METHOD STATEMENT FOR

(PILING WORK)

Project No. : 0000000000

REVISION HISTORY	ISSUE DATE	DESCRIPTION	REVIEW / STATUS

PREPARED BY:	REVIEWED BY:	APPROVED BY:
QHSE OFFICER	PROJECTS ENGINEER	MAINTENANCE MANAGER

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1. Purpose

This document outlines the method statement for the piling activities to be conducted as part of [Project Name]. The purpose of this method statement is to provide a clear and comprehensive overview of the planned piling procedures, equipment, safety measures, and environmental considerations involved in the execution of the piling works.

2. Scope of Work

Piling Method Statement

3. Work to be carried out

Driving performed driven piles, including the following operations:

- Unloading rig
- Unloading and handling piles.
- Driving piles.
- Pile testing.

4. Personnel Involved

4.1. All employees have received appropriate training relevant to all proposed activities and are considered competent to undertake the work described and possess CPCS/CSCS cards.

4.2. All the work is to be carried out in an area accessible to other contractors but not normally used by the public

5. Training

5.1. We have a policy of ongoing training and personal development. Within the last two years, all our operatives have undergone the following training:

5.1.1. H&S awareness and passed the H&S test.

5.1.2. First Aid

5.1.3. Use of petrol saw

5.1.4. Abrasive wheels

5.1.5. Manual handling

5.1.6. Slinger banks man
5.1.7. COSHH
5.1.8. Lifting equipment
5.1.9. Hand-arm vibration
5.1.10. Dust and Fumes
5.1.11. Face-fit dust masks

5.2. Additional training has been given where appropriate for specialized operations, such as:
5.2.1. Piling rig operator
5.2.2. Telehandler operator
5.2.3. Dumper driver
5.2.4. Excavator operator.

6. Risk Assessments

All employees of [Company Name Here]. involved in the project will be consulted on the relevant risk assessment, informed of risk control measures, and given clear information on any site-specific hazards (e.g. utility services, other contractors, specific site hazards, ground conditions, weather, water, adjacent buildings), emergency procedures (e.g. first aid, overhead or other services adjacent to their work area, environmental factors). Relevant information received from the Customer/Site Agent will be taken into consideration.

Key Legislation and Guidance with which [Company Name Here] will ensure compliance

7. Legislation

7.1. The Construction (Design and Management) Regulations 2007
7.2. Provision and Use of Work Equipment Regulations 1998 (PUWER)
7.3. The Management of Health & Safety at Work Regulations 1999 (as amended)
7.4. Personal Protective Equipment at Work Regulations 1992 (as amended).

8. Guidance

8.1. Health & Safety in Construction HSG 150 Lifting Operations and Lifting Equipment Regulations 1998
8.2. Protecting the Public – Your Next Move HS (G) 151
8.3. Guidance issued by the Health & Safety Executive “Avoidance of danger from overhead power lines” Guidance Note GS 6 will be followed

9. Piling Equipment

BS EN 996:1996 – Piling Equipment: Safety Requirements Control Measures Personal Protective Equipment (PPE)

The following PPE is required on-site and will be used:

9.1. Lace-up safety boots.
9.2. Safety helmet.
9.3. Ear defenders
9.4. Gloves, hi-viz vest or jacket.
9.5. Wet weather gear, goggles, welding gloves (all as required).

10. Methodology

10.1. Before Site Establishment

10.1.1. A site inspection must be carried out by a competent, experienced person. This inspection should take into account the state of the piling platform, access to the piling position by the rig, access to delivery vehicles, and the proximity of any other structures, cables, and services which are considered necessary for safe piling operations.

10.1.2. These recommendations should include work to be done to the piling platform to create a firm-level surface, details of the proximity of structures and services, and work required to allow access to the rig and delivery wagons.

10.1.3. All operators of the rigs will be suitably trained and experienced in the operation of the rig.

10.1.4. All operators must be certified, competent, and experienced.

10.1.5. All men working around the rig will be suitably trained to ensure the rig man oeuvres around the site safely with due regard to other machines, excavations, cables, and other operatives

BEFORE WE MOBILISE WE MUST HAVE ASSURANCE THAT THE PRINCIPAL CONTRACTOR/CLIENT HAS IDENTIFIED, LOCATED, AND PROTECTED ANY AND ALL UNDERGROUND SERVICES.

10.2. Establishment

10.2.1. Specification for low loader and details of the intended task to be agreed upon and given to low loader supplier.

10.2.2. The client's site representative is to be fully consulted in advance on planned work activities, time schedules, and personnel & work equipment involved, and any relevant safety information exchanged.

10.2.3. Employees are to sign in at Site Office on arrival and receive site safety induction.

Employees will sign out on departure from the site.

10.2.4. Access route and unloading area to be agreed upon and (as necessary) cordoned off at a safe distance by barriers to prohibit unauthorized access by the public and other contractors, and "no entry" signs displayed. The route will be kept clear and free from obstructions and overhead or underground services. Visual safety check carried out by an employee of [Company Name Here].

10.2.5. If possible, the rig is loaded from the rear of the trailer unit; loading is to take place from the side of the area is restricted. Rig driver to comply with directions given by banks man. Site traffic was prevented from passing the low loader.

10.2.6. When securely positioned on the trailer, the rig is to be tied down securely to the bed of the trailer, using suitable chains and strapping. All employees must always wear suitable PPE and the site representatives kept informed of the progress of work.

10.2.7. The rig and low loader are to be inspected by a "competent" employee to ensure the security of the load.

10.2.8. Low loader to exit site, subject to agreement with Client's site representative. Whilst exiting the site onto public roads, clear traffic management is used at all stages of operation.

10.2.9. Road and pathway to be cleaned and tidied; warning signs and barriers to be removed.

10.3. Driving Bearing Piles

10.3.1. Request 'Permit to dig' before starting.

10.3.2. Make sure that there are no overhead obstructions and that the working piling platform surface and access are appropriate for the safe operation of the piling plant and that there are no underground services.

10.3.3. Before the commencement of piling operations, the following must be considered:

A. Are piles set out and a piling layout drawing provided?
B. The specific testing requirements have been identified.
C. All necessary authorities are aware of the commencement of piling operations.

10.3.4. Before pitching a pile the safety hook must be placed in position to prevent the hammer falling if the winch brakes fail.

10.3.5. The rig should be established by tracking to the required piling position under supervision from the driver and bank man. The mast of the rig should then be set vertically over the pile position and checked using a spirit level accordingly.

10.3.6. 6. The nominated pile having been brought to the piling rig by the forklift truck, should be drawn towards the rig using the pile hoist rope using a 2-ton SWL sling wrapped around the pile approximately 1m from the end of the pile. The sling should be checked regularly for any defects.

10.3.7. The safety hook should now be removed and the pile section then lifted so the pile head locates into the pile driving head of the hammer box on the rig.

10.3.8. 8. To establish pile lengths, confirm durability and soil resistance and verify pile design, probe piles in agreed working pile positions can be installed across the site at the commencement of piling operations.

10.3.9. A minimum penetration of the pile toe should be obtained to fix the pile in the ground dependent upon soil conditions and again the verticality of the pile should be checked. The pile can then be driven to the needed criteria.

10.3.10. When the pile has been driven to a level of approximately 1.5~ 2m above ground level, piling should cease temporarily whilst the hoist rope is disconnected. Once the rope and sling are disconnected, piling can proceed.

10.3.11. The pile set will be taken by physically measuring the movement of the pile over a required number of blows. The set of every pile will be measured at installation and recorded on the pile record sheet(s). It is also a requirement to carry out re-strike measurements on at least 1 pile to check the dynamic resistance of the pile. Checking to see that there is no decrease over some time, the re-strike must be taken over 5 blows. The scheduled initiatives should be equal to or less than the equivalent set. Each re-strike is to be documented on the pile logs. A pile penetration record sheet can be completed to if necessary complement the pile sets. Once these operations have been accomplished the same process is to be repeated on the following piles to be installed.

10.3.12. No personnel should be within the working radius of the rig without a safety helmet or ear defenders. Within 8m the noise level can be, subject to its surroundings, more than 85 dB, therefore ear defenders must be worn. The rig has appropriate signage on the sides. If personnel do not obey our exclusion zone work will be suspended, halted and the main Contractor informed.

10.3.13. All necessary PPE should be worn ~ gloves, boots, a hard hat, and eye protection.

10.4. Dynamic Pile Testing

10.4.1. Before the commencement of pile testing, it shall be checked with both the rig driver and bank man that the piles to be tested have not been cut or damaged.

10.4.2. It shall be of paramount importance that access to the piles to be tested is suitable for the piling rig to avoid damage to other installed piles.

10.4.3. Locating bolts will be drilled into opposite faces of the pile to accept the accelerometer and strain gauges using a cordless drill. Alternatively a pre-drilled “dolly”, can be used on top of the pile, which saves time when testing more than 1 pile.

10.4.4. The gauges are connected to the analyzer equipment via a signal cable.

10.4.5. The piling rig is set up on the pile.

10.4.6. Information on the pile to be tested is passed to the independent testing engineers to calibrate the analyzing equipment.

10.4.7. The test is performed by delivering several blows to the pile head using the installation procedure.

10.4.8. A finalized report will be forwarded to the client on completion of contractual terms.

10.5. Loading and Unloading Piling Rig and Heavy Plant On/Off Low Loader

10.5.1. Ensure that the company supplying the low loader is aware of the size and weight of the rig so that the low loader is operating well within its capacities.

10.5.2. Ensure the company supplying the low loader is aware of the collection and delivery address in sufficient time for the delivery route to be agreed upon by the relevant authorities.

10.5.3. Ensure that the low loader can safely reach the collection point, having due regard to any overhead cables which may be fouled by the rig when leaving the site.

10.5.4. Ensure that the low loader can safely reach the collection point, having due regard to any underground services that may be damaged due to the weight of the low loader itself, or the additional weight of the rig once loading has been completed. Where it is probable that damage may occur these areas shall be marked as restricted zones, using goalposts or brightly colored markers.

10.5.5. The rig should ideally be loaded from the rear of the trailer unit, but loading can take place from the side of the area is restricted. The rig driver must take note of all directions given to him by the bank's man.

10.5.6. When the rig is positioned on the trailer, to the satisfaction of the low loader driver, it must be tied down securely to the bed of the trailer, using adequate chains and strapping.

10.5.7. During the loading operation, it may be necessary to prevent traffic, either public or site, from passing the low loader. Again, distinct and clear signals should be used by the bank's man.

10.5.8. Upon the completion of all loading operations, the rig and low loader must be checked over to ensure there are no loose items such as packing, slings, tools, or timbers that could fall off during transit.

10.5.9. When satisfied that the rig is secure, the low loader can then move from the site having checked, if required to do so, with the necessary authorities.

10.5.10. Whilst maneuvering onto the roads it may be necessary to stop traffic, both public and site, by the use of distinct and clear signaling.

10.6. Site Operations

10.6.1. Before the arrival on site, access should be checked to ensure there are no cables or services (overhead or underground) obstructing the route of the low loader.

10.6.2. Before the commencement of any activity, the unloading area should be subject to a visual check by the rig driver to ensure it is free from any obstructions and a safe distance away from all excavations and adjoining buildings. The ground should also be sufficiently firm and level to allow the unloading to proceed safely.

10.6.3. Whilst maneuvering, and during the unloading process it may be necessary to stop, or prevent traffic from passing too close to the low loader, both public and site.

10.6.4. During unloading the rig driver must take note of any directions given by the bank's man.

10.6.5. At all times during the unloading process, the rig must remain in a stable condition, and be handled by a fully trained driver.

10.6.6. Once the rig is off-loaded the low loader is removed from the site, and after checking that the access from the unloading area to the rigging area is sufficiently firm, the rig can be moved.

10.6.7. Clean up if necessary road or pathway.

10.6.8. If in town center police may have to be made aware of movement times & route.

10.6.9. During all loading and off-loading operations, all personnel should wear safety helmets, safety footwear, and high-visibility clothing.

10.6.10. The rig and telehandler will be full on arrival therefore refueling should not be necessary. But if required the plant will be re-fuelled by the Principle Contractor's procedures.

10.7. Offloading and Stacking of Materials

10.7.1. The unloading area shall be established and suitably prepared before the arrival of any materials. The following shall be taken into consideration accurately and safely:

- The vehicle, and or driver/operator will walk the route before offloading.
- The site access and route to the stacking area shall be assessed and established.
- Paying unique attention to ground situations, obstructions (buildings, excavations, and many others), and services both overhead and underground that may be fouled as a result of the burden of the loaded wagon.
- Where necessary goal posts or markers should be in use to indicate areas of danger.
- Consideration shall be given to the stacking area which shall be firm and level, and free from obstructions. Where this is not possible suitable arrangements should be made to ensure that the stacked piles are stable and adequately supported.
- Where it is apparent that the ground conditions in either or both of the above do not present a suitable surface, then arrangements shall be made with the main contractor to prepare the ground before any stacking or delivery of piles is performed.
- The site surface can be determined by a site visit, and suitable arrangements made with the client before arrival on site of any equipment.

10.7.2. To ensure the safe maneuvering of the delivery vehicle once on site, the drop-off points should be placed in the most practical position, about the following.

- Be in such a position to allow the delivery vehicle to exit the site safely either by allowing enough room for a turning circle, or the reversal of the vehicle without risk to the driver or other site personnel – use banks man.
- Be a sufficient distance from any excavations, buildings, or other obstructions that may cause damage to the delivery vehicle or others – use banks, man.
- Upon arrival, the delivery vehicle shall be directed along the prepared route toward the stacking area by the bank's man.
- Under no circumstances is the wagon to maneuver on site unite Piling Method Statement

10.8. Site Operations

10.8.1. Before the arrival on site, access should be checked to ensure there are no cables or services (overhead or underground) obstructing the route of the low loader.

10.8.2. Before the commencement of any activity, the unloading area should be subject to a visual check by the rig driver to ensure it is free from any obstructions and a safe distance away from all excavations and adjoining buildings. The ground should also be sufficiently firm and level to allow the unloading to proceed safely.

10.8.3. Whilst maneuvering, and during the unloading process it may be necessary to stop, or prevent traffic from passing too close to the low loader, both public and site.

10.8.4. During unloading the rig driver must take note of any directions given by the bank's man.

10.8.5. At all times during the unloading process, the rig must remain in a stable condition, and be handled by a fully trained driver.

10.8.6. Once the rig is off-loaded the low loader is removed from the site, and after checking that the access from the unloading area to the rigging area is sufficiently firm, the rig can be moved.

10.8.7. Clean up if necessary road or pathway.

10.8.8. If in town center police may have to be made aware of movement times & route.

10.8.9. During all loading and off-loading operations, all personnel should wear safety helmets, safety footwear, and high-visibility clothing.

10.8.10. The rig and telehandler will be full on arrival therefore refueling should not be necessary. But if required the plant will be re-fuelled by the Principle Contractor’s procedures.

10.9. Movement Piling Rig on Site

10.9.1. The piling rig, under no circumstances, shall be moved without the assistance of the bank's man.

10.9.2. The bank's man shall ensure that the rig can safely reach all pile positions having due regard to any overhead cables, underground services that may be fractured, or any other site obstruction (e.g. water, excavations, buildings etc) that may cause damage or create an unsafe area. Warning markers, indicating areas of danger (e.g. goal posts or the like) should be in position, where necessary before work commences.

10.9.3. Whilst maneuvering, it may be necessary to stop traffic both public and site, from passing too close to the piling rig.

10.9.4. The bank's man should ensure that an unobstructed passageway is maintained for the slewing of the rig. Where this is impractical, steps shall be taken to prevent the access of any person to the slewing zone. Under no circumstances shall the rig driver slew to his blind side without consulting his bank's man first.

10.9.5. During all maneuvering and slewing the driver must take note of any directions given by the bank's man. The bank's man shall ensure that all directions given are clear and concise.

10.10. Movement of piles

10.10.1. The procedures as set out shall be strictly adhered to for the off-loading of piles from the stacking area.

10.10.2. The bank's man shall ensure that no other person (or traffic), either public or site, is within an unsafe distance of any pile in the process of being moved.

10.10.3. The rig driver shall, under no circumstances, move any pile until he has checked that it is safe to do so from his bank's man.

10.10.4. The sling used for the lifting and movement of piles shall be subject to a continuous check by the bank's man. Where damaged or broken strands are evident the sling shall be replaced immediately.

10.10.5. The lifting of the pile into the pile helmet shall be carried out as stated in the

10.10.6. Company’s method statement. The bank's man shall remain vigilant during this operation, giving the driver concise signals where necessary.

10.10.7. The driver shall at all times take note of any directions given to him by his bank's man.

10.10.8. During all maneuvering on site, all personnel should wear safety helmets, safety footwear, and high-visibility clothing.

10.11. Installation of Bearing Piles

10.11.1. During all maneuvering and slewing actions the rig driver must take note of all directions given by the bank's man. The bank's man shall give clear and concise directions at all times.

10.11.2. The bank's man shall ensure that an unobstructed passageway is maintained for the slewing of the rig. Where this is impractical steps shall be taken to prevent the access of

any person to the slewing zone. No slewing to the rig driver's blind side shall occur without the consent of the bank's man, who shall ensure it is safe to do so.

10.11.3. It may be necessary to stop traffic, both public and site, from passing too close to the piling rig during installation.

10.11.4. Before the pile is driven, but after the checks have been made for verticality and position the bank's man should carry out a final visual check on the pile to ensure that the pile is of good quality (i.e. free from any defects, cracks, etc., that may have occurred during the moving of the pile).

10.11.5. Where it becomes apparent that the drop hammer is not operating correctly and may cause damage to the pile, pile driving shall cease to continue, the contracts manager shall be informed, and the problem corrected before any further works are carried out.

10.11.6. All operators of the rig will be suitably trained and experienced in the operations of the rig. In the case where an inexperienced operative is controlling the installation process (i.e. in training), there shall be present at all times an experienced driver who shall closely monitor his progress.

10.11.7. The drop height to be used shall be determined before any driving takes place. The rig driver shall be aware of the Contract Instructions, and any other relevant information before installation. It is up to the Contracts Manager/Supervisors to ensure the site operatives are made aware of this relevant information, e.g. varying ground conditions, etc.

10.11.8. Where a pile deflects out of tolerance during the driving, the procedures as set out in the company's quality procedures shall be followed, the pile should never be forced.

10.11.9. Cutting of pre-cast concrete piles shall be carried out using suitable protective gear such as guards and safety goggles. Under no circumstances are any fitted guards on equipment to be removed for the convenience of the cutting operation.

10.11.10. All persons, either site or public, near the cutting shall be made aware of this action and kept to a reasonable distance back from it by the operative. Under no circumstances shall any person approach, or go within a radius of the operative whilst in the process of cutting.

10.11.11. The operative performing the cutting shall ensure that before the task is carried out the equipment to be used is sound, and of good quality. Particular notice should be paid to the state of the cutting edge. He shall also ensure that the area surrounding the cutting zone is clear of loose materials, and prevented from becoming slippery.

10.11.12. Where the area is unsuitable then precautions shall be made to provide a sound level working area.

10.11.13. During all installation operations, all site operatives should wear safety helmets, safety footwear, ear defenders, and high-visibility clothing

11. Emergency Plan

Employees will cooperate with the Client's site representative in the implementation of procedures arising from the Site Emergency Plan. The procedure to access and provide first aid treatment for an injured person is stated in the Plan.

12. Monitoring

The MD (Name Here) will monitor compliance with all requirements listed in this Method Statement. The driver shall at all-time take notice of all directions given to him by the bank's man and the bank's man shall ensure that all directions given are clear and concise.

13. Attachments

Risk Assessment
Permit to Work