

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
9	Electrocution	Piling Crew	3	4	H	All portable electrical equipment to be a maximum voltage of 110volts dc. All portable electrical equipment to be checked before it is used and thoroughly inspected every 3 months by a competent person. PAT testing is required see MS/047 for colour coding test schedule. Damaged / Faulty equipment to be removed from use. HSS Standard E01 is to be complied with in full.	1	4	L
10	Lifting operations. Falling plant and materials, Collisions with plant, persons and Overhead services Failure of lifting appliance	Piling Crew, visitors and other operatives on site	3	4	H	Lift Plan to be followed at all times (PMP Section 3) Only Fully Trained Banksman / Slingers are to control lifting operations on site and ensure that the loads are properly slung prior to any lift commencing; tag lines to be used on all lifts. Banksmen to ensure that the lift path / route is clear of other site operatives and overhead services in particular H.V Cables and overhead pipe racks. Whilst lifting augers (during rigging), ensure that the 'female' coupling is facing the rig and the lift path is clear; do not pick up augers when 'male' coupling is facing the rig. Plant Manager to ensure that all rigs receive their 12-monthly thorough examination and that any defects are corrected Foreman to ensure rig is inspected after rigging and LOLER register completed. R&A foreman is to ensure that all Lifting Accessories have been given an examination every 6 months and certificates available. Banksman / Slinger to assess all loads before they are lifted to ensure that the Safe Working Load of the lifting equipment is not exceeded at any point during the lift Damaged slings to be cut-up and not used/discarded HSS Standard L02 is to be complied with in full.	1	4	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
11	Use of attended excavator Accidental unlatching of bucket using "quick hitch " attachment mechanism	Piling Crew, visitors and other operatives on site	2	4	M	The attendant 360° operator and the R&A banksman are required to sign up to the attached pictorial guide for the safe interaction between plant and operatives. Foreman is to check that bucket and excavator are a "matching pair" (many systems are in use); all excavator operators must have received training on the type of quick hitch being used. Driver must be competent to operate system supplied, by demonstration if required and must hold the relevant lifting category. Where a locking pin is specified in the system, it must be in fitted in the correct place by the excavator Operator (R&A site team to check). HSS Standard P01 is to be complied with in full.	1	4	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



12	Plant / Vehicle operation Contact between plant and persons such as to cause injury.	Piling Crew, visitors and other operatives on site	4	4	H	Formation Design & Build Ltd to erect suitable signage and barriers to prevent any unauthorised site operatives gaining access into the 'greater' piling area, an immediate exclusion zone at the front of the rig must be in place and auger rotation must cease if entry into this zone is granted by the rig operator. R&A to cease all piling operations if any unauthorised persons enter the piling area. When lowering cages into a freshly concreted pile, the operation must be controlled by a competent slinger/signaller. Where mechanical assistance is required to push/tap cages into the concreted bore, operatives are to stand, at least twice the distance of estimated cage length left above ground, clear of the area; if the cage can't be pushed or tapped into the pile without the assistance of a piling operative holding the cage steady, then re-drilling the pile should be considered. Foreman to check all plant, machinery and equipment to ensure that guards are secured in place to prevent any physical contact with moving parts. The FPS Working Platform Certificate provided by Rock & Alluvium is to be signed by Formation Design & Build Ltd and/or the Planning Supervisor and returned prior to Piling Operations commencing; confirming the design is in order and the platform construction is in accordance with the design. Rock & Alluvium personnel are not permitted to unsecure any load, handle or unfold concrete chutes of concrete delivery vehicles. In line with Plant Standards P01, red card rig operators to be assessed by R&A employer or blue card operator. The attendant 360° operator, dumper operator and the R&A banksman are required to sign up to the attached pictorial guide for the safe interaction between plant and operatives, as a further measure R&A's Site Foreman, is to be available 'on the ground', when required, to control all the works within R&A's exclusion zone (working area) and co-ordinate operations including (but not limited too) lifting of cages & positioning of the attendant excavator. NOTE: blue carded operator preferred for the attendant excavator. HSS Standard P01 is to be complied with in full.	1	4	L
----	---	--	---	---	---	---	---	---	---

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
12 Cont.	Plant / Vehicle operation Contact between plant and persons such as to cause injury (Forward Tipping Dumper)	Piling Crew, visitors and other operatives on site.	4	4	H	If deemed necessary; Formation Design & Build Ltd or Ground Works Contractor will supply a forward tipping dumper to remove spoil from the piling area to a 'central' spoil heap; the location of which must be planned and agreed between all parties. Formation Design & Build Ltd and/or Ground Works Contractor to ensure forward tipping dumper driver holds relevant CPCs certification (ideally blue card) and are competent with piling operations, R&A Foreman will assess competency during operations, if deemed unsuitable the operator will be removed from the piling area; note, preferred maximum size of forward tipping dumper is 6T, this ensures better line of sight for the driver. Traffic Management routes to be planned and communicated between all parties. R&A Foreman to discuss and notify all operatives under R&A control of the traffic route in the morning briefing and/or when necessary. 5mph speed limit to be set and communicated to the dumper driver while operating in the piling area. Ideally the dumper should operate outside the immediate piling area. Operator of the forward tipping dumper must ensure they exit the vehicle to a safe location while being loaded. Seatbelts are to be in good condition and are worn when traversing the piling area (when ROPS are fitted). Plant Maintenance and checks are to be carried out by the attendant groundworker to ensure the plant is fit for purpose. If gradients are present in the designated piling area and/or forward tipping dumper route, they should not exceed the maximum permissible gradient of 1 in 4. Formation Design & Build Ltd and/or Ground Works Contractor are responsible for provision of banksman for dumper operations in & out of the piling area as required.	1	4	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
13	Use of Abrasive Wheel Cutter (Stihl Saw). Cutting Rebar only	Piling Crew, visitors and other operatives on site	2	2	L	Only persons holding a Competence Certificate to use saw or change wheel. Additional PPE. Goggles to BS EN 166 B must be worn. Suitable gloves and ear protection to be worn. Use of this type of tool is to be limited to 1 hour per day. Tools must not to be used near combustible materials. If any fuel spillage on clothing, tool must not to be used. HSS Standard P01 is to be complied with in full.	1	2	L
14	Working at Height (Ladders may be used by fitters)	Piling Crew, visitors and other operatives on site	4	4	H	Ladders are not to be used on site, MEWP to be used at all times. If ladder required, it must be Industrial Class 1 EN131 (Blue Label), it must be inspected for damage prior to use, be adequately footed and three points of contact to be maintained at all times. Any persons climbing into the agitator basket to ensure that the safety rail is reinstated. HSS Standard PW03 is to be complied with in full.	2	4	M
15	Loading and off-loading Vehicles	Piling Crew, visitors and other operatives on site	2	2	L	Lifting chains to be prefixed to Containers. Piling Equipment, Rebar or Cages to be delivered in vehicles with side rails and pre-slung with slings easily accessible from ground level. R&A to use unloading bay when available on site Where possible, items to be slung/un-slung from ground level. Where vehicle's flatbed is to be accessed, use appropriate access point. After slinging load, operative to dismount the vehicle's bed or stand at the headboard. Fall/edge protection must be used; tag lines to be used on all lifts.	1	2	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
16	Rig instability / platform failure	Piling crew	2	4	M	Formation Design & Build Ltd or R&A to design platform, Formation Design & Build Ltd to Install & Maintain Piling Platforms to safely support bearing pressure of piling rig in its Working Mode. Copy of the FPS Working Platform Certificate to be signed and pile mat design must be available on site along with material grading certification prior to commencing work. Weekly piling platform inspections must be carried out and the FPS platform certificate is to be signed off weekly by Formation Design & Build Ltd . Pile platform level checks are undertaken every morning by the setting out engineer and any discrepancies will be raised with the client, it should also be noted that the level is also recorded at the time of taking the as-built pile position. All excavations to remove existing foundations / underground obstructions should be backfilled with suitable material and compacted in accordance with the pile mat design. Formation Design & Build Ltd is responsible for backfilling these areas, it is vital that the area is fully reinstated in accordance with the piling platform design and the platform certificate is to be signed off.	1	4	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
17	Auger tip blockage, extracting the augers after boring, pile shaft filled with disturbed material. Bore may become unstable.	Third parties and piling crew	4	4	H	Pre-charge the concrete line to a maximum of 15bar, if tip has not opened then stop pumping and back pump. Set up/extend exclusion zone (as advised by PC) then back screw the augers out of the bore in a controlled manner ensuring as much spoil is replaced as possible, until the tip can be accessed. Move auger/slew away from pile, cover the bore whilst blockage is dealt with, ensure all spoil and debris is removed from the gates by piling operative using a grafter, once loose material has been removed the gates can then be opened. Any remaining spoil within the gates to be removed using the grafter. Once all material is removed & there is no risk of falling debris the Operative can then access the auger tip to remove the blockage using a pin to clear the blockage from the tip. If auger cannot be cleared from the tip, then sections will need to be removed to be able to 'rod' them. Once clear the tip is closed and auger secured within the gates, during this operation additional operative is to have a watching brief at front of rig. Re-drill pile 500mm beyond its scheduled design depth. All tip blockages shall be recorded. The pump operator and rig operator must maintain eye contact at all times during pre-charging of the augers. Flow chart contained within section 4.1.1 of these RAMS should be referred to for clarity: NOTE: Goggles conforming to BS EN166: 3-4-5 BT-CE must be worn by operative dealing with the blockage at all times.	2	4	M
18	Plant Breakdown	Individual repairing item of plant	4	3	H	If an item of plant breaks down the R&A plant department should be contacted so that a qualified fitter can be arranged to visit site if required. Under no circumstances should anyone not properly trained and authorised attempt to carry out any repairs to plant; persons not properly trained would not have the ability to recognise an unsafe situation and run the risk of harming the health and safety of themselves and others. Works can only continue when the plant has been repaired by a competent operative.	2	3	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
19	Manual handling muscular-skeletal injuries. Note this applies to levering, pulling lifting and other manual tasks.	Piling Crew, visitors and other operatives on site	4	3	H	Manual Handling is to be reduced to a minimum by the use of the attendant excavator provided by Formation Design & Build Ltd and R&A Hiab delivery vehicles or other mechanical means. Should the above not be possible;- Heavy loads are to be split into loads that the operative is comfortable with lifting. If this is still not possible;- The loads are to be lifted by multiple operatives ensuring that all operatives are aware what is required of them and that the weight of the item does not exceed the ability of the person lifting. If there are any manual handling tasks, ensure sufficient numbers of operatives are used, to spread the load. Operatives to "walk the route" before they carry any loads to ensure that there are no trip hazards / uneven surfaces / width restrictions / vehicle crossing points that could impede the Manual Handling Operations, muddy and slippery areas are to be avoided where possible. Operatives to wear protective equipment provided by R&A, this includes gloves suitable for the task being undertaken, typically to EN388: 3121. HSS Standard M01 is to be complied with in full.	3	3	M
20	Contact with rotating auger	Piling Crew and other operatives on site	2	4	M	Guarding to the CFA rig is to be in accordance with the FPS / HSE Guidance on PUWER (Regulations 11 & 12), section 4.1; i.e. the bottom of the guard/gates to be no more than 750mm above ground level and top of the guard to typically be 1.8m from ground level. In accordance with the above guidance (section 3.3) the guard/gates need to be opened to allow the piling rig to achieve its full depth; this is acceptable if the auger rotation stops when anyone enters the immediate exclusion zone at the front of the rig; the banksman <u>must</u> police the 'danger zone' in front of the rig.	1	4	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
21	Control of Substances Hazardous to Health (COSHH), particularly Ready-mixed Concrete. [Full COSHH Assessments available as Separate Document.] Fire risk	Piling Crew, visitors and other operatives on site	4	2	M	Operatives to avoid direct contact. PPE listed on COSHH assessment is to be worn. Should any operative come into contact with wet concrete – they should thoroughly wash skin and clothing immediately. <u>Wet Concrete can cause cement burns to the skin</u> Should there be any eye contact with dust or concrete – the affected eye should be thoroughly irrigated with cold clean water preferably a proprietary eyewash solution; in the event of concrete contamination, immediate treatment should be sort at an A&E department at the nearest hospital. Flammable substances (mainly fuels, oils & greases) to be returned to and secured in the COSHH cage, particularly during out of hours. HSS Standard H01 is to be complied with in full	2	2	L
22	Noise [Noise Assessments are available for all Piling Plant]	Piling Crew, visitors and other operatives on site and persons working nearby during working day	4	3	H	R&A operatives are provided with hearing protection and have been instructed they are to be worn when working near piling rig, pump or agitator. Piling rig / equipment is to be kept in good working order. Principal Contractor to ensure R&A works are segregated from other contractors and that the rig and pumping area noise assessments are reviewed. Mandatory noise protection signage to be set up near the rig and pumping area. Noise related toolbox talk to be included within toolbox talk list. HSS Standard N01 is to be complied with in full	2	3	L
23	Injury from Soil falling from auger flights, gates and auger cleaner.	Piling Crew, visitors and other operatives on site	4	4	H	Mechanical Auger cleaner to be used, this is approximately 2m (head height) from ground level to minimise the risk. An exclusion zone will be in place around front of rig, strictly no admittance inside the barriers unless the auger rotation has been ceased. R&A operatives are to ensure that there is no spoil / concrete / debris taken up on the flight and that the gates/auger cleaner remain clear from excessive build-up of spoil (clean off with grafter). [Refer to FPS/HSE Guidance on the Guarding and Cleaning of Augers]	1	4	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
24	Piling Work – Protection of adjacent premises and personnel when working near site boundary	Piling Crew, visitors and other operatives on site MEMBERS OF PUBLIC	3	2	L	When piling operations are in close proximity to the site boundary, Formation Design & Build Ltd is responsible for providing any exclusion/protection measures necessary to protect the general public. Formation Design & Build Ltd to provide, erect & maintain polythene sheeting / debris netting to perimeter walls / fencing to prevent Mud / Concrete / Slurry splashing members of the public; strictly in accordance with FPS / HSE Guidance on PUWER (Regulations 11 & 12), section 4.3 CFA Piling: Exception HSS Standard S01 is to be complied with in full.	2	2	L
25	Creation of open bore caused by use of additional bore to park auger string where two diameters being used	Piling Crew, visitors and other operatives on site	2	4	M	Where a redundant bore has been created after parking an auger string not in use; it should be drilled in over half the full length of the string. Empty bores must be covered whilst on site and backfilled before leaving site. The area must be thoroughly checked after the backfilling has been carried out and the area must be left at a similar level to the piling platform to ensure that the empty bore has been suitably filled and not just masked by spoil	1	4	L
26	Bursting of concrete hoses and or Hose joints causing damage and injury during concrete pumping	Piling Crew, visitors and other operatives on site	2	3	L	The rig location and placement of the pump/agri to be placed and managed by the Foreman & Supervisor to ensure that Rig and Concrete Pump set up are as close as reasonably practicable to allow a clear line of sight and communications. Hoses to be inspected by pump man daily at start of shift; if during the daily inspection it is noted that the hose is worn by more than 2No layers of reinforcement, it will be removed from service, sprayed and dispose of. NOTE: All flexible concrete hoses are pressure tested at six monthly intervals. All concrete hoses fitted to the mast of the piling rig must have whip checks fitted at all times. Joints to be secured by R Clips or Split Pins. Rig "drop hoses" to be fitted with sleeved hoses for additional protection. Newer sections of hoses are to be used adjacent to the rig and pump. Hose runs to be planned and managed to ensure that plant does not track over hoses. Hoses to be buried under road, or ramps to be placed to prevent damage.	1	3	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
27	Clearing concrete pumping lines and auger at the end of a shift by compressed air.	Piling Crew, visitors and other operatives on site	2	3	L	Blowing out operations are to be under direct control of a trained Foreman. The area for blowing out is to be agreed with the client's supervisor daily, if there is a permit system this must be in place prior to blowing out. Foreman to remain at piling rig during procedure, banksman to control the compressor. Rig lines to be blown out facing away from the perimeter fencing at all times. Foreman to monitor concrete lines as the concrete moves through the lines, when the ball passes the back of the piling rig the air flow should be turned off and surplus air released through the exit valve. All persons not involved in this operation to be kept at a safe distance. Whip-checks to be used at all air hose joints including at both compressor and the blow-out gun. Operator to check adaptors are clear of debris before fitting to hose. Refer to Section 4 of PMP (FM-HSS-H03-02 MS-04 Blowing-Out CFA Piling Rig.)	1	3	L
28	Dealing with blockages in the concrete pumping lines	Piling Crew, visitors and other operatives on site	3	3	M	To prevent the free end of a concrete hose "whipping", it must be restrained by fixing a strop to the pipe and securing it e.g. the excavator lifting point or the rig; holding the hose down with an excavator bucket is not effective and should not be used as the only means of restraint, although it can be used in addition to the strop; in this instance a ball catcher may be fitted to the free end of the hose run; this can cause concrete to spray over a large area and may not be suitable for site constraints Once the ground hoses are stripped into sections they can be secured with a collar chain to the excavator, individual section can then be lifted to remove remaining concrete.	2	3	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
29	Dealing with 'Flash Set' in concrete delivery pipelines	Piling Crew and other operatives on site	1	4	L	Outline process within 'Works Procedure 1.1: CFA Piling' to be adhered to; ensure that 'agitation by excavator' is minimal and carried out in a controlled manner – exclusion zone to be set-up to protect operatives from concrete splatter / remove risk of being struck by hose. Attendant excavator to manage & prevent concrete build up as per instruction of the Banksman. Risk Assessment (section 20) to be followed.	1	4	L
30	Falling from rig mast	Person climbing	2	4	M	MEWP to be used. Operator to have IPAF or CPCS Card and wear short restraint lanyard Rigs are not to be climbed even if mast has a fixed ladder.	1	4	L
31	Fall from tracks.	Person climbing onto/off tracks	2	3	L	Do not climb tracks unnecessarily. When both climbing and descending, use proper step.	1	3	L
32	'Steel-fixing' of rebar cages for piling	Piling Crew, visitors and other operatives on site 'Steel-fixer'	3	3	M	'Steel-fixing' Area to be demarked off and segregated from trafficked areas. Heavy cages (greater than 497kg's or of large diameter) to be prefabricated off-site. Hand tied cages more than 200kg's will require mechanical assistance. Correct lifting ring or secured helical to be used to hoist the cages into the vertical position for insertion into the bore.	2	3	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK		
			L	S	R		L	S	R
33	Use of Mobile Elevated Work Platform (MEWP), Risk of overturning and 'crushing'	Piling Crew, visitors and other operatives on site MEWP operator	3	4	H	Only person qualified with an IPAF or CPCS certificate are to use MEWP. Full harness with short restrain lanyard to be used and attached to correct attachment point. Only stand on the platform floor, not on the rails. Check for presence of ramps, trenches, slopes, manhole covers, ground obstructions, overhead cables, building projections, vehicles etc. Before travelling in the MEWP, ensure platform is in recommended travelling position. Tool tethering kits to be used at all times. Only travel with an appointed banks-man and at correct speed Before raising the boom, check that the machine is level and on firm surface; crush protection not required as there are no overhead obstructions. Do not overload the platform or use it for lifting duties. In the event that MEWP operator requires rescuing, trained (IPAF/CPCS) MEWP operator is to lower the basket by use of the controls on the body of the plant, in line with their training and the MEWP rescue plan "Annex B – Rescue from MEWPs Hierarchy" from the "Rescue of Persons from MEWPs" document. HSS Standard P01 is to be complied with in full.	1	4	L
34	Risk of 'falling' into fresh pile	Piling Crew and other operatives on site	3	3	M	Piling platform to be maintained and cleared of surplus water/slurry by Formation Design & Build Ltd, access to the immediate piling area to be controlled by the piling crew; recently constructed piles to be covered by boards or cones, work to be sequenced to minimise the risk, note that yellow plastic protective caps are to be placed on all vertical rebar once installed into fresh pile.	1	3	L
35	Working in warm weather conditions.	Piling crew, visitors and other operatives on site	3	3	M	Workers to wear close woven fabric shirts and full-length trousers. Principal contractor to ensure drinking water is readily available. Operatives to be encouraged to take frequent breaks by the Foreman, operatives to be briefed in the morning regarding adverse weather conditions. Operatives to ensure that they use sun protection creams.	1	3	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



Section	HAZARDS	PERSONS AFFECTED	RISK			CONTROL MEASURES (List control measures that are provided and those required)	RISK			
			L	S	R		L	S	R	
36	Information Unauthorised environmental malicious insider; IT system failure	Security access; – damage; IT system Piling crew, visitors and other operatives on site; Office Staff	3	4	H	Ensure confidentiality, integrity and availability of data, following company I.T/I.S policies and procedures with IT system security managed by Group IT. Site security to restrict access and is provided by P/C including sign in/out process. Fire safety measures provided by R&A eg fire extinguishers and provided for site by P/C. Incident management process in place. Sub-contractors yearly performance review includes info.sec discussion.	1	4	L	
'LIVE RISKS' TO BE RECORDED BELOW										

High Risk Operation: NO	Temporary Works: NO If Yes – refer to STD-HSS-T01	The above control measures have been implemented (Sign here if not signed on Briefing Record – Section 9 PMP) Workplace Manager Date
-------------------------	--	---

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



ENVIRONMENTAL RISK ASSESSMENT (NOTE: See Project Environmental Plan)

Section	HAZARDS	ENVIRONMENTAL IMPACT	RISK			CONTROL MEASURES	RISK		
			L	S	R		L	S	R
E1		Environmental Noise	2	2	L	Piling Rig and ancillary equipment is to be kept in good mechanical order. Where damage or wear to silencing system occurs, maintenance to receive priority.	1	2	L
E2	Ecological damage	Damage to protected trees	2	2	L	Trees needing protection to be fenced off by Formation Design & Build Ltd with relevant signage.	1	2	L
E3	Water Pollution	Contamination of watercourse from silt laden groundwater generated by piling process	3	3	M	Formation Design & Build Ltd to install a protective bund to prevent water/slurry from entering watercourse.	1	3	L
E4	Air pollution from exhaust gasses	Degeneration of air quality	2	2	L	Plant to be kept in good mechanical order, machines to be switched off when not in use; avoid long idle times, ensure compliance with NRM requirements.	1	2	L
E5	Vandalism of hydrocarbons storage	Ground and water pollution	3	3	M	All lubricants to be locked in COSHH cage within the container when not in use, overnight and at weekends. Bunded Diesel bowser to be lockable, including lockable hose storage. To be locked outside site hours and when not in use.	1	3	L
E6	Spillage of fuels and oils during recharging	Ground and water pollution	3	3	M	Fuel only to be stored in lockable bunded bowser or 205 litre (45 gallon) drums on spillage trays. Refuelling to be via syphon delivery hose from rig; engine to be switch off during refuelling. Oil and lubricants to be filled by funnel. Spill Kit to be available in case of spillage.	2	3	L
E7	Inadequate waste Management	Visual Intrusion of litter	3	1	L	R&A foreman to ensure that all general rubbish is placed in the skips provided by Formation Design & Build Ltd. Formation Design & Build Ltd to set up, Site Waste Management Plan, and brief to R&A personnel.	1	1	L

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3

Section	HAZARDS	ENVIRONMENTAL IMPACT	RISK			CONTROL MEASURES	RISK		
			L	S	R		L	S	R
E8	Washing out ready-mixed concrete and clearing out pump and concrete delivery hoses at end of shift	Ground and water contamination.	3	3	M	The Formation Design & Build Ltd is to construct/provide a lined pit/skip into which ready-mixed concrete trucks can wash off their delivery chutes. R&A to treat wastewater with 'pH Blue' to reduce the alkalinity; target pH levels of 8 – 9. 'pH Blue' to be added at end of shift, pH re-checked the following morning, prior to disposal of water. Formation Design & Build Ltd or R&A to construct an area of approximately 5m x 8m with heavy gauge visqueen under 300mm of crushed for the pump & agitator set-up with the additional use of a large drip tray under the pump's hopper.	2	3	L
'LIVE RISKS' TO BE RECORDED BELOW									

Amendment Log

Revision	By	Amendment	Date
4.0	PC	Issue 09 (BMS2)	01/02/22
4.1	NID	New section '5' added, subsequent sections re-numbered and section 14 amended.	08/04/22
4.1.1	NID	Section 26 updated and section 35 added.	15/07/22
4.2	NID	Sections 12, 20, 21 & 23 updated.	06/10/22
4.2.1	NID	Section 33 updated. (Note added section 36 as 05/05/23)	07/03/23
4.2.2	NID	References to tag lines added in sections 10 & 15	09/06/23
4.3	NID	Amendments to section 28.	29/08/23

PROJECT MANAGEMENT PLAN

SITE (Piling) RISK ASSESSMENT and SPILL RESPONSE

v4.3



	HAZARD SEVERITY (S)				
	1 Negligible Negligible injury, no absence from work	2 Slight Minor injury requiring first aid treatment	3 Moderate Injury leading to a lost time accident	4 High Involving a single persons serious injury/death	5 Very High Multiple serious injuries/death
RISK RATING = Likelihood (L) x Severity (S)					
1 Very Unlikely A freak combination of factors would be required for an incident / accident to result	LOW	LOW	LOW	LOW	LOW
2 Unlikely A rare combination of factors would be required for an incident / accident to result	LOW	LOW	LOW	MEDIUM	MEDIUM
3 Possible Could happen when accidental factors are present but otherwise unlikely	LOW	LOW	MEDIUM	HIGH	HIGH
4 Likely Not certain to happen but an additional factor may result in an incident/accident	LOW	MEDIUM	HIGH	HIGH	HIGH
5 Very Likely Almost inevitable that an incident / accident would result	LOW	MEDIUM	HIGH	HIGH	HIGH
LOW RISK (Score 1-6)	May be acceptable, however, review task to see if risk can be reduced further				
MEDIUM RISK (Score 8-10)	Task should only proceed with appropriate consultation with specialist personnel and HS&E team. Where possible the task should be refined to take account of the hazards involved or the risks should be reduced further prior to task commencement				
HIGH RISK (Score 12-25)	Task must not proceed. It should be refined further control measures put in place to reduce risk. The controls should be reassessed for adequacy prior to work commencement.				

Likelihood

How often could the hazard occur? Consider the task, frequency, duration, method of work, employees involved.

Severity

How serious would the hazard's effects be if realised? Consider the type of hazard, biological, ergonomic, physical and chemical.

Risk = Likelihood x Severity

E.g. Likelihood (4) X Severity (3) = 12 **HIGH RISK**

PROJECT MANAGEMENT PLAN

SPILL RESPONSE PLAN

5.1 Site Address

100, Woodside Avenue. N10 3JA

5.2 Location(s) of Spill Response Equipment

Spill Kit

Site Security Container

5.3 Spill Response Equipment Trained / Competent Person(s)

All site crew

5.4 Frequency of Spill Tests:

N/A

Issue Date:

N/A

Completed by:

-

Position:

-

Client / Landowner

Principal Contractor - Formation Design & Build Ltd

5.5 Spill Response Contractor

0800-592-827

Adler & Allan Ltd.

Membership Number:
GAL014

5.6 Environment Agency

0800 80 70 60 (24 hr Emergency Hotline)

Local EA / SEPA Office

Refer to Rock and Alluvium Area Office

5.7 Local Authority

Not Applicable

5.8 Additional Contact(s)

William Longhurst, HS&S Advisor, 07593 578262 (GT)

Peter Ward, Depot & Material Manager, 07966 562317

Chis Howell, Plant Manager, 07966 562321

Contract Supervisor, see documentation

5.9 Rock and Alluvium / Galliford Try Contacts

Pre-Construction Manager

Nick Dewey: 07843 328 141

Construction Manager

Mark Gibson: 07966 562 320

Regional Office

Head Office - Leatherhead: 01372 389 333

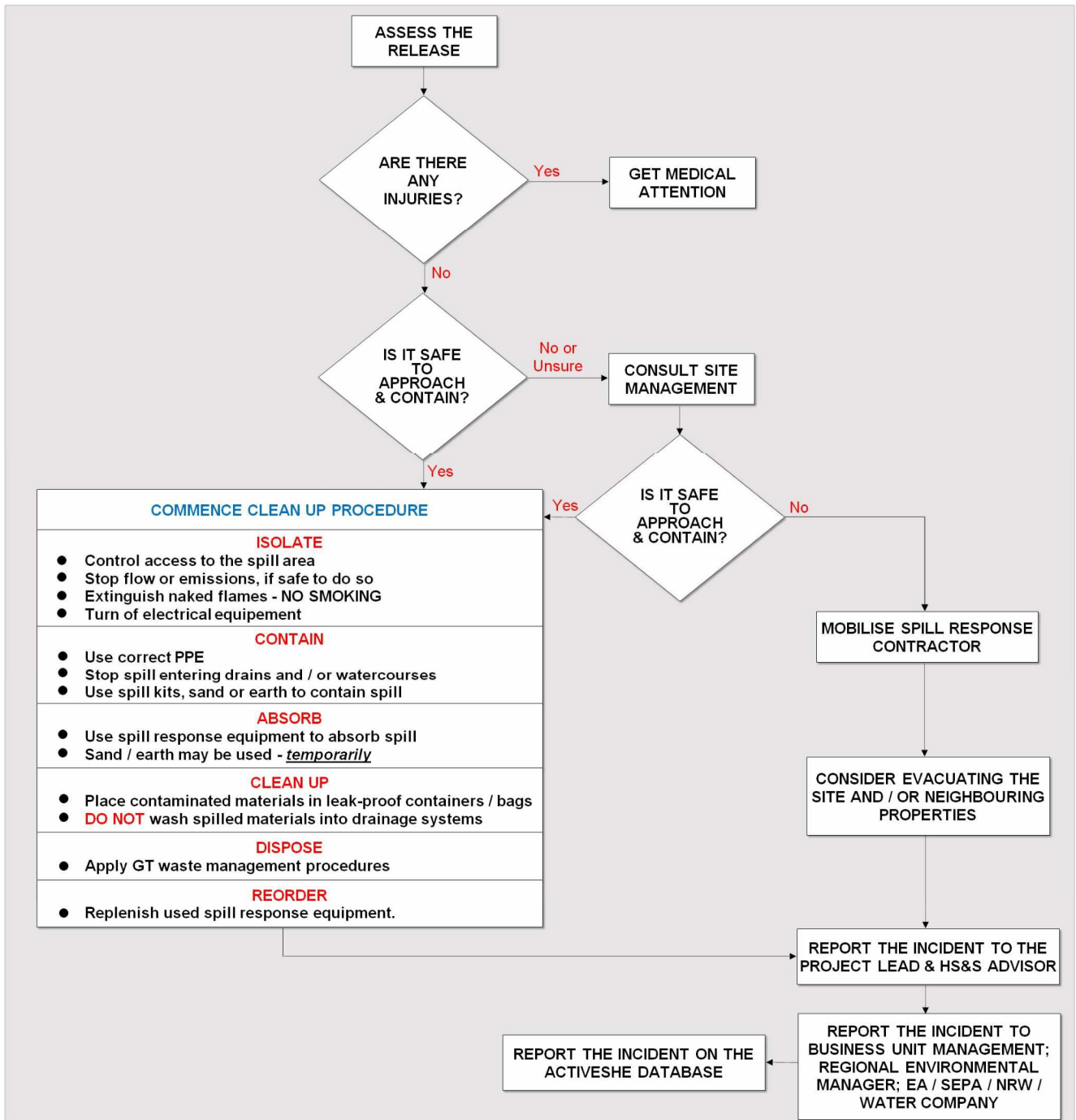
Regional HS&S Advisor

William Longhurst: 07593 578262 (GT)

Regional Environment Advisor

Lucy Barrett - Environmental Manager (GT)
<Lucy.Barrett@gallifordtry.co.uk> Mob: 07593561840

Spill Response Process



IF IN DOUBT OR YOU REQUIRE ASSISTANCE CONTACT YOUR HS&S ADVISOR OR REGIONAL ENVIRONMENTAL MANAGER

- **Assess Release:** Determine the size of the spill and whether there are any injuries to any person(s) involved.
 - If there are injuries medical attention should be sought and the most senior person on site informed
 - If there are no injuries, an assessment should be made as to whether the spillage is safe to approach and contain. If there is doubt, the most senior person on site should be consulted
 - Consideration should be given of the need to evacuate the site and / or neighbouring buildings. If necessary, the police and / or fire service should be contacted
 - If the competent or trained person cannot handle the hazardous material spill then Galliford Try's spill response contractor should be contacted.
- **Isolate:**
 - Control access to spill
 - Do not allow unauthorised access to spillage area
 - Identify the source of pollution and stop the flow or emissions as quickly as possible, if it does not endanger the health and safety of people
 - Switch off or suppress any potential sources of ignition
 - Extinguish naked flames and ensure there is no smoking
 - Turn off electrical equipment.
- **Contain:**
 - Ensure the correct PPE is used
 - If the incident involves liquids, steps should be taken to stop it spreading, using earth, sand, or impervious material such as polythene
 - If the incident involves liquids, the flow should be diverted from drains and / or watercourses
 - Consideration should be given to the use of absorbent materials and / or booms, as a precaution, in environmentally sensitive locations
 - Use absorbent materials (sand or earth, as an alternative) to assist spill containment.
- **Absorb:**
 - Spill response pads, sheets, booms and granules should be used to absorb the spilt material
 - Sand and earth may be used, as a temporary alternative.
- **Clean Up:**
 - Contaminated sand, earth or absorbent materials should be placed into sacks or leak-proof containers, as appropriate
 - Spilled materials should **not** be washed into drainage system(s).
- **Dispose:**
 - Waste contaminated materials should be disposed of appropriately, refer to STD-HSS-W01; Waste Management
 - All used absorbent materials are classified as hazardous / special waste.
- **Reorder:**
 - Replace used spill response equipment supplies.

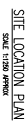
Client specific spill response procedures should be adhered to when working on client site(s) or when stipulated in the contract.

Appendix A:

*MWP Engineering and Environmental Consultants drawing #:
CRA-MWP-ZZ-00-DR-S-0101 Site Constraints (Rev P05).*

Appendix B:

*PURA Design Ltd, Environmental Services Engineers drawing #:
1403-PL/100 'Drainage Services Existing Drainage Layout' (Rev TW1).*



PREMIER DRAINAGE
SOLUTIONS

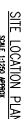
NOT FOR CONSTRUCTION

PURVA DESIGN
ENVIRONMENTAL SERVICES ENGINEERS
3 Calk Avenue Hyattsville, VA 22111
Tel: (703) 286-613
<http://www.purva.com>

CRANNWOOD WOODSIDE AVE
MUSWELL HILL N10 3JA

Appendix C:

*PURA Design Ltd, Environmental Services Engineers drawing #:
1403-PL/101 'Drainage Services Proposed Diversion' (Rev TW1).*



LEGEND	
NAME	NAME QUALITY
SEX	SEX
DOB	DATE OF BIRTH
SSN	SSN AND PREFIX
WGT	WEIGHT IN LBS
HGT	HEIGHT IN INCHES
AGE	AGE IN YEARS
ADP	ADDITIONAL COMMENTS
ACC	ACCIDENTS OR INJURIES NUMBER
A/C	ACCESS CODE OR CODE
	ADDRESS
1	STREET ADDRESS
2	CITY ADDRESS
3	STATE ADDRESS
4	ZIP ADDRESS
5	PHONE ADDRESS
6	TELEPHONE ADDRESS
7	TELEPHONE ADDRESS
8	TELEPHONE ADDRESS
9	TELEPHONE ADDRESS
10	TELEPHONE ADDRESS
11	TELEPHONE ADDRESS
12	TELEPHONE ADDRESS
13	TELEPHONE ADDRESS
14	TELEPHONE ADDRESS
15	TELEPHONE ADDRESS
16	TELEPHONE ADDRESS
17	TELEPHONE ADDRESS
18	TELEPHONE ADDRESS
19	TELEPHONE ADDRESS
20	TELEPHONE ADDRESS
21	TELEPHONE ADDRESS
22	TELEPHONE ADDRESS
23	TELEPHONE ADDRESS
24	TELEPHONE ADDRESS
25	TELEPHONE ADDRESS
26	TELEPHONE ADDRESS
27	TELEPHONE ADDRESS
28	TELEPHONE ADDRESS
29	TELEPHONE ADDRESS
30	TELEPHONE ADDRESS
31	TELEPHONE ADDRESS
32	TELEPHONE ADDRESS
33	TELEPHONE ADDRESS
34	TELEPHONE ADDRESS
35	TELEPHONE ADDRESS
36	TELEPHONE ADDRESS
37	TELEPHONE ADDRESS
38	TELEPHONE ADDRESS
39	TELEPHONE ADDRESS
40	TELEPHONE ADDRESS
41	TELEPHONE ADDRESS
42	TELEPHONE ADDRESS
43	TELEPHONE ADDRESS
44	TELEPHONE ADDRESS
45	TELEPHONE ADDRESS
46	TELEPHONE ADDRESS
47	TELEPHONE ADDRESS
48	TELEPHONE ADDRESS
49	TELEPHONE ADDRESS
50	TELEPHONE ADDRESS
51	TELEPHONE ADDRESS
52	TELEPHONE ADDRESS
53	TELEPHONE ADDRESS
54	TELEPHONE ADDRESS
55	TELEPHONE ADDRESS
56	TELEPHONE ADDRESS
57	TELEPHONE ADDRESS
58	TELEPHONE ADDRESS
59	TELEPHONE ADDRESS
60	TELEPHONE ADDRESS
61	TELEPHONE ADDRESS
62	TELEPHONE ADDRESS
63	TELEPHONE ADDRESS
64	TELEPHONE ADDRESS
65	TELEPHONE ADDRESS
66	TELEPHONE ADDRESS
67	TELEPHONE ADDRESS
68	TELEPHONE ADDRESS
69	TELEPHONE ADDRESS
70	TELEPHONE ADDRESS
71	TELEPHONE ADDRESS
72	TELEPHONE ADDRESS
73	TELEPHONE ADDRESS
74	TELEPHONE ADDRESS
75	TELEPHONE ADDRESS
76	TELEPHONE ADDRESS
77	TELEPHONE ADDRESS
78	TELEPHONE ADDRESS
79	TELEPHONE ADDRESS
80	TELEPHONE ADDRESS
81	TELEPHONE ADDRESS
82	TELEPHONE ADDRESS
83	TELEPHONE ADDRESS
84	TELEPHONE ADDRESS
85	TELEPHONE ADDRESS
86	TELEPHONE ADDRESS
87	TELEPHONE ADDRESS
88	TELEPHONE ADDRESS
89	TELEPHONE ADDRESS
90	TELEPHONE ADDRESS
91	TELEPHONE ADDRESS
92	TELEPHONE ADDRESS
93	TELEPHONE ADDRESS
94	TELEPHONE ADDRESS
95	TELEPHONE ADDRESS
96	TELEPHONE ADDRESS
97	TELEPHONE ADDRESS
98	TELEPHONE ADDRESS
99	TELEPHONE ADDRESS
100	TELEPHONE ADDRESS

NOT FOR CONSTRUCTION

71	14.02.23	JS	SUBMITTED TO THE FOR APPROVAL.	
69	DATE	BY	DESCRIPTION	OK

Doc 01-01-01-02

APPROVAL

<http://www.purdue.edu/ebloom>

URINALAGE SERVICES
PROPOSED DIVERSION

©PURA Design Ltd