

17 Harrison Street
Marshalltown

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INITIATING DEPARTMENT: Thabiso
INITIATOR: Thabiso
COLLECTIVE NO:

QUOTATION REFERENCE: JW441NM 2019
QUOTATION REQUESTED FROM: Launder Access Ladder



REQUEST FOR QUOTATION

QUOTATION VALIDITY
80 DAYS


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 BBBEE AND PREFERENTIAL PROCUREMENT. ALL SUPPLIERS RESPONDING TO QUOTATIONS SHOULD BE REGISTERED ON CENTRAL SUPPLIER DATABASE(CSD)

JW CONTACT PERSON : Nompumezo, EMAIL: nompumezo.mramba@water.co.za

TELEPHONE NUMBER: 011...688 1656, FAX : 086 611 8167.....

PAGE NO.	1 of 1
CLOSING DATE AND TIME	14-Oct-19 16:00
Date of Issue	27 September 2019
VALIDITY	70days

ITEM NO.	DESCRIPTION	DESCRIPTION OF ITEM OFFERED	UOM	QTY REQUIRED	PRICE QUOTED EXCL OF VAT	DIS
1	PST and WST Launder Access Ladders Design, fabricate and install PST laundrer access ladder as per specification (see below)			8		
1.1	Access ladders to be installed at Unit 4 PST's with access from bridge	N/A	each	4		
1.2	Access ladders to be installed at Unit 3 PST's with access from bridge	N/A	each	2		
1.3	Access ladders to be installed at Unit 5 PST's with access from bridge	N/A	each	8		
1.4	Access ladders to be installed at WST's with access from bridge	N/A	each	21		
1.5	Chairs ladder access on bridges (see specification below)					
	Ladder specification (see attached drawing for more details):					
	1. Material and dimensions of access ladders					
	Hot-dip galvanized (after fabrication)					
	Final dimensions to be agreed to on site					
	Steering of bolts needed for distributor material					
	2. Ladder rungs must be spaced no more than (as agreed on site)					
	3. Ladder rungs must be round rods/bars - 60mm minimum					
	4. Ladder rungs must go through side rails and welded on both sides					
	5. Ladder side rails must be made out of angle irons (size as agreed on site)					
	Access from bridge specifications (see attached drawing)					
	1. Self-closing gate which opens into the bridge walkway					
	2. Must have padlocking mechanism					
	Delivery and site briefing at Northern Wastewater Treatment Works					
	Site Briefing is compulsory on 08/10/2019 at 8:30 am					
	For More Information Contact:					
	Thabiso, Thabeng 0795754431 or Thapelo Seshiba 0823667188					
	Quotations should be valid for 60 days					
	NB: All suppliers responding to Rfq's should use their own company letter head not JW Rfq Template AND MAKE SURE THEIR EMAIL ADDRESS IS VISIBLE ON THEIR QUOTATION.					
	OFFICIAL STAMP					
	SUPPLIER DETAILS					
	AUTHORISED BY:					
	SIGNATURE:					
	DATE:					
	CONDITIONS					
	1. QUOTATIONS RECEIVED AFTER CLOSE OF BUSINESS ON THE CLOSING DATE WILL NOT BE ACCEPTED.					
	2. QUOTATIONS WITHOUT BRAND NAMES WHERE REQUIRED WILL NOT BE ACCEPTED					
	3. PRICES QUOTED MUST BE AS PER THE UNIT INDICATED AND BE EXCLUDED OF VAT					
	4. QUOTATIONS WITHOUT THE SUPPLIER'S AUTHORIZED SIGNATURE WILL NOT BE ACCEPTED.					
	5. ACCEPTANCE OF A QUOTATION WILL BE SUBJECT TO JOHANNESBURG WATER'S SUPPLY ORIGIN POLICY					

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1. SCOPE OF WORK:

Design, fabricate and install PST launder access ladder

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:

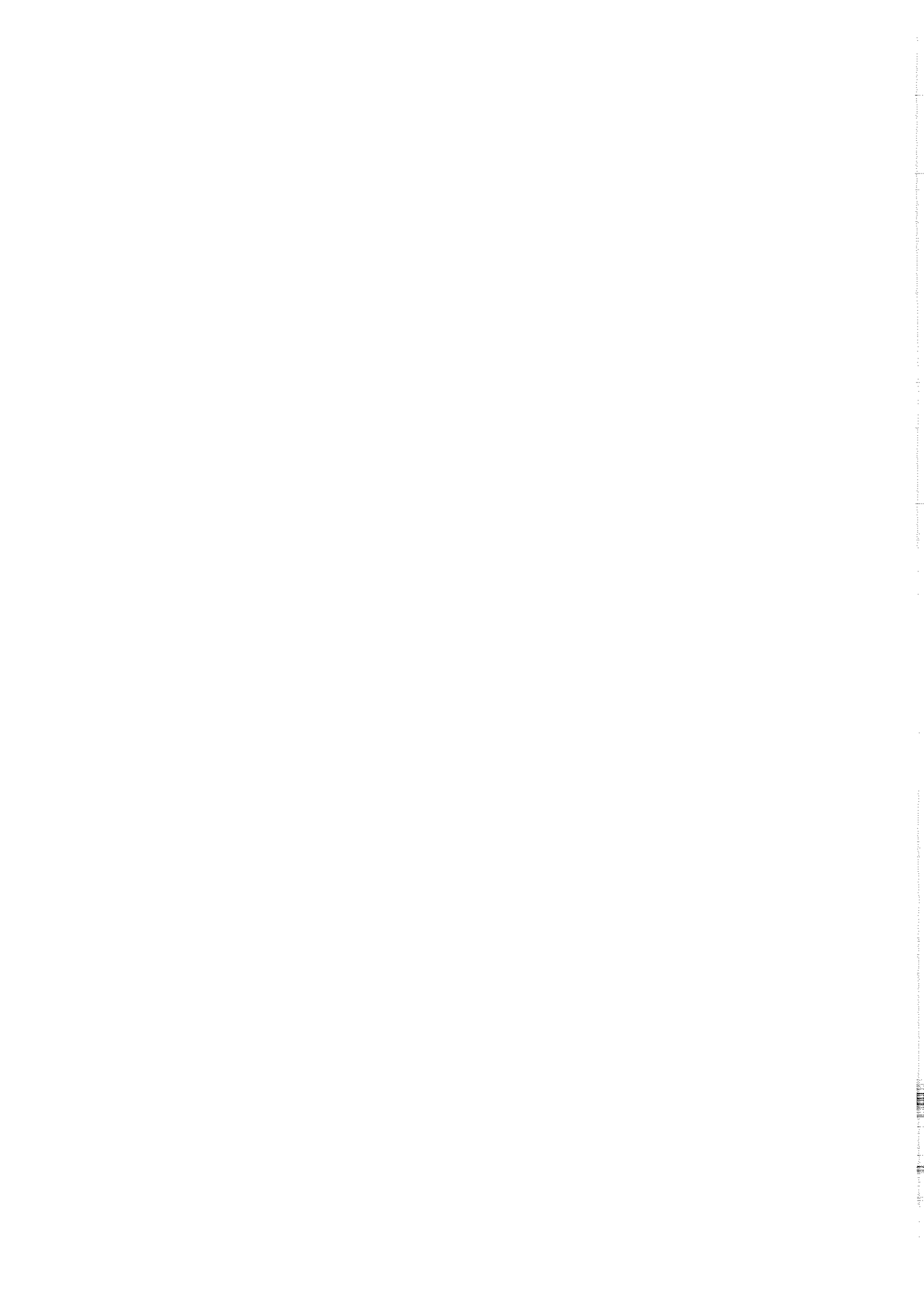
- Working at heights
- Welding

11. 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 compiled with by the contractor at all times.
- 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.

12. 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.





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- 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

13. 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.

14. 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

15. 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.

20. WELFARE FACILITIES
 The provision of toilets for each sex is required in terms of the National Building Regulations and Construction Regulation 28. Chemical toilets are allowed instead of the water borne sewerage type. Toilets have to be provided at a ratio of 1 toilet per 30 workers. The Principal Contractor shall provide flushing toilets on the construction premises.

19. ACCOMMODATION ON SITE
 No employees shall be accommodated on site.

The Principal Contractor is responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from the construction work as well as the precautionary measures to be observed to avoid or minimise those dangers. This includes:

- Non-employees entering the site for whatever reason;
- The surrounding community; and
- Passers-by the site.

The Principal Contractor shall organize the site in such a manner that pedestrians and vehicles can move safely and without risks to health, including sufficient and suitable traffic routes and safe walkways with relevant signage.

18. PUBLIC HEALTH AND SAFETY


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


17. NOTIFICATION OF CONSTRUCTION WORK

- 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.

16. INCIDENT REPORTING AND INVESTIGATION

- All signs must comply to SANS/SABS requirements.
- Contractors shall use mandatory and prescribed symbolic safety signs at their lay down and site areas.

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- At least cold-water showers for each sex have to be provided at a ratio of 1 shower per 15 workers.
- Some form of screened off changing facility must be provided separately for each sex.
- Some form of eating facility sheltered from the sun, wind and rain must be provided.

The employer needs to provide his employees with the following:


- Potable water for drinking;
- Water and soap for hand washing
- Toilet paper

21. HAND TOOLS

- The Principal Contractor must inspect all hand tools before it is brought onto the site.
- As far as possible all hand tools must be numbered and placed on register to be inspected monthly by a person designated to do so.
 - Any tools found to be in an unsafe condition must immediately be removed from service and either discarded or rectified.
 - No chisels with "mushroomed" heads must be used.
 - No hammer shall be used with a cracked or damaged handle.
 - All files must be fitted with handles.
 - All trolleys, pushcarts, etc. used on site must be identifiable, placed on register and inspected at least once every month.
 - Non-sparking tools must be used in areas where the risk of fire or explosion is present.
 - No homemade hand tools are allowed on the project.
 - All tools shall be attached to a suitable lanyard when utilised in elevated positions

22. EMERGENCY MANAGEMENT

- The Principal Contractor must appoint a competent person to act as emergency controller and/or coordinator.
- The Principal Contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop.
- He must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that Johannesburg Water SOC Ltd may have in place.
- In the event where a contractor incorporates the services of a 3rd party service provider for the provision of Emergency Response Services, the following criteria must be met:
 - Identification of 3rd party emergency response services (organization & contact details);

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- Notification of contractor to 3rd party emergency response service of incorporation of services into contractor's emergency response plan (written agreement / signed letter).
- The Principal Contractor and the other contractors must hold regular practice drills of contingency plans and emergency procedures to test them and familiarise employees with them.


First-aid


- The Principal Contractor must provide first-aid equipment (including a stretcher) and have qualified first-aiders(s) on site as required by General Safety Regulations promulgated in terms of the Occupational Health and Safety Act (Act no. 85 of 1993).
- The contingency plan of the Principal Contractor must include arrangements for the speedy and timely transporting of injured and/or ill person(s) to a medical facility or of getting emergency medical aid to person(s) who may require it.
- The Principal Contractor must have written arrangements in place with his other contractors regarding the responsibility of the other contractors towards their own injured and/or ill employees.

23. HAZARDOUS CHEMICAL SUBSTANCES

- The Principal Contractor must ensure that:
- Employees receive the necessary information and training to be able to use and store hazardous chemical substances safely;
 - Employees obey lawful instructions regarding:
 - The wearing and use of protective equipment
 - The use and storage of hazardous chemical substances
 - The prevention of the release of hazardous chemical substances
 - The wearing of exposure monitoring and measuring equipment
 - The cleaning up and disposal of materials containing hazardous chemical substances
 - Housekeeping, personal hygiene and the protection of the environment
 - The risk assessments required in terms of Construction Regulation include employee exposure to hazardous chemical substances and that the necessary measures be taken to protect persons from being detrimentally affected by hazardous chemical substances present or used in the workplace;
 - Suppliers provide the necessary information in the form of a material safety data sheet regarding a hazardous chemical substances required to ensure the safe use and storage of that substances;

- An up-to-date list is kept on site of hazardous chemical substances stored and used together with the material safety data sheet of the hazardous chemical substances;
 - Hazardous chemical substances containers be clearly marked with the contents and main hazardous category e.g. "Flammable" or "Corrosive" and the reference number of the hazardous chemical substances on the list indicated above;
 - Hazardous chemical substances, for example asbestos dust, are not cleared by using compressed air but should be vacuumed;
 - No person eats or drinks in a hazardous chemical substances workplace; and hazardous chemical substances waste is disposed of safely in terms of hazardous waste disposal requirements.
 - MSDS's to be in 16 point format- available on site
- 24. FIRE PREVENTION AND PROTECTION**
- The Principal Contractor must ensure that:
- The risk of fire is avoided;
 - Sufficient and suitable storage for flammables is provided;
 - Sources of ignition are removed wherever flammable or highly combustible material is present in the workplace, for example:
 - Notices prohibiting smoking are displayed and enforced
 - Welding and flame cutting is only allowed under controlled conditions that includes written hot work permits
 - Only spark-free hand and power tools are used
 - No grinding, cutting and shaping of ferrous metals is allowed using electrically driven power tools that produce sparks
 - Flameproof switches and fittings are to be used in the flammable atmosphere
 - Good housekeeping is maintained to prevent the accumulation of unnecessary combustibles
 - Adequate ventilation is maintained
 - Adequate and suitable fixed and portable fire fighting equipment is provided and maintained in good working order.
 - Maintenance must include:
 - Regular inspection of fire equipment by a competent person appointed in writing and keeping a register
 - Annual inspection and service by an accredited service provider
 - All employees are instructed in the use of the fire fighting equipment and know how to attempt to extinguish a fire;

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- A sufficient number of employees are appointed and trained to act as an emergency team to deal with fires and other emergencies;
- Employees are informed regarding emergency evacuation procedures and escape routes;
- Emergency escape routes are kept clear at all times and clearly marked;
- Evacuation assembly points are demarcated;
- Evacuation is practiced to ensure that all persons are evacuated simultaneously;
- Roll call is held after evacuation to account for all personnel and ensure that no-one has been left behind; and
- A siren or alarm is fitted which is clearly audible to all persons on site.

25. COMPLIANCE MONITORING

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

26. 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: Design, fabricate and install PST launder access ladder
 Depot / Site / Department: Northern WWTW
 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 type="checkbox"/>	No	<input checked="" 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

Construction Supervisor						
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"/>
Safety Officer						
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"/>

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
NAME	DESIGNATION	DATE	SIGNATURE

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



Johannesburg Water

PROJECT NUMBER:	RFQ
PROJECT LOCATION:	Northern Wastewater Treatment Works
PROJECT DESCOR:	Design, fabricate and install PST launder access ladder

POSSIBLE RISKS FOR THIS PROJECT

Task	Hazard	Risk	Consequence	Rating	Controls
Working on site	✓ Sludge	✓ Contact with the sludge	✓ Faecal oral diseases	M	✓ Employees on the ground must be vaccinated
	✓ Wastewater	✓ Accidental ingestion			✓ Employees must be provided with the PPE and must be kept clean always
					✓ Good hygiene must be practiced always
	✓ Sunlight	✓ Burns	✓ Injuries	M	✓ Provide the employees with the sun hats and then sunscreen.
	✓ Rain	✓ Exposure to the sun visibility	✓ Skin cancer ✓ Dehydration		✓ Provide the employees with the water to drink
					✓ Provide employees with enough rest period for every 1hour
					✓ Provide shelter for rainy periods
					✓ No work to be conducted in the rain.
	✓ Slips and strips	✓ Fall	✓ Injuries	L	✓ Housekeeping should be maintained always.
	✓ Use of hand tools	✓ Potential risk associated with use of hand tools. ✓ Cuts, laceration, or contusions from	✓ Injuries	L	✓ All tools must be visually inspected before use. Operatives must take responsibility to keep tools in

		contact with point of operation or flying material.			good condition and report any defects. Faulty tools must be replaced. ✓ Use tools only according to manufacturer's instructions, and only right tool for the job must be used.
Installation of the launder access ladder	✓ Confined space	✓ No proper access point ✓ Slippery stairs ✓ No fall arrest system	✓ Serious injuries ✓ fatality	M	✓ Ensure proper access into the working platform ✓ Ladders are kept well and not slipping ✓ Employees must be provided with the fall arrest and life saver protection. ✓ All employees must be provided with the life saver/fall arrest. ✓ Employees must be under the supervision of the supervisor at all times on site.
	✓ Untrained staff	✓ Falling inside the deep effluent water tank ✓ Incorrect use of the materials	✓ Injuries ✓ drowning		✓ all employees must be well trained and experienced for the task to be performed on site
	✓ Working at height	✓ Falling	✓ Fatality ✓ Injuries ✓ Property damages	M	✓ fall protection plan must be in place and implemented ✓ employees must be provided with the safety harness
	✓ Wastewater	✓ Drowning	✓ Fatality	M	✓ Employees must be provided with the fall arrest PPE and the life saver ppe
Electricity	✓ Live current	✓ Contact with electricity	✓ Fatality ✓ Property damages	M	✓ Before any activity starts on site all the electrical appliances must be off

	<ul style="list-style-type: none"> ✓ Use of faulty cables ✓ Electrical safety 	<ul style="list-style-type: none"> ✓ Fire ignition ✓ Electrical shock or burns ✓ Damaged portable electrical appliances, cables, plugs 	<ul style="list-style-type: none"> ✓ Burns/ damages ✓ Injuries ✓ Properties damage 	M	<ul style="list-style-type: none"> ✓ Visual inspection of cable before use ✓ 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
Drill	<ul style="list-style-type: none"> ✓ Use of Drill 	<ul style="list-style-type: none"> ✓ Not following the procedure 	<ul style="list-style-type: none"> ✓ Injuries and property damage 	M	<ul style="list-style-type: none"> ✓ Only the right competent personnel to perform the task
Water tank	<ul style="list-style-type: none"> ✓ Deep water tank 	<ul style="list-style-type: none"> ✓ Not following the right procedures and supervision 	<ul style="list-style-type: none"> ✓ Fatality 	H	<ul style="list-style-type: none"> ✓ All the employees must be provided with the safety arresits and the life saver PPE ✓ Employees must be under supervision at all times
Drilling and fitting	<ul style="list-style-type: none"> ✓ Drilling sharp metal fibers ✓ Drill usage ✓ High level of noise 	<ul style="list-style-type: none"> ✓ Eye penetration ✓ Cuts ✓ Vibrations 	<ul style="list-style-type: none"> ✓ Injuries ✓ Damaged hearing 	M	<ul style="list-style-type: none"> ✓ Works foreman to issue appropriate PPE for the task (Safety goggles and gloves)
	<ul style="list-style-type: none"> ✓ Work Temperature 	<ul style="list-style-type: none"> ✓ Employees working on high or low temperature 	<ul style="list-style-type: none"> ✓ Ill health 	L	<ul style="list-style-type: none"> ✓ Monitor for Heat / Cold stress ✓ Provide fluids to prevent worker dehydration. ✓ Establish work/rest schedule
	<ul style="list-style-type: none"> ✓ Flying debris 	<ul style="list-style-type: none"> ✓ Eye penetration 	<ul style="list-style-type: none"> ✓ Eye injuries/ blindness 	L	<ul style="list-style-type: none"> ✓ Safety goggles shall be worn by employees when cutting steel
	<ul style="list-style-type: none"> ✓ High Noise Levels 	<ul style="list-style-type: none"> ✓ Expose to high noise level area 	<ul style="list-style-type: none"> ✓ Damaged hearing 	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) ✓ Rotate the employees

					exposed to excessive noise levels.
Welding	✓ Fumes	✓ Inhalation	✓ Respiratory problems	M	✓ Wear respiratory protection
	✓ Sparks	✓ Contact with skin	✓ Skin burns	L	✓ Personal Protective Equipment to include face, eye and skin protection
	✓ Sparks	✓ Fire	✓ Damage to property ✓ Fatalities	H	✓ Provide fire extinguisher ✓ Provide screens ✓ Remove all sources of combustion and hazardous chemicals from welding area
	✓ Welding arc	✓ Starting welding arc	✓ Eye irritation	L	✓ Safety goggles to be worn

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