GSS Piling Limited
RESTRICTED ACCESS PILING SPECIALISTS

GSS
Innovate to Create

Geostructural Solutions Ltd
Construction Specialists

PILING- HIGH RISK TASK BRIEFING

To be completed at the start of each contract or on a deviation from site logistics

High Risk Task Sheet No: T01 – High risk activities involved in piling operations.				
Task Description: Lifting operations, Tracking of piling rigs, Setting up on location peg, Drilling operations.				
Location of Works: Panther House, 156-158 Grays Inn Road, WC1X 0AG				
Duration of Works:	**Commences:**	TBC	**Completion:**	T.B.C.
Permits Required: - Permit to dig / drill. Hot works if required.				
Relevant MS's	Main RAMS for GSS Piling works.			
Hot Works Permit		**Permit to dig No.**		
Other Permits:				
Safety Critical Staff:				
Rig operator, frontmen, Banksman.	**All the relevant safety critical personnel to have as a minimum CSCS or CPCS.**			
Methodology: - Describe in detail below works to be undertaken				

GENERAL

- Always ensure that you are fit for work – if in doubt, feeling unwell or taking medication inform the site foreman prior to starting work.

- Ensure that all instruction from the foreman or nominated supervisor are followed. If you are unsure or do not understand immediately inform the foreman

- Should you believe any plant or process is unsafe or likely to become unsafe – STOP WORK and immediately inform the site foreman.

- Never operate or use any plant or equipment that you have not been trained to use.

- The foreman is responsible to ensure that the RAMS are followed and reassessed if work operations deviate from the RAMS.

UNLOADING OF PILING RIGS AND PLANT ACCESSORIES

- The delivery vehicle is to be marshalled in to the unloading position by a fully qualified banksman/traffic marshal. Once located at the agreed point of unloading the vehicle is to be fully barriered off to prevent unauthorised access by 3rd party operatives.

- Before unloading the vehicle all details of the operator are to be checked to ensure that he is qualified and competent to operate the Lorry Mounted Crane.

- The stillages/rigs/powerpacks are to be pre-slung if possible to minimise working on the bed of the lorry. If access to the bed of the lorry is required then handrails are to be installed. If this is not possible a fall arrest system will be required and will be covered within the main RAMS.

- All lifting tackle will be checked and registered as per LOLER requirements before use. The slinger is also to visually check all lifting tackle before use and any damage to be reported to site management and isolated from use.

- All lifting tackle is also to be checked for the correct SWL and compatibility for the load being lifted.

- The entire unloading/loading process is to be controlled by either a GSS Piling slinger/signaller or the equivalent from the principal contractor.

- At no time during the lifting operation is the slinger to place himself between the load being lifted and a fixed rail or structure. This also includes fingers/hands or any bodily part.

- The slinger is to maintain full visual contact with the load being lifted and the operator of the hiab. If this is not possible then a 2-way radio system is to be used and full communication is to be maintained. If the 2 options of communication are not possible then a specific plan will be formulated separately within the main RAMS.

- The loading in zone will need to be fully sectioned off with barriers or similar to stop 3rd party operatives from entering the lifting zone.

- The landing zone will also be checked for adequate bearing pressure and space for the appropriate amount of kit being loaded in.

- During the operations above if anything changes then all operations are to cease and the GSS Piling manager is to be informed.

TRACKING OF PILING RIGS

- Before the piling rigs are tracked the piling mat or road surface is to be design checked with piling mat sign off and checked for damage to existing road surface prior to movement of the rig.

- The piling rigs are only to be tracked by a trained operator. The rigs are to be tracked only on confirmation that the surface to be tracked on is stable and firm and piling mat has been signed off.

- The route that the rig will be tracked will be walked by the slinger and operator to ensure that there is enough clearance to manoeuvre and that there are no existing manholes/chambers or voids on the route.

- All movement of the piling rigs is to be controlled by a CPCS slinger or Banksman/Traffic Marshal. At no point during the movement of the rigs are operatives to place themselves between the rig and any fixed structure where crush injuries can occur.

- The Slinger/Banksman is to be fully in control of the rig movement relaying either hand signals or verbal communication to the operator of the piling rig.

- If at any time during the movement of the rigs the ground conditions change then all movement of the rig is to cease and the work area re-assessed.

- All non-essential personnel are to be kept excluded from the tracking area via means of verbal communication and or fixed barriers.

- The rig operator and slinger/Banksman/Traffic marshal are to maintain full communication during any tracking but they are not to stand in any position where they could be potentially within a crush zone.

SETTING UP OF RIG ON A PILE POSITION

- The rig is to be positioned adjacent to the pile peg/marker and the ground around the peg is to be checked for stability.

- The surrounding area is to be checked for overhead obstructions and specifically any site cables or pipes. If the head room above is very restricted then measurements will be taken prior to set up and levelling of the mast.

- Once the above has been carried out the mast will be tilted vertically by the operator from the control arm side of the rig. At no time during this operation is the frontman to place himself in the blind spot to the front of the rig.

- The frontman will indicate to the operator via either hand signals or verbally until the mast is vertical in both planes. Again as mentioned previously the front man is not to put himself between any part of the mast or rig where a crush injury could occur.

- Once the mast is set up vertically the head is to be travelled up and down to ensure it is clear of all points. The head slide will also be engaged to ensure that this does not clash with any part of the existing structure.

- The marker peg is then removed from the ground prior to any drilling operations commencing.

Drilling operations – CASE & AUGER PILING.

- On completion of the above setting up procedure the drilling operations will commence.

- The safety cage will be opened by the Frontman and will be controlled only by the Frontman not the operator. This will be done for every auger or casing to be installed and closed before the rotation unit is engaged.

- A lead casing will be lifted in to the clamp foot with the attached cat head on the rig or via the attending excavator. The lifting of the casings and augers will be controlled by the Frontman on the rig.

- The casing will be detached from the lifting tackle and secured by the clamps of the rig. The sub will then be rotated to match the hole alignment of the casing. **<u>At no time is the frontman to place anything inside the hole of the casing especially fingers.</u>** If the drive bar does not line up properly then the bar is to be tapped in with a hammer. The drive bar will be inserted from the operator side and if required the casing can then be spun back to give the operator a clear view of the drive bar.

- The lead casing will then be rotated in to the ground and re-clamped at a low level and the drive bar removed. The head of the rig is then lifted up and the slide operated to move the head out the way to achieve installation of the augers.

- The lead auger is then placed within the casing as above lead casing but lifted in with the specially adapted lifting bale. The bale is detached by removing the top pin and then the head of the rig is attached to the auger. **It is essential that the top pin is in position when augering commences for each auger in turn.**

- The lead auger is then rotated in to the ground until the hex drive of the auger is just above the casing and the top pin is removed. At this stage a second auger is installed as before and connected on to the hex drive of the lead auger. The pin is then inserted to connect the lead and second auger. Once the pin has been driven in with a hammer the pin joint will be secured with a piece of tie wire.

- The augers are then connected to the head of the rig again and rotated in to the ground. At low level the augers are stopped the cage is opened and the top pin is removed. The augers are then rotated down so that the hex drive is below the casing drive and the head is detached by joggling the rotation.

- Grease is then applied to the top of the casing thread by a tar brush each time to lubricate the next casing being threaded on.

- A second casing is then attached to the lead casing and the sub is connected as in stage 1 above for casing installation.

- The above sequence is then followed until the casings achieve seal in to the underlying clay.

- On achieving seal the augers will then only be inserted leaving the casings sealed in to the clay and clamped by the rig. Auger installation will then cease at the required design depth.

- The removal of the augers will require the cage to be open and this will require extra care on behalf of the rig operator.

- If the Frontman requires to work on the blind side of the rig then the operator using a safe agreed method of communication will take their hands off of the levers and only re-engage the levers on instruction from the frontman. Ideally all work needs to take place where the operator can see the Frontman.

- The augers are raised by the head of the rig and the auger plate is placed in just under the joint of the auger. The weight of the augers is then transferred from the rig to the plate. The pin wire is then removed and the pin hammered out. The auger is then lifted and detached from the lower auger until the hex joints are clear.

- The head of the rig will then be slid over and the auger taken down and rested on the side of the auger plate. At this stage the top pin is removed and the auger is detached from the sub of the rig. The head is then lifted clear and the auger will either be attached to the lifting bale and removed with the excavator or control dropped to the ground.

- If controlled dropping of the auger is to take place then there needs to be sufficient room around the rig for the frontman to step away once the auger is dropped. At no time is the Frontman to stand in a crush zone or try to catch a falling auger.

- Each extracted auger will be removed from the immediate piling zone before the extraction of the next auger.

- The above sequence will be used until all augers are retrieved from the pile bore.

- The pile cage is then installed by the piling crew as per main RAMS and the pile is filled with either grout or concrete.

- The casings will then be ready for removal. The casing is connected to the sub of the rig as above and raised until the joint of the casing is just above the clamps.

- The sequence of removal will then follow that of the augers above. If at any time the casing is overfilled with concrete the this will be cleared using a shovel to allow a full view of the drive bar hole. At no time is the Frontman to place his fingers in the drive bar hole or arms inside the casing to clear any spoil or overfilled concrete.

- If at any time the above sequence cannot be achieved then all work is to cease and the GSS Piling Manager is to be contacted.

Drilling Operations - CFA PILING

- The guard cage is opened and the winch cable from the cat head or the lifting excavator will be attached to the lead auger via the lifting bale. The auger is then located in the guide casing on the rig. The chains/winch are then detached.

- The lead auger is then connected to the sub of the rig with a top pin, the cage is then closed and rotated in to the ground so that the hex drive is just above the clamp foot of the rig. The cage is then opened and the above process is repeated until the design depth of the pile is achieved. All augers are jointed with 2 x pins and wire.

- The pile will be filled with grout/concrete which will be pumped down the stem of the augers. As the augers are filled the rig operator will slowly raise the head of the rig to raise the augers. The stem of the augers is to be kept full of grout/concrete but be kept down on pressure.

- On removing the auger pins the auger is to be very slowly lifted to release the pressure in the stem and release any surplus concrete/grout. The Frontman is to wear safety goggles during the removal of all the augers in the string.

- The removal of the augers will require the cage to be open and this will require extra care on behalf of the rig operator.

- If the Frontman requires to work on the blind side of the rig then the operator will take their hands off of the levers and only re-engage the levers on instruction from the frontman. Ideally all work needs to take place where the operator can see the Frontman.

- The augers are raised by the head of the rig and the auger plate is placed in just under the joint of the auger. The weight of the augers is then transferred from the rig to the plate. The pin wire is then removed and the pin hammered out. The auger is then lifted and detached from the lower auger until the hex joints are clear.

- The head of the rig will then be slid over and the auger taken down and rested on the side of the auger plate. At this stage the top pin is removed and the auger is detached from the sub of the rig. The head is then lifted clear and the auger will either be attached to the lifting bale and removed with the excavator or control dropped to the ground.

- If controlled dropping of the auger is to take place then there needs to be sufficient room around the rig for the frontman to step away once the auger is dropped. At no time is the Frontman to stand in a crush zone or try to catch a falling auger.

- All augers will be pressure washed clean on removal of the last pile for the day or if there is a delay in setting up on the next pile.

PILING	**HIGH RISK OPERATIONS BREIFING**	
GB – Declaration	By signing below I confirm that I have a clear understanding of the briefing as above	
Hungarian - NYILATKOZAT	Aláírásommal megerősítem, hogy a fenti tájékoztatást teljes mértékben megértettem.	
Latvian - PAZIŅOJUMS	Zemāk parakstoties, es apliecinu, ka skaidri saprotu iepriekš izklāstīto instruktāžu	
Polish - OŚWIADCZENIE	Składając poniżej swój podpis, potwierdzam całkowite zrozumienie powyższych wytycznych	
Russian - ЗАЯВЛЕНИЕ	Ставя свою подпись ниже, я подтверждаю, что я четко понимаю инструкции, приведенные выше.	
Albanian - DEKLARATË	Duke firmosur më poshtë unë konfirmoj se i kuptoj mirë udhëzimet më sipër	
Romanian - DECLARAȚIE	Prin semnarea prezentului document, confirm că am înțeles clar informarea de mai sus.	
Bulgarian - ДЕКЛАРАЦИЯ	Поставяйки подписа си по-долу, потвърждавам, че разбирам точно горния инструктаж	
Supervisor Name:		**Date:**
Attended By: - Print	**Signature: -**	