Method Statement

For
Basement Slab & Lining walls, Columns & Internal walls

Acorn House

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It is important that all method statements are followed explicitly. Unauthorised variations are not permitted. Method statements are reviewed regularly by the MYCO Project Team.

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1.0 PURPOSE

The purpose of this document is to detail the safe methodology for the construction of the lining walls and internal columns and walls in the basement.

It will identify the following:

- Potential health, safety and environmental hazards and risks.
- Difficulties that may be encountered,
- Special plant or procedures,
- How work is to be carried out to remove or minimise hazards, risks, and difficulties,
- Any necessary permits/licences required for the works,
- How site supervision will ensure works are carried out as intended.

These works will be carried out in a timely manner in accordance with the Contract Programme. Personnel intending to carry out the tasks detailed in this method statement will be briefed on the contents to ensure a safe system of work is established and maintained during the work. If they have any queries, they should liaise with either their site supervisor or the site person in charge before commencing any works. Records of the method statement briefings are to be kept in the site safety arrangements file

2.0 INTRODUCTION

Copies of this method statement will always be kept on site for reference. The document will be discussed with the Foreman/Supervisor involved in the proposed works, prior to them starting, ensuring that they are fully conversant with the methods of working to be adopted.

All operatives will be briefed on the contents of the approved Method Statement. It will be the responsibility of the MYCO Site Supervisor or Site Manager to ensure that this is carried out prior to the works commencing on site.

Signed copies of the method statement briefing log will be kept in the site safety file

3.0 GENERAL

The responsibility for implementing the method statement lies with the MYCO site management team and its site operatives. All are expected to co-operate with MYCO. In carrying out the works and must ensure that their own work is carried out without risk to themselves or others.

Copies of this method statement will be always kept on site for reference. The document will be discussed with the Foreman/Supervisor involved in the proposed works, prior to them starting, ensuring that they are fully conversant with the methods of working to be adopted.

All operatives will be briefed on the contents of the approved Method Statement. It will be the responsibility of the MYCO Site Manager to ensure that this is carried out prior to the works commencing on site.

Signed copies of the method statement briefing log will be kept in the site safety file.

3.1 Project Manager

Will be responsible for the overall supervision of the project, applying and monitoring safety; quality, technical and financial controls. He will liaise directly with the client.
He will be responsible for preparing and revising the method statements and co-ordinating the proposed works with the appropriate personnel / sub-contractors on site.

3.2 Site Supervisor

Will provide site based supervision for the contract, from commencement to completion and ensure the satisfactory and smooth progress of the works in an efficient, economical safe and quality conscious manner.

Will ensure that the operatives, under their control, carrying out the works detailed in the method statement; will ensure they are made aware of its contents and carry out the works in accordance with its requirements; will ensure that operatives do not take any unnecessary risks and will report any incident however minor to the Project Manager.

4.0 SCOPE OF WORKS.

The purpose of this method statement is to outline the construction procedure that will be implemented for the construction of the new basement raft slab, liner walls and columns

4.1 GENERAL CONDITIONS

All operatives will receive a site induction before or on the day the operative starts on the project and will sign the induction record to acknowledge understanding of the site rules and safe systems of work in place. They will be made aware that at any time they can and will be requested to provide samples for drugs and alcohol testing, and any failure will result in disciplinary action and removal from site immediately. All relevant permits and certificates will be checked, and a copy will be retained on site for record purposes.

Prior to starting work in every shift, operatives must sign in with the Site Manager/Supervisor. A Start of Shift / Task Briefing will be given at the commencement of every shift discussing on-going works, changes to access, adjacent works etc.

Where there is a new or altered work activity, the operatives will be given a Task Briefing based on this method statement and will sign to acknowledge that they understand the method, safe system of work, and control measures.

Where the planned methodology requires alteration due to unforeseen circumstances the MYCO responsible Manager shall be consulted.

When attending site for the first time all operatives and staff will be required to produce a copy of the following information prior to commencing any works on site:

A certificate of competency for their trade or the item of plant being operated – in accordance with CITB requirements (CSCS/CPCS). A copy of these certificates will be taken on site and retained in the Site Safety File.

All site personnel will report to the MYCO Site supervisor and sign in. No personnel will be allowed to commence work until they have signed in. This working procedure will be followed daily.

Plant will be immobilised at the end of each working shift and left in a safe secure manner. Keys for the machines will be removed each night, buckets lowered and left on level ground. Keys for machines will be placed on extendable fobs to ensure operators remove keys from machines when leaving the cab/seat.

The speed for all plant working on site will be a maximum of 5 MPH

Daily visual inspection / checks will be carried out by the operators on each item of plant at the start of each working shift. Any defects noted will be advised to the Site Foreman. All inspections will be logged / recorded in the site safety file.

Valid test certificates for all items of plant used will be provided and will be available on site for inspection. Copies of these test certificates will be in the Site Safety File.

All excavation works will be carried out under a permit to dig system. The permits will be issued and managed by the MYCO site manager. The permit to dig must have the latest utility drawings attached and must be in colour and have a key to identify the services. MYCO permits to dig can only be issued and accepted by competent personal who will be present during the excavation works

4.2 METHODOLOGY

Basement Slab

The formation of the slab will need to be completed to the correct levels before the concrete binding has been placed. The slab formation will be always excavated by machine excavator with the control of a Banksman, with the use rotating laser, to achieve the correct level required. It is important that extra care is taken in order when trimming as damages can be caused to the installed pile caps and drainage & utilities.
The heave protection if required will be laid and where necessary and concrete blinding placed on top. A waterproof membrane will be added.

Steel for reinforcement will be delivered by an excavator/ crane for the slab positions, to set out the slab area the mat will be laid out to lines/ grids. Steel fixers will be tying each crossing, there will be a distance between the top and bottom steel mats as Chairs from the reinforcing steel will be installed.

The concrete for the slabs will be placed using a concrete pump, it will be fully compacted using electric or air vibrating pokers by operatives working from the ground or a suitable platform. Test cubes will be made at specified intervals.

Lining Walls, Internal Columns and Walls

Prior to the works commencing it is vital that there is an exclusion zone to prevent unauthorised personnel entering the area. The main hazard during the commencement of the works, is the debris falling from above. Firstly, the preparation of the face of the piles will commence, the loose muck / debris will be removed from the soffit of the capping beam down to the base of the slab previously poured.

The remains of the concrete blinding installed during the capping beam construction will need to be broken out, together with any loose materials. The installation of the waterproofing membrane will be exposed and to be drop down the pile facing. The installation of the waterproofing will be carried out by a specialist to the acceptance of the waterproofing specialist inspector.

A tidy joint will need to be created once a once the lining wall has been poured, saw cutting with a light breaker will commence and it will need to be supressed with water. It is important that operatives wear the appropriate suitable PPE.

The waterproofing will be placed by a specialist contractor and inspected by the waterproofing specialists inspector once the preparation works are complete.
Reinforcement walls will be delivered to site cut and bent as specified in the drawings and specs and then will be installed, from ground level, Steel fixers will install reinforcement. A space blocker will be tied to the rear face to ensure that reinforcement is kept away from the piles as the works progresses and ensure surround with concrete when pouring. Chairs will be fixed clear form the pouring tubes to ensure that the poker is able to travel vertically without obstruction.

Temporary works design previously approved will be fixed to the front face of the wall, plumbed, and lined and tied to previously installed anchor ties. Shutters will be strutted / braced, and the walkway brackets and platform fitted, where necessary.

The shutters will be struck ensuring taking precautions not to damage the concrete face. The shutters will then be cleaned and prepared for the next section of the works.

Lifting will be carried out as per the pre-arranged lifting plan by trained slinger signaller.

Waste removal, all waste will be carried by a licensed waste carrier and disposed of offsite at a licensed landfill site. Copies of the waste transfer notes will be taken and kept on site. M/away lorries will have the wheels brushed / cleaned before exiting site, where necessary.

All site traffic movements will be overseen / supervised by trained and competent traffic marshal.

Concrete will arrive on site delivered by ready mix lorries and place by concrete pump or concrete skip suspended from the excavator. There will be an area to place the mobile concrete pump. Pump works to be coordinated with tower crane works and pump driver issued with a crash radio. Valid test certificates for the pump and operative will be available and copies will be kept in the site safety file. Working platform to be designed and checked. Pump works to be coordinated with tower crane works and pump driver issued with a crash radio.

Vibrating pokers will be used as it will be used to compact the concrete by the operatives working from the ground/ Through the pouring holes, the concrete will discharge, the level of the concrete will be kept at a steady rise by

pouring in a pattern gradually. The concrete will eventually reach the finished level at the top of the capping beam and when it does it will be floated off and flush.

In specified intervals test cubes will be made.

Reinforcement will be fixed to the starter bars as it will be assembled on site, tie bars and corner bars where necessary. The engineer will carry out an inspection once the rebar has been installed. During the works the area will be always barricaded off with an exclusion zone put in place by use of barriers and signage keeping unauthorised operatives from entering the area Shutters will be fixed to each face the wall and column as specified in the design and specs and will be constructed out at slab level. Concrete will be poured as described earlier by operatives working from a platform, the internal elements will not require external poking. Columns will be formed using formwork panels made from timber and plywood. Access to upper sections of the shutters will be via MEWP or podium step, only trained operatives with the relevant ticket can use the MEWP and must always stay within the basket. Edge protection will be in place for the platforms, as it will be lifted off the ground. The level of concrete will be controlled using grout check fixed onto the formwork marked by the site engineer.

The top level of concrete will be achieved by pouring up to a level nail / batten installed by the engineer prior to the pour. Once cured shutters will be struck, cleaned prepared for the next section of the works.

Throughout the duration of the works within this methodology, Concrete works is incorporated and will have a detailed Method Statement specifically for Concrete Pumping. All operatives that are a part of the works, will need to have the relevant CPCS card for concrete pumping operations. The site manager on site will have a designated area where the Mobile Truck – Mounted Concrete Pump will have the to deliver the concrete from the machines delivery hopper.

5.0 LIFTING EQUIPMENT

All lifting equipment shall comply with Lifting Operations and Lifting Equipment Regulations (LOLER). Thorough test and inspection certification must accompany all lifting equipment and copies maintained within the site safety arrangements file.

The following lifting equipment will be employed for the execution of the works covered in this method statement:

- Excavators
- Concrete Skip
- Chains, shackles, and slings
- Lifting Straps
- MEWP Scissor Lift
- Crawler Crane
- Telescopic Crane

All lifting equipment will have copies of the test certificates on site for inspection.

Records of all lifting operations and lifting equipment used will be logged in the site safety file L.O.L.E.R.

6.0 PORTABLE TOOLS

All electrical tools will be 110v or battery operated. All plant that is supplied for the works will be PAT certificated. Records of the test status of the equipment will be maintained on site. Tools on site will be monitored for any signs of damage or fault; defective equipment shall be marked, removed from site and exchanged. The following tools may be required under this method statement:

7.0 MECHANICAL PLANT REQUIREMENTS FOR THE WORKS

All plant shall comply with the Provision and use of Work Equipment Regulations (PUWER). Plant shall be recorded within the PUWER Register in accordance with the regulation. Records of the test status of the plant will be maintained on site. Plant on site is to be monitored for any signs of damage or fault, defective equipment shall be marked, removed from site, and exchanged. The plant that may be used on site under this method statement is:

- 20t Excavator

- 6T Excavator and Breaker
- Compressor
- 6t FT Dumper
- Jet wash

Machine operatives will have keys of the machine(s) attached to a Bungee to ensure they are removed, and the piece of plant is switched off when exiting the cab / seat.

8.0 PROPOSED LABOUR

Project Manager – CSCS & SMSTS/TWC
Engineer – CSCS
Supervisor – CSCS & SSSTS
Ground workers – CSCS
Plant Operators – CPCS
Carpenters – CSCS
Steel fixers - CSCS
Slinger / Signaller – CPCS/ NPORS
Vehicle / Plant banksmen – Traffic Marshall Ticket / Certificate
MEWPs Ticket - IPAF

9.0 PROTECTION OF THIRD-PARTY ASSETS

There are no Third-Party Assets within the Site Boundary

10.0 MATERIALS & SITE STORAGE

All materials required for the works shall conform to specification and shall be accompanied by appropriate COSHH assessments and data sheets. Materials will be brought to site in suitable quantities to suit the work scope. Permanent materials to be used during the execution of the works detailed in this method statement will be installed as per the details provided in the specification and contract drawings.

All deliveries will be delivered to site as per MYCO Traffic Management Plan. All deliveries will adhere to the delivery times as specified by MYCO.

A 10ft secure container provided by MYCO will be used to store small items of plant and materials. Storage areas for the larger construction materials will be designated by MYCO. Storage areas are not to obstruct the immediate works area, pedestrian, or traffic routes.

All materials will be handled and stored in line with COSHH assessments. All hazardous materials will be delivered with a hazard data sheet.
All hazardous substances and materials, where required, will be stored in suitably approved containers in accordance with the construction site requirements. COSHH containers will be secure, lockable steel chests.

11.0 TEMPORARY STRUCTURES AND FALSEWORK.

As per the Temporary work design from O'SHEA.

12.0 WORKING AT HEIGHTS

Podium Steps to be inspected prior to use and tagged. A seven-day recorded inspection will be caried out however operatives will inspect prior to each use for any obvious signs of damages or fault. Scissors lifts used for height to undergo recorded inspection daily and LOLER inspection weekly. Operators are to be IPAF 3a carded. Proprietary working bracket installed to wall shutter by carpenters with handrails, toe boards, and ladder access. This is to display an inspection tag that is to be updated by a shuttering carpenter after each move of the system or every seven days.

13.0 WORK PERMITS AND LICENCES

The following permits / licenses / certificates will be required for the works: -

Applicable CSCS/CPCS card
Site Specific Induction
Approved Method Statement Briefing

Permit to work
Hot works permit
Permit to Dig
Permit to Load

14.0 TEMPORARY LIGHTING AND POWER

Tower Light, generators will be located at the works location which will provide the light and power for any tools needed to carry out works. Generators will be placed on drip trays.
All leads associated with lighting and power to be sufficiently contained to ensure there are no potential trip hazards. All temporary power will be 110v as per construction requirements.

15.0 CONTROL OF WORK WITH HAZARDOUS SUBSTANCES AND PROCESSES.

Individual assessments for COSHH will be carried out for the following materials: -

- Ready mixed concrete
- Diesel
- Leptospirosis
- Dust cement/concrete
- Hydraulic Oil
- Petrol

Copies will be kept in the site safety file for reference by operatives working with hazardous substances.

Asbestos
It is not envisaged that any unknown asbestos will be found in the work areas. However, wherever any person identifies or suspects that any material is being disturbed which may contain asbestos, work will be suspended immediately and inform the MYCO Site Manager.

16.0 FIRST AID.

A member of the site team will be a 4-day First Aider; certificates for the First Aider will be available on site for inspection. A suitably stocked first aid kit and eye wash facilities will be available in the site office.
The site supervisor will advise the workforce of the identity of the first aider. The site supervisor shall advise the workforce of the locations of the first aid kits during the site briefing.

The nearest A&E department is. 4 Saint Pancras Way Inpatient Unit, South Wing, Pancras Rd, London NW1 0PE

17.0 FIRE

Fire points will be provided / placed within the worksite by MYCO in accordance with the MYCO emergency plan. Fire points will have a minimum of 1no 9L AFFF & 1no CO2 fire extinguishers and a fire blanket. These will not be used for hot works; hot works shall be equipped with necessary and specific equipment and will be provided by MYCO

In the event of fire, all persons shall follow the site emergency procedures as laid out in the site induction and MYCO emergency procedure. Any hot works to be carried out in the worksite will be controlled by a hot works permits, which will be issued by the MYCO site manager.
In the event of the alarm being raised all personnel will be required to stop work and make their way to the assembly point, which will be advised by the MYCO Site Manager during site induction. The Site Manager will take a roll call of all personnel.

18.0 EXCAVATION.

N/A
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19.0 PERSONEL PROTECTIVE EQUIPMENT

The following PPE will be worn as a minimum during the completion of the works covered by this method statement:

Hard Hat
Hi-Visibility vest (High-street)
Steel toe capped safety boots (with mid-sole protection EN345) (No safety trainers permitted)
Hearing protection (to be used during noisy works)
Gloves (suited to the task) (Level cut3 minimum)
Dust mask / respiratory protection (FFP3 – cutting/grinding)
Eye protection (fully enclosed, impact resistant goggles when cutting/breaking/grinding)

PPE necessary for specific activities are determined in the risk assessments and COSHH assessments. PPE will be issued and controlled by MYCO Limited.

20.0 REPORTING OF INJURIES, DISEASES AND DANGEROUS OCCURRENCES (RIDDOR)

MYCO Limited recognise the importance of reporting accidents, incidents, injuries, diseases, and dangerous occurrences as a key factor of effective safety management.
All such incidences shall be reported in accordance with the above regulations and Site Safety Procedures.
All accidents shall be reported to the Site Manager and entered the site accident book.
MYCO site personnel shall be responsible for day-to-day enforcement of this practice. The person responsible for reporting and carrying out investigation into such incidents shall be the MYCO Safety Advisor.

21.0 HOUSEKEEPING

Importance will be placed on ensuring that any work areas are kept clear and maintained in a clean and tidy condition.
All tools, plant, and materials where practicable, will be removed from the works area on completion of shift and work areas secured. All routes used for the delivery / movement of materials and disposal of waste will be kept clear throughout the shift.

22.0 ACCESS AND EGRESS TO AUTHORISED PERSONNEL

All operatives, Managers and Visitors will be required to attend the MYCO site induction. It is the responsibility of the MYCO site supervisor to ensure all operatives / personnel have signed in prior to commencing work and are fully briefed on the emergency procedures.
It is the responsibility of the supervisor to ensure that all recognised pedestrian and vehicular access and egress routes are kept tidy and free from any obstructions that may impede the passage of any personnel or emergency services. All access to and from the work sites will be via the designated authorised routes.
At no time will emergency access or egress routes be obstructed by any part of the works.

23.0 EMERGENCY PROCEDURES.

All new personnel to the site are to be informed of the evacuation procedures and are to sign a MYCO induction sheet to confirm that they understand these procedures.

At the start of each shift all personnel will sign in. In the event of an emergency evacuation all personnel will evacuate the work areas by the nearest safe exit and meet at the designated assembly point as described by the site supervisor at site induction.

All operatives to be made aware of emergency procedure to remove steel-fixer/operatives from Pile cap cages in the event of getting trapped. This involves getting wrapped in a fire blanket and cutting the operative free using a petrol saw.

The site supervisor will establish that all personnel are safe and will hold a roll call. The site supervisor will confirm to the works supervisor of the number of operatives that have been safely evacuated.

24.0 TRANSPORTATION

Transportation of materials to and from the site will be via suitable vehicles for the materials being transported. Vehicles will be well maintained, and engines will be switched off when not in use to cut down on noise and emissions.
All vehicles when delivering will be controlled by a banksman (identifiable by a 'Banksman' Hi-vis). Materials and equipment will be delivered to site and stored only in the designated areas of the site.
All delivery vehicles will be fitted with orange flashing beacons to be turned on when on site. Delivery drivers that get out of their cabs must wear full PPE and remain supervised.

25.0 SIGNS AND NOTICES

Works Specific Signs and notices will be displayed at the work site to warn personnel / pedestrians of the potential danger present during the execution of the works by MYCO.
Main Site Signs warning of works and the appropriate PPE will be placed by the principal contractor at all approaches to the worksite. The signs at points of entry to the working area will indicate a noise restriction zone, if deemed necessary, and ear defenders must be worn before entry, along with a warning about deep excavations.
All signage will be in accordance with the statutory requirements and the requirements of the Contract.

26.0 SYSTEMS AND CODES OF PRACTICE

All works shall be carried out in accordance with current standards and codes of practice as identified in the appropriate Construction Quality Plan. Works will be carried out in accordance with British Standards Contract Specifications, Approved Codes of Practices, LOLER and PUWER regulations.

27.0 STATUTORY RECORDS

Statutory records for the works will include QA check sheets for all operations. Records such as RIDDOR, Accident Book, LOLER, PUWER etc. will be kept, and the appropriate registers completed at regular intervals in accordance with the relevant ACOP. These will be kept in the site safety file, located in the site office.

28.0 INTERFACES

It is the responsibility of the Site Manager to ensure that all recognised pedestrian and vehicular access and egress routes are kept tidy and free from any obstructions that may impede the passage of any personnel or emergency services. All access to and from the work sites will be via the designated authorised routes.

At no time will emergency access or egress routes be obstructed by any part of the works
MYCO site manager will take primary responsibility for liaising with external parties. Arrangements will be made in advance of any work being undertaken.

Environmental risks will take account of any site noise restrictions and waste disposal requirements.

29.0 NOISE AND VIBRATION

Noise/ vibration will need to be monitored to confirm within accepted guidelines. Should the records found exceed these guidelines then further measures will be implemented such as acoustic barriers placed along the hoarding for protection of the public outside of site. Site personnel will need to wear mandatory ear protection where noise would exceed these guidelines, which will be always made available. Where this is the case signage will be erected.

30.0 AIR QUALITY AND DUST

Suitable respiratory PPE will be provided and worn during any dusty works encountered. Dampening down with water will take place during any dusty works.

31.0 WASTE MANAGEMENT

All records will be received prior to beginning work including waste carriers certificate and details of the designated waste management facilities that will receive the waste.

No waste will be permitted to leave site until a fully completed Waste Transfer Note has been completed or for hazardous waste a fully completed consignment note.

Waste soils removed from site that are to be disposed of at landfill will be Waste Acceptance Criteria (WAC) tested to ensure they meet the relevant standard for the appropriate landfill.

A classification of the soil will be required prior to waste leaving site in order to describe the nature of the waste accurately on waste transfer notes.

Any waste material will be disposed of offsite by specialist sub-contractor in conformance with current waste management legislation.

32.0 PROTECTION OF WATER QUALITY

During the completion of the works there are no anticipated interfaces with any existing water supplies. However, no waste materials will be discharged into public sewer or drainage systems without prior consent of the relevant authority. All appropriate measures should be taken to protect the integrity of any watercourses or public sewers adjacent to or contained within the worksite.

33.0 MANAGEMENT OF PEST AND WEEDS

All personnel will be made aware of the potential presence of rat and other vermin during the site induction. Leptospirosis (Weil's disease) can be transported by rats.
Good standards of personnel hygiene shall be maintained at all times and suitable PPE will be provided.

34.0 TRAFFIC MANAGEMENT

The site supervisor shall ensure that no vehicles are left with their engines running when offloading material deliveries / in the vicinity of the site works area to minimise any exhaust fumes into the environment and reduce the amount of noise generated.
Site deliveries will be co-ordinated to minimise congestion around the site works area. All site plant / vehicles and delivery vehicles will adhere to the MYCO site traffic management plan.

35.0 CONTAMINATED LAND

It is not envisaged that any contaminated land will be found during construction However, if contaminated land is suspected, works will cease immediately and the appropriate action will be taken in accordance with legislation and MYCO site waste management plan.

36.0 INSPECTION AND ENVIRONMENTAL AUDITING

Monitoring of site safety, health & environmental performance will be carried out through inspections and audits. The supervisor will carry out informal daily site inspections making entries in his daily diary.

Internal inspections will be carried out at intervals not exceeding seven days. These inspections may be carried out by MYCO. Corrective actions will be assigned to the relevant party with a suitable time scale to take the correction actions.

The following control measures will be implemented:
Materials and wastes will be prevented from entering any drainage system or watercourse and liquids will be prevented from entering the ground. This will be controlled by constructing bunds around any at risk gullies identified. Spill kits (provided by MYCO) will be on site within easy access to clear up any spillages or leaks. Any spillages will be reported immediately.

Diesel Fuels will be stored away from drains in drip trays protected from vehicular traffic.
Refuelling, where practicable will be carried out at a designated point, which is equipped with drip trays, spill kits and a fire point.

No surface water/de-watering will be discharged into drains or sewers without permission from the supplier (discharge consent).

37.0 RECORDS AND DOCUMENTATION

Inspection and Test Plans will be in place to control Quality Assurance for the work activities. All records generated from the Inspection and Test plans will be kept on site office throughout the duration of the

Contract. Additional copies of the project documentation shall be maintained on Asite for the duration of the work and then archived.

38.0 MANUAL HANDLING

Site specific manual handling assessments will be kept in the site safety arrangements file. A manual handling risk assessment will be completed on site and an appropriate toolbox talk given describing control measures and appropriate PPE.

39.0 APPENDICES

Appendix A – Risk Assessments

Appendix B – Environmental Impact Assessment

Appendix C – COSHH Assessment – (Sypol Data Sheet)

Appendix D – Site Plan

Appendix E – Method Statement Briefing Record Sheet

Appendix A – Risk Assessments

PROBABILITY AND SEVERITY CLASSIFICATION

Probability	Description	Value

Improbable	Close to Zero	**0**
Remote	Conceivable but only in exceptional circumstances	**1**
Unlikely	May occur, but not likely	**2**
Possible	Could occur sometime	**3**
Likely	Likely to occur more than once	**4**
Frequent	May occur many times	**5**

SEVERITY CLASSIFICATION

Severity	Description	Value
Minor	Very minor injury – Requiring medical attention and leading to absence from work not exceeding 3 days	**1**
Major	Single injury – Leading to absence from work for more than 3 days, but not disabling	**2**
Severe	Multiple injury – Multiple or disabling injury or occupational illness for each event	**3**
Fatal	Single or multiple deaths – Event causes one or more fatalities.	**4**

DEGREE OF RISK = PROBABILITY + SEVERITY

Risk Factor = Severity + Probability. This is to be insignificant (less than 5) after control measures are applied

Likelihood	Frequent	5	6	7	8	9
	Likely	4	5	6	7	8
	Possible	3	4	5	6	7
	Unlikely	2	3	4	5	6
	Remote	1	2	3	4	5
	Improbable	0	1	2	3	4
			1	2	3	4
			Minor	Major	Severe	Fatal
			Consequences			

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Vehicles delivering plant/materials	Accident involving pedestrians on the footpath or other vehicles on the highway	Pedestrians, drivers, & members of the workforce	4	4	8	Workforce briefing Work site clearly signposted Vehicles to be guided / controlled by a banksman at all times Banks man to be identified by Hi-Vis jacket with 'Banksman' wording on the back Audible reversing tones All deliveries to be pre booked. All deliveries/collections to be carried out within the site boundary hoarding, ne vehicles to be offloaded on the road. All delivery drivers to sign in/out with Gateman Pedestrian and Site Vehicle routes to be segregated, clearly defined by physical barriers	0	4	4
lifting operations	Injury / damage caused by dropped lift – trapped/cut fingers/limbs	Operatives	5	4	9	Trained and competent slinger / signaller for all lifting operations. Slinger Signaller to check capacity of lifting equipment prior to lifting units / materials. Check lifting equipment (fibre slings/straps/chains) are not damaged or have had any 'unauthorised' repairs i.e. joined by bolts or wire. The correct pin and shackle are being used. All end links, rings or shackles ride freely on any hook on which they are attached. Slinger/Signaller to ensure that it is safe for lifting operations to start; The load is securely slung and evenly distributed. Slings/straps are protected from any sharp edges Position hands well away from the load, lifting chains and straps before the hiab takes the load. Ensure personnel are kept clear of the landing area. Do not place hands on load until lift completed Lifting plan to be in place for all lifting operations, (regulation 8 of LOLER) All personnel involved with the lifting operations are to be fully briefed on the risk assessment, lifting plan and method statement. Plant pass and sticker to be issued and displayed	0	4	4

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Working at height	Personnel / Materials falling	Site Operatives	5	4	9	All persons using equipment such as fixed line restraint, fall arrest equipment and use of harness equipment are to be trained and competent to do so. All working at height is to be carried out within fully guarded working platforms (MEWPS). Anyone operating a MEWP is to be trained and competent to do so. All formwork decking is to have secure edge protection fitted to the perimeter and all large openings within the deck area. All fitted edge protection is to be inspected and signed off on a daily basis. All delivery vehicles to be fitted with edge protection - air/bean bags to be in place where delivery vehicles are not fitted with edge protection; Secure, footed ladders to be used for access only; secure barriers installed a minimum of 1m back from the leading edge of any trench excavation. All manhole/trench box installations to have edge protection panels fitted to the top of the boxes. Access into M/H and trench boxes to be via a proprietary ladder access platform with secure ladder access gate. Mobile access towers and podium steps with enclosed platforms are to be used for the installation of wall/column reinforcement and formwork. Anyone erecting the mobile towers will be trained and competent to do so. (PASMA) Herras Fencing erected around works locations to keep personnel not involved in the works from entering the area.	0	4	4
Manual handling of materials (general)	Strains and sprains to muscle and joints. Cuts and abrasions from rough surfaces, sharp or jagged edges. Back injuries	Operatives	5	3	8	Protective gloves (cut level 5) to be worn at all times. Personnel to be briefed on manual handling techniques, not to lift or attempt to lift heavy loads. Operatives to be advised on correct positioning of hands and feet in relation to the movement of the load by tool box talks. All materials are to be delivered as close as possible to the works area by mechanical means to prevent double handling. All lifting and lowering areas are clear of tripping hazards, and likewise check the route over which any load is to be carried. Large heavy loads, where possible, to be broken down into smaller lighter and more manageable sizes. Weight of items to be assessed and advised to personnel on site. Long items such as reinforcement bars are to be carried by 2no operatives to prevent the ‘whipping’ effect.	1	3	4

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Use of vibrating tools and equipment	Hand Arm Vibration (exposure to vibration white finger)	Operatives	**3**	**3**	**6**	Where practicable minimise exposure to operatives by reducing usage time of vibrating equipment. It is not envisaged that operatives will be using tools such as grinder / drill for any prolonged periods of time; **(Refer to HSE Chart)** however, Where handheld tools are to be used ensure that the items of plant are vibration dampened / low in vibration. Only use effective, well-maintained items of plant and equipment. Minimise exposure to operatives by rotating shift patterns. Ensure adequate stoppages / breaks are maintained in tool use and that operatives wear gloves to help keep hands warm and aid circulation during operations. Where ops use vibrating tools a record of 'trigger' time spent on 'each' piece of equipment used during the shift is to be logged to ensure that the exposure limit is not exceeded. Prior to starting works with any vibrating equipment operatives are to complete a HAV health self-assessment. HAVS for plant to be carried out prior to works commencing to ensure max exposure times are not exceeded.	**0**	**3**	**3**
Use of hands ad power tools	Injury from improper use of tool or use faulty tool.	Operatives	**4**	**3**	**7**	All operatives to be competent and familiar with the tools used. Tools to be used from a firm level surface. Visually inspect tools before use to ensure they are safe to use and have valid PAT Test where required. Use designated grips and handles on the tool. Follow Triggers time guidance. Do not exceed trigger time. Ensure HAVS log is completed where required. When changing tools such as drill bits or saw blades the tool must be fully isolated from the power source prior to placing hands near the moving parts or cutting edge.			

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Exposure to hazardous noise levels	Damage to / Loss of hearing	Operatives – Local environment	**5**	**3**	**9**	Where exposure is above 1st action level (80dba), information must be provided on the risk of damage to hearing and personnel made aware of the availability of hearing protection. Where exposure level is at or above the 2nd action level (85dba) the use of hearing protection is compulsory. The skill saw and cut-off saw use will emit noise levels exceeding the 2nd action level for short Periods. For longer, continuous Periods of exposure the time is to be monitored and limited to shorter Periods. Equipment to be properly maintained. All plant used will either be super silenced where possible. Adequate and suitable warning signs must be placed in the vicinity of the works location. Hearing protection to be readily available at first action level – 80dba Hearing protection compulsory when 2nd action level reached. – 85dba The SNR rating (single number rating) gives a single-number rating of a hearing protector / Plug. The SNR is a very useful standardised method for describing a hearing protector's attenuation in a single number. For instance, if an environment has a weighted noise measurement of 100dbA then by using an earplug with an SNR rating of 25db it will reduce the noise to 75db, the precautionary action level is 80dbA, where hearing protection must be offered.	**1**	**3**	**4**

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
General Work on Site -Housekeeping	Slips, trips and falls, disease and contamination	Operatives/Visitors	**5**	**4**	**9**	All tools / equipment and materials are to be properly stored immediately on delivery and after use. All unwanted packing materials to be correctly disposed off. All tripping obstructions to be cleared from work area. Appropriate task lighting to be available for all relevant works. **All work areas to be monitored and kept clear throughout and at the end of each shift.** Operatives to be made aware of waste skip location and all skips to have signage posted informing users what waste is to be deposited into which skip. Waste receptacles to be provided at certain work locations i.e. Carpenters benches. Welfare facilities to be kept in a clean and tidy condition. Operatives to maintain good personal hygiene. Leptospirosis (Weils Disease) can be caught through contact with foul water and contaminated ground / rubbish. No eating or drinking except in welfare facilities. Running water to obtained from an approved supply. If operatives cut themselves the cut / abrasion is to be thoroughly washed using clean water. Broken skin is to be covered with a waterproof plaster immediately. If they are feeling unwell, they should consult their doctor. Any incident should be recorded in the site accident book. All small plant / generators are to be always kept on drip trays.	**0**	**4**	**4**

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Use of Excavator	Operatives struck / crushed by machine – falls from machine	Excavator Operator - Site Operatives	4	4	8	Excavator operators to be fully trained to CITB standard (CPCS) Machine operator to carry out and record safety equipment checks prior to each use / start of shift. Machine to be adequately certificated and maintained on site. Entries recorded in the inspection register. Operators are to be given training (tool box talk information) on the safe use of quick hitch mechanisms. Operators to be aware of the 3 different types of mechanisms. All personnel are to be kept clear during attachment operations. Operators to leave cab and check locking systems are engaged prior to use. Unauthorised personnel to be kept clear during machine movements / operations. Machine is not to be left unattended with keys left in ignition. Personnel to be kept clear of the swinging radius of the machine arm. Loads not to be swung over personnel. Banksmen will be always used to control machine movement / operations. Excavator to have either rear view mirrors or CCTV fitted. Excavator operator and banks man to be given safety toolbox talk and method statement briefing prior to works commencement. Banksman and machine operator to have a copy of the permit to dig and all relevant service drawings. Where breakings out works are being carried out with breaker attachment, barriers are to be erected around the works area. Front safety window of machine to be closed at all times. Any operatives in the vicinity of the area must wear hearing protection. The machine operators are responsible for refuelling the machine i.e. ensuring the bowser is opened/closed by them prior to moving the machine away from the refuelling station, under the guidance of a banksman. Excavator operator to ensure he maintains 3 points of contact when entering/exiting the cab – use the handrails and fitted access steps	0	4	4

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Use of abrasive wheel	Eye injury / contact with moving disc / exposure to hazardous noise levels / inhalation of dust-fumes	Site Operatives	**4**	**4**	**8**	All personnel using the petrol-cut off saw are to be trained and competent to do so. Personnel working in area to be made aware of cutting operations and to keep clear. Operative carrying out cutting to wear appropriate eye protection (fully enclosed, impact resistant goggles / full face visor, flame retardant trousers) Operator to wait for wheel to stop before setting down or attending to it. Plant item to be refuelled on drip tray. Operator to hold cutter/grinder with both hands on the grip handles, not the body of the machine. Carry out a visual check of disc prior to use. Disc to be fitted by trained and competent personnel only. **Guards to be fitted and used on all petrol saws.**	**0**	**4**	**4**
Use of handheld circular saw	Laceration/Cuts Injuries from flying Particles	Carpenters	**4**	**3**	**7**	Carpenters to wear the correct PPE at all times (i.e. safety goggles/visor, hearing protection and dust mask) Dust collection bag or hoover attachment to be fitted. Only competent operatives (carpenters) to use the saw. Ensure that the riving knife is fitted and secure; **The riving knife is not to be removed**. Ensure the correct retractable guard is fitted and in good working order. Carpenters not to hold retractable guard open when in use. Skill Saw to be used for straight cuts only. Jig Saw or Hand-held saw to be used for all circular cuts. Carpenters to be briefed on the contents of the risk assessment	**1**	**3**	**4**

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Concrete Pumping Operations	Overturning of Pump Operatives being struck Failure/Bursting of pipes, Falls from height Trips slips and falls	Operatives	3	4	7	Use of concrete pump to be controlled by a permit issued by the responsible person. Concrete pump is to be positioned on firm and level ground with stabilisers fully extended and locked prior to pumping operations. Operations will be avoided during high wind conditions if the boom cannot be kept at low level. The immediate area around the pump is to be cordoned off. Relevant test and maintenance certificates for the pump will be inspected and recorded. All pumping operations will be under the control of the pump operator. Only trained and competent person to operate pump, operative must hold a CITB accreditation concrete pump operator card. Pump line to be inspected prior to use, ensure safety retaining pins have been inserted. Operator to ensure he always stands within the guarded platform during operation and uses the grab rails and access steps fitted.	0	4	4
Use of HD Ride on Roller	Overturning / unplanned movement / falling into excavation	Operator / Workforce	5	4	9	Only trained and certificated drivers to operate Roller. Operator to wear seat belt and roller to be fitted with roll bars. Stop blocks / timber baulks to be used where roller working adjacent any excavation. Stop blocks to be placed 1.5m away from the leading edge. All excavations are to be clearly marked by fencing. Roller to be switched off when not attended. Trafficking route to be clearly defined and adhered to. No carrying of passengers will be permitted. Roller to be properly maintained and delivered to site with relevant test and maintenance records. Roller to be checked on delivery and any faults found to be reported / repaired before use. Operator to carry out and record safety equipment checks all-round visual check of the area prior to moving/operating the roller Roller operator to ensure he maintains 3 points of contact when mounting / leaving the vehicle, use the handrails and fitted access steps. Roller operators are responsible for refuelling the machine i.e. ensuring the bowser is opened/closed by them prior to moving the machine away from the refuelling station.	0	4	4

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Refuelling of Plant	Spillage / ignition of fuel / skin irritation	Site operatives / environment	3	3	6	Fuel to be stored in secure, lockable bunded bowser / container. Fuel point to be fenced off / segregated. Spillage kits / sand to be kept adjacent to fuel store should spillages occur absorb in sand or inert absorbent materials, hand protection (PVC type) to be worn whilst clearing up. Spillage kit to be maintained on site. Hand fuel pumps to be used to extract fuel from drums / bowser. Where Drums used, these are to be stored in bund/container that is 110% larger than the total volume of fuel been stored. Plant where possible should be re-fuelled at fuel store point. Fuel store to be located away from drainage in case of spillage. Contaminated material to be bagged and disposed of by an approved waste disposal contractor. Report spillages to site supervisor. Provision of CO2 & AFFF fire extinguishers (fire point) in location of the fuel storage point. Ensure the location is well ventilated and plant is switched off when refuelling. No naked lights in the vicinity. Where petrol is used only small quantities are to be kept together, in secure, airtight containers. All storage containers are to be suitably marked to ensure easy recognition of what is contained within. Skin irritation - whilst in possible contact with fuel operatives to be issued and made to wear correct PPE. If skin is covered wash immediately with soap / cleanser and rinse with plenty of water. Clothing to be changed when/if contaminated with fuel.	1	3	4
Leptospirosis	Contraction of diseases / infection of open wounds	Site operatives	3	3	6	Leptospirosis (Weils Disease) can be caught through contact with foul water and contaminated ground / rubbish. No eating or drinking except in the site offices / canteen. Running water to obtained from an approved supply. Provide adequate welfare facilities. If operatives cut themselves the cut / abrasion is to be thoroughly washed using clean water. Broken skin is to be covered with a waterproof plaster immediately. If they are feeling unwell, they should consult their doctor. Any incident should be recorded in the site accident book. Refer to COSHH assessment for Leptospirosis which will be in the Safety File.	1	3	4

Slinger / Signaller Operations	dropped/unstable loads hands or feet becoming trapped by loads Loss/fall of load during lift Trapped, cut fingers and hands Collapse of load over personnel	Site Operatives	**4**	**4**	**8**	No lifts will be undertaken until the lift plan has been briefed to all persons involved with the lift operations. All loads to be slung and checked by a competent slinger / signaller Slinger to access the lifting points from secure footed ladder. Correct lifting equipment to be employed for each lift Lifts are not to take place until the operatives are clear and the Slinger / Signaller instruct the Crane/machine operator it is safe to do so. All operatives to be made aware of where the loads are to be landed and are to be kept clear whilst the lifts are taking place. Lifting and lowering areas are clear of tripping hazards. All lifts are to be under the direction / supervision of the slinger/signaller only and in accordance with a lifting assessment prepared by a trained & competent person. Check Chains and ensure they are not damaged or have had any 'unauthorised' repairs. Ensure all shackles ride freely on any Crane lifting eye on which they are attached. See that the Crane/machine arm is centrally placed over the load. Position hands well away before the Crane/machine takes the load. Tag lines are to be used where appropriate. When lifting ensure that all unauthorised personnel are kept clear of the slew route and landing area NO LIFTING OVERHEAD IS TO BE PERMITTED. Slinger signaller to ensure personnel are prevented from entering the slewing area.	**0**	**4**	**4**

Crawler Crane & Telescopic Crane Lifting Operations	Plant and Machinery Failure of Lifting Equipment Falling Materials Free Falling Loads Heavy Loads High Winds Unscheduled / non competent lifts Proximity of adjacent buildings / public	Site Operatives / members of public	**5**	**4**	**9**	Crawler & Telescopic Crane will be used to the complete the activities within this method statement and should be inspected and all lifting equipment to be inspected and serviced regularly as per PUWER and LOLER Regulations A maintenance and service schedule are to be available for inspection on site. All lifting equipment is to certificate and inspected regularly as per LOLER Regulations A copy of certification is to be retained on site for record keeping and reference. Slinger / Signaller to carry out visual inspection prior to use All lifts are to be carried out by competent trained slinger/signallers All lifts are to be carried out as directed in the lifting plan. Onsite inspections and checks are to be made by the crane operator to ensure that the crane is safe and operable Visual assessments are to be made by competent personnel to ensure the correct lifting equipment is used for the lift and that the crane is able to lift the weight of the load at the required radius Wind speeds within the site area are to be monitored and all lifting operations are to be in strict conditions of the Beaufort wind speed allowances as laid down for the restrictions of safe use of cranes in high wind and wind conditions. No unauthorised persons are to carry out any lifting operations; all operatives are to show proof of their competency prior to employment. A safe system of work is to be instigated with the crane being sited and lifting radii plotted onto the site plan. Crane area to be fully cordoned off. Banksman present to ensure no entry to unauthorised personnel			

MEWP Scissor Lift	Falls of persons or materials from platform. Overturning Failure of any part of the MEWP structure. Striking against overhead obstructions. Persons struck by the MEWP Vehicles or Plant striking Platform. Incapacity of operative at height/ Operative trapped between platform and overhead obstruction.	Operatives, persons adjacent	**4**	**4**	**8**	Only competent, authorised personnel with an IPAF card is to operate the MEWP. The MEWPs are to comply with PUWER & LOLER through examination. Prior to each use of the MEWP a competent person will do an inspection to identify for any defects or damages, if any defects found the Scissor Lift cannot be used and should be tagged and stored away till removal off site. Inspections of the Plant will be recorded. The MEWP will be fitted with all barriers, guards, safety devices and any other protective measures deemed necessary. The area around the MEWP is to be clear of any obstructions They will be well maintained and in good, safe working order. Platforms will not be moved until they are clear of loose material. Hop ups or ladders off the platform will not be allowed. All tools to be tethered and use of mobile phones while operating machinery is forbidden. Operator to check the site to ensure the MEWP can be used safely i.e., on firm level ground with no holes or steps. Platforms will not be operated outside limits set by the manufacturer. Stabilisers will be extended before the platform is raised and platforms will not be left unattended in the raised position. The working platform will not be used in severe weather conditions or high winds. DO NOT exceed the safe working load. A fixed stop block must be positioned at any step or edge. Comprehensive inspection and maintenance procedures are in place that comply fully with PUWER and the manufacturers recommendations. The platform capacity will be checks to ensure sufficient height for the work to be undertaken before use. The control of pedestrians will be planned, and the area of work will be segregated and signed. Measures will be in place to protect the operatives that are involved in the works at hand the others on site. barriers, signs, and notices. The operator will move the MEWPs at low level after checking the route and ground conditions. The use of a Banksman may be required if areas are congested, or access is difficult. Extremities/limbs will be kept clear from any moving parts of the plant to avoid entrapment. The control of traffic will be planned, and the area of work will be fenced off. All necessary signs, notices and barriers will be erected. A banksman may be required if areas are congested, or access is difficult. Trained operatives to always use MEWPs. The rescue button must always be accessible i.e., do not work tight to a wall so that there is no access to the button. A competent person must be always at low level to lower the MEWP in case of an emergency.	**0**	**4**	**4**

Steel Fixing	Cuts/injury to hands / slips/trips on slab steel - Impalement	Site operatives (SF)	**4**	**4**	**8**	Cuts / injury to hands: - Steel fixers to use eye protection and wear gloves (cut 5) at all times when handling / tying steel Slips/falls on slab reinforcement: - Where areas of reinforcement have been completed, either scaffold or ply boarding will be placed on top / over the reinforcement to establish a suitable platform for operatives carrying out the concrete works. Goggles and dust mask to be worn when operating cutter/grinder. Protective Mushroom caps are to be placed on all exposed ends of reinforcement bars that could cause injury.	**0**	**4**	**4**
Concreting Works	Skin burns / eye injury	Site Operatives	**5**	**3**	**8**	Operatives to keep skin covered during concrete operations, full body work clothed to be worn, no short sleeve shirts. PVC gloves to be worn Rubber safety boots to be worn when casting slabs. Operatives to wear safety goggles when casting concrete and using the vibrating poker. Personnel not involved with concrete operations are to be kept clear. HAV records to be monitored / kept for Vib-poker use Operatives to be briefed on the COSHH assessment for RM concrete	**1**	**3**	**4**
Formwork	Strains/back injury/eye injury/cuts to hands, limbs etc	Carpenters	**4**	**3**	**7**	Carpenters are to be advised on correct positioning of hands and feet in relation to the movement of the load when constructing and positioning formwork panels. This is to be carried out by means of toolbox talks, method statement and risk assessment briefings. Where formwork panels are not constructed insitu these are to be lifted / positioned by mechanical means. When using the skill saw all operatives are to wear eye protection to prevent injury from flying particles. Carpenters are to be given a tool box talk on correct use of PPE and briefed on this risk assessment prior to starting works. Protective clothing to be worn at all times especially gloves that are suited to the task when handling ply/sawn timbers to protect against splinters. Ensure that the correct guard is fitted on the skill saw being used and is in working order (i.e. fully returns to cover the blade).	**1**	**3**	**4**

Erection and striking of formwork	Potential for formwork to tip and cause injury whilst position.	Operatives erecting and striking shutters.	**4**	**3**	**7**	Formwork assembled as per the manufactured guidelines, the carpenters to install the form work as per the CWCL approved temporary works design. The work area will be always barricaded off with an exclusion signage to keep unauthorised people from entering the area. Shutters are never to be allowed to free stand. Shutters are to be either stored within a shutter rack or laid flat. Ensure slinger signaller present for all lifting operation. All lifting points and chains to have current certification. At no stage during the erection or striking of the formwork will they be left unsupported. Raking push props will be installed prior to the weight being taken of the formwork section prior to the props pr bolts being removed.	**1**	**3**	**4**
Excavation Works	Collapse of Excavation / personnel falling into excavation/ Noxious gasses	Site operatives/Visitors	**5**	**4**	**9**	All excavation works to be controlled by a permit system. Atmosphere for all deep trench / chamber excavations are to have a gas monitor present when operatives are working in excavation. Personnel to be briefed on the warning signal given by gas monitor. Excavations are to be benched / stepped to such a degree that removes the risk of potential collapse. Where benching is not possible earthwork support is to be installed. Temporary works design to be carried out for deep excavations Carry out a CAT scan and clearly mark service routes on the ground. Confirm that services have been isolated (where applicable) and that it is safe to proceed with the excavation works. Access into excavations will to be via secure ladder or trench access steps with fitted guard rails. All excavations to be fully guarded / cordoned off with secure guard rails / fencing.	**0**	**4**	**4**

Young Persons	Inexperience / lack of maturity and awareness / lack of training / physical-psychological capacity/unaware of health and safety hazards/use of tools and equipment	Young person	**5**	**4**	**9**	YP is to be always accompanied / mentored by a fully trained operative. Accompanying operative to ensure that YP is carrying out duties that they are fit and capable of doing. Appropriate Health & Safety Awareness training will be provided. A member of staff will be appointed to oversee and give on the job training to YP. Appropriate Health & Safety training to be given on a regular basis. YP to be given training on all aspects of the work that is detailed to them i.e., manual handling, safe use of equipment, working at heights etc. Physical/Psychological capacity: YP to lift only objects that are within their acceptable capabilities. Instruction on correct lifting techniques to be provided. YP to use lightweight construction materials only. YP's hours to be limited throughout the week to protect young persons from over working and tiredness. Unaware of health & safety risks: Detailed toolbox talks, safety inductions and safety awareness training will be given to YP to ensure that all aspects of health & safety are provided. Use of tool & equipment: YP must not use any tools driven by electricity (even 110 volt) air, fuel or explosive cartridge. They can use battery powered tools but must be given relevant training. YP to be warned about the dangers of working near electrical supply leads.	**0**	**4**	**4**
Provision and use of PPE	Injury through non-availability / incorrect / damaged PPE	Site Operatives	**5**	**3**	**8**	Mandatory PPE to be worn on site at all times: Hard hats EN397 standard Hi-Vis jacket or waistcoat (yellow) EN471 class 1 standard Protective footwear EN ISO 20345 SB steel toe capped and mid sole protection (no rigger boots) Gloves (cut 5) are to be always worn and must be suited to the task. Eye protection to be worn suited to the task i.e. impact resistant when using grinders / saws / breakers etc Respiratory protection – when identified by task specific risk assessment. PPE will be provided in accordance with mandatory and task specific requirements. All PPE will be stored correctly to prevent damage. Operatives are to use PPE equipment correctly and report any damages as soon as they occur so that it may be replaced. PPE issue and control register to be maintained on site	**1**	**3**	**4**

Hot Works – Welding / Cutting / Burning / Use of Oxy-acetylene	Burns / Fire hazard / Flash back / Explosion / Damage to equipment Impact and Cutting Radiation Slips/trips/falls Fire and Explosion Temperature Other (gases & fumes)	Site Operatives / Visitors	**4**	**4**	**8**	Prior to commencement of hot works ensure hot works permit is issued by principal contractor's responsible person. Correct PPE to be worn by operator (Fire retardant overalls, Gauntlets, Welding Mask). Where toxic fumes may be present an approved respirator to be worn. Flammable materials to be removed from the work area. Fire point / extinguishers (AFFF) to be available at the works location. Other personnel not involved with the works to be kept clear. Work area to be checked 1hr after completion of the hot works to ensure there is no residual risk of fire. Operator of welding equipment to be trained and competent to carry out the works / use the equipment. Equipment to be inspected prior to each use including gauges, hoses and connections. Faulty equipment to be removed from site immediately. Welding screens to be installed around the works to prevent any exposure to flashes from works. Make sure appropriate clothing and PPE is worn whilst operating equipment. (e.g. gloves, apron, cutting mask etc) Make sure appropriate housekeeping is maintained to limit build-up of flammable material in the work area. Make sure appropriate firefighting equipment/systems are in place. Hot works permit to be in place prior to any cutting works commencing. Allow hot metal to cool prior to handling Make sure work area is appropriately ventilated when in operation. Gauges and hoses to be removed from bottles and securely stored when not in use. All bottles are to be stored vertically in appropriate cage/workstation. Fuel gas and oxygen to be stored separately unless in use (Acetylene must stand before use). Where Steel Pile Casings must be removed a cut will be placed along the vertical edge of the cylinder initially, then cut around the circumference to release the tension in the casing in a controlled manner. The section will then be lifted clear by mechanical means. Ground must be levelled off where the welder is working to provide a safe working area. A platform fitted with edge protection must be provided If the operative / welder is working at a height. Cylinders must be placed a safe distance away from the works area.	**0**	**4**	**4**

Safe Use of Knives	Cuts/puncture wounds to hands, fingers, other body parts resulting in damage to ligaments and tendons, blood poisoning.	Operatives.	**4**	**3**	**7**	Try to eliminate the use of a knife, consider other processes before cutting with a knife. Workforce must be briefed on the safe use of knives Ensure that only automatic retractable blades are used (Retractable Stanley Blade) any other knife will require a separate risk assessment. This includes sub-contractors working for MYCO. Always check the knife before use, check to see if the blade retracts smoothly and fully, do not use if it doesn't, report to supervisor and ask for a new knife Never use a knife if the handle is damaged, check the blade and see if it is damaged, worn, or dull, if so, remove blade and replace with a new one, dispose of the used blades responsibly to prevent others from cutting themselves Always cut away from you, never cut towards any part of your body, re-position yourself before cutting. If an operative sustains a cut, then seek medical attention, to prevent blood poisoning. Never throw a knife, never leave a knife unattended on site, always secure them to prevent unauthorised use. Never work alone whilst using any sharp blades.	**1**	**3**	**4**

Fire		Site operatives / visitors	**3**	**4**	**7**	Office Electrical equipment are to be PAT tested to ensure that they are working correctly. All power to equipment is turned off at the end of each of each shift. Site Fire plan to be implemented prior to works commencement. Fire extinguishers / fire points are to be in accordance with the fire plan/risk assessment. Fire marshals are to be trained in the use of fire extinguishers. Ensure welfare facilities / office are always locked / secure during day and night. Waste material is removed from welfare facilities and is not permitted to accumulate on site. Flammable liquids are to be stored in secure, bunded and well ventilated COSHH box / storage containers. **Fire Evacuation** Site Fire risk assessment / emergency plan to detail location of fire points and fire escape routes, RVP Ensure all fire marshals, site staff and visitors are fully briefed on the emergency plan.	**0**	**4**	**4**

Use of COSHH Materials	Contact dermatitis, burns, damage to local water course/aquifers	Site Operatives	**5**	**3**	**8**	COSHH assessment to be completed prior to works starting Appropriate PPE as described in COSHH assessment to be worn All COSHH material to be stored in specific, ventilated, lockable COSHH storage container. Operatives to be briefed on COSHH assessment and method of works for managing material. Site operates a mandatory gloves and glasses policy. Spill kits are to be available on site. Diesel Fuel to be stored in double skinned bowser/fuel tank.	**1**	**3**	**4**
Access and egress to work area	Injury to unauthorised persons	All operatives	**5**	**4**	**9**	Works to be co-ordinated with site activities. Work area to be segregated from other activities and other contractors' operations with an exclusion zone put in place by use of hand barriers & adequate signage. Exclusion zones will be clearly marked to ensure that no unauthorised person enter the area for the duration of the works.	**0**	**4**	**4**
All tasks	Incompetence	All operatives	**5**	**4**	**9**	All site personnel to be competent to perform the tasks they're expected to do. All operatives to be briefed ad post briefed ad post brief assessed to ensure competence. Compliance with site/ Managers Rules. Skills/ Competencies as per company Health & Safety Policy.	**0**	**4**	**4**
General Duties	Adverse Weather Cold Weather Protection to public	All operatives	**4**	**4**	**8**	Adherence to method statement and risk assessments. Work stops of there are any concerns that the wind speed is excessive, and materials secured. All Plant and materials made safe against the effects of wind at the end of the shift. Walkways and work areas to be de-iced and snow removed prior to resuming works.	**0**	**4**	**4**

Winter Conditions	Exposure to the Elements (Winter) - Heavy Rain - Freezing/Icy Conditions - Freezing Fog - Snow/ Sleet - Other winter conditions	Pedestrians, drivers, & members of the workforce	**4**	**4**	**8**	**Key issues for the winter –** Lighting, Slips and trips, driving conditions, Wrap up warmly, Access ways kept clear 1. Take extra care as your sight will not be as good in low light levels or could be impaired by glare and shadows thrown by lighting. 2. Make the most of the extra lighting provided for you. If there is inadequate lighting, please raise this matter with your supervisor immediately. 3. Slip and trip accidents increase during the Winter season. Take extra care whilst walking around site, particularly in wet or icy weather. If walkways are icy and not gritted, raise Observation Card and/or report to Supervisor to action. 4. Give yourself adequate drive time for driving site vehicles/plant, particularly in poor weather conditions and ensure you always keep your distance from the vehicle in front on site. Beware of personnel in the area as drivers may have poor visibility. 5. Wrap up warmly to protect your personal health. Make sure your muscles are warmed up before undertaking physical work - cold muscles are prone to sprains or injury. Wear Warm clothes during these months as required, wet gear is provided in the stores and should be worn in wet conditions. 6. Ensure adequate supply of de-icing salt and grit and use it if your access route is icy. 7. Ensure that access ways are kept clear for both vehicles and pedestrians working on site. 8. Avoid creating ad hoc shelters or local heating arrangements - if conditions are severe, contact your supervisor and discuss your problems. Drying rooms are provided and good welfare facilities with warm water are provided – **Use them**. ***Remember - More accidents occur in the winter months than any other time of the year so be aware of the dangers, raise any problems or concerns about your working environment with your supervisor or manager!**	**0**	**4**	**4**

PROJECT NAME & NO:		**TASK:**	**Basement Slab & Lining Walls, Internal Columns & Walls**
RA COMPLETED BY:		**DATE:**	
SIGNATURE:		**REVIEW DATE:**	

Appendix B

Risk Assessment – Environmental Impacts

PROBABILITY AND SEVERITY CLASSIFICATION

PROBABILITY CLASSIFICATION

Probability	Description	Value
Improbable	Close to Zero	0
Remote	Conceivable but only in exceptional circumstances	1
Unlikely	May occur, but not likely	2
Possible	Could occur sometime	3
Likely	Likely to occur more than once	4
Frequent	May occur many times	5

SEVERITY CLASSIFICATION

Severity	Description	Value
Minor	Very minor injury – Requiring medical attention and leading to absence from work not exceeding 3 days	1
Major	Single injury – Leading to absence from work for more than 3 days, but not disabling	2
Severe	Multiple injury – Multiple or disabling injury or occupational illness for each event	3
Fatal	Single or multiple deaths – Event causes one or more fatalities.	4

DEGREE OF RISK = PROBABILITY + SEVERITY

Risk Factor = Severity + Probability. This is to be insignificant (less than 5) after control measures are applied.

Likelihood	Frequent	5	6	7	8	9
	Likely	4	5	6	7	8
	Possible	3	4	5	6	7
	Unlikely	2	3	4	5	6
	Remote	1	2	3	4	5
	Improbable	0	1	2	3	4
			1	2	3	4
			Minor	Major	Severe	Fatal
			Consequences			

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Use of Plant & Equipment	Noise resulting in nuisance to neighbours, or disturbance to wildlife.	Pedestrians, drivers, & members of the workforce	**4**	**4**	**8**	Monitor noise (if required); use baffles, silencers, acoustic screening. Maintain equipment to ensure efficient operation. Adhere L.A Section 61 agreement.	**0**	**4**	**4**
	Dust creation during operations & when moving over unmade ground, resulting in potential harm to human health or damage/ disturbance of wildlife.					Damp down when working in dry conditions and/or open areas			
	Potential to create ground/groundwater pollution through leaking equipment when working on unmade ground.					Drip trays to be used under all mobile (diesel powered) plant. Spill kits to be available in areas where plant is being used, and operatives trained to use them properly. Maintain equipment; repair leaks immediately			
	Energy use (diesel & electricity).					Switch off equipment when not in use.			
Delivery of Concrete to Site (via vehicle)	Groundwater/local watercourse pollution through washing-out of delivery chutes, etc.	Drivers, & members of the workforce	**4**	**4**	**8**	Delivery vehicles to wash out in designated areas ONLY. Wash out areas to be designed & used in accordance with Environment Agency guidance.	**0**	**3**	**3**
Storage of Fuels & Chemicals	Ground/groundwater pollution through accidental spillages, leaking bowsers, and damaged drums.	Members of the workforce	**4**	**4**	**8**	Drums to be bunded. Make spill kits available; train operatives to use them properly. Make bulk fuel bowsers double skinned. Padlock bulk fuel bowsers at all times, establish controlled access.	**0**	**3**	**3**
Generation & Handling of Waste (non-hazardous)	Increase in the use of landfill space, resulting in the production of landfill gas & leachate.	Members of the workforce	4	4	8	Provide specific containers to prevent contamination of non-hazardous and hazardous materials. Store construction materials properly to prevent damage & unnecessary waste. Use licensed waste carriers only. Use licensed waste management facilities only (e.g., tips, waste transfer stations). Complete waste transfer notes for every waste consignment; with reference to EU waste codes. Sheet waste loads before leaving site to prevent escape of wastes onto highways.	0	4	4

ACTVITY	HAZARDOUS EVENT	PERSONS AT RISK	UNCONTROLLED RISK			RISK CONTROL MEASURES	RESIDUAL RISK		
			P	S	Risk		P	S	Risk
Generation & Handling of Waste (hazardous).	Increase in the use of hazardous landfill space, and the potential to contaminate non-hazardous wastes, thus rendering them hazardous.	Pedestrians, drivers, & members of the workforce	4	4	8	Provide specific containers to prevent contamination of non-hazardous and hazardous wastes. Use licensed waste carriers only. Use licensed waste management facilities only (e.g., tips, waste transfer stations). Waste consignment notes to be completed for every waste consignment, with reference to EU waste codes. Sheet waste loads before leaving site to prevent the escape of wastes on the highways etc.	0	3	3
Procurement of Materials & Substances	Potential to source materials banned due to their ability to cause human/environmental damage.	Members of the workforce	3	3	6	Procure materials to conform to guidelines within P.C. Materials Spec.	0	2	2
Timber Procurement	Potential to procure timber from poorly managed (unsustainable) sources leading to the loss of habitat & biodiversity.	Procurement/PM	4	4	8	Timber certification documents to be provided to P.C. project team before timber is procured.	0	2	2
Use of Temporary Lighting	Potential to cause disturbance to neighbours (& wildlife) through inappropriate placement of temporary lights	Neighbours and wildlife	3	3	6	Ensure all temporary lights are sited to prevent causing disturbance to neighbouring premises.	0	2	2

PROJECT NAME & NO:	**Acorn house**	**TASK:**	**Basement Slab & Lining Walls, Internal Columns & Walls**
RA COMPLETED BY:	**Anthony O'Connor**	**DATE:**	
SIGNATURE:		**REVIEW DATE:**	

Appendix C - COSHH Assessments (See Sypol Attached)

Keyword	***ID Number***
Diesel (Fuel)	
Petrol	
Hydraulic Oil	
Engine Oil	
RM Concrete	
Leptospirosis	
Concrete	

Appendix E – Method Statement Briefing Register

METHOD STATEMENT BRIEFING REGISTER

Briefing given by			

(Site Supervisor) Name:		Signature:	

MS Ref :	Contract:

Name (print)	Company	Signature	Date