


Safe System of Work
For
Diamond Drilling At
16a Lyndhurst Gardens
Incorporating
Risk Assessments and Method Statement

Client	G and F Solutions
Principal Contractor	
Site Address	16a Lyndhurst Gardens, LONDON, NW3 5NR

Prepared by & Date	Authorised By & Date	Document No.	Revision No.
 B Parker 21 st June 2015		T – 015626/BP/MS001	Rev 00

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1. Description of Work

The work involves the cutting of concrete using a Diamond drilling Rig at locations determined by G and F Solutions.

Work will only commence once all notifiable asbestos has been removed from the work area, a certificate of reoccupation has been obtained and that any live services have been isolated i.e. gas, water, and electric. Work will only commence once we have received confirmation from the principal contractor that any electrical live services to our work area have been isolated.

The operatives will arrive on site and take the site induction, on completion of this they will be briefed on this method statement and risk assessments and sign the briefing sheet agreeing that they fully understand the contents and will not deviate from them. This safe system of work will be amended if there are any changes to the work process and all those involved in the work re-briefed and sign to agree the changes to the work being carried out.

All work will be carried out within the confines of the principal contractor's site under their permit to work systems and site rules. Exclusion zones consisting of Heras fencing will be installed around the work area to provide segregation between our works and the main site operation. Signage will be attached to the fencing warning of the dangers within.

Copies of all relevant plant and equipment inspections, acknowledgment sign off sheets and other documentation will be made available to the site management for their records.

After successful completion of the work the area will be handed over to the Principal Contractor.

Services required to work area

Power Supply	Water Supply	Task Lighting
110v 32 amp	Mains	Supplied

2. Risk and COSHH Assessments

Risk Assessments	COSHH Assessments
Unauthorised Access to Work Area	Concrete Slurry
Slips, Trips and Falls	
Manual Handling plant and equipment	
Use of PPE	
Diamond drilling	

Workplace Risk Assessments

Site/Location:		Activity		Date	Assessment No.	
16a Lyndhurst Gardens		Diamond Drilling		21 st June 2015	01	
Revision No.	Assessor	Position	Assessment Review Date	People at Risk: Employees = E, Contractors = C, Public = P, Visitors = V, Client = CL		
Rev 00	B Parker	Contracts Manager	After any change to work activity or equipment used			
Hazards					Who might be harmed E,C,P,V, CL	
1. Noise - Potential for Hearing Injuries to Plant Operators and Operatives Working in Vicinity of Noise Generation. Noise Transmission to Third Parties.					E,C,V	
2. Unauthorised Access to Work Area					C,P,V, CL	
3. Slips Trips and fall's - Spills of liquids and solids on floors. Wet surfaces such as floors. Loose floor materials. Inclement weather-rain making stairs and ladders wet. Poor housekeeping on site. Trip hazards from demolition debris. Walkways restricted by demolition debris, stored materials, tools etc. Lack of edge protection. Non-compliant edge protection. Holes in floors.					E,C,P,V,CL	
4. Manual Handling - Injury to operatives through manual handling of load. Contamination from substances contained within loads.					E	
5. Use of PPE - Failure to wear PPE or RPE, Improper use of PPE or RPE, Damaged PPE, Inappropriate PPE for specific Job or task.					E,C,P,V,CL	
6. Diamond Drilling – Injury to operatives through Rotating Machinery.						
How will they be harmed Risks	1. Occupational health noise induced hearing loss. Complaints from third parties. 2. Risk of injury from machines working in area. 3. Personal injury - Cuts, grazes, breaks and fractures of bones. Strains and pulled muscles. Untreated injuries leading to serious injuries. Possible fatality. 4. Pulled muscles, strains, torn ligament, back injuries etc. 5. Personal Injury caused by the failure to wear PPE.					
Precautions & Controls				Precautions & Controls Implemented by	By When	Date Completed
1. Noise Expected noise Level = 95 dBA (Excess of exposure limit value of 87 dBA). Hearing Protection = EN 352-3 Peltor 3 Helmet Mounted Ear Muffs SNR 34dB. Details of expected noise levels to be made known to the principal contractor to enable precautions to be taken for others on site. The area of the cutting operation shall be identified as a "Hearing Protection Zone" with warning signage displayed. Operatives shall be issued with Peltor 3 hearing protection and others in the area required to wear suitable protection. At no time shall any person be exposed to the maximum Exposure Limit Value of 87 dBA without adequate hearing protection. The <u>minimum</u> number of operatives required for the work shall be within that area at <u>any</u> time and shall be part of job rotation to limit the exposure to noise. All noise levels which give rise to a risk to site personnel shall be informed of the risk to them as part of a specific toolbox talk.				Supervisor	Prior to work	
				Supervisor	Prior to work	
				Supervisor	Prior to and during work	
				Supervisor/Operatives	Prior to and during work	
				Supervisor	During work	










Concrete Cutting Division

<p>Operatives to be trained on the risks from noise, the correct hearing protection to use and how to maintain it.</p> <p>Operatives having to continuously work in noisy environments shall be included within the Company's occupational health monitoring scheme.</p> <p>All works shall be carried out with reference to the Noise at Work Regulations, and the Control of Pollution Act and where necessary in liaison with the Local Environmental Officer. Where possible procedures shall be in place to shield the sources of noise and minimising the migration of noise to third party areas. At no time shall any site plant, or equipment be started up before 8am and shall not operate after 6pm to reduce noise nuisance to neighbouring properties.</p>	<p>Management</p> <p>Supervisor</p>	<p>Ongoing</p> <p>Prior to and during work</p>	
<p>2. Unauthorised Access to Work Area</p> <p>Access to any demolition work area to be kept secure by Heras Fencing at all times bearing adequate safety signage warning of the dangers within. No unauthorised access to work area will be allowed at any time.</p> <p>Visitors requiring access to any work area shall be escorted by a JFH supervisor/management representative at all times wearing the appropriate PPE.</p>	<p>Supervisor/ Operative</p>	<p>Prior to and during work</p>	
<p>3. Slips Trips and Fall's</p> <p>Areas to be kept free from obstructions. Regularly clear away debris and residues as work progresses. Store equipment away from access egress routes. Cables to be routed so as to prevent slip and trip hazards.</p>	<p>Operative</p>	<p>Prior to and during work</p>	
<p>4. Manual Handling</p> <p>Loads to be manually handled will be:</p> <p>Diamond drilling equipment</p> <p>Operatives to receive a toolbox talk instruction on manual handling techniques and procedures identifying the use of Task, Individual, Load & Environment (TILE) and the correct kinetic method of lifting.</p> <p>Operatives will be assessed for their lifting capabilities and any existing back problems etc. taken into account when assigning tasks.</p> <p>Manual handling aids will be used to move loads such as trolleys and barrows to minimize the risk of potential injury. Team lifts used if required.</p> <p>Loads will be assessed for its weight and packages will be split down to reduce weight when moving items where possible.</p> <p>Routes to and from deliver and working areas where manual handling will take place will be maintained free from obstructions and any spills.</p> <p>The manoeuvring of any assembled towers will be in conjunction with their wheels ensuring that they are maintained to enable free rotation.</p> <p>All manual handling tasks will be supervised.</p>	<p>Supervisor</p> <p>Operative's</p> <p>Supervisor</p>	<p>Prior to work</p> <p>Prior to and during work</p> <p>Prior to and during work</p>	

Concrete Cutting Division

<p>5. Use of PPE All site operatives and will be issued with the appropriate PPE and trained in the use, care, maintenance and storage of all such equipment. All equipment shall comply with the latest Regulations and British Standards and bear Kite Marks and the company logo. All issued PPE shall be signed for by all site operatives in the PPE register.</p> <p>All equipment shall be maintained in a clean condition and shall be fit for its purpose at all times. All PPE shall be worn in the correct manner and not in any other way other than its intended purpose. No PPE shall be marked with any unauthorised markings or stickers.</p>	<p>John F Hunt</p> <p>Operatives</p>	<p>Prior to work</p>	
<p>6. Diamond Drilling Ensure competent supervision overseeing works Ensure trained and experienced operatives operating equipment are wearing gloves and ear defenders Any mandatory PPE required. Using 110v equipment, check leads are not damaged. Damp down concrete cutting process at all times Clear up debris and any generated slurry on a regular basis Keep all other site personnel away of work area, Equipment shall be "Fit for its purpose" and used in accordance with PUWER Regs All work areas shall be adequately lit at all times, ensure no shadows exist at any time Holes or voids formed during the drilling process are the Clients responsibility to cover up and make safe unless otherwise agreed before work commences</p> <p>7.</p>	<p>Supervisor</p>	<p>Prior to and during work</p>	
<p>Any Further Action Necessary to Control the Risk?</p>			

COSHH Assessments

COSHH Risk Assessment - Slurry The Control of Substances Hazardous to Health Regulations 2002 (as amended) Sixth Edition 2013							Assessment No.		21								
Site/Location		16a Lyndhurst Gardens															
Name of substance involved in the process:				Slurry created from cutting process				Manufacturer:		NA							
Hazardous Content:		Silica sands, grades of cement and cement modifiers, plasticisers and other cementitious compounds. The lime, calcium silicates and alkalis within the cement are partially soluble and when mixed with water will give rise to a potentially hazardous alkaline solution.															
Has consideration been given to using a less hazardous substance if applicable:							Yes		No		NA ✓						
Description of activity:		Cutting of concrete				Extent of exposure:		Dependant on activity									
In what form is the substance:		Gas		Vapour		Mist		Fume		Dust		Liquid		Solid		Other (state)	
										✓							
Exposed persons at risk from substance:				Employees ✓				Sub-contractors				Public					
Route of exposure:		Inhalation		Absorption ✓		Ingestion		Other (state)									
Is LEV (Local Exhaust Ventilation) required?				Yes		No ✓		Health effects: Potential for serious skin injuries, dermatitis, burns and ulcerations. Irritation to eyes.									
WEL		NA		LTEL (8 hr. TWA)		STEL (15 min)											
Hazard Classification:																	
																	
Respiratory		Explosive		Oxidising		Harmful Irritation ✓		Harmful to Environment ✓		Corrosive		Gas Pressure		Flammable		Toxic	
Hazards associated with Substance:																	
Cement mortar and concrete mixes may until set cause either irritant, contact dermatitis due to alkalinity, abrasiveness of the materials or allergic contact dermatitis due to hexavalent chromium salts. Skin: may cause serious burns and ulceration Eyes: may cause serious irritation. The eyes are particularly vulnerable and damage with increase with contact time and chemical burns can develop without pain being felt at the time. The addition of cements to water will, however, cause the pH to rise and may therefore be toxic to aquatic life in some circumstances. Should not be allowed to enter sewers and water courses. Water hazard class 2.																	
Controls:																	
It is of the highest importance that skin contact is avoided at all times.																	
<ul style="list-style-type: none"> Protective equipment – Goggles, Alkaline Proof Gloves, wellington Boots & Coveralls. Additionally use barrier cream to protect the skin from prolonged contact. Avoid standing or kneeling in slurry. After work is finished all footwear must be washed immediately and any wet spillages on clothing, contaminated clothing must be removed immediately to prevent serious skin burns. At the end of the works all PPE must be removed and hands and arm washed in running hot water. Wash hands during breaks and at the end of work. 																	
Monitoring of activity:																	
Visual monitoring of operatives skin condition and activity to ensure that process does not change and that controls are adequate and are adhered to.																	
Risk Rating						Health Surveillance											
High		Medium ✓		Low		Yes ✓				No							
Emergency and First Aid Procedures:						Firefighting Controls:											
Eyes – Flush for minimum of 15 minutes, seek medical attention. Ingestion – In the event of ingestion wash mouth with water and seek medical attention. Skin – Remove contaminated clothing, wash skin with copious amounts of water. If irritation occurs - see medical advice.						Not Applicable											
Storage requirements:																	
Spillage response:						Recover the spillage in a dry state if possible, Minimise generation of airborne dust. Do not wash down sewage and drainage systems or into bodies of water (e.g. streams).											
Disposal considerations:						Do not allow into drains or water courses. Wastes including emptied containers, are controlled wastes and should be disposed of in accordance with Local and National regulations made under the Control of Pollution											

COSHH Risk Assessment - Slurry The Control of Substances Hazardous to Health Regulations 2002 (as amended) Sixth Edition 2013		Assessment No.	21
Act and the Environmental Protection Act. Using information provided in this data sheet, advice should be obtained from the Waste Regulation Authority whether the special waste regulations apply.			
Assessed by:	Date:	Date of Review:	
Keith Kelsey	January 2014	After any change to process, activity or identification of improved or additional controls.	

3. Working Hours

8.00am – 16.30.00pm Monday to Friday.

Hours to be strictly adhered to unless otherwise authorised and work to start only when the full complement of workers are in place.

4. Assessment of Existing Services

Area to be free from live services prior to the commencement of work. Any live services to remain during the operation to be noted here:

5. Sequence of Work

- Attend site induction by G and F Solutions.
- Obtain proof of disconnection of any live services to the work area G and F Solutions.
- Briefed on contents of Safe System of Work and Sign off briefing sheet for work being undertaken.
- Obtain any permits to work required from G and F Solutions.
- Separation Cut Locations to be marked by G and F Solutions.
- Wear appropriate PPE.
- Install exclusion zone with signage.
- Set up equipment, power and water hoses.
- Commence drilling operation.
- Clear area of all materials, plant and equipment leave safe and tidy.
- Hand over area to G and F Solutions.

6. Safe Access and Egress Provision to Workplace

Access to the site will be via the identified site entrances as determined and managed by G and F Solutions. Vehicular movements to and from the site will be coordinated to ensure minimum disruption to other road users and neighbouring occupiers.

Safe access and egress to the work areas once on site will be identified and maintained by the G and F Solutions free from obstructions.

7. Protection Arrangements

To keep other contractors and visitors away from the works an exclusion zone will be formed separated from the remainder of the site works by a 'Chapter 8' fencing barrier with safety warning signage.

As noisy work cannot be eliminated suitable control measures shall be implemented to reduce the risk of noise induced hearing loss to operatives and third parties and to mitigate the effects of noise nuisance on surrounding areas using best available techniques. Noise zones will be established with signage displayed to warn others of the noisy works being undertaken in the area.

8. Training and Personnel Details

Operatives will attend G and F Solutions site induction prior to commencing work and obtain any necessary security passes.

All operatives receive a copy of this Safe System of Work and sign as having read and understood it.

All operatives have been trained to recognise ACM's if any remaining ACM is located in or on the structure, work will cease and the Site Management will be notified.

All supervisors and operatives hold the appropriate CITB CSCS, CPCS, SSSTS cards for their specific position along with additional training such as PASMA, IPAF, Manual Handling, First Aid.

Site Personnel

Position	Numbers
Contract Manager (Visiting)	Brendan Parker 07894 803140
Supervisor	TBC
Cutting Operative	
Cutting Labourer	

9. Plant, Equipment and Tools

- Drilling rigs
- 75 kva Generator
- Drill motors 110v
- 10kva Transformer
- Wet Vac
- Barrier tape and Signage.
- Hand Tools

10. PPE

Competent (trained and experienced) operatives carry out the work and they receive appropriate P.P.E. for the task and sign for it. The following personal protective equipment will be provided:

1. Hard hat (EN397)
2. Gloves
3. Eye/Face Protection
4. Safety Footwear (Mid sole BS EN 345)
5. Yellow Hi-Vis clothing
6. Respiratory Equipment
7. Peltor 3 Ear Defenders
8. Coveralls
9. Wet weather clothing
10. Full body harness

11. Welfare Provision

Welfare facilities will be provided by the Principal Contractor in accordance with Schedule 2 of the Construction (Design and Management) Regulations 2015 and incorporate The Smoke-free (Premises and Enforcement) Regulations 2006.

Adequate first aid provision is to be provided by the Principal Contractor.

12. Site Vehicle Control

All site vehicles and mobile plant are banked by trained banksmen and signs indicating vehicle routes will be posted on site by the Principal Contractor.

13. Environmental Considerations

Operatives will observe the Principal Contractors environmental management plan (Form MPF 6.1 G) and environmental policy. The work will include the implementation of Best Practical Means in accordance with BS 5228: Part 1 and as good practice the GLA/ALG procedures as set out in "the control of dust emissions from construction and demolition" Guidance.

14. Method of Work

Preparation

Prior to any cutting works the G and F Solutions representative will mark out all works with a waterproof marker or spray paint before our commencement of that operation. At this time they shall check the area to ensure no services are present. If they are detected, they must be made safe or isolated prior to works commencing.

It will be the responsibility of John F Hunt Ltd to ensure that all works are carried out safely and to notify G and F Solutions of any potential hazards.

All plant and equipment shall be installed on site in accordance with the manufacturer's requirements.

Adequate task lighting will be provided to the work area as required prior to work.

Methodology

The diamond drilling equipment will be delivered to site via site entrance, under direction from the site team the vehicle will be directed to the unloading area. A space shall be made available to us for the storage of our road tow generator for the duration of the works.

The drilling equipment will be taken to party wall area where the separation cuts are to be formed, the 110v 32 amp power cables will be run to the work area from the outlets on our generator.

The water lines will be connected to the outlet supplied, these shall have no leaks and where practically possible kept off the floor so as not to cause a trip hazard.

All loose debris/soil will have been removed from the top of the area to which we are to form our separation cuts by G and F Solutions, we require a clearance of 800mm minimum from the back of the separation cut of SOLID concrete to enable us to fix down the drilling rig using a M12 RAWL shell fixing. A 22mm hole will need to be percussion drilled approx 80mm deep for this.

Once the rig has been fixed to the structure being cut the drill motor and bit will be fitted as per the manufacturer's specifications, the water feeds and power lines will now be connected.

A series of 107mm overlapping cores will now be drilled to full depth of the mass filled foundations. We can only diamond drill solid concrete if the foundations are found to be loose we can only drill to the depth of the solid material.

Once the full length of the separation cut has been formed it will then be broken out by G and F Solutions.

Appendix A – Pictures & Diagrams.



Appendix B – Briefing Sign off Sheet.

Briefing Sign off Sheet			
Safe System of Work for Diamond drilling at Lyndhurst Gardens			
Date:		Talk Given By:	
Attendees			
I have been briefed or read and understood this method statement and will not deviate from it.			
	Name	Signature	Date
1			
2			
3			
4			
5			
6			
7			
8			
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11			
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20			
Operative Feedback and Suggestions If there are any comments or ideas on safer methods of working then write them here and discuss.			