Project/Site: 44/44a Gloucester Avenue	**Company:** HG Construction
Document: Method Statement and Risk Assessment	

Introduction

This method statement is a final statement on how the works will be carried out on site in relation to Condition 19 – Part B.

Scope of works

The demolition of buildings at the northwest corner of the site and at the eastern corner of the site to provide a new ground plus 5 upper storey building along the north west part of the site and a ground plus 2 upper storey building at the eastern corner and refurbishment of the existing building on site to create 40 residential units, employment floor area (Use Class B1a) car parking and landscaping within the courtyard and ancillary works.

Pour the roof slab and remove the props once the roof slab has reached 2/3 of its design strength.

Preparation of Statutory Documentation

Construction Management Planning (CMP)

Construction Traffic Management Planning (CTMP) and alignment with current strategy

Site Waste Management Strategy

Environmental Management Planning

Emergency Preparedness Planning and Network Rail interface planning

Construction Phase Planning (CPP)

HSE and other Statutory Notifications

Progress F10

Progress pre-agreed Section 61 licensing if deemed necessary

Sustainability evaluation

Works process organisation, planning and engagement with Local Authority

Strategy development and liaison with Camden Borough Council

Specific strategy for local roadways and temporary structures licence applications

CTMP approvals and local roadways dilapidations schedules

Protection measures for street furniture, highway assets and existing trees

Protection strategy for existing incoming stat services

Pre-Commencement activities programming and sequencing

RD&S/asbestos/contaminated material surveys and accommodation of findings in the works programme timeline

Existing services surveys, investigations ratification of existing services locations

Main site boundary enclosure design (all phases of works)

Develop detailed risk assessments/method statements for the works and ratify with the professional team and local authority

Enabling activities programme – refined timeline and sequencing

Develop final construction sequence programme with client team

Incorporate discovery from key survey ratification into construction programme timeline

Incorporate key services phased isolations, such as new incoming mains supplies

Immediate neighbour impact reduction strategy and status benchmarking

Establish liaison point with affected local stakeholders etc.

Confirm traffic movement census across site traffic circulation route

Develop the project loading zone and compound design for the various phases of the works

Conduct a base line noise and vibration survey and develop acoustic damping measures to site boundary if necessary

Agree protected public footway measures surrounding the site footprint

Agree protected route measures for non-site traffic surrounding the site footprint

Joint dilapidations surveys to private areas (roads, pavements and boundaries).

Detailed technical methodologies for initial and ongoing work-streams

Temporary site facilities

Gantry and access

Delivery and offloading

Enabling and site clearance

Temporary works

Retained and adapted MEPH services

Site operation, safety and housekeeping protocols

Develop the Construction Phase Plan to live document status

Expand and develop specific subsets of the CPP for site operation prior to commencement

Incorporate, where practical, resolutions for concerns or issues raised during stakeholder liaison meetings

Considerate Constructors scheme registration as Main Contractor and benchmarking against existing scheme

Services isolations, capping and safe condition proving (throughout the project timeline)

Temporary power, lighting and emergency lighting within workface zones

Recycling proposals waste management planning

Target a waste stream strategy to maximise results within the respective BREEAM control sector

Plan a waste stream strategy to reduce lorry transport cycles as far as possible by such means as waste stream segregation prior to recycling

Fully apply environmental and waste management strategies to maximise achievable project waste management targets

Local community impact reduction strategy

Construction and local traffic management planning

Vehicular access and egress from the site

Vehicle routes, off site holding areas

Noisy works planning, mitigation and relief period strategy if required

Nuisance controls developed and put in place

Operational monitoring/improvement strategy and neighbourhood relations

Monitor planned, actual performance and trend log

Regular liaison with local residents and stakeholder representatives

Respond positively to any issues raised

Introduce improvement methods into works processes where necessary

Network Rail/London Midland Consultation

Approval from Network Rail and London Midland has been achieved which facilitates the full development to take place. These agreements comprise of an access agreement with London Midland, a BAPA (Basic Asset and Protection Agreement) with Network Rail and a party wall award with both parties. In addition, there is an approved scaffold design together with the associated method statements, risk assessment and construction methodology agreed with both NR and LM.

Copies of these documents are attached and it should be noted that the demolition works completed on site have been successfully undertaken under the authority of these agreements

Placing Concrete

The concrete lorry will manoeuvre on the site under the control of a competent banksman. Concrete mode of delivery will be via a pump to the underpins, a vibrating poker will be used to compact the concrete. Dry packing will begin on the next day.

Access/egress on site

There will be no parking available for staff or operatives at the site area anytime of the construction phases of the project. For the full duration of the works, attendees to the site will be encouraged to make full use of the local public transport infrastructure which is available in close to the proximity of the site.

With the likely level of vehicular and foot traffic to and from site and the public traffic levels the area attracts, it imperative to create a clear, safe, segregated and well-marked/lit pedestrian footway to the main site entrance located on Gloucester Avenue. As shown on our accompanying layout, our personnel will enter/exit the site via a single control point set within the existing ground floor front elevation.

At the main access point, security control will be achieved by means of a biometric controlled security turnstile which will be located within a dedicated space of the façade enclosure hoarding. From the security control point, a segregated “green” (safe) route to the welfare setup and site offices will ensure these facilities remain separate from the site workface areas.

All zones beyond any designated safe routes will be clearly demised as “red” (workface) areas and will be subject to full site operational controls and in particular, site personnel will not be permitted access to any other part of the operational site via any other entry/exit points without express permission from site management. The main exception to this will be the allocated traffic marshals controlling the attending vehicle load/offload operations in Gloucester Avenue and the courtyard entrance.

All first time attendees to the site will be required to undergo a thorough and site specific awareness induction and will only be allowed to progress from the green route areas to the workface zones once their competency to do so has been proven in line with our own site Health and Safety protocols. Specific briefings will be included in the site induction to ensure any inherent dangers and prevalent conditions within the workface zones are clearly understood by all.

Particular examples of such site specific briefings would be items highlighting the hazards associated with traffic management/pedestrian interface zones, Interface protocols for all areas around the site and restriction of access/special access to prohibited areas such as the Network Rail boundary zone. Changes and updates to the site operational circumstances are also headlined in toolbox talks and safety review updates and meetings undertaken regularly throughout the duration of the works.

Once the induction process is completed, personnel will be provided with the appropriate personal registration which will permit them to use the security controlled turnstile access point onto site. The security control turnstile will be fitted with a “fail open” control to be activated in the event of an emergency. The biometric access control to this turnstile will prevent unauthorised persons from freely entering the site and will limit unauthorised access as far as is practicable.

Whilst there will only be the one primary access/registration point to the site, there will also need to be other emergency means of escape routes to off-site muster points. These will be set in a safe location on the Gloucester Avenue elevation and will generally utilise existing designated routes from the building to a safe location. These secondary means of escape routes will be kept clear of obstruction at all times throughout the works but likewise will also remain closed at all times other than for emergency use.

The other matter of influence for the general access and secondary means of escape will be once the show apartment comes online and the dedicated entrance becomes part of the site boundary controls. When this occurs, our logistics manager will accommodate management of the access controls and interfaces to this area, and will be principle point of liaison for the specific requirements for this location.

Welfare facilities

In formulating our logistics proposals and with operational welfare being a prime consideration, we indicate as follows a number of the key guidelines followed to ensure the site welfare facilities are set up and operated in compliance with the revised CDM regulations 2015 and the appropriate HSE regulations, guidelines and Approved Codes of Practice. These requirements are fundamental within construction project protocols and will be observed and accommodated as far as practicable.

Suitable provisions have been assessed to ensure that all facilities relevant to the welfare of the site staff are provided on site at all times and generally comply with the following:

- The requirement to provide adequate and sufficient facilities for all persons attending the project
- The requirement to ensure the provided facilities are segregated from all workface areas, traffic routes and compounds.
- To ensure as far as practicable that persons attending the site do not enter workface areas before gaining access to provided welfare facilities
- To ensure where possible the siting of the welfare facilities can be used safely and consistently in conjunction with the works.

Our temporary accommodation strategy has been formulated to support the initial staffing levels for management and operative personnel at commencement of the works when the strip out and enabling works are underway with the respective numbers rising to an anticipated peak level of circa 100 persons during the construction and fitting out phases.

As an indication of the likely levels of temporary accommodation we have included our Welfare Provision Matrix tabulated against statutory HSE/CDM/principle designer requirements. When these figures are evaluated against our considerations for the likely peak level of staff and personnel it identifies the level of facilities needed for:

Suitable and sufficient WC/washroom facilities (at peak - 4 WC's, 3 urinals and 4 WHB's)

Suitable and sufficient canteen/rest facilities (at peak - 50m2 with 45 seats – part split sittings)

Suitable and sufficient locker/changing (drying) facilities (at peak - 50m2 with 100 lockers)

Site offices for the operational management, key subcontractors and any client requirements.

Storage of tools and materials

As part of our Construction Traffic Management Planning, discussions will be held with the Highways Department at Camden Borough Council to agree and align our proposals for site vehicle management. To alleviate localised traffic congestion, all deliveries will be phased and controlled using a "just-in-time", approach and in order to avoid local traffic congestion, deliveries and collections will be carefully controlled within allocated time slots, with a minimum 48 hours' advance notice being required, via a web based booking system.

All delivery requirements will be channelled through our logistics manager's team, with dedicated traffic marshals managing all roadside vehicle attendance on the approaches, exit and whilst on the off-loading/loading zone within the courtyard. Our designated logistics manager will keep a master delivery/collection schedule and will ensure there are no clashes with bulk or large vehicles by regular review with all section managers.

This management regime will also take into account any regular local services such as refuse collection or other advised operations by non-site vehicles and traffic impact from public will also be taken into account. Should any delivery/collection drivers attend site outside the scheduled or allocated periods they will only be dealt with if conditions permit.

On arrival, drivers will place their vehicles in the dedicated load and offload zone in the courtyard accessed from Gloucester Avenue under the guidance of the attending banks-person/traffic marshal. The respective documentation will be checked to ensure the delivery components are provided to the correct workface location or gantry based storage/consolidation area. A combination of high visibility, retractable "tensor" type barrier ribbon systems and moveable solid 8 type barriers will be available at loading zone and the pavements either side of the entrance to be used by the traffic management personnel for safe traffic and pedestrian segregation.

For delivery and placement of materials, the courtyard area will be kept clear for vehicles to reverse close to the delivery point and will be placed in courtyard. Other core works operations will be supplemented by a small loader/telehandler according to the type of works.

The lift and placement of the roof extension framework and components and bulked materials will be undertaken by a series of small mobile crane contract lifts from the central courtyard area. We have investigated the use of small self-erecting tower cranes but the safety criteria for working alongside/near to the Network rail infrastructure precludes these when over-sail/overturn controls are factored.

Smaller mobile cranes such as the Kato MR 350Ri or the Terrex AC 30 or 55 city cranes are highly manoeuvrable and have a very low lifting angle which will preclude over-sail requirements and virtually eliminate overturn risk. A number of contract lifts will be planned to maximise productivity on single or dual day operations and as the cranes will be operating from within the courtyard there will be no need for road licenced operations.

Placement of the glazed panel components will be via a glazing robot lifter – such as a Geko 350 PV, operated from inside the building. The noted lifting robot will be used in conjunction with the external access scaffold and will be particularly relevant for the rear elevation works where the Network Rail segregation zone will be in operation. The proposed unit also has a closed base width of just over 0.6m so will fit through the domestic width door openings.

We consider the proposed combination of hoist positions and options will provide the optimum location for vehicle load/off-loading whilst minimising traffic impact as well as offering the most direct opportunity for material distribution to and from the workface areas from the primary delivery point. In all cases, any craning, hoisting and material movement operations will be also carried out under the guidance and control of logistics personnel.

Waste disposal

As with air quality, dust and noise management, site generated waste management will be fully accommodated with within the project specific Site Environmental Management Plan and Site Waste Management Strategy. Our controlled site waste management strategies fully align with the key tenets of best waste management planning and a clearance and recycling of “waste by type” segregation strategy will be fully implemented throughout the works. The material clearance process, recycling targets and actual performances will be controlled, monitored and recorded under our accredited and project specific Site Waste Management scheme developed and tailored to suit the distinct phases of the works.

In practical terms the removal routes of waste and material arising’s will be the reverse of the previously described delivery processes to suit the differing phases of the works. The bulk arisings from the groundworks and basement excavations will generally be directly loaded to clearance lorries by excavator/loader undertaking the works.

Following on from this initial clearance strategy for the main below ground work and when the works move into the construction phase: spoil, materials arising and general rubbish from the ongoing works will initially be loaded into small skips then later into wheeled “waste by type” bins at the workface areas. Clearance will then be via the marshalling areas at each build level or on each floor access point and cleared via the telehandler/PG hoisting facilities to the designated waste clearance zone.

By utilising the previously described methods for general material storage and circulation there will be opportunity for part of the works to set 4no “waste by type” skips as part of the regular off-site recycling/disposal strategy. The segregated waste streams will be cleared regularly from site via suitable registered waste carrier vehicles taking “waste by type” to off-site recycling/disposal facilities as appropriate.

Records for where waste streams have been re-used, recovered, recycled and the respective weights/volumes will be held within the document for comparison with targets and any BREEAM sector reporting. In all cases and wherever possible, we will follow the main principles of re-use or recycling waste materials in line with strategic waste management hierarchy and disposal of waste to landfill will usually only be associated with contaminated material disposal. All of the contractors within our supply chain can provide these waste segregation and management services and will be fully able to support the BREEAM targets set for the project.

Our dedicated logistics manager will be responsible for the site SWMS implementation and all site staff and operatives will be made aware of their responsibilities to comply with the SWMS principles as part of the site induction and briefing process. Any waste or spoil stored at the site prior to clearance and disposal by a licensed contractor will be managed in accordance with current legislation. As with the Delivery and Storage strategies, clearance of site generated spoil will be carefully controlled to suit the programmed delivery requirements

<u>General Construction Waste:</u>

Generally, the main waste streams generated from the works will mostly sit under the following managed headings

- Excavated material will be cleared from site to approved inert landfill/land reclamation sites. Should contaminated material become a prevalent issue then this would require specialist disposal to licenced contaminated waste disposal facilities
- Concrete and brickwork/masonry arising’s will be taken to waste transfer stations for crushing, processing and recycling
- Steel members, structural reinforcement and recovered metal will be separated at source and cleared direct to waste metal recycling facilities
- Timber products will be separated at licensed waste transfer facilities for recycling into chipping, pulping and mulching facilities
- Plaster and plasterboards etc will similarly be separated at the waste transfer facility for either recycling or neutralisation/disposal if found to be contaminated above viable recycling values

<u>Office, Welfare and Canteen Wastes:</u>

The offices, canteen and welfare facilities will generate waste streams including food waste, paper and cardboard, plastics and cans. Food waste will be segregated from other waste allowing the remaining waste streams to be managed in such a manner as to maximise opportunities for recycling and recovery in line with the waste management hierarchy. Foul water will be discharged into the existing sewer network in place on the site.

Environmental

All fuelling will be carried out by connecting a hose pipe from to a barrel pump from 45 gallon drums to the plant being re-fuelled which will be sitting in a bund that is 10% more than the contents of a 45-

gallon barrel. Drip trays will be used when refuelling takes place. A spill kit and fire extinguisher of the correct medium will be close by.

Where spoil is removed from site, copies of any Waste Transfer Notes will be retained on site and a copy given to the PC for their records, it may also be inspected by the Client or his appointed representative at any time.

Concrete lorries will wash out into a muck bin or 8-yard skip on the site.

Noise, Dust and Vibration

A noise assessment will be carried out in specific areas when a work on site might entail a hazard to the workers, visitors and also to neighbours and pedestrians, such as high level of noise and vibration, around the work area, to establish noise protection zones. Water will be used to suppress the dust generated. Breaking out of concrete. HAVS assessments will be carried out

HAVS Assessment ***Exposure action value** **** Exposure limit value** **A(8) In an 8 hour shift**	**Plant/Equipment**	Magnitude MS^2	*EAV 2.5 A(8)	**ELV .5 A(8)	Risk Level
	Petrol Saw Stihl 410	7.5	53mins	3hrs 33mins	Med
	SK120 Breaker	6.5	1hr 10mins	4hrs 40mins	Med
	Vibrating Poker	4.5	2hrs 20mins	>8hrs	Low

Mandatory Site PPE

Hard hats
Hi viz vests
Toe protector boots
Gloves
Safety goggles (high impact 166B)

Task Specific PPE

Dust mask (FFP3 min)
Ear protectors (where required)
Confined space Rescue equipment

Rescue

All operatives entering the deep excavations must wear a Rescue Harness. Gas monitors will be kept in the underpin excavations once the trench sheets and frame have been installed. Gas monitors will be lowered into excavations at the start of every shift and observed for 5 minutes. Once no gases are detected, then it is safe to enter. Should an operative collapse in the excavation or become injured and he cannot exit the excavation under his own steam then he will be removed from the excavation by

clipping a drop chain connected to the 360 excavator to his Rescue Harness and lifted out under Banksman's supervision.

Pedestrian traffic rerouting

Personnel Access and Security

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Vehicle Management and Logistics

In conjunction with the physical location of the building and its surrounding streetscape we have prepared our outline traffic management strategy to accommodate the differing work content of the project whilst minimising local impact as far as practically possible.

To avoid any confusion or doubt, the project specific Construction Traffic Management Plan (CTMP) will be developed/refined in the mobilisation period and used to identify details for vehicle access routes and traffic controls for the site. Other information will also be included respective of traffic direction and controls on the local feeder roads as well as information regarding local levels of pedestrian traffic etc. Our site based management team will liaise at all times with affected neighbours to ensure a seamless approach to site traffic management in the area of the project. The CTMP document will be pre-emptively provided to all vehicle operators needing access to the site to ensure all parties are aware of the prevalent conditions and considerations such as feeder roads, traffic routing and offload points.

In planning our final vehicle management logistics strategy, we will ensure it aligns as far as practicable with the project CTMP operated for the enabling and demolition phase currently underway. This will be refined and enhanced during the preconstruction/mobilisation period to suit the various construction processes involved in the shell & core/fit-out phases of the works. In general terms and as shown on our accompanying layouts, the primary access and loading zone for the site will be via the courtyard entrance in Gloucester Avenue.

All site traffic will approach the site entrance in Gloucester Avenue in an easterly direction via the junction with Regent's Park Road, which as part of the feeder route, will ensure all localised site traffic only accommodates safer right hand turns at the road junctions. When approaching the site from the easterly direction, the parking bays outside of the E block house are linear to the pavement so provides a slightly wider pull up space before vehicles are marshalled into the site load offload zone.

One of the greatest challenges of efficient vehicle movements associated with any construction project is that vehicle drivers are not usually required to undertake a Site Awareness Induction and may not be fully aware of the collateral controls and the wider implications for site traffic. The access requirements for the project will also be summarised in a "Delivery Protocols" document which will be distributed via our supply chain to all vehicle drivers attending site. Our logistics team will require presentation of this document by drivers attending site and may further require them to demonstrate their cognisance of the content. We have operated this system efficiently for many years and these additional controls have previously been welcomed by Local Authorities granting approval for site access proposals.

Non site vehicle and pedestrian use is prevalent on the circulation route surrounding the site. Our Group Traffic Management policies incorporate and address such issues as potential for "blind spot" interface and vehicle drivers attending all projects are required to undertake awareness training for such circumstances. Vehicles and vehicle drivers are required to operate under WRRR, FORS systems and associated CLOCS training to ensure public safety remains a paramount consideration.

Fire safety arrangements

A comprehensive Site Emergency Plan will be prepared during the mobilisation period and will be operated on site throughout the duration of the works. Compliance with the protocols set out therein will be mandatory for all personnel attending the site and will show emergency escape routes, the location of fire points, and assembly/muster areas. The SEP will also take into account how the emergency procedures for the site interrelates with adjacent neighbours.

The SEP will also be issued to all contractors and personnel and forms an integral part of the site induction procedures. The phasing of the works will require the SEP to be revised during the programme timeline and any changes to the format, layouts or operational protocols will be advised to all site attendees during regular toolbox briefings and site operational updates.

Nominated members of the site team will be appointed to act as duty fire wardens. They will inspect all site areas during and after works have ceased taking particular notice of any areas where hot works permits have been issued. Special regard will be given to matters such as;

- Temporary / interim fire alarm systems cover to workface and key site areas
- Test and activation protocols for temporary fire alarm systems
- Control points, evacuation routes and muster points
- Temporary and permanent means of escape routes
- Restricted access areas interfaces with particular reference to the new electric substation
- Regular testing of temporary fire alarm systems and later proving of permanent systems
- Emergency services access

Person responsible for monitoring safe system of work and ensuring compliance

Name: Greg Purkiss, Commercial Director
Contractor: HG Construction Ltd
Address: 4 Hunting Gate, Hitchin, Hertfordshire, SG4 0TJ
Email: GregPurkiss@hgconstruct.co.uk
Phone: 01462 477 159

Project/Site: 44/44a Gloucester Avenue	**Company:** HG Construction
Document: Method Statement and Risk Assessment	

COSHH Risk Assessment Record

Project/Site: Gloucester Avenue	**Company:** HG Construction
Substance: Concrete/ wet and dry	**Hazardous Contents:** Alkali Content, Silica particles

											
Yes:	No:	Yes:X	No:	Yes:	No:	Yes:X	No:	Yes:	No:	Yes:X	No:
TOXIC (T)		**IRRITANT (Xi)**		**CORROSIVE (C)**		**HARMFUL (XN)**		**FLAMMABLE (F+)**		**DANGEROUS TO THE ENVIRONMENT(N)**	

Process: Placing and working with Wet or Dry Concrete Mixes	Activity: Placing, cutting concrete
Location: Basement underpins	Personnel at Risk: Operatives, Pump operator, drivers.
Risk to Health:	
Respiratory damage risk when cutting cured concrete due to content of silica particles. Contact with eyes may cause severe irritation and / or alkali burns. Allergic contact dermatitis may be caused by individual sensitisation	
Risk Phrases: R20, R21, R22, R43, R48.	Safety Phrases: S22, S24, S28, S29, S36, S37, S39.
Control Measures:	
PVC gloves wellingtons, long sleeved clothing, pants and eye protection to be worn at all times while working with wet concrete or dry mix. Wet cut to minimise dust release and respiratory dust mask to be worn by operatives. Adequate and sufficient welfare facilities must be in place by Principal contractor to ensure skin can be washed after working with concrete. Tool box talk on working with concrete to be communicated as an awareness or the risk of working with Concrete.	
Storage:	Disposal: Non Hazardous disposal subject to local Authority requirements.
Spillage: Do not allow spillages to enter water course. Spillage presents a slip/trip hazard clean up as you go	Fire Information: Not Flammable
First Aid	
Eye Contact: Wash immediately with plenty of clean water for at least 10 minutes. Seek medical attention particularly with wet mixes	Inhalation: Remove from dusty area and clear airways. If symptoms persist seek medical attention

Skin Contact: Remove heavily contaminated clothes. Wash with plenty of clean water. Seek medical attention for persistent redness, irritation or burning of the skin			Ingestion: Drink plenty of water. Do not induce vomiting. Seek medical attention	
PPE				
				
Other Controls				
Monitoring: Records Attached			Not Applicable	X
Health Surveillance: Records Attached			Not Applicable	X
Training/Instructions Required				
Verbal Instructions: Toolbox Talks			Written Instruction: N/A	
Assessment Carried Out by: TBC			Date:	

Project/Site: 44/44a Gloucester Avenue	**Company:** HG Construction
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COSHH Risk Assessment Record

Project/Site: Gloucester Avenue	**Company: HG Construction**
Substance: Diesel	**Hazardous Contents:** Distillate hydrocarbons



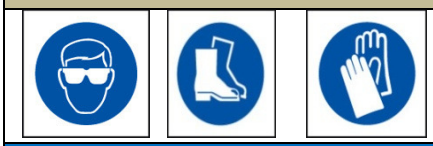



Yes:	No:	Yes:	No:	Yes:	No:	Yes:X	No:	Yes:X	No:	Yes:X	No:
TOXIC (T)		**IRRITANT (Xi)**		**CORROSIVE (C)**		**HARMFUL (XN)**		**FLAMMABLE (F+)**		**DANGEROUS TO THE ENVIRONMENT(N)**	

Process: For use for plant and equipment	Activity: Refuelling of plant
Location: Basement area	Personnel at Risk: Plant operatives, delivery drivers
Risk to Health:	
Injection under the skin may have serious medical effects. Inhalation of fumes may cause drowsiness leading to a lack of consciousness. Contact with the eyes will cause irritation and redness. Prolonged and repeated contact with skin may cause dermatitis which could lead to irreversible skin disorders. Risk of fire. Diesel spillages will cause surfaces to become slippy	
Risk Phrases: : R12, R45, R66, R38, R67, R51/53,	Safety Phrases: S2, S23, S24, S29, S43, S45, S53, S61, S62
Control Measures:	
Gloves and eye protection must be used when handling diesel. Wash skin thoroughly after use. Do not use near open flames or on hot plant. Treat any spillage as a fire hazard clean up with absorbent materials contained within spill kit. Store in a separate container on a bund within the environmental stores.	
Storage: Drums must be stored on a bunded area within a lockable container.	Disposal: Avoid any discharge into waterways or public sewerage system. Diesel will cause harm to environment.
Spillage: Clean up with absorbent materials. Diesel spillage will make surfaces very slippy.	Fire Information: Do not use near open flames or heat sources. Extinguish any fire with Dry powder, or Co2. The flash point of diesel is 60 degrees C
First Aid	

Eye Contact: Wash out thoroughly with large amounts of water. If irritation or redness continues seek medical assistance.	Inhalation: Remove to fresh air and seek medical assistance.
Skin Contact: Wash skin as soon as possible with plenty of soap and water. Change contaminated clothing.	Ingestion: Do not induce vomiting. Wash out mouth with water. Drink plenty of water. If a large amount has been swallowed seek medical assistance.

PPE



Other Controls

Monitoring: Records Attached		Not Applicable	
Health Surveillance: Records Attached		Not Applicable	

Training/Instructions Required

Verbal Instructions: Toolbox Talks	Written Instruction: Specialists Training
Assessment Carried Out by: TBC	Date:

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RISK ASSESSMENT MATRIX

Assessed Risk Levels

The likely severity of the harm caused by the hazard can be used as a guide to the risk potential.

Hazard - is the potential to cause harm

Risk - is the likelihood of that harm being realised.

Making a sensible judgement about the risk from a hazard involves considering (at least) two elements;

1. Frequency (the probability (likelihood) of the harm occurring).
2. Consequence (the likely severity of the harm to a person resulting either from an accident or ill-health due to the hazard.

By using the following levels:

Frequency:

1. Unlikely
2. Possible
3. Likely
4. Probable
5. Imminent

Severity:

1. Slight (minor injury, first aid required).
2. Moderate (minor injury, first aid/medical attention).
3. Serious (injury, medical attention, hospitalisation (3 day)).
4. Major (serious injury/death).
5. Catastrophic (number of casualties/deaths).

Multiply the **FREQUENCY** by the **SEVERITY** to determine the **RISK RATING.**

Frequency					
5	**5**	**10**	**15**	**20**	**25**
4	**4**	**8**	**12**	**16**	**20**
3	**3**	**6**	**9**	**12**	**15**
2	**2**	**4**	**6**	**8**	**10**
1	**1**	**2**	**3**	**4**	**5**
	1	**2**	**3**	**4**	**5**
	Severity				

1- 4 May be ignored (LOW)

5- 9 Control measures required (MED)

10 & above Design out if possible (HIGH)

Project/Site: 44/44a Gloucester Avenue	**Company:** HG Construction
Document: Method Statement and Risk Assessment	

Risk Assessments

RISK ASSESSMENT

Project Title:	**Gloucester Avenue**	Project No:	**16-091**	Sheet No:	**1 of 5**
Activity / Operation:	**Underpinning and propping**	Prepared by:	**T Kennedy**	Date:	**June 2016**

Type of Assessment (tick as appropriate):	Site Specific:	√	Generic Assessment:		Routine Operation:		

Who may be harmed:

Employees	√	Sub-contractors	√	Tenants		General Public		Visitors	√	Others	

Task	Hazard	Risk/Consequence	Assessment			Control Measures	Residual Rating		
			F	S	R		F	S	R
Safe Use of Ladders	Work at height Standing on ladder for long periods Carrying of materials / tools Vehicle / plant movements	Falls from ladders Ladder slipping / overbalancing Materials / tools being dropped from ladder Ladder being struck by vehicles / mobile plant	3	4	High	Other means of access to be considered first to avoid use of ladders. Where there are vehicle movements or passers by, a suitable barrier and / or warning sign is to be erected around the base. Work from a ladder is not to be carried out in excess of 15 minutes. Ladder to be checked prior to use. If any defects are noted, the ladder is to be taken out of use and a supervisor or Safety Advisor notified. Tools / materials are only to be carried in a tool bag / belt. Both hands are to be kept free at all times. Ladders to be placed against a solid structure, at a 75^0 angle and footed until it can be tied / secured. Only ladders of a correct length to be used i.e. it must extend at least 1m above the landing / work position. Painted ladders are not to be used. Ladder only to be positioned on firm level ground	1	4	Low
Excavations	Unstable soil composition Underground services Open excavations / steep edges Water course / water tables Contamination	Collapse of excavation sides. Contact with underground services. Personnel / machinery falling into excavations. Ingress of water. Fire / explosion. Hazardous atmosphere.	3	4	High	An assessment of the type of ground is to be carried out by a competent person. A survey is to be carried out to determine the likelihood of any underground services. The area of the excavation is to be CAT scanned by a competent person. Identified services are to be located by hand digging and marked.	1	4	Low

		Contact with contaminated soils.				No mechanical excavating is to be carried out within 0.5m of any known services If persons are to enter the excavation, the sides are to be battered back to a safe free standing angle or the sides shored up using trench boxes, piles etc. Suitable monitoring equipment and personnel trained in its use will be required where known exposure to toxic substances or lack of oxygen may occur. A suitable emergency plan is to developed where there is a likelihood of there being a presence of gas. Where flooding risk exists, cofferdams/caissons will be installed with pumps of suitable capacity. Suitable barriers and warning signs will be erected around all open excavations. Spoil and materials will be stacked at least 1.5m from the edge of excavations. A suitable means of access will be provided. Where machinery can drive into the excavation, a suitable access ramp will be provided with edge protection substantial enough to stop the largest machine. Gloves to be worn where personnel are handling materials of contaminated soils. High visibility clothing to be worn where personnel are working around heavy plant machinery.			
Confined Spaces	Confined area Oxygen deficiency/enrichment. Flammable gases Vermin Contaminated ground / water Flooding Manual handling	Fire Explosion Entrapment Contact with contaminated ground / water Asphyxiation Awkward posture Bumps and scrapes Falls	2	5	High	Avoid entry into confined spaces where practicable. A suitable safe system of work is to be developed by a competent person before entry is gained. A 'Top Man' must always be employed for safety purposes. Personnel must receive training in confined space entry procedures. Permit to work system to be put in operation before entry proceeds. Air supply and presence for gases to be checked by a competent person using oxygen meter and gas detector maintained by air mover if necessary. Tripod and winch to be used where possible all operatives to be connected at all times when in live manholes	1	5	Med

						If oxygen levels fall below 19% Emergency air breathing apparatus to be worn by trained operatives. All associated PPE including safety harness, fire resistant overalls etc. to be worn. Emergency rescue plan to be implemented before entry proceeds and suitable rescue equipment provided. Personnel to wear appropriate gloves to prevent contact with vermin urine etc. and to wash hands etc. immediately after work particularly when working in sewers etc. Tool belts / bags to be used for carrying small tools down ladders to allow 3 points of contact. Heavy plant to be lowered into confined spaces by mechanical means. Intrinsically safe tools and equipment to be used, these must be marked up with 'Ex' All open manholes to be fenced off			
Loading/Unloading	Lifting of loads Movement of loads Palletised loads Un-palletised / loose loads Connection of lifting accessories Climbing on lorry bed Uneven ground	Falling loads e.g. equipment failure or poor slinging causing load to slip or drop Swinging loads e.g. cranes slewing or jibbing, or lifting when rope / chains not vertical Collapse of palletised materials Limbs / fingers becoming trapped Falls from lorry beds Collapse of loads once ground dumped	3	4	High	Where practicable, loading and unloading of delivery vehicles is to be carried out in a suitable area to avoid working at heights when carrying out slinging operations. If no loading bays or raised areas available, as far as reasonably practicable, the driver and other persons to avoid walking around the edge of the vehicle bed. Lifting to be directed by a trained Banksman. Loads to be slung by a trained Banksman or Slinger. Lifting equipment must be in a good state and certified. Loads to be checked for integrity and centre of balance to prevent collapse during lifting. All persons must be clear of the load, off the vehicle, before loads are lifted. Never stand under loads or between a load and a hard place. Loads to be placed onto a suitable surface before detaching chains / slings. Hand rails are to be used if load cannot be removed by other means Bean bags/ fall arrest systems to be used if persons have to enter the flatbed Records of training to be maintained. Register (only local register required) for plant and lifting gear to be maintained on site.	1	4	Low

Compressed air tools	Noise and vibration Compressed air Running diesel engines	Over exposure to noise and vibration High speed airborne particles Exhaust fumes Joints blowing apart	2	4	High	Vibration levels of individual tools to be established and trigger times marked on equipment. Trigger times not to be exceeded. Operatives at risk of VWF to undergo a suitable medical. Noise assessments to be undertaken and suitable measures put in place to control exposure. Diesel engines only to be run in well ventilated area unless exhaust extensions fitted. Engines to be switched off when not in use. Compressor to have been tested within the last 12 months and a certificate to be held in the site file. All compartment door of compressor to be kept closed at all times. Ensure all non-essential persons are kept away from the operations. Release pressure before connecting / disconnecting components. Attach 'whip-checks' to prevent joints blowing apart.	1	4	Low
Occupational Health	Dust Noise HAVS Leptospirosis	Breathlessness Chronic lung disease Hearing difficulties Tinnitus Possible Deafness Numbness of fingers and hands Vibration white finger Flu like systems possible death	4	4	High	Dust suppression (water) to be used to dampen down dust Masks to be worn (FFP3 min) Noise protection zones to be implemented Ear protectors to be worn at all times due to the constant noise HAVS assessments to be carried out Trigger times to be adhered to 15 minute intervals for each operative Gloves to be worn Good hygiene procedures	1	4	Low
Manual Handling	Lifting moving	Sprains and Strains Damaged to hands and feet Back injury Burns to hands and feet	2	3	Med	Use mechanical means where possible All materials will be brought close to the work area as is reasonably practicable. All operatives carrying out the manual handling will be trained in kinetic lifting techniques Ensure area is free from slips trips and falls	1	4	Low
Slips trips and falls	Waste Materials Greasy or Slippery Surfaces Voids, barriers and handrails left open	Falls of persons at height Falls of persons at ground level Minor cuts and scrapes and Major Injury and possible death	4	3	High	Good Housekeeping All spillages to be cleaned up immediately if cannot then must be signed and cordoned off All voids to be securely covered over Access routes must be kept clear of obstacles at all times	1	3	Low

						Work areas to be kept clean and tidy All scaffolds must be erected correctly by a competent persons			
Underground services	Striking of services	Damage (possible flooding, explosion, fire and environmental pollution)	3	4	High	Obtain full details of all underground services from the appropriate utility companies including the local authority for lighting and CCTV cables, electricity, gas, water (which includes sewers), communication cabling and any other services before any work begins. Hand dig location trial holes very carefully and mark type of service and exact location. Consult the utility companies or local authority to agree precautions required. Inform relevant utility if unknown service is found. Mechanical excavators must not be used closer than 500mm to any one service. All Supervisors, machine operators, Banksmen and other operative will be given a toolbox talk on the HSE recommendations contained on HSG 185 Health and Safety in Excavations. If sub contractors carry out excavation work on our behalf they will be subject to the same criteria. If damage does occur evacuate the area immediately and inform emergency services including the utility company concerned. Cordon off the immediate area with barriers and signs and prevent persons from entering. Only authorised competent personnel to carry out repairs. Our personnel will not re-enter excavations until all clear is given by the emergency services and our site management.	2	4	Medium
Grinders/petrol saw	Sharp fast moving cutters; Fire Equipment and/or material failure. Flying particles	Serious hand injuries through contact with a fast moving cutting blades; Severing fingers; Entanglement; Burns. Eye injuries	3	4	High	Only persons trained in use of Abrasive Wheels will be allowed to undertake task Noise assessment of activity will be undertaken as per The Control of Noise At Work Regulations 2005. Hot works permits to be in place !10v electrical equipment used only Grinder to be of good working order inspected and maintained Fuel to be located well away from cut area Fuel to be in correct container Fill in a bunded area. On a drip tray	1	4	Low
Lifting Operations	Falls of Materials Failure of lifting equipment Contact Damage	Overloading of the crane due to failure to estimate loads or by incorrect use. Unsafe methods of erection, alteration or dismantling. Unsafe Slinging	3	4	High	*Essential that both Crane and slinger signallers to have been trained to CPCS (CTA) standard* Weight of loads to be ascertained prior to lifting. Trained slinger/signallers only to control lifting operation. PPE to include safety helmets/footwear, gloves and orange Hi-viz vest. Size,	1	4	Low

		Insecure loads Incorrect Signals or messages High Winds Unsuitable Crane Base				weight and position of maximum loads to be carried on the crane must be identified. Safe load indicator to in working condition and observed Only trained and competent crane erectors to carry out this work, exclusion zones established during erection. Safe working loads of the crane in radii to be visible and used. Safety harness to be worn by all erectors and clipped on at all times. *Only authorised trained slinger / signallers used. All information regarding weights, lifting points and protection of loads to be available. Any unauthorised persons carrying out Slinger/Signaller operations will be instantly dismissed. See separate Risk Assessment for Lifting Equipment.* Trained slinger/signallers only. Correct lifting equipment (chains, slings and nets) will be used at all times. No improvising will be tolerated. Loose materials must be secured or removed. Trained signallers, well maintained radios. Crane driver and signaller part of established team. A Crane co-ordinator may be required. Crane shut down when maximum wind speed reached. Tag lines for control. Anemometer to be fitted to tallest crane. Crane operator has final say.			
Mobile plant operations	Movements of mobile plant Working on sloping or uneven ground Unattended machinery Working in buildings	Contact with other machinery, structures or people Overturning of Mobile Equipment Unauthorised start up and movement Build up of noxious gases	3	4	High	Mobile plant is only to be operated by competent authorised persons. Personnel are only to operate categories of equipment for which they hold a relevant certificate of competence e.g. CPCS. Machinery must only be operated in accordance with safety procedures. Pedestrian routes to be segregated from plant / vehicle routes. Persons not to stand between machine or the load and any fixed object to prevent being crushed. Never approach a machine until you have made the driver aware of your presence and you get a clear signal to approach. Always be alert to moving plant/equipment and take the view that the driver hasn't seen you. Always keep clear of the turning circle of cranes and excavators. Roll over protection systems (ROPS) to be in place. Seat belts to be worn at all times.	1	4	Low

						Reversing operations only to be carried out under the directions of a banksman unless all round vision is available. All machines to have an amber flashing light operating unless otherwise specified by your supervisor. All persons on foot to wear high visibility clothing. Machinery not to be left unattended unless key removed and machine secured. Machines working in buildings must have some form of ventilation ie suction push fans or exhaust extraction system			

PERSONAL PROTECTIVE EQUIPMENT – TICK BOXES WHERE REQUIRED AND SPECIFY GRADE OF EQUIPMENT

Safety Helmet BS EN 397	√	Safety Footwear	√	Goggles / visors EN 166 B		Hearing Protection		Safety Harness EN 361	√	Gloves / Gauntlets	√	Over Shoes		High Visibility Jacket	√	Respirator FFP3	√
Flash Overall		Safety Glasses EN166F	✓	Hi Visibility Trousers		Confined Space rescue equipment	✓										

SSW = Safe System of Work / Method Statement Required (Tick √)

TB = Toolbox Talk / Safety Awareness Talk Required (Tick √)

Name of Assessor(s)	**Signature(s)**

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Date	29/05/2017	Project No.	Sheet No.
Eng	TK	16-153	1
Checked			

CONTRACT
Gloucester Avenue

REF	Method Statement and Risk Assessment