METHOD STATEMENT

The Russell Hotel

Enabling Works:
The Careful Dismantling of Existing Terracotta.

CONTRACT NO - 56522

DATE: January 2016 **ISSUE NO: Draft**

Principal & Specialist Contractors in Restoration, Conservation & New Build Masonry

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Review/Revision	Date	Reviewed By	Date of Re-issue	What Has Changed
Initial Draft Issue	Jan 2016			

a) APPROVALS

Approved By	Title	Signature
IAN TOLLIDAY	**Director – Special Projects**	

b) CIRCULATION

Copy No.	Issued to:	Location:
01	**SWL – Head Office**	**Crystal Palace**
02	**Jacob Russell**	**Site**

CONTENTS

1.0 RELATED DOCUMENTS

1.0 Stonewest Ltd Health and Safety Policy parts 1 and 2 available upon request

2.0 NATURE OF WORKS

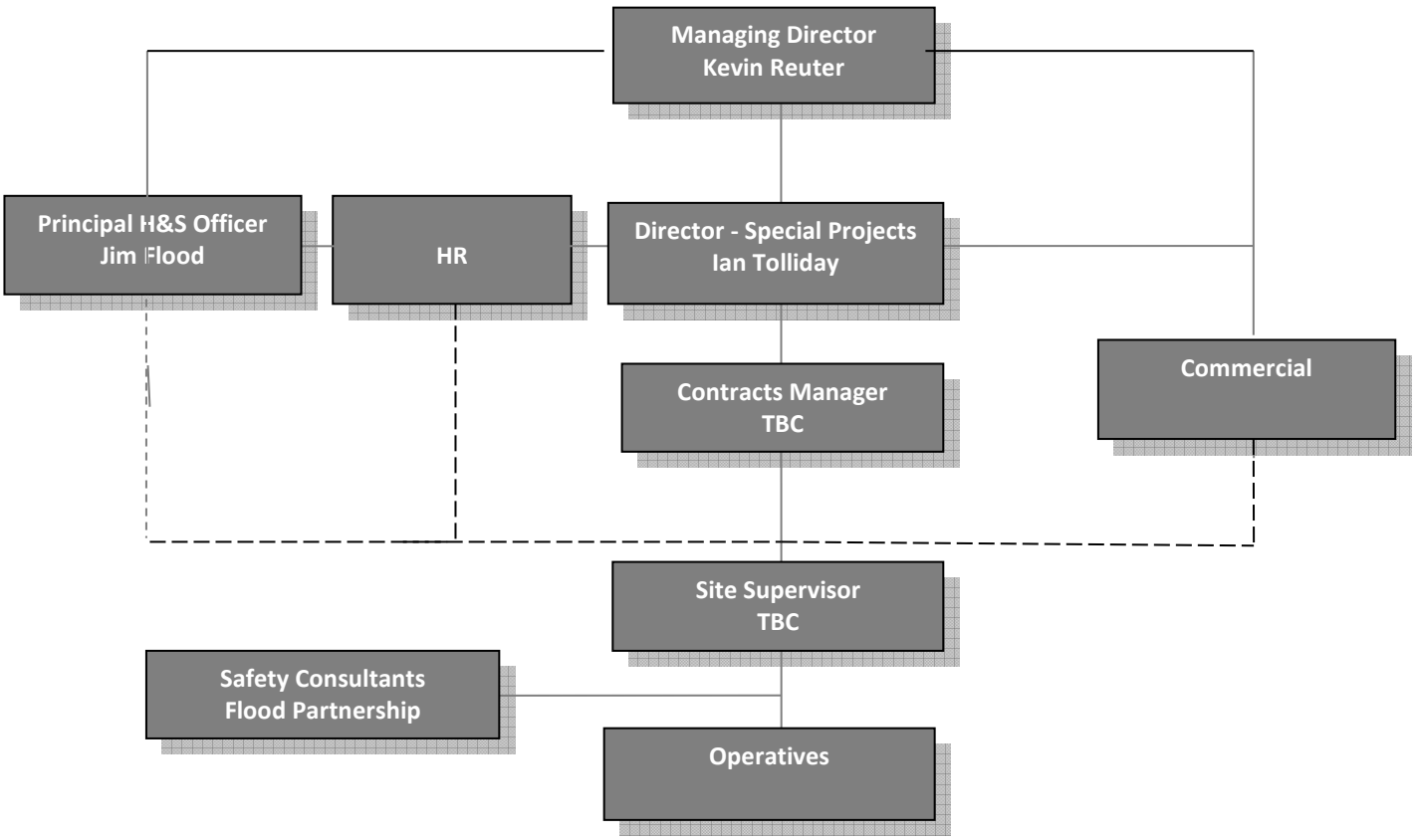
The works described in this Method Statement shall comprise of the following:

The detailed recording of the existing Terracotta in situ which will comprise of a photographic survey complete with a spreadsheet detailing any existing defects/damage. Palletisation of the removed Terracotta for storage off site

The careful dismantling of the Terracotta that is required to be removed to facilitate the hoist run offs to allow general construction materials to be taken into the Hotel for the main internal fit out works.

3.0 PERSONNEL & RESPONSIBILITIES

3.1 OVERALL MANAGEMENT STRUCTURE



3.3 ROLES & RESPONSIBILITIES

Contracts Director

Ian Tolliday	Tel:	020 8684 6646
	Mobile:	07850 794365

Overall responsibility for managing the contract and delegating duties to the contract team. Responsible for all surveying and planning services, liaison with all the Managers, Officers and Contractors involved in the contract on behalf of Stonewest Ltd. Also responsible for quality control and overall project management

Contracts Manager

TBA	Tel:	020 8684 6646
	Mobile:	TBA

Responsible for day to day Site Management and quality control, liaison with the Client at site level and maintenance of site records, and site safety risk assessments. All Stonewest personnel arE to out the personal record form and attend the S&T Site Induction prior to commencing any works on site.

Site Supervisor

TBA	Tel:	020 8684 6646
	Mobile:	TBA

Responsible for organising delivery the stonework to the work areas. Liaison with the Project Manager and ensuring that the materials are on site in a timely fashion. Also responsible for quality control issues.

4.0 SITE RULES

Prior to starting works on site all operatives will attend The S&T Interiors Limited (S&T) site induction, where they will have their CSCS and applicable plant operator cards ready for inspection and photo copying by S&T for their records.

No operatives or plant operators will be allowed to commence works on site until the appropriate CSCS & CPCS cards have been inspected and approved by S&T

All operatives will adhere strictly to the site rules a copy of which will be handed to each individual on arrival on site along with a copy of this method statement and risk assessments. Method Statement, Risk Assessment, COSHH Assessment briefings will be undertaken prior to the site induction and commencement of the works.

The Stonewest Supervisor will ensure that adequate precautions have been taken to ensure a safe working environment on a daily basis.

5.0 PLANT & EQUIPMENT

5.1 OPERATORS OF PLANT & EQUIPMENT

Operators of plant and equipment are to be appropriately trained. Their plant operator cards (CPCS) are to be checked before they start work on site by the Site Supervisor or the Working Foreman. All relevant certificates will be kept in the safety file on site and issued to S&T for their information and records. S&T are to induct the plant operators into the site traffic management plan which will show the routes to be used to deliver materials to the working areas.

5.2. PLANT AND EQUIPMENT

Operators of plant and equipment are to be appropriately trained. Their certificates of training (CPCS) are to be checked before they start work on site by the Site Supervisor or the Working Foreman. All relevant certificates will be kept in the safety file on site and issued to S&T for their information and records.

Plant and equipment supplied to site is to be checked by competent persons before they are delivered to site. Before plant equipment is used on site they are to be checked by the Operator and the Working Foreman to ensure they are in good order and entered as such on the weekly plant checklist.

Site plant and equipment is also to be checked by the Safety Officer when inspecting the site. Site plant and equipment found not to be in good order would be taken out of use and removed from site. Operatives are to report plant and equipment defects immediately to the Site Management.

All plant will be PAT tested and marked prior to delivery to site and as required by current legislation as the works progress.

5.3 PLANT TO BE USED:

- 9" Angle grinders
- 5" Angle Grinders
- 500kg Block and Tackles
- I Tonne Lifting Straps

All abrasive wheels for the grinders/Stone cutters will only be changed by a competent trained person. Our Site Supervisor, (TBA) will be the appointed person.

All plant will be visually checked prior to each shift and inspected weekly by the site supervisor. The findings of the inspection will be entered on to the P.U.W.E.R. checklist located in the Stonewest Health and Safety File.

6.0 SITE ELECTRICS

Only 110v electric power tools are permitted to be used. Appropriate electrical testing will be carried out on all plant, including temporary supply (by S&T) during the progression of the works.

TRANSPORTING OF BUILDING MATERIALS AND EQUIPMENT

The operatives will access the works through the exterior access onto the scaffolding. Egress from the site will be the reverse of the above.

Where possible, trolleys and bogeys will be used on the scaffolding to keep manual handling to a minimum. The transporting of the materials will be in strict accordance with the site traffic management plan

Lifting rails/points will need to be installed onto the main scaffolding running longitudally along the facades directly over the centre line of the Terracotta that is to be dismantled. The dismantled stone, where possible, will be lowered via the running rail/points and block and tackle. The lifting rails that are supplied by others to Stonewest Limited, and as such should be inspected weekly by the scaffold contractor.

Stonewest will visually check the rails prior to each shift and report any defects to the scaffolder for rectification as required

7.1 ACCESS WAYS

Access ways and all fire escapes are to be kept free from obstructions at all times around the work area. The work area will be fully enclosed whilst the works are in progress.

8.0 MANUAL HANDLING

The lifting of material and equipment will be a heavy operation, therefore, to prevent persons straining appropriate lifting aids, i.e. block and tackles, lifting straps, lewis pins etc. are to be provided, or in some cases two or more operatives may be needed.

The running rails/lifting point will need to be of a height to allow for the length of the straps plus the stone height to be able to traverse the stonework.

UNDER N0 CIRCUMSTANCES WILL STONEWORK BE LEFT UNATTENDED WHILST SUSPENDED FROM ANY LIFTING EQUIPMENT. FAILURE TO COMPLY WITH THIS RULE WILL RESULT IN IMMEDIATE DISCIPLINARY ACTION WHICH COULD RESULT IN REMOVAL FROM SITE.

All loads that require slinging will be carried out by certified slingers, again, the certificates of competency will be provided to S&T for their records.

The slings have a loop on each end that allow them to be attached safely to the hook of the block and tackle

All lifting aids will be certificated prior to delivery to site, checked before each shift and inspected weekly on the with the findings being recorded on the L.O.L.E.R. inspection Checklist located in section 6 of the Stonewest Limited site health and safety file with an additional copy being issued to S&T for their records

9.0. STORAGE

A safe area will need to be made available to us for the following:-

1) Storage of materials i.e. Terracotta Pallets prior to collection
2) Lock up boxes for plant and tools.

10.0 METHOD OF WORKING

All works undertaken will be in accordance with the statutory requirements and the Stonewest Health and Safety Policy parts one and two, copies of which will be kept in the safety file on site.

Terracotta Dismantle Methodology

Photographic and Existing Defect/Damage Survey

The Terracotta units that are to be removed will each be given a unique reference/number and that reference will be applied onto the relevant drawing. Following this, a detailed photographic survey will be carried out of the Terracotta units as well and each photograph will be annotated with each reference number

A spread sheet will be formulated that will have the dimensions of the Terracotta unit as well as the existing bed joint size to enable accurate re installation to maintain the exact details as was built originally .

The accompanying spreadsheet will also have a synopsis of any existing defects or damage to the units prior to dismantling

The Careful Dismantling of the Terracotta units

NOTE

It is currently assumed that the window heads are supported by a steel beam as well as steel bars reinforcing both Mullions and Transoms. At the time of formulating this method statement, S&T were unable to confirm this is the case. In the event that there is no existing support for the window heads, a temporary works design would have to be carried out by S&T which would be covered by a separate Method Statement.

1. The scaffold design will be undertaken by S&T to establish the correct lift heights and loadings required of the scaffolding to carry out the works in a safe manner. The running rail/lifting point requirements will form part of this design. Any adaptations necessary will be the responsibility of S&T.

2. Areas of adjacent work are to be protected plus double boarding and plastic sheeting to the bottom working lift. Any gaps between the lifts and the building should be infilled with plywood sheeting (By S&T) to prevent the falls of debris. All protection is to be completed before works commence.

3. Photographs of the Terracotta on all elevations, as existing, will be taken to aid the identification and existing positions of the individual stones.
4. All electrical services and fittings that are fixed to the stonework shall be removed by others and set aside. We will also require confirmation that any remaining services are redundant.

5. The existing metal Ballustrading will be removed by using a reciprocating saw to cut through the legs as close to the balcony floor as possible. We would then release the railing from the adjacent one by removing the fixings at the vertical joints.

6. Following removal of the metal Balustrade, the takedown of the Terracotta will then commence from top down working through each course and will commence with manually cutting through the stone joints to all areas with power tools, such as Fein saws, circular saws and tungsten tipped saws. Using fine chisels and handheld fine metal blades gently hammered into the bed joint, the bed of the stone will be broken along the bottom bed of the upper most stones and any existing metal fixing sawn through.

   Dust suppression will be controlled by the use of hand held water sprays

7. The Terracotta unit will then be carefully lifted from its position, and moved along the scaffold away from the work area to have any existing bedding material cleaned off, prior to taking down to the pallet at low level for storage and subsequent removal from site.

8. Prior to being put on pallets, each stone will be numbered in accordance with the drawing and indelibly marked with its unique reference.

9. The dismantled and cleaned off Terracotta, will be carefully packed onto the pallet and polystyrene softening will be placed between each unit before shrink wrapping to ensure that no damage can occur in transit

10. The sequence will remain the same for the remainder of the Terracotta unit's, removing one stone at a time, cleaning off any existing bedding material, palletisation and storage.

11. Once on pallets the Terracotta will be shrink wrapped and labelled in accordance with the pallet schedule which will record stone numbers per pallet.

12. The pallets will then be safely secured to await collection by a Stonewest vehicle for transportation to secure offsite storage.

The Lorries will enter the site through the designated route and proceed to the loading area. There will be no requirement for any Stonewest Limited operatives to access the lorry bed during this operation

It is critical that all handling of the stones is kept to an absolute minimum to reduce the risk of damage and that the correct lifting equipment is used at all times.

Refixing of the Terracotta units on completion of the Main Works

1. The previously dismantled Terracotta is to be delivered in the agreed sequence from storage to the agreed delivery location in line with S&T delivery procedures.
2. All mortar based materials will be delivered in bags of under 25kgs and will be moved in line with the current manual handling guidelines.
3. The Terracotta will be carefully unpacked and checked against the photographic and written schedule.
4. The units will be placed upright on polystyrene and cordeck softener and so they can be back filled with Lytag, light weight concrete infill and left to cure for a minimum of 24 hours.
5. The units will then be taken up the scaffolding by means of the hoist and by utilising 4 wheeled rubber matted trolleys to the designated fixing location.
6. The area previously dismantled by our masons is to be wetted down using sponges; a mortar bed made up of 4 parts sand and 1 part cement (4:1) mortar will be applied. The Terracotta will be carefully lowered onto the mortar bed and using a rubber mallet, tapped gently into position to achieve both line and level.
7. Using hand held trowels with mortar, using the same mix as specified carefully pack joints until solid; on completion rake back front face of joints to a depth of twice the width of the joint. So finish face pointing can be completed using the mixes agreed with the Architect on site.
8. Note, any stones weighing over comfortable manual handling weights will be lifted into position using block and tackle and certified straps, all documentation for these will be held in the H&S file in our site office.
9. All stones will be fixed together using 100mm long x 10mm diameter stainless steel dowels.
10. Materials will be transferred to scaffolding as required by the Contractors sequence - no materials will be stacked on the scaffold for long periods of time.

Operative Competencies required-:

- Mason - Trade Specific CSCS Card
- Masons Mate - Trade Specific CSCS Card
- Trade Supervisor - Specific SSSTS Card
- Contracts Manager – SMSTS Qualification

We do not envisage using any young persons on site. If this situation changed, we would carry out a specific risk assessment.

LIAISON

Because of the close interface between trades, liaison meetings (as required) with the preceding contractors will be required to ensure continuity of work for trades to meet the programmed dates.

11.0 HEALTH AND WELFARE

11.1 ACCIDENTS

All accidents, dangerous occurrences or near misses are to be reported to Stonewest Limited Project Supervisor (TBA) as well as adhering to the requirements of RIDDOR regulations. All accidents are to be entered into the site accident book and copied both to S&T and Stonewest Head Office.

11.2 FIRST AIDERS WILL BE PROPERLY TRAINED BY AN HSE APPROVED TRAINING BODY

For construction sites, where there are less than five Employees, there is no statutory duty to have a First Aider, but the company will ensure that as a minimum an 'appointed person' is present to take charge of the situation if a serious injury or major illness occurs. An appointed person is someone who has attended a one-day HSE Approved First Aid Course. However, it is always advisable to have a trained First Aider available. Our site Supervisor is a trained first aider

11.3 FIRST AID KITS AND BOXES – LOCATED WITHIN THE S&T SITE OFFICES

All premises and places of work will have an appropriate amount of complete first aid kits. First aid kits/boxes will be easily accessible for the first Aiders/appointed persons. Boxes/kits will be checked frequently to ensure they are fully stocked and that all items are in a useable condition. First aid boxes/kits locations will be clearly identified with a first aid sign. Only specified first aid contents will be allowed in first aid kits/boxes as detailed in the HSE Guidance Notes. All first aid cases that are treated will be recorded in the accident book.

11.4 WELFARE

Arrangements for washing, changing and toilet facilities are to be provided by S&T. Site rules and security arrangements are to be adhered to at all times

11.3 PERSONAL PROTECTIVE EQUIPMENT

All site personnel are required to wear all appropriate clothing and equipment at all times whilst working within the site compound. Specific Personal Protective Clothing and Equipment is required for differing systems and these are clearly described in the technical literature for each system.

a) Stonewest Limited Safety helmets are to be worn at all times on site.
b) Safety footwear – appropriate safety footwear will be worn by all persons at all times whilst on site. Stonewest operatives are all face fit tested and will provide evidence of this at induction
c) Gloves – To be worn at all times
d) Overalls – appropriate overalls are optional
e) Eye protection will be worn at all times whilst on site, apart from in the designated areas.
f) Mask of the appropriate type will be worn when and where required as specified on the relevant job specific Risk Assessment.
g) Ear protection will be worn when noise levels are above 85db (A)
h) Stonewest Limited Hi-visibility vests are to worn at all times on site.

ALL PPE IS TO BE KEPT IN A CONDITION WHICH LOOKS PROFFESIONAL AND TIDY.
Replacement PPE will be kept on site to ensure this will continue throughout the project

Further guidelines with regards to wearing protective clothing and equipment will be read before using substances of a hazardous nature. This information will be contained in the COSHH Safety Data Sheets. COSHH Assessment sheets will be supplied to the site before materials are used.

11.5 WASTE DISPOSAL

There is no “Special Waste” arising from the works. The waste generated by carrying out the Installation of the Stonework can be placed in general waste skips

APPENDICE 1

RISK ASSESSMENTS

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RISK ASSESSMENT

Assessor - Ian Tolliday	**Client: S&T Interiors**	**Page: 1 of 2**
Date of Assessment: 1ST February 2016	**Project Address: Russell Hotel, Russell Square, London**	
Nature of Works: Dismantling Existing Terracotta and Subsequent Re building works	**Persons at risk: Operatives**	

Activity	Risk	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Manual Handling	• Back injury caused by incorrect lifting	3	4	**12**	• All operatives to receive correct training in lifting procedures	**4**
	• Foot injury caused by dropping equipment	3	4	**12**	• Scaffolding to be kept clear of all debris, leads etc	**4**
	• Trip hazards on scaffold	3	4	**12**	• Block and tackle to be used to lift all heavy equipment • All electrical power lead to be kept clear of ground • Operatives to wear correct PPE • All operatives to be trained in the method of work and tool operations	**4**

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Risk Assessment Completion Guidelines

Risk Rating System

Each operation within the project will be assessed to identify potentially hazardous activities from which the significant risks can be ascertained. A rating of risk is then made by assessing the severity of any injuries or other loss and the likelihood of that injury or loss arising. This calculation is made before any control measures are implemented.

Calculation of Risk Rating

Ranking of Severity

Score	Severity
1	Minor
2	*Moderate*
3	*Moderate to High*
4	*High*
5	*Catastrophic*

Ranking of Likelihood

Score	Likelihood
1	Very Remote
2	Unlikely
3	*Possible*
4	*Very Possible*
5	*Certain*

Once an assessment of severity and likelihood has been made, the score of each is multiplied together to produce a risk-rating figure. The matrix below can then be addressed:

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

Minor Risks	*1 to 6*	No further action needed
Medium Risk	*8 to 12*	Further control measures needed before works start
High Risk	*15 to 25*	Further control measures and specialist guidance needed before works start

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RISK ASSESSMENT

Assessor: Ian Tolliday	**Client: S&T Interiors**	**Page: 1 of 2**
Date of Assessment: 10st February 2016	**Project: The Russell Hotel, Russell Square, London**	
Nature of Works: Dismantling Existing Terracotta and Subsequent Rebuilding Works		

Activity	Risk	Persons Affected	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Working at Height	• Falling from Height • Dropping materials from height • Lifting of materials	Operatives Public Other trades	3 3 3 3 3 3	4 4 4 4 4 4	**12** **12** **12** **12** **12** **12**	• Work only to be carried out within the confines of the scaffold provided. Scaffold to be completed to the required safety standard i.e. handrails at required centres, toe boards on all working lifts and safe means of access and egress. • Where materials are to be stored, brick guards will be required. • Any activity outside the above parameters will require a specific risk assessment to be in place prior to being carried out. • Experienced operatives to wear correct PPE as COSHH statement for activity. • Scaffold kept in good condition. • Safe storage of materials. • Operatives to abide by the safety regulations in place.	**4** **4** **4** **4** **4** **4**

Risk Assessment Completion Guidelines

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	3	*15*	*12*	*9*	*6*	*3*
	2	*10*	*8*	*6*	*4*	*2*
	1	*5*	*4*	*3*	*2*	*1*

Minor Risks	*1 to 6*	No further action needed
Medium Risk	*8 to 12*	Further control measures needed before works start
High Risk	*15 to 25*	Further control measures and specialist guidance needed before works start

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RISK ASSESSMENT

Assessor: Ian Tolliday	**Client: S&T Interiors**	**Page: 1 of 2**
Date of Assessment: 01/02/16	**Nature of Works: Dismantling Existing Terracotta and Subsequent Re building works**	
Project Address: The Russell Hotel, Russell Square, London		

Activity	Risk	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Dust Inhalation Control of Dust	Dust generated by the use of disc cutters and saws and hand tools Dust generated by the use of disc cutters and saws and hand tools..	4	4	**16**	. • Where cutting has to be carried out, use dust control methods i.e. water spray bottle. • Operatives to wear correct PPE as required by site rules, Hard Hat, Safety Boots and High Vis. • Goggles area mandatory where any cutting is being carried out. • Use of experienced operatives. • Cutting equipment to be in good condition, certificated where applicable. • Operatives to abide by the safety regulations in place. • Isolate area from unauthorised personnel. • Operatives to be Face Fit Tested • RPE – PP3 Masks with Filters are to be worn at all times when creating a risk of Dust	**4** **4**

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Risk Assessment Completion Guidelines

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	3	*15*	*12*	*9*	*6*	*3*
	2	*10*	*8*	*6*	*4*	*2*
	1	*5*	*4*	*3*	*2*	*1*

Minor Risks	*1 to 6*	No further action needed
Medium Risk	*8 to 12*	Further control measures needed before works start
High Risk	*15 to 25*	Further control measures and specialist guidance needed before works start

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RISK ASSESSMENT

Assessor: Ian Tolliday	**Client: S&T Interiors**	**Page: 1 of 2**
Date of Assessment: 01.02.2016	**Nature of Works: Terracotta Fixing – Portable Electrical Equipment**	
Project Address: The Russell Hotel	**Persons at risk: Operatives, Other trades, Public**	

Activity	Risk	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Portable Electrical Equipment Use of Small Plant, Power Tools & Hand Tools						**3**
	1. Electrocution	3	4	**12**	1. Work only to be carried out within the confines of the work space provided.	**3**
	2. Fire	3	4	**12**		**3**
	3. Damage to equipment	3	3	**9**	2. Provision of a safe means of access and egress for materials and operatives.	**3**
	4. Tripping over electrical equipment	3	4	**12**	3. Any activity outside the above parameters will require a specific risk assessment to be in place prior to being carried out.	**3**
	5. Eye injury	3	4	**12**		**3**
	6. Hand, foot or body injury	3	4	**12**	4. Leads/extensions cables must not trail across walkways and should be routed along skirting or hung above ground if necessary to prevent trips. 5. All equipment found to be defective must be switched off and reported immediately. 6. All portable electrical equipment will be identified individually and is subject to planned maintenance this includes a three monthly test and inspection. (PAT test) 7. Operatives to wear correct PPE, i.e. hard helmet, gloves, goggles, safety boots, dust masks and hi-vis vests 8. Use of experienced operatives. 9. Safe storage of materials. (not to be allowed on scaffold) 10. Operatives to abide by the safety regulations in place. 11. Operatives will be trained in the precautions and safe use of portable electrical equipment by use of a Tool Box Talk	

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Risk Assessment Completion Guidelines

Risk Rating System

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	2	*10*	*8*	*6*	*4*	*2*
	1	*5*	*4*	*3*	*2*	*1*

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RISK ASSESSMENT

Assessor: Ian Tolliday	**Client: S&T Interiors**	**Page: 1 of 2**
Date of Assessment: 01.02.2016	**Nature of Works: Terracotta Fixing – Slips Trips & Falls**	
Project Address: The Russell Hotel	**Persons at risk: Operatives**	

Activity	Risk	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Slips, trips & falls	• uneven floor surfaces	3	4	12	• Spillages clean up all spillages immediately.	4
	• unsuitable floor coverings	3	4	12	• Trailing cables Try to place equipment to avoid cables crossing pedestrian routes and use cable guards to cover cables where required.	4
	• wet floors	3	4	12	• Change of surface from wet to dry Ensure suitable footwear is worn, warn of risks by using signs and locate doormats where these changes are likely.	4
	• changes in levels	3	4	12		
	• trailing cables	3	4	12	• Slippery floor surfaces assess the cause of the slipperiness and treat accordingly, for example treat chemically and use appropriate cleaning materials and methods. In some cases you may need to repair or replace the floor surface.	4
	• poor lighting	3	4	12	• Changes in level and slopes Improve visibility, lighting, provide hand rails and add tread markers or other floor markings.	4
	• poor housekeeping				• Poor lighting Improve lighting levels and placement of lighting to provide a more even lighting level over all floor areas	4

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Risk Assessment Completion Guidelines

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2	*Moderate*
3	*Moderate to High*
4	*High*
5	*Catastrophic*

Ranking of Likelihood

Score	Likelihood
1	Very Remote
2	Unlikely
3	*Possible*
4	*Very Possible*
5	*Certain*

Once an assessment of severity and likelihood has been made, the score of each is multiplied together to produce a risk-rating figure. The matrix below can then be addressed:

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

Minor Risks	*1 to 6*	No further action needed
Medium Risk	*8 to 12*	Further control measures needed before works start
High Risk	*15 to 25*	Further control measures and specialist guidance needed before works start

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RISK ASSESSMENT

Assessor: Ian Tolliday	**Client: S&T Interiors**	**Page: 1 of 3**
Date of Assessment: 01.02.2016	**Nature of Works: Terracotta Fixing – Use of Portable Electrical Equipment**	
Project Address: The Russell Hotel	**Persons Affected: Operatives, Sub-contractors, Visitors**	

Activity	Risk	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Use of portable electrical equipment	1. Electrocution 2. Fire 3. Damage to equipment 4. Tripping over electrical equipment	3 3 3 4	4 4 4 4	**12** **12** **12** **16**	1. All portable electrical equipment will be identified individually and is subject to planned maintenance this includes a three monthly test and inspection. 2. Equipment supplied to site is to be fit for use with regard to voltage, power and environmental conditions. 3. All equipment found to be defective must be switched off and reported immediately. 4. Visual inspection of equipment shall be carried out before use. 5. Leads and extension cables are to be routed, and only moulded socket holders will be used on site. 6. Only equipment operating at 110 volts or less to be permitted on site; higher voltages must be authorised in writing prior to use. 7. All hand tools should be either earthed or double cabled. 8. All chuck keys should be kept in a clip attached to the cable to avoid any attempt to improvise. 9. When on the spot adjustments or attachments changes are made, the tool must be disconnected from the main supply. 10. All attachments must be firmly fixed.	**3** **3** **3** **4**

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Activity	Risk	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
					11. All guards must be used and under no circumstances should they be interfered with or removed. 12. Leads/extensions cables must not trail across walkways and should be routed along skirting to prevent trips. 13. All extension leads must be fully extended to prevent overheating and electrical fires. 14. All electrical equipment should be checked for an electrical inspection sticker prior to use. If the equipment is over the inspection date it should not be used and reported immediately. 15. Subcontractors to be made aware of the above policy concerning use of electrical equipment. 16. Site manager is responsible for ensuring that attention is paid to site electrical requirements. 17. The use of electrical equipment will be monitored to ensure safe use. 18. Only trained and competent persons should test, repair and maintain portable electrical equipment. 19. Operatives will be trained in the precautions and safe use of portable electrical equipment i.e. tool box talk 20. PPE to be worn – Safety boots, goggles, overalls, gloves, ear defenders	

Risk Assessment Completion Guidelines

Risk Rating System

Each operation within the project will be assessed to identify potentially hazardous activities from which the significant risks can be ascertained. A rating of risk is then made by assessing the severity of any injuries or other loss and the likelihood of that injury or loss arising. This calculation is made before any control measures are implemented.

Calculation of Risk Rating

Ranking of Severity

Score	Severity
1	Minor
2	*Moderate*
3	*Moderate to High*
4	*High*
5	*Catastrophic*

Ranking of Likelihood

Score	Likelihood
1	Very Remote
2	Unlikely
3	*Possible*
4	*Very Possible*
5	*Certain*

Once an assessment of severity and likelihood has been made, the score of each is multiplied together to produce a risk-rating figure. The matrix below can then be addressed:

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

Minor Risks	*1 to 6*	No further action needed
Medium Risk	*8 to 12*	Further control measures needed before works start
High Risk	*15 to 25*	Further control measures and specialist guidance needed before works start

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RISK ASSESSMENT

Assessor: Ian Tolliday		**Client:** S&T Interiors	**Page: 1 of 2**
Date of Assessment: 01.02.2016		**Nature of Works:** Terracotta Fixing – Use of OPC	
Project Address: The Russell Hotel		**Persons at Risk:** Operatives	

Activity	Risk	Persons Affected	Likelihood	Severity	Total	Control Measures Implemented to reduce the Risk	Residual risk factor
Mixing and using cement base mortars	1. Cement Burns 2. Eye injuries 3. Inhalation	Operatives Operatives Operative	4 4 4	4 4 4	**16** **16** **16**	• Operatives to ensure that skin is covered and gloves and safety glasses are worn at all times. • Operatives to ensure that skin is covered and gloves and safety glasses are worn at all times. • P3 Masks are to be worn when mixing the mortars and adhesives	**2** **2** **2**

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Risk Assessment Completion Guidelines

Risk Rating System

Each operation within the project will be assessed to identify potentially hazardous activities from which the significant risks can be ascertained. A rating of risk is then made by assessing the severity of any injuries or other loss and the likelihood of that injury or loss arising. This calculation is made before any control measures are implemented.

Calculation of Risk Rating

Ranking of Severity

Score	Severity
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	3	*15*	*12*	*9*	*6*	*3*
	2	*10*	*8*	*6*	*4*	*2*
	1	*5*	*4*	*3*	*2*	*1*

Minor Risks	*1 to 6*	No further action needed
Medium Risk	*8 to 12*	Further control measures needed before works start
High Risk	*15 to 25*	Further control measures and specialist guidance needed before works start

APPENDICES 2

**COSHH AND
TECHNICAL DATA**

DATA SHEET

CEMENT

CI/SfB | | Yq2 |

October 2011

Health and Safety Information
Portland cement
(BS EN 197-1:CEM I)

IRRITANT

LAFARGE

bringing materials to *life* ™

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/ UNDERTAKING

1.1 Identification of the substance/preparation

An odourless white to grey powder mainly insoluble in water. When water is added it becomes a binder for construction applications. This datasheet applies to the following cements:

- Mastercrete
- PC-RM
- PC-CP
- PC
- Ferrocrete
- Snowcrete
- Procem
- Microcem

1.2 Use of the substance/preparation

Common cement is used as a hydraulic binder for the production of concrete, mortars, grouts, etc.

1.3 Company identification

Lafarge Cement United Kingdom
Portland House
Bickenhill Lane
Birmingham B37 7BQ

Technical helpline: 0845 812 6232

Email: info@lafargecement.co.uk

1.4 Emergency telephone

Emergency telephone number available during office hours: *Tel 0845 812 6232*

Emergency telephone number available outside office hours: No

2. HAZARD IDENTIFICATION

When cement reacts with water, for instance when making concrete or mortar, or when the cement becomes damp, a strong alkaline solution is produced.

2.1 Hazard characterisation

IRRITANT

R37/38 Irritating to respiratory system and skin

R41 Risk of serious damage to eyes

R43 May cause sensitisation by skin contact

2.2 Primary route(s) of entry

Inhalation: Yes

Skin - eyes: Yes

Ingestion: No, except in accidental cases

2.3 Human health

Inhalation: Frequent inhalation of large quantities of cement dust over a long period of time increases the risk of developing lung diseases.

Eyes: Eye contact with cement (dry or wet) may cause serious and potentially irreversible injuries.

Skin: Cement may have an irritating effect on moist skin (due to transpiration or humidity) after prolonged contact. Prolonged skin contact with wet cement or fresh concrete may cause serious burns because they develop without pain being felt (for example when kneeling in fresh concrete even when wearing trousers). Repeated skin contact with wet cement may cause contact dermatitis. *For more details see Reference (1).*

2.4 Environment

Under normal use, the product is not expected to be hazardous to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical composition

Common cement types according to the EN 197-1 (Common cements) and EN 197-4 (Blast furnace cements) standards. The principal constituents of these cements are calcium silicates, aluminates, ferro-aluminates and sulfates. Small amounts of alkalis, lime, magnesia and chlorides are also present together with trace amounts of chromium compounds. Additional constituents may also be present - eg, fly ash, limestone, clay and granulated blast furnace slag.

3.2 Components presenting a health hazard

Contains less than 1% crystalline silica.

Substance	Portland Cement Clinker
Concentration range (by weight in cement)	5 – 100%
EINECS	266-043-4
CAS	65997-15-1
Symbol (C&L)	 IRRITANT
R	R37 R38 R41 R43

4. FIRST AID MEASURES

When contacting a physician, take this safety datasheet with you.

4.1 After significant accidental inhalation

Move person to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms do not subside.

4.2 After contact with eyes

Do not rub eyes, as additional cornea damage is possible by mechanical stress. Remove any contact lenses and open the eyelid(s) widely to flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 45 minutes to remove all particles. If possible, use isotonic water (0.9% NaCl). Contact a specialist of occupational medicine or an eye specialist.

4.3 After skin contact

For dry cement, remove and rinse abundantly with water. For wet cement, wash skin with water. Remove contaminated clothing, footwear, watches, etc, and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns.

4.4 After significant accidental ingestion

Do not induce vomiting. If person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact anti poison centre.

5. FIRE-FIGHTING MEASURES

5.1 Flashpoint and method

Cements are non-combustible and non-explosive and will not facilitate nor support combustion of other materials.

5.2 Extinguishing media

All types of extinguishing media are suitable.

5.3 Fire fighting equipment

Cement poses no fire-related hazards. No need for specialist protective equipment for fire fighters.

5.4 Combustion products

None.

5.5 Flammable limits: Lower explosion limit LEL – Upper explosion limit UEL

Not applicable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal protective measures

Wear protective equipment as described under Heading 8 and follow the advice for safe handling and use given under Heading 7. Emergency procedures are not required.

6.2 Environment protection measures

Do not wash cement down sewage and drainage systems or into bodies of water (eg, streams).

6.3 Methods for cleaning up

Recover the spillage in a dry state if possible.

Dry cement: Use dry cleanup methods that do not cause airborne dispersion - eg:

- Vacuum cleaner (Industrial portable units, equipped with high efficiency particulate filters (HEPA filter) or equivalent technique).
- Wipe up the dust by mopping, wet brushing or water sprays or hoses (fine mist to avoid the dust becoming airborne) and remove slurry. If not possible, remove by slurrying with water (see Wet cement).

When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes can be done, ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.

Avoid inhalation of cement and contact with skin. Place spilled materials into a container. Solidify before disposal as described under Heading 13.

Wet cement: Clean up wet cement and place in a container. Allow material to dry and solidify before disposal as described under Heading 13.

7. HANDLING AND STORAGE

Do not handle or store near food and beverages or smoking materials.

7.1 Handling

Follow the recommendations as given under Heading 8.

Avoid dust development:

- For (bagged) cement used in open-ended mixers: first add the water and then carefully add the cement. Keep the height of the fall low. Start the mixing smoothly. Do not compress empty bags, except when contained in another clean bag.
- To clean up dry cement, see heading 6.3.

Carrying cement bags may cause sprains and strains to the back, arms, shoulders and legs. Handle with care and use appropriate control measures.

7.2 Storage

Bulk cement should be stored in silos that are waterproof, dry (internal condensation minimised), clean and protected from contamination.

Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains cement without taking the proper security measures. Cement can build up or adhere to the walls of a confined space. The cement can release, collapse or fall unexpectedly.

Packed products should be stored in unopened bags clear of the ground in cool, dry conditions and protected from excessive draught in order to avoid degradation of quality.

Bags should be stacked in a stable manner.

7.3 Control of soluble Cr (VI)

For cements treated with a Cr (VI) reducing agent according to the regulations given in Heading 15, the effectiveness of the reducing agent diminishes with time. Therefore cement bags and/or delivery documents will contain information on the period of time ('shelf life') for which the manufacturer has established that the reducing agent will continue to maintain the level of soluble Cr (VI) below the imposed limit of 0.0002%, according to EN 197-10. They will also indicate the appropriate storage conditions for maintaining the effectiveness of the reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limit values (Workplace Exposure Limits (WEL))

WEL 8hr Time Weighted Average (TWA):

- Total inhalable dust 10mg/m^3
- Respirable dust 4mg/m^3

8.2 Exposure controls

8.2.1 Occupational exposure controls

General: During work avoid kneeling in fresh mortar or concrete wherever possible. If kneeling is absolutely necessary then appropriate waterproof personal protective equipment must be worn.

Do not eat, drink or smoke when working with cement to avoid contact with skin or mouth. Immediately after working with cement or cement-containing materials, workers should wash or shower or use skin moisturisers. Remove contaminated clothing, footwear, watches, etc, and clean thoroughly before re-using them.

Respiratory protection: When a person is exposed to dust above exposure limits, use appropriate respiratory protection. It should be adapted to the dust level and conform to the relevant EN standard. Suitable respiratory protection should be worn to ensure that personal exposure is less than the WEL.

Eye protection: Wear approved glasses or safety goggles according to EN 166 when handling dry or wet cement to prevent contact with eyes.

Skin protection: Use impervious, abrasion and alkali resistant gloves (made of low soluble Cr (VI) containing material), internally lined with cotton, boots, closed long-sleeved protective clothing and additionally skin care products (including barrier creams) to protect the skin from prolonged contact with wet cement. Particular care should be taken to ensure that wet cement does not enter the boots. In some circumstances such as when laying concrete or screed, waterproof trousers or kneepads are necessary.

8.2.2 Environmental exposure controls

According to available technology.

15.2 The marketing and use of cement is subject to a restriction on the content of soluble Cr (VI)

From 17 January 2005, those cements which naturally contain more than 2 ppm of soluble hexavalent chromium (chromium (VI)) by dry weight of cement, will be treated with a chemical reducing agent (such as ferrous sulfate) that maintains the level of hexavalent chromium in the cement to below 2 ppm by dry weight of cement. The effectiveness of the reducing agent reduces with time, therefore cement bags and/or delivery documents will contain information on the period of time ('shelf life') for which the manufacturer has established that the reducing agent will continue to limit the level of hexavalent chromium to less than 2 ppm by dry weight of cement. They will also indicate the appropriate storage conditions for maintaining the effectiveness of the reducing agent.

15.3 National legislation/requirements

CONIAC Health Hazard Information Sheet No. 26 (CEMENT)

Health and Safety at Work etc Act 1974

Control of Substances Hazardous to Health (Regulations)

PORTLAND CEMENT DUST – criteria document for an occupational exposure limit. June 1994 (ISBN 07176 – 0763 – 1)

HSE Guidance Notes EH26 (Occupational Skin Diseases – Health and Safety Precautions)

HSE Guidance Note EH40 (Workplace Exposure Limits)

Any authorised manual on First Aid by St. John's/St. Andrew's/Red Cross

Manual Handling Operations Regulations

Environmental Protection Act

References

(1) Portland Cement Dust - Hazard assessment document EH75/7, UK Health and Safety Executive, 2006. Available from:

http://www.hse.gov.uk/pubns/web/portlandcement.pdf

(2) Observations on the effects of skin irritation caused by cement, Kietzman et al, Dermatosen, **47**, 5, 184-189 (1999).

(3) European Commission's Scientific Committee on Toxicology, Ecotoxicology and the Environment (SCTEE) opinion of the risks to health from Cr (VI) in cement (European Commission, 2002).

(4) Epidemiological assessment of the occurrence of allergic dermatitis in workers in the construction industry related to the content of Cr (VI) in cement, NIOH, Page 11, 2003.

The information on this datasheet reflects the currently available knowledge and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product, including the use of the product in combination with any other product or any other process, is the responsibility of the user. It is implicit that the user is responsible for determining appropriate safety measures and for applying the legislation covering his own activities.

The information in this datasheet is accurate at the time of printing, but Lafarge Cement UK reserve the right to amend details as part of their product development programme.

16. OTHER INFORMATION

Abbreviations

- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transport Association
- ADR/RID: Agreement on the transport of dangerous goods by road/Regulations on the international transport of dangerous goods by rail
- LC50 Lethal Concentration where 50% of the test animals dies.
- OEL : Occupational Exposure Limit
- TWA: Time Weighted Averages

For further information

Technical helpline
Tel: 0845 812 6232
E-mail: info@uk.lafarge.com

Customer services
Tel: 0845 812 6300
E-mail:
customerservice@uk.lafarge.com

The information in this datasheet is accurate at the time of printing, but Lafarge Cement UK reserve the right to amend details as part of their product development programme.

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APPENDICES 3

EXAMPLE SURVEY SHEET

Location: **Drawing Ref:**

Contract No: **Survey Date:**

Window No: **Revision No:**

Surveyed By: **Revised Date:**

The Russell Hotel

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Window No.	Unit No.	L	W	H	Pallet No.	Photograph Nr	Kg's	Existing Defect/ Damage Note

Location:	**Drawing Ref:**
Contract No:	**Survey Date:**
Window No:	**Revision No:**
Surveyed By:	**Revised Date:**

The Russell Hotel

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