survey prior to any asbestos removal or demolition works being carried out. The removal of the Asbestos Containing Materials (ACMs) as identified and quantified within the asbestos surveys will be planned, managed, controlled, and carried out by Connell Brothers Limited's "In House" specialist asbestos removal team to the highest standard in full compliance with the

Control of Asbestos Regulations 2012, NFDC>NNLW Asbestos Guidance Notes and other current / relevant Health and Safety Legislation and CBL's Standard Procedures for Asbestos Abatement Works.

Connell Brothers Limited are HSE Licensed asbestos removal contractors, we hold a full 3 year unrestricted / unconditional asbestos removal license (Issued by the HSE's Asbestos Licencing Unit) valid until 19th May 2025.

Post Asbestos Removal works

All personnel on site will, as a minimum, have completed asbestos awareness training. Throughout the soft strip and demolition phase of the project operatives will remain vigilant in case any previously undetected ACMs are uncovered.

SOFT STRIP

Soft Strip works will only proceed in areas which are not affected by the asbestos removal works. Operatives will work carefully and diligently during the Soft Strip Operations in case the discovery of any concealed Asbestos materials. Should any Asbestos material be discovered, the areas will be cordoned off and the Clients representative immediately notified for further action.

During the Soft Strip Operations good housekeeping procedures will be employed to ensure that all escape routes out of the building do not accumulate with debris.

Soft stripping of doors, door frames, skirtings, ceilings, carpets and the like will be carried out by Operatives equipped with suitable P.P.E. and handheld tools. Access to work at height will be by mobile scaffold platform/MEWP as required.

Soft strip will be removed in manageable pieces and transported manually from the building via existing doors before being placed in previously positioned skips.

As part of Connell Brothers Limited Environmental Policy soft strip material is segregated into individual waste streams at source and recycle as much material as practically.

- a) Timber will be removed for re-cycling.
- b) Metals – cable will be removed from site for further processing and recycling.
- c) Materials that cannot be recycled will be despatched to a licensed tip facility or Waste Transfer Station with the appropriate documentation.

All waste leaving the site will be accompanied with a Duty of Care / Waste Transfer Note.

DEMOLITION

All demolition method statements will be generated by the Technical Manager and/or the Project Director, both of whom are full members of the IDE (Institute of Demolition Engineers).

Demolition of the structure will be carried out using specialist demolition specification excavators of varying sizes equipped with a variety of specialist attachments to suit the structure being demolished.

All demolition will be demolished in accordance with BS 6187:2011 Code of practice for full and partial demolition with particular attention paid to Section 13: Safe working spaces and exclusion zones. Prior to the demolition works commencing an exclusion zone will be formed using suitable Heras fencing and signage attached (see below).

Prior to demolition works commencing, Connell Brothers will inspect the structure to assess the condition and produce a detailed, specific method statement.

Exclusion zones will be formed using Heras fencing and signs posted as below.

RED “Exclusion Zones”

- Existing access routes into the demolition area from other parts of the site must be blocked and marked with the following Red Exclusion zone signage.



“RED ZONE – Is an EXCLUSION ZONE that is defined as being the most restricted and is “an area of a site where no person may work”

- The area around the building and the area between the excavator and the building is an exclusion zone (Designated drop area and Predicted debris area). No operatives or persons can access or work in these areas. The designated drop area and predicted debris area will change in accordance with the progression of the demolition.
- The swing radius of the excavator is an exclusion zone when the excavator is in operation. Operatives must not enter the working radius of the excavator. If for any reason access into the working area is required operatives must firstly make visual contact with the driver, only once the excavator is stationary and the driver has given a “Thumbs up” signal can the operative enter the swing radius of the excavator.

AMBER “Restricted Zones”

- Access to this zone must be restricted to only those operatives involved with the works.
- Suitable barriers will be positioned to provide a physical barrier separating the (Green “Safe” Zone) from the works area (Amber “Restricted” Zone). The following Amber Restricted zone signage will be fixed to the barriers.



“AMBER ZONE – There may be other areas on site where access will be RESTRICTED to work undertaken by specialist occupationally qualified personnel as required by risk assessment and method statements. These are called AMBER ZONES”.

The works comprise the demolition of a single storey former office building. The building is of traditional brick & block construction with a flat roof with metal cladding.

Demolition Works

The Site Supervisor will ensure that all persons working on site are equipped with a Hard Hat, Safety Footwear and Hi-Viz clothing.

All operatives will receive a site induction prior to the commencement of any work.

- The site perimeter will be secured using Heras fencing to separate the existing factory and work zone. A further exclusion zone will be created a suitable distance around the perimeter of the

building. All operatives on site will be made aware of the demolition works. A lookout will be in attendance at all times during demolition to enforce the exclusion zone.

2. An excavator with suitable attachment (Grab and Pulveriser) will be used to demolish the building.
3. The excavator will commence by removing a section of roof and gable wall. Demolition works will be carried out progressively, with arisings being brought inwards and downwards in a controlled manner. As required floors will be cleared of debris and removed as works progress.
4. When possible, the excavator will track onto and work from the building footprint. Arisings will be cleared as the works progress. Internal walls will be rotated inwards and downwards as the works progress. As required the side walls of the building will be pulled inwards and downwards on to the building footprint.

Demolition will continue in this piecemeal manner along the length of the building.

No free-standing sections of walls or floors are left in situ at the end of each day. Work will continue until either the building has been entirely demolished or is structurally stable.

5. All demolition arisings will be separated (as far as reasonably practicable) at source as the work proceeds. Brick / Concrete will be kept separated as will recyclable timber and metal.

Recyclable material and general waste will be removed off site on a regular basis to avoid the build-up of material.

Brick and concrete arisings will be processed / reduced in size using an excavator equipped with pulveriser attachment and stockpiled.

Throughout the works operatives will remain vigilant as they may uncover previously undetected asbestos containing material.

Any material found during these works, suspected of containing asbestos that has not been previously identified in the Refurbishment / Demolition surveys will result in work being stopped. Actions will be carried out as detailed in the Asbestos Unexpected Discovery flowchart,

Ground Floor Slabs and Foundations Removal

Removal will commence at one corner of the slab with an excavator breaking the slab into manageable sections using a hydraulic breaker. An excavator equipped with a bucket will then remove these sections to a stockpile for further processing.

Where foundations are encountered during the slab removal these will be broken out by the excavator with breaker attachment down to a depth of 1.0m below the top of the ground floor slab level. Arisings will be removed to the stockpile.

Slab and foundation removal will continue across the entire building footprint for the building in a methodical manner until completed.

All arisings will be cleared from the site and disposed of at a licensed facility.

This is an outline methodology, a detailed task specific methodology will be issued for prior to each element of the works taking place.