FALLON

Method Statement & Risk Assessments



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PALL MALL, LIVERPOOL

02/07/2015

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1. Document Control

	Ram's Author	Contracts Manager	Site Manager	Approved
Name	Scott L Craddock	Alan Graham	Tommy Gill	
Position	Commercial Manager	Contracts Manager	Project / Site Manager	
Signed				

N/B Electronic version of this document contains no signatures.

Document History / Revisions

Issue No.:	Original	Rev 1	Rev 2	Rev 3	Rev 4	Rev 5
Date:	02/07/15	06/07/15				
Prepared by:	S, Craddock	S, Craddock				

Disclaimer

This document details our outline proposals for the methodology and sequence for the Demolition and to identify procedures and safe working practices to undertake the Demolition/Remediation of the site. Whilst great care is taken to provide clear precise Methods and Risk Assessment S Fallon and Sons (Contractors) Ltd reserve the right to revisit this document during the course of the works to amend, re access and reevaluate the working procedures.



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2. Scope of Works

Company:	S Fallon and Sons Ltd
Work Package:	Demolition of former Bus / Coach Depot
Title:	Pall Mall, Liverpool
Issue:	Revision 0
Date:	02/07/15
Compiled by:	S CRADDOCK
Client:	PHD1 Construction Ltd

Comments:

The Site





The Works

The works consist of the Demolition of former Coach and Bus Station located just outside the City Centre, Liverpool

The structures is predominantly Steel frame structures clad with steel profile sheeting (1 section is Asbestos Cement)

There is ample space to the rear of the building for lay down and processing purposes.

Program

		Rev	Approved
Commencement	20/07/15		
Duration	5-6 Weeks Demolition +		
	Processing		
Phases	1 Single		
Working Hours	08.00 - 17.30 – 5 Days		
	Sat – 08.00 – 14.30. No		
	Sunday Working		

A more detailed program can be found in Appendix 1

General Sequence & Scope of Works

Site arrival.

Induction. Internal Strip Out mainly to 2 office blocks. Removal of waste. Removal of Asbestos Cement Roof Erect measures for the control of debris. Mechanical demolition of structures – Carefully working within the realms of the structure. Processing of Material arising from the process. Back filling of Basements & compact.



3. Resources

The following resources have been assessed and will be deployed on this project.

Key Personnel

Commercial Manager	Scott L Craddock
Contracts Manager	Alan Graham
Project Manager	Alan Graham
Safety Consultants	Trustee Services
Sub-Contractors	G&R Scaffolders

Plant, Equipment, Labor & Materials

Equipment	Labour	Materials
360 ⁰ tracked excavators with demolition /	Project Manager – 1 Nr	Diesel,
process / handling attachments;	Site Supervisor –1nr;	Oil;
35 Mtr High Reach Demolition Rig	Demolition operatives – up to 6nr;	Greases.
Container skips;	Plant operators – up to 5 nr;	
MEWP	Banksman	
Lorries / Skip Lorries;	Burners	
Hand tools – pinch bars, shovels, bolt	Lorry drivers;	
croppers,	Sub-contractors.	
Stihl saw;	Crane Supervisor	
Cable locator,		
Oxy/propane cutting equipment.		

4. Assessment of General Observations and Risk

Risk of Respiratory illness:

- An Asbestos R&D Survey has been commissioned and a full set of RAM's covering this work will be drafted prior to commencement.
- Nuisance dust during demolition
- Any dust to be suppressed, i.e. damped down / Dust Boss
- PPE to be worn when handling MMMF, including disposable overalls, gloves, goggles, P3 or nasal facemasks.



Injury to unauthorised Personnel:

- The Client to provide fencing with safety signage. This will be erected around the site where necessary.
- SF&S Supervisor to check integrity on a daily basis;
- SF&S gate man to monitor entry and exit into works area;
- Barriers to be installed to define demolition exclusion zone if required, generally this will be Heras type (block feet & mesh panel) fencing.

SF&S managed plant maneuvers:

- Plant to have 360° vision;
- Plant to be operated by a competent driver, trained to CPCS/NPORS
- Plant to be guided by a banksman at all times;
- Plant to be regularly maintained

Risk of fall:

- All works at height to be undertaken from MEWP's or approved Man Cage and in accordance with legislation and to conform with the risk assessment;
- Where necessary, operatives to wear fall arrest equipment (harnesses and lanyards) and will be trained in the use of such equipment.

Fall of materials:

• Exclusion zone to be controlled at all times.

Environmental Considerations

- SF&S intend to execute the works with sympathetically to the surrounding environment.
- Dust To be controlled at all times by demolition techniques, spoil management and water suppressant.
- Ensure all waste is kept to a minimum and recycle materials where possible.

Continual Liaison

- Maintain a clear line of communication between the client and the site team via 2 way Radios.
- SF&S will have close liaisons with the relevant personnel to ensure the minimum disruption from our works.
- Suitable exits, fire escapes and access route will be kept clear throughout the works



Other topics of concern

Also, the following topics of concern are included in the attached Risk Assessment:

- Trespass by unauthorised personnel
- Access and egress
- Interaction with residents and public
- Plant operations & movement
- Contact with services
- Soft Stripping
- Physical Activities
- Disturbing bee/wasp nests
- Working at Height
- Manual Handling
- Health Hazards
- Hand held power tools
- Uneven working surfaces
- Cutting and Grinding
- Presence of Amphibole Asbestos
- Removal of asbestos cement sheets
- Handling MMMF
- Tanks and reaction vessels
- Mechanical Demolition
- Premature collapse
- Pulverising Dense Concrete
- Using hydraulic breaker
- Hot cutting.
- Fires & Explosions
- Storage of materials
- Refueling of plant
- Dismantling wooden structures
- Confined spaces
- Crushing operations
- Waste collection
- First Aid



5. Additional Control Measures

- All operatives and visitors will be required to sign on and off site daily, in addition to this, all visitors to the project will be escorted by a competent person;
- Operatives will report into PHD 1 Construction offices on a daily basis to sign in /out
- An induction and toolbox talk is to be given by the Site Manager in accordance with S Fallon and Sons Ltd company policy prior to commencing work on site;
- All power tools to be used are to be either 110V or cordless. A generator is to be used for 110V power;
- All plant operatives will be CCDO/CPCS registered and will have copies of their Certificate with them for inspection;
- All services are to be terminated at or beyond the site boundary by the client and
- written confirmation issued to S Fallon and Sons Ltd prior to any works commencing;
- Any existing remaining live services are to be identified by the client and notified to S Fallon and Sons Ltd;
- Permits to work are to be issued prior to any works commencing;
- After completion operatives are then to put on PPE as required (refer to Section 6) and transfer all necessary equipment to the working area.
- Mobile Crane c/w Blast Mat to control debris.
- Scaffold protection to 2 ends.
- Daily Activity Briefing to be recorder on PHD1 DAB's form.

During the site induction all personnel will be made aware of S Fallon and Sons Ltd Site Rules, Accident Reporting and Site Emergency procedures. Operatives will be required to confirm they have received the induction briefing by signature and a copy of this will be kept in the Site Manager's office.

All areas of work will be supervised at all times. It will be the responsibility of the Supervisor to constantly assess the ability of each operative both before and during with regard to the Individual's capabilities in respect of the work he has been assigned to do in terms of Experience, competence and most importantly, his ability to complete the work in a safe Manner without incurring risks to himself or third parties. The Supervisor will be in possession of a set of documents relating to the sequence of work.

As each new area of work is approached, the site supervisor will communicate with the site operatives in respect of the works to be executed, in which areas they are to be executed and, most importantly the factor of risk likely to be encountered during each specific operation.

6. Personal Protective Equipment

S Fallon and Sons Ltd will issue all site personnel with standard personal protective equipment. Each operative will have general protection issued by the aforementioned dependent upon the work in hand. Safety wear will generally comprise of the following:



Hard hats, nasal protection against high volume of dust, hand protection to exposed vulnerable areas, footwear against risk of penetration and impact, high visibility vests, safety glasses to protect against airborne dust during demolition and cutting operations along with hearing protection where required.

All personnel will be issued with the necessary PPE for the task in hand and must wear it at all times on site. Special PPE will be issued as necessary in the hazardous locations following site induction and / or issue of a permit to work.

See appendix 6 for asbestos PPE requirements

6.1 Personnel Protection Equipment to be used

Safety Helmet	у	Hi-Vis Cloth- ing	у	Ear Protection	у	Gloves	у	Respirators P3	
Safety Boots	у	Coveralls	?	Eye Protec- tion	у	Dust Masks		Safety Har- ness	

7. Emergency Arrangements

A suitable first aid box will be made available and S Fallon and Sons Ltd will supply a qualified first aid representative. Eye wash stations will be placed within the welfare facilities. The first aid box is located in the Site Managers office.

During the course of the works communication will be maintained through clear vocal instruction from the supervisor. Fire points will be placed in prominent positions and the fire assembly point will be identified with the appropriate signage. Should an emergency occur an 'air horn' will be used to attract the workforce attention.

S Fallon and Sons Ltd First Aid Representatives for this site are as follows:

• Tommy Gill (Site Manager) -full time

Accident Procedure

If an accident occurs the Site Manager will follow S Fallon and Sons Ltd emergency arrangements.

In the event of any accident occurring, a standard procedure will be adopted, a detailed record will be maintained on site in the accident book / file accident report form. Minor injuries will be treated in situ, if possible, by utilising a standard first aid kit available on site. More serious injuries will be treated by a suitably qualified off site party. In either event all parties requiring notification will receive it.



All accidents will be thoroughly investigated by the Site Manager. He will assess the degree of competence adopted, as to whether the incident is likely to re-occur if the methods adopted

continue to be used. S Fallon and Sons Ltd safety consultant will be informed of the incident and will undertake an investigation where required.

8. Temporary Amended Systems

Should it be necessary to re-route persons working on site to enable the works of S Fallon and Sons Ltd to be carried out safely, this will only be done after discussion with the client. In such instances, where Emergency Escape Routes may need to be diverted, the necessary signage will be provided by S Fallon and Sons Ltd and will be in compliance with the Health and Safety (Safety Signs and Signals) Regulations 1996.

9. Submission of Information

- Section 80/81 Notice;
- Confirmation of Service disconnections / Permit to Work
- Pre Tender H&S Plan;
- Service isolation certificates;
- Site service records;
- Operatives to sign 'Acknowledgement by Site Operatives' at the end of this method statement to confirm briefing.

S Fallon and Sons Ltd reserves the right to alter/amend, in consultation with the client, the Method of Working as a result of on-going operations.

Should the method of works alter significantly the Method Statement will be amended and resubmitted for comment prior to works proceeding.

10. Monitoring & Compliance

The Site Supervisor will check daily and, if necessary, hourly to ensure the works are progressing safely and in compliance with the Method Statement.

In addition, S Fallon and Sons Ltd Health and Safety Consultant, Trustee Services will inspect the works regularly.

11. Environmental Impacts

Noise Reduction Strategy

S Fallon and Sons Ltd will monitor noise levels during the course of the works. It is accepted that noise cannot be eliminated entirely, but reasonable steps will be taken to reduce any adverse effects of noise generated by the works on both the local residents and the occupants. Previous works of this nature have been carried out and have had noise assessments produced. A table summary of these results is shown below for reference. The nature of the works and type of



structures will allow controlled sectional removal of the structural elements using remotely operated plant. The nature and capability of the plant proposed to be used is such that all Operations will be carried out with the minimum amount of noise generated on the site.

Anticipated Noise Levels -

Activity	Noise produced at Source	Noise produced at site boundary minimum 40 metres
1, Background noise levels.	50-60 dB (A)	50-60 dB (A)
2, Traffic passing on roads.	Average 69dB(A)	Average 69dB(A)
3, Mechanical Demoli- tion with breaker at- tachment.	97 dB (A)	77 dB (A)
4, Mechanical Demoli- tion with shear attach- ment.	89 dB (A)	69 dB (A)
5, Mechanical Demoli- tion with pulveriser at- tachment.	86 dB (A)	66 dB (A)
6, Mechanical Demoli- tion with rotating grab attachment.	84 dB (A)	64 dB(A)
7, Mechanical Demoli- tion with bucket attach- ment.	81 dB(A)	61 dB(A)

Dust Control Strategy

The creation of dust has been identified as a potential cause for concern. This has been taken into consideration and we are to adopt a dust suppressive method of demolition. The main objectives are to both minimise the production of dust by controlled demolition methods and suppress any dust that is generated at source. All these points have been considered and counter measures are to be implemented as highlighted below.

• By using jets of water sprayed onto the demolition face to suppress dust release;



• By using jets of water sprayed onto all materials being handled by mechanical plant, i.e. crushing activity.

Assessment:

• Dust Boss (Dust Suppression)

C.O.S.H.H. The following products will be brought to site for use by S Fallon and Sons Ltd:

Product:	<u>COSHH</u>

Gas Oil Fuel	on site
Lubrication Grease	on site
Hydraulic Oil	on site
Engine Oil	on site

Fuel will be stored on site in bunded bowsers with manufacturer fitted pumps and nozzles for discharge. Nozzles will be locked within the bunded area when not in use. Drip trays will be used when filling into or discharging fuel from the bowser.

Fuel will be pumped directly into plant fuel tanks from the bowser. Oils will be dispensed from containers into measuring jugs then directly into plant. Absorbent spill granules will be available on site for use in the event of any spillage occurring.

12. Interfaces with others

To enable the demolition works to be carried out safely, the site will be excluded from other contractors, members of the public & unauthorised visitors and declared an **Active Demolition Zone** and controlled accordingly. Visitors shall be escorted at all times.

13. Site Establishment, Special Requirements & Preparation Works

Welfare facilities will be established by the client and adopted for our use.



14. Method of Work

General Sequence & Scope of Works

- 1. Site arrival.
- 2. Induction.
- 3. Removal of internal loose debris.
- 4. Internal 'Soft Strip'
- Erection of Scaffold to form protection to adjoining properties and Pavements (by Client)
- 6. Mechanical demolition of structures.
- 7. Removal of slab.
- 8. Removal of Columns.
- 9. Backfilling of excavated Basement following demolition process.
- 10. Continuous waste away & Scrap Material loaded into client transport.
- 11. Keeping the area clean and tidy.

Site arrival

Competent and experienced S Fallon and Sons Ltd operatives will arrive safely to site and receive induction from PHD 1 Construction Site Manager or nominated representative. Operatives will manage the delivery of the specialised demolition excavator with rotating 360 degrees attachment to the site. This will be a banked movement by competent S Fallon and Sons Ltd operatives and a competent plant haulier.

Due to the location of the site it may be necessary to liaise with the local residents and out of Normal working hours deliver the plant to site and track the machine to the site.

Delivery Schedules are;-

Monday 20 th	-	Volvo
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- Volvo 360BLC Demolition Rig
 CAT 345 Excavator
- Doosan 300 / Hyundai 300
- Dust Boss
- CAT318 c/w Grab



DEMOLITION PHASE

<u>Set Up</u>

The structure will be subjected to an extensive Strip Out operation.

With the HERAS fencing erected a 'drop' zone will be formed surrounding the skip container this will be secured.

The 2 office blocks will be systematically stripped out. All Soft material, timbers doors, frames skirting's and architraves will be removed using hand tool such as bars, Matocks and hammers.

All material will be passed out of one of the 2nd floor windows into the awaiting Skip Container within the fenced drop zone.

All walkways, entrances and egress routes will be kept clear of all debris so as evacuation routes can be used in case of emergency. The Fire Plan will be altered and adopted throughout the works as the building is being stripped out.

All M&E will be removed, leaving the structure ready for Demolition.

All plant will be delivered to site and off loaded at the designated point. The excavators will be assisted off the Low Loader by the Banksman and Operator.

Preparation of the Structure

A MEWP will be delivered to site.

A set of burning equipment will be established at ground level, and a set of pipes will be passed from the roof level and be connected to the bottles.

Due to the front façade wall being left in situ following the Demolition, Trained operatives will prepare the Structural Steelwork at the connection to the wall / Stanchion. A 'Sit Cut on the' roof truss using Oxy Propane cutting equipment will be made leaving a significant 'tag' holding the Truss Secure.

During this process G&R Scaffolding will construct a temporary Scaffold frame over the Sub Station to protect the internal elements.

At this stage the control measures will be established, these include:-

- Dust Boss for dust supressing
- High Reach excavator / demolition rig.
- 2 Way communication established.
- Full Team Briefing
- Liaise with the neighbouring business (Car Dealer) to move vehicles from the Boundary Wall.



The Demolition Rig will be established to the rear of the site. A mobile 'Dust Boss' will also be connected to supply and the mist screen established.

At this stage the dismantling process will commence.

Using the demolition rig fitted with a Scrap Shear, the roof sheets will be removed and lowered to the ground. These will be cleared using a secondary excavator fitted with a Demolition Grab, stockpiled and eventually loaded into a Bulker and removed from site. At the top of the structure will be carefully sheared and dismantled.

The Demolition Rig will now proceed through the building working from one side of the structure towards the 4 storey building in the centre of the site in accordance with BS6187 Demolition Code of Practice. The Steels will be taken from the structure and laid down in the processing area as previous.

As the demolition process proceeds the exterior wall marked for retention will be stepped in accordance with BS6187 Demolition Code of Practice. The Project Manager will arrange for a smaller Mini Digger excavator fitted with a Breaker to remove the block work and brickwork to the infilled Windows Adequate Pavement protection will placed in the area to protect both the services and the pavement surface.

During the course of the 1st phase (Right hand side of the 4th storey structure) the Asbestos Roof will be removed (Separate RAMS).

The Demolition Rig will now start to demolish the left hand side of the structure working away from the 4 storey retained block.

Using the CAT345 the 2 office blocks will be demolished in the conventional way, again utilizing the Dust Boss for suppressant.

Generally All loose debris emitted from the structure during the demolition will be cleared, the road & pavement will be swept following the works.

Slab Removal / Crushing

Using the CAT 345 fitted with a Demolition Hammer, the Floor Slab will be broken up as the demolition process proceeds.

Using a 3rd machine the slab will be lifted and processed to size to suit the crusher. The re enforcement Bar will be stockpiled and removed from site in Artic Baulkers. All movements on site will be monitored and controlled by the Site Banksman.



All of the generated material from the excavation will be Crushed to 6F2 (75mm>).

The generated material from the crusher will be Stock pilled at the agreed location by the client.

The area will be cleared of all debris, and de camped of all machinery, fencing and equipment.

The area will be inspected by the client and passed as complete.

15. Reference Documents

Legislation and codes of practice

All work will be carried out in accordance with current legislation, with particular regard to the following.

- Health & Safety at Work Act 1974
- Confined Spaces Regulations 1997
- The (COSHH) Control of Substances Hazardous to Health Regulations 2002
- Construction (Design & Management) Regulations 2015
- The Management of Health & Safety at Work Regulations 1999
- Personal Protective Equipment at Work Regulations 1992
- The Construction (Head Protection) Regulations 1989
- The Health & Safety (Safety Signs & Signals) Regulations 1996
- Control of Noise at Works Regulations 2005
- The Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 1995 (RIDDOR)
- The Provision & Use of Work Equipment Regulations 1998
- The Manual Handling Operations Regulations 1992
- The Work at Height Regulations 2005
- The Control of Vibration at Work Regulations 2005

References

BS 6187	Code of Practice for Demolition
HSG150	Health and Safety in Construction 3 rd Edition
BS EN 397	Industrial Safety Helmets
BS EN 166	Personal Eye Protection
BS 5228	Noise and Vibration control on construction and open site
BS EN 420	Protective gloves; General requirements
EN 345	Steel Toed Safety Boots
EN 471	High Visibility Vest Class 2, as a minim



16. Acknowledgement by Site Operatives

Method Statement: Rev:

Briefing given by: Site Manager/ Supervisor.

l con	I confirm that I have read and understood the above method statement and any comments or queries I have regarding it's execution are noted below				
Name	Date Signed Comments		Date	Signed	Comments



S FALLON AND SONS LTD

EXISTING SITE SURVEY (SERVICES)

ELECTRICITY – Present on Site	Yes	No
Are they to be terminated at the site boundary	Yes	No
Whose responsibility is it to terminate them? Please State		
When are they to be terminated	Date:	

GAS – Present on Site	Yes	No
Are they to be terminated at the site boundary	Yes	No
Whose responsibility is it to terminate them? Please State		
When are they to be terminated	Date:	

WATER - Present on Site	<mark>Yes</mark>	No
Are they to be terminated at the site boundary	Yes	No
Whose responsibility is it to terminate them? Please State		
When are they to be terminated	Date:	

DRAINAGE - Present on Site	Yes	No
Are they to be terminated at the site boundary	<mark>Yes</mark>	No
Whose responsibility is it to terminate them? Please State	Yes	No
Are they to be capped	<mark>Yes</mark>	No
When are they to be terminated	Date:	

ARE SERVICE DRAWINGS IN OUR POSSESSION	Yes	No
ARE OVERHEAD SERVICES PRESENT	Yes	No
ARE ANY SERVICES INCLUDING GAS/WATER/DRAINS/CULVERTS /FIBRE OPTICS/TELE-	Yes	No
coms/combined sewer-separate system/electrics/ steam – To remain live		
and in use whilst the demolition works are undertaken		

