



OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION: BASELINE RISK ASSESSMENT

PROJECT NUMBER:	JW 14446
PROJECT LOCATION:	VARIOUS LOCATIONS
PROJECT DESCR:	PANEL OF CONTRACTORS FOR PROVISION OF BASIC WATER SERVICES AS AND WHEN REQUIRED BASIS FOR 36 MONTHS UNDER A FRAMEWORK CONTRACT

BASELINE RISK ASSESSMENT



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ACTIVITY: TRANSPORTATION OF MATERIALS TO SITE

Task	Hazard	Risk	Consequence	Rating	Controls
Transportation of material to site	<ul style="list-style-type: none"> ✓ Unsafe road conditions ✓ Un-road worthy vehicles ✓ Equipment and material not safely secured ✓ Incompetent drivers ✓ Driving under the influence of alcohol ✓ Inclement weather ✓ Speeding ✓ Slippery road 	<ul style="list-style-type: none"> ✓ Overturning vehicles ✓ Vehicle collisions ✓ Bumping pedestrians / employees 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages ✓ Third party liability 	M	<ul style="list-style-type: none"> ✓ Adherence to the speed limit ✓ Only competent/ authorised drivers should operate the vehicle ✓ Inspection of vehicles ✓ Equipment and material to be properly secured ✓ Alcohol testing to be done ✓ The road to be paved to prevent accidents ✓ Traffic control to be implemented to avoid collisions
Transportation of material to site	<ul style="list-style-type: none"> ✓ Defective strapping ✓ Incompetent driver ✓ No inspection ✓ Overloading of truck 	<ul style="list-style-type: none"> ✓ Falling load ✓ Loss of control of vehicle 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages 	M	<ul style="list-style-type: none"> ✓ Ensure that the load is properly secured in the truck. ✓ Driver must have a valid PDP ✓ Driver must inspect truck and ensure that it is roadworthy ✓ Driver must keep the speed limit while driving
Offloading of material	<ul style="list-style-type: none"> ✓ Faulty lifting machinery & equipment ✓ Suspended load ✓ Poor housekeeping 	<ul style="list-style-type: none"> ✓ Malfunctioning ✓ Falling on employees ✓ Obstructed walkways by materials 	<ul style="list-style-type: none"> ✓ Injuries 	M	<ul style="list-style-type: none"> ✓ Inspect lifting equipment prior to use. ✓ Ensure the safe working load prior to use ✓ Train the employees in manual lifting ✓ Ensure proper housekeeping ✓ The correct PPE must be worn ✓ Designate the stacking areas and put signs



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ACTIVITY: TRANSPORTATION OF MATERIALS TO SITE

Task	Hazard	Risk	Consequence	Rating	Controls
					✓ Stacking and storage inspector must be appointed and in charge
offloading of material from truck	<ul style="list-style-type: none"> ✓ No stop blocks ✓ Ignition on ✓ Untrained operator ✓ No load testing 	<ul style="list-style-type: none"> ✓ Accidental movement of truck ✓ Falling loads ✓ Uncontrollable movement of crane 	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Place stop blocks behind the wheels. ✓ Operators should ensure that the ignition is off prior to leaving the plant. ✓ Keys should be removed from the ignition and returned to the office for safekeeping, ✓ Ensure that crane operator and rigger are trained and medically fit to operate the crane. ✓ Ensure that the crane and all lifting equipment are load tested and SWL is displayed.
Storage of material on site	<ul style="list-style-type: none"> ✓ Improper stacking of precast material 	<ul style="list-style-type: none"> ✓ Children playing ✓ Collapse 	<ul style="list-style-type: none"> ✓ Injuries 		<ul style="list-style-type: none"> ✓ Ensure proper stacking of material on site. ✓ Avoid storing materials outside the site camp ✓ Proper demarcation of the storage area



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ACTIVITY: SITE ESTABLISHMENT

Task	Hazard	Risk	Consequence	Rating	Controls
Site establishment	<ul style="list-style-type: none"> ✓ Sharp objects/ wires ✓ Uneven surface ✓ Faulty connection ✓ Poor ergonomics ✓ Falling objects ✓ Inadequate security services ✓ Not enough welfare facilities e.g. toilets, change rooms and lockers 	<ul style="list-style-type: none"> ✓ Cuts ✓ Slips and trips ✓ Damage to services ✓ Using the environment as ablution facilities 	<ul style="list-style-type: none"> ✓ Injuries ✓ Back strains and injuries ✓ Crime, theft, fights ✓ Contracting of communicable diseases ✓ Soil, water pollution 	M	<ul style="list-style-type: none"> ✓ Supervisors to plan during site set up and induct employees ✓ A competent electrician must be appointed to connect electrical wires to the site offices and Distribution Board. ✓ Ensure there are welfare facilities on site for health and hygiene purposes ✓ Awareness on hygiene and use of ablution facilities ✓ Detailed Risk Assessment must be drawn before any work commences on site.
Installing containers	<ul style="list-style-type: none"> ✓ Using lifting equipment ✓ Faulty equipment ✓ Faulty slings / chains 	<ul style="list-style-type: none"> ✓ Wind ✓ Incompetent personnel ✓ Heavy load ✓ Failing of lifting equipment 	<ul style="list-style-type: none"> ✓ Serious injuries ✓ Property damage 	H	<ul style="list-style-type: none"> ✓ Check wind speed prior to using the crane. ✓ Inspect the crane, slings and chains before use. ✓ Load test the crane before use ✓ Only carry loads certified to be carried by the crane
Entry and exit	<ul style="list-style-type: none"> ✓ No access control 	<ul style="list-style-type: none"> ✓ Unauthorised entry into the construction site 	<ul style="list-style-type: none"> ✓ Injuries ✓ Theft 	M	<ul style="list-style-type: none"> ✓ Appoint a full time, registered security guard on site



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ACTIVITY: SITE ESTABLISHMENT

Task	Hazard	Risk	Consequence	Rating	Controls
Electrical installation	<ul style="list-style-type: none"> ✓ Electricity ✓ Incompetent personnel ✓ Wrong tools ✓ Damaged cables 	<ul style="list-style-type: none"> ✓ Contact with live electricity ✓ Incompetent person connecting electricity ✓ Electric shocks 	<ul style="list-style-type: none"> ✓ Electrocution ✓ Serious injuries 	H	<ul style="list-style-type: none"> ✓ Follow lock out procedure ✓ Ensure that equipment are earthed to an approved earthing point ✓ Ensure a zero potential test is performed for electricity is isolated ✓ Inspect all tools ✓ Use correct tools for the job ✓ Appoint a competent electrician/ technician ✓ Wear task specific PPE ✓ Ensure that there are no exposed wires on the cables
Stacking and storage	<ul style="list-style-type: none"> ✓ Unsafe stacks of materials or pallets 	<ul style="list-style-type: none"> ✓ Falling of pallets and material on employees ✓ 	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damage 	M	<ul style="list-style-type: none"> ✓ Supervision of all stacking of materials on site ✓ Materials of same base and heights stacked together ✓ Barricade the stacking area ✓ Unsafe stacks to be removed immediately ✓ Never stack materials during knocking off time or late at night. ✓ Use task specific PPE ✓ Stacking and storage supervisor to be appointed in writing. ✓ Monthly inspections to be conducted on stacking and storing on site.



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ACTIVITY: SITE ESTABLISHMENT

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ Substandard housekeeping	✓ Trip and falls	✓ Incidents / accidents	L	✓ High standards of housekeeping to be maintained.
	✓ Exposed material / equipment	✓ Theft	✓ Financial losses	M	✓ Ensure that there is sufficient security on site 24/7.



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ACTIVITY: UNDERGROUND AND OVERHEAD SERVICES

Task	Hazard	Risk	Consequence	Rating	Controls
Working close to Eskom line	✓ High voltage	✓ Electrocution	<ul style="list-style-type: none"> ✓ Fatalities ✓ Power cuts ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Proper scanning of services prior to starting with excavations ✓ Obtain wayleaves from Eskom prior to starting with work ✓ Do not use lifting equipment in close proximity to power lines unless authorized to do so. ✓ Appoint an OHRVS to supervise all work done in close proximity to power lines ✓ Contact Eskom if services are identified for isolation ✓ Develop a method statement and risk assessment ✓ Train employees in the method statement as well as risk assessment ✓ Develop emergency response procedures for explosions
Working close to gas lines	✓ Gas leaks	<ul style="list-style-type: none"> ✓ Explosion ✓ Suffocation ✓ Inhalation 	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 		<ul style="list-style-type: none"> ✓ Proper scanning of services prior to starting with excavations ✓ Obtain wayleaves from service provider prior to starting with work ✓ Develop a method statement and risk assessment ✓ Develop emergency response procedures for leaks and explosions



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ACTIVITY: EXCAVATION

Task	Hazard	Risk	Consequence	Rating	Controls
Excavation	<ul style="list-style-type: none"> ✓ Deep excavations ✓ 	<ul style="list-style-type: none"> ✓ Collapse ✓ Falling ✓ Unsafe entry and exit 	Fatalities	H	<ul style="list-style-type: none"> ✓ Recommendations from the Geotech survey should be followed. ✓ Shoring of the excavation ✓ No unauthorised entry into the project site. ✓ Fencing off of the excavation and prompt supervision of the area. ✓ Full time security on site to monitor entry and exit. ✓ Safe method of entry and exit to be provided for employees ✓ Spoil material to be stored at least 2m away from the excavation ✓ Signage to be displayed indicating deep excavations ✓ Tracked excavator to be used where shallow soft rock is found
	<ul style="list-style-type: none"> ✓ Incompetent operator ✓ Faulty excavator 	<ul style="list-style-type: none"> ✓ Overturning ✓ Bumping against people 	✓ Serious injuries	H	<ul style="list-style-type: none"> ✓ Only competent personnel may operate the excavator ✓ All excavators must be inspected prior to use



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ACTIVITY: EXCAVATION

Task	Hazard	Risk	Consequence	Rating	Controls
Mechanical excavation	✓ Ignition on	✓ Accidental movement	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Operators should ensure that the ignition is off prior to leaving the plant. ✓ Keys should be removed from the ignition and returned to the office for safekeeping.
Deep excavation	✓ Lack of safety signage	✓ Employees / passersby falling into excavations	✓ Fatalities	H	<ul style="list-style-type: none"> ✓ Ensure that deep excavation signage is placed and visible. ✓ Deep excavations must be fenced off and access controlled.
	✓ Spoil material	<ul style="list-style-type: none"> ✓ Collapse of excavation walls. ✓ Entrapment 	✓ Fatalities	H	✓ Excavated soil to be placed at least 2m away from the excavation wall.
	✓ Underground service	✓ Contact with plant	<ul style="list-style-type: none"> ✓ Injuries ✓ Property damages ✓ Electrocution 	H	<ul style="list-style-type: none"> ✓ All underground services to be identified and marked prior to excavation. ✓ Wayleaves from all service providers to be obtained prior to starting with excavations.
	✓ Unsafe access and exit	✓ Falling	✓ Injuries	H	✓ TLB / Excavator may not be used by employees to access and exit the excavation



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ACTIVITY: EXCAVATION

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ High water table	✓ Water ingress	✓ Drowning	H	<ul style="list-style-type: none"> ✓ Continuous dewatering should be done where groundwater is encountered. ✓ Trenches should not be opened for longer periods, except with prior written consent ✓ Excavations must be inspected periodically and results recorded in an inspection checklist. ✓ Where there is uncertainty about the safety of the excavation, the declaration shall be made by a registered Engineering Technologist on the safety of the excavation. ✓ Backfilling should be done as per the relevant SANS code. ✓ If saturation of the trench occurs, sidewalls should be either battered or supported laterally.
	✓ Open excavations	<ul style="list-style-type: none"> ✓ Falling of employees ✓ Collapse 	✓ Injuries	H	<ul style="list-style-type: none"> ✓ Trenches should not be opened for more than 3 days to prevent deterioration in trench stability and to reduce the risk of persons and motorists falling inside.



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ACTIVITY: OPERATING CONSTRUCTION VEHICLES

Task	Hazard	Risk	Consequence	Rating	Controls
Operating construction vehicles and mobile plant	✓ Moving bucket / arm	✓ Hitting employees	✓ Injuries	M	✓ Workers to stand clear of the path of the construction vehicles and mobile plant ✓ Rigger to direct the loading and offloading activities
	✓ Incompetent operator	✓ Hitting employees; ✓ Bumping vehicles and properties	✓ Injuries ✓ Property damages	M	✓ Only trained, competent and appointed operators may operate a concrete truck ✓ Flagman to be posted to direct the operator
	✓ Unhealthy operator	✓ Collapsing whilst operating	✓ Fatalities ✓ Injuries to other people ✓ Property damages	H	✓ All operators to undergo annual medical examinations prior to resumption of duties ✓ All sick employees must report to their supervisors, and not be allowed to operate construction vehicles and mobile plant.
	✓ Speeding	✓ Hitting employees; ✓ Bumping vehicles and properties	✓ Injuries ✓ Property damages	M	✓ Site speed limits to be adhered to at all times
Parking	✓ No visibility ✓ Parking on a blind spot ✓ Uncontrollable movement	✓ Collision with other vehicles ✓ Bumping into people	✓ Fatalities ✓ Property damages	H	✓ Ensure that construction vehicles are parked at safe areas while conducting operations ✓ Use signage where trucks are parked in / near the road ✓ Place stop blocks to prevent any movement. ✓ Ensure that the key is removed from the ignition when parked.



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ACTIVITY: PUMPING OUT WATER

Task	Hazard	Risk	Consequence	Rating	Controls
Pumping out water using machinery	✓ Vibration	✓ Over exposure	✓ Raynaud's syndrome	M	<ul style="list-style-type: none"> ✓ Regular maintenance of all equipment ✓ Provide employees with anti-vibration gloves ✓ Provide rest periods for every 1hr worked
	✓ Noise	✓ Over exposure	✓ Noise induced hearing loss	M	<ul style="list-style-type: none"> ✓ Regular maintenance of all equipment ✓ Provide employees with proper hearing protection ✓ Provide rest periods for every 1hr worked
	✓ Damaged pump / valves	✓ Sewer spillages	✓ Land and water pollution	M	<ul style="list-style-type: none"> ✓ Inspect all equipment prior to starting work ✓ Perform bioremediation in case of spillages
	✓ Steep slopes	✓ High flow velocities	<ul style="list-style-type: none"> ✓ Blockages ✓ Erosion (water forced around the pipe) 		<ul style="list-style-type: none"> ✓ Ensure that the flow is diverted to mitigate high velocities. ✓ Implement staged lining approach where smaller sections of the pipe are lined incrementally.
	✓ Mud	✓ Slip and falls	✓ Injuries	L	<ul style="list-style-type: none"> ✓ Demarcate areas that are affected by pumping.
	✓ Formation of ponds	✓ Employees / public falling inside	✓ Fatalities	H	<ul style="list-style-type: none"> ✓ Ensure that approval is given for formation of ponds. ✓ Ensure that ponds are fenced of



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ACTIVITY: PIPE INSTALLATION

Task	Hazard	Risk	Consequence	Rating	Controls
Excavation	✓ Deep excavations	✓ Collapse ✓ Falling ✓ Unsafe entry and exit	✓ Injuries	M	✓ Shoring / bracing / sloping of the excavation if deeper than 1.5m ✓ No unauthorised entry into the project site. ✓ Fencing off of the excavation and prompt supervision of the area. ✓ Full time security on site to monitor entry and exit. ✓ Safe method of entry and exit to be provided for employees ✓ Spoil material to be stored at least 2m away from the excavation. ✓ Signage to be displayed indicating deep excavations
Pipe laying	✓ Exposed hands	✓ Rough edges ✓ Heavy pipe ✓ Hit by pipe	✓ Injuries	L	✓ Provide gloves to employees ✓ Heavy pipes to be lifted mechanically
Pipe installation next to the road	✓ Moving vehicles and pedestrians ✓ Improperly placed signage ✓ Incorrect signage displayed	✓ Road accidents ✓ People getting knocked down by cars ✓	✓ Fatalities ✓ Serious injuries ✓ Property damages	H	✓ Adhere to traffic management procedures ✓ Proper training of flagpersons ✓ Ensure good communication between flagmen ✓ Display correct road signage, and put reflective barricades for additional visibility, especially at night and when it is dark / foggy. ✓ Employees should wear reflective PPE



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ACTIVITY: PIPE INSTALLATION

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ Poor communication between flagmen				✓ Keep area clean & clear of obstacles. ✓ Obtain wayleaves from the roads agency (JRA)
Backfilling	✓ Soil	✓ Entrapment	✓ Serious injuries	M	✓ Backfilling to be done by mechanical means where excavations are deep ✓ No unauthorized entry ✓ The correct types of backfilling material to be used for backfilling
	✓ Unstable ground	✓ Excavation collapse	✓ Serious injuries ✓ Fatalities	H	✓ Ensure that backfilling is done according to relevant standards. ✓ Ensure that the area is well barricaded. ✓ Compaction tests to be done ✓ Put relevant signage ✓ No unauthorized entry to the construction site
Compacting	✓ Compactor ✓ Noise ✓ Dust ✓ Vibration	✓ Overexposure to noise and vibration ✓ Collapsing excavation wall ✓ Inhalation of dust	✓ Noise induced hearing loss ✓ Raynaud's Syndrome ✓ Injuries ✓ Respiratory problems	M	✓ Use of earmuffs by compactor operator ✓ Dust mask to be worn by compactor operator ✓ Compactor operator to be declared competent before using the machine ✓ Provide operator with anti-vibration gloves and provide rest periods in between. ✓



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ACTIVITY: STANDPIPE INSTALLATION

Task	Hazard	Risk	Consequence	Rating	Controls
Use of hand tools	✓ Repetitive movements	✓ Improper bending	✓ Back pains	L	✓ Training in correct posture while using hand tools
	✓ Distance between employees	✓ Hitting each other with tools	✓ Injuries	M	✓ Ensure safe distance between employees
	✓ Damaged hand tools	✓ Contact with skin	✓ Injuries	L	✓ Inspect tools prior to use ✓ Provide employees with gloves
	✓ Loss of grip of tools	✓ Hitting other employees	✓ Injuries	M	✓ Train employees on the use of tools ✓ Provide gloves
Cutting and drilling	<ul style="list-style-type: none"> ✓ Drilling ✓ Drill bit ✓ Drill sharp metal fibres ✓ High Noise Levels ✓ Cutting Grinder/Disc ✓ 	<ul style="list-style-type: none"> ✓ Vibration ✓ Cutting edges ✓ Eye penetration ✓ Finger cuts ✓ Expose to high noise level area ✓ Uncontrolled disc ✓ Electrical equipment failure ✓ Sharp window edges 	<ul style="list-style-type: none"> ✓ Damaged hearing ✓ Carpal tunnel syndrome ✓ Cuts/ injuries ✓ Eye irritation / blindness ✓ Injuries ✓ Eye injuries 	M	<ul style="list-style-type: none"> ✓ Use hearing protection when exposed to excessive noise levels (greater than 85 dB over an 8-hour work period) ✓ Assess noise level with sound level meter if possibility exists that level may exceed 85dB. ✓ Rotate drilling tasks to minimize worker exposure to equipment vibration. ✓ Use right size of a drill to drill different layers of the ground ✓ Assess manual guide carefully to ensure correct usage of portable electrical devices.



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ACTIVITY: HDD

Task	Hazard	Risk	Consequence	Rating	Controls
Inserting the drilling rig	✓ Underground services such as gas or electricity	✓ Explosion ✓ Damages	✓ Fatalities	H	<ul style="list-style-type: none"> ✓ Proper scanning of services prior to starting with excavations ✓ Obtain wayleaves from all utilities prior to starting with work ✓ Develop a method statement and risk assessment ✓ Train employees in the method statement as well as risk assessment ✓ Develop emergency response procedures for explosions
Inserting the drilling rig	✓ Vibration	✓ Road collapse	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Only experienced service providers for pipe cracking should be appointed. ✓ Check Geotech conditions prior to starting with HDD ✓ Ensure that the correct depth is used for HDD ✓ HDD from JRA are always valid, and are complied with.
	✓ Vibration	✓ Exposure to excessive vibration	✓ Raynaud's syndrome	M	<ul style="list-style-type: none"> ✓ Provide employees with sufficient rest periods for every 1hr worked.
Insertion	✓ Improper handling	<ul style="list-style-type: none"> ✓ Hands getting caught ✓ Pipe slipping from hands 	✓ Injuries	L	<ul style="list-style-type: none"> ✓ Only trained employees may perform that task ✓ Training in the correct handling and connecting of bursting head



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ACTIVITY: HDD

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ Machinery	✓ Exposure to excessive noise above 85dB(A)	✓ Noise-induced hearing loss	M	<ul style="list-style-type: none"> ✓ Provide employees with hearing protection ✓ Regular servicing and maintenance of equipment ✓ Have a barrier wall where possible to shield the community from the noise.



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ACTIVITY: PIPE CRACKING

Task	Hazard	Risk	Consequence	Rating	Controls
Inserting the bursting tool	✓ Underground services such as gas or electricity	✓ Explosion ✓ Damages	✓ Fatalities	H	<ul style="list-style-type: none"> ✓ Proper scanning of services prior to starting with excavations ✓ Obtain wayleaves from all utilities prior to starting with work ✓ Develop a method statement and risk assessment ✓ Train employees in the method statement as well as risk assessment ✓ Develop emergency response procedures for explosions
Inserting the bursting tool	✓ Vibration	✓ Road collapse	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Only experienced service providers for pipe cracking should be appointed. ✓ Ensure that the correct depth is used for pipe cracking. ✓ Pipe cracking to be done within the permitted timeframes issued by JRA. ✓ Ensure that wayleaves from JRA are always valid, and are complied with.
Connecting the bursting head to the pipe	✓ Improper handling	<ul style="list-style-type: none"> ✓ Hands getting caught ✓ Pipe slipping from hands 	✓ Injuries	L	<ul style="list-style-type: none"> ✓ Only trained employees may perform that task ✓ Training in the correct handling and connecting of bursting head



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ACTIVITY: UNDERGROUND TANK INSTALLATION

Task	Hazard	Risk	Consequence	Rating	Controls
Lifting of manhole rings using a crane	✓ Overhead power lines	✓ Contact with crane	✓ Electrocution ✓ Property damages	H	✓ All lifting activities to be planned at least 2m away from overhead lines ✓ Obtain wayleaves from Eskom ✓ Appoint ORHVS
	✓ Wind / Unfavourable weather	✓ Deflection ✓ Loss of control	✓ Injuries ✓ Property damages	H	✓ Do not use during unfavourable weather conditions
	✓ Incompetent operator	✓ Loss of control ✓ Hitting structures and people	✓ Injuries ✓ Property damages	H	✓ Only trained and competent operators may operate the crane
	✓ Overloading	✓ Collapse of material	✓ Injuries ✓ Property damages	H	✓ Display safe working load on the crane
	✓ Faulty crane	✓ Malfunctioning	✓ Injuries ✓ Property damages	H	✓ Cranes to be inspected by competent persons prior to being used ✓ All faulty cranes to be tagged and locked out



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ACTIVITY: USING THE GENERATOR

Task	Hazard	Risk	Consequence	Rating	Controls
Fueling the generator	✓ Spillages	✓ Slips, trips, falls	✓ Injuries	L	✓ Prevent spillages ✓ Use drip trays ✓ Use funnels for fueling
		✓ Fire	✓ Injuries	M	✓ No smoking allowed near the generator
	✓ Diesel fumes	✓ Inhalation	✓ Respiratory problems	L	✓ Provide employees with respirators
		✓ Skin contact	✓ Skin irritation	L	✓ Provide employees with gloves, safety boots and overalls
	✓ Running engine	✓ Explosion	✓ Injuries	M	✓ Switch engine off before refueling and make sure fuel cap is replaced. ✓ No smoking allowed near the generator
Running the generator engine	✓ Noise	✓ Over-exposure	✓ Noise-induced hearing loss	M	✓ Provide employees with hearing protection ✓ Provide rest periods for employees
	✓ Vibration	✓ Over exposure	✓ Raynaud's Syndrome	L	✓ Provide employees with vibration gloves. ✓ Rotate employees or provide rest periods.
	✓ Fumes	✓ Inhalation	✓ Respiratory problems	L	✓ Provide employees with respirators ✓ Never use indoors



OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION: BASELINE RISK ASSESSMENT

PROJECT NUMBER:	JW 14446
PROJECT LOCATION:	VARIOUS LOCATIONS
PROJECT DESCR:	PANEL OF CONTRACTORS FOR PROVISION OF BASIC WATER SERVICES AS AND WHEN REQUIRED BASIS FOR 36 MONTHS UNDER A FRAMEWORK CONTRACT

ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
✓ Working on site	✓ Unhappy community	✓ Community coming to survey site ✓ Violence against employees	✓ Property damages ✓ Serious injuries	H	✓ Develop an emergency response procedure ✓ Meet with the community and all stakeholders prior to commencement of the project ✓ Have the contact details of the nearest police station / JMPD offices
	✓ Unfavourable weather conditions	✓ Exposure to temperature extremes	✓ Heat exhaustion ✓ Frost bite	M	✓ Provide employees with water for cooling down. ✓ Provide employees with warm jackets and gloves during winter ✓ Provide 5-minute rest periods for every 30 minutes of exposure to temperature extremes. ✓ No work to be undertaken in rainy conditions
	✓ Housekeeping	✓ Trips and falls	✓ Injuries	M	✓ Ensure that proper housekeeping is maintained on site at all times.
✓ Working near open spaces	✓ Snakes	✓ Bites ✓ Poisoning	✓ Fatalities ✓ Serious injuries	H	✓ Inspect the area for snakes prior to entering ✓ Conduct snake awareness training ✓ Know the do's and don'ts of what to do when coming across snakes
	✓ Bees	✓ Bites	✓ Allergic reaction	M	✓ Inspect the area for bees / wasps prior to entering ✓ Conduct bees awareness training ✓ Know the do's and don'ts of what to do when coming across bees
	✓ Sharp objects	✓ Getting pricked by sharp objects	✓ Tetanus ✓ Injuries	M	✓ All employees to get Tetanus vaccination. ✓ Provide employees with proper safety boots



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ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
	✓ Criminals	✓ Getting mugged	✓ Loss of personal possession	M	✓ Personal belongings such as phones and car keys to be safely put in pockets while working. ✓ Employees to report any suspicious activities to the local police. ✓ Equipment to be safely stored while not in use
	✓ Criminals	✓ Employees being attacked	✓ Injuries ✓ Fatalities	H	✓ Ensure that employees do not work in isolation. ✓ Employees to report any suspicious activities to the local police. ✓ Develop an emergency response procedure
	✓ Open excavations (other works)	✓ Falling inside	✓ Injuries	M	✓ Employees to be vigilant while working on site
	✓ Water bodies	✓ Falling inside	✓ Serious injuries ✓ Fatalities	H	✓ Employees to be vigilant while working on site ✓ Emergency procedures to be developed
	✓ Rotating equipment	✓ Entrapment ✓ Getting caught by	✓ Serious injuries ✓ Fatalities	H	✓ Ensure that machinery is isolated or locked out while working on it.
	✓ Raw sewer	✓ Skin contact ✓ Ingestion ✓ Splashing into eyes	✓ Waterborne diseases	H	✓ Provide employees with proper PPE, and ensure that the mouth, nose and eyes are covered. ✓ Vaccinate employees and ensure that they are medically fit to work in confined spaces.



OCCUPATIONAL HEALTH & SAFETY (OHS) SPECIFICATION: BASELINE RISK ASSESSMENT

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ACTIVITY: GENERAL ACTIVITIES ON SITE

Task	Hazard	Risk	Consequence	Rating	Controls
Use of ablution facilities	✓ Infrequent collection and disposal	✓ Unhygienic toilet	✓ Illnesses	M	<ul style="list-style-type: none"> ✓ Ensure that a proper toilet with a closing door is made available for personnel on site. ✓ Where there are employees of different genders, two separate toilets will be sourced to be used by both males and females. ✓ Ensure that the toilet is collected and emptied frequently by a registered service provider. ✓ Ensure that disposal certificates are obtained from service provider. ✓ Ensure that toilet is cleaned daily, and provision for toilet paper and washing of hands is made.



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RISK ASSESSMENT MATRIX

Likelihood	Consequences				
	Insignificant (minor problem easily handled by normal day to day processes	Minor (Some disruption possible e.g., damage equal to R150k	Moderate (significant time / resources required. E.g., damage equal to R500k	Major (Operations severely damaged. E.g., damages equal to R1m	Catastrophic (business survival is at risk. Damage equal to R5m – 10m
Almost certain (90% chance)	High	High	Extreme	Extreme	Extreme
Likely (between 50-90%)	Moderate	High	High	Extreme	Extreme
Moderate (between 10-50%)	Low	Moderate	High	Extreme	Extreme
Unlikely (between 3-10%)	Low	Low	Moderate	High	Extreme
Rare (<3%)	Low	Low	Moderate	High	High