

	A	B	C	D	E	F	G	H	I
1	Turbine Hall			 Johannesburg Water			PAGE NO.		
2	IS Ntombi Pilliso							CLOSING DATE AND TIME	
3	Newtown							23-Mar-26	16:00
4								Date of Issue	
5	P O Box 61542							6-Mar-26	
6	Marshalltown 2107							QUOTATION VALIDITY	VALIDITY
7	Tel : (011) 688-1400 Fax : (011) 688-1556	INITIATING DEPARTMENT	INITIATOR					60 DAYS	60 DAYS
8									
9									
10									
11		QUOTATION REFERENCE	COLLECTIVE NO.						
12		RFQJW062NS26-Head of Works LV cabling, Panel Repair for Screens and Compactors							
13		QUOTATION REQUESTED FROM							
14				QUOTATIONS WILL BE EVALUATED ON THE 80/20 POINT SCORING SYSTEM. 80 POINTS WILL BE ALLOCATED TO PRICE AND THE REMAINING 20 POINTS WILL BE ALLOCATED FOR SPECIFIC GOALS AS PER PPPFA 2012					
15				ALL SUPPLIERS RESPONDING TO QUOTATIONS SHOULD BE REGISTERED ON CENTRAL SUPPLIER DATABASE (CSD)					
16				JW SCM Contact Person : Nompumezo Sobhekwu					
17				Telephone Number : 011 688 1656					
18									
19									
20		Head of Works LV cabling, Panel Repair for Screens and Compactors		DESCRIPTION OF ITEM OFFERED	UOM	QTY REQUIRED	PRICE QUOTED EXCL. OF V.A.T.	DISCOUNT	PRICE QUOTED INCL. OF V.A.T.
21									
22									
23	1.	Head of Works LV cabling, Panel Repair for Screens and Compactors			Sum	1			
24									
25		NB: BoQ to be completed in full to avoid disqualification							
26		NB: Evaluation criteria is attached, all required documents to be submitted with the RFQ response							
27		NB: Site briefing is compulsory at Northern Works on stated date and time							
28		NB: Valid registration as CIDB grade 1 EP required							
29									
30									
31									
32		NB: All service providers coming to attend site briefing must wear safety shoes and safety reflective jackets							
33									
34		COMPULSORY SITE BRIEFING @ NORTHERN WASTEWATER TREATMENT PLANT: DATE 17 March 2026 TIME 10H00							
35		CONTACT PERSON : Phakamani Dube @ 082 326 6068							
36		NB: All supplier responding to RFQ's should use their own company letterhead not JW RFQ							
37									
38		QUOTATION REF AS ABOVE: RFQ JW Head of Works LV cabling, Panel Repair for Screens and Compactors							
39		NB: All suppliers responding to RFQs should use their own company letter head not JW RFQ Template AND MAKE SURE THEIR EMAIL ADDRESS IS VISIBLE ON THEIR QUOTATION.							
40		NB: A copy of valid lease agreement or municipal account(not older than 3 months) should be submitted with a quote							
41		NB: MBD forms attached should be completed and submitted with the quote							
42		NB: All Quotes should be on PDF (MS WORD, MS EXCEL, PICTURES ARE NOT ALLOWED)							
43		NB: Copy of valid BBBEE CERTIFICATE or SWORN AFFIDAVIT to be submitted with the quote							
44		PLEASE NOTE THAT SUBMISSIONS MUST BE MADE ON THE E-TENDER PORTAL (https://www.etenders.gov.za). NO EMAIL SUBMISSIONS WILL BE ACCEPTED.							
45		SUPPLIER DETAILS							
46	OFFICIAL STAMP								
47		AUTHORISED BY:		1. QUOTATIONS RECEIVED AFTER CLOSE OF BUSINESS ON THE CLOSING DATE WILL NOT BE ACCEPTED.					
48		SIGNATURE:		2. QUOTATIONS WITHOUT BRAND NAMES WHERE REQUIRED WILL NOT BE ACCEPTED					
49		DATE:		3. PRICES QUOTED MUST BE AS PER THE UNIT INDICATED AND BE EXCLUDED OF VAT					
50				4. ACCEPTANCE OF A QUOTATION WILL BE SUBJECT TO JOHANNESBURG WATER'S SUPPLY CHAIN POLICY					
				5. TOTAL QUOTATION VALUE TO INCLUDE VAT WHERE APPLICABLE					

REFURBISHMENT OF UNIT 01, 03, 04 AND 05 REST ROOMS

No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SECTION A : Material Supply and Delivery					
1	Supply and deliver 3CR12, 3mm thickness, B26 electric orange cable ladders c/w cover 150mm	m	36		
2	Supply and deliver 3CR12, 3mm thickness, B26 electric orange P2000 channel	m	12		
3	Supply and deliver stainless steel fasteners	sum	1		
4	Supply and deliver 6mm2 x 4c Cu swa pvc swa cable	m	300		
5	Supply and deliver 6mm2 lugs	sum	1		
6	Supply and delivery Corrosion Guard Ex E Gland For Swa Enviroglad Type - size 2	each	18		
7	Supply and deliver 6mm2 x 4c LV cable joints Cast Resin (provision)	each	4		
8	Supply and deliver underground warning tape 150mm caution electric cable	m	100		
9	Supply and deliver River sand 35m x 1m x 60mm	m3	2.1		
10	Supply and deliver 32A MCCB 36kA 3P with shunt trip	each	3		
11	Supply and deliver ELCOR sensor 250mA	each	3		
12	Supply and deliver EL-SEC X earth fault relay 250mA	each	3		
13	Supply and deliver 2.5mm panel wire (red, black, grey) 20m/colour	m	60		
14	Supply and deliver core markers and steel tague marking	sum	1		
15	Supply and deliver cable tag markers	each	18		
Total Section A					
SECTION B: Labour and site work					
16	Decommissioning of old outdoor control panels and deliver to the works electrical stores	each	5		
17	Install stainless steel 3CR12 B26 electric orange outdoor panel with inner door (4 x M8 bolts per box) (panel supplied by others)	each	6		
18	Install stainless steel 3CR12 B26 electric orange Pedestal for outdoor panel (4 x M10 ralw bolts per pedestal) (pedestal supplied by others)	each	6		
19	Supply and deliver 3CR12, 3mm thickness, B26 electric orange cable ladders c/w cover 150mm	m	36		
20	Supply and deliver 3CR12, 3mm thickness, B26 electric orange P2000 channel	m	12		
21	Install stainless steel fasteners	sum	1		
22	Install 6mm2 x 4c Cu swa pvc swa cable and cable strapping	m	300		
23	Install 6mm lugs	sum	1		
24	Install cable glands, Corrosion Guard Ex E Gland For Swa Enviroglad Type - size 2	each	18		
25	Install 6mm2 x 4c LV cable joints Cast Resin (provision)	each	4		
26	Install underground warning tape 150mm caution electric cable	m	100		
27	Pavement removal 35m x 1m	m2	35		
28	Excavation 600mm x 600mm x 35m	m3	13		
29	Backfilling and compaction 600mm x 600mm x 35m	m3	12.6		
30	Pavement re-instatement 35m x 1m	m2	35		
31	Install River sand 35m x 1m x 60mm	m3	2.1		
32	Install 32A MCCB 36kA 3P with shunt trip	each	3		
33	Install ELCOR sensor 250mA	each	3		
34	Install EL-SEC X earth fault relay 250mA	each	3		
35	Install 2.5mm panel wire (red, black, grey) 20m/colour	m	60		
36	Install core markers and steel tague marking	sum	1		
37	Install cable tag markers	each	18		
38	Testing and Commissioning (MCC to Outdoor Control Panel to Motor)	sum	1		
39	Quality Control Plan	sum	1		
40	Compliance with OHS requirements (safety file)	sum	1		
Total Section B					
SUB-TOTAL (A + B)					
VAT					
TOTAL					

RFQ Evaluation Criteria

NO.	MANDATORY CRITERIA	YES/NO
1.	BOQ completed in full by the bidder	
2.	The contractor submitted proof of valid registration/letter certificate with minimum CIDB grading of 1 EP. The certificate/letter must be submitted together with the RFQ.	
3.	Contractor submitted proof of at least one completed project whereby the scope of work was to supply, deliver and install LV cables, control panels and cable ladders (completion certificate or reference letter signed by the client: with working contact details of the client, email and telephone numbers)	



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1. SCOPE OF WORK

Head of works panels repairs for screens and compactors

2. PURPOSE

The aim of the SHE specification is to ensure that any contractor which is appointed by Johannesburg Water to conduct any work complies with the SHE requirements of the SHE specification and any other legislative requirement applicable to the contract scope.

3. APPLICABILITY

This document is applicable to all contractors and suppliers conducting contractual activities for and on behalf of Johannesburg Water.

4. APPOINTMENTS

The contractor and its appointed sub-contractor must make the relevant legislative and non-statutory appointments, which must be maintained valid for the entire contract duration.

All appointees shall be suitably trained and found to be competent for the responsibilities there are assigned for.

Copies of all relevant appointments and the relevant competence certificates must be kept in the relevant SHE file.

5. INSURANCE

The contractor and all its appointed sub-contractor(s) shall be registered with an appropriate compensation commissioner and have a valid letter of good standing from commissioner. The contractor is responsible for ensuring the Letter of Good Standing is valid for the entire duration of the project/contract. A copy of the letter of Good Standing must be kept in the SHE file.

6. COSTING FOR SHE REQUIREMENTS

The contractor is responsible for ensuring that SHE costing is taken into consideration for the entire project/contract as this will ensure they comply with the SHE legislative requirements

7. INDUCTION

An initial induction shall be done with key personnel to familiarize them with the requirements on site and for compiling the SHE file.

Once labourers are appointed JW will conduct an induction on SHE requirements, and the contractor is also required to conduct their company specific induction



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8. SUBMISSION OF SAFETY FILE

- Once appointed the contractor can submit their safety file for approval.
- Approval will be granted when the critical items have been sufficiently addressed.

9. RISK ASSESSMENT

- Every Contractor who has been appointed contractually to conduct work for Johannesburg water shall do compile a baseline risk assessment prior to starting with work, subject to the approval of the Client.
- Thereafter the task based risk assessments will be done daily with every task being done.

10. SAFE WORKING PROCEDURES / METHOD STATEMENTS

The following method statements / safe working procedures must be compiled:

- Incident investigation, emergency plan, waste management plan, PPE procedure, hand tool procedure, hazardous chemical substance procedure.
- Method statement for the entire works

11.ELECTRICAL CONTRACTOR & RESPONSIBILITIES

- No person may do electrical installation work as an electrical contractor unless that person has been registered as an electrical contractor in terms of the Regulation.
- The principal contractor who does electrical installation work as an electrical contractor shall register annually in the form of Annexure 3 with the chief inspector or a person appointed by the chief inspector. An application for registration shall be accompanied by a prescribed fee.
- An electrical contractor shall be responsible for the safety, safe use and maintenance of the electrical installation he or she uses or leases.



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12.CERTIFICATE OF COMPLIANCE

- A registered person may issue a certificate of compliance accompanied by the required test report only after having satisfied himself or herself by means of an inspection and test that a new electrical installation complies with the provisions of regulation 5(1) and was carried out under his or her general control; or an electrical installation which existed prior to the publication of the current edition of the health and safety standard incorporated into these Regulations in terms of regulation 5(1) , complies with the general safety principles of such standard; or the existing part of the electrical installation complies with the general safety principles of such standard and is reasonably safe, and the extensions or alterations effected comply with the provisions of regulation 5(1) and were carried out under his or her general control.
- Any person who undertakes to do electrical installation work shall ensure that a valid certificate of compliance is issued for that work and no person may amend a certificate of compliance.

13.WORKING AT HEIGHTS

- A competent person must compile a fall protection plan for all tasks which will be done at elevated position.
- The requirements as per the Construction regulations for working at heights shall be always complied with by the contractor.
- The fall protection plan shall be specific to the work that will be conducted at elevated position and proper provision must be made for rescue of employees at heights.
- Fall protection plan must include fall risk assessment detailing proper controls to be implemented.
- All employees who their duties entail working at heights must be declared medically fit by an Occupational Health Practitioner for working at heights.
- Employees who will be working at heights must be trained by a competent service provider for working at heights and must be trained on use of fall prevention/arrest devices to be used at heights.
- Employees working at height must be trained on the latest approved fall protection plan before work commences at height.



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14. WORKING IN CONFINED SPACES

- An employer/contractor shall take steps to ensure that a confined space is entered by an employee or other person only after the air therein has been tested and evaluated by a person who is competent to pronounce on the safety thereof, and who has certified in writing that the confined space is safe and will remain safe while any person is in the confined space, taking into account the nature and duration of the work to be performed therein.

15. MEDICAL SCREENING REQUIREMENTS

- The contractor shall ensure that a medical surveillance programme is implemented for all employees.
- The medical examination shall be conducted in line with the employee job profile/job description.
- A valid medical fitness certificate must be submitted together with the SHE File for approval for all employees who will be doing work for Johannesburg Water.
- Any employee(s) who are declared conditionally fit must be provided with employment which does not aggravate their medical condition as to endanger themselves or other employees.
- The following tests shall be done:
 - Audiograms.
 - A cardio-respiratory examination
 - Lung function tests.
 - Eye/ sight tests.
 - A general physical examination.
 - A review of previous medical history.
 - Blood pressure tests
 - Glucose tests
 - Vaccinations (Hepatitis A & Typhoid)

16. TOOLBOX TALKS

- The contractor shall ensure they conduct toolbox talks with their employees on a weekly basis and records of these must be kept in the SHE file.
- The objective of toolbox talks should be to communicate relevant site information to assist in improvement of occupational health and safety performance.
- Employees must acknowledge the receipt of toolbox talks and this record must also be kept in the SHE file.



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17 .PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Contractor must issue their employees SABS approved PPE. A copy of the PPE issue register signed by the employee issued with the PPE must be kept in the SHE file.
- Contractor supervisor are required to conduct continuous inspections of the PPE issued to their employees to ensure that they are still in good condition to be used by the employee or they still comply with manufacture requirements.
- The contractor is responsible for ensuring that employees are trained on the safe use of the PPE issued to them, how to maintain it and the limitations of the PPE.
- NO SHORTS OR DRESSES WILL BE ALLOWED ON SITE

18. WORKPLACE SIGNAGE

- Appropriate symbolic signage must be displayed where it is required by legislation.
- Appropriate warning, mandatory and information signs must be placed where required.
- All signs must comply to SANS/SABS requirements.
- Contractors shall use mandatory and prescribed symbolic safety signs at their lay down and site areas.

19.INCIDENT REPORTING AND INVESTIGATION

- All incidents shall be reported to the Client before the end of the shift or within 24hrs of occurrence.
- Section 24 incidents shall be reported to DOL using the prescribed format.
- The contractor shall develop an incident management procedure and communicate with all employees.

20.NOTIFICATION OF CONSTRUCTION WORK

- The contractor shall notify the DOL in the prescribed format of the intended work prior to work.

21.COMPLIANCE MONITORING

- Weekly inspections and monthly audits will be conducted on site.

22.PROJECT COMPLETION

- Upon completion of the project the SHE file shall be returned to the Client for retention and close out



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Project details

Project Scope: Head of works panels repairs for screens and compactors

Depot / Site / Department: Northernworks

Estimated duration: TBC

Documents required

Letter of Good Standing	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
SHE plan	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Risk Assessment	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Safe working Procedures	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Notification of Construction work	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Inspection registers	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

Items required before starting

Medicals	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Vaccinations	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
PPE (boots, hard hats, overall)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Induction	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
Approval from OHS	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

APPOINTMENTS AND COMPETENCIES

<u>Construction Supervisor</u>						
Appointment	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
CV (and/ certificates)	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<u>Safety Officer</u>						
Appointment	Yes	<input checked="" type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
CV (and/ certificates)	Yes	<input checked="" type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>

NB* Other appointments will be based on the number of employees on site as required by law.



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RETURNABLE ANNEXURE A: ACKNOWLEDGEMENT OF SHE SPECIFICATION & ANNEXURES

CONTRACTOR:	
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I, the undersigned, hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and the consequences of non-compliance. The Contractor furthermore reiterates its commitment to compliance of the requirements contained within the following provided documentation:

- Johannesburg Water SOC Ltd, Safety, Health & Environmental (SHE) Specification, Annexure 1: Baseline risk assessment conducted for or on behalf of Johannesburg Water SOC Ltd;

Signed at on this Day of 20.....

CONTRACT MANAGER			
NAME	DESIGNATION	DATE	SIGNATURE
CONTRACT SUPERVISOR			
NAME	DESIGNATION	DATE	SIGNATURE
WITNESS (1)			
NAME	DESIGNATION	DATE	SIGNATURE
WITNESS (2)			
NAME	DESIGNATION	DATE	SIGNATURE



HEALTH, SAFETY & ENVIRONMENTAL (SHE) SPECIFICATION: BASELINE RISK ASSESSMENT

PROJECT NUMBER:	RFQ
PROJECT LOCATION:	Northern works
PROJECT DESCR:	Head of Works Panel Repair for Screens and Compactors

POSSIBLE RISKS FOR THIS PROJECT

Task	Hazard	Risk	Consequence	Rating	Controls
Compliance with applicable legislation for safety, health and environment	<ul style="list-style-type: none"> ✓ Contractor processes and/or procedures not developed according to legislative requirements. 	<ul style="list-style-type: none"> ✓ Not complying with applicable legislation and client SHE specifications. 	<ul style="list-style-type: none"> ✓ Litigation, multiple injuries and death. ✓ Work stoppages 	M	<ul style="list-style-type: none"> ✓ Planning, design and implementation to comply with legislative requirements, especially for Health, Safety and Environment together with Quality. ✓ Appointment of a qualified person to assist with the development of legislative guided processes and procedures.
Conducting SHE Induction training	<ul style="list-style-type: none"> ✓ Employees, contractors, suppliers, and visitors not aware of applicable legislating for the project and policies. 	<ul style="list-style-type: none"> ✓ Non-compliance to legislation. 	<ul style="list-style-type: none"> ✓ Work stoppages ✓ Multiple injuries 	M	<ul style="list-style-type: none"> ✓ Every new employee or visitor must be inducted before entering company premises or starting work. ✓ All employees absent from work or on leave for a period of 14days must be inducted. ✓ Inducted visitors must at all times be accompanied when walking around company premises.
Arranging Medical surveillance or examination	<ul style="list-style-type: none"> ✓ Employees not medically fit for work appointed for. 	<ul style="list-style-type: none"> ✓ Non-compliance to statutory requirements. ✓ Exposure to unidentified 	<ul style="list-style-type: none"> ✓ Work stoppages. 	L	<ul style="list-style-type: none"> ✓ Medical examination or assessments must be conducted prior to start of work and annually by an

	<ul style="list-style-type: none"> ✓ No proof of medical fitness certificate. ✓ Employees not Vaccinated 	contagious diseases carriers.	<ul style="list-style-type: none"> ✓ Incidents resulting to injuries 		<p>Occupational Medical Practitioner.</p> <ul style="list-style-type: none"> ✓ Every person must be declared medically fit for the type of work they performing and copies of employees' medical certificates to be kept on site. ✓ Employees must be vaccinated prior to work on site
Gate access to site premises - by people	<ul style="list-style-type: none"> ✓ Walking on the vehicle's driveways ✓ Lack of observation ✓ Intoxicated pedestrian employee or visitor entering security gate ✓ Employees, visitors or contractors entering with firearm ✓ Unauthorized entry 	<ul style="list-style-type: none"> ✓ Personal injuries due to vehicles driving over people. ✓ Personal fight due to arrogant intoxicated people. ✓ Theft due to unauthorized entry. 	<ul style="list-style-type: none"> ✓ Personal fight due to arrogant intoxicated people. ✓ Work stoppages resulting in delay to production ✓ Theft due to unauthorized entry. 	L	<ul style="list-style-type: none"> ✓ Only Authorised entry on JW premises ✓ Zero alcohol tolerance ✓ All Employees, contractors, suppliers and visitors to walk only on designated walkways in and around site/client premises.
Obtain necessary JW documentation and JW approvals	<ul style="list-style-type: none"> ✓ Working without authorization from JW 	<ul style="list-style-type: none"> ✓ JW removing Contractor from site 	Delay in production	L	<ul style="list-style-type: none"> ✓ No work is allowed to start without the necessary documentation and approvals in place. ✓ Occupational notices must be available on site kept on site in the Health and Safety File

Working on site	<ul style="list-style-type: none"> ✓ Working during peak hours 	<ul style="list-style-type: none"> ✓ Employees and vehicles moving around the vicinity 	<ul style="list-style-type: none"> ✓ Serious injuries ✓ Vehicle damages 	M	<ul style="list-style-type: none"> ✓ Access to the work area must be restricted/monitored ✓ Designated pedestrian routes must put in place to restrict unauthorized access ✓ Work must be planned for quieter times of the day when reduced/restricted pedestrian access is required to the area ✓ Safe working area must be cordoned off around the area and signage must be used as appropriate ✓ High visibility clothing worn by Site Supervisor if working on traffic route.
Transportation of materials (Cables, Screen panels and Components)	<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 	<ul style="list-style-type: none"> ✓ Over-turning vehicles ✓ Vehicle collisions 	<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/ authorized 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

	<ul style="list-style-type: none"> ✓ Slippery road 				
Offloading of Material (Cables, Screen panels and Components)	<ul style="list-style-type: none"> ✓ Faulty lifting machinery & equipment ✓ Suspended load ✓ Poor Housekeeping 	<ul style="list-style-type: none"> ✓ Malfunctioning ✓ Objects 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 ✓ Stacking and storage inspector must be appointed and in charge
Electrical Installations	<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
Entry and exit	<ul style="list-style-type: none"> ✓ No access control 	<ul style="list-style-type: none"> ✓ Unauthorized entry into the construction site 	<ul style="list-style-type: none"> ✓ Injuries ✓ Theft of tools and material 	M	<ul style="list-style-type: none"> ✓ Appoint a full time, registered security guard on site
Stacking and Storage of materials	<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

					<ul style="list-style-type: none"> ✓ Unsafe stacks to be removed immediately ✓ Never stack materials during knocking off time or late at night ✓ Use task specific PPE
Working in confined spaces	<ul style="list-style-type: none"> ✓ Confined space 	<ul style="list-style-type: none"> ✓ No procedure ✓ Inappropriate entry and exit 	<ul style="list-style-type: none"> ✓ Fatality ✓ Serious injuries 	H	<ul style="list-style-type: none"> ✓ Develop a confined space entry procedure including rescue. ✓ Ensure that there is a suitable entry and exit point ✓ Provide employees with safety harnesses
Working at Heights	<ul style="list-style-type: none"> ✓ Heights ✓ Unfit employees ✓ Using hand tools ✓ Unsecured tools and equipment 	<ul style="list-style-type: none"> ✓ Falls ✓ Unfit for the job ✓ Damaged hand tools ✓ Falling onto Employees 	<ul style="list-style-type: none"> ✓ Injuries 	M	<ul style="list-style-type: none"> ✓ Employees to use proper PPE including safety harnesses when working at heights. ✓ Inspect all tools prior to use. ✓ Provide training for using safety harnesses correctly. ✓ Employees working at heights must be certified fit to work. ✓ Hand tools must be attached to lanyards when working at heights. ✓ Use tool bags
Installation of Equipment/Components	<ul style="list-style-type: none"> ✓ Manual handling 	<ul style="list-style-type: none"> ✓ Poor ergonomics ✓ Hands stuck between equipment 	<ul style="list-style-type: none"> ✓ Back sprains ✓ Pinch point injuries 	L	<ul style="list-style-type: none"> ✓ Two employees to carry heavy equipment ✓ Use the correct lifting techniques ✓ Train employees on the correct lifting techniques ✓ Use hand gloves
	<ul style="list-style-type: none"> ✓ Use of hand tools 	<ul style="list-style-type: none"> ✓ Usage of the wrong tool for the task 	<ul style="list-style-type: none"> ✓ Injuries to person ✓ Cuts 	L	<ul style="list-style-type: none"> ✓ Damaged tools ✓ All tools are visually inspected before use.

		<ul style="list-style-type: none"> ✓ Using damaged tools ✓ Lack of skill 	<ul style="list-style-type: none"> ✓ Loss of services ✓ Damage to property 		<ul style="list-style-type: none"> ✓ Specific equipment/tools are only used by competent users
Cutting and Drilling	<ul style="list-style-type: none"> ✓ Drilling ✓ Drill pit ✓ 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 ✓ Minor cuts resulting into injury ✓ Injuries to persons operating ✓ 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.
Cabling	<ul style="list-style-type: none"> ✓ Live Electric Cable 	<ul style="list-style-type: none"> ✓ Electric Shock 	<ul style="list-style-type: none"> ✓ Serious Injuries 	H	<ul style="list-style-type: none"> ✓ Ensure that electricity supply is switched off during installation ✓ Implement lockout procedures
	<ul style="list-style-type: none"> ✓ Inadequate Wiring 	<ul style="list-style-type: none"> ✓ Electric fault ✓ Fire 	<ul style="list-style-type: none"> ✓ Serious Injuries 	H	<ul style="list-style-type: none"> ✓ Only competent persons to do the electrical work
	<ul style="list-style-type: none"> ✓ Cutting 	<ul style="list-style-type: none"> ✓ Eye penetration 	<ul style="list-style-type: none"> ✓ Eye injuries/ blindness 	M	<ul style="list-style-type: none"> ✓ Safety goggles shall be worn by employees when cutting stee
	<ul style="list-style-type: none"> ✓ Unit activation 	<ul style="list-style-type: none"> ✓ Struck by equipment 	<ul style="list-style-type: none"> ✓ Injuries 	M	<ul style="list-style-type: none"> ✓ Lock out/ Tag out
	<ul style="list-style-type: none"> ✓ Live Yard 	<ul style="list-style-type: none"> ✓ Electrocutation ✓ Injury ✓ Working 	<ul style="list-style-type: none"> ✓ Injury or death 	H	<ul style="list-style-type: none"> ✓ Obtain a permit ✓ Follow cardinal rules ✓ Strict supervision

		<ul style="list-style-type: none"> ✓ unauthorized Mis-communication between employees 			<ul style="list-style-type: none"> ✓ Fire extinguisher must always be on site ✓ Obtain a permit and follow all procedures listed ✓ Strict supervision ✓ Competent technician operation ✓ Issue test certificate for every testing and inspection done
	<ul style="list-style-type: none"> ✓ Electrical connection ✓ Extension Cords 	<ul style="list-style-type: none"> ✓ Explosion ✓ Faulty cord failure 	<ul style="list-style-type: none"> ✓ Injuries / damage to employees and equipment ✓ fire 	L	<ul style="list-style-type: none"> ✓ Emergency stop button must always be serviceable ✓ Fire extinguishers must always be kept on site
	<ul style="list-style-type: none"> ✓ Electrical equipment ✓ Portable electrical appliances 	<ul style="list-style-type: none"> ✓ Use of faulty electrical equipment; ✓ Faulty equipment could also start a fire 	<ul style="list-style-type: none"> ✓ All workers could suffer potentially fatal shocks or burns. ✓ Electric shock/ burns ✓ injuries 	M	<ul style="list-style-type: none"> ✓ All tools to be checked and tagged before bringing onto site; ✓ Portable electrical appliances examined and where necessary, tested by a competent person within the recommended time limit; ✓ Defective appliances and leads are removed from use and kept secured until they can be repaired or removed from the site; ✓ Electric tools and installations to be in good condition; ✓ Inspect electric tools before use; ✓ Do not use electric tools in wet /damp conditions;

					<ul style="list-style-type: none"> ✓ Use personal protective equipment such as insulated gloves.
Commission & Testing	<ul style="list-style-type: none"> ✓ Testing ✓ Inspection 	<ul style="list-style-type: none"> ✓ Electrocution ✓ Injury /Damage to equipment ✓ Chocking ✓ Electrocution Injury ✓ Working unauthorized ✓ Miss-communication between employees 	<ul style="list-style-type: none"> ✓ Fatalities ✓ Property damages 	H	<ul style="list-style-type: none"> ✓ Authorized person with C.O.C must do all the installation ✓ Emergency stop button must always be serviceable ✓ Ensure communication between employees ✓ Technical Skills ✓ Fire extinguisher must always be on site ✓ Implement lockout procedure ✓ Strict supervision ✓ Competent technician operation ✓ Issue test certificate for every testing and inspection done
Electricity	<ul style="list-style-type: none"> ✓ Voltage 	<ul style="list-style-type: none"> ✓ Contact with live electricity 	<ul style="list-style-type: none"> ✓ Electrocuti on 	M	<ul style="list-style-type: none"> ✓ Ensure that power is switched off when servicing the generator ✓ The frame of the generator and any external conducting parts should have proper grounding / earthing wiring. ✓ Do not touch with wet hands
Working inside the Digested Sludge Pump Station/Effluent water	<ul style="list-style-type: none"> ✓ Wet floors 	<ul style="list-style-type: none"> ✓ Trip and falls 	<ul style="list-style-type: none"> ✓ Injuries 	M	<ul style="list-style-type: none"> ✓ Ensure that all wet surfaces are cleaned up. ✓ Put wet floor signs when floors are wet

	✓ Poor lighting	✓ Trip and Falls	✓ Injuries	M	✓ Ensure that there is sufficient lighting where work is conducted
	✓ Noise	✓ Exposure to excessive noise	✓ Noise induced hearing loss	M	✓ Provide employees with hearing protection
	✓ Revolving machinery / conveyer belt	✓ Hands getting caught in revolving machinery	✓ Serious Injuries	H	✓ Ensure that guards are in place
	✓ Sludge	✓ Contact with sludge	✓ Communicable diseases	M	<ul style="list-style-type: none"> ✓ Ensure that all employees are vaccinated. ✓ Provide employees with proper PPE ✓ Train employees in personal hygiene
Weather conditions	✓ Weather conditions; high winds, heavy rain, hot weather etc	✓ Eye strains	✓ Fall injuries, sun burn, heat exhaustion	M	<ul style="list-style-type: none"> ✓ Employees assesses the weather conditions before undertaking external work and does not undertake the task if conditions unsuitable ✓ Employees wears clothing appropriate to the weather conditions ✓ Employees wears clothing to cover skin and wears sunscreen in hot sunshine ✓ Employees keeps well hydrated and takes regular breaks in hot weather.
Electricity	✓ Electric cables	✓ Use of faulty cables/unsafe electric cables	✓ Burns/electric shock/fatality	M	✓ Site Supervisor must undertake an inspection of area to identify any electrical hazards / overhead power cables

					<ul style="list-style-type: none"> ✓ No work must be carried out within 6 meters of high voltage cables ✓ Live supplies must be isolated where necessary ✓ Aluminum ladders must not be used where any electrical hazard exists
Height	<ul style="list-style-type: none"> ✓ Working at height 	<ul style="list-style-type: none"> ✓ Falling of objects, debris 	<ul style="list-style-type: none"> ✓ Fracture ✓ Fatality ✓ Head injuries/concussion 	M	<ul style="list-style-type: none"> ✓ pre job brief must be conducted before the commencement of the work ✓ full time supervision on site ✓ hardhat must be provided ✓ safety arrest must be provided to the employees ✓ A safe working area is cordoned off around the work at height equipment and signage is used as appropriate ✓ A belt holster or belt hooks are used for carrying tools up/down ladder ✓ Any person footing the ladder is advised to wear head protection. ✓ Employees are advised to bag any debris into small quantities and lower it slowly to the ground.

Cutting cables using the Grinder	✓ Grinder	✓ Untrained staff	✓ Injuries ✓ Fatal ✓ Property damage	H	✓ Only the right competent personnel to operate the grinder.
	✓ Use of Electricity	✓ Improper maintenance	✓ Shock/ Burns	M	✓ Always switch off electricity before working
	✓ Use of faulty electric cables	✓ Fire ignition	✓ Burns/ damages	M	✓ Visual inspection of cable before use
	✓ Electrical safety	✓ Electrical shock or burns ✓ Damaged portable electrical appliances, cables, plugs	✓ Injuries ✓ Properties damage	M	✓ All portable electrical equipment should be tested for electrical safety at correct interval ✓ Electrical cables and plugs should be regularly visually inspected by the user for damage
	✓ Cutting and welding of the Steels	✓ Burns	✓ injuries	M	✓ Care with torch and PPE ✓ All the steel cut must be placed in a barricaded space
	✓ Incompetent employees	✓ Wrong connections	✓ Burning of equipment	L	✓ Use only competent employees
Drill	✓ Incompetent personnel	✓ Incorrect operation	✓ Injuries ✓ Property damages	M	✓
	✓ Working environment	✓ May feel too hot/cold	✓ Fatigue ✓ Discomfort	M	✓ Temperature must always be kept within a comfortable range. ✓
Ladder	✓ Use of Ladder	✓ Fall from ladder	✓ Injuries	M	✓ SOP when using ladder must always be adhered to
Climbing down on ladder or structure	✓ Working at heights	✓ Falling onto / Falling objects ✓ Mechanical failure of step ladder bolts	✓ Employees falling from heights which may result in fatality	M	✓ Admin: provide training for personnel working at heights ✓ Developing a safe working procedures and inspections

		<ul style="list-style-type: none"> ✓ Loosing footing and falling to ground ✓ Smooth angle iron surfaces that can be slippery 	✓ Personal injuries from elevated equipment		should be conducted on regular basis
Grinder	✓ The use of Grinder	<ul style="list-style-type: none"> ✓ Suspended loads ✓ Open flames ✓ Small chips on the floor 	✓ Injuries	H	<ul style="list-style-type: none"> ✓ Employees should be provided with the right PPE to protect themselves from cutting themselves. ✓ Area must be cleared after a task. ✓ Only the right competent personnel to operate the grinder.
Clean site and remove Rubble	✓ Waste Disposal	✓ Injuries or property damaged	✓ Injuries	H	<ul style="list-style-type: none"> ✓ A proper waste disposal system should be in place ✓ Waste should be removed daily and placed in the correct waste disposal system
	✓ Poor house keeping	✓ Trip and fall	✓ Injuries	H	✓ Good housekeeping to be maintained
General activities in and around site	✓ Protection of public	✓ Injury to member of public from site works	✓ Injuries	M	✓ Barriers and signage to be in place.

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.)	Major (Operations severely damaged. E.g., damages equal to R1m)	Catastrophic (business survival is at risk. Damage equal to R5m – 10m)

			E.g., damage equal to R500k		
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