Sheet (Silent) Piling Method Statement

Liddell Road Development in the London Borough of Camden NW6 2EW

November 2021



YOUR CONSTRUCTION PARTNER





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has prepared this report for the

Liddell Road Development in the

London Borough of Camden NW6 2EW

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CLIENT	West Hampstead Limited
CONTRACT TITLE	1-33 Liddell Road, West Hampstead. NW6 2EW
CONTRACT NUMBER	твс
DIVISION / REGION	CField Construction

METHOD STATEMENT

Sheet (Silent) Piling

ISSUE CONTROL

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SIGN				
PRINT	Joe Martin			
	PREPARED BY	REVEIWED BY	APPROVED BY	APPROVED BY CLIENT (IF APPLICABLE)

00	7/10/2021	First issue
REV	DATE	STATUS / DESCRIPTION OF CHANGES



CONTROLLED COPY NO.	JOB TITLE / NAME			
	Noel Keating. Pre-Construction Director.			
	John Lane. Construction Director.			
	Joe Martin. Senior Construction Manager.			
	Vijay Shiyani. Design Coordinator.			
	TBC. Site Manager.			



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[Quality Management System Certificate]ISO 14001:2004

[Environmental Management System Certificate], BS OHSAS 18001:2007 [Occupational Health & Safety Management System Certificate]

P. CHAS Certificate

[Contractors Health and Safet



1.0 Introduction – Scope of Works

The proposed work is the construction of contiguous wall & bearing piles in accordance with the Contract Specification and Drawings to form the proposed structure. The piles are to be constructed using the CFA Piling Technique.

2.0 Reference Documents

1.	GEA Ground Investigation Report. September 2021. Ref, J20182 Rev 00.		
2.	Drawings:	Volker Groundworks	
3.	Specification: SF	PERW	
4.	Price & Myers Consultant Engineers		
5.	Broadway Maylan Architects		
6.	Institute of Civil (SPERW) – Secor	Engineers Specification for Piling and Embedded Retaining Wall nd Edition	
7.	Working Platforms for tracked plant: good practice guide to the design, installation, maintenance, and repair of ground-supported working platforms		
	– BRE 2004		
8.	LOLER – lifting o	perations and lifting equipment regulations 1998	
9.	PUWER – provisi	on and use of work equipment regulations 1998	



3.0 Pre-commencement Requirements

3.1 Geology

3.1.1 The Piling Director will have satisfied himself prior to the commencement of the contract with regards to the geology of the site and any effects it may have on the works. The Principal Contractor has provided a Soil Investigation Report, carried out by GEA Ground Investigation Report. September 2021. Ref, J20182 Rev 00.

3.2. UXO

3.2.1. A copy of the desktop survey is available from CField site management office.

3.2.2. As the site has a medium risk of UXO no works shall commence without a site-based survey having taken place.

3.2.3. A copy of the site-based survey is available from CField site management office.

3.3 Existing Services

3.2.1 The Principal Contractor will carry out any inspections for existing services and probe for existing sub-structures. These areas are to be removed or clearly marked prior to any piling works.

3.2.2 A 5m exclusion zone will be maintained around the piling rig in operation and around recently cast piles.

3.4 Working Platform

3.4.1 The Principal Contractor will provide the piling crew with a firm and level hard standing working platform as specified, based upon the BRE load cases provided by MMOS for the rig to be used.

3.4.2 Attention needs to be given to the edges of working platforms: determine how near the edge of the platform plant can be permitted while avoiding instability. A minimum distance of half the machine width is usually required. Clear marking of the working area is essential.

3.4.3 Sites where there have been cut and fill operations, or where plant is required to operate near slopes or batters, will need to be checked for slope stability with the additional loading of the plant in place. Sloping sites present particular problems for stability, which should be addressed in the design – some plant may not be stable at 1 in 10.

3.4.4 This working platform will be maintained throughout the duration of the piling works. If obstructions are removed, the mat must be properly reinstated in accordance with the original piling mat design.

3.4.5 The working platform, including ramps and accesses, is to be used only by plant for which it has been designed.

3.4.6 Any areas that do not form part of the working platform must be clearly indicated to the piling supervisor.



3.4.7 The working platform certificate provided must be signed off before any commencement of works.

3.4.8 Any parts of the piling mat deemed unacceptable by the piling foreman or site manager must be rectified straight away.

3.4.9 The working platform level must be provided before any piling commences.

3.5 Access

3.5.1 Access routes onto and off site will be as agreed with the principal contractor. The CFA piling rig will be transported to site on a low loader capable of carrying the rig. The rig will track itself off the low loader and will not be lifted off by means of a crane. If necessary, a wide enough ramp will be constructed to provide a safe access onto site for the rig and timber boards/spreader plates placed to protect any existing surfaced areas and kerb, c/o the principal contractor.

3.6 Setting-Out of Piles

3.6.1 The qualified setting-out engineer will set out the pile positions.

3.6.2 CField will carry out the setting out in accordance with the latest pile layout drawings received. CField will provide a minimum of 3 coordinated stations on site (preferably retro stickers).



4.0 Resources

4.1 Materials

- ~ 8.5m to 10m AZ20-700 sheet piles.
- ~ COSHH as per assessments in Appendix I.

4.2 Plant

The following equipment items are envisaged to be used for piling operations:

ltem	Quantity
ZU100 Silent Piler	1
8x4 Storage Container	1
60tn Crawler Crane	1
Fuel Tank	1.
Water Tank (if required)	1
Mobile Crane or by Lorry Mounted "hi-ab"	As required
MEWP or ZX45D Cherry Picker	As required

All plant and equipment will be certified and maintained to PUWER 98 and where applicable, LOLER 98.

All lifting equipment will be certified and maintained to LOLER 98.

The following manpower is envisaged to be used for piling operations:

Manpower	Quantity
Foreman/Rig Driver (Certified Rig Operator)	1
Banksman (Certified Banksman / Slinger)	1
Crane Operator	1
MEWP Trained Operator	1



4.3 Labour

Title	Name	Contact Phone Number
Construction Director	John lane	07557511855
Senior Project Manager	Joe Martin	074 8395 8548
Design Coordinator	Vijay Shiyani	07900 002 170
Site Foreman/Supervisor	твс	твс
Health & Safety Advisor	Stuart Harvey	0 20 7078 4364
CField Health and Safety Department	020 7692 9612	020 7078 4364



5.0 Methodology

This method statement provides a detailed description on sheet (silent) piling.

5.1 Description of the Works

The main risks associated with the Piling operations are:

- 1. Failure of Piling Rig
- 2. Spoil removal during Piling operations
- 3. Lifting sheet piles
- 4. Collision and crushing by piling equipment
- 5. Lifting and placing reinforcement
- 6. Working near railway viaduct

To overcome these potential risks, the following safety features will be implemented to ensure a safe method of working:

5.1.1 <u>GENERAL</u> A site safety induction is to be provided by CField, which will include the site emergency procedures and personnel authorized to give instructions.

5.1.2 WORKING Working hours will be as follows: Monday to Friday 08.00 – 17.00

Saturday 8.00—13.00

Workmanship will be consistent throughout the duration of the piling works.

All crew and subcontractors will be focused on their work throughout the working day.

It is important that all staff take the breaks they are entitled throughout the day.

The quality of piles will be to consistent high standard and this standard will not drop at any time i.e., end of shift / week / last day before holiday period etc.

- ACCESS Access to the piling area will be as provided by CField. Access ramps between working area to be no greater than 1:10 gradient.
- **LIGHTING** Task lighting as fitted to plant will be provided and maintained by contractor/safety lighting for the access and working area will be provided by CField if necessary.

5.2 Rig Mobilisation

The ZU100 will be removed from the delivery wagon and placed to one side away from the rail assets, the machine will be piped up and removed from the reaction stand ensuring a total up



weight of 12.5t. The ZU100 will then be lifted on to the reaction stand which will be set up perpendicular to the proposed pile line.

When pitching sheet piles, 2 nr. QRS shackles will be used for each single pile. The 2 nr. QRS will act as a fail-safe to secure the sheet pile.

Prior to the sheet pile entering the chuck of the ZU100, the operator will turn the chuck 90 deg away from the rail assets.

The pile will be pitched in to the chuck of the ZU100.

Once secure with the hydraulic jaws, the QRS shackles will be released, the chuck will then turn back to its original position prior to installation.

Tag lines will be used at all times when controlling the lifting operations.

5.2.1 Lifting Equipment

Lifting equipment to be attached to the load and excavator by competent slinger.

A lifting equipment 6-month thorough examination certificate must be supplied to site management staff prior to lifting taking place.

Weekly LOLER checks must take place.

Weekly PUWER checks must take place.

5.2.2 Trial Lifts

Trial lifts to be conducted where piles are hoisted approx. 150mm off the ground.

Operative to ensure that they are away from the lifted load.

5.2.3 Pile Laydown Area

Sheet piles will initially be offloaded and stored in the laydown area.

Piles are to be stacked in suitable size bundles.



ALL piles will be laid down in the designated area in bundles of approx. 5no.

All bundles will be 5t or less for lifting.

5.3 Main Works

During sheet piles works, there may be a requirement to work at height, if a sheet pile needs to be cut down above the chuck of the machine or for any access issues. A MEWP/cherry picker will be provided and only trained and competent personnel can operate. (Item covered on risk assessment)

The steel sheet piles will be installed from a platform prepared by others and maintained by CField. All pile locations will be cleared of obstructions and suitably backfilled by others in advance of the piling works.

The sheet piles lines will be set out by CField by means of steel pins driven into the ground. All setting out will be to center of sheet piles.

Prior to rigging the crawler crane, a signed Working Platform Certificate (WPC) will be in place for the piling platform and the haul roads to be utilized around the piling area.

Prior to penetrating the ground, a permit to break ground must be issued to the contractor.

On commencement of sheet pile installation, the ground conditions in the first pile position will be checked against site investigation information. Any discrepancy will be reported immediately by the piling contractor to CField site management.

Spill kits must be positioned close to the works at all times.

All refueling must be undertaken in the areas designated by CField.

All fuel storage is to be in suitably bounded and secure bowsers, complete with drip trays and fire extinguishers within the vicinity.

All lifts will supervised by a slinger banksman, and tag lines will be used to control the sheet piles at all times.

Pile installation records will be kept and a copy given to CField weekly, any standing time will be issued at the end of the day for approval.



Factors that may affect the work sequence are considered to be limited to the presence of obstructions or other unforeseen factors. Otherwise, works are programmed to continue in a linear fashion without interruption in the programmed sequence. Any change in drivability of sheet piles will be reported to CField. If for any reason a change in sequence is require this must be issued to the piling contractors contracts manager.

The sheet piles are to be driven to the required level as set out by CField site engineer.

The Tosa Pile Press requires 500mm clearance at the top of each sheet pile for the installation process.

If there are any of live services close to the proposed pile line, CField site staff will expose and mark these services, and discuss all with the contractor's piling foreman prior to the issue of a permit to work/dig and works commencing.

Once the plant has arrived on site, the Tosa and the power pack will be off loaded. Once at ground level, the operative will put on their harness and using the step on the machine they will step-up and clip on (Drop of 1m). Once in position the hoses will be installed to the backs of the machine and power pack.

The crane will be set up immediately in front of the work area, on the crane platform. The piling equipment and piles will be delivered, off-loaded, and stored adjacent to the works or even within the cofferdam.

The piles and equipment will be stored in the provided works area.

A firm and level platform, measuring 5.0m x 5.0m, will be provided for VGE. This will either be directly on the pile line or perpendicular to the pile line depending on the location.

The reaction stand platform will be sited between within 7.0m radius of the crane platform and the starting point.

The Tosa silent pile press reaction stand will be positioned close to the end of the pile line and made ready for use, then weighted down with approx. 24 tonnes of kentledge with each block weighing approximately 4T. Figure below, kentledge blocks on reaction stand setup.

The first pile will be pitched into the pile press and driven to level by a sequence of hydraulic pressing for the length of each ram stroke.



During sheet pile installation works, each sheet pile being pitched into the hydraulic chuck of the Tosa pile press will only be released from the crane lifting shackle once the sheet pile is fully clutched into the previously installed sheet pile and is fully clamped into the hydraulic clamp of the Tosa pile press.

The second pile will then be driven. Before reaching final penetration, the self- moving procedure will be instigated. Once the pile press has moved forward one pile, the second pile will be driven to final level.

Once the first three 'dummy' piles have been installed from the reaction stand, the stand will be dismantled, the Kentledge blocks will be lifted off the reaction stand and stored in the middle of site prior to loading away.

The reaction stand will then be lifted away from the work area.

After each pile is installed, a length of temporary weld, approximately 75mm, is used to weld each installed sheet pile to the previously installed sheet pile.

Welding screens will be used at all times during these temporary welding works to ensure that other site operatives and trades do not have a line of sight to the welding process.

Welding curtains are made from a PVC vinyl. Certain curtains will come equipped with steel rails or contractor will install to a crowd barrier.

Welding screens will be used at all times and moved as the works progress.

The sheet piles will be installed in the direction which will be detailed on the site sketch, sheet piles will be lifted to the Tosa by use of the crawler crane working on the crane platforms.

5.3.1 Corner Piles

In order to turn corners, dummy piles are installed in the opposite direction to the direction of the turn. The Tosa uses dummy piles to install the sheet piles at the corner.

When piles have been installed away from the corner, the Tosa will be lifted by the crane, placed on the piles closest to the corner and the dummy piles will be extracted. Figure 6 Tosa turning corner.



5.3.2 Fabrication of Corner Piles

Corner piles (lengths vary) will be constructed using the piles on the stockpile area. The corner details are shown on the drawing. However, site measurements will be taken to ensure correct fabrication.

The corner piles will be fabricated by welding clutch piece along the length of the pile at the positions specified on the drawing.

The corner piles will be fully welded on the inside of the corner utilizing a 6mm fillet weld. The outside of the corner pile will be welded with a 100mm long 6mm fillet weld every 300mm.

The corner piles will be fabricated using manual metallic arc procedures and experienced qualified welders.

5.3.3. Water Jetting

When water jetting, a small diameter steel pipe (lance pipe) is fixed by the welding of several clips into the middle of the pan of each pile. This is done when the pile is horizontal in the storage area. The top plate is welded to the top of the pile.

The lance hose is then attached to the lance pipe and to the water jetting unit. The lance pipe safety wire is then attached from the lance hose to the lance pipe. If the hose comes free during operation, the safety wire will prevent the lance hose from whipping around until the jetting unit can be turned off.

The pile is lifted as above, using the pitching shackle. The pitching hole may have to be flame cut in the leg of the pile, due to the lance pipe being in the middle of the pile pan.

As the Tosa pushes the pile into the ground, water is drawn and jetted into the ground at the toe of the pile. This action loosens the strata in front of the pile enabling it to be pushed into the ground. The Pile Operator regulates the water supply.

When the water supply is turned off, the ground settles to its original state, as is evident from the reaction obtained from the previously driven piles. Once the pile is driven, the pipe is recovered and re-used.

The Tosa operator clamps the hydraulic jaws onto the lance plate and by pulling the plate and



lance pipe up breaks the weld which fixed the plate to the top of the pile.

A piling operative, working from ground level, will attach the pitching shackle to the lifting eye on the top of the lance by use of the hanging wire sling.

The wire sling avoids the need for works at height.

The crane then pulls the lance out of the ground and lifts it clear of the chuck. The lance is then slewed round to the pile storage area to be attached to the next pile to be installed.

When water jetting the head level in the water tank will be monitored during each sheet pile installation. The usage/level will be recorded and the contractors' contracts manager will convert it into liters per pile over the duration.

The recorded usage will be issued to the CField site manager.

5.3.4 Controls & Monitoring

CField will be responsible for clearly marking the pile positions, providing levels.

As built drawings are the responsibility of the contractor.

Within 2 weeks of completion, as built drawings shall be issued to CField site management.

The piling contractor's site manager will ensure that the materials delivered are in accordance with the pile design.

The piling contractor's site manager will ensure that the piles are installed in accordance with the pile schedule and relevant drawings.

Pile installation records will be kept and issued to CField on a daily basis.

5.4 Working Platform

Piling Platforms:



The piling platform designed by temporary engineers and is based on the BRE load cases for a .60tn crawler crane. The platform will be installed by CField as per the specification designed. The working platform certificate (WPC) will be signed off by the relevant parties – designer and CField. The working platform certificate shall be issued in conjunction with a Form C. A copy of the completed 'working platform certificate' shall be kept on site. The piling platform shall extend 2m beyond the working area.

Testing of the working platform will include plate bearing tests on each piling platform. Inspection of the piling matt will be carried out regularly by CField any anomalies in the piling matt will be addressed immediately by CField .There will be no excavation of the piling platform where the piling rig is working until the piling rig is finished piling on that platform.



6.0 Programme

The work will proceed generally in accordance with the CField programme.



7.0 Safety Management System

The works shall be carried out compliant with the Safety Management System (SMS). The SMS is documented set of policies, and procedures which when implemented satisfactorily will enhance safety performance thus leading to higher efficiency and fewer accidents. The Safety Management System describes how the CField Safety Structure works and is therefore a key to the success of the business.

The Safety Management System (SMS) is certified to the Occupational Health and Safety Management System Specification OHSAS 18001:2007, which has been developed to be compatible with ISO 9001:2008 Quality, and ISO 14001:2004 Environmental management system standards, in order to facilitate the integration of Safety, Quality and Environmental management systems.

Parts of the CField Safety System also include Environmental and/or Quality Management System requirements and are therefore already 'integrated'.

CField Construction is fully committed to supporting Industry and Client led Health, Safety and Welfare programs wherever they are established. The CField Management System will wherever possible, reflect those Health, Safety and Welfare programs.

The CField Board of Directors give their full support to the Safety Management System (SMS) as it regards the Health and Safety of all people employed by the company and anybody else who may be affected by our activities, as being of paramount importance. The SMS is defined in full in the CField Construction Safety Manual.

7.1 Monitoring and Review

The responsibility for coordinating and implementing this method statement is that of the piling project manager, with the supporting supervisory personnel at the activities monitoring the ongoing piling processes and reflecting any changes required throughout the contract duration. The Piling foreman and operatives will be briefed by the piling project manager prior to commencement of works.

Any non-conforming items identified during the contract period shall be addressed as appropriate by non-conformance reports. Where corrective actions are necessary, the piling project manager shall be notified to ensure timely completion of the contract stages to the agreed schedule.



8.0 Health and Safety

8.1 Noise

The piling contractor will provide details of anticipated noise and vibration levels anticipated for our proposed plant and equipment on request from CField.

Actual site levels may vary from those stated depending on actual ground conditions and the degree of exposure at the work location. CField to monitor the noise and vibration levels during installation of the sheet piles.

Noise level below 80dB(A), the lower action value, no hearing protection required. CField recommend ear protection.

Working at a minimum distance of 15m to the piling works this produces a noise level of 70dB(A).

8.2 Induction

All labour will attend a site Induction prior to work on the project. CField will also hold internal inductions prior to work commencing. When methods of working or additional hazards are identified for particular locations additional inductions or Toolbox Talks will be held prior to work commencing.

8.3 Inspections

Daily Inspections

The nominated site supervisor shall complete checklists and working documents, which shall be checked by the piling project manager for their completeness and accuracy. These are:

- Daily Rig Inspections
- Daily Plant and Machinery Inspections
- Daily Lifting Equipment Inspections

Other Inspections

A lifting equipment 6-month thorough examination certificates must be supplied to site management staff prior to lifting taking place.

Weekly LOLER checks must take place.

Weekly PUWER checks must take place.



8.4 PPE

Correct types of PPE for all site employees shall be provided by the sub-contractor and worn as required, they include:

- Hard hats, mandatory
- Hi-visibility vests, mandatory
- Safety Footwear, mandatory
- Safety Glasses, mandatory
- Gloves, mandatory/appropriate to the task
- Hearing protection
- Any other PPE deemed applicable to the works

Task Specific PPE:

- Flame retardant overalls
- Welding Screen

Additional items of PPE may be required for specific operations e.g., burning and welding and as required by the risk assessments.

Those items will be identified and a briefing given as required. All PPE will to be fit for purpose.

8.5 Records

A copy of this method statement will be retained on site for inspection and will be briefed to all site personnel, by the piling project manager.

A record of all briefings will be kept on site in the Safety File.

8.6 Fire Extinguishers / First Aid

Fire extinguishers will be located in the piling rig and first aid kits located in the site office.

8.7 Risk Assessment

A specific risk assessment for the piling works is detailed in Appendix B.

8.8 Security

Security arrangements will be drawn up in conjunction with CField Construction.



8.9 Welfare Facilities

Welfare facilities at the work will be provided by CField Construction.

8.10 Emergency Call-out

Communication and emergency plans will be drawn up in line with CField Construction.

In the event of an emergency, the Site Manager will be informed immediately, followed by the CField Construction Health & Safety Department on +44 (0)20 7078 4364.

First aiders – First aider by CField Construction Emergency Contact for Environment Agency (0800) 80 70 60

CField Construction Site Environmental Manager – TBC

If talking to the Emergency Services the site is at: 1-33 Liddell Road, West Hampstead, NW6 2EW.

Nearest Hospital with Casualty Department – The Royal Free Hospital, Pond Street, Hampstead. NW3 2QG.



9.0 Environment

Skips, water bowser and licensed carriers will be provided by the sub-contractor piling operations should take place only within specified working hours.

General waste shall be deposited into designated skips.

Hazardous waste, such as oil contaminated materials, used spill kits etc. shall be disposed of by a licensed carrier.

All vehicles shall not be run unnecessary engines shall be turned off when not in use.

Fuel / oil spills shall be prevented Drip trays and emergency spill kits shall be used to catch and clean the spills / leaks.

Wheel washing of vehicles will be carried out by CField Construction.

The Environmental Plan and Company.

Environmental Procedure – Incidents and Non-conformances are in place to deal with any environmental incidents and non-conformances.



Appendices Cover



A. Noise and Vibration Free Hydraulic Pile Pressing Machine

<u>ZU-100</u>

Features and Benefits of the Still Worker

Virtually noise and vibration free means installation of steel piles as close as 500 mm to existing structures or services.

ZU-100

Still Worker ZU-100 can press-in both Z piles and U piles simply by exchanging the clamps.

Z pile range: 559mm to 708mm

U pile range: 600mm to 750mm

The Still Worker is set on the reaction stand for the installation of the first two or three sheet piles.

Still Worker moves by elevating its travel carriage while supporting itself on the last installed pile.

Travel carriage then slides forward.

Travel carriage lowers itself and drops onto the installed sheet piles and continues its hydraulic installation process.

After the third (or fourth) pile is driven, Still Worker will have walked off the reaction stand and will be using the installed piles as reaction.





Water Jetting Options

Kowan Water Jet Reel

Max hose length - 32m + 2m (standard 25m + 2m)

- Max pile length 28m (standard 23m)
- Hose type Special non-stretch
- Max pressure 170 bar
- Max flow 327 lpm

External hose diameter - 51mm Total weight incl hose - 600 kg

Weight of stand - 100 kg

Operation - Remote control





B. Visual Task Sheet

	сл	ω	⊢
Version 001			
Prepared by JF Martin	 Walk along pile section When the pile is install approx. half way; 1. Raise chuck to uppermost position and grip pile. 2. Release the three clamps gripped to the previous drivenpiles. 3. Raise main body of Still Worker by using the chuck rams and the ram at the back of the Still Worker. 4. Retract Still Worker bed and shift clamps to opposite positions to suit new configuration of pile. 5. Lower main body and check Still Worker is level 6. Grip clamps onto new piles. 	Press to install pile section The press will then begin to install the sheet pile with sufficient slack on the crane rope: Once installed to a sufficient depth the quick release shackle will be removed from the pile and the crane boom slewed away. The pile is then installed to the required levels. A 100mm weld is required on clutch positions. The Still Worker horizontal mast is extended so the following pile can be pitched.	Installing on reaction stand The Reaction stand will be set up as per the setting up reaction stand Visual Task Sheet A minimum 60tn crane is required to lift the press onto the installed piles.
	6	4	9
Signature			
Date 2/11/21	<u>Demobilising</u> Reaction stand is lifted into position. Press is lifted off piles onto reaction stand. The press and reaction stand are lifted as a whole unit onto the transport wagon.	Press being lifted onto sheet piles A suitable crane will lift the press onto the previously installed piles from the reaction stand. The piles are then pitched and installed in the same manner as section 2 & 3.	Crane to feed piles to press The crane will lift the first pile to be installed with a quick release shackle and lower it into the chuck of the Still Worker. The Still Worker then clamps onto the pile.



C. Risk Assessments



D. Pile Record and Checklist Sheet



E. Pile Rig Details



F. Lift Plan



G. Working Platform Certificate



H. Permit to Dig



I. Environmental Aspects & Impacts



Environmental Aspects & Impacts

Rev.	Author	Reviewed By	Approved By	Issue Date	Status
01	Emer Coleman	Michael O'Brien	Barry Crowley	30/03/2018	Initial Release
01	Emer Coleman	Michael O'Brien	Barry Crowley	03/01/2019	Annual Review
01	Emer Coleman	Michael O'Brien	Barry Crowley	03/01/2020	Annual Review
01	Emer Coleman	Michael O'Brien	Sheila Gisler	03/01/2021	Annual Review





Record of Amendments

Revision No.	Page / Reference	Description of Amendments	Issued By:	Issue Date:



1.0 Purpose and Scope

- **1.1** The purpose of this procedure is to define the process for how the company identifies the environmental aspects of its activities and to determine those, which have, or can have, significant environmental impacts.
- **1.2** The scope of this procedure covers all the operations of the company.

2.0 Inputs

- Construction Stage Environmental Plan
- Register of Aspects & Impacts

3.0 Responsibility

3.1 The EHS Management Representative in conjunction with senior management are responsible for ensuring the effectiveness of this procedure at all times

Site management and the EHS adviser are responsible for the Aspects & Impacts Register (Site) and assessing control measures.

This is monitored through inspections and audits and ultimate responsibility lies with the Construction Director.

The EHS auditors and internal ISO auditor are responsible for verifying that control measures and corrective actions from inspections & audits. are being implemented.

4.0 Procedure for Identification

- **4.1** The activities relating to the operations carried out by CField are identified. Environmental aspects shall be identified for all activities relating to the company. These activities are examined at least once per year to ensure that changes in the process and operations are accounted for. Areas that allow us to continually review and improve are by the following method: reviewing pending Legislation and regulations, specific contract documents, near misses, non-conformances, site walks and meetings, these all play a large factor in enabling our company to update and improve our processes.
- **4.2** Environmental impacts associated with the identified aspects shall be documented on the Environmental Impact Register. Actual, potential, positive and negative environmental impacts associated with each aspect shall be identified. Where reasonable, both direct and indirect impacts shall be considered.
- **4.3** Areas of concern expressed by interested parties (both internal and external) will also be addressed in compiling the Environment Impact and Aspects Register.



4.4 Following identification of the aspects, the impacts of these aspects on the environment are developed and their significance calculated.

5.0 Procedure for Evaluating the Significance of the Environmental Impacts

- **5.1** The significance of the environmental aspects and impacts shall be determined by ensuring that all the impacts are controlled by legislation (impending or pending) and ensuring all the aspects and impacts are governed by company policy.
- 5.2 The aspects and impacts are then assessed using the prioritisation matrix in Appendix 1 below.A rating of 1 or 2 would be a low significance; whilst an assessment rated 12 or 16 would be of high significance.
- **5.3** Following the evaluation, a list of significant environmental aspects and impacts will be attained. In order to facilitate the management of environmental aspects and impacts each shall be prioritised for action on the basis of likely environmental risk.
- **5.4** The various Site Managers and Management Representative is responsible for ensuring that all identified aspects and impacts are assessed for significance using the methodology above and that the control measures are implemented.
- **5.5** A 'traffic light' system has been developed to prioritise the impacts. Red indicates that the aspect is significant; amber indicates that the impact could become significant and green indicates that the impact is not deemed significant. Where the impact on the environment is positive this will be identified on the register.
- **5.6** Once the control measures for all of the environmental aspects have been implemented a second evaluation is carried out on the significance of the environmental aspects and impacts as there will be a change in the rating.
- **5.7** The data from the table is reviewed at regular intervals, at least annually, and the environmental objectives also reviewed and amended if necessary.

6.0 Outputs

- Environmental Plan
- Environmental Aspects & Impact Plan

7.0 Risks

- Damage to the Environment
- Non-Compliance
- Enforcement Actions
- Reputational Damage
- Fines
- Potential Loss of Work
- Litigation

• Damage to working relationship with regulatory bodies

8.0 Records and Retention

8.1 Records

- Register of Environmental Aspects & Impacts (EHS-T-05)
- Site Environmental Aspects & Impacts Plan (EHS-T-06)

8.2 Retention

- As per contract requirements
- As per regulations / legislation



Appendix 1

	Certain Constant in normal conditions	4	4	8	12	16
ccurrence	Likely Frequent in normal conditions e.g. monthly or weekly	3	3	6	9	12
	Occasional Possibly may occur e.g. annually	2	2	4	6	8
	Unlikely No evidence of occurring, extreme situations only	1	1	2	3	4
of c			1	2	3	4
po			Minimal	Minor.	Moderate	Major
Likeliho	Scale & Impact		Reversible immediately	Short term impact	Short term implications but still reversible	Long-term impacts. Irreversible
Severity of Consequences						



J. COSHH Assessments

[K. Control of Substances Hazardous to Health]

COSHH assessment: Identifying hazard and assessing risk

You are probably already aware of many risks in the construction industry. A COSHH assessment concentrates on the hazards and risks from substances in your workplace.

Remember that hazards and risks are not limited to substances labelled as 'hazardous'.

Walk around your work area. Where is there potential for exposure to substances that might be hazardous to health?

Examples include processes that emit dust, fume, vapors, mist or gas; and skin contact with liquids, pastes and dusts. Substances with workplace exposure limits (WELs) are hazardous to health.

In what way are the substances harmful to health?

Get safety data sheets and read your trade magazines. Some substances arise from processes and have no safety data sheet. Examples include fume from welding or soldering, mist from metalworking, dust from quarrying, gases from silage. Look at the HSE web pages for your trade or construction industry.

What jobs or tasks lead to exposure?

Note these down. Note down what control measures you already use. For these jobs, how likely is any harm to workers' health?

Are there any areas of concern, eg. from the Accident Book?

Examples include burns from splashes, nausea or lightheadedness from solvents, etc.





COSHH Assessments

Company name:	Date assessment made: Date discussed with employees:

Step 1 Substance	Step 2	Step 3	Step 4 Action

What is the hazard?	What harm, and who?	What are you doing already?	What improvement do you need?	Who	When	Check

Also:	Action taken	Action		
		needed		

Thorough examination & test - COSHH			
Supervision			
Instruction and training			
Emergency plans			
Health surveillance			
Monitoring			



Step 5 Review date:



L. Insurances



M. Quality Management System

Rev.	Author	Reviewed By	Approved By	Issue Date	Status
01	Emer Coleman	Michael O'Brien	Barry Crowley	28/02/2018	Initial Release
01	Emer Coleman	Michael O'Brien	Barry Crowley	30/03/2019	Annual Review
01	Emer Coleman	Sheila Gisler	Barry Crowley	03/01/2020	Annual Review
01	Emer Coleman	Sheila Gisler	Barry Crowley	03/01/2020	Annual Review
02	Emer Coleman	Michael O'Brien	Sheila Gisler	01/04/2021	Update



Full Document available at Site Office



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N. Health, Safety and Welfare Policy

Rev.	Author	Reviewed By	Approved By	Issue Date	Status
01	Gordon Halfacre	Michael O'Brien	Barry Crowley	27/01/2012	Initial Release
02		Peter Moore	Barry Crowley	09/07/2014	Update
03		Michael O'Brien	Barry Crowley	31/08/2016	Update
04		Gordon Halfacre	Barry Crowley	02/01/2018	Update
05		Paul Holland	Barry Crowley	03/01/2019	Update
06		Gordon Halfacre	Pat O'Mahony	06/02/2020	Update
07		Pat O'Mahony	Sheila Gisler	20/04/2020	Update
07		Stuart Harvey	Pat O'Mahony	03/01/2021	Annual Review
08		Stuart Harvey	Pat O'Mahony	08/02/2021	Update
09		Stuart Harvey	Pat O'Mahony	17/08/2021	Update



Full Document available at Site Office



P. CHAS Certificate