

Construction file
UWTSD Site 020
By Al David Ikete
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BSc Building Surveying



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Plan on health and safety

this section will highlight the procedures in which need to be taken in the case of an emergency, also provide the relevant details of whom may be in charge of the site and the points of contact in the case of relevant emergency.

Construction phase plan	
Contractor name:	AD Construction Ltd
Description of project:	Construction of Two Storey Residential Dwelling
Location of project:	Kings road Saint Thomas SA1, Swansea, Wales
Predicted Projects start and end date:	6 th of May 2020 – 15 th of January 2021
Name and contact details of site supervisor:	Al David Ikete
Principle contractor duties	AD Construction Limited
Sub-Contractor on site:	SPG Constructions Cardiff

Site welfare:	The site welfare will be provided by the Techenium two building owned by UWTSD. The building offers showers, toilets and an office space where the site operations will be led from alternatively, toilet facilities will also be found directly on the site, in the form of portable toilets provided by Aplant. List of facilities provided by Techenium two: • Male and female toilets plus changing room with running hot and cold water, as well as soap dispensers. • Drinking water will also be provided by an onsite tap that will be connected into the mains offering clean drinking water, there will also be four different water dispensers (fountain) across the site which will be connected the tap. • The Techenium will provide mess area for worker to eat and socialise with three microwaves to allow workers to heat up food. • Locker and cloaking room will also be provided in Techenium two.
Minimum personal protective equipment (PPE) requirements:	Everyone working on site will be required to wear a high-vis, safety boots (steel toe capped), hard hats must also be worn at all times even by visitors visiting the site, this is to help prevent them getting hurt from falling objects. PPE must also be worn at all time in order to adhere with CDM regulations 2015, in-order to create working environment and the work is conducted safely. Types of PPE will be categorised in six sections covering different aspects of the body. Face and eyes: • Disposable face mask • Respirators/breathing apparatus • Safety goggles or shield Hearing • Earmuffs- helmet mounted available • Earplugs and ear inserts (canal caps) Legs and feet • safety boots (steel toe cap) • wellington boots (steel toe cap) • anti-static electricity insulated footwear • knee pads body: • high visibility waistcoat • overalls, coveralls and boiler, boiler suit • safety harness • insulated and waterproof clothing hands: • waterproof gloves and insulating

	• gauntlets All suggestions above have been made with advice stated in the building construction handbook by R Chudley.
Site access and parking arrangements:	The sites parking arrangements have once's again been made with UWTSD in order any official or employee who wishes to park their cars can use, and this enables the free move meant of plant and machinery on site. As a result of this site congestion will be reduced and there will be an increase in space to store supplies. However, plant and machinery will be parked on site during the night.
Site security:	Site will be provided by a sperate security firm. (TBC). The site will also be fitted with a break in alarm that will instantly notify the law enforcement, they will be connected to various sensors on the fencing round the site. There will also be posters stating the two points of contact in the case of an emergency, one number for each of the main contractors working on the site as there will be another construction firm working on the building adjacent. 2.4meter high welded mesh fencing will be put up round the perimeter. (RICS recommended)
Coordination of construction:	
Site induction:	<u>Site induction</u> • You have probably been to hundreds of site inductions and will probably been through this procedure over and over before. • The induction is important is important as all sites are different and have a wide range of hazards which will change as the site develops. • This site induction is specific to this site and provides you with information on the current hazards of the site and tells you about the site rules. Explain to the inductees the requirement to observe site specific elements appropriate to their own work activities and/or site wide hazards. These may include but not be limited to the following;

Open Excavations, Work at Height, Overhead Power Lines, Confined Spaces, Contaminated Land, Excessive Vehicle Movements, Traffic Management Systems, Fire Risks.

Ensure that inductees are made aware of specific requirements for the production of risk assessments and method statements where specific hazards are identified.

Make inductees aware of areas of work that will require specific authorisation to proceed such as a Permit to Work.

Ensure inductees are made aware of restricted areas and the reasons for the control measures in place.

The project: Construction of Two Storey Residential Dwelling on Sa1 site on king's road, the sa1 site has currently got another construction job on it which is the student accommodation.

Sight history: N/a

Current status: Begging

Future work programme:

Type of construction:

End use and client's requirements:

Location of statutory notices:

Emergency Evacuation & Fire

- The Alarm
- Exit Routes
- Assembly points
- Fire points
- Fire Prevention

– No smoking and be aware of other possible ignition sources

– Keep the site tidy - less material to burn – Hot work permits

Clients and main contractors are required to ensure that those on site are competent. Increasingly the evidence needed is a card from a recognised registration scheme.

More information on the schemes available can be found on:
www.citb.co.uk (CPCS-Plant operation, FASET-Safety Nets, CISRS-

Scaffolding) www.cscs.uk.com (A wide range of building and civil engineering occupations from unskilled to management levels)
www.skillcard.org.uk
www.ace.uk.net (Engineering construction)

There are also recognised training qualifications which may be required over and above occupational registration schemes e.g.
IPAF- Powered access (scissors and boom lifts)
PASMA- Alloy tower systems

NRSW- New Roads and Street works' Supervisor and operative card

For some activities it may be that there is not a scheme, but evidence of training is required e.g. abrasive wheels.

Site rules

- 1) Wear your PPE at all times.

When you enter the site, make sure you have the adequate PPE needed for you job. PPE is important, it's your last line of defence should you come into contact with a hazard on site.

- 2) Makes you have gone through the site induction.

This will give you an in site on what is required from on the site and the hazards that maybe that are on site and the safety procedures that need to be taken. As this is a legal requirement.

- 3) The site must be kept tidy and work must be carried out in an orderly fashion.

The site must be kept tidy at all times because a messy construction site will result in multiple hazards which can be avoided such as slips, trips. Furthermore, a messy site equals uncoordinated work. (an HSE statistic stated that slips and trips accounted for 30% of major injuries on construction sites in 2016/17 – 2018/19).

- 4) Do not put yourself or others at risk.

It is imperative that work is carried out correctly on a building site as one selfless act could put not just the individual that has committed it in danger but, others working round him/her in danger, there one must conduct works safely and in a professional matter.

5) Follow safety signs and procedures.

Following construction safety signings and procedures will ensure that hazards don't occur while the work is being carried out. These signs are a safety measure, the signs will be explained later on in the induction.

6) Report to site manager//supervisor if an area is deemed unsafe

All safety precautions are taken, or amendments are made to ensure that all working space is safe. (HSE statistics shows that 14% of the fatalities in construction were caused by things collapsing or overturning and 11% were by being struck by a moving vehicle in the years 2014/15-2018/19)

7) Never tamper with equipment

If equipment is not working or is not deem safe to work with follow rule number 6 and report it to the supervisor. Don't attempt to make repairs to equipment or alter it in anyway what's so ever as you may not have the adequate training to make the repair safely and the equipment may malfunction and may even lead to fires or unsafe work practices.

8) Use the right equipment

One tool does not fit all. Using the correct tool for the job will get it done quicker, and most importantly, safer. Visually check equipment is in good condition and safe to use before you start. Only use 110v equipment on the site. 240v equipment is strictly prohibited without prior authorisation from management and will only be used if no 110v alternative available and additional safety precautions are taken.

9) All staff must register in and out of the site each working day

This is to ensure staff safety in the case of an emergency and that the number of people working on the site at one time can be monitored for work progression purposes.

	10) The site must be vacant 5pm every evening unless awaiting a delivery. This is to ensure that site can be secured and closed by 6pm, tools will be left vacant on the site therefore it is important that the site is left closed and secure from any theft or burglary.
Coordination of contractors:	SPG constructions LTD will be on the site from the commencement of the work to the end of the project.
Emergency procedures:	<u>Fire policy:</u>  press the nearest fire alarm button.  Leave the station in which you were working from and safely make your way to the meeting point.  Everyone must meet on the by the technium two building where a head count will be conducted and makesure every one made it out safeley, as any missing personal need to be alerted to the firebrigade.



Call the fire brigade on (999).

Company policy:

- If you discover a fire:
 - Activate the alarm by pushing a red call point
 - Fire extinguishers are provided in all buildings – you should only tackle a fire if you are confident in the use of an extinguisher and it is safe to do so
 - Exit by the nearest fire escape route and go to the assembly point.
- If you hear the alarm
 - Stop working and make your area safe
 - Do not take possessions with you
 - leave the building by nearest available route closing doors and windows behind you
 - Go to the assembly point and await further instructions
 - Wait at the assembly point until informed otherwise

First Aid:

- First Aiders
 - Our security team act as the First Response in the event of an emergency.
 - If you require first aid or if you need an ambulance:
 - Call security
 - If an ambulance is required contact security rather than calling 999. They will call the emergency services and will meet them on arrival to direct them to where you are working
 - 6 of the staff working on the site are first aid trained. You should check contact details with your AD constructions Limited contact.
 - All first aiders are fully trained and have access to a first aid kit
- Defibrillator available on site

(There will be up at two points on the site, see site map for further guidance, if not dial 999 or see staff at Techenium two).

Policy on tools and sub-contractor power tools

- Appliances

	• Wherever practicable use battery operated equipment. Where this is not possible, 110v equipment should be used. • All electrical equipment should have an in- date PAT Test • Extension Cables • Use wisely • Never use more than one extension cable at a time with each appliance • Avoid using extension cables with high wattage appliances such as kettles • Portable heaters should not be used.
Site inspection arrangements:	The site inspection will take place on the 2 nd May 2020 at 12pm, this will require that all working personal be present on the site and wearing all adequate PPE.

Site inspection plan:	This is attached in a separate PDF file.
Site rules:	<u>Site rules</u> 11) Wear your PPE at all times. When you enter the site, make sure you have the adequate PPE needed for you job. PPE is important, it's your last line of defence should you come into contact with a hazard on site. 12) Makes you have gone through the site induction. This will give you an in site on what is required from on the site and the hazards that maybe that are on site and the safety procedures that need to be taken. As this is a legal requirement. 13) The site must be kept tidy and work must be carried out in an orderly fashion.

	The site must be kept tidy at all times because a messy construction site will result in multiple hazards which can be avoided such as slips, trips. Furthermore, a messy site equals uncoordinated work. (an HSE statistic stated that slips and trips accounted for 30% of major injuries on construction sites in 2016/17 – 2018/19). 14) Do not put yourself or others at risk. It is imperative that work is carried out correctly on a building site as one selfless act could put not just the individual that has committed it in danger but, others working round him/her in danger, there one must conduct works safely and in a professional matter. 15) Follow safety signs and procedures. Flowing construction safety signings and procedures will ensure that hazards don't occur while the work is being carried out. These signs are a safety measure, the signs will be explained later on in the induction. 16) Report to site manager//supervisor if an area is deemed unsafe All safety precautions are taken, or amendments are made to ensure that all working space is safe. (HSE statistics shows that 14% of the fatalities in construction were caused by things collapsing or overturning and 11% were by being struck by a moving vehicle in the years 2014/15-2018/19) 17) Never tamper with equipment If equipment is not working or is not deem safe to work with follow rule number 6 and report it to the supervisor. Don't attempt to make repairs to equipment or alter it in anyway what's so ever as you may not have the adequate training to make the repair safely and the equipment may malfunction and may even lead to fires or unsafe work practices. 18) Use the right equipment One tool does not fit all. Using the correct tool for the job will get it done quicker, and most importantly, safer. Visually check equipment is in good condition and safe to use before you start. Only use 110v equipment on the site. 240v equipment is strictly
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prohibited without prior authorisation from management and will only be used if no 110v alternative available and additional safety precautions are taken.

19) All staff must register in and out of the site each working day

This is to ensure staff safety in the case of an emergency and that the number of people working on the site at one time can be monitored for work progression purposes.

20) The site must be vacant 5pm every evening unless awaiting a delivery.

This is to ensure that site can be secured and closed by 6pm, tools will be left vacant on the site therefore it is important that the site is left closed and secure from any theft or burglary.

Method Statement for SA1 Construction of Two Storey Residential Dwelling by Al David Ikete

1, Description of the Task/Activity:	Building a pitched roof				
2, Project Name:	SA1 Construction of two storey residential dwelling		Project Ref:	UWTSD 020	
3, Site Address/ Location:	Kings road Saint Thomas SA1		Start Date/Time:	13 th May 2020	
			Finish Date/Time:	16 th May 2020	
4, Personnel involved:	Name		Role/Trade		
	TBC		CSCS Groundworker		
	Thomas Harrison		CSCS/ CPCS forklift		
	Joe Swanson		Scaffolder		
	Steff Pryce		CSCS / Triple STS supervisor		
	Boris Johnson		Roofer/ Carpenter		
5, Works Supervisor:	Al David Ikete	Role:	Project Manager	Tel:	0782737168
6, Key Plant and Tools Required:	1. Roofing nail guns. 2. Hammer tacker stapler. 3. Roofing hammer or hatchet. 4. Air compressor. 5. Roofing blade or utility knife. 6. Roofing shovel or shingle tear-off tool. 7. Scoop shovel. 8. Pry bar. 9. Ladder. 10. Scaffolds. 11.				
7, Key Materials Required:	C16 graded structural timber Concrete roof slates Galvanised roofing nails Breathable roofing membrane Insulation (type to be specified by client)				

8, Other Essential Equipment:	
9, Special Considerations	The following method statement has been drafted to provide a safe system of work and must be adhered to at all times, any significant deviation from this system must first be authorised by your manager or safety representative. Please read the entire sheet before beginning the procedure, if you have any question please contact your manager or safety representative. 1. Manual Handling of Worktops (refer to Manual Handling assessment) 2. All incidents/ accident to be reported to the Site Agent immediately. 3. Main Contractors site rules to be adhered to at all times. 4. Deliveries to be conducted to site entrance and directed to offloading area by representative. All Deliveries to be pre booked in with site with Construction managers 5. All tools and equipment to be logged into register before works commence on site 6. SMSTS/SSSTS supervisor will be on site at all times and also to attend daily briefing, Construction company to advise times for this meeting. 7. All Site SSSTS/SMSTS to communicate with fitters on assessments and Method statement 8. Assessments to be reviewed by site fitters, supervisor to approve or change if needed.
10, Specific Staff Training Requirements:	CSCS for relevant groundworker Triple STS (CITB) for supervisors Level 2 diploma in roofing and tiling roofer
11, Sequence of Operations: (Specifying methods of working, tools, materials and equipment utilised)	1. Step one in building a roof is getting the correct measurements, however the roofer must make the measurements prior to installation. The measurements must consist of the width and length of the construction, as these will then be used for calculation of dimensions for the ridge board, as well as for the length of the rafters. 2. Step two once the measurements have been made, rafters can be cut to specification. The rafters will later to be used to construct the roof. 3. Step three is to fit the rafters over the ridge board. The rafter will act like a frame that rests around the roof. Installation must begin by fitting standard rafters onto the required side of the ridge boards. The process must be continued until solidness is reach or strength of all ridge boards is increased and can be settled as per their weight. 4. Dimensions for the Hip rafters, before moving towards a hip roof building, you must ensure proper alignment for each of the angled corners. For this type of calculation, a framing square must be used to assist in making these measurements. 5. Continue attaching rafters, when attaching rafters you must start from one side at a time and attempt to apply more pressure for each rafter adjustment that is added. The pressure will ensure better distribution of the loads.

	6. Trim the rafters, once nailing of rafters is complete, the rafters must be trimmed so that you provide a superior linear layout. 7. Fixing the rip rafters, fix the hip rafters (corner rafters) to the adjacent rafters that are already fixed.					
13,Method of Access and Egress to the work area:	Vehicle will be unloaded to safe storage area so that the vehicle can be released from site to save congestion; Furniture will then be distributed to the allocated rooms.					
14,Fall Protection Measures: (Where work at height cannot be eliminated - consider both Personnel & Materials)	All worker must be hooked on to anchoring point on the scaffolding, this will reduce the risk of falling from height as It will limit the height in which they fall, as they will hang suspended while someone pulls the victim back up.					
15,Exposure to Noise and Vibration and Dust	All tools and equipment to be assessed for noise and vibration levels. All tools used have been assessed for vibration exposure and have been identified as a low risk. PPE shall be worn at all times when on site this comprises Helmet, Glasses, Hi-Viz Gloves and Safety Boots and ear protection for Sangwin operatives and other persons to be advised via warning signs of the noise levels Dust masks to be used for specific task related duties and the correct mask as per face fit test to be used, Face fit test for the Force 8 Press to Check Masks have been carried out, this is only to reduce the dust and not to eliminate it therefore always required when cutting, disposable masks must NOT be used at any time. All cutting machinery will be fitted with local extract with Class M filters fitted.					
17,SWL's:	(Detail any limits on the loadings applicable to temporary plant/equipment or fixed elements of the structure where the work is taking place.)					
18,Required Personnel Protective Equipment:	 Safety Ankle Boots BS EN345 Yes	 Hard Hats BS EN 397 Yes	 Safety Gloves BS EN 388;1994 Yes	 Ear Plugs BS EN 352-2;2002 Yes	 Dust Mask Task specific AS Above FFP3 Yes	 Light Eye Protection Task Specific BS EN 166 Other: 1. Hi-Viz Top 2. 3. Yes
19,Security and Emergency Procedures:	Small plant must be taken off site at the end of the working day. Emergency procedures - As main contractor's induction. Call 999 for emergency services if issues cannot resolved on site.					
	20,First Aid Facilities:	Name of On-Site First Aider:		Sam Gates		

 First aid		First Aid Box Location:	SITE VAN/Site Cabins
		Location of Nearest Hospital:	Heal Maes Eglwys, Morriston, Cwmrhydyceirw, Swansea SA6 6NL
21. Other information	Welfare, washing Hot/cold running water and toilets supplied by Technium two building.		

All work will be undertaken by qualified competent persons with experience of the type of work described above, and in all cases in full accordance with safety procedures specified in the companies Health and Safety Policy.

Prepared by: **AI David Ikete** **Mobile tel:** 07525667611

Position: **Project Manager** **Date:** 22-04-2020

Method Statement for SA1 Construction of Two Storey Residential Dwelling

By Al David Ikete



1,Description of the Task/Activity:	Construct foundations			
2,Project Name:	SA1 Construction of two storey residential dwelling	Project Ref:	UWTSD 020	
3,Site Address/ Location:	Kings road Saint Thomas SA1	Start Date/Time:	13th May 2020	
		Finish Date/Time:	16th May 2020	
4,Personnel involved:	Name		Role/Trade	
	TBC		CSCS Groundworker	
	Josh Gates		CSCS/ CPCS digger driver	
	Kyle Mc-Dougel		CSCS/ CPCS dumper driver	
	Cameron Gates		CSCS / Triple STS supervisor	
5,Works Supervisor:	Al David Ikete	Role:	Project Manager	Tel: 07827337168
6,Key Plant and Tools Required:	• Digger • Dumper, • Shovel • Concrete by ready mix supply • Concrete pump operator			

	• Rubber boots • Gloves • Wheelbarrows • Safety glasses • Levels • Tape measure • Come-along rakes • Magnesium floats • Kneeling boards **Machinery must undergo a weekly test in-order to identify any fault and repair any damaged equipment.
7,Key Materials Required:	C35 concrete mix
8,Other Essential Equipment:	Auto level
9,Special Considerations	9. Manual Handling of Worktops (refer to Manual Handling assessment) 10. All incidents/ accident to be reported to the Site Agent immediately. 11. Main Contractors site rules to be adhered to at all times. 12. Deliveries to be conducted to site entrance and directed to offloading area by representative. All Deliveries to be pre booked in with site with Construction managers 13. All tools and equipment to be logged into register before works commence on site 14. SMSTS/SSSTS supervisor will be on site at all times and also to attend daily briefing, Construction company to advise times for this meeting. 15. All risks to incorporate our trades and others. 16. Site SSSTS/SMSTS to communicate with fitters on assessments and Method statement 17. Assessments to be reviewed by site fitters, supervisor to approve or change if needed.
10,Specific Staff Training Requirements:	CSCS for relevant groundworker Triple STS (CITB) for supervisors CPCS for machine drivers

11,Sequence of Operations: (Specifying methods of working, tools, materials and equipment utilised)	Marking out and excavating strip footings • If the wall is built up to 1m (3ft 3in) high, it will require a footing of at least 150mm (6in) deep for single-skin wall or 250mm (10in) deep for double skin wall. A further 100mm (4in) needs to be added to the depth of the footing if the ground soil is clay. • Finished footings should be 150mm (6in) below ground level and if building in extreme temperatures should be deeper. Protection of the concrete bed is needed from frost damage in extreme cold. • However, on sandy or loose soils the footings should be 400mm (16in) wider than the wall. Strip footings/ concrete blocks are more suitable for walls only three or four courses high. • The area of the wall will be marked out on the ground with string attached to pegs or using profile boards, spray paint can also be used in-order to mark out the area. • A trench must be excavated out to the required depth with a digger, which will cut into the soil underneath the string. • Compacted hardcore should be used to fill in any loose particularly subsoil by digging further down. Setting up strip footing: The concrete footing will be laid after the trench has been excavated. • A stake will be knocked in at each end of the trench down to the footing depth. More stakes will be entering at a depth off 1-2m (3ft-6ft intervals between them. All stakes should be driven into ground vertically. • A spirit level will be placed across the top of the stakes to ensure they're all level and make any required adjustments to the stakes if needed. • The concrete will be mixed at a ratio of 1 cement to 5 aggregate, water will be added to create a consistent mix that should pour easily. Making sure it's not too wet. • The concrete will be poured into the trench to the top of the stakes, the surface will then be smoothed using a metal float. • The concrete must be given three days to settle and harden, before the first course of blocks can be laid.
12,Method of Access and Egress to the work area:	Vehicle will be unloaded to safe storage area so that the vehicle can be released from site to save congestion; Furniture will then be distributed to the allocated rooms.
13,Exposure to Noise and Vibration and Dust	All tools and equipment to be assessed for noise and vibration levels. All tools used have been assessed for vibration exposure and have been identified as a low risk. PPE shall be worn at all times when on site this comprises Helmet, Glasses, Hi-Viz Gloves and Safety Boots and ear protection for Sawing operatives and other persons to be advised via warning signs of the noise levels Dust masks to be used for specific task related duties and the correct mask as per face fit test to be used, Face fit test for the Force 8 Press to Check Masks have been carried out, this is only to reduce the dust and not to eliminate it therefore always required when cutting, disposable masks must NOT be used at any time. All cutting machinery will be fitted with local extract with Class M filters fitted.
14,SWL's:	(Detail any limits on the loadings applicable to temporary plant/equipment or fixed elements of the structure where the work is taking place.)

15, Required Personnel Protective Equip.:	 Safety Ankle Boots BS EN345	 Hard Hats BS EN 397	 Safety Gloves BS EN 388;1994	 Ear Plugs BS EN 352-2;2002	 Dust Mask Task specific AS Above FFP3	 Light Eye Protection Task Specific BS EN 166	Other: 1. Hi-Viz Top 2. 3.
	Yes	Yes	Yes	Yes	Yes	Yes	
16, Security and Emergency Procedures:	Small plant must be taken off site at the end of the working day. Emergency procedures - As main contractor's induction.						
 First aid	17, First Aid Facilities:	Name of On-Site First Aider:		Construction Firm- TBC			
		First Aid Box Location:		SITE VAN/Site Cabins			
		Location of Nearest Hospital:		Heal Maes Eglwys, Morriston, Cwmrhydyceirw, Swansea SA6 6NL			
18. Other information	Welfare, washing Hot/cold running water and toilets supplied by the main contractor.						

All work will be undertaken by qualified competent persons with experience of the type of work described above, and in all cases in full accordance with safety procedures specified in the companies Health and Safety Policy.

Prepared by: Al David Ikete **Mobile tel:** 07827337168
Position: Project Manager **Date:** 22-04-2020

Method Statement for SA1 Construction of Two Storey Residential Dwelling

By Al David Ikete

1)Description of the Task/Activity:	Brick and Blocks Work				
2)Project Name:	SA1 Construction of two storey residential dwelling		Project Ref:	UWTSD 020	
3)Site Address/ Location:	Kings road Saint Thomas SA1		Start Date/Time:	19th May 2020	
			Finish Date/Time:	26th May 2020	
4)Personnel involved:	Name		Role/Trade		
	Oliver Gates		CSCS Groundworker		
	Josh Sam's		Site security operative		
	James Edwards		Brick layer		
	Steff Pryce		CSCS / Triple STS supervisor		
5) Works Supervisor:	Al David Ikete	Role:	Project Manager	Tel:	07827337168
6) Key Plant and Tools Required:	• Trowel • Shovel • Mortar hoe • Rule or tape measure • Square • Mortar board • Level • Line and line blocks • Scaffold • Wire cutters for rein enforcing wire • Wheelbarrow • Block hammer • Gloves and safety glasses • Block saw • Cement mixer				
7)Key Materials Required:	Bricks, mortar, calcium silicate bricks, water (look to BS 5628-3:2005 for further information on the masonry materials and working with masonry)				

8, Other Essential Equipment:	Plumb bob
9, Special Considerations	18. Manual Handling of Worktops (refer to Manual Handling assessment) 19. All incidents/ accident to be reported to the Site Agent immediately. 20. Main Contractors site rules to be adhered to at all times. 21. Deliveries to be conducted to site entrance and directed to offloading area by representative. All Deliveries to be pre booked in with site with Construction managers 22. All tools and equipment to be logged into register before works commence on site 23. SMSTS/SSSTS supervisor will be on site at all times and also to attend daily briefing, Construction company to advise times for this meeting. 24. All risks to incorporate our trades and others. 25. Site SSSTS/SMSTS to communicate with fitters on assessments and Method statement 26. Assessments to be reviewed by site fitters, supervisor to approve or change if needed.
10) Specific Staff Training Requirements:	CSCS for relevant ground-worker in order to be allowed on site. City & Guilds level 2 or 3 Technical certificate in bricklaying Triple STS (CITB) for supervisors

11)Sequence of Operations:

(Specifying methods of working, tools, materials and equipment utilised)

1) Create a layout

Step number one in building a block and brick wall is to layout out the foundation using stakes and masonry string. For building foundations, it requires a rectangular outline of the whole building, carefully adjusted to be square.

The string must be levelled out using a line level after being laid out, transfer the location of the foundation onto the ground before excavation.

2) Excavation and foundation

The next step is to excavate earth for the for the foundation. The work involved here can vary considerably, depending on the size of foundation and the circumstances such as whether or the type of soil that is being worked with. The foundation trench must deep and flat enough for the adequate amount of concrete to be poured in order to support the concrete blocks.

3) Laying the first blocks

The next step after laying the foundation has fully cured and hardened, mark an outline for the cement block wall onto the foundation, using chalk.

Mix the appropriate amount of cement using a cement mixer then pour onto a board, then lay a 1-inch thick layer of mortar onto the foundation incoherence with the outline.

Position the first course of cement block into the mortar and tap the blocks downward slightly to embed them in the foundation mortar. Begin the wall with a corner unit, then lay the flanges at the end of each subsequent block with mortar before joining it to the pervious block.

As the first course of block are laid, use a level to adjust the blocks so that they are vertical, and use stakes and strings to ensure that the row of blocks remains straight. At the opposite end of the wall, end the course with another corner unit.

4) Cut blocks

If you plan carefully, you may not need to cut concrete blocks, this best done with a masonry blade fitted power saw, along with a masonry chisel and hammer.

Score a line across the face of the block with a power saw, cutting a line of about ¼ inch deep. Then, use a masonry chisel and hammer to pound along the scored line until the block cleaves along the

	line. Turn the block over along the line. Turn the block over, and the same is to be done to the opposite side. 5) Lay subsequent courses of block The next course of blocks with a half block to ensure that vertical joints will be offset as you work down the course. install the second course in the same manner in which the first course, by also starting with applying a bed of mortar, then lay out each block onto the bed of mortar. Use a mason string and level to frequently check each course of blocks are level and straight. Add Reinforcement As you progress further up the wall, metal reinforcement (steel reinforcement). After every third and fourth course, horizontal joints should be reinforced with steel reinforcement mesh strips laid into the mortar before the next course of block is laid. Vertical reinforcements can be added by filling hollow cavities with concrete and driving lengths of steel rebars into the cavities along with the concrete mix. This increase the overall lateral strength of the wall. Finish the joints Depending on the size of wall being working on and the speed in which work at, the joints between the blocks will need to be smoothened. this step needs to be done before the mortar hardened.
13)Method of Access and Egress to the work area:	Site Access- the site will be accessible vie the main gate via king's road.
14, Fall Protection Measures: (Where work at height cannot be eliminated - consider both Personnel & Materials)	The main hazards to your safety and health are: • Falling from height on scaffolding • Injury from slips, trips and falls • Exposure to harsh weather (hot or cold) • Injury from manual handling of heavy bricks • Severe burns/contact dermatitis as a result of exposure to wet concrete and dust (Mortar and cement dust) • Injury to other contractors and members of the public • Injury from equipment and live machinery

15, Exposure to Noise and Vibration and Dust	All tools and equipment to be assessed for noise and vibration levels. All tools used have been assessed for vibration exposure and have been identified as a low risk. PPE shall be worn at all times when on site this comprises Helmet, Glasses, Hi-Viz Gloves and Safety Boots and ear protection for saw operatives and other persons to be advised via warning signs of the noise levels Dust masks to be used for specific task related duties and the correct mask as per face fit test to be used, Face fit test for the Force 8 Press to Check Masks have been carried out, this is only to reduce the dust and not to eliminate it therefore always required when cutting, disposable masks must NOT be used at any time. All cutting machinery will be fitted with local extract with Class M filters fitted.						
16, SWL's:	(Detail any limits on the loadings applicable to temporary plant/equipment or fixed elements of the structure where the work is taking place.)						
17, Required Personnel Protective Equip.:	 Safety Ankle Boots BS EN345	 Hard Hats BS EN 397	 Safety Gloves BS EN 388;1994	 Ear Plugs BS EN 352-2;2002	 Dust Mask Task specific AS Above FFP3	 Light Eye Protection Task Specific BS EN 166	Other: 1. Hi-Viz Top 2. Harness 3.
	Yes	Yes	Yes	Yes	Yes	Yes	
18) Security and Emergency Procedures:	Emergency procedures - As main contractor's induction. All equipment must be locked away in container at point A on the site.						
 First aid	19, First Aid Facilities:	Name of On-Site First Aider:	Construction Firm- Sucked in construction				
		First Aid Box Location:	SITE VAN/Site Cabins				
		Location of Nearest Hospital:	Heal Maes Eglwys, Morriston, Cwmrhydyceirw, Swansea SA6 6NL				
20) Other information	Welfare, washing Hot/cold running water and toilets supplied by the main contractor.						

All work will be undertaken by qualified competent persons with experience of the type of work described above, and in all cases in full accordance with safety procedures specified in the companies Health and Safety Policy.

Prepared by:	Al David Ikete	Mobile tel: 07827337268
Position:	Construction Manager	Date: 22-04-2020

Activity to be Assessed		Assessment Number							
Pouring Foundation									
Persons undertaking or affected by the activity									
☐ Employees ☐ Contractor ☐ Public ☐ Service User ☐ Other									
Identified Hazards and Associated Risks		Likelihood	Severity	Risk Level					
1	Eye, skin and respiratory tract irritation from exposure to cement dust.	3	5	15					
2	Overexertion and awkward posture	2	3	6					
3	Slips, trips and falls	2	2	4					
4	Chemical burns caused by wet concrete	5	3	15					
5									
6									
Existing Control Measures / Additional Control Measures Required									
1	Waterproof gloves suitable for use in high pH (alkaline) substances should be worn, the gloves should be marked with EN375:2003 and should be tested for alkalis and bases. This will prevent direct contact with the concrete and prevent worker from get dermatitis and burns.								
2	A constant rotation of workers should prevent overexertion and awkward posture for workers.								
3	Steel toe capped wellington boots should be wearing as they are high enough to prevent cement penetrating your shoes and they offer adequate grip.								
4	Avoid exposure to cement by using pre-mixed concrete or mortar.								
5	The use of face masks will reduce the amount of dust inhaled and prevent any respiratory issues from occurring during the process.								
Reassessment of Activity Hazards		Likelihood	Severity	Risk Level					
1	Eye, skin and respiratory tract irritation from exposure to cement dust.	2	3	6					
2	Overexertion and awkward posture	2	2	4					
3	Slips, trips and falls	2	2	4					
4	Chemical burns caused by wet concrete	2	3	6					
Name Al David Ikete Position project manager		Signed		Date of Completion: 7 th April 2020					
Reviews		Key							
Review Date:	Likelihood	Severity	Severity of Injury	5	5Y	10R	15	20	25
Reviewed by:	1 very unlikely 2 unlikely 3 likely 4 very likely 5 certainty	1 nuisance 2 minors 3 medical treatment 4 majors 5 fatal		4	4	8	12	16	20
Review Date:				3	3	6G	9	12	15
Reviewed by:				2	2	4	6Y	8	10Y
Review Date:				1	1	2	3	4	5G
Reviewed by:				0	1	2	3	4	5
Review Date:	Likelihood of Injury								
Reviewed by:	Low Risk		Medium Risk		High Risk				

Activity to be Assessed			Assessment Number						
Installing scaffolding									
Persons undertaking or affected by the activity									
☐ Employees ☐ Contractor ☐ Public ☐ Service User ☐ Other									
Identified Hazards and Associated Risks		Likelihood	Severity	Risk Level					
1	Working at height (falling)	3	2	5					
2	Scaffold collapse	2	4	6					
3	Struck by falling material	3	3	6					
4	Electrocution (if electrical components present e.g. power lines)	2	4	6					
5	Slips and falls	3	3	6					
6									
Existing Control Measures / Additional Control Measures Required									
1	Scaffold must be equipped with guard rail system at top, mid-section and must also include a toe boards when over 10ft high.								
2	Basse plates must be used and must be placed on solid footings, scaffolding. Must also be levelled and plumbed.								
3	Areas below scaffold work should be barricaded unless a protective canopy installed.								
4	Scaffolds must be at least 10ft high from electric power lines (higher voltages require greater distances).								
5	Employees shall be at prohibited from working on scaffolds covered with snow, ice or other slippery substances.								
Reassessment of Activity Hazards		Likelihood	Severity	Risk Level					
1	Working at height (falling)	2	2	4					
2	Scaffold collapse	2	2	4					
3	Struck by falling material	3	2	5					
4	Electrocution (if electrical components present e.g. power lines)	2	4	6					
5	Slips and falls	2	2	4					
6									
Name: Al David Ikete Position: Project Manager		Signed:		Date of Completion: 7 th April 2020					
Reviews		Key							
Review Date:	Likelihood	Severity	Severity of Injury	5	5Y	10R	15	20	25
Reviewed by:	1 very unlikely 2 unlikely 3 likely 4 very likely 5 certainty	1 nuisance 2 minors 3 medical treatment 4 majors 5 fatal		4	4	8	12	16	20
Review Date:				3	3	6G	9	12	15
Reviewed by:				2	2	4	6Y	8	10Y
Review Date:				1	1	2	3	4	5G
Reviewed by:				0	1	2	3	4	5
Review Date:	Likelihood of Injury								
Reviewed by:	Low Risk		Medium Risk		High Risk				

Activity to be Assessed		Assessment Number		
Brick and block work		3		
Persons undertaking or affected by the activity				
☐ Employees ☐ Contractor ☐ Public ☐ Service User ☐ Other				
Identified Hazards and Associated Risks		Likelihood	Severity	Risk Level
1	Hazard to eyes cutting bricks. (Bricklayers could suffer eye injury through flying brick fragments.)	2	3	6
2	Hazardous substances, mortar. (Direct skin contact with mortar could cause the bricklayer a series of skin irritations and burns)	4	3	12
3	Dust from cutting bricks. (Dust exposure could cause silicosis)	4	3	12
4	Operating cement mixer. (Workers could be crushed or cut if the mixer is topples)	2	5	10
5	Noise from using equipment, such as angle grinder. (Workers using the grinder and those close by could potentially suffer from hearing loss.)	5	2	10
6	Vibration from use of equipment such as angle grinder. (exposure to vibration can lead to the development of vibration white finger (VWF)).	5	2	10
Existing Control Measures / Additional Control Measures Required				
1	- Bricklayers must safety goggles in accordance with (EN 166 B standard) which states that goggles must be worn when breaking bricks. - Use of goggles must be monitor and enforced by supervisor.			
2	- Risk of dermatitis or cement burns and precautions must be explained to all workers. - Use cement or cement containing products within the use-by date. - Direct skin contact should be avoided, CE marked PVC must be worn when handling mortar. - Washing up facilities must be provided on site, with hot and cold water, soap and basins with enough room to wash forearms. - First aid kit must also include emergency eyewash.			
3	- Angle grinders replaced with splitter, removing the risk of significant dust exposure. - The use of a grinder for chasing etc is not needed on this job.			
4	- Cement mixer located on firm, level ground. - Mixer is fully guarded in place during operation. - Mixer is 110 volt and PAT tested every three months.			
5	- Angle grinders replaced with block splitter, removing high noise levels from our work. - Construction phase plan show other trades using grinders etc should not be working close enough cause problems.			

6	Angle grinders replaced with block splitter. No significant vibration left.								
Reassessment of Activity Hazards		Likelihood	Severity	Risk Level					
1	Hazard to eyes cutting bricks. (Bricklayers could suffer eye injury through flying brick fragments.)	4	2	8					
2	Hazardous substances, mortar. (Direct skin contact with mortar could cause the bricklayer a series of skin irritations and burns)	5	2	10					
3	Dust from cutting bricks. (Dust exposure could cause silicosis)	4	2	8					
4	Operating cement mixer. (Workers could be crushed or cut if the mixer is topples)	2	5	10					
5	Noise from using equipment, such as angle grinder. (Workers using the grinder and those close by could potentially suffer from hearing loss.)	1	5	5					
6	Vibration from use of equipment such as angle grinder. (exposure to vibration can lead to the development of vibration white finger (VWF)).	5	1	5					
Name: Al David Ikete Position: Project Manager		Signed		Date of Completion: 7 th April 2020					
Reviews	Key								
Review Date:	Likelihood	Severity	Severity of Injury	5	5Y	10R	15	20	25
Reviewed by:	1 very unlikely 2 unlikely 3 likely 4 very likely 5 certainty	1 nuisance 2 minors 3 medical treatment 4 major 5 fatal		4	4	8	12	16	20
Review Date :				3	3	6G	9	12	15
Reviewed by:				2	2	4	6Y	8	10Y
Review Date :				1	1	2	3	4	5G
Reviewed by:				0	1	2	3	4	5
Review Date :	Likelihood of Injury								
Reviewed by:				Low Risk		Medium Risk		High Risk	

Health and safety legislation and its implications in the following construction project

This section of the file aims to look at the health and safety regulations that apply to the construction sector and how they can be applied to the current project. Furthermore, also look how it has improved health and safety for construction sector workers.

Statistics

In Great Britain in the working year 2018/19 there were 30 fatal injuries to workers in the construction industry, this number has been the same average number of fatalities for the years 2014/15. (RIDDOR,2018/19)

In construction, there were an estimated 79,000 work-related ill health cases (long standing or new). 62% of those ill health cases were musculoskeletal disorders, this is due to careless workmanship or miss use of PPE (personal protective equipment). (RIDDOR,2018/19)

Legislation and Regulations

- 1) The health and safety at work act 1974 is the primary piece of legislation overlooking occupational health and safety in the United Kingdom. It may sometimes be referred to as HSWA.

An Act to make further provision for securing the health, safety and welfare of persons at work, for protecting others against risks to health or safety in connection with the activities of persons at work, for controlling the keeping and use and preventing the unlawful acquisition, possession and use of dangerous substances, and for controlling certain emissions into the atmosphere; to make further provision with respect to the employment medical advisory service; to amend the law relating to building regulations, and the Building (Scotland) Act 1959; and for connected purposes. (legislation.gov.uk)

It sets out the duties which:

- Employers have towards their employees and members of the public
- Employees have towards themselves and to each other
- Certain self-employed have towards themselves and others

How the health and safety act is used in construction:

- ⇒ Applies to all construction sites
- ⇒ Failure to comply with the requirements of the act is a criminal offence which can result in a prison sentence of up to 2 years and an unlimited fine.
- ⇒ All other health and safety acts and regulations fall under this act.
- ⇒ Section 2 gives employers a duty to ensure the health and safety of employees as far as is reasonably practicable.
- ⇒ Section 3 imposes a duty to ensure people who are not employees are not exposed to health and safety risks.
- ⇒ Section 4 imposes a duty to ensure the premises are safe for use and clear of any health risks.
- ⇒ Section 7 and 8 gives the employees a duty of reasonable care.
- ⇒ Section 37 provides that directors and managers can be liable personally for neglect or consent that leads to an offence under the Act.
(for a further read on the various sections of the health and safety work act, seek Appendix A.)

The health and safety act make sure that contractors and sub-contractors are responsible for the hazards that are on their site and ones posed to their workers. However, section 2 which is regulation requires all employees to all so ensure their own health and safety, by wearing PPE (personal protective equipment supplied to them by the employers, this personal protective equipment could be hard hats, gloves and high visibility jackets.

2) COSHH (Control of Substances Hazardous to Health Regulation)

In the construction industry there are many processes that require the handling of hazardous substances, one example is the pouring of concrete. If direct contact of the skin is made with concrete, it can cause skin dermatitis and other skin irritation. Therefore, the control of substances hazardous to health regulations requires employers to reduce and prevent workers being directly exposed to the substances.

Substances classed as hazardous:

- Chemicals, and products containing chemicals
- Fumes, gases vapours and mists
- Dusts
- Nanotechnology
- Biological agents and germs

However, the COSHH does not cover asbestos, lead or radioactive substances, which are controlled by other legislations which are featured below.

Ways a construction firms can reduce risk using COSHH:

- Finding out what the health hazards that are posed on their site.

- Deciding how to prevent harm to health, this is done through the use of a risk assessment.
- Providing control measures to reduce the risk to health, this can be done by ensuring that staff are well trained, they follow a method statement with the correct procedure to carry out the works.
- It's also a contracting firm's responsibility that all measures put in place are followed.
- Providing monitoring and health surveillance in appropriate cases.

3) CDM (Construction Design and Management)

The construction design and management regulations (CDM 2015) is the main set of regulations for managing health and safety and welfare construction projects. CDM applies to all building and construction work this includes; new build, demolition, refurbishment, extensions, conversions, repair and maintenance.

CDM 2015 regulations are aimed at bringing the UK's health and safety regulations in compliance with European standards and requirements, as well as making the regulations both more effective and competent. CDM uses BIM to carry out construction simulations using various models to identify hazards and sources the safest construction method or processes. Moreover, the objects contained in the models could be embedded with relevant health and safety data, which could potentially facilitate checking and coordinating health & safety issues and make to be missed placed in paperwork.

Who's is responsible for CDM?

CDM responsibilities are split into various categories, which cover the contractor to the building occupants;

1. **Clients-** Are organisations or individuals for whom a construction project is carried out. (CDM 2015)
 - 1.1 Making suitable arrangements for managing a project. This process includes the appointment of other duty holders, also sufficient time and allocating the resources.
 - 1.2 Prepare relevant information and provide it to other duty holders, make sure that the principal designer and principal contractor carry out their duties and provide the welfare facilities.
2. **Domestic Clients-** are people who have construction work carried out on their own home, or the home of a family member that is not done as part of a business, whether for profit or not. (CDM 2015)
 - 2.1 As domestic clients they still fall under CDM 2015 however their duties are transferred to the contractor on a single contractor project such as a renovation or extension or the principal contractor on a multiple contractor job.

3. **Designers-** Are those, who as part of a business, prepare or modify designs for a building, product or system relating to construction work. (CDM 2015)
 - 3.1 the role of the designer is to reduce, eliminate or control foreseeable risks that may occur during the construction and the maintenance of and use of the building once it is built.
 - 3.2 Also provide information to other members of the project team in order for them to fulfil their duties.
4. **Principal designers-** Are designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.
 - 4.1 Their duty is to manage, plan, monitor and coordinate health and safety in the pre-construction phase of a project. This consists of identifying, eliminating or controlling foreseeable risks, and ensuring that each designer is ensuring designers are carrying out their duties.
 - 4.2 They must also prepare and provide relevant information to the duty holders as well as to the principal contractor to help them plan, manage, monitor and coordinate health and safety in the construction phase of the project.
5. **Principal contractors-**are contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor.
 - 5.1 The principal contractor's role is to overlook the whole operation, this means liaising with the client and principal designer, preparing a construction phase plan, organising operation cooperation between contractors and coordinating their work.
 - 5.2 It is also in the principal contractor's role to ensure that there is a suitable site induction and it is delivered to all employees.
 - 5.3 Also, that reasonable steps are taken to prevent unauthorised access on the site, workers must also be consulted and engaged in securing welfare facilities are provided.
6. **Contractors-** are those who do the actual construction work and can be either an individual or a company.
 - 6.1 A contractor's role is to plan and manage and monitor construction works under their control so that carried out risk free and in accordance with health and safety regulations.
 - 6.2 In projects involving multiple contractors they must coordinate their activities with others in the project team.
 - 6.3 They must also comply with directives given by the principal contractor.
7. **Workers-**are the people who work for or under the control of contractors on a construction site.
 - 7.1 workers must be consulted about matters which effect their health, safety and welfare.
 - 7.2 Take care of their own health and safety and others who may affected by their actions and report anything they see which likely to be hazardous and endanger either their own or colleagues health and safety.

7.3 Workers must also cooperate with their employer, fellow workers, contractors and other duty holders.

Appendix A

The regulations in the health and safety act 1974:

Section 2

2. General duties of employers to their employees.

(1) It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees.

(2) Without prejudice to the generality of an employer's duty under the preceding subsection, the matters to which that duty extends include in particular—

(a) the provision and maintenance of plant and systems of work that are, so far as is reasonably practicable, safe and without risks to health;

(b) arrangements for ensuring, so far as is reasonably practicable, safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances;

(c) the provision of such information, instruction, training and supervision as is necessary to ensure, so far as is reasonably practicable, the health and safety at work of his employees;

(d) so far as is reasonably practicable as regards any place of work under the employer's control, the maintenance of it in a condition that is safe and without risks to health and the provision and maintenance of means of access to and egress from it that are safe and without such risks;

(e) the provision and maintenance of a working environment for his employees that is, so far as is reasonably practicable, safe, without risks to health, and adequate as regards facilities and arrangements for their welfare at work.

(3) Except in such cases as may be prescribed, it shall be the duty of every employer to prepare and as often as may be appropriate revise a written statement of his general policy with respect to the health and safety at work of his employees and the organisation and arrangements for the time being in force for carrying out that policy, and to bring the statement and any revision of it to the notice of all of his employees.

(4) Regulations made by the Secretary of State may provide for the appointment in prescribed cases by recognised trade unions (within the meaning of the regulations) of safety representatives from amongst the employees, and those representatives shall represent the employees in consultations with the employers under subsection (6) below and shall have such other functions as may be prescribed.

Reference

(Chudley, 2016)

<https://www.hse.gov.uk/construction/healthrisks/hazardous-substances/cement.htm>

https://www.osha.gov/Publications/concrete_manufacturing.html

<http://www.legislation.gov.uk/ukpga/1974/37/section/2>

<https://www.citb.co.uk/about-citb/partnerships-and-initiatives/construction-design-and-management-cdm-regulations/cdm-regulations/#>

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