Method Statement Demolition & Dismantling Activities

Document Reference:	NDS-RELI-01
Contractor:	Network Demolition Services LLP
Site:	Reliance Street
Address:	Reliance Street Recycling Centre, Manchester M40 3EZ
Project Director	Paul Edwards
Document Date:	26.05.2023
Activity:	Demolition of Redundant tanks
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Document Revision and Review (amendments highlighted in yellow)

Revision Number	Revised by	Date	Reason for revision
1	**Mike Kehoe/Matthew Bardgett**	**09.05.2023**	**Draft Revision for client**
2	**Matthew Bardgett**	**26.05.2023**	**Comments following initial revision**

Document Approval Status

I can confirm that I have read this document and give my approval that it is suitable to carry out the works required on site;

Name	**Signature**	**Date**

Project Directory

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Principal Contractor		
Duty Holders		

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Scope of Works

The main project concentrates on clearing the former AD Plant area to accommodate a brand-new Household Waste Recycling Centre (HWRC).

The AD Plant Area comprises of a number of tanks, steel support structures, pipe bridges, RTO, chemical storage, MCC Electrical Kiosk feeding various areas of the site with electrical cable trays at high level.

Under the Construction Design and Management Regulations 2015 (CDM 2015), Network Demolition have been appointed by Greater Manchester Combined Authority (GMCA) as the Principal Contractor for the demolition and strip out works.

The demolition works are currently planned to start on site on 22nd May 2023 and will take 8 to 10 weeks to complete.

Network Demolition's scope involves the demolition and removal of all associated pipework, tanks, gantries, and separations between buildings as well as breaking out concrete wall and slabs.

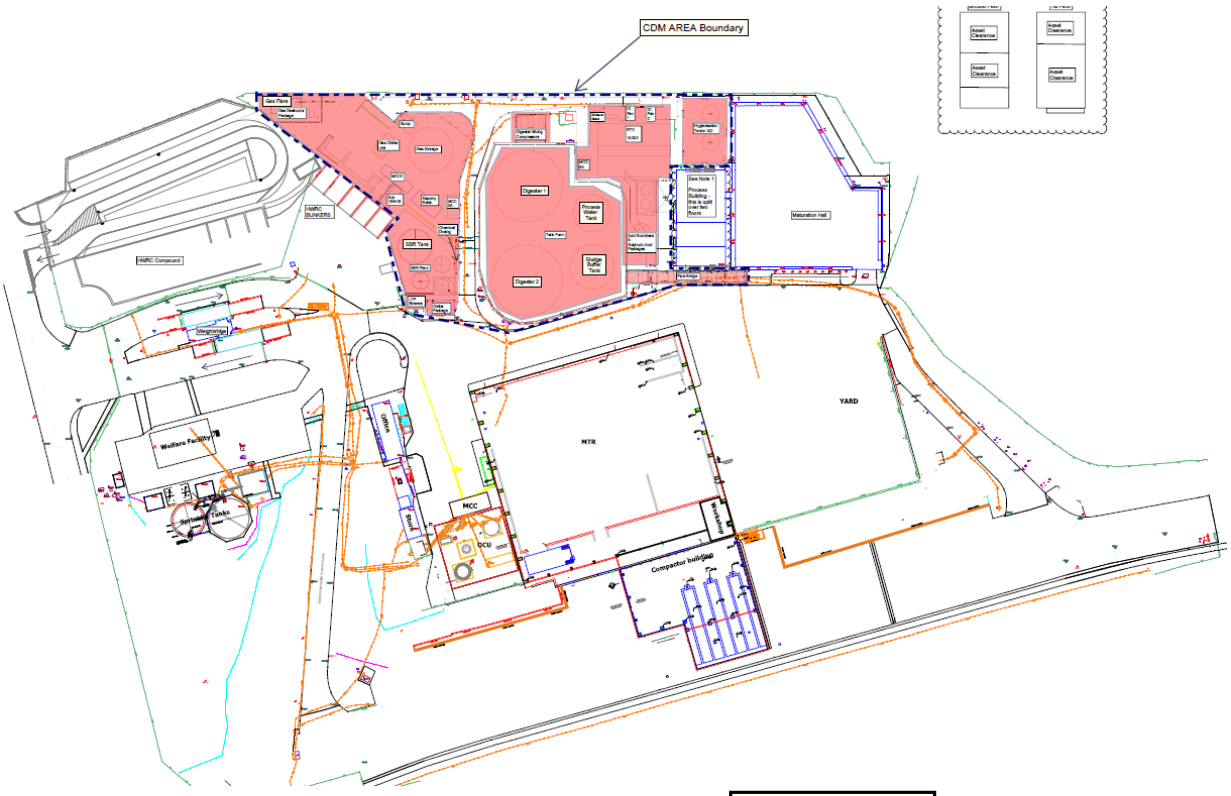
The areas where the demolition works are taking place will be agreed with the GMCA, Suez Site Management team and signed over to Network Demolition under the CDM Regs (drawing showing CDM area in the appendix).

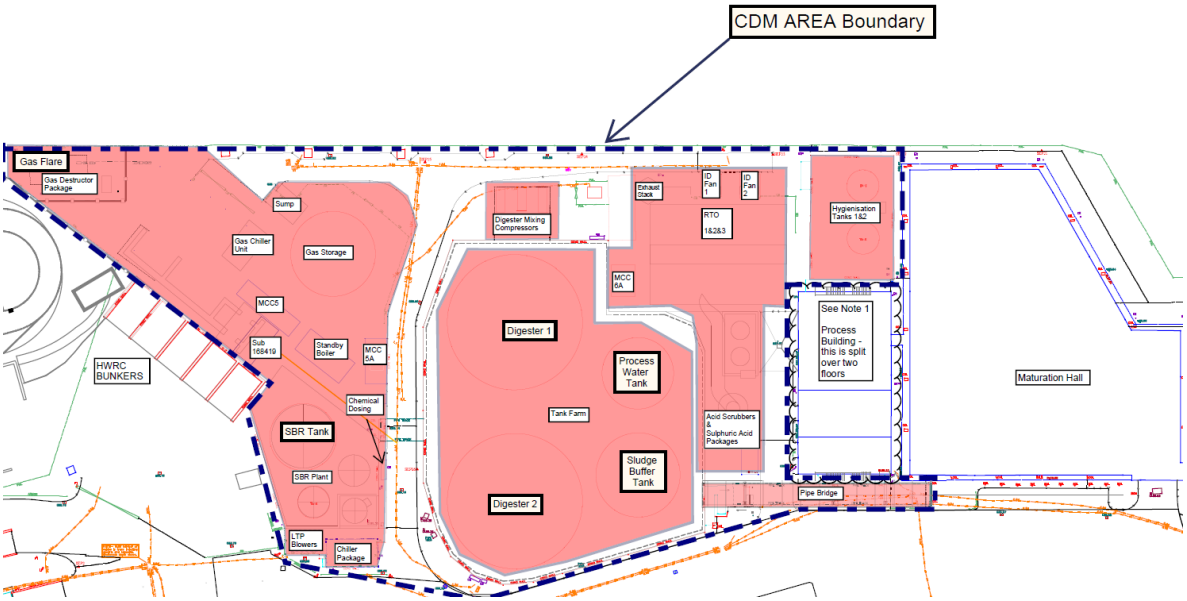
Network Demolition will erect fencing to the perimeter of the CDM Area to create a safe working zone.

All electrical services to the AD Plant & equipment to be isolated, disconnected and strip back to MCC cabinets before any demolition works commence on site, this work will be undertaken by GMCA approved M&E contractor, isolation certificates will be issued to Principal Contractor for inclusion in their H&S File.

All pipework serving the AD Plant will be flushed, blown through with pipework being cracked, this work will be undertaken by Environclear, on completion of works certificates will be issued to Principal Contractor for inclusion in their H&S File.

Traffic Management plan to be developed before any works commence on site, Principal Contractor to agree traffic routes with Suez site management team.


CDM AREA Boundary
HWRC BUNKERS
HWRC Compound
Digester 1
Digester 2
Process Water Tank
Sludge Buffer Tank
SBR Tank
Maturation Hall
YARD
MTR
MCC
DCU
Compactor building
Workshop
Welfare Facility
Refrigerant Tanks


CDM AREA Boundary
Gas Flare
Gas Destructor Package
Sump
Gas Chiller Unit
Gas Storage
MCC5
Sub 168419
Standby Boiler
MCC 5A
HWRC BUNKERS
Chemical Dosing
SBR Tank
SBR Plant
LTP Blowers
Chiller Package
Digester Mixing Compressors
Exhaust Stack
ID Fan 1
ID Fan 2
RTO 1&2&3
MCC 6A
Digester 1
Process Water Tank
Tank Farm
Sludge Buffer Tank
Digester 2
Acid Scrubbers & Sulphuric Acid Packages
Hygienisation Tanks 1&2
See Note 1
Process Building - this is split over two floors
Maturation Hall
Pipe Bridge



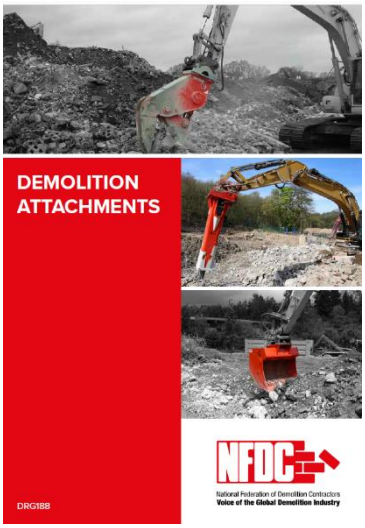


The document is to be read in conjunction the site specific risk assessment and logistic plans.

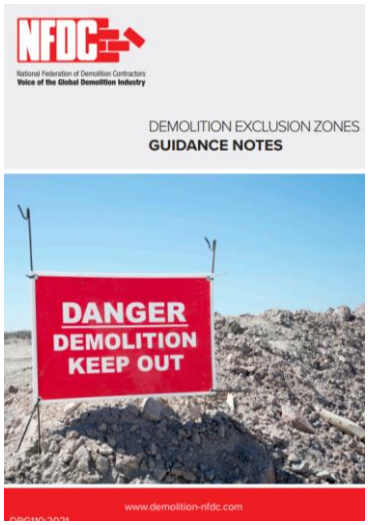
All demolition Works are to be carried out in accordance with BS6187:2011 Code of Practice for Full and Partial Demolition.

Reference to the 'Standard' has been made throughout the document and a copy is available from the office on request.

Guidance Notes that Network Demolition Services will follow for the demolition at the Former Reliance Street Tanks



Safe use of Demolition Attachments



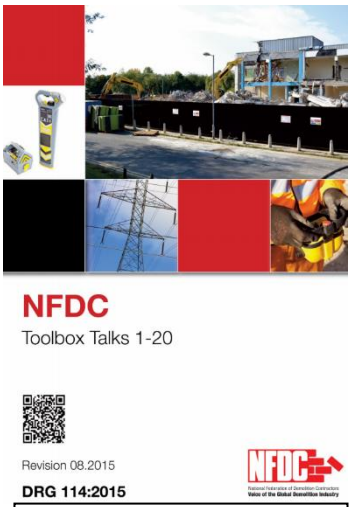
Exclusion Zone Guidance Notes



Demolition Attachment notes



High Reach Guidance Notes



Tool Box Talks

Sequence and Methodology

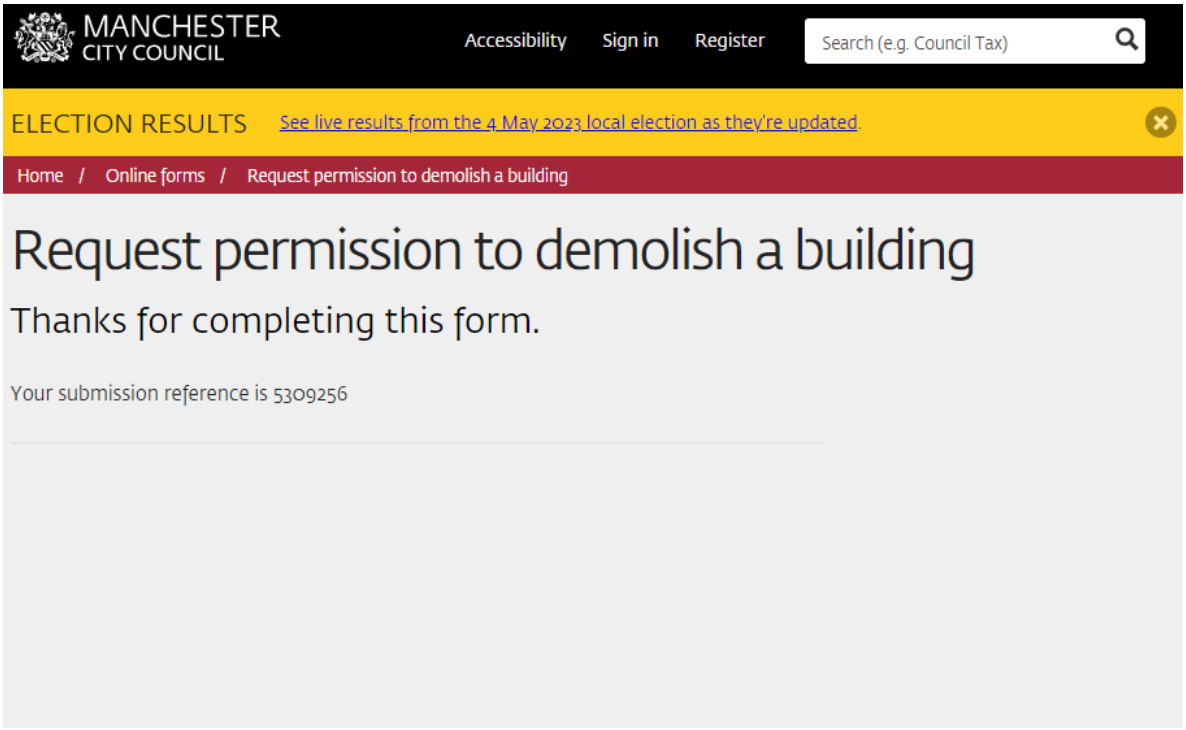
1. Site Setup

NDS as per their appointment as Principal-Contractor will use the welfare facilities which comply with CDM 2015 regulations.

Prior to the start of the demolition of the building all operatives are to attend the site induction, which will cover the vehicle access to and from site the emergency procures, muster points, the reading and signing or the RAMs Including a briefing on the Construction Phase Plan, carried out by Paul Edwards Director of NDS, this will include a site walk around to familiarise the operatives with the works. The Daily Activity Briefings are to be also conducted by the Site Manager.

Key Areas to be covered in the induction:

- Any live services within our site boundary
- Access and Egress on to site for demolition plant and vehicles
- Pedestrian walk ways
- Security of the site
- Sequence and method of demolition
- Local residents
- Site working hours
- Strictly non-smoking/vaping allowed, only in designated area(s)



Fencing Erection

Installation of temporary fencing to form external exclusion zone. This will be erected by NDS as there will be heras fencing needed on the project.

This will be in line will the site/hoarding with the site plan and erected to the manufacturer's recommendation.

Internal fencing will be used to form demolition exclusion zones, these will be a heras type fencing allowing it to be moved if needed, and be erected by NDS demolition personnel. The location will be shown on the site plan.

Operatives are to commence offloading fencing panels and erect in accordance with the area as agreed with the client and shown on the site plan.

Operatives are to be aware of Manual handling techniques, and must have current Manual Handling Training prior to the erection of the panels.

Panels are to be erected by two persons working together.

Demolition warning signage to be positioned, so as to make clear the risks on site on internal and external fencing:
Heras fencing will be added to the temporary works register under BS5975-2019.



We will use a temporary open fence panel, with block feet and doubled clipped, every third panel with have two panels and the rear (car park side) to act as a counter weight.

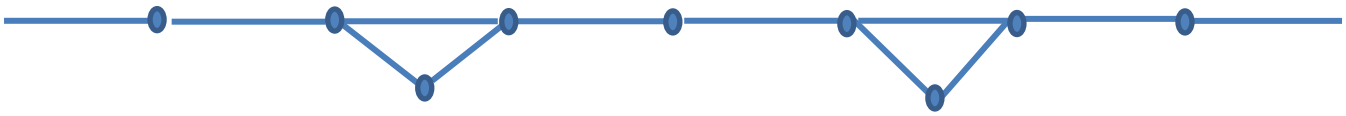
Example of the open panel fence to be used





Pedestrian doors to be used as access into the exclusion zone

Example of configuration of fence support:



Above is an overview of the fence panels, every third panel there will be a triangle formed used fence panel to act as a counter weight for the fence.

Care is to be taken to situate panels and feet, on firm ground avoiding ground uneven ground and service ducts.

Suitable access around all cabins is to be provided to allow servicing and cleaning operations.

Exclusion Zones

NDS demolition operatives will erect localised barriers at the ground level to ensure that the area will be fully isolated from other site personnel. We will erect specific warning signage and also exclusion zone signage.



An example of a Demolition warning signs.

Once these localised barriers have been erected, we will ensure that the clips have been fitted to prevent any unauthorised removal of the panels. A tool box talk will be given to all other operatives and we will inform site management that this area will be classed as an exclusion zone and no entry is allowed unless authorised personnel. There will be several exclusion zones enforced on this site, the site manager will make all operatives aware of this.

There will be a banksman manning the exclusion zone with two way radios at all times.



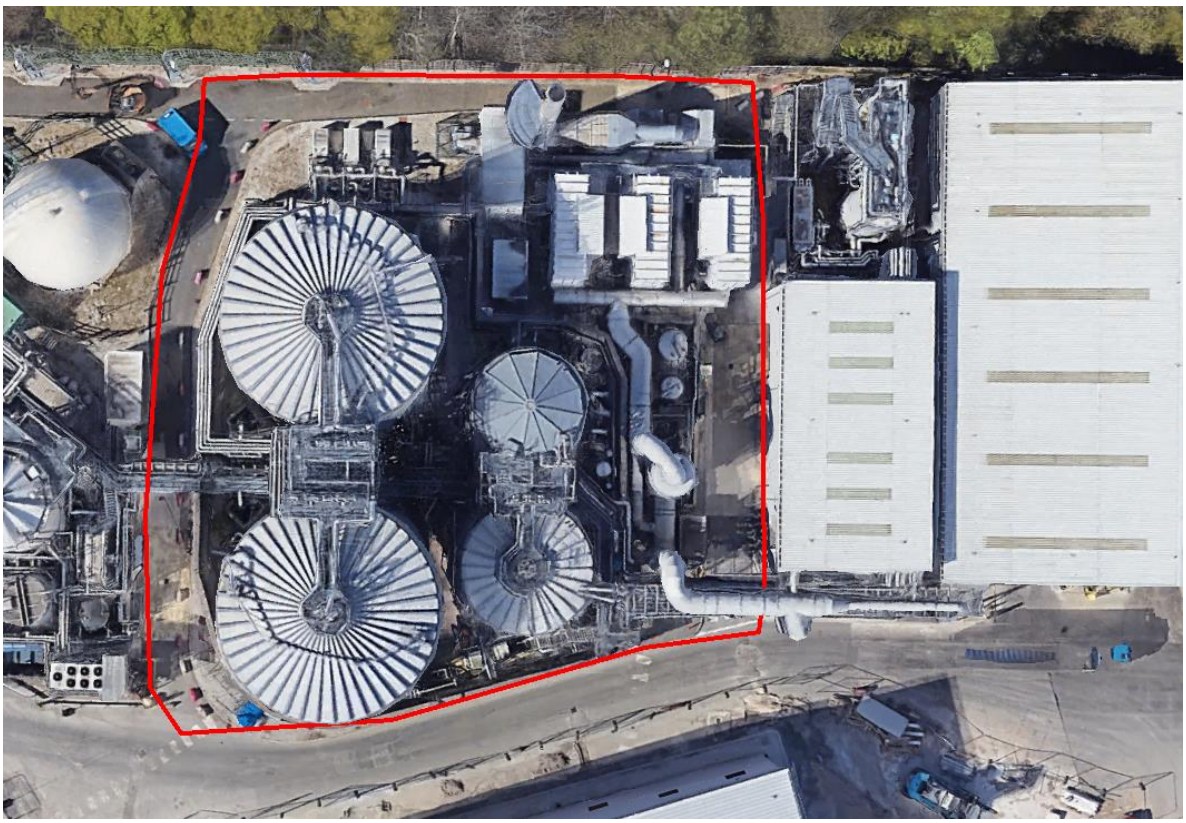
The site is denoted in red showing a full exclusion zone around the large AD structures. Only CCDO operatives are to enter this area.



The redline above denotes the general exclusion zone for phase 1. This will be enforced through a mixture of heras fencing and natural fences that are already in place.



When demolishing the tanks to the nearest point of the Suez road we will carry this work out at a weekend (To be decided currently). This will be done during limited traffic movements and when banksman are placed on the edge of the exclusion zone denoted by orange dots above.



The redline above denotes the general exclusion zone for phase 2. This will be enforced through a mixture of heras fencing and natural fences that are already in place.



When demolishing the tanks to the nearest point of the Suez road we will carry this work out at a weekend (To be decided currently). This will be done during limited traffic movements and when banksman are placed on the edge of the exclusion zone denoted by orange dots above.

No operatives are to enter the exclusion zone unless instructed to do so. NDS operatives will follow the NFDC Code of Practice for Exclusion zones as briefed by the site manager.

NDS demolition personnel will execute the works sympathetically to the surrounding residential neighbourhood environment.

Jet wash facilities will be used to all vehicles leaving site as required, dust and vibration monitoring will be carried out throughout the works.

During the works a watching brief will be in place to ensure the controls in place to control dust mitigation are suitable, demolition dust will typically be controlled by applying water spray manually using a water hoses.

All works are carried out with due regard for 'The control of dust and emissions from construction and demolition' Best Practice Guidance.

NDS commit to and adopt the ICE Demolition Protocol and Considerate Contractor Scheme.

Noise - Noise levels from these operations are not expected to be significant apart from in the immediate vicinity of rear of excavators undertaking site works. The following control measures will be implemented:

- Modern serviced plant operated with covers closed.
- Super silent generators used located away from off-site receptors and switched off when not required
- Treatment areas selected taking into account off site receptors.

DUST, NOISE AND VIBRATION

Best Practicable Means (BPM) will be used in controlling dust emissions, in accordance with the Best Practice Guidance by the GLA 2006 for The Control of Dust and Emissions from Construction and Demolition. Best Practicable Means (BPM) will be used to minimise noise, including low vibration methods and silenced equipment and machinery, in accordance with the Approved Codes of Practice of BS5228:2009 for noise and vibration control on construction and open sites. All works are carried out with due regard for 'The control of dust and emissions from construction and demolition' Best Practice Guidance.

NDS understand the importance of minimising or eliminates noise, dust and vibration pollution.

All roads/footpaths on the Nigg Energy Park to and from the work area will be kept free of dust, mud and debris at all times. Demolition transportation vehicles will have due regard to site conditions.

Demolition works will be undertaken by plant using hydraulic powered demolition shearing attachments. All plant use on site will be operated in accordance with manufacturer's instructions and best practice and will be fully serviced and maintained in good working order. All plant engine covers will be kept in place at all times with plant that is not in use shut down.

Compressors and generators will be of a super silenced type. All key personnel will be issued with site radios for communication. **The sounding of vehicle horns on site will be strictly forbidden, unless in an emergency capacity.** All site plant will be effectively silenced and located in such areas of the site to minimise noise levels off site to sensitive areas.

The demolition of the buildings will be carried out in such a manner as to minimise vibration. Loading of waste transporters with arising's shall be carried out utilising the smallest 'drop' possible to reduce impact noise, dust and vibration. The noise emissions from each item of plant shall not exceed the noise values each quoted in the relevant EC Directive. Electrical plant is to be used wherever possible i.e. electric compressor, electric gantries. Compressors shall be fitted with properly lined and sealed acoustic covers, which shall be kept and closed whenever the machines are in use. The best practical means shall be employed at all locations to reduce noise, dust and vibration to a minimum.

VIBRATION

Plant and equipment to be utilised for the work operations is selected to keep operative's exposure to vibration to an absolute minimum. Technical data on vibration levels for each item of plant or equipment will be provided where exposure levels exceed 2.5m/s² on a regular basis.

NOISE AND ENVIRONMENTAL POLLUTION

The plant and equipment to be utilised for the work has been selected so as to keep the noise levels to an absolute minimum. However, should noise levels exceed ambient level (A) then appropriate hearing protection will be worn by all personnel within the vicinity of the works and the noise levels monitored on a regular basis.

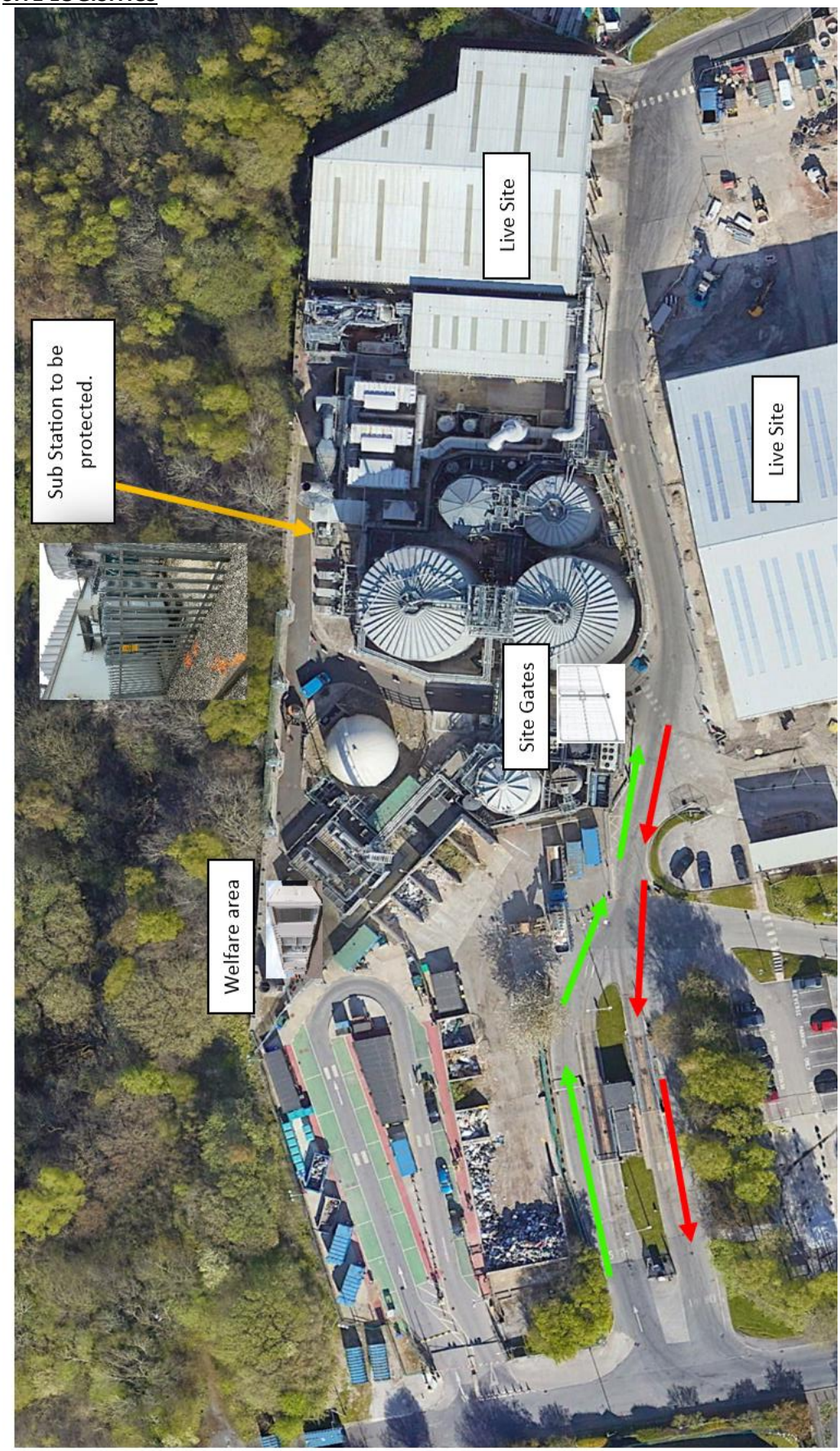
NDS for this contract will for the noise monitor the levels up until we commence the physical demolition and set a level for a red trigger 10db higher than the current levels in each monitoring location. NDS for an amber level will set this a few dB's lower as a warning.

All NDS Operatives will wear hard hat mounted ear protectors.

Environmental pollution will be kept to an absolute minimum and damping down will be carried out as required by site conditions. NDS operatives will only park plant and re-fuel in the designated area which has been agreed as being the site compound area.

NDS's aim that all waste materials on site will be either re-cycled or re-processed for further use. Segregated bins will be placed on site for each type of waste. Overall as per NDS's Environmental policy we aim for 95% recycled waste on each job, however our desire is to achieve closer to 97%. **ALL MATERIALS ON THE JOB WILL BE 100% RECYCLED APART FROM ANY CONTAMINANTS. THIS WILL GO TO A LANDFILL FACILITY WITH ALL WASTE TRANSFER NOTES BEING GIVEN TO THE SITE MANAGER.**

SITE LOGISITICS



COSHH Assessment

It is a clear standing instruction that any and all hazardous substances must not be used without an assessment being completed.

Under COSHH there is a range of substances regarded as hazardous to health, the following will be used by NDS Demolition during this project, a detailed COSHH assessment is held on-site by the site supervisor and should be read prior to use of the substances.

Substances which will be used during the demolition Works:

COSHH Assessment Index (Stored within COSHH Folder)		**New for this Task-Specific MS**
	Operation / Process / Substance	
BDC01	Diesel	x
BDC02	Oxygen	x
BDC03	Propane	x
BDC04	Grease	x
BDC05	Hydraulic oil	x
BDC06	Hydraulic Fluid	x
BDC07	Mould Oil	
BDC08	Welding	x
BDC09	Petrol	x
BDC10	Concrete Dust	x
BDC11	Silica Dust	x
BDC12	Lead Paint	
BDC13	Pigeon Guano	x

A full and comprehensive edition of COSHH Assessments is held on-site by NDS Demolition Project Managers for all materials that may be used during our works. Any new materials encountered will have a COSHH Assessment undertaken as soon as practically possible.

Burning equipment if used will consist of liquefied oxygen & propane gas, supplied in pressurised cylinders. The storage of these will be in designated security fenced areas or purpose-designed security cages stored a safe distance from welfare and office facilities etc.

Fuel oil for the plant will be stored in double bunded tanks; their location will take into account features such as drainage systems. This will ensure in the event of catastrophic failure; released liquids will be contained locally. Spill kits will be maintained in close proximity to fuel storage and refuelling areas. COSHH assessments are regularly checked to ensure they are relevant to the operations being carried out.

Bunded Fuel Tank

A locked, bunded diesel tank is to be situated within the compound to provide an independent supply of diesel.

This will avoid the necessity to transport or carry fuel to the plant.

Spill kits are to be located adjacent to any fuel bowser.

Drip trays must be used at all times.

All spillages are to be contained. On no account will spillages be allowed into site drains.

COSHH assessment for Gas Oil to be read prior to the start of works







2. Asbestos

NA due to the building being built in 2011

3. Exclusion Zones



The red outline above shows the exclusion zone that NDS will implement.

Site Welfare:



HEALTH & SAFETY PLAN
& METHOD STATEMENT

Site setup and material picking



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MIDE AssocRICS MIIRSM GradIOSH AIExpE
Revision: 1
Date: 05.05.2023

The adjacent methodology covers the site setup for the welfare.

Welfare Setup

Network Demolition services comply with the CDM 2015 regulations by putting in place specific welfare for each contract. We have vetted sub-contractors. From the induction stage site operatives are made aware of the welfare unit on site which contains office facilities, toilets, a meeting room, a drying room and a kitchen area. This therefore complies with CDM 2015 regulation 17 and schedule 4 which states that the principal contractor must put in place adequate welfare which allows the client to be CDM compliant as per their roles.

Due to the nature of Network Demolition services the average welfare unit equips 8-15 people which allows ample room for all operatives and visitors to be on site. Network Demolition services provides both male and female toilets on all of their sites.



The above image shows the average welfare unit that Network Demolition services use. It allows ample room for toilets, drying, office and the preparation of hot food.

A licensed Standpipe will be used to provide water to the site mainly for the use of dust suppression for demolition activities, this will be the nearest located to the site.
The buildings will be sealed and any potential access points removed to ensure that no access can be gained into the buildings.

Checks will be carried out daily prior to the resumption of the demolition works to ensure that the properties are empty.

4. Preparatory Works

Licensed Standpipe will be used to provide water to the site mainly for the use of dust suppression for demolition activities, this will be the nearest located to the site.
The buildings will be sealed and any potential access points removed to ensure that no access can be gained into the buildings.

Checks will be carried out daily prior to resumption of the demolition works to ensure that the properties are empty.

5. Site Information

Reliance Street MTR gained construction completion in April 2011; the facility then entered a commissioning phase before Viridor Waste (GM) took over the management of the facility in Sept 2011.

Suez Recycling and Recovery has been operating the facility since 2018 to present date.

In 2019 a new purpose built MTR Facility was built, this was to replace the old pit/dano style building which was over 40 years old.

6. Manual Handling

The Company Standard Procedure for all manual handling activities ensures that:

All activities will be assessed in relation to risks from manual handling and where possible automated processes will be used as an avoidance technique.

All employees will have received training in kinetic lifting, our company policy is to ensure all

employees are fit for work, that materials and waste removal devices (skips, vans etc.) are positioned as close to works areas as possible. We shall use a variety of equipment such as wheelie bins and turntable trucks/trolleys to reduce the risks from manual handling.

Where it has been assessed that there is a risk of injury from manual handling, the first consideration must be whether the loads needs to be handled at all, or whether handling can be minimised. The potential for eliminating the handling of loads on sites is limited but the positioning of storage, delivery and waste handling skips or vehicles can reduce the need for extensive handling.

Where there is no alternative, the use of mechanical handling should be given consideration – this should be done by the Contract or Project Manager at the planning stage.

You should always follow instructions given on how to carry out a manual handling task in accordance with its risk assessment.

Project-Specific Manual Handling

All work will be remote for the demolition works

7. Site Specific Personal Protective Equipment

The PPE listed below is compulsory on NDS sites and must comply with the following British Standards:

- Steel toe capped/mid soled boots - EN ISO 20345
- Hard Hat – EN 397:1995
- Hi Visibility Vest – EN471:2003 + A1 2007
- Gloves – Standard/Soft Strip EN 388 2121. Hot Works EN388:2003 4244
  Sharps EN388:2003 4544. Anti-Vibration EN388:2003
- Safety Eye Protection – standard CE EN 166 FT Certified. For Hot works EN175 F

The following PPE is to be used as and when necessary:

- Ear Protection Ear Plugs CEN352-2 and Hearing Protectors EN352-1:2002
- PPE associated with hot works and described in the “Hot Works” section of this Method statement – Gloves EN388:2003 4244 - Fire retardant hi vis overalls EN ISO 11611:2007 A1, EN ISO 11612:2008 A1, B1 C1, GO/RT EN 3279, ISSUE 6, 2008 and Goggles EN175 F
- Overalls for soft stripping – Blue paper overalls, E14325:2004

The following RPE is to be used as and when necessary:

- RPE (respiratory protective equipment) – Half face Sundstrom SR100 EN 140:1998
- RPE (for soft strip or activities generating dust) - P3 Filter Masks EN149:2001

Gloves			**Eye Protection**		
Standard/Soft Strip	EN 388 2121	**x**	Standard	CE EN 166 FT	**x**
Hot Works	EN388:2003 4244	x	Hot works Goggles	EN175 F	x
Sharps	EN388:2003 4544		**Ear Protection**		
Glass	EN388:2003 4543		Ear Plugs	CEN352-2	**x**
Anti-Vibration	EN388:2003		Hearing Protectors	EN352-1:2002	**x**
Overalls			**Masks**		
Fire retardant hi vis overalls	EN ISO 11611:2007 A1	x	P3 Filter Masks	EN149:2001	
Blue/white paper overalls	E14325:2004	x	Half face masks	SR100 EN 140:1998	x

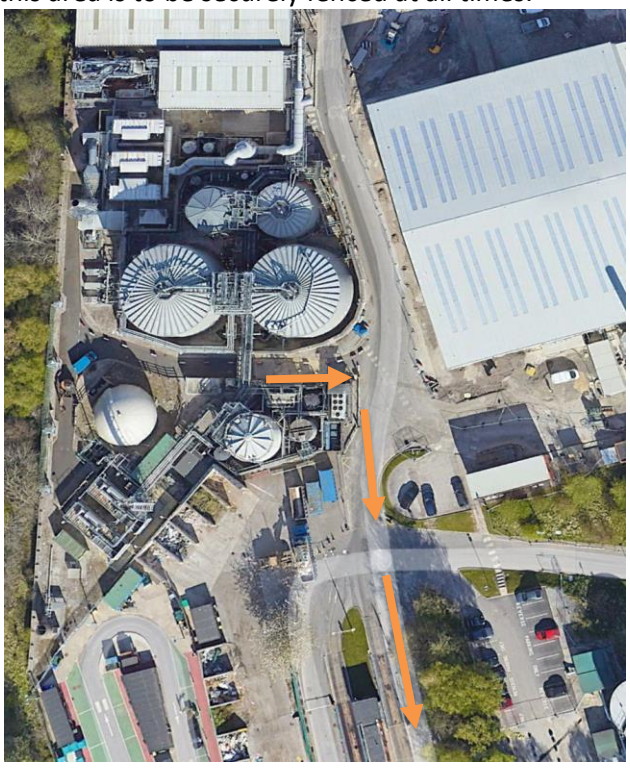
All PPE used must be suitable for the task being undertaken; it must be in good condition and fit for purpose.

If you find any item of PPE to be faulty or unsuitable for the work activity being undertaken, stop work and notify your supervisor immediately.

8. Disposal of Materials

Materials from the buildings will be loaded and placed into general purpose waste skip by the machine.

Waste skips will be located in a designated area adjacent to the works; this is to be agreed on site, this area is to be securely fenced at all times.



Orange arrows denotes where the skips will leave site

Skip exchange and drop offs will be carried out using roll on/off wagons. A trained and competent banksman will be used to banks and control the vehicle movements at all time when accessing and egressing the site to ensure that they are being carried out safely and in the correct manner.

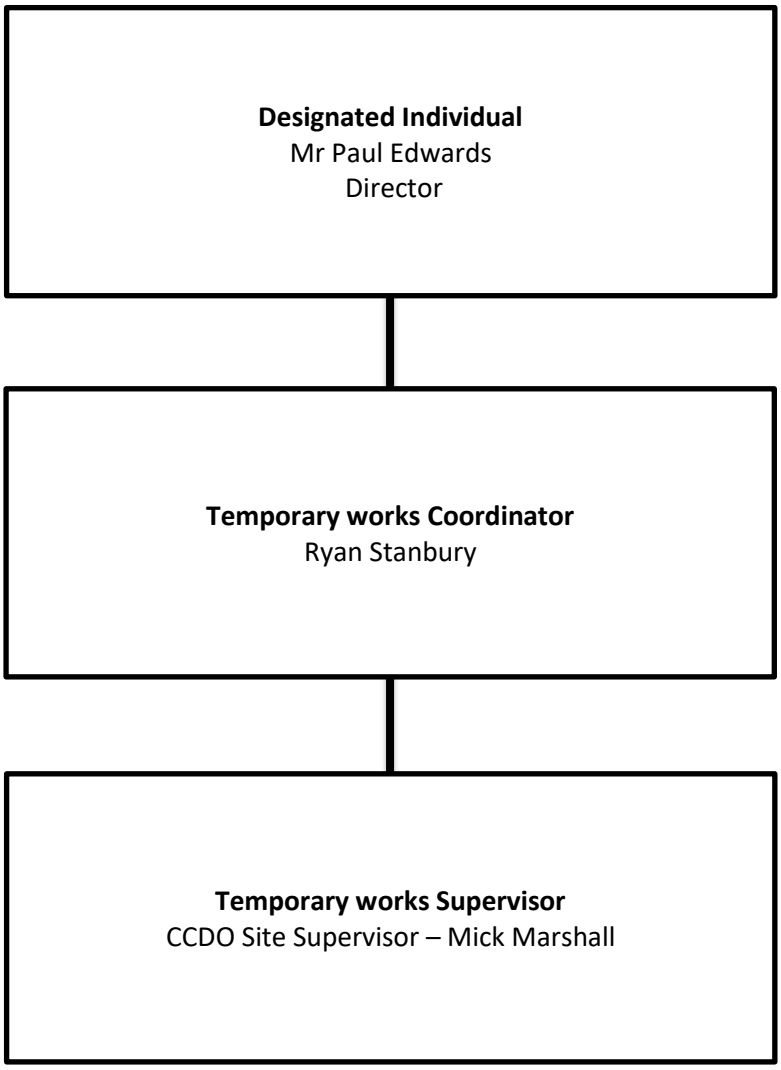
All deliveries are to be pre booked and agreed by the site supervisor in liaison with the waste management company.

All waste is to be loaded into skips at the end of each shift.

Skip wagons must be sheeted at all times; the sheeting system must be an automatic operation, we will not tolerate drivers climbing onto skips or loads. Any persons found climbing on skips which are lorry mounted will be dismissed from site.

All site vehicles will be escorted on site, and attend a brief induction. At all times, all delivery drivers will wear their PPE as detailed in the induction.

Temporary works structure



Temporary Works Design Checksheet Protocol

Project	**Reliance Street – Tank Farm**
TW Scheme ref/name	
Building/level/grid	

Description & Purpose of Temporary Works [being checked]
Information Received & Considered to Complete Design Check
Technical Standards/Specifications/Manufacturers Literature Used by Original Designer
Limitations to be Applied to Temporary Works (e.g. Max. Imposed Load/SWL, Safe Angles of Repose, etc.)
Residual Risks Identified by Designer/Checking Engineer

Confirmation and Sign off					
Checking Engineer:		**Sign:**		**Date:**	

Project:					
Name/Description/Location of Temporary Works*:					
Reference*:		**Start Date:**		**Finish Date:**	

Documents Received		
Document	**Records Available?**	**Comments**
Engineering Design Brief	Yes ☐ No ☐	

Construction Issue Design	Yes ☐ No ☐	
Design Check	Yes ☐ No ☐	
Risk Assessments & Method Statement	Yes ☐ No ☐	
Records of Inspection	Yes ☐ No ☐	
Permit to Load/Take into Use	Yes ☐ No ☐	
Permit to Dismantle	Yes ☐ No ☐	

Design Changes	
Have any design changes been required? If yes, provide details below	Yes ☐ No ☐

Date Temporary Works Engineer Notified: [of change requirement]	
Issues identified with the original design:	
Description of the remedial action required:	
Date amended design received:	

9. Demolition

Preparatory Works

Water

We are in contact with the local water utility provider to provide us with running water for the project. We also have independent running water, storage and recycling containment on-site by large containers. This ensures the site access to water facilities is always available.

United Utilities Licensed Standpipe will be used to provide water to the site for the provision of all site welfare facilities.

This water source will also be used for dust suppression for demolition activities, and this will be the nearest located to the site.

Electricity

Electricity power will be supplied by super-silent run mobile generators supplied and certified/maintained by an experienced contractor.

This ensures the smooth running of the site in all areas, including welfare and site and the regular servicing of all appliances.



Site Welfare: - Small Towable for site operatives

Welfare arrangements are to be put in place by NDS as they are Principal contractor for this contract. These welfare facilities are to comply with regulation 13 and 14 of the 2015 CDM regulations. NDS will put in place for the following project:

Office
Meeting Room
Bathroom facilities
Washing and showering facilities
Hot and cold running water

Changing and drying room with lockers
Imported drinking water
Social area

Internal Areas for vehicle and pedestrian movement

These areas will be segregated to allow for –

Emergency vehicle access/egress
Visitor and pedestrian access/egress and safety.
Staff and visitor vehicle access/egress and parking.
Plant access/egress and site relocation
Skip placement/uplift, areas installed in compliance with site traffic/waste management plans
Pre-agreed access/egress times and routes will also be clearly defined and included in all RAMS and inductions.
All areas will be kept clean, free of debris and refuse uplifted on a regular basis



Example of the container size to be used.

General Exclusion Zones

NDS demolition operatives will erect localised barriers at the ground level to ensure that the area will be fully isolated from other site personnel. We will erect specific warning signage and also exclusion zone signage.





Once these localised barriers have been erected, we will ensure that the attachments have been fitted securely to prevent any unauthorised removal of the panels. A toolbox talk will be given to all site operatives by NDS site management. This area will be classed as an exclusion zone, and no entry is allowed unless by authorised personnel. There will be several exclusion zones enforced on this site; the site manager will make all site staff and visitors aware of this.
There will be banksmen manning the exclusion zone with two-way radios at all times. These banksmen will be located at each and every exclusion zone entrance
NO VISITORS will be allowed into these exclusion zones during plant working hours
No operatives are to enter the exclusion zone unless instructed to do so. NDS operatives will follow the NFDC Code of Practice for Exclusion zones as briefed by the site manager.

Continual Liaison with Client and Further Stakeholders

It is imperative that the project managers and site managers maintain liaison with the client's representatives and professional team. This is to enable a free two-way flow of information regarding the safe and environmentally sound delivery of the project works, by well-informed personnel using health-promoting risk assessed methods.

During all of our projects, NDS try to be an excellent, considerate neighbour for the life span of the works. NDS will manage interaction with the public and all parties who could be impacted on by the works courteously and sympathetically.

NDS demolition personnel will execute the works sympathetically to the surrounding residential neighbourhood environment.

Wheel wash facilities will be used on all vehicles leaving the site as required. Noise, dust and vibration monitoring will be carried out throughout the works.

Disconnection of Services, Pipes Etc

PRIOR TO START ALL DISCONNECTION CERTS AND ISOLATION FOR WATER, ELECTRIC, GAS, SERVICES OR CONTAMINANTS ARE TO BE GIVEN TO NDS:

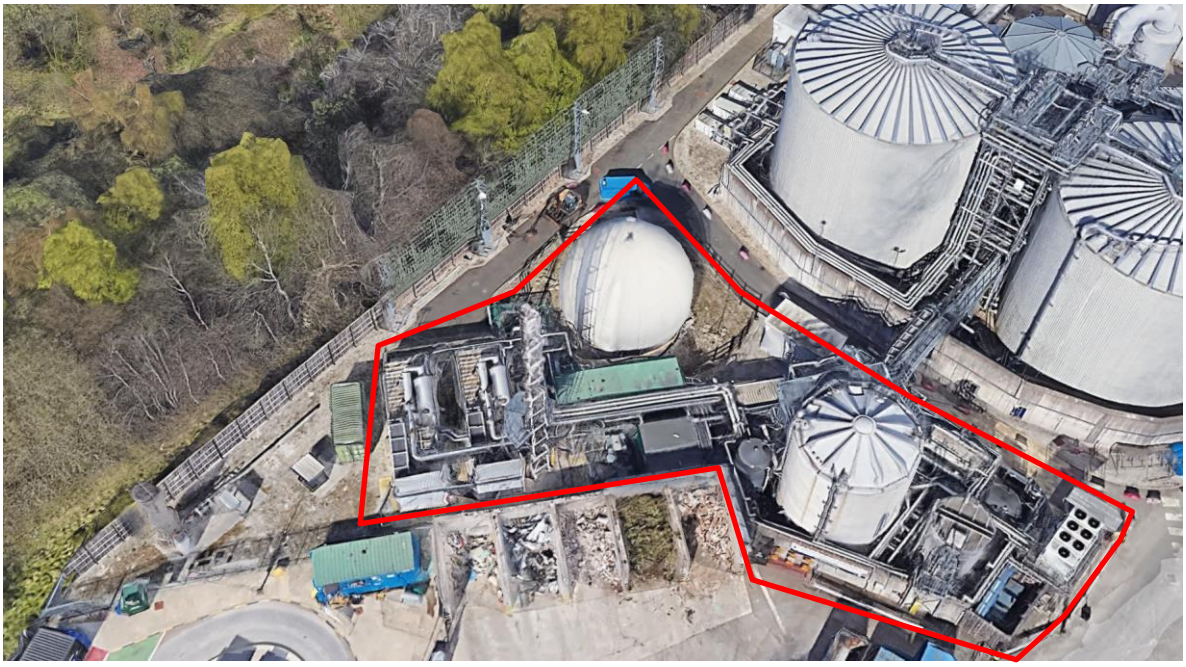
SITE MANAGER SIGN…….

DATE……..

THE ABOVE MUST BE SIGNED PRIOR TO PROCEEDING



Phase 1

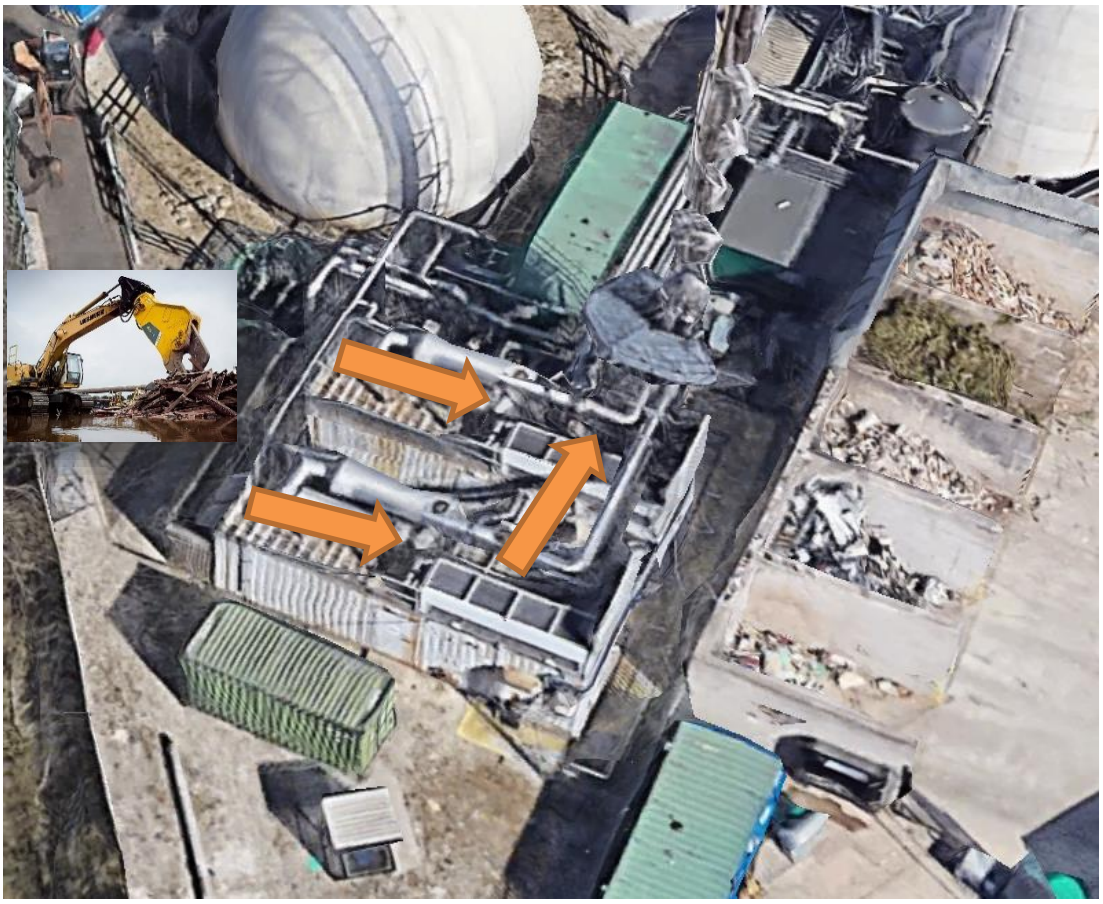


Phase 2



West side of the site

Phase 1 – Area adjacent to welfare



Low Level Shearing
50 tonne excavator nominal operating weight excavator to be brought to site on low loader trailer; a banksman to be present to assist in the offloading of the machine, where it will be tracked to the proposed working area.

The shear attachment is to be installed on the excavator, directly to the boom by removal of the dipper arm at the NDS depot prior to transportation to the Reliance Street site; by direct installation to the boom of the excavation a larger, more powerful shear attachment can be utilised without the need for additional ballast weights, giving the excavator operation improved control over the shearing operation and vision of the shear jaws.;

Machine to be located adjacent to the building to be sheared in a suitable position ensuring that an exclusion zone is established for safe working. Shear will cut box sections and remove light weight purlins and sheets first on the roof. Following this the steel beams will be sheared followed by the columns.

Assistance will be given by a secondary excavators and selector grab (if needed) to establish a safe working area by reducing the height of the stockpiled material and possible relocation; this will reduce the risk of any incident occurring from falling materials allow easier access for the machine without overreaching where vision may be impaired.

All oversized pieces of steel and the like will be processed and cut to lengths of approximately 5ft. This is following shearing of the plant from height or reduction of height using the selector grab.

Any nonferrous and other products not suitable for processing with the shear will be segregated and stockpiled into a designated area for processing by NDS operatives.

The working area will be regularly cleared of processed material.

The tracks of the excavator will be regularly checked to ensure that no steel sections or other debris become lodged in the tracks or the undercarriage.

No persons are permitted to enter the established working / exclusion zones of the excavator.

Phase 2 – Reduction in height of chimney flues



Network Demolition Services will bring to site one number cherry picker with articulated boom along with a crane with sufficient lifting capacity to lower down sections of the chimney flue which is being demolished. Mick Marshal who is a certified burner and the site manager will work out of a cherry picker whist wearing a harness. Mick is also IPAF trained to operate the cherry picker. Using certified burning gear following the process of all tanks being decommissioned and cleaned with no hazardous materials being present inside which are flammable the flues will be cut into 1/3 sections. The top third will be cut and then lowered using a contract lift. Once at ground floor level the chimney will be processed for scrap. The section will then be reduced in height using the same technique. The final section will be demolished as per our shearing methodology.

At all times NDS will have a banksman in place and the crane will be cited on a level and compacted surface with sufficient space for the outriggers and pads. Mick will use a traditional demolition drop cut in order to allow the steel flues to come away from their in-situ position. At all times the crane will hold the flues to ensure the stability whist hot works is being undertaken. No burning gear will be within the cherry picker basket and the burner will use a 4ft gun to ensure he is away from the structure.

Phase 3 – Splitting of Pipe bridge



The green lines denote where the pipe bridge will be cut. This will be sprayed up by Mick Marshal the site manager once the clean handover certification is given to Network Demolition services. Following this we will use a 30-tonne excavator with shear to cut the bridge. The section under the bridge will be covered with material to mitigate damages however, the concrete wall underneath the bridge is to be saw cut following completion of the demolition.

The methodology will be as per the shearing methodology in order to reduce working at hight. With both cuts being made to the steel legs to ensure structural integrity until the adjacent structures are to be demolished. During this operation a banksman will be at either end of the site to ensure no pedestrians enter the site and to ensure the road is sterile. Prior to start the green shower unit will be removed.

Phase 4 – Hygieniation Bund

The hygieniation bund will be certified as contaminant or gas free prior to starting demolition with all services capped and isolated. Following this the machine will rip off the top of the bund with the grab before pulling out any internal components. If this proves harder due to its condition a shear will be used as per the shearing methodology to remove components.



Phase 5 – Remaining low level & tanking following splitting of bridge



Shearing of low-level assets to clear space for the tanking

50 tonne excavator nominal operating weight excavator to be brought to site on low loader trailer; a banksman to be present to assist in the offloading of the machine, where it will be tracked to the proposed working area.

The shear attachment is to be installed on the excavator, directly to the boom by removal of the dipper arm at the NDS depot prior to transportation to the Reliance Street site; by direct installation to the boom of the excavation a larger, more powerful shear attachment can be utilised without the need for additional ballast weights, giving the excavator operation improved control over the shearing operation and vision of the shear jaws.;

Machine to be located adjacent to the building to be sheared in a suitable position ensuring that an exclusion zone is established for safe working. Shear will cut box sections and remove light weight purlins and sheets first on the roof. Following this the steel beams will be sheared followed by the columns.

Assistance will be given by a secondary excavators and selector grab (if needed) to establish a safe working area by reducing the height of the stockpiled material and possible relocation; this will reduce the risk of any incident occurring from falling materials allow easier access for the machine without overreaching where vision may be impaired.

All oversized pieces of steel and the like will be processed and cut to lengths of approximately 5ft. This is following shearing of the plant from height or reduction of height using the selector grab.

Any nonferrous and other products not suitable for processing with the shear will be segregated and stockpiled into a designated area for processing by NDS operatives.

The working area will be regularly cleared of processed material.

The tracks of the excavator will be regularly checked to ensure that no steel sections or other debris become lodged in the tracks or the undercarriage.

No persons are permitted to enter the established working / exclusion zones of the excavator.

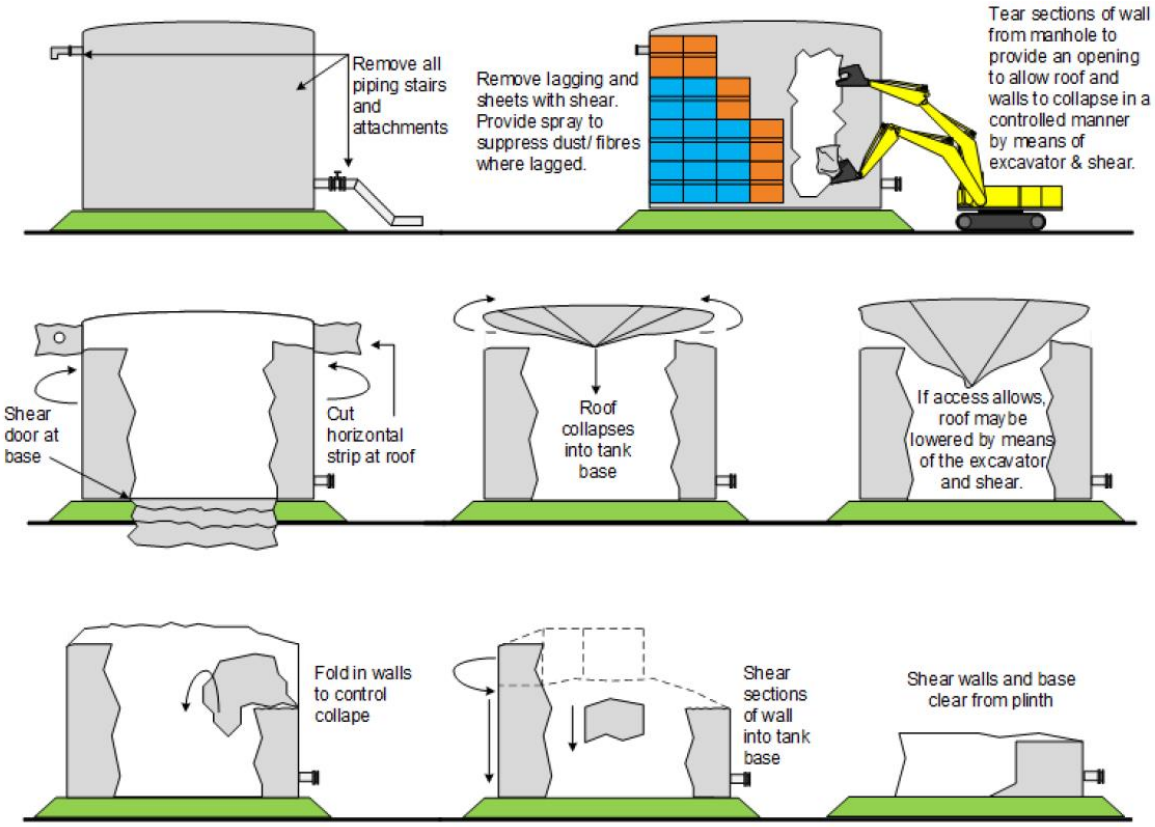
Tanking Removal

Tanks will be progressively demolished utilising 360 excavator and shear attachment, to safely shear an opening within, to allow for shearing. The method will be to strategically shear, the structure to not undermine the structural stability. Multiple shear lines will be cut and all for individual sections to be removed, until the remaining ring can be removed. Hot cutting will be required on the final ring for removal from concrete slab.

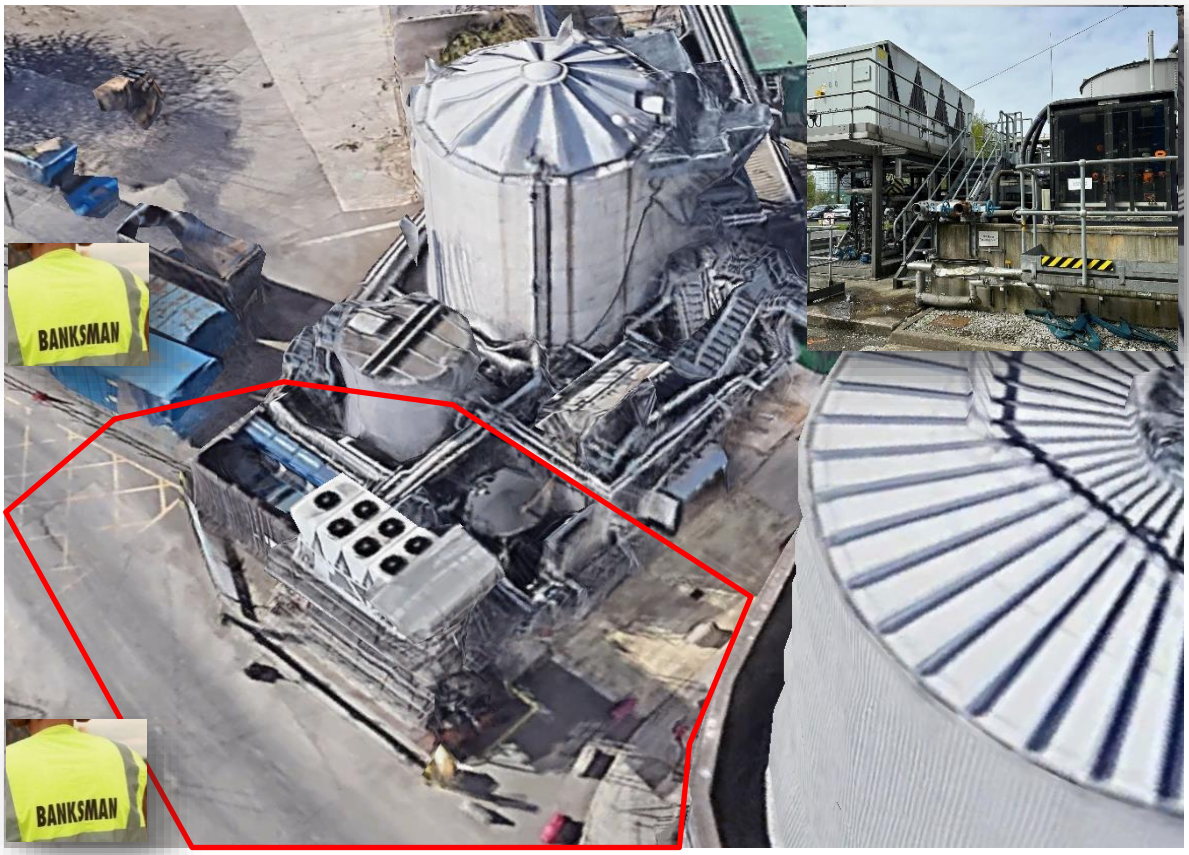
The blue section on the image previous is the exclusion zone which will be enforced by a banksman with two way radios.

Steel tanks across the site, will be demolished in the following fashion: -
▪ The tank for demolition will be gas tested prior to works being undertaken on the tank with the excavator.
▪ The tank will be drained of all oil by specialist sub-contractors. No works until a gas and oil free certificate has been issued. Then 24 hours to demolish the tank. All residues must be cleaned prior to start.
▪ The tank wall structure will be addressed by the excavator shear and punctured at a position at a level below the roof but above the level agreed relative to residual material existing inside the tank.
▪ The puncture will be used to allow the shear tool to cut vertically down the tank shell.
▪ The excavator shear will then grasp one side of the vertical cut on the shell with the shear tool and by reverse tracking around the outer perimeter of the tank tear the steel such that plate shears horizontally around the tank at the top and bottom of the vertical cut and the tear propagates around the tank controlled by the excavators tracking movement..
▪ The excavator shear will release the plate when sufficient plate is removed.
▪ The excavator shear will cut vertical internal supporting struts where accessible.
▪ The excavator shear will grasp the opposite side to the vertical cut in the tank and repeat the operation by reverse tracking in the opposite direction as taken previously.
▪ The operation will be repeated with consecutive vertical cutting and tearing until the tanks upper section destabilizes the tank by its downward weight and the remaining section bends over in the direction of void made by the tear reducing the height and stabilizing the upper section by its laying down onto the lower section.
▪ Using the excavator shear tool cut the folded down upper section and tank roof as far as the agreed finish level for decontamination to be safely undertaken.
▪ When the tank is free of residual product as the second stage of demolition cut down the lower remaining sections of tank shell using the excavator shear supported with oxy propane cutting if required.
▪ When the tank shell is removed lift up and section floor plates with the excavator for processing.
▪ Scrape up any bitumen sand that may exist under the tank floor into the centre or the tank.
▪ Shell plates will be processed down to smaller size by oxy propane cutting techniques.

▪ The demolished shell plates will be addressed to remove the sharp sheared edges in the first instance to lower the risk elements whilst undertaking the remaining processing operations.
▪ Civilize the area, prior to breaking the bund.



Phase 6 – Remaining low level following splitting of bridge



The remaining sections will be removed by machine. The top section as denoted by the image below will be lifted off with a grab attachment on the 40-tonne excavator. This will then be lowered back into the site confines for processing. The top section will detach following using impact guns to unbolt the structure. This will then be lifted off using a grab. Following this the steel structure will be sheared whilst the exclusion zone denoted in red is in place. We will do this on a weekend when the activity level on site is lower than usual and limited wagons are coming to site.

Phase 7 – Plinth breakouts



Safe System of Work.

There are in effect four basic features to consider, namely;

1. Planning the work
2. Availability of plans and consultations with others such as service suppliers
3. Use of locating devices such as CATs and other onsite investigations to identify likely services
4. Safe digging practices.

On all sites a survey is required at the outset to identify existing live or potentially live services. Where NDS are working for a Principal Contractor or a Client, the confirmation of isolation should be obtained and a signed record entered on the Isolation Sheet forming part this method statement. When possible, isolation certificates should also be obtained. Any remaining live services on site must be clearly identified in writing.

Having received the confirmation it is now the Network Demolition Services policy that a trained person, essentially the Network Demolition Services site supervisor, should review the likelihood of any remaining live services by use of a cable locating device and by observation. It must be remembered that hum detectors are designed to detect a magnetic field generated by a flowing current. They do not respond where there is little or no current flowing.

Gas pipes in PE which do not contain a tracer wire are not detected by use of radio frequency detectors or transmitter/receiver devices and in these circumstances the use of plans and safe digging practices are particularly important.

A record of all in house surveys is required.

A safe digging practice should then be utilised to expose the services. It is necessary to dig sufficient trial holes to confirm both the route and the depth of services. It also needs to be remembered that many services not only vary in depth but also are often not set out in straight lines. A typical example would be a heavy duty power cable turning into a substation. Some services also have valve gear or other parts of the plant such as joint boxes which stand proud of the service itself and therefore need to be considered. Where a service is found to be embedded in concrete for example detailed consideration of the break out procedure is required.

Marking

Having identified and exposed potentially live services, adequate precautions are then required to avoid damage to these services. Initially, spray paint on the surface of the site can be useful in identifying the route of the services but on demolition sites this is frequently insufficient. It is therefore the Network Demolition Services policy to provide physical barriers in order to ensure that a safe clearance is maintained. The form of these barriers will vary dependent on site conditions but could take the form of wooden, marker spray paint to be conspicuous, crowd barriers or heras type fencing panels. Metal pins should not be used as markers due to the risk of penetrating a live service.

Where a machine is working in close proximity to identified services the banksman must not only be in a safe position but continuously within the sight of the machine driver such that communications can be maintained.

Permits

Prior to any works below ground floor level a thorough CAT scan of the area must take place, all services drawings provided.

When the permit is being issued, all personnel involved in the below ground excavation works i.e., Site supervisor, banksmen, and machine operator will attend the permit briefing to identifying the live cables, and will all sign the permit.

All known services as detailed on the client issued drawings, and must be located by CAT scan and visually marked on site using wooden stakes, or heras type fencing.

The excavator will then carefully begin to grub up footings and slabs using a toothed bucket attachment.

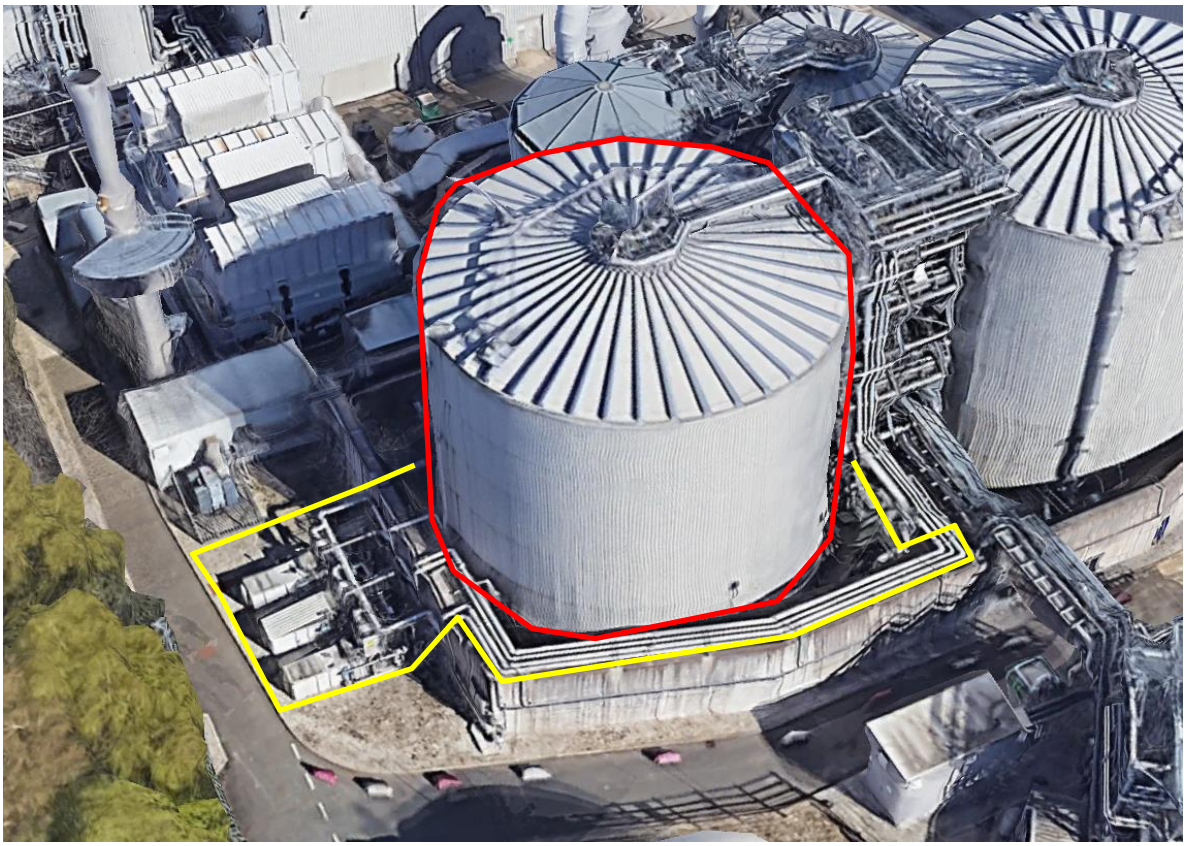
If slab/footings prove to be more substantial than first thought, a hydraulic hammer will be attached to the excavator and will be used to break up and pre-weaken concrete.

The area will be handed back to the client in a clean and tidy condition with no trip hazards present.

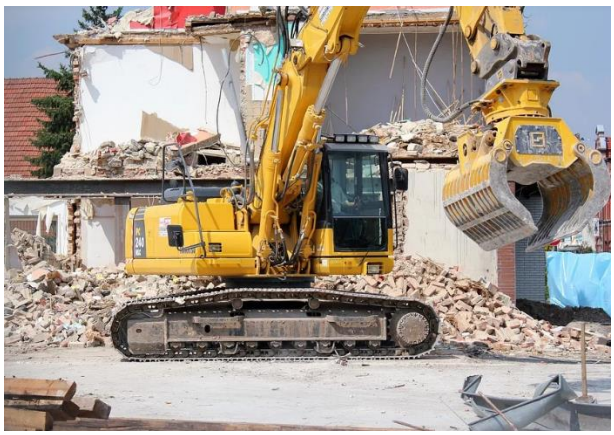
VOIDS ARE TO BE BACKFILLED WITH MATERIAL TO PREVENT ANY LEADING EDGES – THIS MATRIAL WILL BE GRADED AND CERTIFIED.

East side of the site

Phase 1 – Tanking (Red) and redundant structures (yellow)



The mechanical demolition will begin on the former Phase 2 area at Reliance Street of the site to create an open end. The operator will work in a top-down manner, carefully removing smaller, manageable roof sections until the roof has been removed completely.
He will then continue to demolish the structure itself, working at an approximate 45 degree angle, removing internal walls and components, internal supporting walls, outer wall components. All the previous items are steel work with limited brickwork on site.
This safe systematic manner ensures all down takings are processed in the correct manner with the main areas of stability, i.e. the stairwells being the final areas to be processed on each floor, thus preventing spillover on the east areas and ensuring the stability of the structure throughout the floor by floor demolition process.
All components are to be processed into small manageable sections and placed in the laydown area at the east face, between the machine and the structure.
Mechanical demolition will cease intermittently to allow our other smaller machine(s) to clear the laydown area, separating the components into their relevant waste streams and loading the materials into pre-positioned skips in the area.



Example of a low level excavator to be used for low level areas.



Example of a low level excavator to be used for low level areas.

Mechanical Demolition

Structures and elements of structures will be demolished using a demolition machine operated from a protected cab.

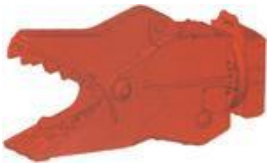
Any plant and equipment used will be:

A. Of a type and condition appropriate to the location and type of work involved;
B. in the control of a competent operator, who holds a valid certificate of training achievement where applicable; and
C. Maintained in good working condition at all times and have current certificates (e.g. Certificate of Conformity or Certificates of Thorough Examination.

Any attachments should be appropriately fitted to machines of adequate power and stability for the intended use.
The following attachments will be used during demolition work.

1. Impact hammer.
2. Hydraulic shears.
3. Pulveriser.
4. Grapple.
5. Multi-purpose hydraulic attachments, e.g. interchangeable jaws.

All the following excavator attachments will be used to demolish the building, break slabs or load skips:

Hydraulic Shears	Hydraulic Grab	Bucket	Breaker
			

Plant –
1 x Doosan 40 tonne high reach excavator for demolition or straight arm
2 x 360' Demolition Excavator
Attachments –
360 Rotating Shear
Bucket
Demolition Grabs

A Pre commencement of works to be completed on the works at the Former Reliance Street.

All personnel who are to partake in these works shall be inducted onto the site by the Site Manager. They shall adhere to all site rules, systems and procedures at all times whilst on site. Before demolition starts, the Site Manager will check the building and the boundary of the works for unauthorised entry.

All dust suppression methods, as specified above, shall be set up prior to works commencing.

- All ground conditions should be checked prior to remote demolition.
- It is essential that the machine is in the correct position to the work face.

The correct position should be maintained, so the angle of the boom is limited in accordance with manufacturer's instructions to ensure safe operation and stability of excavator.

All works will be controlled using 2-way radios and banksman employed around the tasks beyond the exclusion zone.

Demolition of Small steel structures

The excavator shall begin the demolition by shearing the rear low-level sections around the phase tank to create space by making them fall into the drop zone below.

The excavator shall then systematically shear the structural makeup working its way through the structure as per the phasing/demolition process. All materials shall be allowed to fall into the drop zone.

All materials will fall into the drop zone; this will then be moved and processed at a later date. A dust suppressant unit will be deployed to dampen the dust as materials hit the floor.

All other waste materials from the demolition shall be separated by the excavators fitted with a grab attachment.

Small pieces of waste material will be removed by the excavator fitted with a grab this will prevent any operative from entering the exclusion zone during remote demolition.

Within the fall area of the building will be separate dust bosses. This is because when the material hits the bottom a ‘vortex’ will be created giving off more dust.

The high-reach excavator will also have a dust suppression gun on the arm. See image below.



Tanking Removal with high reach

This tank will be a trail for the tank in front in order to test how the tank reacts under demolition. The tank nearest the road will either then be demolished in the same way as below or will have to be dismantled with a crane.

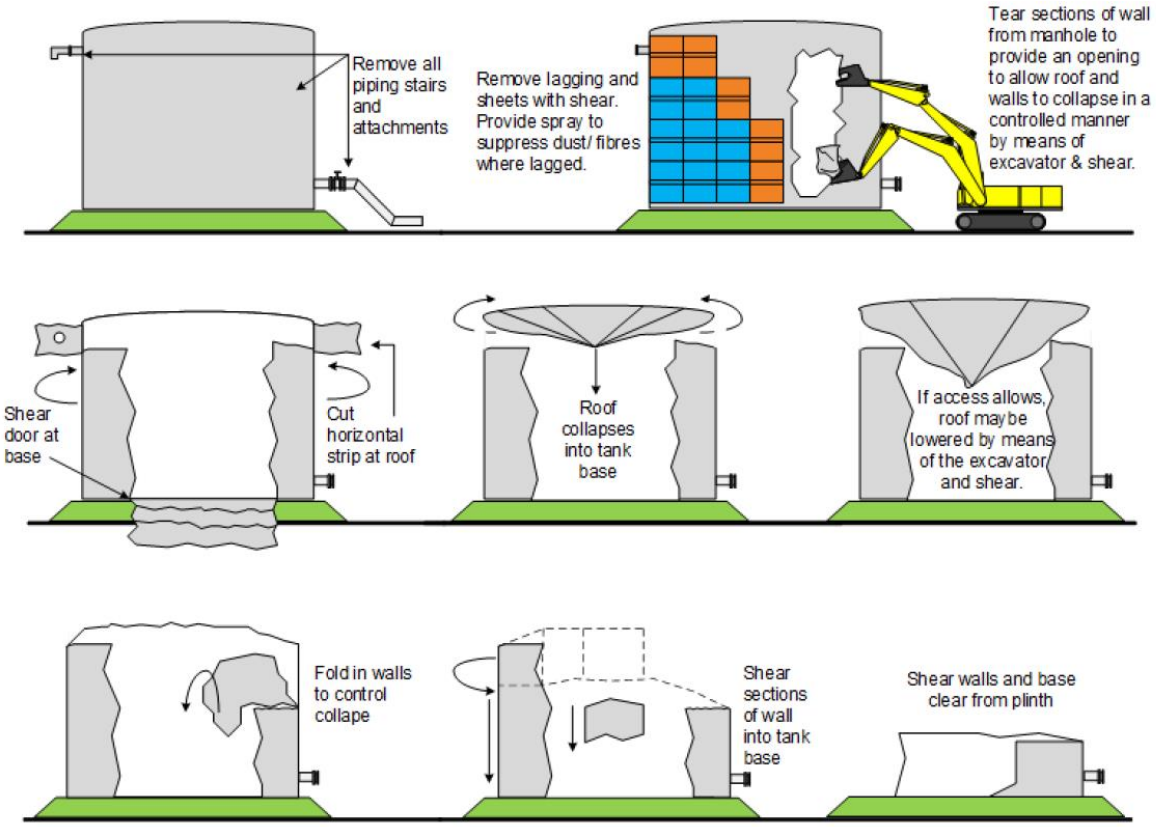
Tanks will be progressively demolished utilising high reach excavator and shear attachment, to safely shear an opening within, to allow for shearing. The method will be to strategically shear, the structure to not undermine the structural stability. Multiple shear lines will be cut and all for individual sections to be removed, until the remaining ring can be removed. Hot cutting will be required on the final ring for removal from concrete slab.

The blue section on the image previous is the exclusion zone which will be enforced by a banksman with two way radios.

Steel tanks across the site, will be demolished in the following fashion: -

- The tank for demolition will be gas tested prior to works being undertaken on the tank with the excavator.
- The tank will be drained of all oil by specialist sub-contractors. No works until a gas and oil free certificate has been issued. Then 24 hours to demolish the tank. All residues must be cleaned prior to start.
- The tank wall structure will be addressed by the excavator shear and punctured at a position at a level below the roof but above the level agreed relative to residual material existing inside the tank.
- The puncture will be used to allow the shear tool to cut vertically down the tank shell.
- The excavator shear will then grasp one side of the vertical cut on the shell with the shear tool and by reverse tracking around the outer perimeter of the tank tear the steel such that plate shears horizontally around the tank at the top and bottom of the vertical cut and the tear propagates around the tank controlled by the excavators tracking movement..
- The excavator shear will release the plate when sufficient plate is removed.
- The excavator shear will cut vertical internal supporting struts where accessible.

▪ The excavator shear will grasp the opposite side to the vertical cut in the tank and repeat the operation by reverse tracking in the opposite direction as taken previously.
▪ The operation will be repeated with consecutive vertical cutting and tearing until the tanks upper section destabilizes the tank by its downward weight and the remaining section bends over in the direction of void made by the tear reducing the height and stabilizing the upper section by its laying down onto the lower section.
▪ Using the excavator shear tool cut the folded down upper section and tank roof as far as the agreed finish level for decontamination to be safely undertaken.
▪ When the tank is free of residual product as the second stage of demolition cut down the lower remaining sections of tank shell using the excavator shear supported with oxy propane cutting if required.
▪ When the tank shell is removed lift up and section floor plates with the excavator for processing.
▪ Scrape up any bitumen sand that may exist under the tank floor into the centre or the tank.
▪ Shell plates will be processed down to smaller size by oxy propane cutting techniques.
▪ The demolished shell plates will be addressed to remove the sharp sheared edges in the first instance to lower the risk elements whilst undertaking the remaining processing operations.
▪ Civilize the area, prior to breaking the bund.



Processing of Scrap stockpiles to the back of the high reach:

Assistance will be given by NDS Excavators and grapple to establish a safe working area by reducing the height of the stockpiled material and possible relocation; this will reduce the risk of any incident occurring from falling materials allow easier access for the machine without overreaching where vision may be impaired.

All oversized girders and the like will be processed and cut to lengths of approximately 6ft.

Any cast iron and other products not suitable for processing with the shear will be segregated and stockpiled into a designated area for loading

The working area will be regularly cleared of processed material.

The tracks of the excavator will be regularly checked to ensure that no steel sections or other debris become lodged in the tracks or the undercarriage.

No persons are permitted to enter the established working / exclusion zones of the excavator.

Internal exclusion zone

Within the exclusion zone, we will create a further internal exclusion zone which will ensure that all materials are removed from the base of the former Pipe Mill. This will ensure when the materials fall from the block that they hit the ground and do not slip or slide away. A



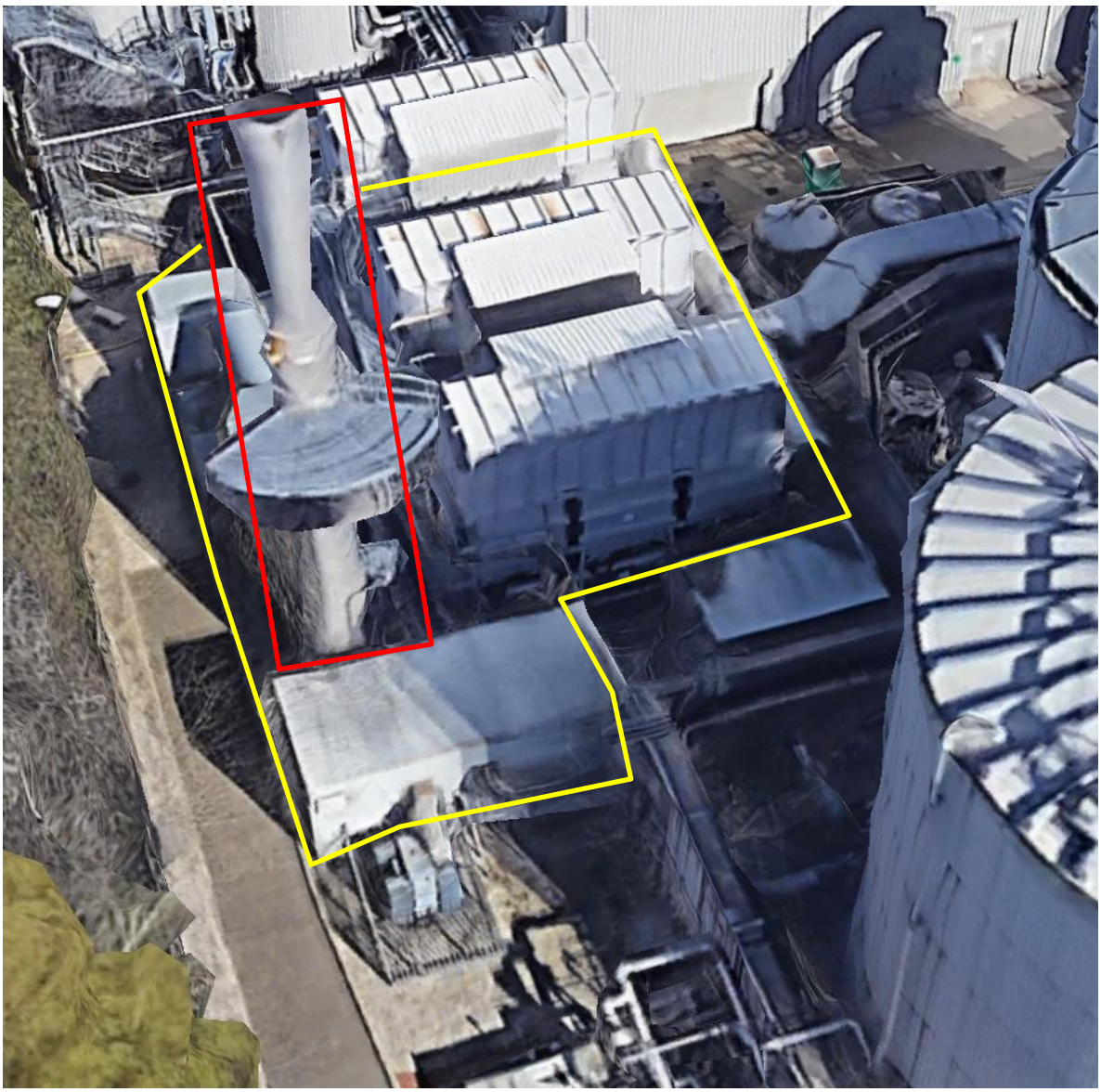
Exclusion Zone Security

NDS Ltd will put in place a number on banksman with two-way radio communication to ensure the exclusion zone is not breached. In addition we will place an experienced banksman at the gate of the exclusion zone, and only authorised personnel will be allowed on site.

Hold Point

To ensure the safe process throughout the demolition, we will ensure that the work is continuously reviewed by all parties. Therefore we propose a series of hold point where a section of demolition will be carried out, and the operation will be formally stopped and reviewed to ensure the stability of the building is maintained, and we are not exposing the local area to excessive dust and noise.

Phase 2 – Chimney (Red) redundant structures (yellow) and protection to sub station



Prior to start we will get Tunny scaffolding to put in place a protection with a simple TG20 solution over the live sub station with ranch boards to absorbed any impact of debris material.

Network Demolition Services will bring to site one number crane with a man basket along with a secondary crane with sufficient lifting capacity to lower down sections of the chimney flue which is being demolished. Mick Marshal who is a certified burner and the site manager will work out of a man basket whist wearing a harness. This will be under a contract lift. Using certified burning gear following the process of all tanks being decommissioned and cleaned with no hazardous materials being present inside which are flammable the single flue to the platform level. Following this the machine will remove the remaining section of the chimney. Once at ground floor level the chimney will be processed for scrap. The section will then be reduced in height using the same technique. The final section will be demolished as per our shearing methodology.

At all times NDS will have a banksman in place and the crane will be cited on a level and compacted surface with sufficient space for the outriggers and pads. Mick will use a traditional demolition drop cut in order to allow the chimney to come away from their in-situ position. At all times the crane will hold the top section of the chimney where tested lifting points will be to ensure the stability whist hot works is being undertaken. No burning gear will be within the cherry picker basket and the burner will use a 4ft gun to ensure he is away from the structure.

Phase 3 – Tanking (Green) & redundant structures (yellow)



The tanking section and low-level assets will be demolished in exactly the same way as mentioned in phase 1 of this phase. The following amendments will be made:

Towards the south of the southern tank an exclusion zone will be enforced during a weekend activity where Suez do not have many wagon movements.

The split of the piping into the retained structure will be by the following methodology:

Following the demolition of the top pipe to the final 1m section Network Demolition services will carry out a hinge cut working off a cherry picker on site. The operative will cut on the split line prior to the lightweight pipe dropping to allow the contract lift of the final sections to be lifted to ground floor where it will be processed.



Control Measures for Burning

1- **90 Minute fire watch on completion of hot works as per Suez procedures on the Reliance Street site.**
2- **The correct equipment which has been inspected or certified. (all equipment will receive a visual inspection prior to each use. All guns will be tested and pipes to be inspected for wear and tear)**
3- **A fully trained and competent burner. (Placed within the NDS site file will be certificates of competence from a recognised training provider)**
4- **The removal of all flammable materials, above or below the work area. (The site manager will sign off the area with a hot works permit. This will include an inspection to say that all flammable materials have been removed prior to the burning operation starting.)**
5- **The area to be damped down prior to use. (operatives using a handheld suppressant technique will damp down areas to be burned)**
6- **A sufficient supply of water to be available during the whole operation. (NDS's operatives will again have in place water supplies when the burning is being carried out)**
7- **A hot works permits put in place. (All hot work permits will be submitted prior to burning being carried out)**
8- **Fire watch to be carried out throughout the day including an hour after hot works ceases. (NDS will appoint a designated fire marshal for this job. The fire marshal will complete visual inspections hourly and will report back to the site supervisor. The burning operation will cease two hours before the end of the day, the fire marshal will again visually inspect areas prior to finish.)**
9- **A full inspection of the work area once the work has been completed. (This will be one of NDS's fire marshal's duties.)**
10- **Full and correct RPE/PPE. (all operatives will have been face fitted and will be wearing half face P3 masks with correct filters. The correct flame retardant suits and gauntlets/goggles will be used.)**
11- **COSHH assessments carried out.**
12- **Fire marshals to be designated and trained.**
13- **Bottles are stored correctly. (bottles to be stored upright and within a secured and locked area. There is to be a 3m gap between each bottle)**
14- **The use of leak test to ensure the atmospheric pressures are not changing via leaking bottles.**
15- **A no smoking area designated.**
16- **Oxy Propane to be stored at a minimum distance of 3 metres apart.**
17- **Oxy bottles are to be locked in a secure cage at night.**
18- **Due to the explosion hazard water must not be used to cool down molten metal piles, clean dry san should be used to cover.**

Burning team

A dedicated operative working alongside a fully trained and competent burner will carry out the burning operation. This dedicated team will include fire watchers and fire marshals who will have a localised pressurised water jet to damp down the work as the operation continues.

Specific Safety Equipment



An example of a Flashbacks to be placed on top of the Oxy bottles.



An example of a high visibility flame retardant suit to be worn.



The burner will be fully face fitted and will be wearing a RPE face mask with ventilation .



The burner will test the hot works equipment with Leak test. This will test for oxygenation.

Methodology for hinging the pipe

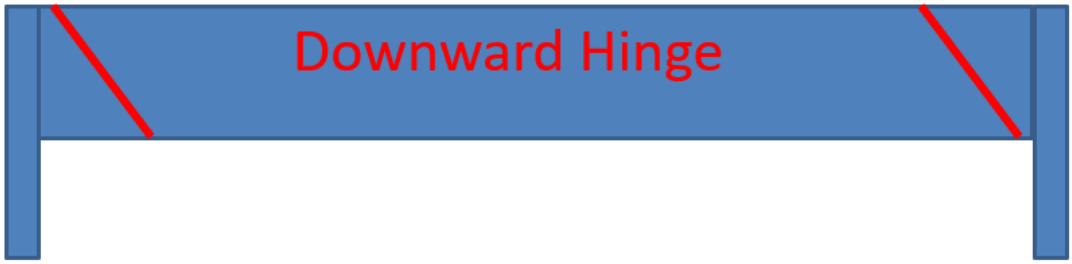
Network Demolition Services will work in areas of Reliance Street to cut sections of pipework located at high level to facilitate a contract lift. NDS will have sufficient lighting in all areas of the site.

NDS's will receive a specific tool box talk for Hot works to his fully trained and certified operatives who will be wearing a flame retardant suit and googles. All oxy bottles will be stored upright and caged. Flashbacks will be installed on each bottle. Leak test will be used to detect any oxygenation in the area.

NDS's burner will be issued a hot works permit from Mick Marshal the site manager Manager. Once approved NDS will be allowed on a permit basis to burn.

Burners will cut the pipes by using a burning gun and will use traditional hinge cut down the end of the pipes. The pipes will then be removed via the use of a mobile crane. As per the diagram below the burner will cut along the marked red lines and will make sure that the steel is cut into the appropriate size.

Example of a hinge cut to be used.



Phase 4 – Final Tanking and connecting asset



Following Phase 1 NDS will either high reach the tank under a road closure or will proceed to carry out a dismantle via use of a crane and man basket to dismantle the roof and then the sides of the structure. This will be done under a contract lift and this methodology will be developed if needed following phase 1.

NDS Manager to sign hold point confirmation that Phase 1 methodology is acceptable for this tanking.

Sign: …….

If not C&D are to review and investigate structurally.

The yellow section is to be sheared down as per previous methodologies by means of a high reach.

Phase 5 – Plinth Removals and backfilling
Safe System of Work.

There are in effect four basic features to consider, namely;
1. Planning the work
2. Availability of plans and consultations with others such as service suppliers
3. Use of locating devices such as CATs and other onsite investigations to identify likely services
4. Safe digging practices.

On all sites a survey is required at the outset to identify existing live or potentially live services. Where NDS are working for a Principal Contractor or a Client, the confirmation of isolation should be obtained and a signed record entered on the Isolation Sheet forming part this method statement. When possible, isolation certificates should also be obtained. Any remaining live services on site must be clearly identified in writing.

Having received the confirmation it is now the Network Demolition Services policy that a trained person, essentially the Network Demolition Services site supervisor, should review the likelihood of any remaining live services by use of a cable locating device and by observation. It must be remembered that hum detectors are designed to detect a magnetic field generated by a flowing current. They do not respond where there is little or no current flowing.

Gas pipes in PE which do not contain a tracer wire are not detected by use of radio frequency detectors or transmitter/receiver devices and in these circumstances the use of plans and safe digging practices are particularly important.

A record of all in house surveys is required.

A safe digging practice should then be utilised to expose the services. It is necessary to dig sufficient trial holes to confirm both the route and the depth of services. It also needs to be remembered that many services not only vary in depth but also are often not set out in straight lines. A typical example would be a heavy duty power cable turning into a substation. Some services also have valve gear or other parts of the plant such as joint boxes which stand proud of the service itself and therefore need to be considered. Where a service is found to be embedded in concrete for example detailed consideration of the break out procedure is required.

Marking

Having identified and exposed potentially live services, adequate precautions are then required to avoid damage to these services. Initially, spray paint on the surface of the site can be useful in identifying the route of the services but on demolition sites this is frequently insufficient. It is therefore the Network Demolition Services policy to provide physical barriers in order to ensure that a safe clearance is maintained. The form of these barriers will vary dependent on site conditions but could take the form of wooden, marker spray paint to be conspicuous, crowd barriers or heras type fencing panels. Metal pins should not be used as markers due to the risk of penetrating a live service.

Where a machine is working in close proximity to identified services the banksman must not only be in a safe position but continuously within the sight of the machine driver such that communications can be maintained.

Permits

Prior to any works below ground floor level a thorough CAT scan of the area must take place, all services drawings provided.

When the permit is being issued, all personnel involved in the below ground excavation works i.e., Site supervisor, banksmen, and machine operator will attend the permit briefing to identifying the live cables, and will all sign the permit.

All known services as detailed on the client issued drawings, and must be located by CAT scan and visually marked on site using wooden stakes, or heras type fencing.

The excavator will then carefully begin to grub up footings and slabs using a toothed bucket attachment.

If slab/footings prove to be more substantial than first thought, a hydraulic hammer will be attached to the excavator and will be used to break up and pre-weaken concrete.

The area will be handed back to the client in a clean and tidy condition with no trip hazards present.

VOIDS ARE TO BE BACKFILLED WITH MATERIAL TO PREVENT ANY LEADING EDGES – THIS MATRIAL WILL BE GRADED AND CERTIFIED.

Phase 6 – Saw cut

Scope of Works

1.1 This method statement describes the works involved with the placing of saw cuts to allow an opening access to the former concrete walls. The area to be removed shall be cut into two cut section and shall be pushed out and processed by NDS excavator on site that is correctly test certified and in date. This will be operated by the main contractor, namely Network Demolition Services and only operated by correctly trained individuals. The Saw cutting will be up to a depth of the entire wall and carried out by the use of floor saws which have been certified and tested and operated by trained personnel only.

Description Of Works

The works consists of cutting two inlets into the concrete wall as per below top concrete wall:



Exact cut locations will be marked by the client.

2.0 Normal working hours shall be from 08:00 to 18:00 Monday to Friday and weekend working hours as agreed or as otherwise directed by **Network Demolition Services.**

2.1 Water from mains supply shall be fed directly to the diamond saw for blade cooling and cut debris clearing. This will also alleviate dust creation as the water will suppress the dust during the operation.

2.2 Prior to the commencement of any works on site our operatives will report to **Network Demolition Services** who shall induct operatives in the "site hazards, procedures and welfare", along with furnishing them with the relevant contacts and the location of the nearest A and E hospital. All communication as works progresses will be directed directly to **Network Demolition Services** on site representative.
They will also go through **this method statement** with our operatives, and any other persons working within or local to the area.
Network Demolition Services & Suez shall carry out a survey of the Structure and will mark out the areas for removal. We will then position the cuts to suit the removal process

The first pass will be to a depth of 50 – 75 mm with care being taken to keep the cut as straight as possible.
Saws will be started slowly and the blades will be spun up to full speed prior to being lowered into the concrete floor to form the cuts.
Water will be fed to the blade at all times during cutting to cool the blades, during the initial cuts a wet and dry vac will be used to remove any excess water. After the first cut is removed a puddle sucker will be provided to help remove excess water and pumped into a silt buster for treatment of used water prior to discharge to surface drainage.
The diameter of the blade will be sufficient to allow a full depth of cut as the depth of the wall is only 400mm thick.

3.0 Control Measures and Operating Restrictions.

Diamond cutting

A) All equipment and blades to be checked and fitted by competent person prior to the commencement of any works.
B) No plant to be operated by untrained operatives.
C) Area of works to be cordoned off and signs indicating demolition work in process to be posted.
D) No concrete removal to take place without permission of the principal contractor.
E) All plant and equipment to be checked prior to leaving yard by yard staff and on a daily basis by site operatives for safety and signs of detritions with any faults being reported to line management immediately.
F) No defective or suspect equipment or cutting blades / wire to be used at any time.
G) All machines to be stored in a safe manor at the end of each shift.
H) All equipment to be assessed by lead operative for compatibility to required task.
I) Minimum levels of P P E shall be, "hard hat, steal toe capped boots, gloves, Hi Vi, ear protection.
J) Due to the fact there is no vibration caused by the operation it will not be necessary to protect against, monitor or Assess hand arm vibration.
K) There is no production of dust during diamond cutting, so no precautions are necessary.

Environmental Control Measures.

- All fire procedures are to follow main contractor plan and existing warehouse fire plan.
- All equipment will be turned off when not being used.
- Diesel will be stored in bunded bowser with great care being taken when filling plant; all spills will be dealt with immediately using spill kits stored on the works vehicle and disposed of in a responsible and safe manner.
- Good house keeping will be maintained with all waste being disposed off in a responsible manner.
- All equipment will be assessed as to its suitability to the task in relation to its environmental impact.
- Equipment will be in a good state of repair so as not to produce excessive levels of pollution.
- Silt Buster for treatment of cooling water from floor saws.

Phase 1



Redundant plant to be removed in phase 1. To the left of the structure is the main road in the Suez site. This will be closed off during the demolition for no more than 2 hours.



Pipe bridge to be split prior to start using cold cutting techniques.



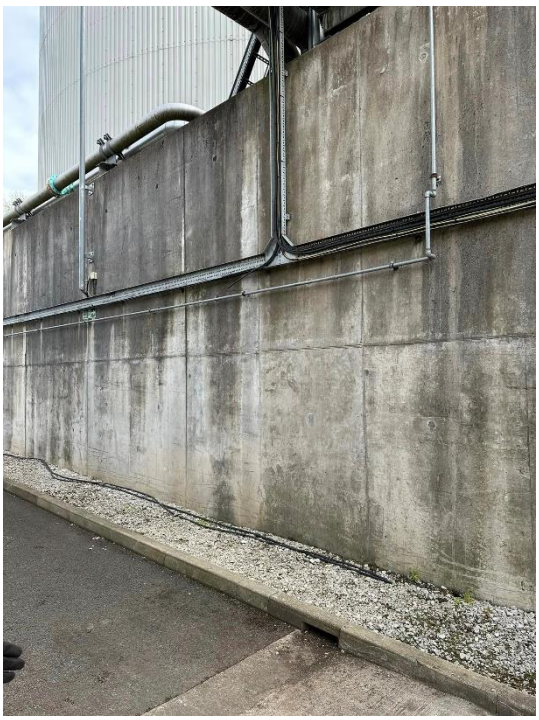
All demolition is down to slab level with concrete plinths to be removed and the concrete to be used as fill in voids



Tanks to be demolished using a high reach or straight arm



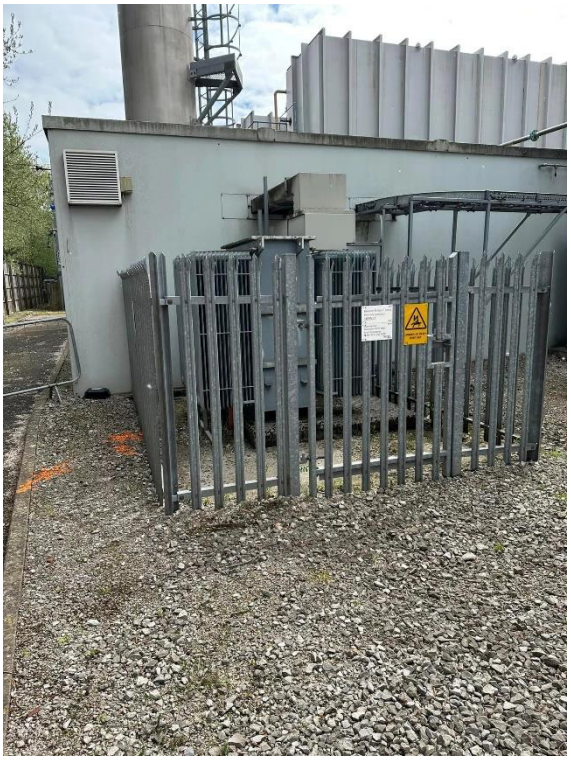
Tanks to be demolished via use of a high reach excavator.



Walls to be saw cut by a sub contract company.



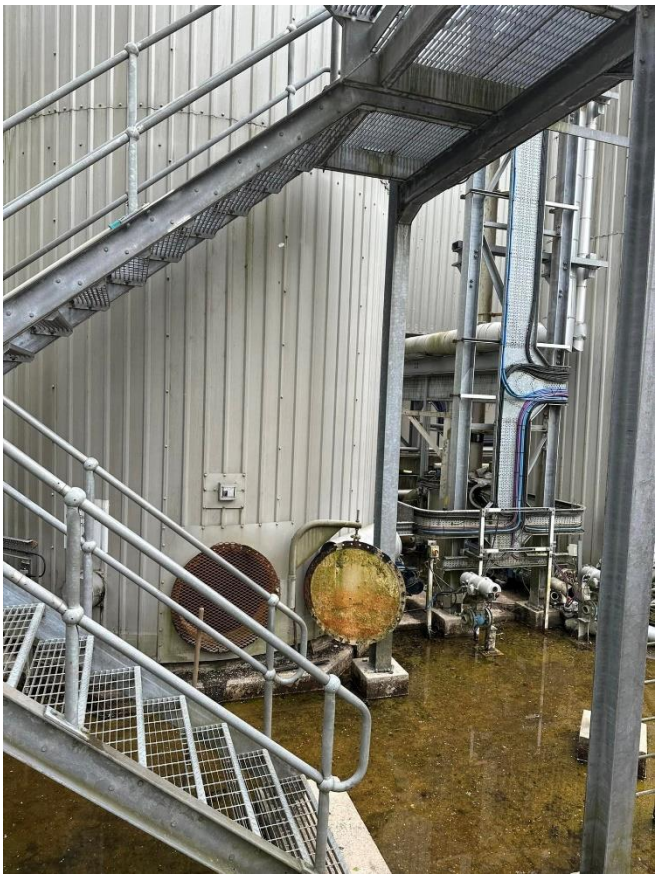
One way are the clients retained isolation contractor. All isolations are to be given to NDS prior to start.



Substation to be scaffolded and protection from the demolition area.



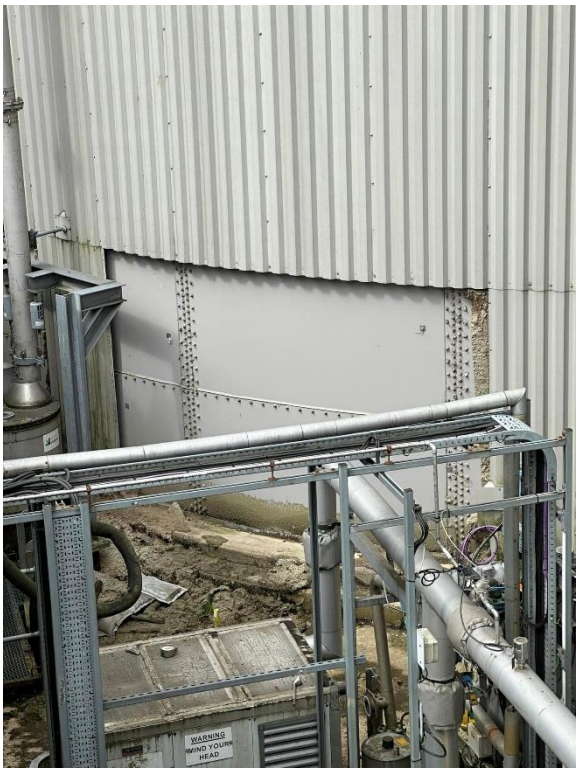
Crane to dismantle the chimney to a height suitable for the excavator to shear it.



Water to be tested prior to being disposed off.



Process building to stay.



Over clad, insulation and steel plates make up the tanking.

Crushing

Scope

To crush the arising hard-core and concrete from the demolition works, to the 6F2 specification at the agreed stockpile location and for re-use on site as backfill material to the basement.

Safety Issues

As outlines in the Provision of Use of Work Equipment Regulations 1998. We will provide regular checks on the equipment we provide to ensure that it is;
- Suitable for the intended use
-Safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure this remains the case.
- Used only by people who have received adequate information, instruction and training.
- Accompanied by suitable safety measures, e.g. protective devices, markings, and warnings.

Please see Mobile Crusher section of our Risk Assessment for all safety controls in place.

Setting up of the Crusher

Prior to delivery of the Crusher we will send the Crusher Permit and notification to the relevant local authority.

The site manager/supervisor will ensure that all operatives have required certification for the work they are carrying out and plant they are operating.

When on/off loading crusher, boards are to be placed on the floor to prevent surface damage. Four banks men are to be used, two to warn members of the public and control pedestrians, two to act as banks men. Cones are to be used when necessary. The area must be cleared of all obstacles, vehicles and checked for any overhead obstructions: cables etc.

Crusher to be moved with remote making sure a clear level route is available and ensuring operatives on site are aware of movement.

Crusher to be sited as level as possible with clear access all round.

Running of the Crusher

A thorough inspection of crusher to be carried out at the start of every working day e.g. fuel, oils, grease and visual inspection of all mechanical parts and safety devices, and recorded in the crusher log by the operator.

The water suppression system is to be used as and when required to control dust. Metropolitan will obtain a licensed stand pipe to provide water for this purpose. The suppression unit is located beneath the control panel and is supplied via a hosepipe.

Crusher then to run up to working speed and crushing jaws set to size.

Crusher then to be loaded with 360 excavator, using toothed bucket attachment, materials to be carefully tipped into crushing jaws to prevent spillage over the sides and for dust prevention.

Crusher operator will access and egress working platform, which is located on the side of the crusher between the crusher feeder and crusher jaws, by use of the access ladder, affixed to the crusher for this purpose, three points of contact are to be maintained at all times. Having gained access to the platform the safety bar is to be securely latched. The operator will then remove debris and control feeder speed to optimize crusher performance.

Conveyor off load area should be kept clear throughout the crushing operation, a hose pipe is to be aimed at the resulting material in a bid to suppress the dust
If crusher is to be moved on site, hopper sides are to be lowered, belts to be raised and folded. Four banks men are to be used when travelling. Two at each end to make others aware of travelling machine and to act as banks men for the operator.

Side Conveyor

Side conveyor can be used to remove a quantity of fines if needed. Side conveyor off load area must be kept clear at all times throughout crushing operation.

Crusher location below



10. Demobilisation

In the reverse manner to site establishment.

Key Safety Issues

1. Asbestos

We ensure our demolition operatives undertake 'Removal of Non Licensable Asbestos' training on an annual basis.

A Demolition / Refurbishment Asbestos Survey must be undertaken by law, prior to the carrying out of any Demolition or Major Refurbishment works. **Please ensure that you have witnessed, read and understood the Demolition / Refurbishment Asbestos Survey report before works commence. A copy of this report should be available on site at all times**.

All Notifiable Asbestos products detailed within the Demolition / Refurbishment Asbestos Survey will be removed prior to any Demolition works by an approved contractor, an HSE Licensed Asbestos Removal Contractor.

Operatives are to be aware of the potential dangers of hidden Asbestos within the working environment, which may not have been picked up during the Demolition / Refurbishment Asbestos Survey.

Should any potential Asbestos Containing Materials, other than obvious Asbestos Cement Products, be discovered during the work, please stop work within the immediate area, and notify The Site Supervisor or a Senior Member of The Site team.

2. Respirable Crystalline Silica (RCS)

Stone, brick, tile and concrete contain silica and produce silica dust known as RCS. Many activities undertaken during the demolition works process produce silica dust into the atmosphere, these activities are listed within our risk assessment. Inhaling silica dust can lead to silicosis, a serious and irreversible lung disease that causes permanent disablement and early death. The dust is invisibly fine and gets deep into the lungs.

Crystalline silica concentrations in common materials

plastic composites	up to 90%
sandstone, gritstone, quartzite, flint	more than 70%
concrete, mortar	25% to 70%
shale	40% to 60%
china stone	up to 50%
tile	30 to 45%
slate	up to 40%
granite	up to 30%
brick	up to 30%
ironstone	up to 15%

basalt, dolerite	up to 5%

The amount of silica dust breathed in by all site operatives will to be minimised by reducing as far as possible the amount of airborne dust. Please see the risk assessment for control measures suitable to the specific demolition task or activity. By following these controls, the amount of airborne dust will normally be below the workplace exposure limit (WEL) of 0.1 mg/m3 expressed as a time weighted average (TWA).

3. Confined Spaces

There are no Confined Space activities taking place during the course of our scheduled works.
If for any reason should an activity arise, that require access to a Confined Space, please cease the work activity immediately and report to The Site Supervisor or a Senior Member of The Site team.

4. Noise and Vibration Monitoring

N/A

MACHINE	AT 5 METRES	AT 7 METRES	AT 10 METRES	OPERATOR EAR (Inside Cab)
10 – 15 Tonne	86		80	83
20-25 Tonne	90-93		83	80-83
26-31 Tonne	86	78 – 85		70 -80
32-40 Tonne	90	82- 87	84	76 - 84
Pneumatic Hammer				96
Crusher	85			
Background noise	During demolition works – 63 - 74			

6. COSHH

It is a clear standing instruction that any and all hazardous substances must not be used without an assessment being completed.

Under COSHH there are a range of substances regarded as hazardous to health, the following will be used by NDS Demolition during this project, a detailed COSHH assessment is held on site by the site supervisor and should be read prior to use of the substances.

Substances which will be used during the demolition Works:

Oxygen		**Compressor Oil**	
Propane		**Lubricating Grease**	✓
Gas Oil/Diesel	✓	**Petrol**	

Engine Oil	✓	**Hydraulic Oil**	✓
Lubricating Oil		**Activate**	

Labour/Operatives Details

Name	Job Title	Qualification
TBC	TBC	CCDO/CSCS/CPCS

Protection of Existing Structure, Features and New Work

N/A

Environmental Issues

The following Environmental issues will be present during Mechanical Demolition

- Noise
- Dust
- Drains
- Refuelling of Plant
- Waste streams

See the environmental section of site specific Risk Assessment for issues relating to mechanical demolition.

Access/egress

Please refer to the Traffic/Logistics Plan

There will be a gatemen to control the gates and to control vehicle access and egress at all times.

Logistics (Delivery/Materials)

All vehicles to be escorted on to and off site entrance by a banksman.

Plant Details

Plant Register – To be filled in on site	Driver Name	Driver Qualification	Plant Certification

Should any additional plant and operative attend site, the site supervisor is to add the details into the table.

Should any Hired in Plant be delivered to site, please ensure relevant documentation is supplied by the hire company and that the information is inserted above.

Temporary Lighting and Power (inc. PAT)

NDS are to hire a small generator and several task lights to be used for the last number of hours during the day until daylight as and when required.

PAT Testing and paperwork must be on site with the NDS Supervisor.

Emergency Procedure (inc. Rescue, & First Aid)

The NDS on site first aider will be TBC.

A fully stocked first aid kit is kept in the Supervisors office on site.

The First Aid Kit must be sufficient for the number of operatives and the activities being carried out on site

For Emergency Procedures Please refer to the Construction Phase Plan.

Permits to Work

Demolition Warrant

Supporting Documentation

Appendix 1 – Risk Assessment
Appendix 2 – COSHH Assessment

Method Statement Briefing Record

By signing this document I am declaring that I have read and understood the contents of the Method Statement, and that I will not undertake any activity on site which deviates from the information and guidance contained in this document.

Name	Signature	Date

CONFIRMATION OF SERVICE ISOLATION/DISCONNECTION

If written confirmation of service disconnections is not present in the site file, the client should produce written confirmation on site.

If however no written confirmation is present, you can proceed with due care if the client signs this document to confirm services have been isolated/disconnected.

If no one is present on site, advise the office immediately who will email this to the client for confirmation prior to demolition works commencing.

I confirm that all necessary services have been isolated/disconnected in order for the demolition work to take place.

Signed: ……

Print Name:……..

Date: ……

Name of Organisation: ……

If any services are to remain live throughout the project they must be clearly identified to the site Supervisor:-

Services that are still live are:

……

……

……

Signed by the Client: ……...

Signed by NDS Supervisor……

This document must be kept on site and returned to the office at the end of the project with other relevant paperwork.

SITE INDUCTION FORMAT FOR VISITORS AND SITE STAFF

You will be asked to complete the induction sheet.

Please be aware that this is a working demolition site.

Suitable Safety PPE to be worn as required.

You will be provided with a yellow hard hat and high visibility tabard to be handed in before leaving.

These must be worn correctly at all times on site, except in welfare facilities.

You must be accompanied at all times on site by a representative of NDS

For your safety follow the instructions of NDS personnel at all times.

You must not enter exclusion zones beneath high level work.

Pedestrians beware of vehicle and machine movements.

In case of an emergency, the demolition assembly point is the site cabin at the entrance to our site.

You must sign in and sign out at the gate on each site visit.

It is illegal to smoke inside any building, warehouse, cabin, site machine/van etc.

Operatives are to only smoke/vape in designated areas. Client regulations forbid congregating outside the building to smoke.

Given by appointed person on site.

Site Induction

The under noted have attended the site induction

DATE	NAME	COMPANY	SIGNATURE

Std - Site Induction Form

Tool Box Talks

The under noted have attended the tool box talk given by the appointed person.

DATE	NAME	SUBJECT MATTER	SIGNATURE

CLIENT FEEDBACK FORM

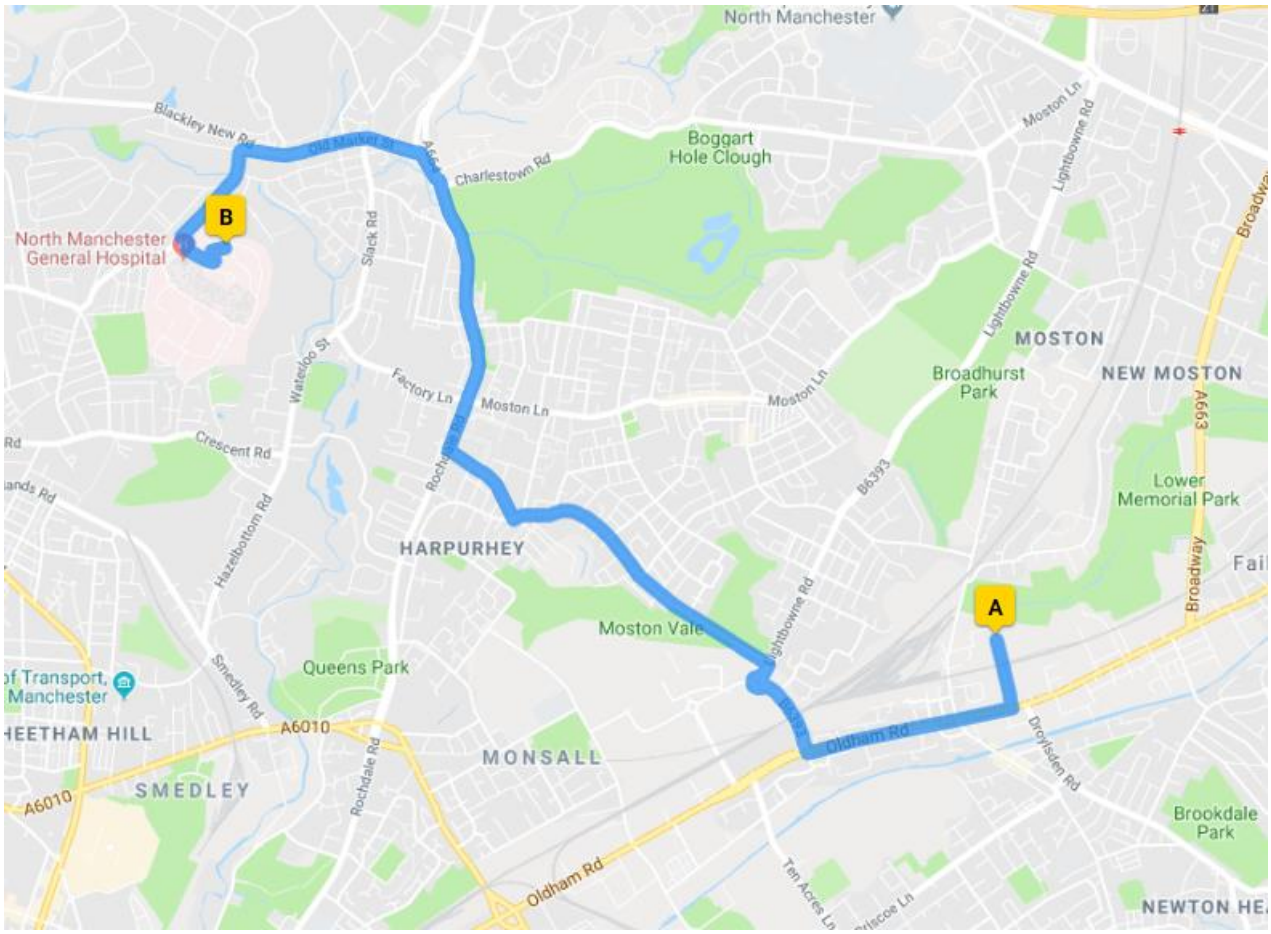
**Supervisor – Please sign the below upon completion of works and then pass to the client to give feedback

JOB NO		
CLIENT		
LOCATION		
DESCRIPTION OF WORK		
CONTRACT PERIOD	From:	To:
NDS SUPERVISOR – I confirm that the site has been checked, left safe, clean and tidy and that all equipment, tools and consumables have been removed.		
Signed:	Print Name:	
Date:		
CLIENT –This is to confirm that NDS have successfully completed all contracted work to our satisfaction. Accepted for and behalf of the client.		
Signed:	Print Name:	
Date:		
CLIENT COMMENTS: In our endeavour to provide our clients with quality service we should be pleased if you would take a few moments to complete the following:		

	Excellent (5)	Good (4)	Average (3)	Below Average (2)	Poor (1)
Communications with Office					
Paperwork received from office					
Attitude of team on site					
Workmanship					
Communication with Client (site)					
Time keeping					
Health & Safety Measures					
Additional Comments:					

THE NEAREST A&E TO SITE:
North Manchester general Hospital
Delaunay's Road
Crumpsall
Manchester Greater Manchester
M8 5RB
Tel: 999 Details in Clients site office.

BLUE ROUTE MAP Details in site office.



0.0	Head **south** on **Reliance St** towards **Oldham Rd/A62**
0.2	Turn **right** onto **Oldham Rd/A62**
0.7	Turn **right** onto **Thorp Rd/B6393**
0.9	At the roundabout, take the **4th** exit onto **Lightbowne Rd/B6393**
1.0	Turn **left** onto **Church Ln**
1.8	Turn **right** to stay on **Church Ln**
2.0	Turn **right** onto **Rochdale Rd/A664**
2.7	Turn **left** onto **Middleton Old Rd**
2.8	Turn **left** onto **Old Market St**
3.1	Continue onto **Mill Brow**
3.2	**Mill Brow** turns **left** and becomes **Delaunays Rd**
3.5	Turn **left** onto **Crumpsall Way**
3.5	Turn **left**
3.6	Turn **left**
3.6	Turn **right** Destination will be on the right
3.7	**Arrive:** Delaunays Rd, Manchester M8 5RB, UK