RISK ASSESSMENTS AND METHOD STATEMENTS

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SWANSEA

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ACE CAPITAL PROJECTS LIBRARY & COMMUNITY HUB

Colour Codes: RED / AMBER /GREEN
RED – indicates a hazard which should be eliminated, if possible and/or the difficulty mitigating and/or controlling the high risk.
AMBER – indicates a hazard which still ideally should be eliminated but which is able to be mitigated and or controlled to reduce the risk to an acceptable level.
GREEN – represents a hazard which presents a low risk from the outset or a hazard previously of a higher category which has been mitigated or controlled.
Not Applicable (N/A) indicates a hazard which does not apply on this project.

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HAZARDS IDENTIFICATION

Section 1- Hazards to be mitigated and/or controlled which can be anticipated during the Design Phase

Ref.	Hazard	General notes and Prompts	Designer's Notes	RAG
SITE FEATURE HAZARDS – Reference prefix 'SF'				
SF01	Proximity to an overground railway, inc. embankments, cuttings and viaducts.	The Office of Rail and Road and Network Rail must be involved early on due to comprehensive rules for building near or over railways.	The proposed site is in close proximity to the Port Talbot Parkway railway, which is operated by network rail.	
SF02	Proximity to an underground railway/ railway tunnel	The Office of Rail and Road and Network Rail must be involved early on due to comprehensive rules for building near or over railways.	N/A	
SF03	Proximity to a motorway/ trunk road inc. embankments, cuttings, and viaducts.	It is imperative to involve the Department for Transport at the earliest opportunity.	The site is located in close proximity to Heilbronn Way / A48 Trunk Road	
SF04	Proximity to other road inc. embankments, cuttings and viaducts.	It is imperative to involve the local or county authority immediately.	Station Road runs along the proposed site.	
SF05	Proximity to a road tunnel	The category of road carried using the tunnel will determine whether it is the department for transport or the local / county authority who is responsible.	N/A	

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SF06	Proximity to a canal inc. aqueducts, locks and tunnel.	The Canal and River Trust must be notified as soon as possible as drowning is a constant threat, especially in lock installations.	N/A	
SF07	Proximity to a river	It is imperative to involve the Environment Agency and/or the Canal and River Trust at the earliest opportunity when dealing with rivers. The highly variable nature of rivers means that they can flood a site rapidly due to factors such as tides or heavy rainfall. It is crucial to remember that working near a river is always a potential hazard, with drowning being a constant danger. Therefore, it is vital to take prompt action and seek assistance from the relevant authorities to ensure the safety of all involved.	River Afan is located 155m in the northwest direction of the proposed library site.	
SF08	Proximity to a quayside/dock	Quays and docks are hazardous due to deep water, unguarded edges, and dockside installations. Hazards include moving cranes, container handling equipment, railways, and lorries. Ownership may vary. Caution is essential to prevent accidents and injuries.	N/A	
SF09	Proximity to a large bridge	There will be a variety of issues when working close to high bridges. Falling objects from the bridge is one possibility. Downdraughts is another.	N/A	
SF10	Proximity to an airport/airfield	Airports and airfields pose risks such as FOD and interference with avionic equipment. Radars emit powerful radiation. Different entities own these facilities, including the Ministry of Defence, Civil Aviation Authority, public bodies, and private owners. It's essential to ensure that everyone involved adheres to the highest safety standards.	N/A	

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SF11	Proximity to a hospital or health facility	It is imperative that hospitals have uninterrupted access for emergency vehicles. Construction noise and dust can severely impact the health of inpatients and therefore, it is necessary to take adequate measures to minimize these disturbances.	N/A	
SF12	Proximity to a college/ a school	It is imperative that road safety concerns from construction sites near schools are addressed. Contractors must take full responsibility for ensuring compliance with security and safeguarding requirements when working within school premises.	N/A	
SF13	Proximity to a military establishment	Military establishments can be hazardous for contractors working within or near them due to various health and safety concerns. One of the most prominent issues among them is security. Some establishments may have a history of old unexploded ordnance buried in the ground, which can pose a serious threat to safety.	N/A	
SF14	Proximity to high buildings	It is imperative to note that tall buildings can generate strong wind speeds at ground level due to downdrafts off the building faces. It is also crucial to be aware that there is a high risk of falling or intentionally thrown objects from these buildings.	N/A	
SF15	Proximity of historic / listed buildings	There are several challenges to consider, such as supporting weak structures, maintaining historic assets, and dealing with obsolete materials like asbestos.	N/A	
SF16	Existing building(s) to be incorporated into the project	There will be various issues, including structural stability and outdated materials like asbestos and lead paints.	N/A	

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SF17	Unusual topography inc. cliffs / steep slopes / pits	There will be a range of difficulties due to the unique landscape. For instance, the presence of steep cliffs can create the threat of falling rocks and cause strong downward air currents that result in high wind speeds at ground level.	N/A	

UTILITIES & SERVICES HAZARDS- Reference prefix 'US'				
US01	Proximity to energy generating / transmission facilities	It is crucial to consider renewable sources like wind turbines and photovoltaic farms. However, it's important to note that wind turbines can cause interference to telecommunications transmitters, and PV farms may create dazzling reflections of the sun. These factors must be taken into account when making decisions about implementing renewable energy solutions.	N/A	
US02	Overhead electricity lines	The National Grid is responsible for governing the major high voltage transmission lines, while regional power distribution companies oversee the installations running at lower voltages. It's a well-known fact that power lines generate electromagnetic fields, and while there is still a debate about the amount of impact they may have on our health, there is no denying that interference to telecommunications systems is a very real threat. However, the most significant and pressing danger posed by power lines is undoubtedly the risk of electrocution.	N/A	
US03	Underground electricity lines	Underground lines can also include major high voltage line.	National Grid has multiple lines running through and along the proposed site.	

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US04	Underground gas pipelines	The National Grid manages the high-pressure gas distribution network, while regional gas distribution companies deliver gas to the end consumer.	Wales and West Utilities has low pressure gas pipes that is located directly under the proposed site.	
US05	Other underground gas pipelines	It is important to note that underground pipelines are not all the same. While some may be privately owned and transport various products, there is also a network of pipelines controlled by the government that exclusively transport aviation fuel for both military and civilian use.		
US06	Proximity to telecommunications facilities	Electromagnetic interference may emanate from or be caused to telecommunications facilities such as radar and microwave transmitters.	N/A	
US07	Overhead telecommunications facilities	Overhead telecommunication lines, which run at low voltages, do not pose a significant hazard. However, disruption to networks can have serious knock-on effects, even beyond the immediate vicinity of a construction site.	N/A	
US08	Underground telecommunication lines	The same principles apply to underground lines as to overhead lines. These lines may include very secure installations, such as international telecommunications fibre-optic lines or Ministry of Defence lines. Any damage to these lines can cause widespread disruption.	The site is approximately 46 meters from BT cable lines.	
US09	Underground water pipelines	The management of water supply in a given region is firmly controlled by local and regional supply and distribution companies. It is important to note that some of these companies are responsible for both water and wastewater (sewerage) management, while	Welsh water has existing water mains approximately 46 meters from the proposed site.	

		others are solely responsible for water supply. However, it is crucial to understand that any disruption to water mains can cause severe issues such as flooding, damage to buildings and infrastructure, and pollution.		
US10	Underground drainage culverts / sewers / drains	Those entering or working on pipelines face health hazards, including the risk of water-borne diseases and drowning in large/deep tanks and chambers.	Welsh Water has an existing combined sewer directly under the proposed library site.	

OTHER SITE WIDE HAZARDS- Reference prefix 'OS'				
OS01	Presence of underground voids and other underground features.	Undiscovered or unexplored voids, such as old mine workings, drainage installations, and air raid shelters, can suddenly collapse when new loadings are applied.	N/A	
OS02	Land liable to flooding and inundation	Sites may include areas adjacent to bodies of water such as the sea, estuaries, rivers, and lakes, as well as those adjacent to docks, canals, and similar waterways.	As mentioned above, the site is located near River Afan, although low risk of flooding.	
OS03	Poor ground in respect of natural bearing	Poor ground conditions can cause collapses in excavation sites, trenches, haul roads, and other work areas.	N/A	
OS04	Possibility of buried explosives	These hazards may involve unexploded wartime ordnance such as bombs and mines, as well as undiscovered stockpiles of explosive materials like shells, grenades, and ammunition that went unaccounted for.	Desktop study concludes low to moderate risk of finding UXO from wartimes. However, A response plan should be put in place should an explosive device be uncovered.	
OS05	Contaminated land	Previously developed sites, especially those located in former industrial areas, may be heavily contaminated with a wide range of polluting substances. Sites that were utilised	Desktop study on the site's history show past land usage may cause possible metal and oil contaminants from past industrial use and possible asbestos risk from terrace houses along with disused railway tracks. The site is	

		for automotive trade purposes may have been polluted by gasoline, diesel fuel, and oils.	currently used as a car park and therefore surface layers are likely to have minor contamination. The contaminated layer is expected to be removed and replace with new surface to eliminate the contamination.	
OS06	Contaminated existing structures inc. presence of asbestos	The crocidolite and amosite types of asbestos were prohibited in 1985. The use of chrysotile asbestos in construction was ultimately banned in 2000. It should always be considered that asbestos may exist in buildings constructed prior to 2000. Building proprietors are legally obligated to manage asbestos in accordance with The Control of Asbestos Regulations. These hazardous sites may include areas locally exposed to high winds or strong tidal surges.	N/A	
OS07	Site subject to extreme weather events	These may include sites locally exposed to high winds or surge tides	N/A	
OS08	High ambient noise levels	Elevated ambient noise from neighbouring site operations could distract construction workers and prevent them from hearing warning sounds, such as vehicle/equipment horns. Sudden loud noises, like aircraft flying overhead at low altitudes, may also pose problems.	N/A	
OS09	Hazards arising from the client's existing site activities	Industrial clients, in particular, may have a wide array of processes occurring on their properties, generating heat, fumes, flames, gases, ash, as well as liquid toxic waste materials.	N/A	
OS10	Potentially dangerous electromagnetic radiation	Be aware of radio, radar and microwave transmitters which require safety stand-off distances. Equipment on existing building roofs	N/A	

		may have to be switched off during construction activities.		
OS11	Poor air quality	This hazard can originate from the activities occurring on the client's site, from neighbouring site operations, or during local air pollution incidents such as recurring smog events.	The proposed site is located in Port Talbot which is primarily industrial and is subjected to high levels of air pollution.	
OS12	Potentially dangerous site flora	This category may involve invasive species like Japanese Knotweed, which can cause damage to buildings and paved surfaces. It can also include species such as Giant Hogweed, whose sap can lead to skin burns if exposed.	N/A	
OS13	Potentially dangerous site fauna	This can include pests and their products, for example bird excrement. Certain animals that may pose a threat include seagulls. In some areas, whether near the coast or inland, seagulls can aggressively swoop down on individuals. Construction workers operating on rooftops are especially vulnerable if seagulls have established nests in close proximity.	N/A	

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Section 2 - Hazards to be mitigated and/or controlled which can be anticipated during the Construction Phase- Reference prefix 'CH'

CH01	Drowning	Is it possible to modify your design in such a way that buildings and external works are not located immediately next to deep bodies of water, or that workers do not have to perform tasks directly over the water?	N/A	
CH02	Other water-related health risks inc. diseases	Could your design be altered in a way that reduces workers' exposure to bodies of water that may be contaminated with chemical or biological pollutants?	N/A	
CH03	Injury from collapse of ground and/ building substructures	Is it possible to modify your design in such a way that it minimizes workers' exposure to deep excavations or unstable ground conditions? The civil/structural engineer should also be able to contribute solutions to mitigate these risks.	Standard site risks.	
CH04	Injury from collapse of building substructures	Could your design be modified such that workers are less exposed to collapses? For example, could masonry walls - which can be unstable before being fully tied together or before the mortar has set - be replaced with framed or stud partitions?	Standard site risks.	
CH05	Injury from impact by site vehicles/ site plant movements	Could your design be modified such that there is more space around the building on the site to permit safer manoeuvring of vehicles/plant such as lorries, excavators, dumpers, telehandlers, MEWPs and so on? Can you	Standard site risks.	

		make better use of the site to permit segregation of pedestrians		
CH06	Injury related to falling objects	Could your design be modified such that workers are less exposed to falling objects? For example, is prefabrication of cladding and roofing into larger physical units a possibility to reduce the opportunities for smaller components - e.g. roof tiles - to fall?	Standard site risks.	
CH07	Injury related to falls from height	Could your design be modified in a way that reduces workers' exposure to falls from heights? For example, can the cladding and roofing design incorporate parapets or guardrails to prevent falls? Additionally, could the permanent staircases be utilised during construction to eliminate the need for temporary stairs?	Standard Site risks.	
CH08	Injury from chemicals and similar substances	Could your design be altered in a way that reduces workers' exposure to hazardous materials? For instance, could liquid coatings like paints be specified as water-based products instead of solvent-based ones?	Standard site risks	
CH09	Respiratory injury from site operations inc. cutting concrete, etc.	Could the design be modified to reduce concrete cutting, drilling, and grinding by pre-planning and casting in-situ all holes through concrete floor slabs for services?	Standard site risks	
CH10	Injury from exposure to excessive noise	Could the design be modified to reduce exposure to noise? For instance, a quieter option to percussive piling could be bored piling. The civil or structural engineer could also contribute to such mitigations.	Standard site risks	
CH11	Burns/scalds/cuts	Is it possible to modify your design so as to minimize the need for 'hot works'? For instance, would it be feasible to use bolted	Standard site risks	

		steel components instead of welded ones? Can metal pipework be specified to avoid soldering? The relevant engineers can also provide input on such measures to mitigate the risks involved.		
CH12	Injury from slips/trips/ falls	Can the design of the site be modified in a way that makes it easier to maintain a clean, tidy and workmanlike state? For instance, generating large quantities of waste such as timber offcuts and plasterboard may lead to trip hazards if the waste is not frequently removed to skips.	Standard site risks	
CH13	Trapping, inc. in confined spaces	Is it possible to modify the design in order to decrease the instances of confined spaces? For instance, can we substitute multiple smaller risers with a single large service riser?	Standard site risks	
CH14	Injury from fire	Could your design be modified to reduce opportunities for fires to be started? For example, could a cold-applied roof membrane be specified instead of a 'torch-on' type? Could masonry be substituted for timber-framed construction which has a high fire load before covering in?	Standard site risks	
CH15	Musculo- skeletal injuries from heavy lifting and similar activities	Could the design be modified to avoid repetitive heavy lifting by workers? For example, could smaller unit sizes of masonry blocks or concrete paving slabs be specified?	Standard site risks	
CH16	Vibration injuries from vibrating tools	Is it possible to modify the design in a way that service holes in concrete can be pre-planned and cast in situ to avoid breaking out concrete or masonry later on?	Standard site risks	

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RISK ASSESSMENTS

Work activity being assessed:	**Underground Services**	Location	Assessment No: **001**
Assessor:	Signed:	Date prepared: 13.04.24	Review date:
Persons at risk:	☒ Site Personnel	☐Client Personnel	☒General Public ☐Other

Hazards	No Controls			**Control Measures**	With Controls		
	Likelihood	**Severity**	**Initial risk**		**Likelihood**	**Severity**	**Residual Risk**
• Striking buried services	3	4	12	☐An extensive underground survey to be done before commencing excavation to confirm the accuracy of utility plans obtained and detect any discrepancies or additional services. ☐ The location of underground services would be clearly marked using flags or paint. ☐Suitable control measures shall be used with hand dug excavations. ☐ Workers will have training on how to identify and work around underground services.	2	3	6
• Gas mains fumes or explosion	4	5	20	☐Excavations within 600mm of gas mains need to be conducted by hand, following safe digging practices and with the appropriate work permits. ☐Pipes to be supported in accordance with WWU requirements as necessary. ☐Hot works, open flames, or smoking are not allowed within or near the excavation site.	2	4	8
• Electrocution or shock from electric cables	4	5	20	☐Excavations within 600mm of gas mains need to be conducted by hand, following safe digging practices and with the appropriate work permits.	2	4	8

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				☐Pipes to be supported in accordance with WWU requirements as necessary. ☐Hot works, open flames, or smoking are not allowed within or near the excavation site.			
• Flooding or contact with high-pressure water from water mains.	3	3	9	☐All water pipes are to be treated as live unless confirmed otherwise. ☐Works within close proximity to underground pipes (within 600mm) are to be carefully excavated by hand in accordance with safe digging practices and permits to work. ☐Ensure that the water mains are supported as necessary in strict accordance with the requirements of the utility providers. ☐In case of contact or damage, evacuate immediately due to the risk of flooding or high-pressure water, and promptly contact the utility provider.	2	2	4
• Contact with waste from sewer pipes	5	4	20	☐Before starting work, it is mandatory to locate all sewers by tracing manhole covers and confirming sewer runs. Work must be planned meticulously to avoid any contact with sewers. ☐Leave the trench immediately if the sewage system is breached to avoid the risk of asphyxiation. ☐Do not re-enter the area until a safe system of work is in place and the area has been declared safe for work. ☐In the event of a storm sewer break and rain, or in the forecast, evacuate the excavation immediately due to the risk of flooding.	3	3	9
• Crushing injuries	3	3	9	☐Ground conditions must be determined through a survey and an engineer's report. ☐All trenches must be assessed by a competent person, and the sides must be battered to a safe angle or supported with timber or other suitable trench support following assessment. ☐Entry into unsupported excavations of any depth is strictly prohibited. Materials must not be stored near the excavation as they could cause a collapse or add excessive pressure to the excavation's sides. ☐Excavation soil, plant and work materials must not be placed within 1.5m of an open excavation. ☐Trenches must be inspected and signed off before and after any incident or the fall of materials.	2	2	4

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• Asphyxiation from fumes and toxic gases.	3	3	9	☐Before entering excavations, it is imperative to lower a gas detector to establish a safe environment. ☐Continued monitoring is required during the excavation works. ☐Only trained personnel are permitted to enter confined spaces.	2	2	4
• Unauthorised access	3	3	9	☐Install barriers and signage around the site perimeter to clearly warn of potential dangers. ☐Cover the excavations when they are not in use. ☐All excavations must be secured when left overnight to prevent injury to trespassers, especially children, and overnight security patrols.	2	2	4

Likelihood 5= Almost Certain, 4=Very Likely, 3=Likely, 2=Unlikely, 1=Very Unlikely

Severity 5= Catastrophic, 4=Major, 3=Moderate, 2=Minor, 1=Insignificant

Risk= Likelihood x Severity

Score (S X L)	Priority
1 to 5	Low
6 to 16	Medium
17 to 36	High

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Work activity being assessed:	**Crane Lifting**	Location	Assessment No: **002**
Assessor:	Signed:	Date prepared: 13.04.24	Review date:
Persons at risk:	☒ Site Personnel	☐Client Personnel	☒General Public ☐Other

Hazards	No Controls			**Control Measures**	With Controls		
	Likelihood	**Severity**	**Initial risk**		**Likelihood**	**Severity**	**Residual Risk**
• Crane Collapse or failure	3	4	12	☐All lifting operations must be thoroughly planned before commencing. ☐There must be adequate crane access, egress, and movement space. ☐Ground conditions must be assessed to ensure they are capable of taking the load. ☐The crane must be level and sited on level ground. ☐All involved parties must understand their role in the lifting operation and be competent to undertake it. ☐All checks on crane and operator documentation must be made, and the documentation must be correct. ☐Lifting equipment must be positioned or installed in such a way as to reduce, to as low as is reasonably practicable, the risk of the lifting equipment or a load striking a person, or of a load drifting, falling freely, or being released unintentionally.	1	4	5
• Dropped loads	3	4	12	☐Network rail should be notified, and control measures should be implemented, such as exclusion zones. ☐The area around the lift is demarcated and only necessary persons are within it during the lift.	1	4	5

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• Collision with others and property	4	4	16	☐Before starting the lifting process, ensure that the area is surveyed for any obstructions at ground level and overhead. ☐Only trained operatives should operate the lifting equipment, and only trained slingers should handle loads. ☐A banksman must supervise the movement of the load at all times. ☐All personnel involved in lifting operations must wear PPE, including safety boots, Hi-Viz clothing, and hard hats. ☐The lifting area should be cleared of personnel not involved in the operation.	2	2	4

Likelihood 5= Almost Certain, 4=Very Likely, 3=Likely, 2=Unlikely, 1=Very Unlikely

Severity 5= Catastrophic, 4=Major, 3=Moderate, 2=Minor, 1=Insignificant

Risk= Likelihood x Severity

Score (S X L)	Priority
1 to 5	Low
6 to 16	Medium
17 to 36	High

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Work activity being assessed:	**Piling Operations**		Location	Assessment No: **003**
Assessor:	Signed:		Date prepared: 13.04.24	Review date:
Persons at risk:	☒ Site Personnel	☐Client Personnel	☐General Public	☐Other

Hazards	No Controls			**Control Measures**	With Controls		
	Likelihood	**Severity**	**Initial risk**		**Likelihood**	**Severity**	**Residual Risk**
• Piling rig failure	4	4	16	☐All plant equipment must undergo strict maintenance and examination following the manufacturer's instructions. ☐For hired plant equipment, it is imperative to obtain and validate certificates from the hire company. ☐Any faults must be reported to management immediately, and the equipment must be taken out of use without delay. ☐Only individuals holding a valid Plant Operator's Certificate are authorized to operate the plant. ☐The work area will be enclosed within robust barriers, and prominent warning signs will be displayed. ☐Personal Protective Equipment (PPE) is mandatory and must be worn at all times without exception. ☐When left unattended, site plant and vehicles must be meticulously immobilized, and keys securely locked away.	2	2	4

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				☐Strict adherence to speed limits is mandatory when traveling on-site or the public highway. ☐Only individuals over 18 years of age who have been rigorously trained are permitted to operate the plant. ☐A banksman must be utilized if the driver's vision is restricted or when operating in a congested area. ☐Under no circumstances are passengers allowed on the plant equipment.			
• Contact with piling rig	4	4	16	☐Ensure that there is ample working space with operational rig guards. It is imperative to fit a safety cage to the piling rig and establish a strict exclusion zone. ☐Only authorized personnel wearing high-visibility clothing are permitted within the exclusion zone. Movement of the piling rig and site equipment must be directed solely by a banksman. ☐Strict traffic control and vehicle routes must be established on site, completely separated from pedestrian routes, and all speed limits must be strictly adhered to. ☐Every site operative must wear a high-visibility vest, safety helmet, and safety footwear without exception. The machine driver must be fully informed of their instructor prior to operation, and clear communication must be established between the operator and banksman. ☐When adjusting or moving the piling rig, it is crucial to set up an additional exclusion zone to prevent any unauthorized persons from coming into contact.			
• Overturning or collapse of piling rig	4	4	16	The rig must be erected on the piling platform in strict accordance with the manufacturer's details and levelled precisely in position.	2	2	4

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				☐It is imperative to ensure that the type and size of the rig are suitable for the working platform and that the platform is constructed precisely according to the specification. ☐The ground bearing capacity must be thoroughly checked to ensure it is adequate for the rig and plant, including operational loads. ☐The physical limits of the platform on site must be clearly defined. When piling near the top of slopes, the risk of slope failure must be rigorously assessed to confirm that it is safe to proceed.			
• Contact with underground services or overhead services.	4	4	16	☐All workers must be properly trained when using machinery, and equipment must be regularly maintained and tested. Before moving any machinery or positioning a piling rig, always check for overhead services. If there is a risk of contact with overhead services, take immediate action to isolate or divert them before starting work. ☐Ensure that any marked overhead services on site are protected and traffic is rerouted to avoid contact. Adjust the equipment's reach as necessary to prevent contact. Survey the area using a cable avoidance tool (CAT) and clearly mark the locations of services. ☐Follow safe digging practices as outlined in HSE guidance and service providers guidance. When digging within 600mm of buried services, use hand tools without exception.	2	3	6

Likelihood 5= Almost Certain, 4=Very Likely, 3=Likely, 2=Unlikely, 1=Very Unlikely

Severity 5= Catastrophic, 4=Major, 3=Moderate, 2=Minor, 1=Insignificant

Risk= Likelihood x Severity

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Work activity being assessed:	**Access/Egress to & from site including deliveries**	Location	Assessment No: **004**
Assessor:	Signed:	Date prepared: 13.04.24	Review date:
Persons at risk:	☒ Site Personnel	☐Client Personnel	☒General Public ☐Other

Hazards	No Controls			**Control Measures**	With Controls		
	Likelihood	**Severity**	**Initial risk**		**Likelihood**	**Severity**	**Residual Risk**
• Vehicle striking pedestrians and property	3	3	9	☐Control vehicle movements through the use of gatemen/banksmen. ☐Avoid reversing if possible. ☐Signalling must be in place. ☐Establish a separate pedestrian walkway and install physical barriers to ensure safety. ☐All suppliers and subcontractors must be informed that reversing is strictly prohibited unless under the control of a banksman and in compliance with all other site rules.	2	2	4
• Environmental impact through mud on road and dust.	3	2	6	☐Designated wheel washing station to clean tyres before exiting the site to prevent mud and debris from being tracked onto public roads. ☐All materials in open tipper type lorries must be sheeted to minimize dust. ☐The road sweeper will be on hand to ensure the estate roads are kept clean and tidy as part of the measures outlined above.	2	2	4
• Uncontrolled parking could cause issues to pedestrian traffic	3	3	9	☐All delivery vehicles must enter the site promptly to prevent congestion on Station Road. ☐A safe and designated pedestrian route from the car park to the welfare facilities and then to the site work areas must be maintained.	2	2	4

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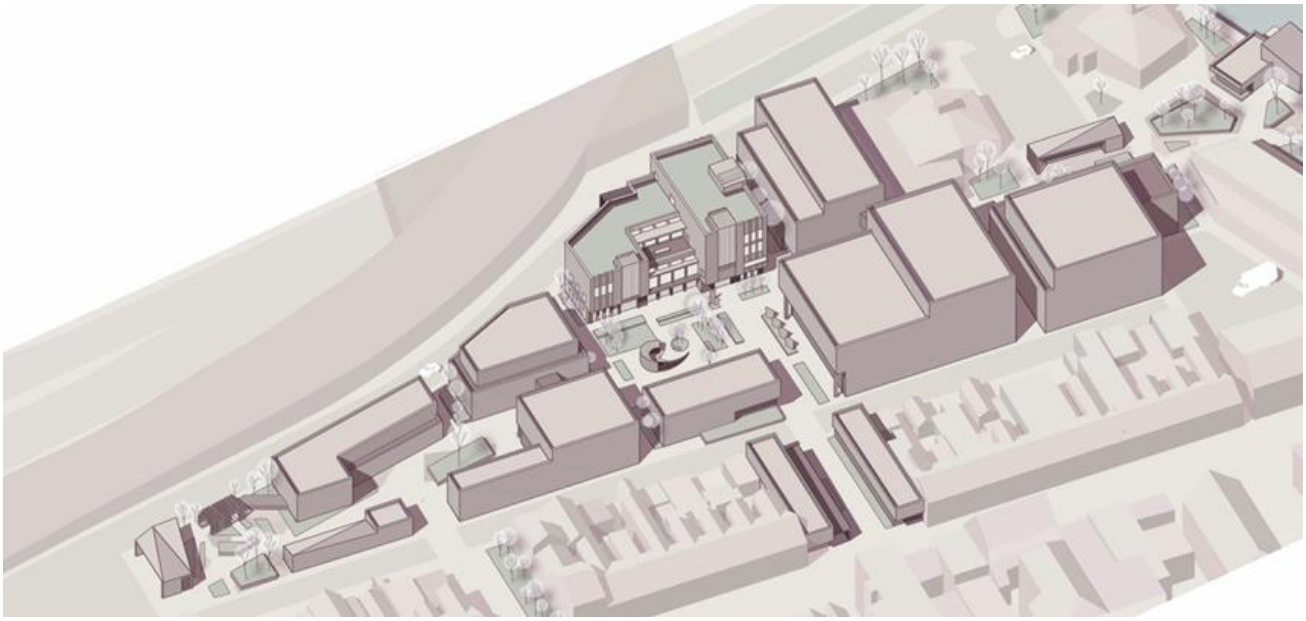
Method Statement



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METHOD STATEMENTS

Activity	**Piling**	Location	Assessment No:
Assessor:	Signed:	Date prepared:	Review date:
Site specific Hazard	Underground services located close to work area.		

Work Procedure & Control Measures

The work will have continuous supervision by a competent supervisor. All tasks will strictly adhere to the risk assessments, construction phase plan, and other health and safety management documents. The site compound and welfare facilities will be established in an area approved by the client, or existing welfare facilities will be utilised. We will promptly identify and address any conflicts with other work activities in the same area to mitigate additional risks. The work area will be strictly cordoned off to prevent unauthorised access, with only authorised personnel permitted entry. All personnel, including visitors, must sign in upon arrival and sign out when leaving the site. We will prominently display appropriate signage around the work area, and personal protective equipment (PPE) is mandatory at all times on site.

Training

Only personnel who are qualified, certified, or competent will be authorised to carry out the work.

All workers will receive training on manual handling techniques, COSHH, and plant operation where necessary.

Site induction is mandatory for all workers before they start their tasks.

Toolbox talks will be conducted weekly to ensure that workers are aware of relevant health and safety concerns.

Security

The site perimeter will be secured with a minimum 2-meter-high fence and lockable gates.

All accessible boundaries will prominently display construction site warning signs to prevent and discourage unauthorised entry.

All individuals entering the site must check in at the site office for induction, and all visitors will be supervised at all times.

At the end of each shift, all entrances will be securely locked upon leaving the site.

Daily inspections of the site boundary will be conducted to identify and address any attempted access, missing signage, or other security breaches.

Preparation

Before commencing piling operations, it is essential to notify all relevant authorities.

Thoroughly check for overhead obstructions and ensure that the piling platform surface is stable, level, and suitable for safe piling plant operation.

Verify that there are no underground services within the working area. Conduct a thorough scan to identify the location of any underground services, including gas, electric, water, and telecoms. Clearly mark any underground services at ground level. If the design conflicts with service locations and re-routing is necessary, it must be reported back to the client.

All piling operations must be conducted under a permit to dig.

Only trained and authorised personnel are permitted to use piling equipment or be present within the exclusion zone.

Ensure that protection caps are used to cover any rebar protruding above ground level to prevent injury.

Piling Rig

The piling rig must be set up according to the manufacturer's instructions on the piling platform and positioned directly over the pile to be constructed before starting installation in sequence.

It is essential to ensure that the loader's safe working load capacity is suitable for the size and weight of the rig. Additionally, it is important to agree on the route and be mindful of any overhead obstructions or cables, diverting or isolating them if necessary.

It's crucial to consider underground services, the weight of the low loader, and the rig. Mark out exclusion zones to prevent any damage.

It is crucial to ensure that the rig has appropriate signage and to establish an exclusion zone around piling operations and the movement of the rig.

Unauthorised personnel must not enter the exclusion zone, and all personnel within the exclusion zone must wear a hard hat, Hi-Viz clothing, safety boots, eye protection, and ear protection.

All rig operators must be trained and experienced in equipment use and lifting operations. The piling rig should only be moved with the assistance of a competent banksman who has a line of communication with the driver.

During manoeuvring, all traffic (vehicles and pedestrians) near the rig will be stopped at a safe distance. The banksman will ensure that an unobstructed route is maintained for the movement and slewing of the rig.

All slewing and manoeuvring must be done under the banksman's instruction, and all directions given by the banksman must be clear and understood before proceeding.

Driven Piles

Position the piles precisely as indicated in the piling layout drawing.

Use outrigger jacks without fail to stabilise and level the vehicle during piling.

Ensure the safety hook is securely in position.

The mast of the rig must be absolutely vertical over the pile position.

When driving bearing piles, strictly follow the lifting plan and lift the pile section into position with the pile head in the pile driving head of the hammer box.

Under no circumstances should any pile be moved until explicitly instructed to do so by a banksman.

Before driving the pile, meticulously inspect it for any defects, cracks, or damage that may have occurred during movement.

If any damage is identified, immediately halt work for inspection by a competent person.

Drive the pile toe firmly into the ground, and rigorously check for plumb and vertical alignment before driving it to the required depth.

Pile Testing

Prior to conducting pile testing, it is imperative that the piles are thoroughly cured, free of any defects, and trimmed to sound concrete.

Before commencing pile testing, it is crucial to verify that the piles have not been cut or damaged.

Ensure unfaltering access to the piles for the piling rig to prevent any damage to adjacent piles.

Establish a robust testing frame and securely affix strain transducers and accelerometers to the face of the pile.

Execute tests at the final cut-off level of the pile or as directed by the structural engineer.

The mandatory tests to be conducted encompass dynamic load, static load, or sonic integrity as specified, and meticulously record all data for assessment by a qualified individual.

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Workspace

Position suitable warning signs and barriers around the work area to prevent unauthorized entry.

Maintain a clear working space at all times during the work.

Work Equipment

All current legislation and codes of practice regarding work equipment usage **(PUWER 1998), HSE Safe use of work equipment)**, will be complied with.

Only individuals with suitable instruction and training are permitted to use work equipment.

Before using any work equipment, it must be inspected to ensure it is in good condition and unlikely to cause injury when used correctly.

Equipment guards must be correctly fitted before use.

Personnel must inspect tools before each use and immediately take any unsafe equipment out of service for repair or replacement.

Periodic testing and maintenance of all equipment must be carried out following regulations and manufacturer’s instructions.

When not in immediate use, all work equipment must be securely stored to prevent unauthorised use or accidental contact with sharp/rotating blades.

Site Plant

Site traffic routes and pedestrian safety are crucial elements of the site induction process. Pedestrian routes must be kept completely separate from vehicle routes at all times.

Mobile plant and machinery on site must be properly maintained according to the manufacturer's recommendations and planned maintenance schedules. All equipment must also undergo visual inspection before use. Any faults or defects identified must be reported immediately, and the faulty plant or machinery taken out of service.

Only personnel who have received proper training and are deemed competent are authorized to operate plant and machinery on site. All site rules, speed limits, one-way systems, and designated access routes must be obeyed at all times. Reversing of vehicles should be minimized, and when required, must be done in designated areas with the assistance of a signaller/banksman. Carrying passengers on plant or machinery is strictly prohibited.

When operating machinery with a cab, hard hats must be worn during entry and exit of the cab, as well as at all other times on site, even if removed within the cab. No loads exceeding the safe working limits can be lifted, and a lifting plan must be completed when using plant or machinery for lifting operations. Stop blocks must be used as required to prevent overturning, excavation collapses, or unstable ground conditions.

Designated refuelling areas must be established for refuelling plants and machinery on site. At the end of use, all plant equipment must be immobilized to prevent unauthorized access, and keys must never be left unattended. A wheel washing area should also be provided for site plant to prevent the spread of materials onto surrounding land surfaces.

Lifting Operations

A lifting plan must be completed for all lifting operations involved with the task.

Lifting equipment must be of sufficient capacity, have current test and thorough examination certificates, and must be inspected weekly.

All lifting gear must be clearly identifiable and colour-coded for the currency of examinations.

Thorough examinations of lifting gear must be carried out by a competent person and recorded at least at six-monthly intervals.

Damaged equipment must be taken out of use immediately.

Equipment must be of the correct length(s) and have sufficient safe working load capacity for the task.

All persons involved in any lifting operations must be competent for the task they are to carry out.

Communication between the crane operative and banksman must be by two-way radios or hand signals if there is a good line of vision.

Access to the area below lifting operations is prohibited and must be prevented at all times, with suitable barriers and signage.

Heavy loads must be lifted into position by mechanical aids to minimise manual handling.

Where manual handling is required, this must be supported by lifting gear and sufficient personnel must be allocated to the work from a safe working platform.

Manual Handling

All manual handling will be minimised through the provision of mechanical aids whenever practicable. Materials weighing over 25kg will not be handled without assistance. If such items need to be lifted, the supervisor or site manager will conduct a risk assessment and provide specific instructions to nominated individuals for safe handling. Any items over 25kg must be handled using mechanical aids or team lifting. The following general precautions will be strictly enforced for manual handling:

- Deliveries and materials handling will be meticulously planned to minimise manual handling.

- Routes for carrying materials by hand will be kept completely free of obstructions.

- Appropriate PPE, such as gloves and safety footwear, must be worn to ensure safe handling of materials.

- Larger or heavier items will be carried by two or more operatives.

Environmental

Only personnel approved or licensed by the relevant authority or professional organisation may conduct work that could lead to the release of pollutants into the atmosphere.

Prior to initiating any work that could lead to the discharge of pollutants into the local water table, we will assertively position the necessary spill containment equipment.

Before commencing any work that may cause environmental contamination, it is imperative to position suitable warning signage and barriers around the work area.

Waste Disposal

All current legislation regarding the prevention of environmental contamination (including waste disposal) will be complied with. **(Environmental Protection Act 1990), (Control of Pollution (Amendment) Act 1989), (Waste Regulations 2011)**

All contaminated or hazardous waste produced during the work will be securely contained and disposed of by a specialised company. A waste transfer note is mandatory for the waste transfer process.

Cleaning

Upon completion of the work, it is mandatory to leave the area in a clean and tidy condition, and all associated waste must be promptly removed and properly disposed of.