



CONTRACT NO: RLM/RWST/OMM/0103/2024/25

RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

**VOLUME 1A: GENERAL CLAUSES, CONTRACT DATA & SCOPE OF WORKS** 

	JULY 2025
NAME OF BIDDER:	
BID PRICE:	(VAT Incl.)
	(VAI IIIOII)

Prepared by:

RUSTENBURG WATER SERVICES TRUST
1A KOCK STREET
RUSTENBURG
0300

BID CLOSING: 28 August 2025 at 10:00





PARTICULAR NAME OF THE BIDDING OR TENDERING COMPANY	RS OF THE BIDDER
NAME OF THE BIDDING OR TENDERING COMPANY	
POSTAL ADDRESS	
TOSTAL ADDINESS	
	POSTAL CODE
STREET ADDRESS	
(PHYICAL ADDRESS)	
	POSTAL CODE
NAME OF COMPANY REPRESENTATIVE	
E-MAIL ADDRESS	
L-IVIAIL ADDINESS	
TELEPHONE NUMBER (TELKOM LINE)	
CIDB CRS NUMBER	
CELLPHONE NUMBER	
ALTERNATE CELLPHONE NO.	
ALTERNATE OLLE HONE NO.	
CENTRAL SUPPLIER DATABASE NUMBER OF THE	
BIDDING COMPANY	
	2

Employer

Witness 1

Witness 2

Contractor

Witness 1

Witness 2





## CONTRACT NO: RLM/RWST/OMM/0103/2024/25 - RE-ADVERT:

# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS INDEX/TABLE OF CONTENTS

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Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2





## **BID PROCESS CRITERIA LIST**

# RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS

Tender Part T1: Tendering Pr	ocedures	T1.1	-1	T1.1 Tender Notice and Invitation to Tender			
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2		





# TENDERING PROCEDURES: DOCUMENT COMPLETION INSTRUCTION AND RETURNABLE SCHEDULE

A bid not complying with the requirements stated hereunder will be regarded as an "Unacceptable bid", and as such will be rejected.

"Unacceptable bid" means any bid which, in all respects, does not comply with the conditions of bid and specifications as set out in the bid documents, including conditions as specified in the Preferential Procurement Policy Framework Act (Act 5 of 2000) and related legislation as published in Government Gazette number 22549, dated 10 August 2001, in terms of which provision is made for this policy.

### Important information to note:

- 1. Bidders should not remove any page from the bid document or submit a copy of the original bid document.
- 2. The bid document should not be completed using a pencil or any other colour ink. Only black ink must be used to complete the bid document. Only tick the appropriate option. Please be informed that whether you scratch out, tick or circle, your answer will be where the pen ink is reflecting.
- 3. The bid should be properly signed by the designated signatory contained in the tender document.
- 4. The bidder should not attempt to influence the evaluation and/or awarding of the contract.
- 5. The bid should not be submitted after the relevant closing date and time.
- 6. Failure to complete and sign and / or disclose wrong information in any of the declaration forms will result in an unacceptable bid.
- Compulsory questionnaires must be fully completed and signed.
   NB! In the case of Joint Venture separate compulsory questionnaire forms must be completed and submitted.
- 8. The bidder must in the case of Joint Venture submit separate MBD 5 forms for each partner.
- 9. In the case of multi directors or joint venture, the bidder must submit separate MBD 4 declaration forms for each director.
- 10. Bid documents must be in envelopes that are clearly marked with the bid number and description.
- 11. Bidders are not allowed to use correction pens. In a case where a wrong answer is ticked, a straight line must be made across the wrong answer, then initial next to the mistake and a correct answer must be ticked or provided in writing.
- 12. Bidders must be registered with the Central Supplier Database (CSD)
- 13. The bidder must attach the following documents:
  - A valid proof of payment with the relevant reference number as stipulated in the tender advertisement.
  - Required CIDB Grading Certificate where applicable.

Tender Part T1: Tendering Pro	ocedures	T1.1-	-2	T1.1 Tender Notice and Invitation to Tender			
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#### UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

- The authority of signatory (printed on bidder's letter head) if the tender is a CIDB related project.
- A copy of a valid signed Joint Venture/Consortium agreement (if applicable) to the bid document.
- Municipal rates and taxes statements of the directors:
  - ✓ Current municipal rates and taxes statement in the names of the director (from the previous month determined by the date of tender closure) for each directors' address must be attached; or
  - ✓ Valid lease agreement of the director/s with all critical contractual obligations (i.e Lease period, use of premises, lessors' responsibilities, leases' possibilities, amounts related to the lease, address of the leased premises, signatures etc) or,
  - ✓ An original letter from tribal authority not older than three (3) months if the director/s are residing in a tribal land, or
  - ✓ If the rates and taxes account is not in the names of the director/s the attached municipal rates and taxes statement must be submitted together with an original affidavit from the property owner whose names are appearing on the municipal rates and taxes statement to confirm that the director resides in their property.
- Municipal rates and taxes statements of the company:
  - Current municipal rates and taxes statement in the name of the company (from the previous month determined by the date of tender closure) for the company's' address must be attached; or
  - ✓ Valid lease agreement of the company (showing all critical contractual obligations (i.e Lease period, use of premises, lessors' responsibilities, leases' possibilities, amounts related to the lease, address of the leased premises, signatures etc), or
  - ✓ An original letter from a tribal authority not older than three (3) months if the company is operating from a tribal, or
  - ✓ If the rates and taxes account is not in the names of the company, the attached municipal rates taxes statement must be submitted together with an original affidavit from the property owner whose names are reflecting on the municipal rates and taxes statement to confirm that the company operates from their property.
  - ✓ The company address written on the tender document and statement submitted must be the same as the one
    reflected on the CSD report.
  - ✓ For procurement expected to be less than 10 million, awards will not be made to bidders owing municipal rates and taxes for over 90 days at the time of tender closure.
  - ✓ For procurement expected to be more than 10 million, awards will not be made to bidders owing municipal rates and taxes for over 30 days at the time of tender closure.
- 14. The bidder must comply with the following:
- Bidders must submit both a hard copy document and an electronic tender document in the form of a USB (only) which must be
  clearly marked with the company name. (Bidders will be disqualified for not submitting a USB containing the scanned bidding
  documentation)
- 15. Verification of Documents and Information:
  - Please note that by submitting this tender document, you are agreeing to the verification process of your supporting documents by the Rustenburg Water Services Trust and the Rustenburg Local Municipality.

Tender Part T1: Tendering Pro	ocedures	T1.	1-3	T1.1 Tender Notice and Invitation to Tender			
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2		





## CONTRACT NO: RLM/RWST/OMM/0103/2024/25 - RE-ADVERT:

## UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

- ✓ Tax compliance status will be verified using CSD number. (For a bidder to be considered for final award, their status must reflect "tax compliance" before final award is made)
- ✓ CIDB Grading will be verified.
- ✓ Sworn Affidavits will be accepted only if its originals submitted.

Tender Part T1: Tendering Pro	ocedures	T1.1-	4	T1.1 Tender Notice and Invitation to Tender			
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2		





## **BID NOTICE**

# RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS

Tender Part T1: Tendering Pro	cedures	T1.1-	5	T1.1 Tender Notice and Invitation to Tender			
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2		





#### **TENDER ADVERTISEMENT**

BID NUMBER: RLM/RWST/OMM/0103/2024/25

COMPULSORY BRIEFING SESSION: 29 July 2025 at 10:00 Virtually on Microsoft Teams

CLOSING DATE: 28 AUGUST 2025 AT 10H00

DESCRIPTION	DOC. FEES (NON-	EVALUATION	ENQUIRIES
Re-advert: Appointment of a contractor for the upgrading and extension of Bospoort water treatment works mechanical and electrical works	DOC. FEES (NON-REFUNDABLE)  TENDER DOCUMENT AMOUNT R5 000.00  REFERENCE NUMBER: 0103+Company name  BANK NAME Standard Bank  ACCOUNT NUMBER: 033 054 657  Bidders who previously bought the tender document must attach their previous Proof of Payment. Payment will be verified	EVALUATION CRITERION  Administrative evaluation (document completion and attachment of mandatory documents) to include all necessary certifications.  CIDB Grading of 9ME or higher Functionality minimum qualifying score of 70 out of maximum of 100 points  90/10 preferential point system (price = 90 & Specific goals = 10)  NB! That no other evaluation criterion should be used	TECHNICAL Mrs H van der Merwe 012 842 8700 hayley.vandermerwe@bigengroup.com And Mr. M. Lekukela Mpho.lekukela@rwst.co.za  SCM Mr. J. Masinga 014 590 3123 jmasinga@rustenburg.gov.za

- Bid documents must be in a sealed packaging clearly marked with the bid number and description, must be
  placed in the bid box in the foyer of the Municipal offices, Missionary Mpheni House, Beyers Naude Drive,
  Rustenburg not later than the prescribed closing date, where after the bids will be opened in public at the
  Municipal offices.
- 2. All bids will be evaluated in accordance with the Supply Chain Policy of the Rustenburg Local Municipality, PPPFA 2022 and other related legislations. Bids will remain valid for 90 days.
- 3. The lowest or any bid will not be necessarily accepted, and the municipality reserves the right to accept the whole or part of any bid. The municipality reserves the right to increase or decrease quantities as indicated in the technical specifications. A market analysis conducted will be taken into consideration to ensure right procurement and quality service delivery.

Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2





## CONTRACT NO: RLM/RWST/OMM/0103/2024/25 – RE-ADVERT:

## UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

- 4. Tender submission must comply with the instruction note (Tender Completion and Attachment of Mandatory Documents) as well as all other additional tendering conditions and requirements stated in the tender document.
- 5. No bids will be considered from any person(s) in the service of the state (as defined in Regulation 1 of Local Government: Municipal Supply Chain Management Regulations).
- 6. Objections or complaints must be submitted in writing to the CEO of the Rustenburg Water Services Trust and the Municipal Manager at the address stated, and must contain the following:
  - (a) reasons and/or grounds for the objection or complaint.
  - (b) the way in which the objector or complainant's rights have been affected; and
  - (c) the remedy sought by the objector or complainant.
- 7. Any objection or complaint must reach the CEO of the Rustenburg Water Services Trust and the Municipal Manager within a 14-day period after award has been made. Late objections or complaints will not be entertained.
- 8. Submissions which fail to adhere to all the requirements and instructions stated on this advert, E-tender advert, CIDB Website for CIDB tenders as well as the tender document will lead to disqualification.
- 9. Only the version of this notice and invitation contained in the tender document shall form part of the tender. Tenders may only be submitted on the tender documentation that is issued.

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	Employer	Witness 1		Witness 2		Contractor		Witness 1	Witness 2





## **SPECIFICATIONS**

Refer to Part C3 – Scope of Work

RLM/RWST/OMM/0103/2024/25 - RE-ADVERT:
APPOINTMENT OF A CONTRACTOR FOR THE
UPGRADING AND EXTENSION OF BOSPOORT
WATER TREATMENT WORKS
MECHANICAL AND ELECTRICAL WORKS

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	Employer	Witness 1	Witness 2	Contractor	Witness 1		Witness 2





## **FUNCTIONALITY**

# RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS

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	Employer	Witness 1		Witness 2	Contractor	Witness 1	Witness 2





	Bid Evaluation Committee reserves the right to verify all the informations: non-submission = 0, 1= Poor, 3 = Good, 5 = Excellent	n provided.					
- 2	CRITERIA	WEIGHT	VALUE	SCORE	VERIFICATION METHOD		
1.	Company Experience – General						
proje instal a min bidde appo	Contractor has successfully completed similar and comparative cts, i.e., mechanical and electrical, comprising of civil works (supply, I, test and commission) at wastewater or water treatment plants with imum value of R 50 million per contract excluding VAT. Should the or be appointed through subcontracting, the main contractor's intment, completion certificate and appointment letter of the subacting and completion certificate should be attached	30		Attach appointment and completion certificates per project. should be attached			
	6 and above appointment and completion certificates (Value= 5)						
	4-5 appointment and completion certificates (Value = 3)						
	2-3 appointment and completion certificates (Value = 1)						
	1 appointment and completion certificates (Value = 0)						
	Previous Experience of Contractor - Ozone Systems						
Partn treatr subce and a	Contractor, Contractor's Subcontractor, or the Contractor's JV er has completed the installation of ozone systems with a minimum nent capacity of 10 Me/d. Should the bidder be appointed through ontracting, the main contractor's appointment, completion certificate appointment letter of the sub-contracting and completion certificate d be attached	15		Attach, per project, appointment and completion certificates including a signed reference letter confirming that the bidder completed a similar project if the main appointment and completion certificates do not specifically reference Ozone			
	3 and above appointment and completion certificates (including signed reference letters where applicable) (Value = 5)			Systems.			
	2 appointment and completion certificates (including signed						
	reference letters where applicable) (Value = 3)						
	1 appointment and completion certificate (including a signed reference letter where applicable)  (Value = 1)						
	No appointment and completion certificates (including a signed reference letter where applicable) (Value = 0)						
	Previous Experience of Contractor – Dissolved Air Flotation (DAF)						
comp capac subce and a	Contractor, Contractor's Subcontractor, or the JV Partner has letted the installation of a DAF plant with a minimum treatment city of 10 Me/d. Should the bidder be appointed through contracting, the main contractor's appointment, completion certificate appointment letter of the sub-contracting and completion certificate d be attached	15		Attach, per project, appointment and completion certificates including a signed reference letter confirming that the bidder completed a similar project if the main appointment and completion certificates do not specifically reference Ozone Systems.			
	3 and above appointment and completion certificates (including signed reference letters where applicable) (Value = 5)						
	2 appointment and completion certificates (including signed reference letters where applicable) (Value = 3)						
	1 appointment and completion certificate (including a signed						
	reference letter where applicable) (Value = 1)  No appointment and completion certificates (including a signed						
	reference letter where applicable) (Value = 0)						
4.	Experience of Key Staff						
	10						





4.1	A mi	racts Manager Experience inimum qualification of NQF level 6 (Diploma or Advanced ficate) in Civil or Mechanical Engineering	10		clear expension works (suppose commission)	omprehensive rience in mech oply, install, teo on) at a water a r treatment	anical st and	
		12 Years and above experience (Value = 5)						
		9 – 11 Years experience (Value = 3)						
		5 – 8 Years experience (Value = 1)						
		1 – 4 Years experience (Value = 0)						
4.2	A mi Certif SACF	d Design Engineer Experience (Mechanical) nimum qualification of NQF level 6 (Diploma or Advanced ficate) in Mechanical Engineering and registered with PCMP (Pr CPM / PR CM) or Professional registration with ECSA ng/ Pr Tech Eng)	10		Attach a comprehensive CV with clear experience in electrical, electronic and instrumentation works (supply, install, test and commission) at a water and/or wastewater treatment			
		12 Years and above experience (Value = 5)						
		9 – 11 Years experience (Value = 3)						
		5 – 8 Years experience (Value = 1)						
		1 – 4 Years experience (Value = 0)						
4.3	A mi	Design Engineer Experience (Electrical) nimum qualification of NQF level 6 (Diploma or Advanced ficate) in Electrical Engineering	10		Attach a comprehensive CV with clear experience in mechanical works (supply, install, test and commission) at a water and/or wastewater treatment			
		12 Years and above experience (Value = 5)						
		9 – 11 Years experience (Value = 3)						
		5 – 8 Years experience (Value = 1)						
		1 – 4 Years experience (Value = 0)						
• Mi	nimur	struction Health and Safety Officer (CHSO) Experience.  n qualification of NQF level 6 in Safety Management and hal registration with OHS SACPCMP	10		Attach a clear expe	comprehensi rience.	ve CV with	
	<u> </u>	12 Years and above experience (Value = 5)						
		9 – 11 Years' experience (Value = 3)						
		5 – 8 Years experience (Value = 1)						
TOT	ΔΙ	1 – 4 Years experience (Value = 0)	100					
F V F S N A	Ps = [ <u>S</u> M Where: Ps = pe Fo = to Ms = m Ap = pe Total p			= 500 e minimum	qualifying scc	ore for functiona	lity of 70	
_							<del></del>	
	E	Employer Witness 1 Witness 2	Cont	ractor	Witness	1 \	Witness 2	





## **AUTHORITY OF SIGNATORY**

# RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS

Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2





## T2.2.13: Authority of Signatory

With reference to Clause 2.13.4 of the Tender Data, I/we herewith certify that this tender is submitted by: (Mark applicable block)
a company, and attach hereto a certified copy of the required resolution of the Board of Directors
a partnership, and attach hereto a certified copy of the required resolution by all partners
a close corporation, and attach hereto a certified copy of the required resolution of the Board of Officials
a one-man business, and attach hereto certified proof that I am the sole owner of the business submitting this tender
a joint venture, and attach hereto
<ul> <li>an notarially certified copy of the original document under which the joint venture was constituted; and</li> <li>certified authorisation by the participating members of the undersigned to submit tenders and conclude contracts on behalf of the joint venture</li> </ul>
SIGNED ON BEHALF OF TENDERER:
PLEASE NOTE:
Failure to complete all blank spaced on this form or attend to other details mentioned therein will render the Bid liable to rejection.
The signatory shall confirm his/her authority thereto by attaching on the tendering company's letterhead a duly signed and dated copy of the relevant resolution of the boar of directors / partners.
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Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2





## MBD<sub>1</sub>

# RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS

,	Employer	Witness 1	_	Witness 2	J.	Contractor	Witness 1	Witness 2





MBD 1

# PART A INVITATION TO BID

YOU ARE HERE	BY INVITED	TO BID FOR REC	UIRE	MENTS OF THE RUS	SIENE	BURG	G LOC	AL MUNICIPA	ALIIY		
BID NUMBER:	RLM/RWS	ST/OMM/0103/2024	4/25	CLOSING DATE:	28	AUG	UST 2	025	CLOSING TIME:	i	10h00
DESCRIPTION											
				FILL IN AND SIGN		ITTE	N CON	NTRACT FOR	RM (MBD7).		
SITUATED AT:	DOCUMEN	NIS MAY BE DE	=POSI	TED IN THE BID I	BOX						
RUSTENBURG L	OCAL MUN	IICIPALITY									
MISSIONARY ME	PHENI HOUS	SE									
CNR BEYERS NA	AUDE AND	NELSON MANDE	LA DR	RIVE, RUSTENBURG							
SUPPLIER INFOR	RMATION		I								
NAME OF BIDDE	R										
POSTAL ADDRE	SS										
STREET ADDRE	SS							ı			
TELEPHONE NU	MBER		COE	E				NUMBER			
CELLPHONE NU	MBER				1						
FACSIMILE NUM	BER		COE	DE				NUMBER			
E-MAIL ADDRES	S										
VAT REGISTRAT	ION NUMB	ER				-					
TAX COMPLIANO	CE STATUS	<u> </u>	TCS	PIN:			OR	CSD No:			
						Ī					Yes No
ARE YOU THE A	CCREDITEI	n					ΔDE	YOU A FORI	FIGN RASE	ח	
REPRESENTATI			□Y	es	No	SUPPLIER FOR THE GOODS [IF YES,			[IF YES,		
THE GOODS/SE	RVICES/W	ORKS	LIE A	ES ENCLOSE PRO	)EI	/SERVICES /WORKS OFFERED?   ANSWER PART B:3'			ANSWER		
OFFERED?			Į., ,	LO ENOLOGE I NO	, j						TAKT D.OJ
TOTAL NUMBER	OF ITEMS	OFFERED				TOTAL BID PRICE R			R		
SIGNATURE OF	BIDDER					DATE					
		THIS BID IS SIGNE	D								
BIDDING PROCEDURE ENQUIRIES MAY BE I			DIREC	TED TO:					NATION MAY BE DIRECTED T		IRECTED TO:
CONTACT PERSON			J Ma	isinga		PE	NTAC RSON		Hayley van der Merwe		Merwe
TELEPHONE NUMBER			014 590 3123			TELEPHONE NUMBER			012 842 8700		
				15							
Empl	oyer	Witness 1	L	Witness 2		Conf	tractor	Witn	ess 1		Vitness 2
•											





E-MAIL ADDRESS	jmasinga@rustenburg.gov.za	E-MAIL ADDRESS	hayley.vandermerwe@bigengroup.com	

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Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2





## CONTRACT NO: RLM/RWST/OMM/0103/2024/25 - RE-ADVERT:

# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

### **PART B**

## TERMS AND CONDITIONS FOR BIDDING

1.	BID SUBMISSION:
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED, COMPLETED WITH A BLACK PEN
	THIS BID IS SUBJECT TO THE RLM SUPPLY CHAIN MANAGEMENT POLICY, PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
	TAX COMPLIANCE REQUIREMENTS
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
2.4	FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
2.5	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.6	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
	QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS: (BIDDER MAY NOT BE DISQUALIFIED ON THIS PART IF INDICATED THAT THEY ARE NOT FOREIGN BASED SUPPLIER)
3.1.	IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO
IF TH	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?  E ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM ODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.
	E: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.
NC	DIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.
SI	GNATURE OF BIDDER:
CA	PACITY UNDER WHICH THIS BID IS SIGNED:
DA	TE:
	17
Γ	
<u></u>	Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2

#### PART A MBD 3.1

## PRICING SCHEDULE – FIRM PRICES (PURCHASES)

NOTE:

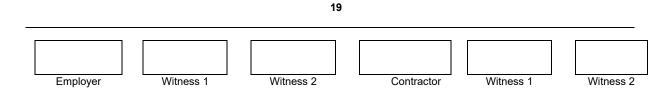
ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name o		umber
Closing	Time	Closing date
OFFER	TO BE VALID FOR 90 DAYS FROM THE CLOS	SING DATE OF BID.
ITEM NO.	QUANTITY DESCRIPTION	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
-	Required by: At:	
-	Brand and model  Country of origin	
-	Does the offer comply with the specification(s)	? *YES/NO
-	If not to specification, indicate deviation(s)  Period required for delivery	*Delivery: Firm/not firm
- Note:	Delivery basis  All delivery costs must be included in the bid p	rice, for delivery at the prescribed destination.
	pplicable taxes" includes value- added tax, pay a tions and skills development levies.	as you earn, income tax, unemployment insurance fund
		18
	mployer Witness 1 Witnes	ss 2 Contractor Witness 1 Witness 2

# MBD 4 DECLARATION OF INTEREST (IN CASE OF MULTI DIRECTORS OR JOINT VENTURE, BIDDERS MUST SUBMIT SEPARATE MBD 4 DECLARATION FORMS FOR EACH DIRECTOR)

RLM/RWST/OMM/0103/2024/25 — RE-ADVERT: UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS



### **MBD 4: DECLARATION OF INTEREST**

No bid will be accepted from persons in the service of the state.

- 1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-
  - the bidder is employed by the state; and/or
  - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.
- 2. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

2.1. Full Name of bidder or his or her representative:
2.2. Identity Number:
2.3. Position occupied in the Company (director, trustee, hareholder²):
2.4. Company Registration Number:
2.5. Tax Reference Number:
2.6. VAT Registration Number
2.7. Personal Reference Tax Number.
<ul> <li>2.7.1. The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 3 below.</li> <li>1"State" means – <ul> <li>(a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);</li> <li>(b) any municipality or municipal entity;</li> <li>(c) provincial legislature;</li> <li>(d) national Assembly or the national Council of provinces; or</li> <li>(e) Parliament.</li> <li>2"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.</li> </ul> </li> <li>2.8. Are you presently in the service of the state? <ul> <li>(Tick applicable box)</li> </ul> </li> </ul>
YES NO
2.8.1. If yes, furnish particulars
Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2

i'	
(i)	nember of – any municipal council;
(ii)	any provincial legislature; or
(iii)	the national Assembly or the national Council of provinces;
(b) a m	nember of the board of directors of any municipal entity; (c) an official of any municipality or municipal entity
constit	employee of any national or provincial department, national or provincial public entity or utional institution within the meaning of the Public Finance Management Act, 1999 (Act f 1999);
(e) a m	nember of the accounting authority of any national or provincial public entity; or employee of Parliament or a provincial legislature.
	eholder" means a person who owns shares in the company and is actively involved in the gement of the company or business and exercises control over the company.
2.	9. Have you been in the service of the state for the past twelve months?  (Tick applicable box)
	YES NO
2.	9.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars  11. Are you, aware of any relationship (family, friend, other) between any other bidder and an persons  in the service of the state who may be involved with the evaluation and or adjudication of thi bid?  (Tick applicable box)  YES NO  11.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars  11. Are you, aware of any relationship (family, friend, other) between any other bidder and an persons  in the service of the state who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  11.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars  11. Are you, aware of any relationship (family, friend, other) between any other bidder and an persons  in the service of the state who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  11.1. If yes, furnish particulars  12. Are any of the company's directors, trustees, managers, principal shareholders or stakeholder in service of the state?  (Tick applicable box)
2.	Tick applicable box)  YES NO  10.1. If yes, furnish particulars
2.	who may be involved with the evaluation and or adjudication of this bid?  (Tick applicable box)  YES NO  10.1. If yes, furnish particulars  11. Are you, aware of any relationship (family, friend, other) between any other bidder and an persons  in the service of the state who may be involved with the evaluation and or adjudication of thi bid?  (Tick applicable box)  YES NO  11.1. If yes, furnish particulars  12. Are any of the company's directors, trustees, managers, principal shareholders or stakeholder in service of the state?  (Tick applicable box)

YES NO		
2.12.1. If yes, furnish particulars		
	or parent of the company's directory or parent of the company's directory or parent of the state?	ctors trustees, managers, principle
	ave any interest in any other related	nagers, principle shareholders, or d companies or business whether or
2.14.1. If particulars	yes,	furnish
Signature	 Date	
Capacity	Name	of Bidder
	22	

Contractor

Witness 1

Witness 2

Employer

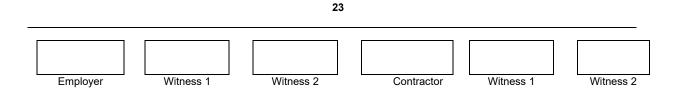
Witness 1

Witness 2

## MBD 5

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

RLM/RWST/OMM/0103/2024/25 — RE-ADVERT: UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS



# MBD 5 DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

1	Are you by law required to prepare annual financial statements for auditing?	*YES NO
1.1	If yes, submit audited annual financial statements for the past three years or sit establishment if established during the past three years.	nce the date of
2	Do you have any outstanding undisputed commitments for municipal services towards an more than three months or any other service provider in respect of which payment is overc 30 days?	lue for more than
		*YES NO
2.1	If no, this serves to certify that the bidder has no undisputed commitments for municipal any municipality for more than three months or other service provider in respect of which pa for more than 30 days.	
2.2	If yes, provide particulars.	
3	Has any contract been awarded to you by an organ of state during the past five years, inc	luding particulars
	of any material non-compliance or dispute concerning the execution of such contract?	*YES NO
3.1	If yes, furnish particulars	
	<b>4.</b> Will any portion of goods or services be sourced from outside the Republic, and, if so payment from the municipality / municipal entity is expected to be transferred out of the	
	24	

Employer

Witness 1

Witness 2

Contractor

Witness 1

Witness 2

		*YES NO	]
4.1	If yes, furnish particulars		
	CERTIFICAT	TION	
I, THE	UNDERSIGNED (FULL NAME)		
	IFY THAT THE INFORMATION FURNISHED ON THIS AND CORRECT.	DECLARATION FORM IS	
I ACC MAY E	EPT THAT, IN ADDITION TO CANCELLATION OF A COBE TAKEN AGAINST ME SHOULD THIS DECLARATIO	ONTRACT, ACTION IN PROVE TO BE FALSE.	
	ne/s and Surname of Bidder	Signature	
 Pos	ition in the Firm/Company	<b>2025</b> Date	
	, ,		
	25		
			_

Employer

Witness 1

Witness 2

Contractor

Witness 1

Witness 2

# MBD 6.1 PREFERENCE POINTS CLAIM FORM

RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

## MBD 6.1 PREFERENCE CLAIMED IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

### 1.2 To be completed by the organ of state

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The 90/10 will be applicable in this tender.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
  - (a) Price; and
  - (b) Specific Goals.

### 1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

					_
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

#### 2. DEFINITIONS

- (a) "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.
- (b) "price" means an amount of money tendered for goods or services and includes all applicable taxes less all unconditional discounts.
- (c) "Rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.
- (d) "tender for income-generating contracts" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) "The Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).
- 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

#### 3.1. POINTS AWARDED FOR PRICE

#### 3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 or 90/10

$$Ps = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$
 or  $Ps = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$ 

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

## 3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

#### 3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 or 90/10

$$Ps = 80\left(1 + \frac{Pt - P max}{P max}\right)$$
 or  $Ps = 90\left(1 + \frac{Pt - P max}{Pmax}\right)$ 

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
  - (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
  - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system.

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

	2	29		
Employer Witnes	ss 1 Witness 2	Contractor	Witness 1	Witness 2

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Note to tenderers: "The tenderer must indicate how they claim points for each preference point system. Points claimed will be verified by RLM using the CSD Report, and preference points will be allocated accordingly. Bidders who fail to complete the table below will NOT be disqualified BUT will not be allocated

preference points.

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Means of Verification
Rustenburg Jurisdiction	2		Latest (from the previous month determined by the date of tender closure) Municipal Account/Traditional Council letter
Rural /Township Businesses	2		Latest (from the previous month determined by the date of tender closure) Municipal Account/Traditional Council letter
Black People	1		Full CSD Report
Persons with Disability	1		Full CSD Report
Youth	2		Full CSD Report
Women	1		Full CSD Report
SMME's	1		Full CSD Report
Total	10		

4.3.	Name of company/firm						
4.4.	Company registration number:						
4.5.	TYPE OF COMPANY/ FIRM  Partnership/Joint Venture / Consortium  One-person business/sole propriety  Close corporation  Public Company  Personal Liability Company  (Pty) Limited  Non-Profit Company  State Owned Company  [Tick APPLICABLE BOX]						
4.6.	I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:  i) The information furnished is true and correct;						
Er	nployer Witness 1 Witness 2 Contractor Witness 1 Witness 2						

**DECLARATION WITH REGARD TO COMPANY/FIRM** 

- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct.
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
  - (a) disqualify the person from the tendering process.

SIGNATURE(S) OF TENDERER(S)

Employer

Witness 1

- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

` ,	• •
SURNAME AND NAME:	
DATE:	
ADDRESS:	
	31

Witness 2

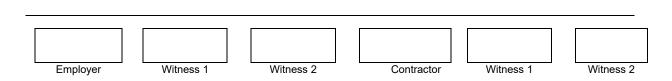
Contractor

Witness 1

## MBD 8

# DECLARATION OF BIDDERS PAST SUPPLY CHAIN MANAGEMENT PRACTICES

RLM/RWST/OMM/0103/2024/25 — RE-ADVERT: UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS



## MBD 8 DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all the bids invited.
- It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- The bid of any bidder may be rejected if that bidder, or any of its directors have:
  - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system.
  - b. been convicted for fraud or corruption during the past five years;
  - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
  - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

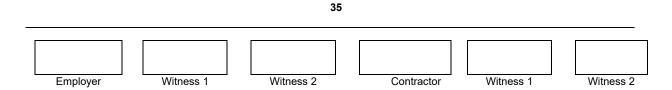
the bidder or any of its directors listed on the National Treasury's Database of Restricted ppliers as companies or persons prohibited from doing business with the public sector? Ompanies or persons who are listed on this Database were informed in writing of this striction by the Accounting Officer/Authority of the institution that imposed the striction after the audi alteram partem rule was applied).  The Database of Restricted Suppliers now resides on the National Treasury's besite (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the me page.  The Database of Restricted Suppliers now resides on the National Treasury's besite (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the me page.	Yes Yes	No No
striction by the Accounting Officer/Authority of the institution that imposed the striction after the audi alteram partem rule was applied).  e Database of Restricted Suppliers now resides on the National Treasury's bsite( <a href="www.treasury.gov.za">www.treasury.gov.za</a> ) and can be accessed by clicking on its link at the bottom of the me page.		
bsite( <u>www.treasury.gov.za</u> ) and can be accessed by clicking on its link at the bottom of the me page.		
so, furnish particulars:		i
the bidder or any of its directors listed on the Register for Tender Defaulters in terms of ction 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? e Register for Tender Defaulters can be accessed on the National Treasury's website <a href="https://www.treasury.gov.za">www.treasury.gov.za</a> ) by clicking on its link at the bottom of the home page.	Yes	No
so, furnish particulars:	l	
as the bidder or any of its directors convicted by a court of law (including a court of law tside the Republic of South Africa) for fraud or corruption during the past five years	Yes	No
o, furnish particulars:		
estion	Yes	No
bes the bidder or any of its directors owe any municipal rates and taxes or municipal charges to e municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears r more than three months?	Yes	No 🗆
so, furnish particulars:		
e te ce r	Register for Tender Defaulters can be accessed on the National Treasury's website w.treasury.gov.za) by clicking on its link at the bottom of the home page.  o, furnish particulars:  s the bidder or any of its directors convicted by a court of law (including a court of law side the Republic of South Africa) for fraud or corruption during the past five years of furnish particulars:  estion  es the bidder or any of its directors owe any municipal rates and taxes or municipal charges to municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears more than three months?	Register for Tender Defaulters can be accessed on the National Treasury's website w.treasury.gov.za) by clicking on its link at the bottom of the home page.  o, furnish particulars:  s the bidder or any of its directors convicted by a court of law (including a court of law side the Republic of South Africa) for fraud or corruption during the past five years properties of the particulars:  setion  Yes  es the bidder or any of its directors owe any municipal rates and taxes or municipal charges to municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears more than three months?

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Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

4.5	Was any cont organ of state comply with t	e terminated during	idder and the mun the past five year	icipality / municipal s on account of fail	entity or any other ure to perform on or	Yes
4.7.1	If so, furnish					
			CEDTIFIC !	ATION		
			CERTIFICA	ATION		
CE DE	ERTIFY THAT TI ECLARATION FO ACCEPT THAT, I	HE INFORMATION ORM TRUE AND CO	FURNISHED ON TI DRRECT. ANCELLATION OF	A CONTRACT, ACTI	 ON MAY BE TAKEN A	GAINST
 Się	gnature			 Date		
Po	osition			Name of Bidder		
			34			
	Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

# MBD 9 CERTIFICATE OF INDEPENDENT BID DETERMINATION

RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS



### MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids<sup>1</sup> invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
  - a. take all reasonable steps to prevent such abuse;
  - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
  - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
  - 4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
  - 5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:
- <sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete. I, the undersigned, in submitting the accompanying bid: RLM/RWST/OMM/0103/2024/25 RE-ADVERT: UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS (Bid Number and Description) in response to the invitation for the bid made by:

# RUSTENBURG LOCAL MUNICIPALITY (Name of Municipality / Municipal Entity) do hereby make the following statements that I certify to be true and complete in every respect: I certify, on behalf of: (Name of Bidder): Bidders are required to fill in the name of their company in the space provided above.

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder:
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
- (a) has been requested to submit a bid in response to this bid invitation;
- (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

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Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

- (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
- 6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) geographical area where product or service will be rendered (market allocation)
  - (c) methods, factors or formulas used to calculate prices;
  - (d) the intention or decision to submit or not to submit, a bid;
  - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
  - (f) bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
  - 10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

<sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

Signature			Date		
Position			Name of B	idder	
		37			
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

# T2.2.1: Record of Addenda to tender documents

offer, a	nfirm that tamending to the control of the control	the tende	er docume	ents, l	have b	een ta	aken ir	nto a	ccoun	t in th	is ten	der o	offer:				
	Date				itie or	Detail	S										
Attach	additional	pages if	f more spa	ace is	requi	red.											
Signed	1						Dat	łΔ									
-																	
Name							POS	sition									
Tender	rer –																
							38										
																	_
L Em	nlover		Vitness 1		10	itness	2	L		ontrac	tor		Witne	1		/itness	

# T2.2.2: Compulsory Enterprise Questionnaire

in recened of each partner must be	urnished. In the case of a joint vent	ure, separate	enterprise que	estionnaires
	completed and submitted.			
Section 1: Name of enterprise: .				
Section 2: VAT registration numb	er, if any:			
Section 3: CIDB registration num	ber, if any:			
	prietors and partners in partnership			
Name*	Identity number*	Personal inc	ome tax numb	per^
* Complete and if a la manufatar a	and a stack a such as a such a	:£		
* Complete only if sole proprietor o		age if more tr	nan 3 partners	5
Section 5: Particulars of compani	•			
Company registration number Close corporation number				
Tax reference number				
Section 6: Record of service of the	e state			
Indicate by marking the relevant bo		etor nartner i	n a nartnershir	n or director
manager, principal shareholder or				
within the last 12 months in the ser	• •	oo, poration to	Carrolling Of II	
2.0 .2.5 .2	c. a, c. a.o. iooming.			
□ a member of any munici	oal council 💢 an employe	e of any provi	ncial departm	ent, national
□ a member of any province				
□ a member of the Nationa				
the National Council of Provi	nce Act, 1999 (Act	1 of 1999)		
□ a member of the board of	f directors of $\qed$ a member of	of an accounti	ng authority of	fany
any municipal entity		rovincial publi		
□ n official of any municipa	•	ee of Parliame	ent or a provin	cial
entity	legislature			
	1 1 1 1 6 11 1			
If any of the above boxes are mark	ed, disclose the following:			
	ed, disclose the following:		Ctatus of as	n i o o
Name of sole proprietor,partner,	-		Status of se	
Name of sole proprietor,partner, director, manager, principal	Name of institution, public offe, b	oard or	(tick approp	riate column)
Name of sole proprietor,partner,	-	oard or		riate column) Within last
Name of sole proprietor,partner, director, manager, principal	Name of institution, public offe, b	oard or	(tick approp	riate column)
Name of sole proprietor,partner, director, manager, principal	Name of institution, public offe, b	oard or	(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal	Name of institution, public offe, b	oard or	(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal	Name of institution, public offe, b	oard or	(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal shareholder or stakeholder	Name of institution, public offe, b	oard or	(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal	Name of institution, public offe, b	oard or	(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal shareholder or stakeholder	Name of institution, public offe, b	oard or	(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary	Name of institution, public offe, bound of state and position held		(tick approp	riate column) Within last
Name of sole proprietor,partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi	Name of institution, public offe, borgan of state and position held	the state	(tick approp current	riate column) Within last 12 months
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant both	Name of institution, public offe, borgan of state and position held  Idren and parents in the service of exes with a cross, if any spouse, ch	the state	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held light and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakeholder.	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant both	Name of institution, public offe, borgan of state and position held light and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakeholder.	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held light and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakeholder.	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held light and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakeholder.	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held light and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakeholder.	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held lidren and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakehot 12 months been in the service of	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held lidren and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakehot 12 months been in the service of	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder  *insert separate page if necessary  Section 7: Record of spouses, chi Indicate by marking the relevant bo in a partnership or director, manager	Name of institution, public offe, borgan of state and position held lidren and parents in the service of exes with a cross, if any spouse, cher, principal shareholder or stakehot 12 months been in the service of	the state ild or parent colder in a com	(tick approp current	riate column) Within last 12 months  prietor, partner

□ a member of any provir legislature □ a member of the Nation or the National Council of □ a member of the board of any municipal entity	a member of the National Assembly the National Council of Province a member of the board of directors municipal entity an official of any municipality or			<ul> <li>□ an employee of any provincial department, nat provincial public entity or constitutional institution with the meaning of the Public Finance Management A 1999 (Act 1 of 1999)</li> <li>□ a member of an accounting authority of any nat or provincial public entity</li> <li>□ anemployee of Parliament or a provincial legisla</li> </ul>						
Name of spouse, childor parent		Name of institution, public office, board or organ ostate and position held			Status of service (tick appropriate column)					
					curent	Within last 12 months				
*insert separate page if necessary	<u> </u> /									
person, who wholly or partly exerc Tender Defaulters established in a iii) confirms that no partner, member control over the enterprise appear iv) confirms that I / we are not assoffers and have no other relations work that could cause or be interpriv) confirms that the contents of the belief both true and correct.	perms of the Poer, director or or s, has within ociated, linked hip with any coreted as a column.	revention and r other person the last five y d or involved of the tendere inflict of intere	d Combating on, who wholly years been con with any others or those rest;	of Corrup or partly onvicted or er tenderi esponsible	ot Activities of exercises, of fraud or compile of the compile of	Act of 2004; or may exercise, corruption; submitting tender ing the scope of				
Signed		Date								
Name		Positio	n							
Enterprise name		<del></del>								
		40								

Witness 1

Witness 2

Contractor

Witness 1

Witness 2

Employer

# T2.2.3: Certificate of Authority for Joint Ventures

Employer

Witness 1

Witness 2

Contractor

Witness 1

Witness 2

E OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
partner		CIONATORT
		Signature Name Designation
		Signature Name Designation
		Signature
		Signature
		Name Designation  Signature

# T2.2.4: Schedule of Proposed Subcontractors

	notify you that it is our intention to em							
	e are awarded a contract we agree th							
nar	nes of proposed Subcontractors in ac	cordance with	requir	ements in the con	tract for s	uch appoint	ments. If	there
	no such requirements in the contract,							
	confirm that all subcontractors who a ional Home Builders Registration Cou		o con	struct a nouse are	registere	d as nome i	bullaers w	ith the
Ivai	Name and address of proposed	Nature and	ovtont	of work	Previous	s experienc	_ with	
	Subcontractor	i vatare and t	ALCITE	OI WOIK	Subcon		C WILLI	
					Guboon			
					· ·			
Sig	ned	[	Date					
Naı	an	 [	Positio					
IVal	·		-051110	<u></u>				
Ter	derer							
			42					
			-					
			7					
			1					

# T2.2.5: Schedule of Plant and Equipment

Witness 1

Witness 2

Contractor

Witness 1

	major items of relevant equipment that I/we presently own or lease and will have available quire or hire for this contract if my/our tender is accepted.
(a) Details of major	equipment that is owned by and immediately available for this contract.
Quantity	Description, size, capacity, etc.
Attach additional pages if	more space is required.
(b) Details of major	equipment that will be hired, or acquired for this contract if my/our tender is acceptable.
Quantity	Description, size, capacity, etc.
Attach additional pages if	more space is required.
Signed	Date
Name	Position
Tenderer	
	43

# T2.2.6: Schedule of the Tenderer's Experience

The following is a state years:	ement of simila	ar work successfull	y executed /	in progress	s by myself/ ourselv	es in the last
Employer, contact pe telephone number.	rson and [	escription of contr	act	i	Value of work nclusive of VAT (Rand)	Date completed
	<b>-</b>			•		
Signed			Date Desition			
Name  Tenderer			Position			
			44			
Employer	Witness 1	Witness 2		Contractor	Witness 1	Witness 2

# **T2.2.7: FINANCIAL REFERENCES**

# (a) FINANCIAL STATEMENTS

I/We agree, if required, to furnish an audited copy of the latest set of financial statements together with my/our Directors' and Auditors' report for consideration by the Employer.

# (b) DETAILS OF COMPANY'S BANK

I/We hereby authorise the Employer/Engineer to approach all or any of the following banks for a reference:

DESCRIPTION OF BANK DETAIL	BANK DETAIL APPLICABLE TO COMPANY HEAD OFFICE	BANK DETAIL APPLICABLE TO THE SITE OF THE WORKS
Name of bank		
Branch name		
Branch code		
Street address		
Postal address		
Name of manager		
Telephone number	( )	( )
Fax number	( )	( )
Account number		
Signed	Date	
Name	Position	
Tenderer	······································	
	45	
mployer Witness 1	Witness 2 Contracto	r Witness 1 Witness 2

# T2.2.8: Proposed amendments and qualifications

	oca amenamento ana qu	
Returnable S		tions or qualifications he may wish to make to the tender documents in this enderer may state such deviations and qualifications in a covering letter to this schedule.
		ause F.3.8 of the Standard Conditions of Tender referenced in the Tender g of material deviations and qualifications.
Page	Clause or item	Proposal
Signed		Date
lame		Position
enderer		

46

**T2.2.9: Supervisory and Safety Personnel**PREVIOUS EXPERIENCE ON WORKS OF A SIMILAR NATURE DURING THE LAST FIVE YEARS

Name	% Time on Site	Position (Current)	Service (Years)	Name of Project And year executed	Value of Works	Position Occupied
Contracts Manager						
Contractor's Site Agent	100%					
Contractor's Foremen						
Construction Health and Safety Officer	100%					
Contractors Surveyor						

Tenderers shall indicate the percent and safety personnel.	age of working time these persons wi	be engaged on site. Tenderers are required to provide copies of curriculum vitas of all supervisory
Cianad	Dete	
Signed	Date	
Name	Position	
Tenderer		

### T2.2.10: Labour Utilisation

Labour Categories - Definitions

NOTE: These definitions serve as a guideline to complete the following table and will in no respect alter the Project Specifications or Standardised Specifications

### 1. General Foreman / Foreman

An employee who gives out work to and directly co-ordinates and supervises employees. His duties encompass any one or more of the following activities:

- a) Supervision;
- b) Maintaining discipline;
- c) Ensuring safety on the workplace;
- d) Being responsible to the Contractor for efficiency and production for his portion of the works; and
- e) Performing skilled work, whether in an instructional capacity or otherwise.

# 2. Charge hand

An employee engaged in any one or more of the following activities:

- a) Being primarily employed in a supervisory capacity, but who may also be doing the work of an artisan;
- b) Giving out work to other employees under his control and supervision;
- c) Ensuring safety on the workplace;
  - d) Maintaining discipline; and
- e) Being directly responsible to a general foreman or foreman or the Contractor or the Contractor's representative for efficiency and production for his portion of the works.

### 3. Artisan

An employee who has successfully completed all prescribed courses at a practical institutional training centre for a particular trade and who has successfully completed the on-site period of training as prescribed and who has successfully passed the prescribed trade tests.

### 4. Team Leader

An employee engaged in any one or more of the following activities:

- a) Being employed in a supervisory capacity, but who may also be doing the work of a skilled person;
  - b) Giving out work to other employees under his control and supervision;
  - c) Maintaining discipline;
- d) Being directly responsible to a Charge hand or a foreman or a general foreman or the employer's authorised representative for efficiency and production for his portion of the works.

# 5. Skilled Employee

An employee engaged in an ancillary trade or an assistant artisan.

# Semi-Skilled Employee

An employee with any specified skills, an apprentice or a trainee-artisan.

# 7. Unskilled Employee

An employee engaged on any task or operation not specified above.

# 8. Imported Employee

Personnel permanently employed by Contractor.

# 9. Local Employee

Temporary workforce employed through Labour Desk.

# MAN DAYS

Categories	No. of Man Days		
- Catogorios	Imported	Local	HDI (Y/N)
Contracts Manager			
Site Agent			
Foreman/Supervisors (specify type)			
3.1			
3.2			
3.3			
Safety Inspectors (specify type)			
4.1			
4.2			
5. Charge hands			
6. Artisans			
7. Operators/Drivers			
8. Clerks/ Storeman			
9. Team Leader			

Categories	No. of Man Days		
Categories	Imported	Local	HDI (Y/N)
10. Skilled Labour			
11. Semi-skilled Labour			
12. Unskilled Labour			
Signed	Date		
Name	Position		

Tenderer

# T2.2.11: OCCUPATIONAL HEALTH AND SAFETY ACT: STATEMENT BY TENDERING ENTITY

l,	duly authorised
to represent	(company name)
that I accept full the provisions o	hereby confirm and exclusive responsibility for compliance by myself and all persons who perform work for me with f the Occupational Health and Safety Act, No. 85 of 1993 (as amended) and all regulations m time to time, whilst performing work on
and without risk	employees who perform work on the site shall be properly trained to do this in a manner which is safe to health and safety to themselves and others in the vicinity and undertake to have our activities ervised in the interest of health and safety.
Signed	Date
Name	Position
Tenderer	

# T2.2.12: Site Inspection Certificate

As required by Clause 2.7 of the Tender Data, I/we certify site visit and clarification meeting on the date certified below		Norks and attended the
I/we further certify that I am / we are satisfied with the desc Engineer at the site visit and clarification meeting.	cription of the Work and the explanat	ions given by the
Signature of Tenderer	Date	_
Site Visit		
This will certify that		
representing		
attended a Site Inspection for this Contract on	20	
For the Engineer (signed)		

# CONTRACT

# PART 1 (OF 4): Agreements and contract data

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Deed of Guarantee (Pro Forma)

# C1.1 Form of Offer and Acceptance

### Offer

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

# RLM/RWST/OMM/0103/2024/25 - RE-ADVERT: APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS MECHANICAL AND ELECTRICAL WORKS

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

THE OFFERI	ED TOTAL OF THE PRICES INCLUSIVE OF '	VALUE ADDED TAX IS:
Rand (in wor	ds); R	(in figures)
returning one	e copy of this document to the tenderer before the tenderer becomes the party named as the comes the party named as the party named	acceptance part of this form of offer and acceptance and the end of the period of validity stated in the tender data, ontractor in the conditions of contract identified in the
Signature Name Capacity		Date
for the tender (Name and address of organization)	***************************************	
Name and signature of witness		

# Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1: Agreements and contract data, (which includes this agreement)

Part C2: Pricing data Part C3: Scope of work. Part C4: Site information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Name		Date
or the Employer	Rustenburg Local Municipality Missionary Mpheni House c/o Beyers Naude & Nelson Mandela Drive Rustenburg	
Name and signature of witness		Date
Schedule of D	eviations	
Notes :		

- 1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender;
- 2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here;
- 3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here;
- 4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

Shall also be interpolated into the linal draft of the contract.
1 Subject
2 Subject
Details
3 Subject
4 Subject
5 Subject
By the duly authorised representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.
It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.
for the tenderer
Signature Date Capacity
(Name and address of organization)

Name and signature of witness	
for the Employer	
Signature Name Capacity Rustenburg Local Municipality Missionary Mpheni House c/o Beyers Naude & Nelson Mandela Drive Rustenburg	Date
Name and signature of witness	Date

Contents			
Number	Heading	Volume	Colour
The Tende			1
Part T1: Te	ndering procedures	Volume 1A	
T1.1	Tender Notice and Invitation to Tender		White
T1.2	Tender Data		Pink
T1.3	Standard Conditions of Tender		Pink
	turnable documents	Volume 1A	
T2.1	List of Returnable Documents		Yellow
T2.2	Returnable Schedules		Yellow
T2.3	Technical Schedules	Volume 1B	Yellow
The Contra	ct		
Part C1: Aç	reement and Contract Data	Volume 1A	
C1.1	Form of Offer and Acceptance		Yellow
C1.2	Contract Data		Yellow
C1.3	Form of Guarantee		Yellow
C1.4	Occupational Health and Safety Agreement		Yellow
Part C2: Pr	icing data	Volume 1B	
C2.1	Pricing Instructions		Yellow
C2.2	Bills of Quantities		Yellow
C2.2	Summary of Schedules		Yellow
Part C3: Scope of Work		Volume 1A	
C3	Scope of Work		Blue
C3.1	Description of Works		Blue
C3.2	Engineering		Blue
C3.3	Procurement		Blue
C3.4	Construction (Specifications)		Blue
C3.4.1	General Clauses and Requirements		Blue
C3.4.2	Construction of Mechanical Works	Volume 2	Blue
C3.4.2.1	Variations and Additions to Particular Specifications for Mechanical Works	Volume 2	Blue
C3.4.2.2	Particular Specifications for Mechanical Works	Volume 3	Blue
C3.4.3	Construction of Electrical and Electronic Works	Volume 2	Blue
C3.4.3.1	Variations and Additions to Particular Specifications for Electrical and Electronic Works	Volume 2	Blue

C3.4.3.2	Particular Specifications for Electrical and Electronic Works	Volume 3	Blue
C3.4.4	Construction of Civil Works	Volume 2	Blue
C3.4.4.1	Standard Specifications	Volume 2	Blue
C3.4.4.2	Variations and Additions to Particular Specifications for Civil Works	Volume 2	Blue
C3.4.4.3	Particular Specifications for Civil Works	Volume 3	Blue
C3.5	Management	Volume 1A	Blue
C3.5.1	Management of the Works	Volume 1A	Blue
C3.5.2	Quality Management	Volume 1A	Blue
C3.5.3	Reference to the Scope of Works in Terms of the Occupational Health and Safety Act and Regulations: Health and Safety Specification	Volume 1A	Blue
C3.5.4	Environmental Management Plan	Volume 1A	Blue
Book of Drawings Vol		Volume 4	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

### T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the Construction Industry Development Board's Board (contained in Government Gazette No. 42622 of 08 August 2019), bound into section T1.3.

The Standard Conditions of Tender makes several references to the Tender Data. The Tender Data also contains project specific amendments to the Standard Conditions of Tender applicable to this document. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

	nce to relevant		Addition or Variation to Standard Condition of Tender					
	ons of Tender		Addition or variation to Standard Condition of Tender					
1.1	Actions		The Employer is the Rustenburg Water Services Trust, a municipal entity established by the Rustenburg Local Municipality in terms of the Municipal Systems Act.					
1.2	Tender documents	The term "bid" in the context of this standard is synonymous with term "tender". <u>Tender / Contract Document</u>						
		This document comprising the following volumes, in which are bound the Tendering Proced Returnable Documents, Agreements and Contract Data, Pricing Data, Scope of Work, Site Informand Additional Documents:						
		Volume 1A:	General Clauses, Contract Data & Scope of Works					
		Volume 1B:	Pricing Data					
		Volume 2:	Project Specifications					
		Volume 3:	Particular Specifications					
		Volume 4:	Tender Drawings					
1.3.2	Interpretation	Replace this su	b-clause with the following:					
			ns of Tender, the Tender Data, List of Returnable Documents and Returnable Schedules ired for tender evaluation purposes, shall form part of the Contract arising from the der.					

Part T1: Tendering Pro	ocedure	11.2-	•		Tender Data
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2





# UI

		OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS					
clause	nce to relevant es in Standard ions of Tender	Addition or Variation to Standard Condition of Tender					
1.4	Communication and Employer's Agent	Rustenburg Consulting Consortium or RCC Allan Cormack Street. The Innovation Hub; Pretoria Fax (012) 843 9000/9001 Engineer: Mrs Hayley van der Merwe Tel: 012 843 9044 e-mail: hayley.vandermerwe@bigengroup.com					
2.1	Eligibility	Only those Tenderers who attended the compulsory tender briefing meeting and are registered of CIDB or are capable of being so prior to the evaluation of submissions, in a contractor designation equal to or higher than a contractor grading designation determined in accordance sum tendered for an 9ME Class of construction work, are eligible to submit tenders.					
		Joint Ventures (JVs) are eligible to submit tenders provided that:  One of the JV partners attended the compulsory briefing meeting;					
		2. Every member of the joint venture is registered with the CIDB within 10					
		<ul> <li>days from the closing date of tenders;</li> <li>The combined contractor grading designation calculated in accordance with the Constructi Industry Development Regulations is equal to or higher than a contractor designati determined in accordance with the sum tendered for an 9ME class of construction work, eligible to submit tenders.</li> </ul>					
		The Employer may, in its discretion, subject to the provision of Section 4(1)(d) of the State Tender Boa Act (Act 86 of 1968), condone any failure to comply with the foregoing condition.					
2.2	Cost of tendering	Add the following to the clause 2.2.1:					
		"Accept that the Employer will not compensate the tenderer for any costs incurred in attending interview in the office of the Employer or the Employer's Agent."					
2.5	Reference documents	The document "Conditions of Contract for Plant and Design-Build for electrical and mechanical plant and for building and engineering works, designed by the Contractor" (FIDIC Yellow Book) First Edition 1999.					
		Tenderers, Contractors and Sub-contractors shall obtain their own copies of this document for tendering purposes and for use for the duration of the Contract from the International Federation of Consulting Engineers (FIDIC) via their website <a href="https://www.fidic.org">www.fidic.org</a> .					
		All international standard specifications and codes listed and referenced in the Project and Particul Specifications.					
nder rt T1: Tend	ering Procedure	T1.2-2 T1.2 Tender Data					





# UI

claus	nce to relevant es in Standard tions of Tender	Addition or Variation to Standard Condition	of Tender
2.7	Site visit and clarification meeting	A <u>Compulsory Briefing Session</u> and site visit with a representative or reflected on the tender invitation.	of the Employer will take pla
		Confirmation of attendance will be recorded on site in the attendatenderers.	ance register to be signed
		Tender documents will not be made available at the site visit and cla to the collection of tender documents is indicated in the Tender Notic	ŭ
2.8	Seek clarification	Replace the contents of the clause with the following:	
		"Request clarification of the tender documents, if necessary, by notifying in the Tender Notice and Invitation to Tender in writing at least seven (time stated in the Tender Data."	
2.9	Insurance	Add the following to the clause:	
		"The Contractor shall be responsible to affect all insurance as require the Contract."	red for the purposes of exe
2.11	Alterations to documents	Replace the last sentence of the clause with the following:	
		"To correct errors made, draw a line through the incorrect entry and black ink and place the full signatures of the authorised signatories no	•
		Corrections in terms of price may not be made by means of a correction product.	on fluid such as Tippex or a
		If correction fluid has been used on any specific item price, such correction fluid may be used in a Bill of Quantities where prices are cal If correction fluid has been used the tender as a whole will not be correction.	culated to arrive at a total ar
		Tampering with or taking the documents apart is strictly prohibited."	
2.12.1	Alternative	Add the following to the clause:	
	Tender offers	All alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender offers shall be referred to in Section T2.3.2: Alternative tender of the section T2.3.2: Alternative te	erations to Tender.
ler T1: Tend	lering Procedure	T1.2-3	T1.2 Tender Data





### UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

		OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS				
clause Conditi	ice to relevant s in Standard ons of Tender	Addition or Variation to Standard Condition of Tender				
2.12.2	Alternative Tender offers	Add the following to the clause:				
	render oners	Should the Tenderer wish to offer alternative designs and/or construction materials, he shall include with this Tender, full details thereof, including a complete bill of quantities, formal design calculations, and full details of all alternative components proposed to be included in the Works. Refer also to the Contract Data in this regard.				
		Failure to properly comply with this clause, thereby preventing the Employer and/or the Engineer to properly assess the full implications of the alternative tender, is likely to disqualify the alternative offered from further consideration.				
		No submission by the Contractor after award for additional payment or time for completion of Works relating to the alternative offer will be considered, the tendered rates submitted shall be considered to reflect the full and final cost implications of the alternative offer.				
2.13.2	Returnable documents	Replace the contents of the clause with the following:				
	documents	Return the complete set of documents as listed in the Tender Data with all the required information supplied and completed in all respects.				
		All volumes are to be left intact in its original format and no pages shall be removed or re-arranged.				
2.13.3	Copy of Tender Offer	The original and one copy of the complete bid must be submitted.				
	Olidi	One (1) scanned copy of the document is also required on a memory stick.				
2.13.4	Tender offer	Add the following to the clause:				
		"Only authorised signatories may sign the original and all copies of the tender offer where required in terms of 2.13-3.				

Tender Part T1: Tendering Procedure				T1.	T1.2-4					Γ1.2 er Data		
			NAGO.							100		

Employer

Witness 1

Witness 2

Contractor

Witness 1

Witness 2





UPGRADING AND EXTENSIO			NT WORKS – MECHANICAL AND ELECTRICAL WORKS				
Reference to relevant clauses in Standard Conditions of Tender	Add	ition or	Variation to Standard Condition of Tender				
2.13.5 Tender	The Employer's address fo	r deliver	y of tender offers:				
packaging	Missionary Mphe Corner of Nelson Rustenburg 0300						
		Bid No: RLM/RWST/OMM/0103/2024/25: Re-Advert: Upgrading and Extension of Bospoort Water Treatment Works - Mechanical and Electrical Works					
	The name and address of t	he tende	erer shall be entered on the back of the envelope.				
2.13.6 Two envelope system	A two-envelope procedure	will not	<b>be</b> followed.				
2.14 Information and	Add the following to the cla	use:					
Data to be completed in all	The Tenderer is required to	The Tenderer is required to enter information in the following sections of the document:					
respects	Section T2.1	:	Additional Returnable Documents				
	Section T2.2	:	Returnable Documents				
	Section T2.3	:	Returnable Schedules				
	Section T2.4	:	Technical Schedules				
	Section C1.1	:	Form of Offer and Acceptance				
	Section C1.2	:	Contract Data (Part 2)				
	Section C2.2	:	Bill of Quantities				
	Section C2.3	:	Summary of Quantities				
	The above sections shall be signed by the Tenderer (and witnesses where required). Individual pages should only be initialled by the successful Tenderer and by the witnesses after acceptance by the Employer of the Tender Offer.						
	clause 2.23 within the perio	Accept that failure on the part of the Tenderer to submit any one of the Returnable Documents listed in clause 2.23 within the period stipulated, shall be just cause for the Employer to consider the tender offer as being regarded as non-responsive.					
Tender	<b>-</b>	1.2-5	T1.2				

Tender Part T1: Tendering Pro	ocedure	T1.2	2-5		T1.2 Tender Data		
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2		





### LIPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

UPGRADING	S AND EXTENSION	OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS				
clause	nce to relevant	Addition or Variation to Standard Condition of Tender				
Condit	ions of Tender					
		"Accept that the Employer shall in the evaluation of tenders take due account of the Tenderers' past performance in executing of similar engineering works of comparable magnitude, and the degree to which he possesses the necessary technical, financial and other resources to enable him to complete the Works successfully within the contract period. Satisfy the Employer and Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, by furnishing details in Section T2.2.				
2.15	Closing time	Accept that the Employer is restricted in accordance with clause 4.(4) of the Construction Regulations, 2003, to only appoint a contractor whom he is satisfied has the necessary competencies and resources to carry out the work safely. Accept that submitting inferior and inadequate information relating to health and safety (as required in clause 2.23) shall be regarded as justifiable and compelling reasons not to award a contract to a Tenderer."  The closing time for submission of tender offers is:				
		As reflected in the Tender Advertisement.				
2.16	Tender Offer validity	The Tender Offer validity period is <b>90</b> days.				
2.16.1	•	Add the following to the clause:				
		"If the tender validity expires on a Saturday, Sunday or public holiday, the Tender Offer shall remain valid and open for acceptance until the closure of business on the following working day."				
2.16.5	Withdrawal of Tender offer	Add the following new clause:				
		Accept that should the Tenderer unilaterally withdraw a tender during the tender validity period, the Employer shall, without prejudice to any other rights he may have, be entitled to accept any less favourable tender for the Works from those received, or to call for fresh tenders, or to otherwise arrange for execution of the Works, and the Tenderer shall pay on demand any additional expense incurred by the Employer on account of the adoption of the said courses, as well as either the difference in cost between the tender withdrawn (as corrected in terms of clause 3.9 of the Conditions of Tender) and any less favourable tender accepted by the Employer, or the difference between the tender withdrawn (as corrected) and the cost of execution of the Works by the Employer as well as any other amounts the				

Tender Part T1: Tendering Pr	rocedure	T1.2	-6	T1.2 Tender Data		
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2	

Employer may have to pay to have the Works completed.





# UI

BID NO: RLM/RWST/OMM/0103/2024/25 - RE-ADVERT:						
	OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS					
Reference to relevant clauses in Standard Conditions of Tender	Addition or Variation to Standard Condition of Tender					
2.17 Clarification of Tender Offer	Replace the contents of the clause with the following clause:					
after Submission	"Provide clarification of a Tender Offer in response to a request to do so from the Employer during the evaluation of Tender Offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors resulting from the product of the unit rate and the quantity by the adjustment of certain line-item totals. No change in the unit rate or prices or substance of the Tender Offer is sought, offered, or permitted. The total of the prices shall be adjusted to reflect the arithmetically correct summation of corrected line-item totals and shall be binding upon the Tenderer."					
2.18.1 Financial Standing	Add the following to the clause:					
Standing	Accept that if requested, the Tenderer shall within 7 days of the date upon which he is requested to do so, submit a full report from the Tenderer's banker as to the company's financial standing. The Employer may, in its discretion, and subject to the provisions of Section 4(1) (d) of the State Tender Board Act 86 of 1968, condone any failure to comply with the foregoing condition.  Accept that the Employer or the Employer's agent, reserves the right to approach the Tenderer's banker or guarantor(s) as indicated in the tender document, or the bankers of each of the individual members of any joint venture that is constituted for purposes of this Contract, with a view to ascertaining whether the required guarantee will be furnished, and for purposes of ascertaining the financial strength of the Tenderer or of the individual member of such venture.					
2.19 Inspections, tests and analysis	The Tenderer must provide access during working hours to his premises for inspections on request.					
2.22 Return of other tender documents	Return all retained tender documents prior to the closing time for the submission of Tender Offers.					
2.23 Certificates	All the certificates/information/documents listed in section T2 must be provided with the tender offer.					
	In cases where the tenderer has failed to submit any of the non-mandatory documents above with the tender, the Employer reserves the right to, at any time after the closure of the tender, but before the award of the tender, request the tenderer to provide the outstanding documents within 7 (seven) calendar days from date of notification.					

Tender Part T1: Tendering I	Procedure	T1.2-	7		T1.2 Tender Data
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2



Employer

Witness 1

Witness 2



BID NO: RLM/RWST/OMM/0103/2024/25 - RE-ADVERT:

Referen									
Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Condition of Tender							
Add the following new clause:	Canvassing and obtaining of additional information by tenderers	Accept that no Tenderer shall make any attempt either directly or indirectly to canvass any of the Employers officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon.							
"2.24		No Tenderer shall make any attempt to obtain particulars of any relevant information, other than t disclosed at the opening of tenders.							
Add the following	Prohibitions on awards to	Accept th	at the Employer is prohibited to award a tender to a pers	person:-					
new	persons in	a)	who is in the service of the state; or						
clause:	service of the state	b) if that person is not a natural person, of which any director, manager, principal sharehos stakeholder is a person in the service of the state; or							
"2.25		c)	a person who is an advisor or consultant contracted with	n the municipality <u>or</u> municipal entity					
		"In the s	ervice of the state" means to be -						
		a)	a member of –						
		•	any municipal council;						
			any provincial legislature; or the National Assembly of	or the National Council of Provinces					
		b)	a member of the board of directors of any municipal enti	ity;					
		c)	an official of any municipality or municipal entity;						
		d) an employee of any national or provincial department;							
		e)	provincial public entity or constitutional institution within Management Act, 1999 (Act No.1 of 1999);	n the meaning of the Public Finance					
		f)	a member of the accounting authority of any national or	provincial public entity; or					
Add the	Awards to close	Accept	an employee of Parliament or a provincial legislature." that the notes to the Employer's annual financial statem						
following new clause:	family members of persons in the service of the state	award of more than R2000 to a person who is a spouse, child or parent of a person in the service of the state (defined in clause 2.25), or has been in the service of the state in the previous twelve months, including –							
"2.26	State	a) the name of that person;							
nder irt T1: Tende	nder rt T1: Tendering Procedure		T1.2-8	T1.2 Tender Data					

Witness 1

Contractor

Witness 2





### UP

JPGRADING	AND EXTENSION	OF B	OSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS					
Reference to relevant clauses in Standard Conditions of Tender			Addition or Variation to Standard Condition of Tender					
			b) the capacity in which that person is in the service of the state; and					
			c) the amount of the award.					
			rder to give effect to the above, the questionnaire for the declaration of interests in the tender of sons in service of state in Section T2.2 must be completed.					
3.1	Respond to clarification	Replace the contents of the clause with the following:						
			"Respond to a request for clarification received up to five (5) calendar days before the tender closing time stated in the tender data and notify all Tenderers who drew procurement documents"					
3.4	Opening of Tender submissions	Ter	Tenders will be opened immediately after the closing time for tenders, at the same venue.					
3.9 3.9.1	Arithmetical errors	Replace the contents of the clause with the following:						
5.5.1	GHOIS	"Ch	"Check responsive Tender Offers for arithmetical errors, correcting them in the following manner:					
		a)	Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.					
		b)	If a bill of quantities (or schedule of quantities or schedule of rates) applies and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the <u>rate shall govern</u> and the line-item total shall be corrected.					
		c)	Where there is a discrepancy between the amount indicated in the tender offer and the corrected amount obtained after completing the above steps, the corrected amount shall govern.					
		d)	Where there is an error in the total of the prices either as a result of corrections required by this checking process or in the Tenderer's addition of prices, the total of the prices shall be adjusted to reflect the arithmetically correct summation of corrected line-item totals.					

T1.2 Tender T1.2-9 Part T1: Tendering Procedure **Tender Data** 

errors in the manner described above."

Consider the rejection of a Tender Offer if the Tenderer does not accept the correction of the arithmetical

Employer Witness 1 Witness 2 Witness 2 Contractor Witness 1





## UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Condition of Tender					
3.11	Evaluation of Tenders	All eligible bids received will be evaluated in two stages - first in terms of functionality as described below. All bids that obtain the minimum score for functionality will subsequently be assessed in accordance with the 90/10 preference point systems prescribed in the Preferential Procurement Regulations.					
3.11.1	General	Points for functionality shall be allocated on the basis as detailed in the table below and 70 points will be required as a minimum to proceed to the second and last stage of the tender evaluation.  Refer to functionality criteria on page 10.					
		Refer to functionality criteria on page 10.					

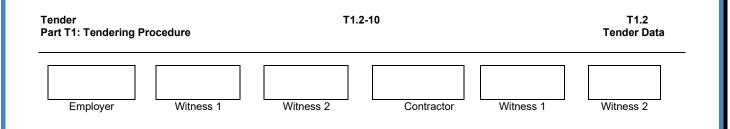
# Scoring preference

Refer to MBD 6.1

The tenderer is required to submit valid proof of required documentation.

3.11.2	Add the following sub-clause: Subject to paragraph 3.13, the contract must be awarded to the tender who scores the highest total number of points.
	The points scoring for price and specific goals will be a function of the financial value in accordance with:
	a) Clause 3.11.3 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R50 000 000; or
	b) Clause 3.11.4 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R50 000 000.
3.11.3	Add the following sub-clause:
	ration; $Pt = \begin{bmatrix} 1 - \frac{Pt - Pmin}{Pmin} \end{bmatrix}$ Price of tender under consideration; and Price of lowest acceptable tender.

a) A maximum of 20 points may be awarded to a tenderer for specific goals.







# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Condition of Tender
3.11.4		Add the following sub-clause
3.12	Insurance provided by the	Replace the contents of the clause with the following:
	Employer	"If requested by any tenderer, submit for the tenderer's information the policies or certificates of insurance (or both) which the Conditions of Contract identified in the Contract Data require the Employer to provide."
3.13	Acceptance of Tender Offer	A Tender Offer will only be accepted on condition that such acceptance is not prohibited in terms of clause 44 of the Municipal Supply Chain Management Regulations published in terms of the Municipal Finance Management Act, 2003
3.16.2	Non-acceptance of tender	Replace the contents of the clause with the following:
		Notice of non-acceptance of tender will not be sent to individual unsuccessful tenderers. Particulars of the accepted tender can be obtained from the employer's agent.
3.17	Copies of Contract	One signed copy of the contract shall be provided by the Employer to the successful Tenderer.

Tender Part T1: Tendering Procedure

T1.2-11
T1.2
Tender Data

Employer Witness 1 Witness 2 Contractor Witness 1 Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

Annexure C: Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement (contained in Government Gazette No. 42622 of 08 August 2019)

T1.3 Tender Data

#### 1. GENERAL

#### 1.1. Actions

- 1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in item 2 and 3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.
- 1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.
- Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
  - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.
- 1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract

#### 1.2. Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

Tender Part C1: Agreement and Cor	ntract Data	C1.	4-1		C1.4 OHS Agreement	
Employer W	Vitness 1	Witness 2	Contractor	Witness 1	Witness 2	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

#### 1.3. Interpretation

- 1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.
- 1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.
- 1.3.3 For the purposes of these conditions of tender, the following definitions apply:
  - a) **conflict of interest** means any situation in which:
    - someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
    - ii) an individual or organization is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
    - iii) incompatibility or contradictory interests exist between an employee and the organization which employs that employee.
  - b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilized to have been taken into consideration;
  - c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
  - d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

#### 1.4. Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

### 1.5. The employer's right to accept or reject any tender offer

- 1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-
  - (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
  - (b) funds are no longer available to cover the total envisaged expenditure; or
  - (c) no acceptable tenders are received.

Tender

- 1.5.2 The decision to cancel a tender must be published on the CIDB website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.
- 1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

Part C1: Agreement	OHS Agreement				
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

C1.4-2

C1.4





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

#### 1.6. Procurement procedures

#### 1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to 3.13, be concluded with the tenderer who in terms of 3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

- 1.6.2 Competitive negotiation procedure
- 1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of 3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of 3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.
- 1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of 2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.
- 1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.
- 1.6.2.4 The contract shall be awarded in accordance with the provisions of 3.11 and 3.13 after tenderers have been requested to submit their best and final offer.
- 1.6.3 Proposal procedure using the two stage-system

## 1.6.3.1 <u>Option 1</u>

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

Tender Part C1: Agreement and Co	ontract Data	C1.4	I-3	C1.4 OHS Agreement		
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

- 1.6.3.2 Option 2
- 1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.
- 1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data and award the contract in terms of these conditions of tender.

#### 2. TENDERER'S OBLIGATIONS

### 2.1. Eligibility

- 2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principles, is not under any restriction to do business with employer.
- 2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

## 2.2. Cost of tendering

- 2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer comply with requirements.
- 2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on their website so as not to incur any costs pertaining to the printing of the tender documents.

# 2.3. Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

#### 2.4. Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

Tender Part C1: Agreement and C	Contract Data	C1.4	-4	C1.4 OHS Agreement		
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

#### 2.5. Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

### 2.6. Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

### 2.7. Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting (s) are stated in the tender data.

#### 2.8. Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

#### 2.9. Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

## 2.10. Pricing the tender offer

- 2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.
- 2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.
- 2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.
- 2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

#### 2.11. Alterations to documents

Tender Part C1: Agreement an	C1.4-5			C1.4 OHS Agreement				
Employer	Witness 1		Witness 2		Contractor	Witness 1		Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

#### 2.12. Alternative tender offers

- 2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.
- 2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.
- 2.12.3 An alternative tender offer may only be considered if the main tender offer is the winning tender.

#### 2.13. Submitting a tender offer

- 2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.
- 2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.
- 2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- 2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which signatories are the lead partner whom the employer shall hold liable for the tender offer's purpose.
- 2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- 2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall

	envelope	marked	"technical	proposal".	Each	envelope shall
Tender Part C1: Aç	greement and Cor	ntract Data	(	C1.4-6		C1.4 OHS Agreement
Emplo	pyer W	/itness 1	Witness 2	Contractor	Witne	ess 1 Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

- 2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- 2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- 2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

#### 2.14. Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

### 2.15. Closing time

- 2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing date and time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- 2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

#### 2.16. Tender offer validity

- 2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- 2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.
- 2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

2.16.4	Where a tender 2.13 with the p	requirements of				
Tender Part C1: <i>I</i>	Agreement and	Contract Data	C1.4	<b>1-</b> 7	,	C1.4 OHS Agreement
Emp	bloyer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

#### 2.17. Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: Sub-clause 2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

#### 2.18. Provide other material

- 2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.
- 2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

#### 2.19. Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

### 2.20. Submit securities, bonds, policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

### 2.21. Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

#### 2.22. Return of other tender documents

If so, instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

Tender Part C1: Agreement and C	ontract Data	C1.4	i-8	C1.4 OHS Agreement		
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

#### 2.23. Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

#### 3. THE EMPLOYER'S UNDERTAKINGS

#### 3.1. Respond to requests from the tenderer

- 3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.
- 3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:
  - a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
  - b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
  - c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

#### 3.2. Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

#### 3.3. Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

#### 3.4. Opening of tender submissions

3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

Tender Part C1: Agreement and Co	ontract Data	C1.4	4-9	C1.4 OHS Agreement		
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

- 3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.
- 3.4.3 Make available the record outlined in 3.4.2 to all interested persons upon request.

#### 3.5. Two-envelope system

- 3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.
- 3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

#### 3.6. Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

# 3.7. Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

#### 3.8. Test for responsiveness

- 3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:
  - a) complies with the requirements of these Conditions of Tender;
  - b) has been properly and fully completed and signed, and
  - c) is responsive to the other requirements of the tender documents.
- 3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

Tender Part C1: Agreement and	d Contract Data	C1.4	-10		C1.4 OHS Agreement
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work;
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract; or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

#### 3.9. Arithmetical errors, omissions and discrepancies

- 3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.
- 3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with 3.11 for:
  - a) the gross misplacement of the decimal point in any unit rate;
  - b) omissions made in completing the pricing schedule or bills of quantities; or
  - c) arithmetic errors in:
    - i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
    - ii) the summation of the prices.
- 3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender as tendered or accept the corrected total of prices.
- 3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows.
  - a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.
  - b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

### 3.10. Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

Tender Part C1: Agreement a	nd Contract Data	C1.4	-11	(	C1.4 OHS Agreement
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

#### 3.11. Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project. Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:				
Requirement	Qualitative interpretation of goal			
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.			
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.			
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.			
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.			

Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value
	outcomes in respect of quality, timing and price, and least resources to effectively manage and control
	procurement processes.

The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

#### 3.11.1.1. General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

Tender Part C1: Agreement and	d Contract Data	C	1.4-1	12		онѕ	C1.4 Agreement
Employer	Witness 1	Witness 2		Contractor	Witness 1		Witness 2





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

### 3.12. Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

#### 3.13. Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the
  professional and technical qualifications, professional and technical competence, financial resources,
  equipment and other physical facilities, managerial capability, reliability, experience and reputation,
  expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act,
   2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

#### 3.14. Prepare contract documents

- 3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:
  - a) addenda issued during the tender period,
  - b) inclusion of some of the returnable documents, and
  - c) other revisions agreed between the employer and the successful tenderer.
- 3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

#### 3.15. Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

Tender Part C1: Agreement and Contract Data		C1.4	I-13		C1.4 OHS Agreement	
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2	





# UPGRADING AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

## 3.16. Registration of the award

An employer must within twenty-one (21) days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the CIDB Register of Projects.

### 3.17. Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

#### 3.18. Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

#### **END OF SECTION**

Tender Part C1: Agreement and	Contract Data	C1.4	-14		C1.4 OHS Agreement
Employer	Witness 1	Witness 2	Contractor	Witness 1	Witness 2

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Portion 2 Contract Part C3 Scope of Works

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June 2025

# RUSTENBURG WATER SERVICES TRUST

# BID No RLM/RWST/OMM/0103/2024/25

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

PORTION 2: CONTRACT

PART C3: SCOPE OF WORKS

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

Bid No: RLM/RWST/OMM/0103/2024/25 (Re-advert) Volume 1A: General Clauses, Contract Data and Scope of Works

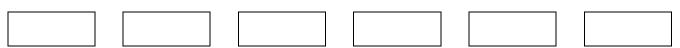
Portion 2 Contract Part C3 Scope of Works



#### **SCOPE OF WORKS C3**

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Volume 1A: General Clauses, Contract Data and Scope of Works

Part C3 Scope of Works

Section C3.1 Description of Works



# RUSTENBURG WATER SERVICES TRUST

# BID No RLM/RWST/OMM/0103/2024/25

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT **WORKS - MECHANICAL AND ELECTRICAL WORKS** 

#### C3.1 **DESCRIPTION OF WORKS**

Witness 1

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# **C3.1 DESCRIPTION OF WORKS**

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Part C3 Scope of Works

Section C3.1 Description of Works



#### C3.1 DESCRIPTION OF WORKS

#### C3.1.1 EMPLOYER'S OBJECTIVES

The Rustenburg Water Services Trust (RWST), a municipal entity established by the Rustenburg Local Municipality (RLM) in terms of the Municipal Systems Act is soliciting tenders from suitably qualified and experienced mechanical and electrical contractors for all manufacture, supply, delivery and installation of the mechanical and electrical works associated with the upgrade of the Bospoort Water Treatment Works (WTW) from 12 Ml/d to 24 Ml/d.

The civil engineering works was executed under a separate contract with minor civil works remaining to be included in this contract.

It is furthermore the Employer's objective to stimulate local economic development through this Contract and the Contractor will be expected to participate in the process by employing local labour and acquiring plant and materials from local enterprises as far as practically possible.

#### C3.1.2 EXTENT OF THE WORKS

The Bospoort Water Treatment Works (WTW) – is situated at **25°33'42.37"S & 27°20'57.16"E**. The plant was constructed in the mid 1950's. It has a current capacity of 12 Ml/d and was last upgraded in 2003. The plant currently consists of an inlet works, Dissolved Air Flotation (DAF), sedimentation, granular activated carbon (GAC) filtration and rapid gravity sand filtration. Final water disinfection is achieved by means of chlorination.

In view of the water shortages in Rustenburg an upgrade of the Bospoort WTW from 12 Ml/d to 24 Ml/d is required. The Bospoort Dam is a highly eutrophic reservoir, the predominant source of inflow into the dam comes from the upstream Boitekong and Rustenburg Waste Water Treatment Works.

This contract involves the mechanical and electrical works associated with the introduction of a number of additional unit processes as indicated on the Geometric Layout Plan, Drawing no 1890.08.AA.10.U002 which includes:

- Hydrogen peroxide dosing system
- Coagulant dosing system
- Liquid oxygen (LOX) storage system
- Ozone generation and dosing system
- Addition of a third dissolved air flotation (DAF) unit and flocculation channels
- Four rapid gravity sand (RGS) filters
- Six granular activated carbon filters
- Dewatering system
- Low-Lift Pump Station to pump water from the RGS Filters to the Ozone Contact Tank;

The following upgrades and refurbishment work is included as part of this contract:

- Refurbishment of two existing raw water pumps
- Replacement of four new high lift pump and motor sets including modifications to pipwork

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Part C3 Scope of Works

Section C3.1 Description of Works



The following electrical and electronic works is included as part of this contract:

- Medium voltage substation and distribution system
- Process instrumentation, power supply, monitoring and control systems for all equipment supplied;
- Supply and installation of area lighting for the plant complete;
- Supply and installation of ONE standby generator system, complete;

The following minor civil works is included as part of this contract:

- Demolish existing screw pump station and O<sub>3</sub> shaft;
- Civil alterations, additions and amendments
- Building work additions, alterations, and amendments
- New sumps and chambers
- Paved access road and parking areas
- Structural steel and metalwork
- Site pipework and fittings (the Contractor needs to collect the free issue pipes & fittings from the nearby Boitekong WWTW and carry out the necessary repairs and deliver to site. The remaining pipes & fittings are to be supplied by the Contractor).
- Corrosion protection repairs
- Sterilising and testing for water tightness of existing water retaining structures.

The Tenderer shall ensure that the processes are properly integrated with the existing unit processes and equipment and ensure that the operation of the existing plant is not interrupted without due notice and prior approval by the Employer.

The Employer reserves the right to reduce the scope of works in line with suitable funding.

Detailed process flow diagrams are included in Volume 4, which contains a set of drawings.

### C3.1.3 LOCATION OF THE WORKS AND DESCRIPTION OF THE SITE

The location of the Site shall be at the Bospoort WTW located on the bank of the Bospoort Dam approximately 14 km to the North-East of Rustenburg.

The access road to the Site is by a 1.5 km dirt road. Refer the Annexure 2 for a Locality Plan on page C3-AN1 (GPS Location: 25°33'42.37"S & 27°20'57.16"E).

The following climatic and general conditions are prevalent on the Sites and the specified capacities of all equipment provided under this Tender shall be applicable under these conditions.

Maximum ambient temperature: 35°C

Minimum ambient temperature: -5°C

24-hour maximum temperature: 30°C

Altitude (meters above mean sea level): 1067 m

Humidity: Medium

Atmosphere: Dusty.

Lengthy periods of sunshine cause high temperatures in indoor enclosures. High breakdown of outdoor synthetic

materials due to extended exposure to ultraviolet rays.

Lightning: High lightning rate.

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#### **C3.1.4 CONSTRUCTION PERIOD**

The maximum Time for Completion of the mechanical and electrical works for the upgrading of the Bospoort WTW is 18 months as per Clause 1.1.3-3 of the Appendix to Tender, inclusive of the builder's break, two months float for the Employers delays and works permits, any other non-working days and the observance of the 12-week Trial Operation Period.

#### C3.1.5 CONSTRUCTION PROGRAM & CASH FLOW

#### C3.1.5.1 Construction Programme

Each Tenderer shall submit with his Tender a suitable and realistic preliminary construction programme (referred to as the Tender Programme) for consideration by the Engineer and based on the indicative time frames provided by the Engineer. This programme shall commence on the Commencement Date, shall be prepared in accordance with the maximum Time for Completion offered for the completion of the Works and shall provide interim completion dates for each milestone or element of the works, including the commissioning period as well as the execution of all mechanical and electrical work.

After award of a Contract, the Contractor shall submit a detailed construction programme to the Engineer in accordance with the requirements of Sub-Clause 8.3 [*Programme*] of the Conditions of Contract. Except as provided above, the approval by the Engineer of the Contractor's construction programme, or of any amendment or adjustment thereto, shall not in any way alter the Contract, act as an estoppel or limit the right of the Employer to demand due performance under the Contract. The approval of a construction programme by the Engineer indicates only that the Engineer will be satisfied if the work is carried out according to such programme and that the Contractor undertakes to carry out the work in accordance with the programme. However, the approval of a construction programme by the Engineer shall not limit his right to give notice to the Contractor to submit a revised programme if the existing programme fails to comply with the Contract.

#### C3.1.5.2 Delay Damages and Early Completion Reward

Delay damages for late completion of the Works are indicated in the Appendix to Tender.

The Employer shall not pay an early completion reward to the Contractor for the early completion of Works.

#### C3.1.6 EXCEPTIONALLY ADVERSE CLIMATIC CONDITIONS

Extension of time resulting from abnormal rainfall or other forms of exceptionally adverse weather conditions in terms of sub-clause 8.4 of the FIDIC General Conditions of Contract shall be determined in terms of the *Critical-path method*.

<u>Critical path method</u> – A delay caused by exceptionally adverse climatic conditions will be regarded as a delay only if, in the opinion of the Engineer, all progress on an item or items of work on the critical path of the latest approved working program of the Contractor has been brought to a halt. Delays on working days only will be taken into account for the extension of time, but the Contractor shall make provision in his program of work for an expected "n" working days caused by normal rainy weather, for which he will not receive any extension of time. The value of "n" shall be according to table 1 below.

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Part C3 Scope of Works

Section C3.1 Description of Works



Table 1: Average delays due to adverse climatic conditions

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tot
"n" delays (rain)	4	3	2	2	0	0	0	0	1	2	3	3	20
"n" delays (other)	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg. rainfall (mm)	134	92	71	62	10	7	2	7	20	53	88	104	650

The number of rain-related delays is the average number of days on which 10mm of rain or more has been measured by the weather station at Weather Station Rustenburg AGR 0511/672. Other exceptionally adverse climatic conditions for which the Contractor must make allowance in his program, have been derived from previous experience of wind and temperature influence on similar construction in the area of the site(s). Actual extensions of time due to exceptionally adverse climatic conditions shall be agreed between the Engineer's and Contractor's representatives on the site. The agreed whole days or parts thereof shall be recorded in the site diary and monthly site meetings. Adjustment of the contract period shall only be made at the end of the Contract when the Contractor may submit his claim for the agreed extension due as well as any additional payment resulting from the delay.

If approved extensions of time extend the completion date beyond the start of the Contractor's holiday in December, the holiday period shall not be considered as working days. Any remaining extension of time at this date shall be calculated from the first statutory working day in January the following year, provided that the Contractor has shown in his program that he intends to close during the traditional Christmas/New Year break.

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Witness 1 Witness 2
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# RUSTENBURG WATER SERVICES TRUST

# BID No RLM/RWST/OMM/0103/2024/25

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS – MECHANICAL AND ELECTRICAL WORKS

# C3.2 ENGINEERING

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#### C3.2 ENGINEERING

#### C3.2.1 CONTRACTOR'S DESIGN

The Engineer has designed the Permanent Works on behalf of the Employer as shown on the Drawings and although the Engineer has selected Plant and Equipment that are deemed suitably sized and selected for the intended purposes of the Employer *for tendering purposes*, in terms of Clause 5 [Design] of the General Conditions of Contract, the Contractor shall be responsible for the detailed design of all mechanical and electrical equipment and associated systems in order to ensure these are appropriately selected and installed to meet the intended application and particular installation conditions on Site.

The Contractor shall submit detailed Process and Instrumentation Diagrams (P&ID) for the Works as well as General Arrangement (GA) drawing with associated equipment lists for each mechanical installation included under the Contract. The Contractor shall not order any equipment without obtaining the Engineer's approval of the applicable P&ID and GA details.

In addition, the Contractor shall submit for the Engineer's approval all applicable design calculations associated with Contractor's selection of all mechanical equipment to be supplied under this Contract, including but not limited to aeration equipment, instrumentation, pumps, mixers, gearboxes, motors, dosing equipment, blowers, compressors *et cetera* and the Contractor shall take due consideration of the civil constraints, location of installation with envisaged worst-case ambient conditions, hydraulics, ergonomics and applicable health and safety requirements. System curves shall be developed by the Contractor for all pumping installations included under this Contract.

With regards to site and interconnecting pipework, the Engineer has provided the proposed layout of the pipework on the Drawings for tendering purposes. However, the Contractor shall be responsible for all final measurements on site, final design, correct manufacturing and installation of all pipe items and specials to suit the installation. Any/all modifications on site shall be handled in terms of the relevant Specifications for repairs to damaged corrosion protection. The Contractor shall also maintain suitable records of all such items in order for the Engineer to complete the as-built drawings at the completion of the works.

In cases where there is a discrepancy between the mechanical drawings and civil drawings, the Contractor shall request clarification from the Engineer prior to proceeding with the affected work.

#### C3.2.2 ALTERNATIVE OFFERS AT TENDER STAGE

The Contractor shall complete the tender in terms of the information provided and requested in the tender document. Failure to complete the tender document, including all items included in the schedule of quantities, may lead to the rejection of the bid.

Where offers from multiple suppliers are required in terms of the Conditions of Tender, the highest-cost offer shall be used to determine the Tender Price. It must however be highlighted that the Employer reserves the right to choose any of the offered alternatives that complies with the Specifications and the Employer further reserves the right to adjust the Tender Price for any of the options to determine comparative tender prices for evaluation purposes. It is therefore in the interest of the Contractor to ensure that all offered alternatives as required in terms of the Conditions of Tender are competitively priced.

In evaluating tenders received, and in accordance with its adopted procurement policy, the Employer is required to satisfy itself as to the competitiveness and cost effectiveness of each tender received. In addition, as a public entity, the Employer is required to ensure that its procurement process is fair,

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equitable and transparent at all times. Accordingly, except for alternatives requested in the tender documents, any tenderer wishing to submit (an) alternative offer(s) for the consideration of the Employer shall ensure that the competitiveness and cost effectiveness of the alternative can easily be determined by the Employer. Bids that are difficult to compare to the prescribed condition of tender and contract and/or to the specified technical requirements are likely to be rejected. Even if comparable, a tender that deviates from the specified conditions or requirements may not be acceptable to the Employer for reasons of risk apportionment or otherwise. Tenderers are therefore instructed to price the specified requirements and schedule of quantities before submitting any alternative offer for the Works.

#### C3.2.3 DRAWINGS

Refer to Volume 4 for the drawings issued for tender purposes.

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# RUSTENBURG WATER SERVICES TRUST

# BID No RLM/RWST/OMM/0103/2024/25

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT **WORKS - MECHANICAL AND ELECTRICAL WORKS** 

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#### C3.3 PROCUREMENT

#### C3.3.1 GENERAL CLAUSES AND REQUIREMENTS

- C3.3.1.1 Bids received shall be evaluated in terms of the tender evaluation criteria described in the Tender Data.
- C3.3.1.2 The mechanical portion of the works shall be carried out by a suitably qualified, experienced and capable mechanical contractor that shall either be the main contractor or the lead partner of a Joint Venture. In the case that the mechanical contractor is the main contractor, he shall have a CIBD grading corresponding to the total value of the tender and based on the Engineer's pre-tender estimates, the required rating shall be at least a 9ME for a contract value above R200 million.

In the event that a joint venture is formed between a mechanical contractor(s) and electrical contractor(s), the combined grading as per the CIDB grading calculator shall be 9ME.

The electrical/electronic portion of the works shall be executed by a suitably capable electrical sub-contractor with a CIDB grading corresponding to the value of the electrical works inclusive of VAT.

The electrical contractor must have successfully completed at least 2 similar and comparative projects, i.e. electrical installation at wastewater or water treatment plants with a minimum value of R30 million per contract in the last 15 years.

Refer to the relevant returnable schedule in Section T2.3 to be completed with the experience of the electrical contractor. The appointment letter and completion certificate of each similar project completed by the electrical contractor are to be attached to the bid submission.

The Electrical Contractor must be registered with the Electrical Contractors' Association South Africa – ECA(SA).

The Electrical Contractor must be registered with the South African Bureau of Standards (SABS) for motor control center and distribution board manufacturing, specifically for the fault levels specified in the project specifications. A valid SABS certificate must be provided as proof with the bid submission.

Only a SABS certificate will be considered acceptable.

- C3.3.1.3 Notwithstanding other requirements of the Contract, the Contractor shall not sub-contract any part of the Contract without prior consent of the Engineer, which consent shall not be unreasonable withheld.
- C3.3.1.4 Any consent granted by the Engineer for the appointment of any sub-contractor shall not imply a contract between the Employer and the sub-contractor, or a responsibility or liability on the part of the Employer to the sub-contractor and shall not imply a contract between the Engineer and the sub-contractor, or a responsibility or liability on the part of the Engineer to the sub-contractor and shall not relieve the Contractor from any liability under the Contract and he (the Contractor) shall be liable for the acts, defaults and neglects of any sub-contractor, his agents or employees as fully as if they were the acts, defaults or neglects of the Contractor, his agents or employees
- C3.3.1.5 Before the Engineer, in terms of Clause 14.6 [Issue of Interim Payment Certificates] of the FIDIC General Conditions of Contract, issues any certificate that includes any payment in respect of work

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done or goods supplied by any sub-contractor in terms of Clause 4.4 [Subcontractors] of the General Conditions of Contract, he shall be entitled to call upon the Contractor to furnish reasonable proof that all payments (less retention moneys) included in previous certificates in respect of the work or goods of such sub-contractors have been made or discharged by the Contractor, in default of which, unless the Contractor:-

- (a) informs the Engineer in writing that he has reasonable cause for withholding or refusing such payment, and
- (b) submits to the Engineer reasonable proof that he has so informed such subcontractor in writing.

the Employer shall be entitled to pay directly such sub-contractor on the Engineer's certificate all payments (less retention moneys) the Contractor has failed to make to such sub-contractor and to deduct, by way of settlement, the amount so paid by the Employer from any moneys owing to or that may become owing to the Contractor.

Provided always that where the Engineer has certified and the Employer has paid directly as aforesaid, the Engineer shall, in issuing any further certificate in favour of the Contractor, deduct from the amount thereof the amount paid direct as aforesaid, but shall not withhold or delay the issue of the certificate when due to be issued in terms of the Contract.

C3.3.1.6 The Contractor shall take note of the Contract Participation Goals (CPG) requirements as described under section T2.2.9 when compiling the tender offer and shall be contractually bound to meet the tendered CPG percentage, failure of which shall result in financial penalty as described in the Particular Conditions of Contract.

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# RUSTENBURG WATER SERVICES TRUST

### BID No RLM/RWST/OMM/0103/2024/25

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT **WORKS - MECHANICAL AND ELECTRICAL WORKS** 

#### **CONSTRUCTION (SPECIFICATIONS)** C3.4

C3.4.1 **General Clauses and Requirements** 

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Part C3 Scope of Works

Section C3.4.1 Specifications (General Clauses and Requirements)



#### C3.4 CONSTRUCTION

#### C3.4.1 GENERAL CLAUSES AND REQUIREMENTS

These general clauses cover the general, administrative, legal and organizational requirements relating to quality of materials, installation, testing, commissioning and maintenance of the installation applicable to this Contract.

These clauses should be read together with all other sections and Standard and Particular Specifications included in the Contract documents or Standard Specifications mentioned in the Contract documents but separately available. The documents should be read and interpreted jointly in order to determine the full requirements of the Contract.

Any/all deviations from these general clauses or technical specifications shall be listed in writing as Deviations at tender stage. Where the Engineer does not approve of these deviations, the Contractor shall be responsible to conform to the requirements of these general clauses and technical specifications.

The general clauses have been sub-divided under four main headings *viz* Section A: General Contract Administration, Section B: General Technical Requirements, Section C: Testing and Commissioning and Section D: General.

#### A. GENERAL CONTRACT ADMINISTRATION

#### C3.4.1.1 RELEVANT ACTS, REGULATIONS AND STANDARDS

The whole of the installation shall comply, and the work shall be executed in accordance with the latest edition of the following:

- (a) The Occupational Health and Safety Act, 1993 (Act no 85 of 1993) and the latest applicable Regulations promulgated in terms of the Act;
- (b) The regulations and by-laws of the local authorities;
- (c) The applicable regulations of the relevant telecommunications authority;
- (d) The local Fire Department Regulations; and
- (e) The latest revisions of the relevant SANS, DIN, BS, IEC and ISO supporting specifications referred to in the Particular Specifications.

#### C3.4.1.2 HEALTH AND SAFETY

The Contractor shall allow in his Tender for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act no 85 of 1993) and the latest applicable Regulations promulgated in terms of the Act, especially the latest Construction Regulation promulgated in 2014.

From the date of site handover until the Taking-Over Certificates are issued, the Contractor shall be responsible for maintaining safe working conditions on Site as prescribed by the Occupational Health and Safety Act and the regulations promulgated in terms thereof. In the event that the Site of the Works is managed by another contractor, the Contractor shall be expected to also adhere to the health and safety regulations prescribed by such contractor.

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The Contractor shall be responsible for supplying and installing the required safety signs as determined by the Occupational Health and Safety Act, 1993 (Act no 85 of 1993) and the regulations promulgated in terms of the Act, both during the construction phase and the completed works. All safety signs shall comply with the requirements of the latest edition of SANS 1186-1 as applicable.

#### C3.4.1.3 RESPONSIBLE PERSONS AND REPRESENTATION

The Contractor shall, before establishing on site, appoint and submit to the Engineer in writing a project organisational chart, listing the name(s) of the responsible person(s) in terms of the Occupational Health and Safety Act, 1993 (Act no 85 of 1993) and the regulations promulgated in terms of the Act within 14 days from being appointed.

The Contractor shall submit to the Employer and Engineer within 14 days of the Commencement Date a list of addresses and telephone numbers of his Representative and key personnel who may be contacted both during and outside normal working hours in connection with the Works. The Contractor shall also refer to Sub-Clauses 4.3 and 6.8 of the Conditions of Contract.

#### C3.4.1.4 QUALITY ASSURANCE AND CONTROL

All materials and workmanship shall be of a suitable type and quality to ensure that the Works will operate satisfactorily in accordance with the Specifications.

The Contractor shall submit a Quality Assurance Plan outlining quality assurance policies and procedures to be used for the project relating to the areas such as materials, manufacturing, and installation and testing. A documented quality control and quality assurance system shall be maintained, which shall be in accordance with ISO 9000 or equivalent approved by the Engineer. The Contractor shall ensure that the same requirements is applied to products, systems, and services supplied by his sub-contractors and suppliers. The Contractor shall file all quality certification documents relating to the products and systems supplied for the Works. The Engineer shall have full access to such files.

Registration to ISO 9001:2000 is preferable and evidence of current registration to this or another acceptable quality management system shall be provided upon request.

#### C3.4.1.5 DRAWINGS, DOCUMENTATION AND SAMPLES

#### C3.4.1.5.1 Engineer's Drawings and Documentation

The Tender Drawings prepared by the Engineer and issued with the tender show the general layout and position of the mechanical and electrical works to be supplied and installed under this Contract, as well as the civil work to be constructed by others. These details may in some instances constitute schematic arrangements. These drawings, together with the Specification, are deemed to provide sufficient detail to enable the Contractor to determine the requirements of the Works and to price and schedule the supply, installation and commissioning of all associated Electrical and Mechanical Plant.

The Engineer's drawings are not dimensioned installation drawings and thus cannot be used for construction purposes and the preparation of workshop drawings.

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Section C3.4.1 Specifications (General Clauses and Requirements)



# C3.4.1.5.2 Contractor's Drawings and Documentation

#### C3.4.1.5.2.1 General

All drawings and documentation submitted by the Contractor shall be in English and shall comply with the requirements prescribed below.

All the symbols used in the electrical drawings shall be in accordance with IEC Publication 60617 unless otherwise specified in the Project Specifications and the SI system of units shall be used throughout.

All designs shall be complete, accurate and geographically correct. The designs and drawings shall be sufficiently detailed to enable construction and installation to proceed without further need for additional drawings or documentation.

All drawings and documentation submitted shall be suitably identified and labelled by means of title blocks, page numbers and revision status.

All designs and drawings shall be submitted for the Engineer's approval prior to the commencement of equipment ordering, manufacturing or construction on site. Approval by the Engineer of any design or drawing does not relieve the Contractor of his responsibility of any part of the works manufactured or constructed in accordance with the design or drawing. Designs approved by the Engineer shall not be altered without his written agreement.

#### C3.4.1.5.2.2 Preparation and Submission of Drawings

All drawings shall be accurately scaled in terms of generally accepted scaling factors and submitted on A3 size sheets.

Electronic submissions of drawings shall in all instances comprise of \*.DXF (Drawing Exchange Format) or \*.DWG (AutoCad) formats accompanied by the \*.PDF (Adobe Reader) format.

The Contractor may request a set of the Engineer's drawings in digital or paper format for modification and updating if necessary. These drawings shall be re-titled in accordance with the Contractor's system and shall thereafter be submitted as a Contractor's drawing.

The Contractor shall submit all drawings with reasonable promptness and in an orderly sequence as to cause no delay in the execution of any work directly or indirectly linked to the finalisation of the details contained in the drawings. The Engineer shall be given reasonable opportunity of at least 14 days to evaluate, comment on or approve the drawings. In the event that the Engineer does not respond within the said period, the Contractor shall notify the Engineer in writing of his acceptance that the drawings have been approved and that manufacturing and/or construction will commence in accordance with the drawings.

The Contractor shall make the corrections or provide additional information if requested by the Engineer and shall re-submit the corrected or updated drawings until approved. When re-submitting drawings, the Contractor shall specifically direct the Engineer's attention (in writing) on revisions other than the corrections required by the Engineer on previous submissions.

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#### C3.4.1.5.2.3 "As-Built' Drawings

"As-Built' drawings shall be furnished on completion and the relevant completion certificate shall not be issued until such drawings have been received and approved by the Engineer.

Final and approved as-built drawings shall be submitted to the Engineer in five-fold hard copy in A3 size accurately scaled. In addition, the Contractor shall also prepare one complete set of all drawings in digital format as specified above for submission to the Engineer.

#### C3.4.1.5.3 Operation and Maintenance Manuals

The submission of draft Operation and Maintenance (O&M) manuals is a prerequisite to commencing with the Tests on Completion. Two (2) copies of the draft manuals shall be submitted in terms of the format described below for the Engineer's approval at least two weeks prior to the commencing of the Tests on Completion.

Once the Operating and Maintenance manuals have been approved by the Engineer, four (4) complete sets of the manuals shall be provided by the Contractor to the Engineer. The submission of these final manuals shall not be later than four weeks after the works have been taken over by the Employer.

The manuals shall be printed on durable paper and be neatly and securely bound in A4 size hard-backed plastic/waterproof ring binders with clear pockets on the spine and front cover for insertion of title slips giving the contract number, scheme description and equipment supplied.

As-Built drawings in A3 size, index and other title pages shall be contained in separate pockets.

#### Layout and content

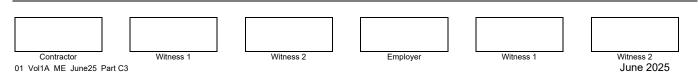
The manual shall contain the following:

- (1) Title page
- (2) Contents list
- (3) List of drawings and appendices
- (4) Maintenance and Lubrication Schedule (summary)

The maintenance schedule shall be in table format and shall include a summary of all the maintenance actions required of all the different systems and functional units covered by the manual to give an overall summary of maintenance actions required for the complete works.

The schedule shall indicate daily, weekly, fortnightly, monthly and annual maintenance actions. A lubrication schedule shall also be included under this section.

A schedule indicating daily, weekly, fortnightly, monthly and yearly maintenance actions shall also be provided.



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Section C3.4.1 Specifications (General Clauses and Requirements)



### (5) Detailed Plant description

- The main body of the manual shall be divided into sensible sections, each covering a system or functional units. Each section shall contain the following sub-sections:
  - >> Plant Description (brief but detailed);
  - >> Maintenance and Lubrication Schedule (in table format);
  - >> Process and Instrumentation Diagrams (P&ID's);
  - >> Operating instructions (including start-up and stopping procedures as well as manual and/or automatic operation)
  - >> Fault Finding
  - >> Equipment Data Sheets containing as a minimum:
    - (a) Equipment Tag Number (for asset register purposes)
    - (b) Equipment Description
    - (c) Supplier Details
    - (d) Model and Make
    - (e) Cost of supply (at date of tendering)

#### >> Equipment Technical Manuals

For each piece of equipment and/or machine supplied, the following shall be provided under this sub-section:

- (i) Supplier's Operation and Maintenance instructions
- (ii) Parts list and data sheets
- (iii) Calibration charts
- (iv) Test certificates for hydraulic pressure tests, flame proof grading, materials, non-destructive tests, coating and lining details
- (v) Applicable drawings and details

#### (6) As built drawings

Folded A3-size as built drawings correctly scaled.

(7) Computer programmes and software

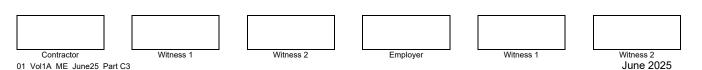
Digital copies of programmes and software as required by computerised systems installed on the project as required for maintaining, updating or altering the system by the Employer or Operator.

(8) Wiring diagrams of electrical installations (separate volume)

#### C3.4.1.5.4 Documents to be submitted with Tender

Apart from the documents required in terms of the Tender Data and Returnable Documents, the following information shall be submitted with the Tender, neatly bound in an A4 level-arch file and titled 'Proposal'. One original plus a full copy shall be provided with the tender.

(1) Cover letter containing the tender price and well as comments on the compliance with the commercial terms of the tender, including confirmation of acceptance of proposed Contract



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Price Adjustment formulae;

- (2) List of items subject to variations in Rate of Exchange, including costs subject to variations, currency and rate of exchange applicable to the tender pricing;
- (3) Comments on technical compliance, recording any deviations from the specification by quoting the relevant clause number;
- (4) Reference list for all plant and equipment offered, including country of origin. All equipment offered shall have a minimum of 5 years proven record, shall have local agents carrying the necessary inventory of critical spares and equivalent installations locally or abroad:
- (5) Technical literature (supplier brochures, pump curves, technical pamphlets) relating to offered plant and equipment listed under (4);
- (6) Recommended list of critical spares and consumables with associated costs;
- (7) Company profile of tendering entities, including any/all sub-contractors;
- (8) Proof of Quality Management registration;
- (9) Preliminary Project Programme;
- (10) Reference list of previous projects of similar type indicating project description, size in terms of value of works, contractor's specific role in project, location and client.

#### C3.4.1.5.5 Samples

The Contractor shall, prior to placing orders, and if required by the Engineer, submit samples of all material and equipment to the Engineer for approval.

For large equipment such as high voltage switchgear, transformers, standby generators, pumps, compressors and lifts, catalogues and brochures shall be submitted for approval.

Equipment and material shall only be approved in writing by the Engineer and the Contractor is responsible for obtaining such approval prior to commencing with the installation.

#### C3.4.1.6 CONSTRUCTION PROGRAMME

In addition to the requirements of Clause 8.3 of the General Conditions of Contract, the programme shall be compiled by means of MS Project in Gantt chart form.

The initial shall be approved by the Engineer in writing and shall constitute the baseline programme. The critical path shall be clearly indicated on the programme and shall be used to assess any claims by the Contractor for extension of time due to any reason whatsoever. No extension of time will be granted in the absence of an approved baseline programme, which may be updated from time to time as ordered by the Engineer. Any revisions of the baseline programme that influences the critical path shall be brought to the Engineer's attention in writing, also stating the reason for such changes.

#### C3.4.1.7 CONTRACTOR'S EQUIPMENT

The Contractor's Equipment for construction and erection of the Works shall be adequate for the purpose required, of modern design and in good condition to carry out the Works expeditiously. Should the Engineer be of the opinion that the Contractor's Equipment is in anyway unsuitable for carrying out the Works in a manner or at a rate commensurate with the requirements of the Contract, he shall have the right to instruct the Contractor at any time during the Contract to provide additional or improved plant, tools and equipment in order to meet the specified requirements.

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#### C3.4.1.8 SITE MEETINGS

The Contractor or his authorized representative(s) shall attend all meetings held on the site with representatives of the professional team at dates and times to be determined by the Engineer.

Progress meetings shall be held at least once a month on Site from the Commencement Date to the date of Taking-over for coordination purposes and to evaluate the progress of the Contract.

Ad-hoc technical meetings will be arranged at a suitable venue as and when required.

The Contractor shall also allow in his tender for attending at least one HAZOP meeting at the Engineer's offices once the mechanical designs have been completed.

The Contractor or his authorized representative(s) shall attend all steering committee meetings with the appointed Community Liaison Officer.

Weekly commissioning meetings shall be held during the testing and commissioning stages.

The Engineer will chair all progress and technical meetings, prepare and circulate minutes, as determined by him in consultation with the Employer. The Contractor shall chair the commissioning meetings and be responsible for associated administration.

The Contractor shall submit monthly progress reports as required by Sub-Clause 4.21 of the Conditions of Contract in a format to be agreed between the Contractor and Engineer.

#### C3.4.1.9 SUB-CONTRACTORS

The Contractor's appointment of any sub-contractor shall be subject to the approval of the Engineer. All sub-contractors employed by the Contractor shall be suitably qualified and experienced to carry out its portion of the work.

#### C3.4.1.10 CONCURRENT CONSTRUCTION ACTIVITIES

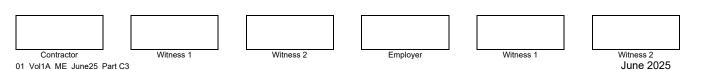
The installation of the mechanical and electrical equipment will coincide with other construction activities on Site and the Contractor shall co-operate with any/all other contractors on site regarding final designs in order to determine areas of interface. These designs shall, when finalised, be submitted to the Engineer for approval. The Contractors shall also be required to co-operate with other contractors during the installation of equipment and shall carry out his work in such a manner to cause minimum interference and delays to other contractors.

#### C3.4.1.11 HANDLING AND STORAGE OF EQUIPMENT

The Contractor must allow for an area in which the mechanical and electrical equipment may be stored on Site before it is installed. The Contractor shall arrange for any required off-site storage prior to delivery to the Site.

#### **C3.4.1.12 TRAINING**

The Contractor shall be responsible for the initial training of the Plant Operator during the testing and commissioning of the Works, as well as on-going training during the defect's notification period.



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Training shall focus on the correct operation and maintenance of the Plant and shall address the following issues, amongst others:

- Start-up, shutdown and safety procedures;
- Maintenance requirements and relevant intervals;
- Troubleshooting and corrective actions;
- Understanding all processes, equipment and control methodology;
- Operation and maintenance of SCADA system (if applicable);
- Operating the works in manual mode in cases when SCADA is not available (if applicable);
- Execution of tests, relevant calculations and calibration of equipment;
- Maintenance and operation of instrumentation;
- Collection, interpretation and reporting of process data.

Once the training has been completed, all operators shall be examined by the Contractor to ensure that the subjects and training material covered has been adequately mastered. The Contractor shall subsequently compile a training report for the Engineer's approval stating the following:

- Training subjects and material covered;
- Name and ID number of all operators trained;
- Outcomes for examination of Operators;
- Final sign-off from Contractor that all training in terms of Specifications has been completed.

The Contractor's training staff shall be conversant in English and shall be knowledgeable and experienced in the manufacture, erection, testing, fault finding and maintenance of the equipment installed under the Contract.

#### C3.4.1.13 GUARANTEES

All plant and equipment supplied under the Contract, shall be fully guaranteed against all defects arising from faults in the design, manufacture and workmanship for a period of at least **10 years** from the date of handing over.

All equipment shall be guaranteed for a period of **5 years** from the date of handing over to cover all defects attributable to inadequate corrosion protection.

All defects recorded within the above periods shall be rectified entirely at the expense of the Contractor. The attendance of the Contractor, specialists appointed by the Contractor or any subcontractor required to resolve the defect shall be required within **10 days** of notification of such defect(s).

Should any design fault become apparent to the Engineer or the Employer for a period of 5 years after handing over of the Works, the Contractor shall deliver all components necessary to correct the fault, together with all the specialist assistance, free of charge to the employer.

#### B. GENERAL TECHNICAL REQUIREMENTS

#### C3.4.1.14 DESIGN

With regards to this Contract, the Employer's Requirements, including the proposed size and position of the new equipment, cable routes etc. are indicated on the tender Drawings issued under

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Volume 4 while the technical details are described in subsequent clauses and in the Specifications (refer to Volumes 2 and 3). Although the Engineer, on behalf of the Employer, has endeavoured to design and specify the Works as accurately as possible *for tender purposes*, the Contractor shall, in terms of the provisions of Clause 5 [*Design*] of the General Conditions of Contract, be responsible for the final design of the mechanical and electrical equipment to be included in the Permanent Works, ensuring that all equipment offered are fit for its intended purpose.

When designing the Works, the Contractor shall take cognisance of the following:

- (a) The Works shall be designed to facilitate easy accessibility, equipment replacement, maintenance, handling, inspection, cleaning and repairs, and to ensure satisfactory operation in which safety of plant, personnel and public and continuity of service is primary considerations.
- (b) All plant, equipment and apparatus shall operate satisfactorily under the ambient climatic conditions prevailing at the site specified under Section C3.1.
- (c) All apparatus shall be designed to prevent the risk of damage due to the activities of animals, birds, ants and vermin.
- (d) Fire risk shall be minimised as far as possible.
- (e) All moving, rubbing or wearing surfaces shall be machined or ground where they bear upon each other.
- (f) All equipment shall be designed for operation on normal electrical supply systems with voltage fluctuations of  $\pm$  10%.
- (g) The Works shall be designed for a life span of at least **10 years** for mechanical and electrical equipment.

With regards to the civil portion of the Works, the Engineer has designed the Works and details thereof are indicated on the tender Drawings and Specifications. The Works included under this Contract shall be constructed by others strictly in terms of the Drawings and Specifications.

#### **C3.4.1.15 STANDARDS**

All electrical equipment shall be of approved manufacture and its construction, design and testing shall be in accordance with the requirements of the most recent South African National Standards, British Standards or IEC publications including all amendments issued thereto up to the date of tender. The design and installation of the equipment shall also comply with the relevant clauses of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) and the regulations promulgated in terms of this Act, as well as the Code of Practice for the Wiring of Premises, SANS 0142.

For all material and equipment that are required to conform to any national or international specification or standard, the Contractor shall submit a certificate to the Engineer, issued by an accredited testing laboratory clearly stating that the material and equipment complies with the specific specification or standard.

Notwithstanding reference in this specification to the South African or British Standards and the IEC

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or ISO recommendations, the supplier may submit for approval by the Engineer, material and designs conforming to other technically equivalent national standards and shall submit documentary proof in English of actual compliance therewith.

#### C3.4.1.16 QUALITY OF MATERIALS

All material and equipment shall be new and suitable for the prevailing conditions at the Site, which shall include climatic conditions as well as the conditions under which materials and equipment are installed, stored and operated without distortion, deterioration or inducing undue stresses in any part such as to affect the efficiency and reliability of the plant and also without affecting the strength and suitability of the various parts for the duty which they have to perform.

All material and equipment shall conform in respect of quality, manufacture, tests and performance, with the relevant requirements of the SANS or where no such standards exist, with relevant current specification of the British Standards Institution and/or relevant IEC and/or ISO publications. Where applicable, the material shall bear the stamp of the relevant standards body.

Where proprietary materials and equipment are specified or required, approval of such materials or equipment shall be at the sole discretion of the Engineer once the appropriate samples or technical literature have been submitted.

#### C3.4.1.17 ELECTROMAGNETIC INTERFERENCE

All equipment installed under the Contract shall comply with the requirements of IEC 61000 Parts 1 to 6 *Electromagnetic Compatibility (EMC)*.

Any equipment found producing Electromagnetic interference subsequent to commissioning shall be suppressed or replaced to the satisfaction of the Engineer without any additional costs to the Employer.

#### C3.4.1.18 CORONA, RADIO AND TV INTERFERENCE

All plant and equipment shall be designed so as to minimize corona or electrical discharge and radio and TV interference, and shall comply with national rules and regulations in respect to radio and TV interference.

Any equipment found producing radio or TV interference subsequent to commissioning shall be suppressed or replaced to the satisfaction of the Engineer without any cost to the Employer.

#### C3.4.1.19 INTERCHANGEABILITY

Corresponding parts throughout the works shall be made to accurate tolerances that similar components or spares shall be fully interchangeable without any further alterations or adjustments being necessary.

#### C3.4.1.20 BOLTS AND NUTS

Unless otherwise specified in the Project or Particular Specifications, the following general requirements shall be applicable:

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- (a) The threads of all bolts, nuts and studs shall be in accordance with SANS 1700-7-3, 1700-7-5, 1700-14-3, 1700-14-4 (in part);
- (b) No brass bolt or stud shall have a diameter of less than 6mm;
- (c) Two washers shall be installed underneath each bolt and nut;
- (d) Each bolt shall protrude by at least three threads but not more than five threads through the nut with all washers in position;
- (e) The Contractor shall supply to the Employer any special tool required for any nut, bolt, screw or other fastener used in a position which is not accessible using conventional tools. This also applies where the size or shape of the fastener is not conventional.

#### C3.4.1.21 GALVANISING

Unless otherwise specified in the Project or Particular Specifications, the following general requirements shall be applicable:

- (a) Where galvanising is specified or a requirement of the design, such galvanising shall be performed by the hot-dip process to SANS EN 10240 in part and SANS ISO 1461;
- (b) For all parts, other than wires, the equivalent zinc coating thickness shall not be less than 455g of zinc per square metre of surface;
- (c) The galvanising must be clean, smooth, of uniform thickness, unblemished and free from defects;
- (d) All drilling, welding, cutting, sawing, punching, filing and bending shall be complete and the metal shall be cleaned of any machining blemishes, mill scale, rust and lubricants, before galvanising;
- (e) Galvanised areas must be kept free of lubricants. Surfaces which are in contact with oil shall not be galvanised or cadmium plated;
- (f) Electrolytic deposition of zinc is not acceptable.

#### C3.4.1.22 WELDING

Unless otherwise specified in the Project or Particular Specifications, the following general requirements shall be applicable:

- (a) All welding shall comply with the appropriate international standards such as BS 1856 (General Specification) and BS 709 (methods of testing);
- (b) Welding shall be executed in accordance with modern accepted practice and shall be sound, full strength and free from undercut and slag inclusions. Crater effects at the end of weld runs shall be eliminated;
- (c) Intermittent welding and incomplete penetration butt-welding will not be accepted;
- (d) All fabricated items shall be stress relived after welding.

#### C3.4.1.23 LABELS AND NOTICES

Unless otherwise specified in the Project or Particular Specifications, the following general requirements shall be applicable:

- (a) Identification labels shall be attached to all equipment, motors, control gear and all panels and equipment contained therein;
- (b) All labels and plates shall be of an approved non-corrosive material and shall be fixed with stainless steel or nickel-plated screws of ISO metric thread form;

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- (c) Labels shall have a matt or satin finish to minimise reflection;
- (d) Labels shall have black lettering on a white background. Danger plates shall have white lettering on a red background;
- (e) Cables shall be labelled at both ends, at through joints and at regular intervals;
- (f) Cables shall be labelled on both sides where the cable passes through a permanent obstruction;
- (g) All lettering shall be in uppercase letters, except where standard abbreviations of units are used such as kVA, kWh or MPa.

#### C. TESTING AND COMMISSIONING

#### C3.4.1.24 FACTORY ACCEPTANCE TESTS

Manufacturer type or factory acceptance tests (FAT's) shall be performed on all equipment at described in the Project or Particular Specifications.

For equipment manufactured outside the borders of South Africa, the requirement for witnessing factory acceptance tests by a representative(s) of the Engineer and the Employer shall be clearly specified in the Project Specification and a separate payment item provided in the schedule of quantities for attendance of such tests.

The Engineer or a duly appointed third party inspectorate reserves the right to be present at all/any tests conducted on any equipment to be supplied under the Contract.

For any factory acceptance test, at least one (calendar) weeks' notice shall be given to the Engineer of such test in writing.

No equipment shall be dispatched to site prior to approval of the factory test results by the Engineer.

#### C3.4.1.25 TESTS ON COMPLETION

Notwithstanding any requirements of Clause 9 [Tests on Completion – Contractor's Obligations] of the General Conditions of Contract (Fidic Yellow Book), the following tests on completion shall be executed by the Contractor:

#### C3.4.1.25.1 Dry testing as part of construction

Once the construction of the Works or a Sub-section has reached the stage of completion where it can be tested, the Contractor shall give to the Employer notice of the date at which the Contractor will be ready to carry out the Dry Commissioning of the Works or any Sub-section thereof. Dry Commissioning shall commence as soon as the Works or a Sub-section is mechanically and electrically ready to test, it shall undergo pre-commissioning tests and inspections to check the following general aspects:-

- Components of the Works or Sub-section are complete and comply with the Drawings, Specifications and data as indicated in the manufacturer's documentation;
- The assembly has been carried out in compliance with the above documents and professional practice:
- Visual checking of general installation and appearance.

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In addition dry commissioning shall include the following specific aspects:

- Thorough check of all ergonomic (lighting and noise), maintainability and safety related aspects;
- Thorough check of flow lines of products, materials, fluid, and compressed air;
- Thorough check of electrical, hydraulic, pneumatic and electromechanical circuits;
- Thorough check of all functional and control loop tests (equipment level);
- Dry-run of every machine and checking of its operation and, if necessary, running in;
- Calibration checks and supporting documentation on all metering and monitoring equipment;
- Dry-run or no-load run of every section;
- Fixing of equipment, pipes, brackets, anchors, etc.;
- Written proof of all direction testing and alignment tests on pumps, motors and rotating equipment;
- Statutory testing requirements (Lifting, hoisting, pressure vessels etc.);
- Checking and testing of all actuators, valve and control valve settings;
- Water testing of chemical dosing equipment, pipes, joints;
- Water tightness and pressure tests on all water retaining structures, pressure vessels, pipelines and pipe fittings;
- Visual checking of general appearance and equipment labelling;
- Checking of all terminations;
- Verify correctness of field equipment statuses in relation to PLC and SCADA displays (if applicable);
- Testing of low voltage cables;
- Testing of high voltage cables;
- Checking of all safety settings;
- Directional testing of rotating elements;
- General safety of installations;
- Signals and SCADA/MMI configuration;
- Completion and issuing of all test reports and test certificates;
- Completion of cathodic and lightning protection;
- Compilation of an asset register suitable for integration with the Financial and Computerised Maintenance Management system of the Client;
- Completion and issuing of all equipment and O&M manuals including functional specifications and control philosophy;
- Supply of all critical spares and special tools on site;
- Check that first charge of chemicals has been delivered (if applicable);

#### C3.4.1.25.2 Wet commissioning and testing as part of construction

Once the dry testing of all equipment in terms of the above has been completed, each process and system will be wet commissioned, which shall include the same operations as for dry commissioning tests but with the equipment loaded. The Employer will provide suitable raw water and power as set out by the Contract. The Contractor shall provide the first charge of chemicals for testing purposes. Wet commissioning shall entail the following:

- Performance testing of all equipment at specified duties and efficiencies for at least 24 hours continuously.
- Checking of levels, flows, pressures and temperatures at minimum and maximum operating conditions for all operational scenarios.

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- Temperatures of all bearings.
- Vibration of rotating elements.
- Calibration of dosing equipment.
- Water tightness tests of installations at full production.
- Functional and control loop testing (process level).
- Site performance tests on individual equipment as per the testing plan.
- Performance and control tests on the entire system
- Performance testing of sludge dewatering plant, inclusive of any/all sampling and analyses as per the Specifications.

After successful completion of the Wet Commissioning of all equipment and processes and the Works as a whole, the Trial Operation Period as defined below shall commence.

#### C3.4.1.25.3 Trial Operation Period

After successful completion of the wet commissioning phase and submission of the draft Operation & Maintenance manuals in the prescribed format, a 12-week Trial Operation Period shall commence during which the new treatment processes shall be operated under the auspices of the Contractor. The Contractor shall provide full-time attendance for the duration of the Trial Operation Period during normal working hours (07h00 to 18h00) and shall have an individual(s) on standby during non-working hours for any/all emergencies.

The purpose of the Trial Operation Period is to (a) prove the functionality of all mechanical and electrical equipment installed under the Contract, to (b) do final adjustment and optimization of relevant operational settings and to (c) prove the improvement and ultimate compliance of the final effluent.

With regards to point (c) above, the Contractor shall allow in his tender price for the taking of 20(No) grab samples of the final effluent and the analysis for the following parameters by an accredited laboratory:

- Chemical Oxygen Demand (COD)
- Suspended Solids
- Ammonia
- Nitrite
- Nitrate
- Ortho-Phosphate

The Trial Operation Period shall be declared successful if/when the plant operates as intended without any mechanical and/or electrical failure for a continuous period of 4(No) consecutive weeks, at which time the Taking-Over Certificate shall be issued signifying the start of the 12-month defect's liability and maintenance period.

#### C3.4.1.25.4 At the end of the Defects Notification Period

All equipment and items supplied under this Contract shall be **serviced** and **tested** at the end of the **12-month** Defects Notification Period, to prove that it complies with the Specifications prior to the issuance of the Performance Certificate signifying final completion and acceptance of the Works.

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#### C3.4.1.26 GUARANTEES OF PERFORMANCE

The Contractor shall guarantee the output and efficiency of all machines, which guarantees shall be binding under the Contract.

The fulfilment of these guarantees shall be demonstrated at the Contractor's factory premises or a suitable off-site test facility approved by the Engineer.

All measuring instruments used in the tests shall have previously been certified by an independent testing authority, not more than one month prior to the test and to the Engineer's satisfaction.

Where guaranteed performance is specified, certified test curves shall be drawn from the test data obtained from the purchased equipment and shall include for pump (as an example) head (m), quantity pumped (m³/h or l/s), efficiency (%), power consumption (kW), speed in rpm and speed/torque (rpm/kNm). The probable performance with maximum and minimum impellers shall also be indicated, as well as tested NPSH available.

Each mechanical item shall be checked for acceptable vibration limits and noise limits during testing. The Contractor shall ensure that the mechanical item deliver the "Required minimum and maximum output", by adjustment of the equipment or taking whatever action is necessary should there be any shortfall in the output measured in fulfilment of the Guaranteed Performance criteria.

Discount by the Contractor in *lieu* of under-performance of the mechanical equipment relative to the Guaranteed Performance will not be acceptable.

The performance of the sludge dewatering equipment shall be guaranteed as required in terms of the Specification and penalties shall be applicable for non-compliance with respect to the guaranteed figures.

#### C3.4.1.27 TEST PLAN AND REPORTS

Method statements and test reports shall be submitted prior to and after the successful completion of each testing phase. The following documents shall be submitted in writing to the Engineer:

- Overall testing plan, including method statements and schedule of testing activities prior to commencing with dry commissioning;
- Progressive testing reports as detailed in the testing plan;
- Tests on completion:
  - Dry commissioning report;
  - Wet commissioning report;
- Method statement for the execution of the Trial Operation Period;
- Performance test report at end of Defects Notification Period;
- Failure investigation reports (where necessary) during Defects Notification Period.

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#### D. GENERAL

#### C3.4.1.28 SITE FACILITIES AND SERVICES AVAILABLE

#### C3.4.1.28.1 Location of site camp and depot

The site of the existing works is constrained in terms of space and thus it is not envisaged that the site camp and depot can be accommodated within the perimeter of the works. The Contractor shall thus be expected to make the necessary arrangements with the local municipality for a suitable site camp in close proximity to the Site and shall carry all costs associated with such arrangements. The requirements for the site camp are described in Particular Specification PPG.

#### C3.4.1.28.2 Access to Site

The Contractor may make use of the existing access road to and within the Site, but shall be responsible to restore these roads to a similar or better condition that prevailed at the Commencement Date and at his expense. If the Contractor requires additional access to and within the Site, these shall be constructed at his own expense. Proper access control shall be instituted by the Contractor to prevent any unauthorised entry.

#### C3.4.1.28.3 Water supply

Potable water is available on Site and the Contractor shall be responsible under the Contract for the supply and distribution at his Cost of all water that he may require for purposes of construction, testing and commissioning of the Works. Accordingly, the Contractor shall pay all consumption charges, and at his cost provide all connections, consumption meters, pipework, storage tanks, transport and other items associated with the supply of water for construction activities. All connections to pipelines of the Employer shall be in accordance to standards approved by the Employer and the Engineer.

Water for construction activities and domestic use at the Contractor's camp will be charged at R 8.00/kl and amounts shall be payable to the Employer.

#### C3.4.1.28.4 <u>Power supply</u>

Electricity is available on Site for construction activities and the Contractor shall be responsible for the supply and distribution at his Cost of all electricity that he may require for the purposes of constructing the Works. Accordingly, the Contractor shall pay all consumption charges, and at his Cost provide all connections, transformers, consumption meters, cables, distribution boards and other items that are associated with the supply of electricity for construction of the Works.

The Contractor shall, subject to the approval of the Engineer, make the necessary arrangements with the Plant Operator for the required electrical connection. The distribution of electricity shall be in accordance with the applicable bylaws and regulations of the Rustenburg Local Municipality and electrical consumption shall be billed at 228.5c/kWhr subject to any increase by the Energy Regulator.

### C3.4.1.28.5 Rail facilities

The nearest goods handling station is in Rustenburg, approximately 18 km from the Site. The

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Contractor shall make the necessary arrangements to utilize the railway service.

#### C3.4.1.28.6 Sanitation

The Contractor shall provide the necessary ablution facilities for his camp and depot. Pit latrines shall not be allowed and the Contractor shall provide a connection to the treatment works or install a conservancy tank, which will be removed once construction has been completed.

#### C3.4.1.29 EXISTING SERVICES AND STRUCTURES

The position and details of all existing services and structures known to the Engineer are shown on the Drawings or on the as-builts of previous construction activities that shall be issued to the Contractor on award of the Contract. Although the Engineer has endeavoured to indicate the position of the services and structures as accurately as possible, it will remain the responsibility of the Contractor to prove the exact position of all services impacted by construction activities prior to commencing with such activity.

Any/all services and structures damaged during the construction period due to construction activities shall be repaired by the Contractor as soon as practically possible at the Contractor's expense. In emergency situations, the Employer or its mandated agent may undertake critical repairs at the cost of the Contractor should this be deemed necessary.

It must be highlighted that the majority of construction activities will be undertaken in and around an existing water treatment facility and it is a specific requirement of this Contract that the construction of the new infrastructure shall have no or minimal impact on the operation of the plant. It may be necessary for Contractor to schedule certain activities during low flow conditions i.e. typical in the dry season (winter) and/or during the night.

In the event that the Contractor deems it necessary to make alterations to the existing services or structures, such alteration shall be approved by the Engineer prior to execution.

#### C3.4.1.30 FIRE-RISK

The Contractor shall be responsible to safeguard the plant and areas adjacent to the Contractor's camp against fire caused in any way by the construction activities on Site. The Contractor shall be responsible for any damage or loss suffered in this regard.

#### C3.4.1.31 CONDITIONS OF EMPLOYMENT OF LOCAL LABOUR

In accordance with the Conditions of Contract the Contractor shall be responsible to engage all staff and labour, local (including CLO's) or otherwise, collectively the Contractor's Personnel. A contract of employment or subcontract shall be signed between the Contractor and each of his employees or sub-contractors as the case may be. Likewise contracts of employment must be entered into between each such sub-contractor and each of the specific subcontractor's employees. Although the Contractor shall adhere to the minimum wage rates described below he is at liberty to negotiate additional incentive payments based on performance.

Contracts of employment or sub-contracts should provide for the following basic conditions:

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- (a) The minimum wage payable will be determined in terms of latest applicable (at the time of tendering) legislation and shall, as a minimum, adhere to section 56(1) of the Basic Conditions of Employment Act (Act 75 of 1997), Sectorial Determination 2: Civil Engineering Sector as published by the Department of Labour.
- (b) The Contractor shall adhere to the provisions for payment method and intervals, overtime and pay for work on Sundays and public holidays (if required) in the Basic Conditions of Employment Act (Act 75 of 1997).
- (c) The Contractor shall register all labourers employed on the Contract with the Workmen's Compensation Commissioner and the Unemployment Insurance Fund, as applicable. The Contractor shall obtain the Unemployment Insurance Fund and Workmen's Compensation registration cards.
- (d) Workers shall be entitled to one (1) day sick leave with full pay per month worked. This will accumulate if the leave is not used.
- (e) Annual leave shall be calculated as published in terms of (the latest edition of) section 56(1) of the Basic Conditions of Employment Act (Act 75 of 1997), Sectorial Determination 2: Civil Engineering Sector as published by the Department of Labour.
- (f) Upon termination of the Contract, each locally employed labourer shall be entitled to receive his/her Unemployment Insurance Fund and the Workmen's Compensation registration cards as well as a Certificate of Employment from the Contractor clearly stating the following:
  - i) The type of work done.
  - ii) The duration of employment.
  - iii) The number of days absent from work.
  - iv) The Contractor's general impression of the quality of work done.
- (g) The Occupational Health and Safety Act must be adhered to with reference to the safety of all employees employed by the Contractor. Suitable safety equipment and clothing shall be issued and maintain by the Contractor for the duration of construction.
- (h) Should any of the above conditions be less favourable than any bargaining council agreement or Act applicable to the Contractor, the more favourable condition shall apply.

#### C3.4.1.32 SURVEY AND SETTING OUT

Benchmarks are available on Site and shall be use for construction purposes.

The Engineer has shown the position of the permanent survey beacons on the relevant Drawings. If these beacons are existing, the relevant position (X/Y coordinates) as well as the elevation (Z coordinate) will be shown on the Drawings.

#### C3.4.1.33 SECURITY OF THE SITE

The attention of the Contractor is drawn to the necessity of securing his Site, in particular his construction camp and depot. The Contractor shall allow at all times for the necessary security and

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watching to prevent theft or damage to Materials, Plant and Contractor's Equipment, and to ensure the safety of both the Contractor's Personnel and the Employer's Personnel.

The construction of the plant is situated in close proximity to an area of volatility and unrest and hence the necessary measures must be put in place by the Contractor to secure the Site and any entrance to the Employer's existing assets required for construction activities.

A provision has been allowed for specialised site security services by a PSiRA registered, competent service provider in order to ensure that the site, all personnel, visitors, equipment, materials etc. are safe for the duration of the Contract. Submissions for the appointment of said service provider to be approved by the Engineer prior to appointment.

It is in the interest of the Contractor to establish and maintain healthy community liaison and employment structures throughout the duration of the Contract as healthy structures will serve to elicit the support of affected communities in detecting and prosecuting criminal activity.

#### **END OF SECTION**

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# RUSTENBURG WATER SERVICES TRUST

#### BID No RLM/RWST/OMM/0103/2024/25

# **GROUPED WATER SANITATION INFRASTRUCTURE UPGRADE PROJECTS.**

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT **WORKS - MECHANICAL AND ELECTRICAL WORKS** 

#### C3.5 **MANAGEMENT**

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# RUSTENBURG WATER SERVICES TRUST

#### BID No RLM/RWST/OMM/0103/2024/25

# GROUPED WATER SANITATION INFRASTRUCTURE UPGRADE PROJECTS.

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

# C3.5.1 MANAGEMENT OF THE WORKS

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#### C3.5.1 MANAGEMENT OF THE WORKS

#### **C3.5.1.1** Construction Programme

The Contractor shall supply within the period stated in the Contract Data a suitable and realistic construction programme that is based on the construction drawings issued by the Engineer, for consideration by the Engineer. This programme shall show the proposed scheduling and methods of execution of the Works, as well as the resources that will be allocated to each item or phase of the Works. Quantities proposed for execution during each month must be shown. In addition, the anticipated cashflow for the Contract, based upon these quantities, shall be shown following the prescribed format.

The Contractor will be expected to progress with the Works in accordance with the approved programme and shall not deviate from the order of execution shown in the programme without the prior approval of the Engineer or his Representative. Should such approval be given, an adjusted programme shall be produced within five (5) working days and submitted to the Engineer for evaluation.

Progress in advance of the programme on certain portions or phases of the Works shall not be considered adequate reason for poor progress on another portion or phase.

#### C3.5.1.2 Site Administration

Acceptance control, record keeping, and payment certificates shall be carried out in accordance with the Engineer's standard system except if the Engineer approves that the Contractor's standard system may be used.

#### C3.5.1.3 Daily Site Diary

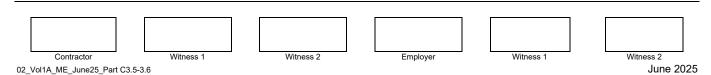
The daily site diary shall be kept up to date by the Contractor's Representative and will be signed on a daily basis by the Engineer's Representative.

#### C3.5.1.4 Information in Respect of Plant

Information relating to plant on Site shall be recorded in the daily site diary. In addition, the Contractor shall deliver to the Engineer, on a monthly basis, a detailed summary of construction plant kept on the Site, full particulars given for each day of the month. Distinction shall be made between plant in working order and plant out-of-order. Such inventory shall be submitted by the first day of the month following the month to be reported.

#### C3.5.1.5 Information in Respect of Labour

Information relating to labour and management on Site shall be recorded in the daily site diary in addition, the Contractor shall deliver to the Engineer, on a monthly basis, a detailed summary of supervisory staff, labour employed (own and local labour) by category, and sub-contractors (both local and imported) for each day of the month. Such return shall be submitted by the first day of the month following the month to be reported.



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#### C3.5.1.6 Rainfall Records

Rainfall records for the period of construction shall be taken on Site and recorded in the daily site diary. The Contractor shall provide and install all the necessary equipment for accurately measuring the rainfall. The Contractor shall also provide, erect and maintain a security fence plus gate, padlock and keys at each measuring station, all at his own cost. The Engineer or his Representative shall take and record the daily rainfall readings. The Contractor shall be permitted to attend these readings, in the company of the Engineer's Representative. Access to the measuring gauge(s) shall at all times be under the Engineer's control.

#### C3.5.1.7 Site Instructions

Site instructions issued by the Engineer, addressed to the Contractor at his office on the Site, will be numbered consecutively and will be deemed to have been received by the Contractor's representative unless a break in the sequence of numbers is brought to the notice of the Engineer in writing immediately.

#### C3.5.1.8 Site Meetings

The Contractor and his authorised representative shall attend all meetings held on the Site with the Employer and the professional team at dates and times to be determined by the Engineer. Such meetings will be held to evaluate the progress of the Contract, and to discuss matters pertaining to the Contract which any of the parties represented may wish to raise. It is not the intention to discuss day-to-day technical matters at such meetings. The Contractor shall submit monthly progress reports as required in Clause 4.21 of the Conditions of Contract.

#### C3.5.1.9 Payment Certificates

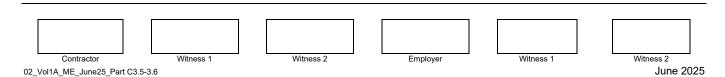
Monthly progress payment certificates shall be submitted to the Engineer's Representative on Site not later than the 20th of each month (or on the last working day prior to this date) in order to allow for checking and reconciliation of all quantities, rates, extensions and additions in the certificate.

Where dayworks have been instructed by the Engineer, the Contractor shall submit the returns to the Engineer for signature and approval within twenty-four (24) hours of the end of the working day on which the work was executed. Daywork returns shall be submitted on forms following the standard format to be issued at project commencement. Failure to comply with the terms of this clause will result in non-payment for such dayworks.

The tax invoice submitted with the certificate shall be dated the date of submission to the Engineer of the payment certificate that was agreed between the Contractor and the Engineer. All costs for the preparation and submission of progress certificates shall be borne by the Contractor.

#### C3.5.1.10 Occupational Health and Safety Act

The Contractor shall complete the Returnable Schedule T2.2.15 in Section T2.1 bound in this document and designate in writing the name of the responsible person required under sub-clause 1 of



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the General Safety Regulations R11 (the Regulations) issued under the Occupational Health and Safety Act, 1993, No 95 of 1993, (the Act).

The responsible person shall carry out the duties required of him in terms of the Act and the Regulations, including conducting regular inspections of the Site and of the Contractor's Equipment in order to ensure they are safe and without risk to the health of the Employer's Personnel, the Contractor's Personnel and the public at all times. All inspection certificates shall be up-to-date before the Contractor's Equipment is used at any stage of the Contract. This especially applies to scaffolding, lifting equipment and vessels under pressure, which require legal certification. The Contractor shall also provide personal safety equipment and facilities as required by regulation 2 of the Regulations. In order to deal with accidents and ailments which are likely to occur during the Contract the Contractor shall provide a fully equipped and maintained first aid cabinet as required by regulation 3 with the minimum contents listed in the Annexure to the Regulations. The Employer has the authority to inspect any of the Contractor's Equipment at any time during the Contract as may be desired.

#### C3.5.1.11 Community Liaison and Community Relations

In all dealings with communities through which the Works are to be executed, and in all dealings with workers employed from within such communities, the Contractor shall take due cognisance of the character, culture and circumstances of the specific community, and shall at all times use his best endeavours to avoid the development of disputes and rather to foster a spirit of co-operation and harmony towards the project.

The Contractor shall, at all times, keep the Engineer fully informed regarding all matters affecting or negotiated between the Contractor and the community, and he shall attend all liaison meetings as may be arranged by the Engineer and/or the Employer. All matters concerning the community shall be discussed and where possible, resolved at such meetings.

Where any resolution during such negotiations or at such meetings shall be contrary to the terms and provisions of the Contract, the Contractor shall not give effect thereto without a prior written instruction from the Engineer. Where the Contractor is of the opinion that any instruction of the Engineer issued in terms of this clause will result in the incurring of additional costs which were not provided for in his tendered rates and prices and/or that a delay in the progress of the Works will result, he shall be entitled to submit a claim in terms of Clause 20 of the Conditions of Contract, provided always that the period of twenty-eight (28) days referred to in Clause 20 shall be reduced to three (3) normal working days in respect of all claims submitted in terms of this clause.

#### C3.5.1.12 Features Requiring Special Attention

#### (a) Built-up Areas

The Contractor's attention is drawn to the fact that the Works will be constructed on the existing water treatment works. The Contractor shall exercise all necessary precautions and take all necessary steps to ensure the safety and convenience of the staff and public. In addition, the Contractor shall provide access for traffic over and through the works. Allowance must be made by the Contractor in his programming for delays resulting from the aforesaid.

(b) Rei	nstatement of Fen	ces			
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Existing fences needs to be reinstated under this contract. If existing fences need to be removed all material shall be neatly stacked or dispose of as directed by the Engineer.

#### (c) Care of the Site

At all times during construction of the Works and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store all materials and equipment for which he is responsible in an orderly manner and shall keep the Site free from debris and obstructions.

#### (d) Control of Water

The Contractor shall at all times and in all respects be responsible for the handling of stormwater from higher-laying areas above the Works, and for the handling of any sub-surface water that may affect the Works. No separate payment shall be made in this regard, as all costs related thereto shall be deemed to be included in the rates tendered for the various items of work that are included in the Bill of Quantities.

#### (e) Survey and Setting Out

The Contractor shall be responsible for the protection of all survey beacons and reference points from handing over of the beacons to the Contractor to completion of the Works. Property beacons and trigonometrical survey beacons that are disturbed or destroyed during the course of the contract shall be replaced at the Contractor's cost by a registered land surveyor who shall verify such replacement.

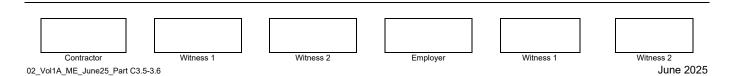
The Contractor shall be responsible for the true and proper setting out of the Works and for the correctness of the position, levels, dimensions and alignment of all parts of the Works from the beacons established above and for the provision of all necessary instruments, appliances and labour in connection therewith. Such setting out shall be executed by a registered surveyor. No separate payment shall be made in respect of setting out, such work being deemed as included in the rates tendered for construction of the Works.

The checking of any setting-out or of any line or level by the Engineer shall not relieve the Contractor of his responsibility for the correctness thereof.

If at any time during the progress of the Works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do so by the Engineer, shall at his own expense rectify such error to the satisfaction of the Engineer.

#### (f) Social Facilitation

A Provisional Sum allowance has been made to cover the costs involved in managing any potential social interactions with the community in order to avert any delays to the project, including but not limited to legal challenges, protests, disruptions, strikes, "go-slows" and any other community related issues. A reputable social facilitation service provider is to be appointed for this, with the approval of the Engineer. This service provider is to work closely with the Contractor, Employer, CLO's, PSC and any other local recognised approved structures.



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#### C3.5.1.14 Notices, Signs, Barricades and Advertisements

Notices, signs and barricades as well as advertisements may only be erected where approved by the Engineer. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

The Engineer shall have the right to have any sign, notice or advertisement moved to another location, or to have it removed from the Site of the Works, should it in any way prove to be unsatisfactory, inconvenient or dangerous to the general public.

#### C3.5.1.16 Precautions Against Nuisance

The Contractor shall exercise all necessary precautions and take all necessary steps to ensure the safety and convenience of the public, including the prevention of unnecessary noise, dust or other nuisance. Where applicable, the Contractor shall provide access for traffic over and through the Works, and for residents to their places of abode, all as described in the Specifications.

Any rock or debris falling from trucks on the roads in use by the public shall be removed immediately. Precautions shall be taken to prevent fouling of public roads and completed works by trucks transporting muddy material. The Engineer may order the Contractor to broom off and clean roads continuously where the mud tracking of vehicles or falling debris may constitute a danger to the travelling public.

Allowance should be made by the Contractor in his construction programme for delays that may result from foreseen and unforeseen actions that are required to ensure the safety and convenience of the public.

#### C3.5.1.17 Shutdown Work

Connections to existing pipework shall be done during plant shut-down periods.

Scheduled shutdowns must be arranged with the Employer and other relevant parties, at least 14 days prior to the specific date. For the purpose of tendering, it must be assumed that shutdown time will be from Saturday morning 06:00 hours to Sunday evening 18:00 hours. All fittings should be on site and preparation work must be completed prior to the commencement of the shutdown. It is the Contractor's responsibility to ensure that sufficient resources are available in order to complete all connections and shutdown work within the allocated time. After the allocated time, normal operation of services must continue.

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# GROUPED WATER SANITATION INFRASTRUCTURE UPGRADE PROJECTS.

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

# C3.5.2 QUALITY MANAGEMENT

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#### C3.5.2 Quality Management

#### C3.5.2.1 General

The Contractor will be solely responsible for the production of work that complies with the Specifications to the satisfaction of the Engineer. The Contractor will provide experienced personnel as well as all the necessary transport, instruments and equipment, to ensure adequate supervision and positive control of the works at all times in order to comply with the requirements. The Contractor shall deliver to the Engineer, for his consideration, quality assurance programmes prior to the Contractor's appointment of any suppliers or commencement of the Works.

It will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site. The Engineer will audit the Contractor's QA system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.

Where applicable the Employer will appoint an independent inspectorate (Employer's Inspectorate) to assist the Engineer with quality control. This item could also form part of the provisional sums in the Bill of Quantities.

The Quality Plan shall specify quality control hold points (subject to the approval of the Engineer) that will be applicable to specific activities. Work shall not proceed beyond the hold points unless the Engineer or Employer's Inspectorate has signed off the quality control at the specific hold point.

The onus to produce work that conforms in quality and accuracy to the requirements of the specifications and the drawings rests with the Contractor, and the Contractor shall, at its own expense, institute a QA system and provide experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the quality of the Works at all stages of the Contract. The cost of the Contractor's supervision and process control, including all testing carried out by the Contractor, shall be deemed to be included in the amounts tendered.

Before commencement of manufacturing of plant and materials and construction, the Contractor shall submit a comprehensive proposal for a quality assurance plan to the Engineer for consideration. Only the Engineer may sign off quality assurance plans.

The Contractor shall keep systematic records of the test results and all worksheets relating thereto. All test results obtained by the Contractor in the course of his process control of the Works shall be submitted to the Engineer or his Representative prior to requesting inspection of the relevant portions of the Works. Any request for inspection shall be submitted on the prescribed forms.

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The Contractor and all sub-contractors shall work to defined quality assurance programmes compliant with ISO 9001 or similar approved standard. ISO 14001 will be applicable to environmental management.

In respect of sub-contractors, the Contractor shall undertake, where no such acceptable information is available or where the sub-contractor has not been subject to an acceptable external quality audit in accordance with the Contractor's QA procedures, to carry out a quality audit of that sub-contractor to ensure that completion of the work shall be compliant with the Contract requirements.

Nominated sub-contractor(s) shall also be subject to quality audit by the Contractor in which the Engineer may participate.

The Contractor shall establish and maintain a document inspection system capable of producing objective evidence that major components comply with the quality requirements of the Contract.

The Contractor shall include in its orders to sub-contractors a note advising that materials and equipment will be subject to inspection as determined by the Quality Plan.

The Contractor shall advise the Engineer of the readiness for inspection at least ten (10) working days prior to a nominated witness or hold point. Work shall not proceed beyond a hold point without the written agreement of the Engineer or after five working days, if no such agreement or rejection is given.

The Contractor shall keep the Engineer informed in advance of the time of starting and of the progress of the work in its various stages so that arrangements can be made for inspections and tests.

The inspections and tests by the Engineer or Employer's Inspectorate of any components, or lack thereof, do not relieve the Contractor of any responsibility regarding defects or other failures.

The Contractor shall be responsible under the Contract for the quality and testing of materials, workmanship and production processes in fulfilment of the Contract. To this end the Contractor shall institute and operate a quality management system which details the following in order to satisfy the Specifications relevant to each operation pursuant to the Works in accordance with the Contract:

- · Quality control procedures;
- · Personnel responsibilities;
- · Procurement procedures;
- Testing procedures, both on and off-site;
- · Equipment and calibration;
- Frequency of testing, calibration, etc.;
- Hold points in production for inspection;

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- Rejection and rectification procedures;
- · Documentation and communication;
- · Drawing issue procedures; and
- · Drawing register

As much of the testing as is practicable shall be carried out on Site, including trial, acceptance and routine testing to be implemented by the Contractor and any other tests as instructed by the Engineer for any complementary investigations required from time to time during the course of the Contract.

The Contractor shall submit a general outline of the above Quality Management system with comprehensive examples of documentation to be used with its tender.

Within 28 days after the Commencement Date and based on the general outline and any amendments thereto requested, the Contractor shall submit comprehensive details of the system as required above, making use wherever possible of diagrams, charts, organograms, etc., in preference to lengthy description, all for the approval of the Engineer. Such details shall be updated from time to time as appropriate or as directed by the Engineer.

The Contractor shall commence the operation of the Quality Management system without delay and in accordance with the Engineer's approval of the general outline and documentation examples as accepted and shall thereafter modify the system from time to time in accordance with further details as approved by the Engineer.

Unless otherwise stated in the Specifications, all testing shall be carried out and interpreted in strict accordance with the methods specified in the relevant South African and British Standards.

Unless otherwise stated in the Specifications, the testing laboratories of the South African Bureau of Standards, the Council of Scientific and Industrial Research (South Africa), and the Portland Cement Institute (South Africa) will be accepted as approved independent laboratories in which tests or design work required in terms of a Specifications may be carried out. Other testing laboratories may be used by the Contractor subject to the approval of the Engineer.

When required by the Engineer, the Contractor shall furnish all information of the materials to be used in the Works and shall give the Engineer such other particulars as may be required.

When requested, the Contractor shall provide samples, information and manufacturer's test certificates of the materials to be incorporated in the Works.

Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the relevant manufacturer's instructions.

The competence of personnel required to undertake operations involving particular skills affecting the quality of the Works shall be demonstrated to the Engineer by means of tests arranged by the

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Contractor. These could include the following activities: welding, concrete compaction, repairs, grouting, formwork erection, etc. Should the competence of any member of the Contractor's workforce be in doubt, the Engineer may order any re-testing he considers necessary at any stage throughout the Contract.

Workmen shall only receive their practical training on those parts of the Works as agreed by the Engineer.

The Contractor shall carry out sufficient inspection and tests to satisfy himself that all requirements of the Specifications are being met and the results of inspections and tests shall be submitted to the Engineer in accordance with the Contractor's Quality Management System. The Engineer may carry out such inspections and tests as he deems necessary and the results of the Engineer's inspections and tests will be made available to the Contractor if requested. Where the Contractor's or Engineer's inspections and/or tests reveal that the requirements of the Specifications have not been attained, the Contractor shall, at his expense, rectify the work to the extent that it conforms to the Specifications.

Whenever the normal period for carrying out work is to be changed, the Engineer shall be given notice in sufficient time (at least 10 working days) to rearrange staffing for proper inspection. The Engineer shall be given notice of any other proposed changes to normal working times at the weekly progress meetings or as necessary to cope with emergencies.

Reports to the Engineer shall be in a format acceptable to the Engineer.

The Contractor shall submit detailed reports at monthly intervals (at site meetings) of personnel on Site, principal materials ordered, stocks on Site, Contractor's Equipment, Plant and Temporary Works on the Site. The Contractor shall also submit a detailed report at monthly intervals on progress of manufacture of any Plant or Contractor's Equipment ordered.

Records shall be kept daily of labour, materials and equipment where there is an agreement to pay by dayworks. Such records shall be valid only when signed by the Engineer or his Representative. Failure to submit daywork sheets on a daily basis could result in the rejection of the sheets by the Engineer.

In cases where there is any dispute or uncertainty on payment procedure, sheets shall be signed daily by both parties as an agreed record of work done but shall not imply any commitment concerning payment. These sheets shall be annotated "For record purposes only".

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

The Contractor may establish his own laboratory on site, or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results

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of tests carried out on materials and workmanship when submitting work for acceptance by the Engineer. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the Bill of Quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

Acceptance control, record keeping, and payment certificates shall be done in accordance with the Engineer's standard system except if the Engineer approves that the Contractor's standard system may be used.

#### C3.5.2.2 **Method Statements**

The Contractor shall prepare method statements and acquire the Engineer's approval before commencing work. A method statement is required for each and every activity, including site establishment. The following minimum information will be required in each method statement:

- Goal of activity
- Dangers identified
- Safety measures
- Security measures
- Measures to accommodate environmental and social requirements
- Work method
- Material to be used
- Quality assurance procedure to ensure compliance to specifications
- Reference to the relevant specifications
- Reference to other relevant method statements

Inspectors and workmen shall be trained to execute the work in accordance with the approved method statements and a copy of the method statement shall be available on site where the work is executed.

The Contractor shall allow for the following time periods for the approval of method statements:

Review by the Engineer and Employer of first submission 2 weeks Amendments by Contractor (if required) 1 week Final review and approval by Engineer 2 weeks

Contractor Witness 1 Witness 2 Employer Witness 2

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Witness 1

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Work on an activity shall not commence without a method statement approved by the Engineer. Approval of a method statement by the Engineer will not release the Contractor from his responsibilities and liabilities and it will not mean that the Engineer will be responsible or liable for the construction of the work.

#### C3.5.2.3 Quality assurance for welding, lining and coating of pipelines on site

The following requirements are applicable to welding, lining and coating of pipelines.

a) Storage, handling and transport of pipes, pipe specials and valves

Pipes, specials and valves shall not be transported before the corrosion protection has cured in accordance with the guidelines of the manufacturers of the materials. Minimum 500mm wide soft slings that cannot damage the pipe coating shall be used for handling of the material and each item shall be adequately supported on padded cradles and properly fastened to prevent movement during transport. Each truck load has to be checked for conformity and signed off by the Employer's Inspectorate at the factory.

On site all material shall be supported on padded supports in a cleared area, where it cannot be damaged by veld fires or construction activities.

#### b) Welding of pipes

Welding rings shall be used to align pipe ends for welding. The welding of a joint must be 100% completed before the end of a working day. Each weld must be approved and signed off by the Employer's Inspectorate before the coating repair can commence.

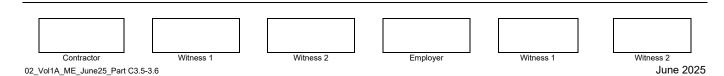
- c) Corrosion protection on site
- Coating

Each pipe and pipe fitting delivered to or manufactured on site shall be tested by the Contractor for coating damage and pinholes by means of holiday detection and repaired at the following stages:

- Before it is moved into the trench
- Before backfilling commences

Each stage shall be a hold point and further work shall only proceed after each pipe has been signed off by the Employer' Inspectorate.

The following stages of coating repair at joints and damaged areas shall be hold points and work can only proceed after the approval by the Employer's Inspectorate:



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- After surface preparation
- After repair

Coating integrity surveys are required as specified elsewhere.

The selected bedding and blanket of the pipeline must be completed within seven days after the coating repair to prevent ultraviolet damage of the material.

#### Lining

The surface preparation of each epoxy lining joint and lining damage must be approved and signed off by the Employer's Inspectorate before the joint repair can commence (hold point).

Lining repairs shall follow the pipe laying activities as specified in paragraph C3.5.2.

Method statements for lining and coating protection

The following method statements shall be submitted by the Contractor for approval by the Engineer before the relevant activity can commence:

- Transport and handling of pipes.
- Repair of coating damage on site.
- Repair of coating at joints on site.
- Prevention of damage to linings by movement of workmen and inspectors inside the pipe.
- Repair of lining damage on site.
- Repair of lining at joints on site.
- d) Existing pipes, free issue by Employer

The Contractor needs to collect the existing pipes from the Boitekong Wastewater Treatment Works and carry out the necessary coating and lining repairs and tests as described.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

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Universal Witness 1 Witness 2

June 2025

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# RUSTENBURG WATER SERVICES TRUST

## BID No RLM/RWST/OMM/0103/2024/25

# GROUPED WATER SANITATION INFRASTRUCTURE UPGRADE PROJECTS.

RE-ADVERT:	JPGRADE AND EXTENS	SION OF BOSPOORT	WATER TREATMENT
	WORKS - MECHANICAI	L AND ELECTRICAL	WORKS

# C3.5.3 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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#### C3.5.3 Occupational Health and Safety Management

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act (OHSA) No 85 and Amendment Act No 181 of 1993, and the OHSA Construction Regulations GNR.84 of 7 February 2014.

The successful Contractor shall, on receipt of notification that he has been awarded the contract, submit without delay his own documented Health and Safety Plan for the execution of the work under the contract in accordance with the OHSA and Construction Regulations to the Engineer. The Health and Safety Plan must at least cover the following:

- a proper risk assessment of the works, risk items, work methods and procedures;
- pro-active identification of potential hazards and unsafe working conditions;
- provision of a safe working environment and equipment;
- statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas;
- monitoring health and safety on the site of works on a regular basis, and keeping of records and registers;
- details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works;
- details of methods to ensure that his Health and Safety Plan is carried out effectively.

The Contractor's Health and Safety Plan will be subject to approval by the Employer or Engineer before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's or the Engineer's written approval of his Health and Safety Plan.

Approval of the Contractor's Health and Safety Plan by the Employer or the Engineer will not release the Contractor from his responsibilities and liabilities and the Employer or the Engineer will not be responsible or liable for any activities forming part of the Contractor's responsibilities and liabilities in terms of the Contract.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs.

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the OHSA, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions,

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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Part C3 Scope of Works Section C3.5 Management



he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

The Employer's SHE Management System is included in Section C3.5.3

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

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June 2025

# **Rustenburg Water Services Trust**



# Occupational health and safety specification for the upgrading of the Bospoort Water Treatment Works

Proudly prepared by

**EMPOWERisk (Pty) Ltd** 



November 2016

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# Occupational health and safety specification for the upgrading of the Bospoort Water Treatment Works

#### 1. Definitions

In this document the following expressions shall bear the meanings assigned to them below:

- 1.1 **Client** means any person for whom construction work is being performed and/or undertaken [i.e. Rustenburg Water Services Trust for purposes of this specification];
- 1.2 **Construction Regulations** means the Occupational Health and Safety Act's, No 85 of 1993, new Construction Regulations that came into effect on 01 March 2014:
- 1.3 Occupational health and safety plan means a sufficiently documented plan to the standards of the Client, which addresses hazards identified and includes safe working procedures to mitigate, reduce or control the hazards identified;
- 1.4 **Occupational health and safety specification** means a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons working, visiting, passing, staying and/or working close to the construction site and/or other applicable areas such as site camp;
- 1.5 **OHSACT** means the Occupational Health and Safety Act, No 85 of 1993, as amended: and
- 1.6 **Principal Contractor** means an employer, as defined by Section 1 of the OHSACT who performs construction work and is appointed by the Client to be in overall control and management of the construction site and works.

#### 2. Introduction

In terms of Construction Regulation 5(1)(b) of the OHSACT, the Client is required to compile an occupational health and safety specification for any intended project and provide such specification to prospective tenderers/bidders.

This specification has as objective to ensure that the principal contractor entering into a contract with the Client achieves and maintain an acceptable level of occupational health and safety performance and compliance. This document forms an integral part of the contract between the Client and the principal contractor and the principal-and other contractors should make it part of any contract/s that they may have with other contractors and/or suppliers as far as this project is concerned.

Compliance with this document does not absolve the principal contractor from complying with any other minimum legal requirements and the principal contractor remains responsible for the health and safety of his employees, those of his mandataries as well as any persons coming on site or on adjacent properties as far as it relates to the construction activities.

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# 3. Scope

To develop a project specific occupational health and safety specification that addresses the reasonable and foreseeable risks, exposures and aspects of occupational health and safety as affected by the abovementioned contract work.

The specification will provide the requirements that the principal contractor and other contractors will have to comply with in order to reduce the risks associated with the abovementioned contract work and that may lead to incidents causing injury and/or ill health, to a level as low as reasonably practicable and possible.

Any contractor interested in submitting a bid in response to the Client's formal tender for any construction project, has to prepare and include a draft occupational health and safety plan based on this specification and the OHSACT in its tender submission. The Client will evaluate this plan as part of its formal tender adjudication processes to ensure compliance with Construction Regulation 5 that stipulates that the Client may only appoint a contractor who has the necessary competencies and resources to carry of the work appointed for safely.

### 4. General occupational health and safety provisions

# 4.1 Hazard identification and risk assessment (Construction Regulation 9)

#### 4.1.1 Risk assessments

Annexure 5 of this specification contains a list of risk assessment headings that have been identified by the Client as possibly applicable to the abovementioned contract work. It is, by no means, exhaustive and is only offered as assistance to the contractors intending to tender for the applicable works. It therefore remains the overall responsibility of the principal contractor to consider all applicable risks and proactively undertake risk assessments and implement appropriate risk mitigation measures.

# 4.1.2 Development of risk assessments

Every principal contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, ensure that risk assessments are undertaken by a competent person, appointed in writing, and the risk assessments shall form part of the occupational health and safety plan and be implemented and maintained as contemplated in Construction Regulation 9(1).

The risk assessments shall include, at least:

- The identification of the current as well as emerging risks and hazards to which persons may be exposed to;
- The analysis and evaluation of the risks and hazards identified;
- A documented plan of safe working procedures (SWP) and any method statements to mitigate, reduce or control the risks and hazards that have been identified;
- A plan to monitor the application of the SWPs; and

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• A plan to review the risk assessments as the work progresses and changes are introduced or incidents occurred which requires the re-evaluation of the processes/risk mitigation.

Based on the risk assessments, the principal contractor must develop a set of site-specific occupational health and safety rules that will be applied to regulate the occupational health and safety aspects of the construction.

The risk assessments, together with the site-specific occupational health and safety rules, must be submitted to the Client before mobilisation on site commences.

Despite the risk assessments listed in Annexure 5, the principal contractor is required to conduct a baseline risk assessment and the aforesaid risk assessments must be incorporated into the baseline risk assessment. The baseline risk assessment must further include the SWPs and the applicable method statements based on the risk assessments.

Hazard identification and risk assessments must be undertaken whilst SWPs must be developed for all out-of-scope work.

#### 4.1.3 Review of risk assessments

The principal contractor is to review the hazards identified, the risk assessments and the SWPs at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and/or processes.

It is also proposed that should an incident occur the SWPs and all other applicable processes be re-evaluated to ensure that the mitigation measures are still applicable and appropriate and if not a revision of the risk assessments be undertaken.

The principal contractor must provide the Client, other contractors and all other concerned or affected parties with copies of any changes, alterations or amendments as soon as possible but within 14 calendar days of such changes.

### 4.2 Legal Requirements

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All Contractors entering into a contract with the Client shall, as a minimum, comply with the -

- OHSACT and a current, up-to-date copy of the OHSACT and its Regulations must be available on site at all times; and
- Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (COIDAct) as amended. The principal contractor will be required to submit a letter of registration and "good-standing" from the Compensation Commissioner or compensation insurer before being awarded the

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contract. A current, up-to-date copy of the COIDAct must be available on site at all times.

# 4.3 Structure and responsibilities

# 4.3.1 Overall supervision and responsibility for occupational health and safety

- a. The principal contractor [appointed in terms of Construction Regulation 5(1)(k)] is responsible to implement and maintain the occupational health and safety plan approved by the Client.
- b. The Chief Executive Officer (in terms of Section 16(1) of the OHSACT) of the principal contractor is to ensure that the Employer (as defined in the OHSACT) complies with the OHSACT. Annexure 1 "Legal Compliance Checklist" may be used for this purpose and assistance.
- c. The principal contractor's Chief Executive Officer may appoint any person reporting to him/her as Designated Person in terms of Section 16(2) of the OHSACT. Such Designated Person is responsible to assist the Chief Executive Officer to ensure that the Employer complies with the requirements of the OHSACT.
- d. The construction manager, assistant construction manager, construction supervisor and assistant construction supervisor(s) appointed in terms of Construction Regulation 8 are responsible for supervising the construction work and in specific to ensure that all work undertaken comply with the requirements of the OHSACT, its Regulations and the Client's specifications.

# 4.3.2 Operational responsibilities for occupational health and safety

The principal contractor shall appoint designated competent employees and/or other competent persons as outlined in the following list to assist with the operational responsibilities for occupational health and safety. This list is only the minimum requirement and is therefore in no way exhaustive.

Appointment description	Appointment required in terms of	
Assistant construction manager	Construction Regulation 8(2)	
Assistant construction supervisor	Construction Regulation 8(8)	
Blasting supervisor	Explosives Regulation 12	
Construction health and safety officer	Construction Regulation 8(5)	
Construction manager	Construction Regulation 8(1)	
Construction supervisor	Construction Regulation 8(7)	
Construction vehicle, mobile plant and	Construction Regulation 23	
machinery supervisor	-	
Demolition supervisor	Construction Regulation 14	
Drivers of construction vehicles and	Construction Regulation 23	
operators of plant		
Electrical installation and appliances	Construction Regulation 24	
inspector		
Emergency, security and fire coordinator	Construction Regulation 29	
Excavation supervisor	Construction Regulation 13	

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Appointment description	Appointment required in	
	terms of	
Fall protection supervisor	Construction Regulation 10	
First-aiders	General Safety Regulation 3	
Fire fighting equipment inspector	Construction Regulation 29	
Hazardous chemical substances supervisor	Hazardous Chemicals	
	Substances Regulations 10	
Incident investigator	General Administrative	
	Regulation 9	
Ladder inspector	General Safety Regulation 13(a)	
Lifting machines and equipment inspector	Construction Regulation 22	
Occupational health and safety committee	OHSACT Section 19	
Occupational health and safety	OHSACT Section 17	
representatives		
Person responsible for machinery	General Machinery Regulation 2	
Risk assessor	Construction Regulation 9(1)	
Scaffolding supervisor	Construction Regulation 16	
Stacking and storage supervisor	Construction Regulation 28	
Structures supervisor	Construction Regulation 11	
Temporary works supervisor	Construction Regulation 12	
Traffic management supervisor	OHSACT Section 9(1)	
Traffic safety officer	OHSACT Section 9(1)	
Pressure equipment supervisor	Pressure Equipment	
	Regulations	
Working on, over or next to water	Construction Regulation 26	
supervisor		
Welding supervisor	General Safety Regulation 9	

These appointments must be in writing and the responsibilities clearly stated together with the period for which each appointment is made. This information must be communicated to and agreed with the appointees.

Copies of appointments must be submitted to the Client together with concise CV's of the appointees as part of the principal contractor's health and safety plan and if appointed copies of the appointments included in the occupational health and safety file. All appointments must be approved by the Client and any changes of appointees or appointments must be communicated to the Client and agreed upon before being implemented.

The principal contractor must, furthermore provide the Client with an organogram of all contractors that he/she has appointed or intends to appoint and keep this list updated on a weekly basis.

# 4.3.3 Construction health and safety officer

This project requires the appointment of a full-time construction health and safety officer, appointed in terms of Construction Regulation 8(5). This appointee should be duly registered and in good standing with a statutory body approved by the Chief Inspector as is required by Construction Regulation 8(6).

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The South African Council for Project and Construction Management Professions (SACPCMP) is currently the statutory body responsible for the professional registration of construction health and safety officers and a copy of the appointee's SACPCMP's registration certificate should be submitted as part of the principal contractor's health and safety plan and also be readily available in the health and safety file to be kept and maintained on site.

# 4.3.4 Designation of occupational health and safety representatives (Section 17 of the OHSACT)

Where the principal contractor employs more than 20 persons [including the employees of other contractors (sub-contractors) and its supervisors] he has to appoint one occupational health and safety representative for every 50 employees or part thereof. General Administrative Regulation 6 requires that the election, appointment and subsequent designation of the occupational health and safety representatives be executed in consultation with employee representatives or employees. (Section 17 of the OHSACT as well as General Administrative Regulation 6 and 7 refer).

Occupational health and safety representatives have to be designated in writing and the designation must include the area of responsibility of the person and term of the designation.

# 4.3.5 Duties and functions of the occupational health and safety representatives (Section 18 of the OHSACT)

- a. The principal contractor must ensure that the designated occupational health and safety representatives conduct a weekly inspection of their respective areas of responsibility, using a checklist, and report thereon to the principal contractor.
- b. Occupational health and safety representatives must be included in accident and/or incident investigations.
- c. Occupational health and safety representatives must attend all occupational health and safety committee meetings.

# 4.3.6 Appointment of occupational health and safety committee (Section 19 of the OHSACT)

The principal contractor must establish an occupational health and safety committee consisting of all the designated occupational health and safety representatives together with a number of management representatives that are not allowed to exceed the number of occupational health and safety representatives on the committee and a representative of the Client who shall act as the chairperson without voting rights. The members of the occupational health and safety committee must be appointed in writing and copies of the appointments included in the occupational health and safety file.

The occupational health and safety committee must meet as a minimum on a monthly basis and consider, at least, the following agenda items:

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- 1. Opening and welcome.
- 2. Members present, apologies and absent.
- 3. Minutes of previous meeting.
- 4. Matters arising from the previous meeting.
- 5. Occupational health and safety representatives' reports.
- 6. Incident and/or accident reports and investigations.
- 7. Incident, accident and/or injury statistics.
- 8. Other matters.
- 9. Endorsement of registers and other statutory documents by a duly authorised representative of the principal contractor.
- 10. Close and next meeting.

#### 4.4 Mandataries

It is a requirement that the principal contractor, when he appoints contractors or sub-contractors in terms of Construction Regulations 7(1)(c) includes an OHSACT Section 37(2) agreement (i.e. Agreement with Mandatary) in his agreement with such contractor.

### 4.5 Administrative controls and the occupational health and safety file

# 4.5.1 The occupational health and safety file [Construction Regulation 7(1)(b)]

As required by Construction Regulation 7(1)(b), the principal contractor and other contractors will each keep an occupational health and safety file on site containing the following documents as a minimum:

- 1. Copy of the construction work permit (for applicable projects) (Construction Regulation 3)
- 2. Notification of construction work (Construction Regulation 4.).
- 3. Updated copies of the OHSACT and its Regulations as well as the COID Act (General Administrative Regulation 4.).
- 4. Proof of registration and good standing with the Compensation Commissioner or a COID Insurer [Construction Regulation 5(1)(j)].
- 5. Occupational health and safety plan agreed with the Client including the underpinning risk assessment(s) and method statements [Construction regulation 7(1)].
- 6. Copies of occupational health and safety committee meetings and other relevant minutes.
- 7. Designs and/or drawings [Construction Regulation 7(1)(b)].
- 8. A list of contractors (sub-contractors) including copies of the agreements between the parties, proof of good standing with the Compensation Commissioner or COID Insurer, and the type of work to be undertaken by each contractor (Construction Regulation 7).
- 9. Appointment and designation forms as per paragraphs 4.3.1 and 4.3.2 above.
- 10. Copy of the construction health and safety officer's SACPCMP registration certificate.
- 11. The following registers:
  - Accident and/or incident register (Annexure 1 of the General Administrative Regulations);

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- Occupational health and safety representatives inspection register;
- Construction vehicles and mobile plant inspections by controller:
- Daily inspections of vehicles, plant and other equipment by the operator, driver and/or user;
- Designer's inspections and structures record;
- Inspection and maintenance of explosive actuated fastening devices:
- Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
- Fall protection inspections;
- First-aid box content;
- Record of first-aid treatment;
- Fire equipment inspections and maintenance;
- Record of hazardous chemical substances kept and used on site:
- Ladder inspections;
- Machine safety inspections (including machine guards, lock-outs etcetera);
- Inspection registers and logbooks for lifting machines and tackle (including daily inspections by drivers/operators);
- Inspections of scaffolding;
- Inspections of stacking and storage;
- Inspections of structures;
- Pressure equipment inspections; and
- Inspections of welding equipment.
- 12. All other applicable records.

The Client will conduct and evaluation of the principal contractor's occupational health and safety file from time to time.

# 4.6 Occupational health and safety goals and objectives and arrangements for monitoring and review of occupational health and safety performance

The principal contractor is required to maintain a casualty incident frequency rate (CIFR) of not more than four (See Annexure 2 to this document: "Measuring Injury Experience") and report on this to the Client on a monthly basis.





# 4.7 Notification of construction work (Construction Regulation 4)

The principal contractor does not need to notify the Department of Labour of its intention to carry out construction work as the Client, due to the value of the construction work, needs to apply for a construction work permit in terms of Construction Regulation 3. The principal contractor may not commence with any construction work until a site specific permit number was issued by the Department of Labour and the principal contractor must display this site specific permit number conspicuously at the entrance to the main site camp.

### 4.8 Medical certificates of fitness (Construction Regulation 7)

As required by Construction Regulation 7(1)(g), the principal contractor must ensure that all employees have a valid medical certificate of fitness specific to the construction work to be performed. These certificates must be issued by an occupational health practitioner in the form of Annexure 3 (i.e. Annexure 3 in the Construction Regulations).

### 4.9 Training, awareness and competence

The contents and syllabi of all training required by the OHSACT and Regulations must be included in the principal contractor's occupational health and safety plan.

### 4.9.1 General induction training

All members of the contractor's site management as well as all the persons appointed as responsible for occupational health and safety in terms of the Construction and other Regulations will be required to attend a general induction session.

All employees of the principal and other contractors must be in possession of proof of general induction training.

All subsequent and newly appointed employees must also be subjected to the induction training as soon as possible after the appointment but prior to starting working on site.

#### 4.9.2 Site-specific induction training

The principal contractor will be required to develop a contract work project specific induction training course based on the risk assessments for the contract work and train all employees and other contractors and their employees in this.

All employees of the principal and other contractors must be in possession of proof that they have attended a site-specific occupational health and safety induction training at all times.

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# 4.9.3 Other training

- All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training and where applicable licenses or proof of competency.
- All employees in jobs requiring training in terms of the OHSACT and Regulations must be in possession of valid proof of training.
- 3. Occupational health and safety training requirements [as required by the Construction Regulations and as indicated by the occupational health and safety specification and the risk assessment(s)] i.e.
  - a. General induction (Section 8 of the OHSACT);
  - b. Site and job specific induction, including visitors (Sections 8 and 9 of the OHSACT);
  - c. Site and project manager;
  - d. Construction supervisor;
  - e. Occupational health and safety representatives [Section 18 (3) of the OHSACT];
  - f. Training of the appointees indicated in paragraphs 4.3.1 and 4.3.2;
  - g. Operators and drivers of construction vehicles and mobile plant (Construction Regulation 23);
  - h. Basic fire prevention and protection (Environmental Regulations 9 and Construction Regulation 29);
  - i. Basic first-aid (General Safety Regulations 3);
  - j. Storekeeping methods and safe stacking (Construction Regulation 28); and
  - k. Emergency, security and fire coordinator.

#### 4.9.4 Awareness and promotion

The principal contractor is required to have a promotion and awareness programme in place to create an occupational health and safety culture within employees as well as sub-contractors. The following are some of the methods that may be used:

- Toolbox talks
- Posters
- Videos
- Competitions
- Suggestion schemes
- Participative activities such as employee "occupational health and safety circles".

# 4.9.5 Notices and signs

The following notices and signs are, where applicable, compulsory on





the construction site as well as the contractors' yards:

Area and/or activity where notice or sign is required	Notice or sign required in terms of
Display of notices and signs	General Safety Regulation 2B and SABS Code 1186
Entry	General Safety Regulation 2C(2)
First-aid	General Safety Regulation 3(6)
Toilets and change rooms	Facilities Regulation 2 (5) 4(2)(f)
Storage of flammable materials	General Safety Regulation 4(8)(a)(i) and (ii) [10(e) only applicable to contractor's yards]
Grinding wheels	Driven Machinery Regulation 8(1)(7)
Machinery	General Machinery Regulation 9 (Schedule D)
Explosive actuated fastening devises	Construction Regulation 21(2)(f)
Prohibition on smoking and eating or drinking at the workplaces where high risk substances [FR5 (1)] are stored or handled	Facilities Regulation 6(b)
Non-potable water	Facilities Regulation 7(B)
Construction Works Permit	Construction Regulation 3(4)

### 4.9.6 Competence

The principal contractor shall ensure that his and other contractors' employees appointed are competent and that all training required to undertake the work safely and without risk to health of their or other persons, has been successfully completed before work commences.

The principal contractor shall ensure that follow-up and refresher training is conducted on a regular basis as well as the contract work progresses and the work situation or requirements changes.

Records of all training must be kept on the occupational health and safety file for auditing purposes.

# 4.10 Consultation, communication and liaison

The following arrangements will apply-

- 4.10.1 Occupational health and safety liaison between the Client, the principal contractor, the other contractors, the designer and other concerned parties will be through the occupational health and safety committee. In the absence of a health and safety committee, the Client and principal contractor will agree on an alternative communication forum to be implemented.
- 4.10.2 In addition to the above, communication may be directly to the Client or his appointed Agent, verbally (followed up in writing within 14 calendar days) or in writing, as and when the need arises.

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- 4.10.3 Consultation with the workforce on occupational health and safety matters will be through their supervisors, occupational health and safety representatives, the occupational health and safety committee and their elected trade union representatives, if any.
- 4.10.4 The principal contractor will be responsible for the dissemination of all relevant occupational health and safety information to the other contractors, for example design changes agreed with the Client and the designer, instructions by the Client and/or his Agent, exchange of information between contractors, the reporting of hazardous and/or dangerous conditions and/or situations etcetera.
- 4.10.5 The principal contractor will be required to do site safety walks with the Client and/or his Agent on a basis to be determined and agreed between the parties.
- 4.10.6 The principle and other contractors will be required to conduct toolbox talks with their employees on at least a weekly basis and records of these including the topics discussed must be kept on the occupational health and safety file. Employees must acknowledge the receipt of toolbox talks which record must, likewise be kept on the occupational health and safety file.
- 4.10.7 The principal contractor's most senior manager on site will be required to attend all the Client's occupational health and safety meetings.
- 4.10.8 The Client or his Agent and the principal contractor will agree on the dates, times and venues of the occupational health and safety meetings.

### 4.11 Checking, reporting and corrective actions

# 4.11.1 Monthly compliance assessment by Client [Construction Regulation 5(1)(0)]

The Client will be conducting a periodic assessment to comply with Construction Regulation 5(1)(0) and to confirm that the principal contractor has implemented and is maintaining the agreed and approved occupational health and safety plan.

# 4.11.2 Other assessments and inspections by the Client

The Client reserves the right to conduct other ad-hoc assessments and inspections as deemed necessary. This could include among others site safety walks.

### 4.11.3 Conducting an assessment

A representative of the principal contractor must accompany the Client on all assessments and inspections and may conduct his/her own inspection at the same time. Each party will, however, take responsibility for the results of his/her own assessment and/or inspection.

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# 4.11.4 Contractor's assessments and inspections

The principal contractor is to conduct his own internal assessments and inspections to verify compliance with his own occupational health and safety plan and management system as well as the requirements of this specification and the compliance of other contractors under his/her control.

# 4.11.5 Inspections by occupational health and safety representatives and other appointees

Occupational health and safety representatives must conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees must conduct inspections and report thereon as specified in their appointments for example vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

### 4.11.6 Recording and review of inspection results

All the results of the abovementioned inspections must be in writing, reviewed at occupational health and safety committee meetings, endorsed by the chairperson of the meeting and placed on the occupational health and safety file.

# 4.11.7 Reporting of inspection results

The principal contractor is required to provide the Client with a monthly report in the format as per the attached Annexure 3: "Safety, Health and Environment Risk Management Report".

# 4.12 Incident reporting and investigation

# 4.12.1 Reporting of accidents and incidents (Section 24 and General Administrative Regulation 8 of the OHSACT)

The principal contractor must report all incidents where an employee is injured on duty to the extent that he/she:

- dies
- · becomes unconscious
- loses a limb or part of a limb
- is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

or where -

- a major incident occurred
- the health or safety of any person was endangered
- where a dangerous substance was spilled

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- the uncontrolled release of any substance under pressure took place
- machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- machinery ran out of control

to the Client within two calendar days and to the Provincial Director of the Department of Labour within seven calendar days from date of incident (Section 24 of the OHSACT and General Administrative Regulation 8), **except** that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both the Client and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail. All other reports should still be completed and provided as required.

The principal contractor is required to provide the Client with copies of all statutory reports required in terms of the OHSACT within seven calendar days of the incident occurring.

The principal contractor is required to provide the Client with copies of all internal and external accident/incident investigation reports, including the reports contemplated in 4.11.2 (3) and (4) below, within seven calendar days of the incident occurring.

# 4.12.2 Accident and incident investigation (General Administrative Regulation 9)

- The principal contractor is responsible for the investigation of all accidents and/or incidents where employees and nonemployees were injured to the extent that he, she and/or they had to be referred for medical treatment by a doctor, hospital or clinic.
- 2. The results of the investigation to be entered into the accident and/or incident register.
- 3. The principal contractor is responsible for the investigation of all minor and non-injury incidents as described in Section 24 (1) (b) and (c) of the OHSACT and keeping a record of the results of such investigations including the steps taken to prevent similar accidents/incidents in future.
- 4. The principal contractor is responsible for the investigation of all road traffic accidents, related to the construction activities, and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.
- 5. The Client reserves the right to hold its own investigation into an incident or call for an independent external investigation.

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# 5. Operational control

### 5.1 Emergency preparedness, contingency planning and response

- 5.1.1 The Contractor must appoint a competent person to act as emergency controller and/or coordinator.
- 5.1.2 The principal contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that the Client may have in place.
- 5.1.3 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.

# 5.2 First-aid (General Safety Regulation 3)

- 5.2.1 The principal contractor must provide first-aid equipment and have qualified first-aider(s) on site as required by General Safety Regulation 3 of the OHSACT.
- 5.2.2 The contingency plan of the principal contractor must include arrangements for the speedily and timeously transportation of injured and/or ill person(s) to a medical facility or getting emergency medical support to person(s) who may require it.
- 5.2.3 The principal contractor must have firm arrangements with his contractors in place regarding the responsibility of these contractor's first-aid arrangements as well as treatment of injured and/or ill employees.

#### 5.3 Security

- 5.3.1 The principal contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must, among others, include the rule that non-employees will not be allowed on site unaccompanied.
- 5.3.2 The principal contractor must develop a set of project applicable security rules and procedures and maintain these throughout the construction period.

#### 5.4 Accommodation of traffic

5.4.1 Where construction work is undertaken in, next to or close to a road, the use of appropriate as well as a sufficient number of road signs is of paramount importance to protect employees against traffic and to warn all road users of the presence of construction work as well as construction employees/risks/vehicles.

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- 5.4.2 The principal contractor shall ensure that appropriate as well as a sufficient number of road signs are posted to protect employees against traffic and to warn all road users of the presence of construction work as well as construction employees/vehicles. These signs shall be repeated and utilised, where appropriate, as actual construction work is approached.
- 5.4.3 The following signage is required as a minimum where construction work is undertaken in, next to or close to a road:
  - a. "Construction work ahead" sign at least 45 meters before the start of the construction work:
  - b. "Lane narrows" sign 30 meters before the start of the construction work;
  - c. "Keep right/left" sign 15 meters before the start of the construction work and again where the tapering begins; and
  - d. Delineators and cones every 5 meters for the entire stretch of construction work.
- 5.4.4 Where construction work includes excavations in or next to a road, warning lights or visible boundary indicators should be provided after dark or when visibility is poor.
- 5.4.5 The maintenance of all signage and especially those that is suitable after dark should be duly managed.
- 5.4.6 Where appropriate duly trained flag persons should be deployed a good distance ahead of areas where traffic is deviated or lanes closed off. These flag persons should be managed assertively to ensure that they add optimal value and should they not do so they should be retrained and if necessary replaced.

# 5.5 Fall protection [Working in fall risk positions (Construction Regulation 10)]

- 5.5.1 A pre-emptive risk assessment will be required for any work to be carried out from a fall risk position and will be classified as "work in elevated positions".
- 5.5.2 As far as is practicable, any person working in an elevated position will work from a stable platform, ladder or other device that is at least as safe as if he or she is working at ground level and whilst working in this position be wearing suitable fall arrest equipment to prevent the person falling from the platform, ladder or other device utilised. This fall arrest equipment will be, as far as is possible, secured to a point away from the edge over which the person might fall and the lanyard must be of such a length and strength that the person will not be able to move over the edge.

Alternatively any platform, slab, deck or surface forming an edge over which a person may fall may be fitted with suitable guard rails at two different heights as prescribed in SANS 10085 code of practice for the design, erection, use and inspection of access scaffolding.

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- 5.5.3 Where the requirement in paragraph 5.5.2 is not practicable, the person will be provided with a full body harness that will be worn and attached above the wearer's head at all times and the lanyard must be fitted with a shock absorbing device or the person must be attached to a fall arrest system that is approved by the Client.
- 5.5.4 Where the requirements in paragraph 5.5.3 are not practicable, a suitable catch net, which must be able to sustain the weight of at least the average person working in the elevated position, must be erected.
- 5.5.5 Employees working in elevated positions must be trained to do this safely and without risk to their or other person's health and safety.
- 5.5.6 Where work on roofs is carried out, the risk assessment must take into account the possibility of persons falling through fragile material and openings in the roof.
- 5.5.7 Updated records confirming the physical and psychological fitness of employees working at elevated positions should be kept on the health and safety file at all times.

# 5.6 Structures (Construction Regulation 11)

The principal contractor must ensure that:

- 5.6.1 Only skilled employees are allowed to erect structures and that the skills of these employees are being verified at regular intervals.
- 5.6.2 Steps are taken to ensure that no structure becomes unstable or collapses due to construction work being performed on it or in the vicinity of it.
- 5.6.3 No structure is overloaded to the extent where it becomes unsafe.
- 5.6.4 He or she has received from the designer the following information:
  - Information on known or anticipated hazards relating to the construction work and the relevant information required for the safe execution of the construction work.
  - A geo-scientific report (where applicable).
  - The loading the structure is designed to bear.
  - The methods and sequence of the construction process.
  - Any other applicable information.
- 5.6.5 All drawings pertaining to the design are on site, utilised and available for inspection.





# 5.7 Access scaffolding (Construction Regulation 16)

Access scaffolding must be erected, used and maintained safely in accordance with Construction Regulation 16 and SA Bureau of Standards Code of Practice, SANS 10085 entitled, "The Design, Erection, Use and Inspection of Access Scaffolding".

Detailed consideration must be given to all scaffolding to ensure that it is properly planned to meet the working requirements, designed to carry the necessary loadings and maintained in a sound condition. It must also be ensured that there is sufficient material available to erect the scaffolding properly and safely.

Scaffolding must be erected, altered, maintained or dismantled by person(s) who has/have adequate training and experience in this type of work or under the continuous and direct supervision of such a person.

# 5.8 Lifting equipment (Construction Regulation 22)

Lifting equipment must be designed and constructed in accordance with the manufactures/designers specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the Driven Machinery Regulation 18 of the OHSACT:

The Driven Machinery Regulation requires that:

- a. Lifting equipment to be clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. When the MML varies with the conditions of use, the table of maximum loads should be used by the driver/operator;
- b. Each winch on a lifting machine must at all time have, at least, three full turns of rope on the drum when the winch has been run to its lowest limit;
- c. Lifting equipment be fitted with a brake or other applicable device capable of holding the MML. This brake or device must automatically prevent the downward movement of the load when the lifting power is interrupted;
- d. Lifting equipment fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML;
- e. Every chain or rope on a lifting machine that forms an integral part of the machine must have a factor of safety as prescribed by the manufacturer of the machine and where no standard is available the factor of safety must be:

chains –
steel wire ropes fibre ropes (four)
(five)
(ten)

- f. Every hook or load attaching device must be designed as such or fitted with a device that will prevent the load from slipping off or disconnecting;
- g. Every lifting machine must be inspected and load tested by a competent person every time it has been dismantled and re-erected and every 12 months after that. The load test must be in accordance with the manufacturers prescription or to 110% of the MML in addition all ropes, chains, hooks or other attaching devices, sheaves, brakes and safety

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- devices forming an integral part of a lifting machine must be inspected every 6 months by a competent person;
- h. All maintenance, repairs, alterations and inspection results must be recorded in a log book and each lifting machine must have its own log book; and
- i. No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by an inspector of the Department of Labour.

# 5.9 Lifting tackle

The following requirements will apply to lifting tackle:

- a. Manufactured of sound material, well constructed and free from latent defects:
- b. Clearly and conspicuously marked with an identity number;
- c. Maximum mass load factor of safety:
  - Natural fibre ropes
     Man-made fibre ropes and woven webbing
     Steel wire ropes single rope
     Steel wire ropes combination slings
     Mild Steel chains
     High tensile/alloy steel chains
     10(ten)
     06(six)
     08(eight)
     05(five)
     04(four)
- d. Steel wire ropes must be discarded (not used any further for lifting purposes) when wear and corrosion is evident and must be examined by a competent person every three months for this purpose and the results recorded in a designated log book.

### 5.10 Construction vehicle and mobile plant operators

The following requirements will apply to construction vehicle and mobile plant operators:

- a. Only certified and/or competent employees may be allowed to operate any construction vehicle and mobile plant.
- b. Every lifting machine operator must be trained specifically for the type of lifting machine that he or she is operating.
- c. Only employees duly authorised to do so may operate any construction vehicle and mobile plant.
- d. Only employees physically and psychologically fit, i.e. in possession of a medical certificate of fitness, may be allowed to operate any construction vehicle and mobile plant.

# 5.11 Construction vehicles and mobile plant (Construction Regulation 23)

Construction vehicles and mobile plant will initially during the competency evaluation process be inspected by the Client prior to being allowed on a project site and suppliers of hired vehicles, plant and equipment will be required to comply with this specification as well as the OHSACT and Regulations.

Construction vehicles and mobile plant must be:

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- a. Of acceptable design and construction;
- b. Maintained in good working order;
- c. Used in accordance with their design and intention for which they were designed;
- d. Operated and/or driven by trained, competent and authorised operators/drivers. No unauthorised persons to be allowed to drive construction vehicles and mobile plant;
- e. Provided with safe and suitable means of access;
- f. Fitted with adequate signalling devices to make movement safe including reversing;
- g. Excavations and other openings must be provided with sufficient barriers to prevent construction vehicles and mobile plant from falling into same;
- h. Provided with roll-over protection;
- Inspected daily before start-up by the driver, operator and/or user and the findings recorded in a register/log book and any defects addressed as matter of urgency;
- j. Fitted with two head and two tail lights that is in good working condition whilst operating under poor visibility conditions; and
- k. Used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported.

No loose tools, material etcetera is allowed in the driver and/or operators compartment/cabin nor in the compartment in which any other persons are transported.

No person may ride on construction vehicles and mobile plant except for in a safe place designed and provided for this purpose.

The construction site must be organised to facilitate the movement of construction vehicles and mobile plant in such a manner that pedestrians and other vehicles are not endangered. Traffic routes to be suitable, sufficient in number and adequately demarcated.

Construction vehicles and mobile plant left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights, reflectors or adequate barricades to prevent moving traffic from a sudden emergency, or to come into contact with the parked construction vehicles and mobile plant.

In addition construction vehicles and mobile plant left unattended after hours must be parked with all buckets, booms etc. full lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely.

All construction vehicles and mobile plant daily inspection records must be kept in the occupational health and safety file.





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# 5.12 Electrical installations (Construction Regulation 24)

Any electrical work undertaken as part of the project, including the installation of temporary electricity for construction use shall be in accordance with Construction Regulation 24 and the Electrical Installation Regulations.

The principal contractor must ensure that:

- a. Existing services are to be located and clearly marked before construction commences and during the progress thereof;
- b. Where the abovementioned is not possible, employees with jackhammers etc. will be protected against electric shock by the use of suitable protective equipment e.g. rubber mats, insulated handles etcetera:
- c. Electrical installations and -machinery are sufficiently robust to withstand normal working conditions on site;
- d. Temporary electrical installations must be inspected at least once per week by a competent person and a record of the inspections kept on the occupational health and safety file;
- e. Electrical machinery used on a construction site must be inspected daily before start-up by the competent driver/operator or any other competent person and a record of the inspections kept on the occupational health and safety file; and
- f. A competent person appointed in writing must control all temporary electrical installations.

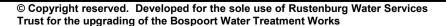
#### 5.13 Electrical and mechanical lockout

An electrical and mechanical lockout procedure must be developed by the principal contractor and submitted to the Client for approval before construction commences. All contractors on site must be informed of and adhere to this lockout procedure.

# 5.14 Use and storage of flammables (Construction Regulation 25)

The principal contractor must ensure that:

- a. No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapours being present unless adequate precautions is taken:
- Flammables stored on a construction site are stored in a well-ventilated, reasonably fire-resistant container, cage or room that is kept locked with consistent access control measures in place and sufficient fire fighting equipment installed and fire prevention methods practiced for example proper housekeeping;
- c. Only one day's quantity of flammable is to be kept in the workplace; and
- d. Containers (including empty containers) to be kept closed to prevent fumes/vapours from escaping and accumulating in low lying areas.







#### 5.15 Hazardous chemical substances

The principal contractor must ensure that:

- Employees receive the necessary information and training to be able to use, handle and store hazardous chemical substances safely;
- b. The risk assessments required in terms of Construction Regulation 9 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:
- c. Suppliers provide the necessary information in the form of material safety data sheets regarding hazardous chemical substances required to ensure the safe use, handling and storage of these substances;
- d. 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 said hazardous chemical substances:
- e. Hazardous chemical substances containers be clearly marked as to 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;
- f. No person eats or drinks in an area where hazardous chemical substances are stored or utilised: and
- q. Hazardous chemical substances waste is disposed of safely in terms of hazardous waste disposal requirements.

#### Storage of flammable and hazardous chemicals (Hazardous Chemical 5.16 **Substances Regulations**)

See paragraphs 5.14 and 5.15 above.

#### 5.17 Fire prevention and protection

The principal contractor must ensure that:

- The risk of fire is avoided: a.
- Sufficient and suitable storage of flammables is provided; h
- All employees are instructed in the use of the fire fighting equipment and know how to attempt to extinguish a fire;
- 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 and made known to employees;
- h. Evacuation is regularly practiced to ensure that all persons are evacuated timeously and;
- Roll call is held after evacuation to account for all employees and to ensure that no-one including visitors and disabled persons have been left behind; and
- A clearly audible, to all persons on site, siren or alarm is fitted and regularly tested.

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# 5.18 Housekeeping (Construction Regulation 27)

The principal contractor must ensure that:

- a. Housekeeping is continuously implemented and maintained;
- b. Materials and equipment is properly stored;
- c. Scrap, waste and debris is removed off site regularly;
- d. Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to the free-flow of pedestrians and vehicular traffic;
- e. Waste and debris not to be removed by throwing from heights but by chute or crane:
- f. Where practicable, construction sites are fenced off to prevent entry of unauthorised persons;
- g. An unimpeded work space is maintained for every employee;
- h. Every workplace is kept clean, orderly and free of tools and the likes that are not required for the work being done;
- As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, skid-free and free of obstruction, waste and materials;
- j. The walls and roof of every indoor workplace be sound and leak-free; and
- k. Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fenced, boarded over or provided with protection to prevent persons from falling.

# 5.19 Stacking and storage (Construction Regulation 28)

The principal contractor must ensure that:

- a. A competent person is appointed in writing to supervise all stacking and storage on a construction site;
- b. Adequate storage areas are provided and demarcated;
- c. The storage areas are kept neat and under control;
- d. The base of any stack is level and capable of sustaining the weight exerted on it by the stack;
- e. The items in the lower layers can support the weight exerted by the top layers:
- f. Cartons and other containers that may become unstable due to wet conditions are kept dry;
- g. Pallets and containers are in good condition and no material is allowed to spill out;
- h. The height of any stack does not exceed 3 times the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector of the Department of Labour has been obtained to build the stacks higher with the aid of a machine. (The operator of the machine must be protected against items falling from overhead or off the stack and no items may overhang):
- The articles that make up a single tier are consistently of the same size, shape and mass;
- j. Structures for supporting stacks are structurally sound and able to support the mass of the stack:
- k. No articles are removed from the bottom of the stack first but from the top tier first:

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- I. Anybody climbing onto a stack can and does do it safely and that the stack is sufficiently stable to support him or her;
- m. Stacks that are in danger of collapsing are broken down and restacked;
- n. Stability of stacks are not threatened by vehicles or other moving plant and machinery;
- o. Stacks are built in a header and stretcher fashion and that corners are securely bonded; and
- Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations.

# 5.20 Eating, changing, washing and toilet facilities (Construction Regulation 30)

#### **5.20.1 Toilets**

- a. The provision of toilets for each sex is required in terms of the National Building Regulations and Construction Regulation 30.
- b. Chemical toilets are allowed instead of the water borne sewerage type. Toilets have to be provided at a ratio of at least 1 toilet per 30 employees.

#### 5.20.2 Showers

At least cold-water showers of some sort for each sex have to be provided at a ratio of at least 1 shower per 15 employees.

### 5.20.3 Change rooms

Some form of screened off changing facility must be provided separately for each sex.

#### 5.20.4 Eating facility

Some form of eating facility sheltered from the sun, wind and rain must be provided.

### 5.20.5 Living accommodation

Where the site is in a remote location and transport to home is not readily available, reasonable and suitable living accommodation must be provided after obtaining of the necessary permission from authorities and adhering to requirements such as Bylaws of the local municipality.



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# 5.21 Personal and other protective equipment (Sections 8, 15 and 23 of the OHSACT)

The principal contractor is required to proactively identify the hazards in the workplace and deal with them on an ongoing basis. He/she must either remove them or, where impracticable take steps to protect employees and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply re-engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the principal contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the principal contractor maintain the said equipment, that he/she instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s in a consistent and correct manner.

Employees do not have the right to refuse to use and/or wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other valid reason, the employee cannot be allowed to continue working under the hazardous condition(s) for which the equipment was prescribed but an alternative solution has to be found that may include relocating the employee.

The principal contractor may **not charge any fee** for protective equipment prescribed by him or her **but may charge for equipment under the following conditions**:

- Where the employee requests additional issue in excess of what is prescribed;
- Where the employee has blatantly abused or neglected the equipment leading to early failure; and
- Where the employee has lost the equipment.

**Please note:** Bullet points two and three above should form part of a formal disciplinary process, i.e. following a disciplinary hearing.

# 5.22 Portable electrical tools and equipment (Electrical Machinery Regulation 9)

Portable electrical tools and equipment includes every unit that takes electrical power from a 15 ampere plug point and is moved around for use in the workplace i.e. drills, saws, grindstones, portable lights, etcetera. In addition electrical appliances such as fridges, hotplates, heaters, etcetera must be inspected regularly but at least on a weekly basis and maintained to the same standards as portable electrical tools and appliances.

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The use, inspection and maintenance of portable electrical tools and equipment must be governed by the following:

- Regular inspections by a competent person appointed in writing;
- Inspection results must be recorded in a register;
- Only competent authorised persons are allowed to use portable electrical tools and equipment; and
- The correct protective equipment is worn/used whilst operating portable electrical tools and equipment.

## This equipment -

- Must be maintained in good condition at all times to prevent an electrical shock to the user;
- The main source should incorporate an earth leakage protection device or receive power through a double wound transformer or be double insulated and clearly marked as such; and
- All equipment must be fitted with a switch to allow for safe and easy starting and stopping.

### 5.23 Portable lights

The following requirements apply to portable lights:

- a. Must be fitted with a robust non-hygroscopic non-conducting handle;
- b. Live metal parts which may become live must be protected against contact:
- c. The lamp must be protected by a strong guard;
- d. The cable lead-in must withstand rough handling;
- e. A register be kept for each piece of equipment with findings of regular inspections undertaken to evaluate the condition of these lights;
- f. Inspections must be undertaken that concentrate on at least the plug, cord, switch, guard and any obvious faults; and
- g. When used in wet/damp/metal container conditions, it must be protected.

# 5.24 Public health and safety (Section 9 of the OHSACT)

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 said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers. This includes among others:

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

Appropriate signage must be posted to this effect and all employees on site must be instructed to ensure that non-employees are protected at all times.

All non-employees entering the site must receive site applicable induction into the hazards and risks and the control measures for these.

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# 5.25 Excavations (Construction Regulation 13)

All excavation work has to comply with the following:

- 5.25.1 Excavation work must be carried out under the supervision of a competent person with at least two years practical experience in excavation work who has been appointed in writing.
- 5.25.2 Before excavation work begins the stability of the ground must be evaluated.
- 5.25.3 Whilst excavation work is being performed, the principal contractor must take suitable and sufficient steps to prevent any person from being buried or trapped by a fall or dislodgement of material.
- 5.25.4 No person may be required or permitted to work in an excavation that has not been adequately shored or braced.
- 2.25.5 Where the excavation is in stable material or where the sides of the excavation are sloped back to at least the maximum angle of repose measured relative to the horizontal plane, shoring or bracing may be left out **but only after** written permission has been obtained from the appointed competent person.
- 5.25.6 Shoring and bracing must be designed and constructed to safely support the sides of the excavation and prevent it from collapsing.
- 5.25.7 Where uncertainty exists regarding the stability of the soil the opinion of a competent professional engineer or professional technologist must be obtained, before excavation proceeds, whose opinion will be decisive. The opinion must be in writing and signed by the engineer or technologist as well as the appointed excavation supervisor.
- 5.25.8 No load or material may be placed near the edge of an excavation if it is likely to cause a collapse of the excavation, unless suitable shoring has been installed to be able to carry the additional load. Best practice requires a one meter clearance so as to reduce the pressure on the side walls as well as risk of material falling onto persons inside the excavation.
- 5.25.9 Neighbouring/adjoining buildings, structures or roads that may be affected or endangered by the excavation must be suitably protected.
- 5.25.10 Every excavation must be provided with means of access that must be within 6 metres of any employee within the excavation at any time. Should ladders be utilised for this purpose they should be duly secured.
- 5.25.11 The location and nature of any existing services such as water, electricity, gas, telecommunication etcetera must be established before any excavation is commenced with and any service that may be affected by the excavation must be protected and made safe for employees working in or near in the excavation.

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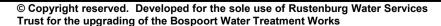
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- 5.25.12 Every excavation, including the shoring and bracing or any other method to prevent a possible collapse, must be inspected by the appointed competent person as follows:
  - Daily before work commences
  - After every blasting operation
  - After an unexpected collapse of the excavation or part thereof
  - After substantial damage to any support
  - After rain
- 5.25.13 The results of any inspections must be recorded in a register kept on site in the health and safety file.
- 5.25.14 Every excavation accessible to the public or that is adjacent to a public road or thoroughfare or that threatens the safety of persons, must be adequately barricaded or fenced off, on all sides, to at least one meter high and as close to the excavation perimeter as practicable. All such excavations must also be provided with warning lights or visible boundary indicators after dark or when visibility is poor.

# 5.26 Blasting

In the event of blasting work being required, the principal contractor must ensure that:

- a. Blasting activities are carried out under the supervision of a competent person with at least five years practical experience in blasting who has been appointed in writing.
- b. A method statement is developed in accordance with all applicable explosives legislation, by an appointed person who is certified as a competent person in the use of explosives.
- c. The necessary permits are in place for the transportation of explosives to be used.
- d. Access to the blasting area is strictly restricted.
- e. No smoking or hot work is allowed close to explosives or the blasting areas.
- f. Reasonable steps are taken to prevent damage to structures in the vicinity of the blasting area.
- g. Any other industry required safety measures are considered and implemented specifically taking the construction site's specific requirements into account including the removal of any surplus explosives off the site.





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# 5.27 Working in confined spaces

#### 5.27.1 Ventilation

The confined space must be opened and allowed to ventilate for at least 15 minutes before entering the manhole. All open manholes must be barricaded and manned at all times.

A gas monitor must be lowered to the bottom of the confined space with a rope to test the presence of any toxic/flammable gas. If any gas is detected, the space must be force ventilated by means of a blower for at least 15 minutes where after the air must be tested again. Under no circumstances may any space be entered while there is a toxic/flammable gas present.

After the undertaking of the necessary work, the person in charge of the activities must confirm that all the employees are accounted for.

### 5.27.2 Entering a confined space

When entering a confined space, the person entering the space must wear a safety harness and fully operational gas detector. A lifeline must be attached to the safety harness and a person on the surface must be in continuous contact with the person in the confined space. At least one person on the surface must be trained in basic first-aid (level 1) with proof of such training as well as a fully equipped first aid box available on site.

No person shall remain within a confined space for a period of more than one hour at a time. A minimum of 5 minute rest periods on the surface must be taken after this period before re-entering.

Should the alarm sound on the gas monitor, all employees must exit the confined space and the immediate area must also be evacuated immediately. The area must be properly ventilated and re-tested before re-entering the confined space. Professional support should be called for if necessary.

Employees must be provided with flameproof lighting when entering a confined space with the possibility of flammable gases. No naked lights, smoking or unprotected electrical apparatus which may cause sparks, shall be permitted in any confined space or in its vicinity.

#### **5.27.3 General**

All employees working in confined spaces must be issued with fully functioning gas monitoring equipment and safety harnesses. All these employees must be trained (including refresher training on a regular and continuous basis) in the use thereof.

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# 5.27.4 Safety equipment

All teams must be issued with fully functional gas monitoring equipment and safety harnesses where applicable. All employees must be trained (including refresher training on a regular and continuous basis) in the use thereof.

#### 5.27.5 General records

The following records shall be implemented and maintained by the principal contractor:

- a. Confined space entry permits
- b. Confined space entry registers
- c. Safety harness and gas monitoring equipment registers
- d. Risk assessments
- e. Incident registers

### 5.27.6 Training

- a. All employees that have to enter a confined space must be formally trained and confirmed competent before being required to enter such areas (new employees to complete this training and be declared competent before allowed to work in a confined space).
- b. Refresher courses must be attended by employees at least once every 2 years or immediately if new methodologies or equipment are adopted or acquired.
- c. Continuous onsite training and support by supervisory staff should be undertaken and enforced where required.

# 5.28 Working over or close to water

Where construction or other support work is undertaken over or in close proximity to water or similar liquids such as wastewater and sludge, the principal contractor shall –

- a. Appoint a competent person in writing to supervise, control and inspect any work on or over or in close proximity of the water as well as the construction, installation, and dismantling of caissons and/or cofferdams and/or other support or safety structures;
- b. Ensure that written proof of the competence of above appointee is available on site;
- c. Ensure that risk assessments are carried out by the competent person before any work is undertaken, mitigation measures documented as well as implemented and thereafter evaluated on a daily basis;
- d. Undertake the necessary induction and refresher training;
- e. Ensure that measures for the timeous warning of flooding are in place;
- f. Ensure that provision is made to prevent employees from falling into the water and the rescuing of employees in danger of drowning;
- g. Ensure that where an employee is exposed to the risk of drowning by falling into the water, a lifejacket is provided to and worn by the employee; and

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h. Provide applicable personal protective equipment such as safety harnesses etcetera and enforce the utilisation thereof.

# 5.29 Temporary work

- a. Temporary work must be carried out under the supervision of the competent person designated in writing.
- b. Temporary work structures must be so designed, erected, supported, braced and maintained that they will be able to support any vertical or lateral loads that may be applied.
- c. No load may be imposed onto a structure that the structure is not designed to carry.
- d. Temporary work must be erected in accordance with the structural design drawings for such temporary work and if there is any uncertainty, the designer must be consulted before proceeding with the erection/use of the temporary work.
- e. All drawings pertaining to the temporary work must be kept and be available on site.
- f. All equipment used in the erection of temporary work must be checked by a competent person before use.
- g. The foundation or base upon which the temporary work is erected must be able to bear the weight and keep the structure stable.
- h. Employees erecting temporary work must be trained in the safe work procedures for the erection, moving and dismantling of the temporary work.
- i. Safe access and emergency escape must be provided for employees.
- j. A competent person must inspect the temporary work structures that have been erected before, during and after pouring of concrete or the placing of any other load and thereafter daily until the temporary work is stripped. The dismantling must also be undertaken under the direct supervision of the appointed competent person. The results of all inspections must be recorded in a register kept on the site health and safety file.
- k. The temporary work must be left in place until the designated competent person has authorised its stripping in writing.
- I. Any damaged temporary work must be repaired and/or rectified without delay.
- m. Deck panels must be secured against displacement.
- n. The slipping of employees and other persons on release agents on deck panels must be prevented at all times.
- o. Employees' health must be protected against the use of solvents, oils or other similar substances.

#### 5.30 Demolition Work

- 5.30.1 Demolition work must be carried out under the supervision of a competent person who has been appointed in writing.
- 5.30.2 A detailed structural engineering survey of the structure to be demolished must be carried out and a method statement on the procedure to be followed in demolishing the structure must be developed by a competent person, before any demolition may be commenced.

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- 5.30.3 As demolishing progresses the structural integrity of the structure must be checked at intervals as determined in the method statement by the appointed competent person in order to prevent any premature or uncontrolled collapse.
- 5.30.4 Steps must be taken to ensure that where a structure is being demolished:
  - a. precautions are taken to prevent the collapse of the structure when any frame, support or reinforcement is cut or removed;
  - b. shoring or propping is applied where necessary;
  - c. no employee is required or allowed to work under unsupported overhanging material; and
  - d. the stability of an adjacent building, structure, road or services is maintained at all times.
- 5.30.5 The location and nature of any existing services such as water, electricity etcetera must be established before any demolition is commenced with and any service that may be affected by the demolition must be protected and made safe for employees and other persons.
- 5.30.6 Convenient and safe means of access must be provided and maintained at all times.
- 5.30.7 No material may be dropped on the outside of the building unless the area into which it is dropped is fenced off or barricaded.
- 5.30.8 Waste and debris may only be disposed from a height in a chute with the following design:
  - a. adequately constructed and rigidly fastened and secured;
  - b. inclined greater than 45 degrees and enclosed on all four sides;
  - c. fitted with a gate or control mechanism to control the flow of material that may not freefall down the chute;
  - d. discharged into a container or a barricaded area; and
  - e. demolition equipment may only be used on floors or slabs that are able to support it.

# 5.31 Welding, flame cutting or similar operations

Should any welding work be undertaken as part of emergency repairs to plant and equipment on site or as part of the construction activities, the principal contractor must ensure that:

- 5.31.1 A competent person will be appointed to supervise welding, flame cutting or similar operations on site.
- 5.31.2 The following rules will govern all welding and flame cutting or similar operations:
  - a. The welder will be trained regarding the safe use/operation of the equipment.
  - b. The welder and his assistant will be provided with effective and appropriate personal protective equipment and/or clothing.
  - c. Cables and electrode holders will be effectively insulated.
  - d. The workplace will be effectively screened off to prevent bystanders from being affected by the welding rays or they will be provided with personal protective equipment.
  - e. Special precautions will be taken where welding is undertaken in confined spaces e.g. proper and sufficient ventilation will be provided.

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- f. In wet or damp conditions the welding equipment and the welder will be properly insulated and someone will be on standby to assist in the event of any emergency.
- g. A qualified person will certify in writing that it is safe to enter and work in a specific confined space before welding or flame cutting is undertaken.
- h. No welding, flame cutting, grinding, soldering or similar work shall be undertaken in respect of any drum, vessels or similar object or container where such object or container-
  - is completely closed, unless the rise in internal pressure cannot render it dangerous; or
  - contains any substance which, under the action of heat may explode or react to form dangerous or poisonous substances.
- Where pressure vessels/welding cylinders containing oxygen or acetylene are transported or used, the proper precautionary measures will be taken against bumping, falling, rolling etcetera.
- j. Gas welding hoses may only be joined with approved connectors and clamps.
- k. No oil or grease may be applied to oxygen valves and fittings.
- I. It is a sound practice to store pressure vessels and/or welding cylinders vertically and to secure them by means of a chain.
- m. Acetylene cylinders may never be inclined in excess of 45°.
- n. Proper and adequate fire prevention measures will be instituted and maintained for as long as the welding continues.
- o. Where flammable vapours are present welding will only be done under "hot work" permits.

# 5.32 Transportation of employees

- 5.32.1 Any vehicle used to transport employees must have seats firmly secured and adequate for the number of employees to be carried.
- 5.32.2 Regulation 247 of the National Road Traffic Act, Number 93 of 1996 (NRTA) stipulates that the principal contractor shall not allow employees to be transported in a vehicle unless the portion of the vehicle in which the employees are being conveyed is enclosed to a height of
  - a. at least 350 mm above the surface on which employees are seated; or
  - b. at least 900 mm above the surface on which employees are standing,

in a manner and with a material of sufficient strength to prevent employees from falling from such vehicle when it is in motion.

5.32.3 Regulation 247 of the NRTA also stipulates that the principal contractor shall also not allow any employees to be conveyed in the goods compartment of a vehicle together with any tools or goods, except their personal effects, unless that portion in which the

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employees are being conveyed is separated by means of a partition, from the portion in which such goods are being conveyed.

# 5.33 Exposure to poisonous animals or insects

Construction work is undertaken mostly in a rural environment where employees and other persons visiting could be exposed to poisonous animals and insects.

The principal contractor shall ensure that the following are duly adhered to:

- a. the emergency procedure be expanded to provide for the effective treatment of employees or other persons visiting exposed to bites or stings from poisonous animals and insects, i.e. the contact details of the nearest medical unit that could treat employees exposed to bites or stings be obtained and arrangements be made with this service provider on the procedures to be followed to ensure swift response when required;
- b. confirmation be obtained from this medical unit that they have anti venom reserved to treat employees or other persons visiting that may be exposed to snake bites or scorpion stings;
- c. competent first aiders be available to facilitate the treatment of employees or other persons visiting exposed to stings or bites; and
- d. the potential exposure posed by poisonous animals or insects and awareness thereof be discussed with all employees as part of the toolbox talks and general awareness training and other persons visiting as part of the pre-site visit induction process.

# 5.34 Working in inclement weather

The principal contractor shall implement an early warning system to identify inclement weather and to prevent such weather from posing negative implications on the safety of employees and other persons visiting.

The early warning system shall as a minimum provide for the following:

# 5.34.1 Construction work done during electrical storms

- a. The principal contractor shall ensure that all employees are removed from heights and all employees are as safe as possible, in inclement weather conditions.
- b. No work is allowed on the construction site during electric storms where employees cannot be protected from it. Protection involves:
  - eating area fitted with a lightning mast
  - workshops
  - inside buildings
- c. No work is allowed in electrical storms on top of open structural steel, even when earthed.
- d. No work is allowed on height where the lightning is within a 10 kilometre radius.
- e. After inclement weather on-site risk assessments will be reviewed to include wet conditions.

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# 5.34.2 Construction work done during rain

- a. During rainy conditions all work on steel structures will stop.
- b. No electrical tools will be used during rainy weather in open areas.
- c. Work can be done in water proof areas where there is a zero risk for electrocution

# 5.34.3 Scaffolding activities during inclement weather conditions

During inclement weather only limited scaffolding actions will be permitted i.e. erecting and dismantling activities.

Guidelines for safe choices:

Weather type	Building and dismantling of scaffolding
Lightning	Stop all activities
Light rain	Stop all activities
Heavy rain	Stop all activities
Wind <28 km/h	Full use
Wind >40 km/h	Stop all activities
Light mist	Full use
Heavy mist	Full use
Hail	Stop all activities

Sometimes it might be necessary to allow scaffolding activities to continue during abnormal equipment and process conditions as this could impair personnel safety or pose an environmental risk. In such cases, scaffolding activities may continue with the provision that the relevant team ensures that a comprehensive risk assessment is done, whilst considering both work and weather conditions.

All scaffold users will:

- a. Ensure that scaffolding is inspected immediately after inclement weather conditions.
- b. Ensure that the risks associated with working at heights during inclement weather are identified and reasonably mitigated.
- c. Be cautious of slip/trip hazards when performing activities during inclement weather.
- d. Take note of the weather when completing the daily safe task instructions on site, where applicable.



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# 5.34.4 Driving in inclement weather

The principal contractor shall ensure that the danger of driving in wet conditions is adequately covered in a risk assessment.

The risk assessment will include, but not limited to:

- a. route planning
- b. speed reduction
- c. planning for emergency situations
- d. driving precautions for slippery surfaces
- e. visibility hazards

# 6. Health and safety policy

The principal contractor has to provide the Client, as an annexure to the health and safety plan, with a detailed health and safety policy outlining the principal contractor's stance on and principles adopted for health and safety.

# 7. Cost for health and safety measures during the construction process

To enable the Client to comply with Construction Regulation 5(1)(g), all potential principal contractors submitting tenders/bids have to demonstrate to the Client that sufficient provision has been made for the cost to implement and maintain the health and safety plan proposed by the principal contractor to meet the requirements of this health and safety specification as well as that of the OHSACT and its Regulations.

A detailed schedule of costs has to be included in the health and safety plan submitted as part of the potential principal contractor's tender document. Failure by the principal contractor to adhere to this requirement will force the Client to reject the tender/bid in terms of Construction Regulation 5(1)(h).

# 8. Project specific risk assessment requirements

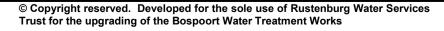
See Annexure 5.

### 9. Overview of annexures

Annexure 1: Legal compliance assessment.
Annexure 2: Measuring injury experience.
Annexure 3: SHE risk management report.
Annexure 4: Guide to risk assessments.
List of risk assessments.

### 10. Enquiries

For any enquiries regarding this occupational health and safety specification, please





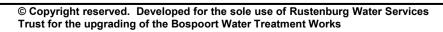


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## **Rustenburg Water Services Trust**



# **Annexure 1**

# Legal compliance assessment

**Proudly prepared by** 

**EMPOWERisk (Pty) Ltd** 



November 2016

# Occupational health, -safety and environment: Risk assessment checklist

(Based on the Construction Regulations of the Occupational Health and Safety Act)

\* Denotes items applicable to both construction sites, contractor plant and storage yards

	ELEMENT	REMARKS
1.	Administrative and legal requirements	
2.	Education, training and promotion	
3.	Public safety, security measures and emergency preparedness	
4.	Personal protective equipment	
5.	Housekeeping	
6.	Working at heights (including roof work)	
7.	Scaffolding and temporary work	
8.	Ladders	
9.	Electrical safeguarding	
10.	Emergency, fire prevention and protection	
11.	Excavations and demolition	
12.	Tools	
13.	Cranes	
14.	Builder's hoist hoists	
15.	Transport and materials handling equipment	
16.	Site plant and machinery	
17.	Plant and storage yard or site workshop specifics	
18.	Workplace environment, health and hygiene	

#### 1. Administrative and Legal Requirements

OHSACT Section or Regulation	Subject		Requirements	Yes/No
Construction Regulation 3	Application construction v permit	for work	<ul> <li>Should the project qualifies to trigger this requirement -</li> <li>Application for permit lodged;</li> <li>Copy of construction permit in the OHS file; and</li> <li>Is the site specific permit number conspicuously displayed at the main entrance.</li> </ul>	

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OHSACT Section or Regulation	Subject	Requirements	Yes/No
Construction Regulation 4	Notice of carrying out Construction work	For construction projects where no permit is required -  • Was the Department of Labour notified; and  • Is a copy of notice available on site.	
General Admin. Regulation 4	Copy of OHSACT	Updated copy of the OHSACT and Regulations on site. Readily available for perusal by all employees.	
COID Act Section 80 and Construction Regulation 5(1)(j)	Registration with Compensation Commissioner or other approved compensation insurer	Written proof of registration/Letter of good standing available on site.	
Construction Regulation 4 and 5(1)	OHSACT specification, plans and program	OHSACT spec received from RWST. OHSACT plan developed. OHSACT program implemented. Plans and program updated regularly.	
Section 8(2)(d) Construction Regulation 9	Hazard identification and risk assessment	Competent risk assessor appointed in writing Proof of risk assessor's competence available on site Risk assessment and –plan drawn up and updated. Baseline risk assessment undertaken prior to commencement of construction work. Copy of baseline risk assessment available on site. Continued risk assessments undertaken and recorded. Copies of ongoing risk assessments available on site. Employees and sub-contractors informed and trained by a competent person in the risk assessment before work commences and an ongoing basis thereafter. Health and safety committee or employee representatives consulted on the monitoring and review of the risk assessments.	
Section 16(2)	Assigned duties (Managers)	Responsibility of complying with the OHSACT assigned to other person/s by CEO.	
Construction Regulation 8(1)	Designation of person ultimately responsible for occupational health and safety on site	Competent person appointed in writing as construction manager.	
Construction Regulation 8(2)	Designation of assistant for construction manager	Competent person appointed in writing as assistant construction manager.	





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OHSACT Section or Regulation	Subject	Requirements	Yes/No
Construction Regulation 8(7)	Designation of person responsible for ensuring occupational health and safety compliance	Competent person appointed in writing as construction supervisor.	
Construction Regulation 8(8)	Designation of assistant for responsible person	Competent person(s) appointed in writing as assistant construction supervisors.	
Section 17 & 18 and General Administrative Regulations 6 and 7	Election and designation of occupational health and safety representatives	More than 20 employees - one representative and one additional representative for each 50 employees or part thereof.  Designation in writing, period and area of responsibility specified.  Meaningful reports.  Reports actioned by management.	
Section 19 and 20 and General Administrative Regulations 5	Occupational health and safety committee/s	Committee/s established. Members appointed in writing. Meetings held monthly. Minutes kept. Actioned by management.	
Section 37(1) and (2)	Agreement with mandataries, contractors and sub-contractors	Written agreement with contractors and sub-contractors. Updated list of contractors and sub-contractors displayed. Proof of Registration with Compensation Commissioner or Compensation Insurer as well as Letter of Good Standing. Construction Supervisor designated. Written arrangements regarding representatives and committee. Written arrangements regarding first-aid.	
Construction Regulation 7(1)(c) and 7(2)(a)	Management of sub-contractors	<ul> <li>Has the principal contractor –</li> <li>provided all sub-contractors with relevant sections of the client's OHS specification</li> <li>formally evaluated and approved all sub-contractors' OHS plans.</li> <li>ensured that the sub-contractors appointed made sufficient provision for the costs to be incurred to implement and maintain their OHS plan.</li> </ul>	
Construction Regulation 7(1)(g)`	Medical certificates of fitness	Are medical certificates of fitness (issued by an occupational health practitioners) specific to the construction work performed available for all employees on site	
Section 24 and General Administrative Regulation 8 COID Act Section 38, 39 and 41	Reporting of incidents (Department of Labour)	Incident reporting procedure displayed. All incidents in terms of section 24 reported to the Provincial Director, Department of Labour, within 3 days (Annexure 1 and/or WCL 1 or 2). Cases of occupational disease reported.	





OHSACT Section or Regulation	Subject	Requirements	Yes/No
		Copies of reports available on site. Record of first-aid injuries kept.	
General Administrative Regulation 9	Investigation and recording of incidents	first aid, recorded and investigated by investigator designated in writing. Copies of reports (Annexure 1) available on site. Tabled at committee meeting. Actioned taken by site management.	
Construction Regulation 10	Fall protection	Competent person appointed to draw up and supervise the fall protection plan. Proof of appointees' competence available on site. Risk assessment carried out for work at heights. Fall protection plan drawn up and updated. Plan available on site.	
Construction Regulation 10(5)	Roof work	Competent person appointed to plan and supervise roof work.  Proof of appointees' competence available on site.  Risk assessment carried out.  Roof work plan drawn up and updated.  Roof work inspect before each shift and inspection register kept.  Employees medically examined for physical and psychological fitness and written proof on site.	
Construction Regulation 12	Temporary works	Competent person appointed in writing as temporary works designer to inspect and approved any erected temporary works before use.  Proof of appointees' competence available on site.  Competent person appointed in writing as temporary works supervisor.  Proof of appointees' competence available on site.  Risk assessment carried out for work on temporary works structures.  Temporary works drawings approved by temporary works designer and available on site.  Other relevant documentation that includes construction sequence and method statements available on site.  Competent person(s) appointed in writing to:  • erect, move or dismantle temporary works structures; and  • examine and check all temporary works structures before being used; Written proof of competence of above	





OHSACT Section or	Subject	Requirements	Yes/No
Regulation		appointees. Temporary work structures are inspected:  • before, during and after the placement of concrete;  • after inclement weather;  • after a load was imposed;  • daily whilst in place; and  • before stripping or dismantling and inspection register kept. Inspection registers kept. Fall protection plan drawn up and	
Construction Regulation 16	Scaffolding	updated. Plan available on site.  Competent persons appointed in writing to:	
		<ul> <li>erect scaffolding (scaffold erector/s);</li> <li>act as scaffold team leaders; and</li> <li>inspect scaffolding weekly and after inclement weather (scaffold inspector/s).</li> <li>Written proof of competence of above appointees.</li> <li>Appointees available on site.</li> <li>Copy of SANS 10085 available on site.</li> <li>Risk assessment carried out.</li> <li>Inspected weekly and/or after bad weather. Inspection register/s kept.</li> </ul>	
Construction Regulation 17	Suspended platforms	competent persons appointed in writing to:  control the erection of suspended platforms;  act as suspended platform team leaders; and  inspect suspended scaffolding weekly and after inclement weather.  Risk assessment conducted.  Certificate of authorisation issued by a registered professional engineer available on site and copy forwarded to the Department of Labour.  The following inspections of the whole installation carried out by a competent person  after erection and before use;  daily prior to use; and  inspection register kept.  The following tests to be conducted by a competent person:  load test of whole installation and working parts every 12 months; and  hoisting ropes, hooks and load attaching devices quarterly; and	





OHSACT Section or Regulation	Subject	Requirements	Yes/No
		Employees working on suspended platforms should be medically examined for physical and psychological fitness. Written proof available.	
Construction Regulation 13	Excavations	Competent person/s appointed in writing to supervise and inspect excavation work.  Written proof of competence of above appointee/s available on site. Risk assessment carried out. Excavations inspected:  • before every shift;  • after any blasting;  • after an unexpected fall of ground;  • after any substantial damage to the shoring; and  • after rain. Inspections register kept. Method statement developed where	
Construction Regulation 14	Demolition work	explosives will be and/or are used.  Competent person/s appointed in writing	
		to supervise and control demolition work. Written proof of competence of above appointee/s available on site. Risk assessment carried out. Engineering survey and method statement available on site. Inspections to prevent premature collapse carried out by competent person before each shift. Inspection register kept.	
Construction Regulation 19	Materials hoist	Competent person appointed in writing to inspect the material hoist.  Written proof of competence of above appointee available on site.  Materials hoist to be inspected weekly by a competent person.  Inspection register kept.	
Construction Regulation 26	Water environments (including caissons and cofferdams)	Competent person appointed in writing to supervise, control and inspect work on or over water and the construction, installation, and dismantling of caissons and/or cofferdams.  Written proof of competence of above appointee available on site.  Risk assessment carried by a competent person on a daily basis.  Inspection register kept.	
Construction Regulation 21	Explosive actuated fastening devices	Competent person appointed to control the issue of the Explosive actuated fastening devices and cartridges as well as the service, maintenance and cleaning.  Register kept of above.  Empty cartridge cases, nails and fixing	





OHSACT Section or Regulation	Subject	Requirements	Yes/No
		bolts returns recorded. Cleaned daily after use.	
Construction Regulation 20	Bulk mixing plant	Competent person appointed to control the operation of the bulk mixing plant as well as the service, maintenance and cleaning of this plant. Register kept of above. Risk assessment carried out. Bulk mixing plant to be inspected weekly by a competent person and inspections register kept.	
Construction Regulation 15 and Mine Health and Safety Act	Tunnelling	Complying with Mines Health and Safety Act (29 of 1996). Risk Assessment carried out.	
Construction Regulation 22 Driven Machinery Regulations 18 and 19	Cranes and lifting machines equipment	Competent person appointed in writing to inspect cranes, lifting machines and equipment.  Written proof of competence of above appointee available on site.  Cranes and lifting tackle identified and numbered.  Register kept for lifting tackle.  Logbook kept for each individual crane. Inspection:  • All cranes: Daily by operator.  • Tower cranes: After erection and thereafter 6 monthly.  • Other cranes: Annually by competent person.  • Lifting tackle (slings, ropes, chain slings etcetera): Three monthly.	
Construction Regulation 24 Electrical Machinery Regulations 9 and 10 Electrical Installation Regulations	Inspection and maintenance of electrical installation and equipment (including portable electrical tools)	Competent person appointed in writing to inspect/test the installation and equipment. Written proof of competence of above appointee available on site. Inspections:  Electrical installation and equipment inspected after installation, alterations and quarterly thereafter. Inspection registers kept.  Portable electric tools and -lights and extension leads identified/numbered. Monthly visual inspection by user, issuer or storeman. Register kept.	
Diving Regulations	Diving operations	Competent person appointed in writing to supervise diving operations and ensure maintenance, statutory inspection and testing by an approved inspection authority of equipment used. Written proof of competence of above appointee available on site.  Proof of registration of all divers present on site available.	





OHSACT Section or Regulation	Subject	Requirements	Yes/No
Construction Regulation 28 General Safety Regulation 8(1)(a)	Designation of stacking and storage supervisor	Risk assessment carried out. Diving manual produced and available on site. Record of voice communications kept. Diving operations record kept. Each diver keeps a personal logbook and entries countersigned by the diving supervisor. Decompression tables available on site. Records of any decompression illness kept. Certificate of manufacture of any compression chamber or diving bell in use available on site. Competent persons with specific knowledge and experience designated to supervise all stacking and storage. Written proof of competence of above appointee available on site.	
Construction Regulation 29 Environmental Regulation 9	Designation of a person to coordinate emergency planning and fire protection	Person/s with specific knowledge and experience designated to coordinate emergency contingency planning and execution and fire prevention measures. Emergency evacuation plan:  Developed and available on site;  Drilled and practiced; and  Records of drills and practices available on site.  Fire risk assessment carried out. All fire extinguishing equipment:  Identified and on register;  Inspected weekly and inspection registers kept;  Replaced after use; and  Serviced annually.	
General Safety Regulation 3	First-aid	Every workplace provided with sufficient number of first-aid boxes (required where 5 persons or more are employed). First-aid boxes freely available. Content of boxes as per the minimum requirements of the OHSACT. One qualified first-aider appointed for every 50 employees (required where more than 10 persons are employed). List of First-aiders and competency certificates available on site. Name and contact details of person in charge of first-aid box clearly displayed. Location of first-aid boxes clearly demarcated. Signs instructing employees to report all injuries and/or illness including first-aid injuries.	





OHSACT Section or Regulation	Subject	Requirements	Yes/No
General Safety Regulation 2	Personal protective equipment (PPE)	PPE risk assessment carried out. Items of PPE prescribed and use enforced. Records of issue kept. Undertaking by employee to use and/or wear PPE.	
General Safety Regulation 9	Inspection and use of welding and/or flame cutting equipment	Competent person/s with specific knowledge and experience designated to inspect electric arc, gas welding and flame cutting equipment.  Written proof of competence of above appointee available on site.  Equipment identified/numbered and entered into a register.  Equipment inspected monthly.  Inspection register kept.	
Hazardous Chemical Substances (HCS) Regulations Construction Regulation 25	Control of storage and usage of HCS and other flammables	Competent person/s with specific knowledge and experience designated to control the storage and usage of HCS (including flammables).  Written proof of competence of above appointee available on site.  Risk assessment carried out.  Register of HCS kept and/or used on site.	
Pressure Regulations	Pressure (PV)	Competent Person/s with specific knowledge and experience designated to supervise the use, storage, maintenance, statutory inspections and testing of PVs.  Written proof of competence of above appointee available on site. Risk assessment carried out. Certificates of manufacture available on site. Register of PVs on site. Inspections and testing by approved inspection authority (AIA):  after installation, re-erection or repairs; every 36 months; and register or log kept of inspections, tests, modifications and repair on site.	
Construction Regulation 23	Construction vehicles and earth moving equipment	Operators or drivers appointed to: Carry out a daily inspection prior to use; and Drive the vehicle or plant that he/she is competent to drive or operate. Written proof of competence of above appointee available on site. Record of daily inspections kept on site. Medical assessments.	
General Safety Regulation 13A	Inspection of Ladders	Competent person appointed in writing to inspect ladders.	





OHSACT Section or Regulation	Subject	Requirements	Yes/No
		Ladders inspected at arrival on site and monthly thereafter. Inspections register kept on site.	
General Safety Regulation 13B	Ramps	Competent person appointed in writing to supervise the erection and inspection of ramps.  Inspection register kept on site.	

#### 2. Education, training and promotion

Subject	Requirement	Yes/No
*Occupational Health and	Policy signed by CEO and published and communicated to	
Safety Policy as per	employees.	
OHSACT Section 7(1)	Policy displayed on employee notice boards.	
	Management and employees committed.	
*Company and site health	Rules published.	
and safety rules as per	Rules displayed on employee notice boards.	
OHSACT Section 13(a)	Rules issued and explained to employees with written proof	
	hereof.	
	Follow-up to ensure employees understand and adhere to the	
	rules.	
*Induction and task safety	All new employees receive health and safety induction training.	
training as per OHSACT	Training includes task safety instructions.	
Section 13(a)	Employees acknowledge receipt of training.	
	Follow-up to ensure employees understand and adhere to	
	instructions.	
*General health and safety	All employees receive basic health and safety training.	
training as per OHSACT	Written proof kept.	
Section 13(a)	Operators of plant and equipment receive specialised training.	
	Follow-up to ensure employees understand and adhere to	
	instructions.	
*Occupational health and	Incident experience board indicating among others -	
safety promotion	Number of hours worked without an injury; and	
	Number of days worked without an injury.	
	Safety grading - Board kept up to date.	
	Relevant safety posters displayed and changed regularly.	
	Employee notice board for health and safety notices.	
	Site health and safety competitions.	
	Company health and safety competition.	
	Participation in regional health and safety competitions.	
	Suggestion scheme.	

#### 3. Public safety, security measures and emergency preparedness

Requirement	Yes/No
Notices and signs at entrances along perimeters indicating "No unauthorised entry" and "Entry at own risk".  Notices and signs at entrance instructing visitors and non-employees what to do, where to go and where to report on entering the site or yard with directional signs for example "Visitors to report to office".	
	Notices and signs at entrances along perimeters indicating "No unauthorised entry" and "Entry at own risk".  Notices and signs at entrance instructing visitors and non-employees what to do, where to go and where to report on entering the site or yard with directional signs for example

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Subject	Requirement	Yes/No
	hazardous activities for example General Warning Signs.	
Site safeguarding	Nets, canopies, stills, fans etcetera to protect members of the public passing and/or entering the site.	
*Security measures	Access control measures and register in operation. Security patrols after hours and weekends. Sufficient lighting after dark. Guard has access to telephone or other means of emergency communication.	
*Emergency preparedness	Emergency contact numbers displayed near telephone. Emergency evacuation instructions posted up on all notice boards (including employees' notice boards). Emergency contingency plan available on site or in yard. Doors open outwards and unobstructed. Emergency alarm audible all over (including in toilets).	
*Emergency drill and evacuation	Adequate number of employees trained to use fire equipment. Emergency evacuation plan available, displayed and practiced. (See Section 1 for designation and register).	

#### 4. Personal protective equipment (PPE)

Subject	Requirement	Yes/No
*PPE needs analysis	Need for PPE identified and prescribed in writing.	
*Head protection	It is compulsory for all persons on site to wear safety helmets	
	including sub-contractors and visitors (where prescribed).	
*Foot protection	All persons on site have to wear safety footwear including	
	gumboots for concrete or wet work and non-slip shoes for roof	
	work.	
*Eye and face protection	Eye and face protection (such as goggles, face shields, welding	
	helmets) to be used when operating the following:	
	Jack or kango hammers;	
	Angle or bench grinders;	
	Electric drills (overhead work into concrete, cement and	
	bricks);	
	Explosive actuated fastening devices;	
	Concrete vibrators or pokers;	
	Hammers and chisels;	
	Cutting or welding torches;	
	Arc welding equipment;	
	Skill or bench saws; and	
	Spray-painting equipment etcetera.	
*Hearing protection	Hearing Protectors (such as muffs, plugs) used when operating	
	the following:	
	Jack or kango hammers;	
	Explosive actuated fastening devices; and	
	Wood or aluminium working machines such as saws,	
	planers, routers.	
*Hand protection	Protective gloves to be worn by employees handling or using:	
	Cement, bricks, steel or chemicals;	
	Welding equipment;	
	Hammers and chisels; and	
	Jack or kango hammers etcetera.	
*Respiratory protection	Suitable and efficient respirators to be worn correctly by	
	employees handling or using:	

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Subject	Requirement	Yes/No
	Dry cement;	
	Dusty areas;	
	Hazardous chemicals;	
	Angle grinders; and	
	Spray-painting etcetera.	
*Fall Prevention Equipment	Suitable fall arrest equipment correctly used by persons working	
	on or in unguarded, elevated positions such as:	
	Scaffolding;	
	Riggers;	
	Lift shafts;	
	Edge work; and	
	Ring beam edges etcetera.	
	Other applicable methods of fall prevention should al be applied	
	such as catch nets.	
*Protective clothing	All jobs requiring protective clothing (such as overalls, rain wear,	
	welding aprons etcetera) to be identified and clothing worn.	
*PPE issue and control	Identified equipment to be issued free of charge.	
	All PPE should be maintained in good condition (i.e. regular	
	checks).	
	Workers instructed in the proper use and maintenance of PPE.	
	Commitment obtained from wearer accepting conditions and to	
	wear the PPE.	
	Record of PPE issued kept on file.	

#### 5. Housekeeping

Subject	Requirement	Yes/No
*Scrap removal system	All items of scrap, unusable off cuts, rubble and redundant material removed from working areas on a regular basis.  Scrap and/or waste removal from heights by chute, hoist or crane (i.e. nothing thrown or swept over sides).  Scrap disposed of in designated containers or areas.  Removal from site or yard on a regular basis.	
Stacking and storage (See Section 1 for designation and register)	Stacking: Stable; On firm level surface or base; Not leaning and/or collapsing; Irregular shapes bonded; Not exceeding 3 times the base; Stacks accessible; and Removal from top only.  Storage: Adequate storage areas provided; Functional for example demarcated storage areas, racks, bins etcetera; Special areas identified and demarcated for example flammable gas, cement etcetera: Neat, safe, stable and square: Store and storage areas clear of superfluous material; Storage behind sheds etcetera should be neat and under control; and Storage areas free from weeds, litter etcetera.	

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Subject	Requirement	Yes/No
*Waste control or reclamation	Re-usable off cuts and other re-useable material removed daily and kept to a minimum in the work areas.  All re-useable materials neatly stacked or stored in designated areas (i.e. nails removed or bent over in re-useable timber). Issue of hardware, nails, screws and cartridges etcetera should be controlled and return of unused items monitored.	
Sub-contractors	Sub-contractors required to comply with the site or yard's housekeeping requirements.	

#### 6. Working at heights (including roof work)

Subject	Requirement	Yes/No
Openings	Unprotected openings adequately guarded, fenced and barricaded with catch nets installed where necessary.  Covers over openings in roof of robust construction and secured against displacement.	
General requirements	Roof work discontinued when bad or hazardous weather prevails.  Fall protection measures (including warning notices) when working close to edges or on fragile roofing material.	

#### 7. Scaffolding and temporary work

Subject	Requirement	Yes/No
Access and system	Foundation firm and stable.	
scaffolding	Sufficient bracing.	
(See Section 1 for designation	Tied to structure and secured from side or cross movement.	
and register)	Platform boards in good condition and secured.	
	Sufficient platform boards to be used.	
	Handrails and toe boards provided.	
	Access ladders or stairs provided.	
	Area/s under scaffolding tidy.	
	Safe and unsafe for use signs to be used.	
	Complying with OHSACT and SANS 10085.	
Free Standing Scaffolding	Foundation firm and stable.	
	Sufficient bracing.	
	Platform boards in good condition and secured.	
	Sufficient platform boards to be used.	
	Handrails and toe boards provided.	
	Access ladders or stairs provided.	
	Area/s under scaffolding tidy.	
	Safe or unsafe for use signs to be used.	
	Height and base ratio correct.	
	Outriggers used and tied to structure where necessary.	
	Complying with OHSACT and SANS 10085.	
*Mobile scaffolding	Foundation firm and stable.	
	Sufficient bracing.	
	Platform boards in good condition and secured.	
	Sufficient platform boards to be used.	
	Handrails and toe boards provided.	
	Access ladders or stairs provided.	
	Area/s under scaffolding tidy.	
	Safe and unsafe for use signs to be used.	

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Subject	Requirement	Yes/No
	Wheels and swivels in good condition	
	Brakes working and applied.	
	Height to base ratio correct.	
	Outriggers used where necessary.	
	Complying with OHSACT and SANS 10085.	
Suspended scaffolding	Outriggers securely supported and anchored.	
	Correct number of steel wire ropes used.	
	Platform as close as possible to the structure.	
	Handrails on all sides.	
	All winches, ropes, cables and brakes inspected regularly.	
	Inspection registers kept on site.	
	Scaffolding complies with OHSACT.	
	Winches maintained by competent person.	
Temporary works	All components in good condition.	
	Foundation firm and stable.	
	Adequate bracing and stability ensured.	
	Good workmanship, uprights straight and plum.	
	Good cantilever construction.	
	Safe access provided.	
	Areas under support work tidy.	
	Same standards as for system scaffolding.	
Special scaffolding	Special scaffolding for example cantilever, jib and truss-out	
	scaffolds erected to an acceptable standard and inspected by	
	specialists.	
	Inspection registers to be kept on site.	
Edges and openings	Edges barricaded to acceptable standards.	
	Manhole openings covered and/or barricaded.	
	Openings in floor and other openings covered, barricaded or	
	fenced.	
	Stairs provided with handrails.	
	Lift shafts barricaded or fenced off.	

#### 8. Ladders

Subject	Requirement	Yes/No
*Physical condition, use and	Stepladders – hinges, stays, braces and stiles in order.	
storage	Extension ladders – ropes, rungs, stiles, safety latch and hook in	
(See Section 1 for designation	order.	
and register)	Extension or straight ladders secured or tied at the bottom or	
	top.	
	No joined ladders used.	
	All ladders stored on hooks or racks and not on ground.	
	Ladders protrude 900 mm above landings, platforms or roof.	
	Fixed ladders higher than 5 m have cages or fall arrest system.	

#### 9. Electrical safeguarding

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Subject	Requirement	Yes/No
*Electrical distribution	Colour coded, numbered and symbolic sign displayed.	
boards and earth leakage	Area in front kept clear and unobstructed.	
	Fitted with inside cover plate, openings blanked off and no	
	exposed "live" conductors or terminals.	
	Door kept close.	

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Subject	Requirement	Yes/No
	Switches and/or circuit breakers identified.  Earth leakage protection unit fitted and operating.  Tested with instrument - test results within 15 – 30 milli-amps.  Aperture openings provided for the plugging in and removal of extension leads without the need to open the door.	
*Electrical installations and wiring	Temporary wiring or extension leads in good condition with no bare or exposed wires.  Earthing continuity and polarity correct:  "Brown is live, Blue is neutral, Green and Yellow earth the lot"  Cables protected from mechanical damage and moisture.  Correct loading observed for example no heating appliance used from lighting circuit etcetera.  Light fittings and lamps protected from mechanical damage/moisture.	
*Physical condition of electrical appliances and tools	<ul> <li>Electrical Equipment and Tools (includes all items plugging in to a 15 Amp supply socket):</li> <li>Insulation and casing in good condition.</li> <li>Earth wire connected or intact where not of double insulated design.</li> <li>Double insulation mark where no earth wire.</li> <li>Cord in good condition/no bare wires/secured to machine &amp; plug.</li> <li>Plug in good condition, connected correctly and correct polarity.</li> </ul>	

#### 10. Emergency, fire prevention and protection

Subject	Requirement	Yes/No
*Fire extinguishing	Fire Risks Identified and on record.	
equipment	Fire Extinguishing Equipment available for:	
(See Section 1 for designation	Offices;	
and register)	General stores;	
	Flammable store;	
	Fuel storage tanks;	
	Gas welding or cutting operations; and	
	Where flammable substances are being used or applied.	
*Maintenance	Fire equipment serviced minimum annually, but preferably 6	
	monthly.	
*Location & Signs	Fire Extinguishing Equipment:	
	Clearly visible;	
	Unobstructed; and	
	Sign posted including "No Smoking" and "No Naked Lights"	
	where required i.e. (flammable store, gas store, fuel tanks	
	etc.).	
* Storage issue and control	Storage area provided for flammables with suitable doors,	
of flammables (incl. gas	ventilation, bund etcetera.	
cylinders)	Flammable store neat and tidy with no Class A combustibles.	
	Decanting of flammable substances carried out in ignition free	
	and adequately ventilated area.	
	Container bonding principles applied.	
	Only sufficient quantities issued for one day's use.	
	Special gas cylinder store or storage area.	
	Gas cylinders stored, used and transported upright and secured	

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Subject	Requirement	Yes/No
	in trolley, cradle or structure that is well ventilated. Types of gas cylinders identified and stored separately. Full cylinders stored separately from empty cylinders.	
*Storage, issue and control of Hazardous Chemical Substances (HCS) (See Section 1 for designation and register)	HCS storage principles applied i.e. products segregated. Provision made for leakage and spillage containment. Emergency (serviceable) showers and eye wash facilities provided. HCS under lock and key as well as controlled by designated person. Decanted or issued in containers with information and warning labels. Disposal of unwanted HCS by recognised disposal agent.	

#### 11. Excavations and demolition

Subject	Requirement	Yes/No
Excavations deeper than	Shored or braced to prevent caving or falling in.	
1.5 m.	Provided with an access ladder.	
(See Section 1 for designation	Excavations guarded, barricaded or lighted after dark in public	
and register)	areas.	
	Soil dumped at least 1 m away from edge of excavation.	
	On sloping ground soil dumped on lower side of excavation.	

#### 12. Tools

Subject	Requirement	Yes/No
*Hand tools	Shovels, Spades and Picks:  Handles free from cracks and splinters; Handles fit securely; and Working end sharp and true. Hammers: Good quality handles, no pipe or reinforcing steel handles; Handles free from cracks and splinters; and Handles fit securely. Chisels: No mushroomed heads or heads chamfered; Not hardened; and Cutting edge sharp and square. Saws: Teeth sharp and set correctly; and Correct saw used for the job.	
*Explosive actuated fastening devices (See Section 1 for designation and register)	Only used by trained and authorised personnel.  Prescribed warning signs placed or displayed where tool is in use.  Inspected at least monthly by competent person and results recorded in on site register.  Issue and return recorded including cartridges or nails and unused cartridges, nails, empty shells recorded.  Cleaned daily after use in on site register.	



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#### 13. Cranes

Subject	Requirement	Yes/No
Tower crane	Only operated by trained authorised operator with valid	
(See Section 1 for designation	certificate of training.	
and register)	Certificate available on site.	
	Structure - no visible defects.	
	Electrical installation good and safe.	
	Crane hook - throat pop marked, safety latch fitted and	
	functional.	
	SWL/MML displayed.	
	Limit switches fitted and operational.	
	Access ladder fitted with backrests or fall arrest system installed.	
	Lifting tackle in good condition and inspection colour coding	
	current.	
*Mobile crane	Only operated by trained authorised operator with valid	
(See Section 1 for designation	certificate of training.	
and register)	Certificate available on site.	
	Rear view mirrors and windscreen visibility good.	
	Windscreen wipers operating effectively.	
	Indicators operational.	
	Hooter working.	
	Tyres safe with sufficient tread and pressure visibly sufficient.	
	No missing wheel nuts.	
	Headlights, taillights operational.	
	Grease nipples and grease on all joints.	
	No visible oil leaks.	
	Hydraulic pipes visibly sound with no leaks.	
	No undue corrosion on battery terminals.	
	Boom visibly in good condition with no apparent damage.	
	Cable and sheaves greased with no visible damage, split wires	
	or corrosion.	
	Brakes working properly.	
	Crane hook - throat pop marked, safety latch fitted and	
	functional.	
	SWL/MML displayed.	
	By-pass valves operational.	
	Deflection chart displayed and visible to operator or driver.	
	Outriggers functional used.	
*Gantry crane	Only operated by trained authorised persons.	
	Correct slinging techniques used.	
	Recognised displayed on chart signals used.	
	Log book kept up to date.	
	Prescribed inspections conducted on crane and lifting tackle.	
	"Crane overhead" signage, where applicable.	
	Crane hook - throat pop marked, safety latch fitted and	
	functional.	
	SWL/MML displayed and load limiting switches fitted and	
	operational.	

#### 14. Builder's hoist

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Subject	Requirement	Yes/No
Builder's hoist	"Hoist in operation" - sign displayed.	
(See Section 1 for designation	General construction strong and free from latent defects.	
and register)	Tower:	

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Subject	Requirement	Yes/No
	Adequately secured and braced.	
	At least 900 mm available for over travel.	
	<ul> <li>Barricaded at least 2 100 mm high at ground level and floors.</li> </ul>	
	<ul> <li>Landing place provided with gate at least 1 800 high.</li> </ul>	
	Platform:	
	No persons conveyed on platform.	
	<ul> <li>Steel wire ropes with breaking strain of six times maximum weight.</li> </ul>	
	Signal systems used.	
	Goods prevented from moving/falling off.	
	Effective brake capable of holding maximum weight.	

#### 15. Transport and materials handling equipment

Subject	Requirement	Yes/No
*Site vehicles	All site vehicles, dumpers, bobcats, loaders etcetera checked	
	daily before used by driver or operator.	
	Inventory of vehicles used/operated on site.	
	Inspection by means of a checklist and results recorded.	
	No persons riding on equipment not designed for passengers.	
	Site speed limit posted and not exceeded.	
	Drivers and operators trained and licensed.	
	Licenses available on site.	
	No unauthorised persons allowed to drive or operate equipment.	
Conveyors	Conveyor belt nip points and drive guarded.	
	Emergency stop and lever brake fitted, clearly marked and	
	accessible.	1

#### 16. Site plant and machinery

Subject	Requirement	Yes/No
Brick cutting machine	Operator trained and only authorised persons use the machine.  Emergency stop switch clearly marked and accessible.  Area around the machine dry and slip or trip free as well as clear of off cuts.  All moving drive parts guarded.  Electrical supply cable protected.  Operator using correct PPE i.e. eye, face, hearing, foot, hands	
	and body.	
*Electric arc welder	Welder trained. Only authorised and trained persons use welder. Adequately earthed. Electrode holder in good condition and safe. Cables, clamps, lugs and connectors in good condition. Area in which welding machine is used is dry and protected from wet. Welder using correct PPE i.e. eye, face, foot, body and respiratory. Screens and warning signs placed.	
*Woodworking machines	Operator's trained and only authorised persons use machines. Provided with guards and guards used. Operators using correct PPE i.e. eye, face, foot and hearing.	

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Subject	Requirement	Yes/No
*Compressors	Relief valves set, locked and sealed.	
	Maximum safe working pressure (MSWP) indicated on face of	
	pressure gauge face and not on glass cover.	
	All drives adequately guarded.	
	Receiver and lines drained daily.	
	Hoses good condition and clamped, not wired.	
Concrete mixer and bulk	Top platform provided with guardrails.	
mixing plant	Dust abatement methods in use.	
	Operators using correct PPE i.e. eye, hands and respiratory.	
	All moving drive parts guarded.	
	Emergency stops identified, indicated and accessible.	
	Area kept clean, dry and free from tripping and slipping hazards.	
	Banksman identified and crane signals displayed and used.	
*Gas welding and flame	Only authorised and trained persons use the equipment.	
cutting equipment	Torches and gauges in good condition.	
	Flashback arrestors fitted at cylinders and gauges.	
	Hoses in good condition, correct type and all connections with	
	clamps.	
	Cylinders stored, used and transported in upright position,	
	secured in trolley or cradle.	
	Fire prevention control methods applied.	
	Hot work permits.	

#### 17. Plant and storage yard or site workshop specifics

OHSACT, Section 8(2)(1) General Machinery Regulation 2(1) Supervision of the use and maintenance of machinery identified, numbered and placed on register or inventory. Inspection or maintenance schedules for abovementioned. Inspections or maintenance carried out to above schedules. Results recorded.  General Machinery Regulation 9(2) Notices regarding  Persons with specific knowledge and experience designated to supervise the use and maintenance of machinery. Critical items of machinery identified, numbered and placed on register or inventory. Inspection or maintenance schedules for abovementioned. Inspections or maintenance carried out to above schedules. Results recorded.
Regulation 2(1)  Supervision of the use and maintenance of machinery  and maintenance of machinery  Critical items of machinery identified, numbered and placed on register or inventory.  Inspection or maintenance schedules for abovementioned. Inspections or maintenance carried out to above schedules.  Results recorded.  Schedule D notice posted in work areas.
Supervision of the use and maintenance of machinery Inspection or maintenance carried out to above schedules. Results recorded.  General Machinery Regulation 9(2) Supervision of the use register or inventory. Inspection or maintenance schedules for abovementioned. Inspections or maintenance carried out to above schedules. Results recorded.
and maintenance of machineryInspection or maintenance schedules for abovementioned. Inspections or maintenance carried out to above schedules. Results recorded.General Machinery Regulation 9(2)Schedule D notice posted in work areas.
machinery     Inspections or maintenance carried out to above schedules.       Results recorded.       General Machinery       Regulation 9(2)   Inspections or maintenance carried out to above schedules.  Results recorded.  Schedule D notice posted in work areas.
Results recorded.  General Machinery Regulation 9(2)  Results recorded.  Schedule D notice posted in work areas.
General Machinery Schedule D notice posted in work areas.  Regulation 9(2)
Regulation 9(2)
Notices regarding
operation of machinery
Pressure Equipment Persons with specific knowledge and experience designated to
Regulations Supervise the use and maintenance of PVs.
Supervision of the use PVs identified, numbered and placed on register.
and maintenance of Manufacturers plate intact.
<b>pressure equipment such</b> Inspection or maintenance schedules for abovementioned.
as pressure vessels (PV) Inspections or maintenance carried out to above schedules.
Results recorded and test certificates available.
Lock-out procedure Lock-out procedure in operation.
<b>Ergonomics</b> Ergonomics survey conducted.
Results on record.
Survey results applied.
Demarcation and colour         Demarcation principles applied.
<b>coding</b> All services, pipes, electrical installation, stop-start controls,
emergency controls etcetera colour coded to own published or
SABS standard.
Employees trained to identify colour coding.
Portable and bench Area around grinder clear and trip/slip free.
grinders Bench grinders mounted securely and grinder generally in good

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Subject	Requirement	Yes/No
	condition.	
	No excessive vibration.	
	On and off switch or button clearly demarcated and accessible.	
	Adequate guards in place.	
	Tool rest – secure, square and maximum 2 mm gap.	
	Stone or disk - correct type and size, mounted correctly and	
	dressed.	
	Use of eye protection enforced.	
Ancillary lifting equipment	Chain blocks, tirfors, jacks and mobile gantries etcetera	
	identified and numbered on register.	
	Chains in good condition and links no excessive wear.	
	Lifting hooks – throat pop marked and safety latch fitted.	
	SWL/MML marked or displayed.	
Presses, guillotines and	Only operated by trained and authorised persons.	
shears	PPE used by operators	
	Interlocks or lockouts fitted.	

#### 18. Workplace environment, health and hygiene

Subject	Requirement	Yes/No
*Lighting	Adequate lighting in places where work is being executed for	
	example stairwells and basements or after sunset.	
	Light fittings placed and installed causing no irritating or blinding	
	glare.	
*Ventilation	Adequate ventilation, extraction and exhausting in hazardous	
	areas for example where chemicals and adhesives are stored,	
	welding takes place and where petrol or diesel motors are	
	running in confined spaces or basements.	
*Noise	Tasks identified where noise exceeds 85 dBa.	
	All reasonable steps taken to reduce noise levels at the source.	
	Hearing protection used where noise levels could not be reduced	
	to below 85 dBa.	
*Heat stress	Measures in place to prevent heat exhaustion in heat stress	
	problem areas e.g. steel decks, when the WBGT index reaches	
	30 (see Environmental Regulation 4).	
	Cold drinking water readily available when extreme temperatures	
#A11 () 6 '11()	are experienced.	
*Ablution facilities	Sufficient toilets provided for men and women separately i.e. 1	
	per 30 employees (National Building Regulations prescribe	
	chemical toilets for Construction sites).	
	Toilet paper available.	
	Sufficient showers provided for men and women separately. Facilities for washing hands provided.	
	Soap available for washing hands.	
	Means of drying hands available.	
	Changing facilities or area provided for men and women	
	separately.	
	Ablution facilities hygienic and clean.	
*Eating and cooking	Adequate storage facilities provided.	
facilities	Weather protected eating area provided, separate from changing	
Tuomito 3	area.	
	Refuse bins with lids provided.	
	Facilities clean and hygienic.	
*Pollution of environment	Measures in place to minimize dust generation.	
. ssorr or orrangement	I measure in place to minimize duct generation	l

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November 2016

Subject	Requirement	Yes/No
	Accumulation of empty cement pockets, plastic wrapping or bags, packing materials etcetera prevented.  Spillage or discarding of oil, chemicals and dieseline into storm water and other drains prevented.	
*Hazardous chemical substances (See Section 1 for designation and register)	All substances identified and list available e.g. acids, flammables, poisons etc.  Material Safety Data Sheets (MSDS) indicating hazardous properties and emergency procedures in case of incident on file and readily available.  Substances stored safely.	

Name of person who have undertaken the assessment	
Signature	
Date	
Received by	
Designation	
Date	
Tabled at health and safety committee	





## **Rustenburg Water Services Trust**



# **Annexure 2**

# Measuring injury experience

Proudly prepared by

**EMPOWERisk (Pty) Ltd** 



November 2016

#### Measuring injury experience

#### 1. Background

Injury experience has traditionally been measured by the use of a disabling injury frequency rate, the so-called "DIFR". The DIFR is calculated by multiplying the number of disabling injuries by 1 million and dividing by the number of person-hours worked.

The DIFR has recently been replaced internationally with a disabling injury incidence rate (DIIR). The only difference between the two rates are that the 1 million in the calculation is replaced with 200 000 (200 000 purported to be the number of hours and average person works in a lifetime).

The use of the two rates above has proved to be somewhat problematical as they are open to manipulation and disabling injuries are often "hidden" by returning the injured employee to the workplace so as not to lose a shift and therefore having to register a disabling injury.

The construction industry recently decided to promote the use of a new frequency rate based on the number of compensation injury claims, as these are more difficult to hide or manipulate because the reporting of compensationable injuries is a legal requirement.

The industry is hoping that adoption of this new measurement of injury experience will enable the industry to monitor itself as far as work related injuries are concerned.

#### 2. Compensation Incidence Frequency Rate (CIFR)

#### 2.1 Formula

No of compensation claims X 200 000 \*220 person hours X No of employees

#### 2.2 Definitions

No of compensation claims: The number of claims lodged with the

Commissioner or COID insurer for the

period under review.

200 000: The fixed factor to align the rate with

other rates used internationally.

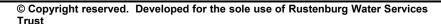
**Person hours worked Include:** Hourly paid employees

Sub-contactors (No of employees X \*220

each)

Staff (No of employees X \*220 hours

each)







**220 person-hours:** The \*average number of hours worked by

one employee in one month in the

construction industry.

**Note:** \* Overtime, absence on leave or sick leave, unrecorded after hours time worked by senior and middle management factored into this average.

No of employees: The actual or average number of

employees employed for the period under

review.



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### **Rustenburg Water Services Trust**



### **Annexure 3**

# Safety, Health and Environment: Example of risk management report

Proudly prepared by

**EMPOWERisk (Pty) Ltd** 



November 2016

# Safety, Health and Environment (SHE): Example of risk management report

Please note that this is an example only and all information is fictitious.

#### **XYZ Construction**

SHE risk management report for the period January 2014 to March 2014

#### 1. Introduction

We trust that this quarterly SHE Risk Management report will provide a clear picture of the company's performance as far as occupational health, safety and environment is concerned.

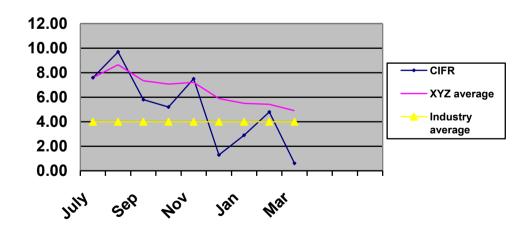
The first quarter of 2014 generally reflected an improvement in injury experience and indicates a decline in the number of injuries. Although Building was the only division where there was an increase in compensation claims, figures are still well down from the average 2013 figures. A sub-contractor experienced one fatality.

All divisions are eagerly awaiting the final implementation during May 2014 of the new electronic SHE Management system that will provide the tools to implement the SHE programme and make it available to all management and supervisory staff.

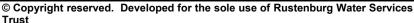
#### 2. Incident statistics

#### 2.1 Compensation Incident Frequency Rate (CIFR)

CIFR = No of compensation claims X 200 000 220 person hours X No of employees







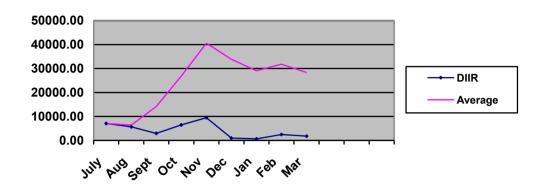




#### 2.2 Disabling Injury Incidence Rate (DIIR)

DIIR = No disabling injuries X 200 000

Person hours worked



#### 2.3. Other major incidents

Three other major incidents were experienced in the period under review:

- 2.3.1. A major trench collapsed at Job. 00123: XYZ Head Office, Braamfontein: No personnel injured, extensive damage to foundations: 3 days delay.
- 2.3.2. A concrete dumper ran away when its brakes failed. It smashed into the glass façade of the building on Job 00332: McDonalds, Randburg. The driver jumped off and was not injured. Cost of damage to façade: R45 000.
- 2.3.3. A storage hut on Job 00567: BP Petrol Station, Swartruggens was demolished by fire when the night watchman made a fire inside the storage hut which contained concrete vibrators and leveling machines. Cost of replacing the hut and machines: R30 000.

#### 3. Risk areas

The following items of concern need priority consideration by management:

- 3.1. New employees must undergo pre-employment medical examinations to:
  - protect XYZ from possible claims at a later stage
  - ensure that only capable persons are employed
  - prevent injuries and illness in the workplace
  - enhance XYZ image
- 3.2. Vehicle drivers and plant operators must be instructed to inspect their vehicles daily before start-up using the prescribed checklists to ensure that these are safe to operate and in good condition.

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#### 4. Risk assessments

Three SHE risk assessments were conducted in February and March:

Job 00432:Gillooly's MallCompliance: 56%Job 00786:Cullinan Head OfficeCompliance: 83%Job 00589:Cleveland StationCompliance: 76%

#### 5. Training

One hundred and forty two employees, representing 7% of employees, attended nine training courses. \*Our objective is to train 5,5% of employees on a quarterly basis.

Month	No. of Employees	Course	Source
	Trained		
January	26	Induction	Internal
	15	OH&S Reps	Consultant
	3	Crane Drivers	External
February	23	Induction	Internal
-	17	OH&S Reps	Consultant
March	43	Induction	Internal
	9	OH&S Reps	Consultant
	3	Bomag Rollers	Supplier
	3	First Aiders	St. John's

#### 6. Legal matters

6.1. An inspector of the Department of Labour issued an improvement notice on Job 00987: Gilooley's Mall. The notice requires that all scaffolding comply with the SABS standards for the Erection and Maintenance of Access Scaffolding (SANS 085). This is currently being attended to and the inspector will return on 15 April 2014 to ascertain if the notice has been complied with.

#### 7. Occupational health matters

#### 7.1 HIV Aids

The proposed clinic will soon be operational and we will then be able to send our employees who have tested positive for HIV/Aids to the clinic for counseling and eventual treatment when necessary.

The mobile clinic attended to and tested fifty employees on a voluntary basis at 3 sites this month. Eighteen of them tested positive.





#### 7.2 Tuberculosis (TB)

The mobile clinic will be calling at Gillooly's Mall and Cleveland Station on 15 and 16 April 2014 respectively to screen employees for TB.

#### 7.3 Noise

All suspected noise pollution areas have been identified and tested and the results are awaited. Employees working in areas testing over 85dBa will be issued with suitable hearing protectors.

#### 8. Environmental measures

Inspectors from the Botswana Department of Environment visited Djwaneng and inspected the site and yard. They gave it a "clean bill of health" and advised that we should increase the dust control measures by spraying roads three times per day with water instead of the present twice per day.

#### 9. Achievements and awards

- 9.1 The client at Djwaneng (Job 00786) awarded the XYZ site first position in the housekeeping competition conducted bi-monthly by the client's SHE managers. The project manager and his team are to be congratulated for this sterling effort.
- 9.2 Job 0987: Refurbishment of Pretoria Main Railway Station has just completed 1 million compensation claim free days. This was no easy achievement if we consider the conditions being worked under after the extensive fire that caused major damage.

#### SHE Risk Manager

2014-03-31

Source: SAFCEC Occupational Health and Safety Committee





## **Rustenburg Water Services Trust**



# **Annexure 4**

### **Guide to risk assessments**

Proudly prepared by

**EMPOWERisk (Pty) Ltd** 



November 2016

#### Guide to risk assessments

#### 1. Nine steps to effective risk assessments

Step 1 : Identifying the current as well as emerging hazard, risks or exposures.
 Step 2 : Aim to identify major hazards, don't waste time on the minor and detail except if such hazard has the potential be repeat itself on a frequent basis.

Step 3 : Involve as many people as possible in the ongoing risk assessment process

especially those at risk.

Step 4 : Gather all the information and analyse it.

Step 5 : Look at what actually could or has occurred including non-routine operations.
Step 6 : Use a systematic approach to ensure all hazards are adequately addressed.
Step 7 : Assess the risks identified or the risk has occurred by taking into account the effectiveness of current as well as controls under consideration.

Step 8 : Ensure the process is practical, realistic, cost and business effective.

Step 9 : Always record the assessment in writing including i.e. assumptions, date and

why a particular decision has been made.

#### 2. How serious is it?

#### **Probability**

#### A Common 1 Fatality or permanent disability.

B Has Happened 2 Major injury.

C Could Happen 3 Average Lost Time Injury.

D Not Likely 4 Minor Injury.

E Practically impossible 5 Medical Treatment or less.

#### **Probability**

		Α	В	С	D	E
	1	1	2	3	4	5
nce	2	2	3	4	5	6
Conseduence	3	3	4	5	6	7
	4	4	5	6	7	8
	5	5	6	7	8	9

#### Risk rating

#### **Action**

Consequences

1 - 3 = Serious Immediate (within 1 week).

4 - 5 = High Within 1 month. 6 - 7 = Moderate > 4 weeks.

8 - 9 = Acceptable No action but will consider from

time to time.





## **Rustenburg Water Services Trust**



# Annexure 5

# List of risk assessments

Proudly prepared by

**EMPOWERisk (Pty) Ltd** 



November 2016

#### List of risk assessments

Aggregate/Sand Delivery

Arc welding

Blasting

Brickwork

Compressed gas cylinders-handling

Compressors - Air

Cutting of pipes

Demolition

Distribution boards – Electrical

Drivers – of vehicles

Electrical installation - Maintenance of

**Excavation work** 

Excavator

Fire prevention and protection

Front end loader

Fuel supply

Gas welding-cutting operations

Hand and spray painting

Hand tools

Laying of pipes

Levelling - of materials

Loading supervisor

Loading/unloading - of trucks

Machine operator

Making of steel items

Material delivery

Material handling

Placing concrete

**Plastering** 

Portable ladders

Refuelling vehicles/plant

Scaffolding

Site establishment

Temporary works

Traffic control

Trenches – Digging of

Use of portable electrical tools

Work in confined spaces

Work in elevated positions

Working close to existing services i.e.

electrical, waste water etc

Working close to traffic

Working close to water

Working in inclement weather

Workshops





Bid No: RLM/RWST/OMM/0103/2024/25 (Re-advert)

Volume 1A: General Clauses, Contract Data and Scope of Works

Part C3 Scope of Works Section C3.5 Management

02\_Vol1A\_ME\_June25\_Part C3.5-3.6



June 2025

#### RUSTENBURG WATER SERVICES TRUST

#### BID No RLM/RWST/OMM/0103/2024/25

# GROUPED WATER SANITATION INFRASTRUCTURE UPGRADE PROJECTS.

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT WORKS - MECHANICAL AND ELECTRICAL WORKS

#### C3.5.4 ENVIRONMENTAL MANAGEMENT

	i		_	_			
Contractor		Witness 1	Witness 2	Employer	Witness 1	Witness 2	

Bid No: RLM/RWST/OMM/0103/2024/25 (Re-advert)

Volume 1A: General Clauses, Contract Data and Scope of Works

Part C3 Scope of Works Section C3.5 Management



#### C.3.5.4 **Environmental Management**

The Works shall comply with the Environmental Authorisation (Record of Decision), the Environmental Management Plan and the Employer's Specifications (if applicable). The applicable documents are included in Section C3.5.4.

Witness 1 Witness 1 Witness 2 Contractor

02\_Vol1A\_ME\_June25\_Part C3.5-3.6

Witness 2

Employer

June 2025



# **Environmental Management Programme**

in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

# File Reference Number:

NWP/EIA/42/2014

# **Project Title:**

The upgrading and expansion of the Bospoort Water Treatment Works, Rustenburg Local Municipality, North West Province.

#### Prepared for

Rustenburg Water Services Trust (RWST)
Represented by: Mr. Pet Maas (Trust Administrator)
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# Compiled by

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February 2015

EMPr (NWP/EIA/42/2014)
FEBRUARY 2015

# **DOCUMENT CONTROL**

# Table 1: Document Control

COMPILED/REVISED BY	STATUS	REVISION	REVIEWED/ APPROVED BY	DISTRIBUTED ON	REASON
Justin Bowers	Draft	00	Registered I&AP's	27 February 2015	30 and 40 day comment period.

#### **Draft Environmental Management Programme**

"a draft environmental management programme containing the aspects contemplated in regulation 33"

Regulation 22 (2) (I)

#### **Background**

Ecoleges has compiled a Generic Environmental Management Programme (EMPr) to ensure responsible environmental management and overcome common failures or criticisms in conventional EMPrs, including:

#### Redundancy

Mitigations are often repeated under different sections/aspects/impacts or activities throughout conventional EMPrs. For example, several repeated or similar mitigations regarding erosion may be triggered by one finding. This redundancy introduces a bias when scoring compliance in the audit, which effectively 'inflates' the level and perception of noncompliance. Redundancy is overcome by avoiding repetition and avoiding similarly written conditions.

#### **Generic mitigations**

EAPs have gotten into the unfortunate and lazy habit of prescribing generic conditions regarding compliance with relevant legislation, instead of researching the legal requirements and providing specific 'guidance.' Contractors, SECOs and ECOs do not always know the specific legal requirements, resulting in poor enforcement.

#### 'Should' versus 'Shall'

'Should' is a recommendation, whilst 'shall' is an obligation. 'Should's are not enforceable and cannot be scored in a compliance audit. Consequently, 'should's must not be used in mitigations that are singly meant to avoid or reduce specific impacts.

#### Too prescriptive

Some mitigations identify specific methodologies or apparatus, which cannot be reasonably or feasibly implemented and subsequently requires an amendment to the EMPr. Amendments can be costly and timely. Mitigations need to be concise, and contain sufficient detail to effectively avoid or reduce a negative impact without limiting better alternatives/options.

#### Too long

EMPrs have been criticized for being too long and arduous, thereby deterring potential readers. Ecoleges attempts to keep the mitigations within 10 pages, unless projects contains realms of conditions from I&APs, such as land owners and servitude holders (wayleaves).

#### **Insufficient Information**

Information from I&APs is often transferred into the EMPrs without providing a means for ensuring its implementation, thereby reducing its efficacy. A concerted effort has been made to include contact persons and details in the relevant mitigations that require communication with I&APs.

The aforementioned programme formed the basis of this EMPr and was 'tailored' to include mitigations for site-specific impacts identified during the assessment process, the specialists inputs and recommendations, Regulation 33 of the EIA Regulations, 2010 and Section 24N of NEMA, 1998. Where necessary, measures were expanded upon and additional issues have been addressed in order to ensure that all environmental aspects are appropriately considered and monitored.

Environmental, social and economical conditions change, including inter alia, legislative requirements. Consequently, environmental management needs to be adaptive and the EMPr must be treated as a dynamic document. However, considering that the EMPr is a Standard, as opposed to a Guideline document, changes must be submitted to the environmental authorities for approval using their template. We further prescribe that proposed changes are

motivated and consider the impacts which particular conditions were meant to mitigate (in this EIA), to reduce the significance thereof.

The approved EMPr shall be printed, completed and kept in an on-site file designated for all matters pertaining to environmental management. Co-operation is required between the applicant, contractor, and ECO to ensure that activities are managed in an amicable and responsible manner and in accordance with the philosophies of environmental legislation and principles of the EMPr.

#### **Purpose and Scope**

Ecoleges recognises the following types of Environmental Management Programmes (EMPr) according to the phases of implementation for which they are designed:

- Lifespan EMPr (Planning and Design, Pre-construction, Construction, Post-construction, Operation (including maintenance) and Decommission)
- Construction EMPr (Planning and Design, Pre-construction, Construction and Post-construction)
- Maintenance (for Reconstruction) EMPr (Planning and Design, and Operation (including maintenance))
- Maintenance (for Rehabilitation) EMPr (Planning and Design, Operation (including maintenance) and Decommission)

The main purpose of this Lifespan EMPr is to ensure the sustainable management of the activities and the resulting environment impacts associated with the listed and physical activities.

This EMPr will apply to the scope (Table 11) implicit within listed activities and is restricted exclusively to the upgrading and expansion of various bulk water and treatment infrastructure of the Bospoort Water Treatment Works (WTW).

It may not be assumed to apply to any other location without approval from the lead authority. Decommissioning was excluded from the scope of this EMPr, which is applicable to the Planning, Construction and Operation phases of implementation only. This EMPr is valid for a period of 10 years, whereupon its applicability will need to be reassessed.

#### **Responsibilities of Role Players**

This EMPr is compiled for the Planning, Construction & Operational Phases of the WWTW with the responsible role players assigned.

#### **Applicant**

The applicant remains ultimately responsible for ensuring that the development is implemented according to the requirements of the EMPr. Although the applicant delegates specific responsibilities to role players to perform functions on his/her behalf, the ultimate responsibility cannot be delegated. The developer is responsible for ensuring that sufficient resources (time, financial, man-power, equipment, etc.) are available to the other role players (e.g. the contractor, SECO, etc) to efficiently perform their tasks in terms of the EMPr. The responsibility of restoring the environment in the event of any negligence, which leads to damage of the environment, also falls to the applicant.

The applicant must ensure that the EMPr is included in any documents (tender, appointment etc.) so that any contractor who is appointed is bound to the conditions of the EMPr. The applicant must appoint an independent Environmental Control Officer (ECO) during the planning phase to oversee all the environmental aspects relating to the development.

#### Contractor

The contractor, as the developer's agent on site, is bound to the EMPr conditions through his/her contract with the developer, and is responsible for ensuring that she/he adheres to all the conditions of the EMPr. The contractor shall be responsible for the actions undertaken by all their employees including sub-contractors. The contractor must thoroughly familiarise him/herself with the EMPr requirements before coming onto site and must request clarification on any aspect of these documents, should they be unclear. The contractor must ensure that

he/she has provided sufficient budget for complying with all EMPr conditions at the tender/appointment stage.

The contractor must comply with all orders (whether verbal or written) given by the ECO, project manager or site engineer in terms of the EMPr.

# Site Environmental Control Officer (SECO)

The Site Environmental Control Officer (SECO) shall be appointed by the contractor to implement the EMPr daily.

#### **Environmental Control Officer (ECO)**

The Environmental Control Officer (ECO) is appointed by the applicant as an independent monitor of the implementation of the EMPr. He/she must form part of the project team and be involved in all aspects of the project planning that can influence environmental conditions on the site.

The ECO must attend relevant project meetings, conduct inspections to assess compliance with the EMPr and be responsible for providing feedback on potential environmental problems associated with the development. In addition, the ECO is responsible for:

- Liaising with relevant authorities;
- Liaising with contractors regarding environmental management; and
- Undertaking routine monitoring and appointing a competent person/institution to be responsible for any specialist monitoring (if required).

The ECO has the right to enter the site and undertake monitoring and auditing at any time, subject to compliance with health and safety requirements applicable to the site (wearing safety boots, head gear, mouth mask etc.).

#### Communication

At least monthly site meetings should be held where feedback can be given and any potential problems identified and remedied. If they cannot be remedied then construction in that area should be stopped, until a suitable remedy is identified.

# **Monitoring Compliance**

# Pre-construction, Construction and Post-construction

The ECO will be responsible for monitoring and auditing the activity from pre- to post-construction.

Audits shall be a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled. The audit criteria (or reference) against which the audit evidence is compared shall include this EMPr and the Environmental Authorisation.

The ECO must undertake bi-weekly inspections of the site and submit monthly environmental compliance reports and audits to the North West Department of Rural, Environment and Agricultural Development (DREAD), unless otherwise prescribed in the EA or in consultation with the Applicant. The compliance reports must identify the actual and potential transgressions, describe the impacts, provide verifiable evidence (photographs, records or statements) and recommend corrective and preventive actions (including completion dates). The compliance audits must measure the applicant/contractor's level of compliance against the aforesaid audit criteria. Performance auditing is optional.

The SECO shall maintain an on-site diary to record environmental aspects (elements of the construction activities that can interact with the environment) and environmental impacts (any change to the environment, whether adverse or beneficial, wholly or partially resulting construction activities), daily.

#### **Operation**

The relevant authorities should be responsible for monitoring compliance with aspects of the activity that fall within their jurisdiction.

Time Periods and Failure to Comply with the EMPr

The time periods within which the measures prescribed in this EMPr must be implemented shall be applicable to the full duration of the activity that is being undertaken and mitigated. The time periods within which corrective and preventive actions need to be implemented shall be determined by the SECO and/or ECO, depending on the nature and severity of the finding. In the absence of a prescribed deadline or completion date, findings shall be corrected or prevented immediately upon being found to occur, if practical.

The EMPr is a legally binding document and should form part of the contract. Should there be failure to comply with the EMPr the following steps are envisaged:

#### Step 1

The ECO meets with the contractor and points out the deviation from the EMPr. The ECO and Contractor agree on a solution and this non-compliance is recorded by the ECO as well as the solution put forward to rectify it.

#### Step 2

Should there still be non compliance or there is a more serious infringement of the EMPr the contractor is informed in writing with a deadline by which the problem must be rectified. Any extra costs that may be accrued must be borne by the contractor.

#### Step 3

If non compliance persists, the ECO shall order the contractor to suspend construction in that specific area or the project as a whole until the activity at variance with the EMPr is corrected and or remedial actions taken. Any cost that occurs as a result of such action shall be for the account of the contractor.

#### Step4

Where there is non-compliance with the EMPr and no evidence that the contractor intends complying even though the above 3 steps have been taken the proponent may terminate the contract due to non-compliance (breach of contract). Such measures do not replace any legal proceedings that may occur as a result of such non-compliance.

#### **Environmental Awareness Plan**

The applicant shall ensure that his project team, contractor and labourers are adequately trained with regard to the implementation of the EMPr and EA throughout construction.

#### **Pre-construction**

Environmental Awareness Inductions shall be targeted at two distinct levels of employment: management (applicant, architect, engineer, contractor/site agent) and labourers (including the site foreman). The ECO shall be responsible for preparing and presenting inductions appropriate to the audience. Inductions shall be undertaken prior to the commencement of construction. Where possible the presentation will be conducted in the language of the employees.

The Environmental induction for management shall include mitigations that are relevant to or require management's involvement prior to implementation including, but not limited to, the following:

Measures required during the Planning and Design, and Pre-construction phase, and Site establishment.

The Environmental induction for the contractor's labourers and foreman shall, as a minimum, include the following:

- A description of the actual and potential environmental impacts,
- Standard operating procedures for undertaking construction activities (i.e. mixing concrete, driving, etc.) that can have an environmental impact,
- Staff conduct including sanitation and movement,
- The integrated waste management strategy,
- The steps to be taken should any item of perceived environmental importance including archaeological artefacts be located or unearthed, and
- The environmental emergency plan.

EMPr (NWP/EIA/42/2014)

#### Construction

The SECO and ECO shall undertake an informal training needs analysis throughout construction to identify appropriate environmental topics and the appropriate labourers to target. The analysis shall be informed by the findings contained in the site diary and compliance reports. Training shall be given during toolbox talks.

The SECO and ECO shall keep records of the environmental inductions and subsequent toolbox talks in an on-site file designated for all matters pertaining to environmental management.

Environmental Management Programme – Information Sheet					
Name of Development (General name given to the development / construction)					
Description of Activity (Brief description of what the project entails)					
This EMPr pertains to the					
Details of Proponent (Name and address of the proponent)					
Project applicant: Contact person: Physical address: Postal address: Postal code: Telephone: E-mail:					
Planned Implementation Date (Date construction is expected to start)					
Expected Completion Date (Date construction is expected to end)					
Declaration					
I the undersigned in my capacity as designated below, do hereby undertake to ensure that the conditions and recommendations in terms of the Environmental Management Programme (EMPr) relating to the following project (name of project)					
are implemented in terms of the recommended activities and procedures. I assume accountability and responsibility in this respect.					
I am aware that the appointed ECO may visit the project at any stage to ensure compliance with the approved EMPr, its activities and procedures.					
Proponent					
Name					
Signature					
Date					
*Contractor					
Name					
Signature					
Date					

Environmental Control Officer (ECO)
Name
Signature
Date

<sup>\*</sup> This declaration of the Main Contractor is binding on any sub-contractors / agents that may be employed by the Main Contractor in execution of his contract. It is the responsibility of the Main Contractor to ensure any sub-contractors are aware of this declaration and abide by it.

# List of Terminology and Abbreviations

The following is a list of abbreviations and terminology that has been used in this report.

	st of abbreviations and terminology that has been used in this report.
BPDM	Bojanala Platinum District Municipality
Construction	The period of the project that encompasses site hand over, site
	establishment and preparation, carrying out the works, and
	decommissioning.
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environmental Conservation Act
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme – A plan that is designed and
	implemented to achieve specific goals in such a way that the expected
	impacts that a proposed project is going to have on the environment are
	mitigated, controlled and monitored
Fauna	All animals life as opposed to Vegetable and Mineral
Flora	All plant life
HIA	Heritage Impact Assessment
I&AP's	Interested and Affected Parties
Mitigation	Practical measures that are put forward to avoid or reduce the expected
	impact a certain action or development is expected to have on the
	environment
NEMA	National Environmental Management Act
NEMBA	National Environmental Management: Biodiversity Act
NEMPAA	National Environmental Management: Protected Areas Act
NEMWA	National Environmental Management: Waste Act
NHRA	National Heritage Resources Act
NWA	National Water Act
NWPT	North West Parks and Tourism
Post-construction	The period after construction has been completed and when the
	maintenance period begins
Pre-construction	The period leading up to when construction begins
Red Data	Species of fauna and flora that have been listed as Extremely
Species	Endangered, Endangered or Threatened according to the IUCN
·	conservation categories
Rehabilitation	Actions that are required to achieve rigorous and sustainable
	environmental conditions on a site after construction is completed.
RLM	Rustenburg Local Municipality
ROD	Record of Decision
SECO	Site Environmental Control Officer
SAHRA	South African Heritage Resources Agency
WTW	Water Treatment Works

# Mitigations

# Planning and Design Phase Mitigations

Plann	Planning and Design Phase			
No.	Activities and Impacts	Responsibility	Mitigation	
1.1		BPDM/RLM	An experienced and independent ECO shall be appointed prior to the commencement of construction to oversee construction, including the identification and permitting/licensing of protected plants prior to clearing.	
1.2	1. Authorisations	RLM Contractor	Should water be required for construction activities relating to the WTW and if the contractor needs to purchase irrigation water from a land owner, a temporary transfer of allocation must be obtained from the DWS before construction commences.	
1.3	Potential offences incl. non-	Contractor	Should the Contractor require water for construction activities from the existing network, approval for temporary, metered connection points shall be sought from the RLM.	
1.4	compliance and non-conformance	RLM ECO	RLM shall apply for and obtain the relevant licenses/permits from the appropriate authorities (NWPT, DAFF, and/or DEA) prior to disturbing or destroying any protected plants.	
1.5		RLM EAP	RLM shall apply for and obtain a WUL before commencing with the expansion and upgrading of the WTW.	
1.6		Contractor	The contractor shall obtain imported material from a licensed, commercial borrow pit.	

# **Construction Phase Mitigations**

Pre-c	re-construction Planning Phase				
No.	Activities and Impacts	Responsibility	Mitigation		
2.1	2. Authorisations	Applicant/Contractor	Protected Plants may not be disturbed, cut or destroyed without the relevant licenses/permits from the appropriate authorities (MTPA, DAFF, and/or DEA).		
2.2	Potential offences incl. non-compliance and non-conformance	Contractor	The Contractor shall not import material from an illegal source.		
3.1	3. Taking Water	Contractor	The Contractor may not use irrigation water for construction without a temporary transfer of allocation.		
3.2	Potential offences	Contractor	The Contractor shall not create temporary connection points from the existing network without the approval of RLM.		
3.3	incl. non- compliance and non-conformance	Contractor	Temporary connection points shall be metered.		
4.1	4. Demarcation  Potential offences	Contractor	Any areas of cultural, environmental or ecological significance shall be designated as a no-go area and demarcated with danger tape or netting.		
4.2	incl. non- compliance and non-conformance	Contractor	The Contractor shall contact Eskom before commencing with any excavations to determine the presence and location of any underground electrical cables.		
5.1	5 Lasatian and	Contractor	The Contractor shall locate the construction camp on existing disturbed or the least sensitive sites above the 1:100 year flood line or further than 32m from the edge of a watercourse, whichever is greatest.		
5.2	5. Location and Layout of	Contractor	No maintenance workshop is permitted within 100m from the edge of a watercourse.		
5.3	Construction Camp(s)  Soil Pollution Water Pollution Loss of Fauna and Flora	Contractor	The contractor shall restrict the following activities to the construction camp: Accommodation, Sanitation, Waste storage, Parking, Storing hazardous materials, Repair/maintenance, Re-fuelling,		

	Bulk concrete batching, Material stockpiles, and
	Lay down areas.

Consti	Construction Phase				
No.	Activities and Impacts	Responsibility	Mitigation		
6.1		Contractor	All contractors and their labourers must be inducted before commencing work. The induction must include mitigations identified in this report (all aspects regarding their actual and potential interaction with the environment).		
6.2		Contractor	Induct all labourers on the waste management strategy and enforce it through regular (at least weekly) toolbox talks.		
		Contractor	Include an awareness of heritage resources in the environmental induction. Categories of heritage resources include, inter alia:		
	6. Management of		Evidence of archaeological sites or remains include remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations,		
6.3	Staff		Archaeological or palaeontological sites over 100 years old,		
			Sites of cultural significance associated with oral histories,		
	Air Pollution		Significant cultural landscapes or viewscapes,		
	Soil Pollution		Burial grounds, unmarked human burials, graves of victims of conflict, and/or graves older than 60 years,		
	Water Pollution		Structures older than 60 years,		
	Loss of Fauna		Fossils, etc.		
	Loss of Flora	RLM	All formal and informal cemeteries and burials must be left in situ and not be disturbed. If this is not		
6.4	Loss of Heritage	Contractor	possible, a permit must be applied for in terms of Section 36 of the NHRA (Act 25 of 1999), and is subject to mandatory public consultation.		
		Contractor	In the event of discovering a heritage resource, stop reconstruction activities and alert the SAHRA		
6.5			Archaeology, Palaeontology and Meteorites (APM) Unit immediately. Jenna Lavin, Heritage Officer (Tel: 021 462 4502, Fax: 021 462 4509, Email: jlavin@sahra.org.za).		
6.6		Contractor	Contact a professional archaeologist or palaeontologist, depending on the nature of the findings, as soon as possible to inspect the findings.		
6.7		Contractor	Unnecessarily loud noise is prohibited.		
6.8		Contractor	Open fires are prohibited. Controlled fire within the construction camp for cooking is permissible.		
6.9		Contractor	All persons shall use only the provided facilities for sanitation.		

6.10		Contractor	With the exception of search and rescue operations authorized by the ECO, no mammal, bird, reptile, invertebrate or fish shall be intentionally caught, harmed and/or killed.
6.11	<del>-</del>	Contractor	No dry wood, living plant or part thereof may be harvested from any plant community.
7.1		RLM	Any damage to a resident's property, including inter alia, fences shall be repaired or replaced at the expense of the RLM.
7.2		Contractor	The Contractor shall contact Eskom in the event of discovering any illegal connections and request Eskom to make the area safe prior to commencing work in the affected area.
8.1	7. Management of	Contractor	The movement of construction vehicles will be restricted to permanent or temporary roads and certain demarcated areas (to turn around or passing lanes).
8.2	Services/Infrastru	Contractor	Drivers shall adhere to the relevant speed limit(s) at all times and restrict their movements to the roadway or servitude.
8.3	Social	Contractor	Construction plant and equipment shall be kept in good working order to reduce hydrocarbon leakages, excessive emissions.
8.4	Coolai	Contractor	Washing of construction plant and mechanical equipment including brushes shall not occur on site or in a watercourse, but shall be restricted to the main construction camp.
8.5		Contractor	Use drip trays for refuelling, repair/maintenance work and all stationary construction plant and equipment that can leak, such as TLBs, compressors and generators.
8.6		Contractor	Sand or soil is prohibited from being used as an absorbant in drip trays, bunds or to cover spills.
8.7		Contractor	Emergency repairs or maintenance shall include procedures to minimize contamination of the ground.
9.1	9. Management of Hazardous	Contractor	The contractor shall store hazardous material within a secure, safe and bunded facility at the construction camp.
9.2	Material	Contractor	Re-fuelling with a mobile fuel bowser shall take place outside any watercourse.
9.3	Air Pollution	Contractor	The contractor shall implement appropriate procedures, such as the use of a ground cover, to prevent the contamination of the ground when handling hazardous materials, including re-fuelling.
9.4	Loss of Water	Contractor	As far as is practical do not handle cement during excessively windy conditions.
9.5	Soil Pollution	Contractor	Do not mix concrete on open ground. Mix in a wheel barrow, a mixing tray or on a level plastic sheet.
9.6	Water Pollution Loss of Soil	Contractor	The contractor shall prevent the run-off of slurry or cement contaminated water from concrete/plaster mixing sites.
10.1	10. Management	Contractor	The Contractor shall obtain imported material from a licensed, commercial source.
10.2	of Imported	Contractor	Trucks transporting material to site shall be covered.
10.3	Material	Contractor	Do not handle material during excessively windy conditions.
10.4	Loss of Soil	Contractor	Imported material stockpiles shall be located outside the demarcated disturbed wetland system and on a disturbed site or other site approved by the ECO as a stockpile area.
	Air Pollution	Contractor	The contractor may not dump any material onto living plants unless it is on a site that has been searched

	Water Pollution		for plants of conservation concern by the ECO and approved as a stockpile or laydown area.
10.5	Loss of Flora & Fauna	Contractor	If possible, do not stockpile the imported material, but use it immediately.
11.1	11. Management	Contractor	Topsoil stockpiles shall be located further than 32m from the edge of the watercourse and on a disturbed site or other site approved by the ECO as a stockpile or laydown area.
11.2	of Topsoil	Contractor	The Contractor is prohibited from driving on topsoil stockpiles and windrows.
11.3	Loss of Soil	Contractor	Topsoil shall not be mixed with cement. It is to be used for rehabilitation only.
11.4	Soil Pollution	Contractor	Remove topsoil from the area within the perimeter of the construction camp and stockpile separately for use during rehabilitation of the site.
12.1	12. Management	Contractor	The contractor shall provide sufficient (1:10) chemical toilets.
12.2	of Sanitation	Contractor	Use chemical toilets that contain the sewerage in a closed and removable 'tank', i.e. do not use open drums. Environmentally friendly toilets should also be considered e.g. E-loo's.
12.3	Air Pollution	Contractor	Chemical toilets shall be located in the shade and outside the demarcated sensitive areas.
12.4	Soil Pollution	Contractor	Chemical toilets shall be kept hygienic and cleaned daily.
12.5	Water Pollution Loss of Fauna and Flora	Contractor	Chemical toilets shall be emptied when the tanks are half full.
13.1		Contractor	Establish and implement an Integrated Waste Management Strategy including avoidance, reduction, reusing, recycling and disposal, i.e. the production of hazardous waste can be avoided by providing drip trays, reduce waste by using the correct quantities, re-use concrete rubble as back fill or recycle steel offcuts and dispose of non-hazardous solid waste at a registered municipal dump site.
13.2	13. Management	Contractor	Designate a temporary waste storage area, enclose it in a fence that cannot be breached by fauna, and provide sufficient scavenger proof dust bins with black bags inside the construction camp.
13.3	of Waste	Contractor	Separate general, recyclable, natural (vegetation and soil/rock) and hazardous waste, and demarcate different containers for different waste types using colour codes.
13.4	Soil Pollution	Contractor	Do not litter, burn or bury waste on any property.
13.5	Water Pollution Air Pollution	Contractor	The contractor shall dispose of general waste at a registered municipal dump site.
13.6	Loss of Fauna and Flora Loss of Soil	Contractor	The contractor shall contain contaminated water from washing brushes in a conservancy tank until sufficient volume warrants disposal by a registered hazardous waste management company.
13.7		Contractor	The contractor is prohibited from discharging waste water, including domestic water from sanitation facilities, and grey water from washing equipment or plant into a watercourse.
13.8		Contractor	Remove ineffective danger tape/netting that has begun to litter the site or surrounding areas.
13.9		Contractor	Immediately remove contaminated soil to the depth of penetration and temporarily store in a designated solid hazardous waste container until sufficient volume warrants disposal at a registered hazardous waste dump site. Alternatively, onsite treatment of contaminated soil should be considered with a registered

			hazardous waste management company.
		Contractor	Spills shall not be covered with sand or soil. It merely increases the disposal cost for a greater volume of
13.10		Contractor	hazardous waste.
13.11		Contractor	Break up all concrete hard pan layers and dispose of appropriately (at a legitimate dump site) or re-use
13.11			the concrete.
13.12		Contractor	All waste bins shall have lids.
13.13		Contractor	The site will be kept tidy at all times. All waste shall be picked up daily.
13.14		Contractor	The contractor shall return used oil to the supplier or an oil recycling company.
13.15		Contractor	A dustbin shall be available at each work front during working hours.
14.1	14. Management	Contractor	Water leaks shall be repaired immediately upon being found.
14.2	of Water	Contractor	Water shall be used sparingly to prevent excessive run-off when wetting the road works/layers.
14.3		Contractor	Water taps shall be closed when not in use.
14.4	Loss of Water	Contractor	The Contractor shall not water gravel access roads.
	15. Management	Contractor	As far as possible, commence construction (clearing) at the onset of the dry season in order to prevent
15.1	of Time		erosion, siltation and wash-away of topsoil and sedimentation into the wetlands, seepage areas, drainage
			lines or rivers.
	Loss of Soil	Contractor	Construction shall be limited to daylight hours.
	Soil Pollution		
15.2	Water Pollution		
10.2	Air Pollution		
	Loss of Fauna		
	and Flora		
16.1	16. Management	Contractor	The contractor shall search for weed, invader and alien plant species on all disturbed sites every two
	of Weed, Invader		weeks during construction.
16.2	and Alien Plants	Contractor	The contractor shall immediately remove weed, invader and alien plant species upon being identified on
. 0.2			all areas that are disturbed by construction activities including stockpiles.
	Loss,	Contractor	The contractor shall collect and destroy all seeds of weed, invader and alien plant species occurring
40.0	transformation		within the servitude during construction.
16.3	and fragmentation		
	of terrestrial		
	habitats	0((	Detected and a constitution of the constitutio
47.4	17. Management	Contractor	Protect all areas susceptible to erosion by installing all the necessary, temporary and/or permanent
17.1	of Erosion		mechanisms for controlling/diverting storm water run-off, dissipating water energy and encouraging
47.0	l (O-i)	O a return retorn	infiltration as soon as possible.
17.2	Loss of Soil	Contractor	Correct any cause of erosion at the onset thereof by controlling/diverting storm water run-off, immediately

	Water Pollution		repairing and stabilising/rehabilitating impacted areas in the most appropriate manner.
17.3		Contractor	Appropriate measures should be implemented to avoid or minimize damming or ponding of water, as well
17.3			as soil erosion.
17.4		Contractor	Contain surface water run-off and loose sediment within excavations.
17.5		Contractor	Appropriate mitigation to control/reduce sediment input into watercourses shall be implemented during
17.5			construction.
		Contractor	Bulk-shape the areas where material is introduced to mimic or blend in with the surrounding, natural
18.1			topography. Fine-shaping must maintain uneven surfaces that will impede surface water run-off and
			facilitate infiltration.
18.2		Contractor	Ensure storm water run-off is adequately controlled on disturbed sites before rehabilitating them (ripping,
10.2			replacing the topsoil and mulching/brush packing), i.e. cut-off berms.
18.3		Contractor	Topsoil (150mm) shall be returned to the source areas during rehabilitation of the disturbed sites.
18.4		Contractor	Ensure a quick and adequate cover with indigenous and local grass species on all pipeline servitudes.
18.5		Contractor	Kikuyu grass (Pennisetum clandestinum) is a highly invasive plant that threatens wetland habitats and
			must not be used in areas adjacent to wetland habitats and drainage lines. Non-invasive indigenous
	18.		grasses such as Cynodon dactylon should be used.
18.6	Rehabilitation&	Contractor	The Contractor shall monitor the rehabilitated servitudes for the duration of the contract defects and
	Monitoring		liability period for signs of erosion.
18.7		RLM	If erosion is found to occur during the aforesaid monitoring, the Contractor/RLM shall immediately correct
	Soil Pollution	Contractor	(the 'source') and repair (the 'symptom') the erosion using method(s) that are an improvement on the
	Water Pollution		mitigations proposed in this EMPr or on the unsuccessful mitigations originally used on site.
18.8	Loss of Flora	Contractor	The Contractor shall monitor the rehabilitated pipeline servitudes for the duration of the contract defects
	Loss of Heritage		and liability period for the recruitment of weed, invader and alien plant species.
18.9		Contractor	The Contractor/RLM shall immediately uproot, cut or debark weed, invader and alien plant species upon
		RLM	being identified.
18.10		Contractor	The Contractor/RLM shall collect and destroy all seeds of weed, invader and alien plant species occurring
		RLM	within disturbed and/or rehabilitated areas.
18.11		Contractor	The property(s) where these recommendations; comments and water use(s) will be applicable will be
		RLM	made available for inspection by an authorised person in terms of section 124 and 125 of the National
			Water Act 1998, (Act 36 of 1998).
18.12		Contractor	Any degraded/damaged water courses must be rehabilitated to encourage its functionality.
		RLM	
	19. Management	Contractor	Special care and treatment as well as duty of care should be complied with as required by section 19 of
19.1	of Pollution	RLM	the National Water Act of 1998 (NWA) and section 28 of the National Environmental Management Act of
			1998 (NEMA).

Soil Pollution	
Water Pollution	

# **Operation and Maintenance Phase Mitigations**

Opera	Operation and Maintenance Phase				
No.	Activities and Impacts	Responsibility	Mitigation		
1.1		RLM	RLM should implement a community awareness initiative aimed at the residents surrounding Bospoort Dam to alert the municipality of any leaks or overflowing.		
1.3		RLM	RLM shall undertake regular safety inspections of the WTW.		
1.4		RLM	RLM shall provide residents immediately adjacent the WTW with the local municipality's telephone number for their disaster management unit or other responsible department to rectify any effluent leaks or overflow.		
1.5	1. Monitoring &	RLM	RLM shall affect temporary and permanent emergency repairs or maintenance as soon as is practically possible.		
1.6	Maintenance	RLM	RLM shall undertake maintenance, including repair, reconstruction or replacement, in respect of the WTW according to the same mitigations described herein for the construction phase.		
1.7	Pollution, Social (Health	RLM	RLM shall monitor the rehabilitated servitudes for signs of erosion.		
1.8	and Safety) Loss of soil (Erosion),	RLM	If erosion is found to occur during the aforesaid monitoring, the RLM shall immediately correct (the 'source') and repair (the 'symptom') the erosion using method(s) that are an improvement on the mitigations proposed in this EMPr or on the unsuccessful mitigations originally used on site.		
1.9	Plant replacement (by Undesirable	RLM	The rehabilitated servitudes shall be monitored following the completion of the upgrade for the recruitment of weed, invader and alien plant species.		
1.10	- Plants)	RLM	RLM shall immediately uproot, cut or debark weed, invader and alien plant species upon being identified.		
1.11		RLM	RLM shall collect and destroy all seeds of weed, invader and alien plant species occurring within disturbed and/or rehabilitated areas.		
1.12		Contractor RLM	The property(s) where these recommendations; comments and water use(s) will be applicable will be made available for inspection by an authorised person in terms of section 124 and 125 of the National Water Act 1998, (Act 36 of 1998).		
1.13		RLM	During the operation and decommissioning phase, there should be no maintenance workshops within 100 meters from the edge of a water course unless authorised.		

2.1	2. Management of Pollution	Contractor RLM	Special care and treatment as well as duty of care should be complied with as required by section 19 of the National Water Act of 1998 (NWA) and section 28 of the National Environmental Management Act of 1998 (NEMA).
	Soil Pollution		
	Water Pollution		

Environmental Emergency Plan for the Control of Environmental Incidents

Definition of an 'Environmental Incident'

- 1. An unexpected sudden occurrence including a major emission, fire or explosion leading to serious danger to the public or potentially serious pollution of or detriment to the environment whether immediate or delayed (NEMA, 1998, section 30 (1) (a)).
- 2. Any incident or accident in which a substance-pollutes or has the potential to pollute a water resource or has, or is likely to have, a detrimental effect on a water resource (NWA, 1998, section 20 (1))

#### **Procedure**

The contractor shall ensure that emergencies are reported and controlled in accordance with the sequence of events prescribed for spillages in a watercourse, on land and fire, including:

- Action to be taken
- Removal and remediation measures to be implemented
- Internal and external communication plan
- Prescribed reporting procedure
- The contractor shall ensure that their employees are adequately trained to react to environmental emergencies in accordance with this procedure.
- The SECO shall complete the table of contact numbers, erect them in a conspicuous place within the construction camp and make its whereabouts known to all of the contractor's staff.

#### **Equipment**

The following equipment is required to successfully implement this procedure. It must be ensured that the equipment is supplied to or is readily available for all living quarters, site offices, kitchen areas, workshop areas, stores and on site:

- · A spill kit including absorbent fibres, mats and booms
- A net
- A whistle
- Adequate lighting for night shifts
- Spades
- Sand bags
- · Designated hazardous waste drums
- Trained personnel with protective clothing for extinguishing fires
- Fire extinguishers
- Fire beaters
- Water carts/tankers with pumps and hoses

# **Contact Numbers**

Organisation	Name	Telephone/cell Number
Project Personnel		
Applicant		
Engineer		
Contractor		
HSO		
SECO		
ECO		
Interested and Affected Parties		
Land Owner		
Adjacent Land Owner		
Adjacent Land Owner		
Emergency Services	•	
Spill Clean-up Service Provider		
Fire Department		
Chief Fire Officer (Fire Chief)		
SA Police Services		
Disaster Management Centre		
Local Municipality		
District Municipality		
Irrigation Board		
Water Catchment Management Agency		
Water Treatment Works		
DWS (Regional Head of Department/Chief Director)		
DWS (Regional Director: Water sector Regulation & Use)		
DREAD (Provincial Head of Department)		
DREAD (Director: Environmental Impact Management)		
DEA (Director General)		
DEA (Director: Environmental Impact Evaluation)		

	ACTI	ON TO BE TAKEN
Personnel	Responsibility	Action
Employee	Reporting	The person responsible for, or who discovers, a hazardous substance spill must report the incident to their immediate Supervisor.
Supervisor	Reporting	Report the incident to the SECO, HSO and Resident Engineer.  Note that the SECO will take control of all relevant actions once he/she arrives on the scene.
HSO	Reporting	Report the incident to an Inspector (designated under section 28 of the Occupational Health & Safety Act, 1993) within the prescribed period and manner.
Supervisor/SECO	Initial investigation	Determine the extent of the spill, i.e. its boundaries, by observing for the following:  1. Any visual indication of pollution,  2. Any odours or emissions detected,  3. Any indication of the source of pollution,  4. Any sign of damage to the natural system.  • The Supervisor/SECO should provide lighting if working at night.
Supervisor/SECO	Co-ordination	<ul> <li>Sound an alarm/whistle.</li> <li>The designated response team consisting of area specific personnel and including the environmental leader, will congregate at the spill kit.</li> <li>All other employees who do not have specific duties to perform are to evacuate the affected area to a location designated by the Supervisor/SECO.</li> </ul>
Supervisor/SECO	Co-ordination	Minimise the effects of the incident on the environment and persons by removing the source of the spill at least 100m away from the watercourse or cut-off the supply of the spill if the source is not moveable.
Supervisor/SECO	Co-ordination	Contain the spill by laying an absorbent sock or boom across the width of the watercourse AT A PRE-DETERMINED LOCATION downstream of the construction area (spill).  • A series of parallel booms may be required.
Supervisor/ECO	Co-ordination	Secure the affected area with danger tape.
HSO	Co-ordination	The site shall not be disturbed and no article or substance may be removed (without the consent of the inspector) if there is or likely to be a death, or if there is a loss of limb or part of a limb. However action can be taken to prevent a further accident, to remove the injured or dead or rescue persons from danger.

Engineer/SECO/ HSO	Decision-making	<ul> <li>The Engineer will assess the situation in consultation with the SECO and HSO and act as required.</li> <li>The risk involved shall be assessed before anyone approaches the scene of the incident.</li> <li>The HSO will consult the MSDSs.</li> <li>The scale of the spill will dictate whether the spill will be cleaned up by using the on-site spill kit and in the prescribed manner, or by contacting a Spill Clean-Up Service Provider for assistance.</li> <li>The SECO will take photographs of the affected area.</li> <li>No person shall be allowed to approach a spill unless he/she is equipped with personal protective clothing.</li> </ul>
SECO	Directions	If a Spill Clean-Up Service Provider is used, assist the emergency services by clearly marking the route to be taken to the spill site.
SECO	Co-ordination	Take such measures as the Catchment Management Agency may either verbally or in writing direct within the time specified by such institution.

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REMOVAL	AND REMEDIATION	MEASURES TO BE IMPLEMENTED
Personnel	Responsibility	Action
SECO	Co-ordination	Remove the contaminated sock or boom from the surface of the water. If lose fibres were scattered on the surface to capture hydrocarbons in shallow (still) pools, 'fish' it out with a net.
SECO	Co-ordination	Remove the contaminated soil from the banks of the watercourse, to the depth of penetration using a spade or shovel.
SECO	Co-ordination	Temporarily store the contaminant in the designated hazardous waste facility at the construction camp.
SECO	Co-ordination	Contact a licensed hazardous waste service provider to collect and transport the waste to a licensed hazardous waste landfill site.
SECO	Co-ordination	Rehabilitate the banks of the watercourse by replacing the topsoil and planting indigenous plants.
SECO	Monitoring	Immediately follow any known spillage of toxic substances into a stream or river with monitoring of the receiving streams or rivers and public health.
SECO	Co-ordination	Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice must be sought for appropriate treatment and remedial procedures to be followed.
SECO	Monitoring	Take photographs of the affected area during rehabilitation.

	INTERNAL & EXTER	NAL COMMUNICATION PLAN
Personnel	Responsibility	Action
Employee	Reporting	The person responsible for, or who discovers, a hazardous waste spill must report the incident to their immediate Supervisor.
Supervisor	Reporting	Report the incident to the SECO, HSO and Resident Engineer.
HSO	Reporting	Report the incident to an Inspector (designated under section 28 of the Occupational Health & Safety Act, 1993) within the prescribed period and manner.
SECO	Reporting	Report the incident to the Site Agent and/or Manager and the ECO.
SECO	Reporting	If the spill is too big for the spill kit, contact a Spill Clean-Up Service Provider.
SECO	Reporting	If the spill is going to affect downstream users, inform the Land Owner, the Irrigation Board or Catchment Management Agency and water treatment works (if applicable).  • Provide the following information to the water treatment works:  1. The exact location of the spillage, 2. The time of the spillage, 3. As much information about the nature of the pollution, 4. The name and telephone number of the person contacting them.  • Irrigation Boards control river structures and may be able to divert/or impound the river to protect 'water supply intakes'.
SECO	Reporting	Report the incident to the following authorities within 24 hours:  1. DEA (Director General),  2. DWS (Director General and Chief Director: North West),  3. SA Police Services,  4. Fire Department,  5. Catchment Management Agency,  6. DREAD (provincial Head of Department) or Rustenburg Local Municipality, and  7. Any persons whose health may be affected by the incident.
SECO	Reporting	Provide the following information: 1. The nature of the incident, 2. Any risks posed by the incident to public health, safety & property, 3. The toxicity of substances or by-products released by the incident, and 4. Any steps that should be taken in order to avoid or minimise the effects of the incident on public health and the environment.

ECO/Applicant/Site Agent/RE	Reporting	If the nature of the impact constitutes a gross violation of the EA or any legislation:  The ECO must report the incident to the applicant.  The applicant must report the incident to the Rustenburg Local Municipality, DREAD,
		<ul> <li>DEA, and DWS.</li> <li>The Site Agent and/or Manager must report the incident to their Environmental Group Manager, Divisional MD and CEO.</li> <li>The Resident Engineer must report the incident to his Superiors.</li> </ul>

PRESCRIBED REPORTING PROCEDURE					
Incident recording					
Personnel	Responsibility	Action			
SECO	Investigation	Conduct an investigation, including interviews,			
		and record all details of the incident.			
		The cause must be investigated.			
SECO	Reporting	Complete an Environmental Incident Report			
		and forward it to all key project personnel, with			
		the exception of the Emergency Services.			
SECO	Reporting	Within 14 days of the incident, report the			
		incident to the following authorities:			
		1. DEA (Director General),			
		2. DREAD (provincial Head of Department),			
		3. Rustenburg Local Municipality,			
		4. Bojanala Platinum District Municipality,			
0000	Departing	5. DWS (Regional Director: North West).			
SECO	Reporting	Provide the following information:  1. The nature of the incident,			
		2. The substances involved and an estimation			
		of the quantity released and their possible			
		acute effect on persons & the environment &			
		data needed to assess these effects,			
		3. Initial measures to minimise impacts,			
		4. Causes of the incident, whether direct or			
		indirect including equipment, technology,			
		system or management failure, and			
		5. Measures taken & to be taken to avoid a			
		recurrence of such incident.			
SECO	Reporting	Submit an action plan within 14 days, or a			
		shorter period of time, if specified by the			
0500		Regional Director: North West (DWS).			
SECO	Reporting	The action plan must include the following			
		information:  1. A detailed time schedule of measures taken			
		to.			
		1.1 Correct the impacts resulting from the			
		incident,			
		1.2 Prevent the incident from causing any			
		further impact, and			
		1.3 Prevent a recurrence of a similar incident.			
	Progre	ss reporting			
SECO	Revising	Identify methods for preventing the incident			
	Procedures	from re-occurring and revise method			
		statements and/or procedures for implementing			
	<u> </u>	as early as possible.			
SECO	Training	Conduct either a toolbox talk or environmental			
		awareness training/re-induction to the all			
		employees and include additional mitigations to			
		avoid a re-occurrence.			
		Keep the program, including a signed attendance register, in the en site.			
		attendance register, in the on-site environmental file.			
		CHVIIOHHEHLAHHE.			

	ACTIO	N TO BE TAKEN
Personnel	Responsibility	Action
Employee	Reporting	The person responsible for, or who discovers, a hazardous substance spill must report the incident to their immediate Supervisor.
Supervisor	Reporting	Report the incident to the SECO, HSO and Resident Engineer.  Note that the SECO will take control of all relevant actions once he/she arrives on the scene.
HSO	Reporting	Report the incident to an Inspector (designated under section 28 of the Occupational Health & Safety Act, 1993) within the prescribed period and manner.
Supervisor/SECO	Initial investigation	Determine the extent of the spill, i.e. its boundaries, by observing for the following:  • Any visual indication of pollution,  • Any odours or emissions detected,  • Any indication of the source of pollution,  • Any sign of damage to the natural system.  The Supervisor/SECO should provide lighting if working at night.
Supervisor/SECO	Co-ordination	<ul> <li>Sound an alarm/whistle.</li> <li>The designated response team consisting of area specific personal and including the environmental leader, will congregate at the spill kit.</li> <li>All other employees who do not have specific duties to perform are to evacuate the affected area to a location designated by the Supervisor/SECO.</li> </ul>
Supervisor/SECO	Co-ordination	Minimise the effects of the incident on the environment and persons by removing the source of the spill at least 100m away from the watercourse or cut-off the supply of the spill if the source is not moveable.
Supervisor/ECO	Co-ordination	<ul> <li>Contain the spill to a confined area to prevent the spreading of the spilled chemical or substance.</li> <li>Use sand bags or construct earth berms.</li> <li>If relevant, close off all storm water drains with absorbent mats.</li> <li>Do not wash the spill with water as it will cause the spill to spread.</li> </ul>
Supervisor/ECO	Co-ordination	Secure the affected area with danger tape.
HSO	Co-ordination	The site shall not be disturbed and no article or substance may be removed (without the consent of the inspector) if there is or likely to be a death, or if there is a loss of limb or part of a limb. However action can be taken to prevent a further accident, to remove the injured or dead or rescue persons from danger.

Engineer/SECO/ HSO	Decision-making	<ul> <li>The Engineer will assess the situation in consultation with the SECO and HSO and act as required.</li> <li>The risk involved shall be assessed before anyone approaches the scene of the incident.</li> <li>The HSO will consult the MSDSs.</li> <li>The scale of the spill will dictate whether the spill will be cleaned up by using the on-site spill kit and in the prescribed manner, or by contacting a Spill Clean-Up Service Provider for assistance.</li> <li>The SECO will take photographs of the affected area.</li> <li>No person shall be allowed to approach a spill unless he/she is equipped with the personal protective clothing.</li> </ul>
SECO	Directions	If a Spill Clean-Up Service Provider is used, assist the emergency services by clearly marking the route to be taken to the spill site.

EMPr (NWP/EIA/42/2014)

REMOVAL	REMOVAL AND REMEDIATION MEASURES TO BE IMPLEMENTED					
Personnel	Responsibility	Action				
SECO	Co-ordination	Remove the contaminated soil to the depth of penetration using a spade or shovel.				
SECO	Co-ordination	Temporarily store the contaminant in the designated hazardous waste facility at the construction camp.				
SECO	Co-ordination	Contact a licensed hazardous waste service provider to collect and transport the waste to a licensed hazardous waste landfill site.				
SECO	Co-ordination	Rehabilitate the area cleared of hazardous waste by replacing the topsoil and planting indigenous plants.				
SECO	Monitoring	Immediately follow any known spillage of toxic substances with monitoring of the receiving environment, and public health if necessary.				
SECO	Monitoring	Take photographs of the affected area during rehabilitation.				

	INTERNAL & EXTERNAL COMMUNICATION PLAN				
Personnel	Responsibility	Action			
Employee	Reporting	The person responsible for, or who discovers, a hazardous waste spill must report the incident to their immediate Supervisor.			
Supervisor	Reporting	Report the incident to the SECO, HSO and Resident Engineer.			
HSO	Reporting	Report the incident to an Inspector (designated under section 28 of the Occupational Health & Safety Act, 1993) within the prescribed period and manner.			
SECO	Reporting	Report the incident to the Site Agent and/or Manager and the ECO.			
SECO	Reporting	If the spill is too big for the spill kit, contact a Spill Clean-Up Service Provider.			
SECO	Reporting	Report the incident to the following authorities.  1. DEA (Director General),  2. SA Police Services,  3. Fire Department,  4. DREAD (provincial Head of Department) or Rustenburg Local Municipality, and  5. Any persons whose health may be affected by the incident.			
SECO	Reporting	Provide the following information:  1. The nature of the incident,  2. Any risks posed by the incident to public health, safety & property,  3. The toxicity of substances or by-products released by the incident, and  4. Any steps that should be taken in order to avoid or minimise the effects of the incident on public health and the environment.			
ECO/Applicant/Site Agent/RE	Reporting	<ul> <li>If the nature of the impact constitutes a gross violation of the EA or any legislation:</li> <li>The ECO must report the incident to the applicant.</li> <li>The applicant must report the incident to the Rustenburg Local Municipality, Bojanala Platinum District Municipality, DREAD, DEA, and DWS.</li> <li>The Site Agent and/or Manager must report the incident to their Environmental Group Manager, Divisional MD and CEO.</li> <li>The Resident Engineer must report the incident to his Superiors.</li> </ul>			

	PRESCRIBED REPORTING PROCEDURE					
	Incident recording					
Personnel	Responsibility	Action				
SECO	Investigation	Conduct an investigation, including interviews, and record all details of the incident.  The cause must be investigated.				
SECO	Reporting	Complete an Environmental Incident Report and forward it to all key project personnel, with the exception of the Emergency Services.				
SECO	Reporting	Within 14 days of the incident, report the incident to the following authorities:  1. DEA (Director General),  2. DREAD (provincial Head of Department),  3. Rustenburg Local Municipality, and  4. Bojanala Platinum District Municipality.				
SECO	Reporting	Provide the following information:  1. The nature of the incident, 2. The substances involved and an estimation of the quantity released and their possible acute effect on persons & the environment & data needed to assess these effects, 3. Initial measures to minimise impacts, 4. Causes of the incident, whether direct or indirect including equipment, technology, system or management failure, and 5. Measures taken & to be taken to avoid a recurrence of such incident.				
		Progress reporting				
SECO	Revising Procedures	Identify methods for preventing the incident from re- occurring and revise method statements and/or procedures for implementing as early as possible.				
SECO	Training	Conduct either a toolbox talk or environmental awareness training/re-induction to the employee(s) responsible for the spill and include additional mitigations to avoid a re-occurrence.  • Keep the program, including a signed attendance register, in the on-site environmental file.				

	ACTIO	N TO BE TAKEN
Personnel	Responsibility	Action
Employee	Reporting	The person who starts or discovers a fire must report the incident to their immediate Supervisor.
Supervisor	Reporting	<ul> <li>Report the incident to the SECO, HSO and Resident Engineer.</li> <li>Note that the SECO will take over coordination of all relevant actions once he/she arrives on the scene.</li> </ul>
SECO	Reporting	If there is potential for a fire to spread and endanger life, property or the environment, alert the landowner and Fire Department.
Land Owner	Reporting	Alert the owners of adjacent land.
HSO	Reporting	Report the incident to an Inspector (designated under section 28 of the Occupational Health & Safety Act, 1993) within the prescribed period and manner.
Supervisor/SECO	Co-ordination	<ul> <li>Sound an alarm/whistle.</li> <li>The designated response team consisting of area specific personnel and including the environmental leader, will congregate at the fire-fighting equipment.</li> <li>All other employees who do not have specific duties to perform are to evacuate the affected area to a location designated by the Supervisor/SECO.</li> </ul>
SECO	Directions	Assist the Fire Department by clearly marking the route to be taken to the fire.
SECO	Co-ordination	Extinguish the fire or assist in doing so.
SECO	Co-ordination	Stop the spread of the fire.
SECO	Co-ordination	Provide assistance to a fire protection officer or forest officer in the event that they take control over the fighting of a fire.
HSO	Co-ordination	The site shall not be disturbed and no article or substance may be removed (without the consent of the inspector) if there is or likely to be a death, or if there is a loss of limb or part of a limb. However action can be taken to prevent a further accident, to remove the injured or dead or rescue persons from danger.

	REMEDIATION MEASURES TO BE IMPLEMENTED				
Personnel	Responsibility	Action			
SECO	Assessment	Immediately follow any fire with an assessment of the effects on the environment, public health, safety and property.			
SECO	Search	Search the scorched earth for reptiles and other creatures that can be rehabilitated and saved.  • Use only a licensed rehabilitation facility.			
SECO	Monitoring	<ul> <li>Monitor for signs of erosion after the first few rains and new flush.</li> <li>Manage erosion resulting from a loss in plant basal or aerial cover.</li> <li>Ensure that the control measures are not destructive.</li> </ul>			
SECO	Managing	No Vehicles or plant are permitted to drive through burnt areas.			

	INTERNAL & EXTERNAL COMMUNICATION PLAN				
Personnel	Responsibility	Action			
Employee	Reporting	The person who starts or discovers a fire must report the incident to their immediate Supervisor.			
Supervisor	Reporting	Report the incident to the SECO, HSO and Resident Engineer.  Note that the SECO will take control over all relevant actions once he/she arrives on the scene			
SECO	Reporting	Report the incident to the Site Agent and/or Manager and the ECO.			
SECO	Reporting	If there is potential for a fire to spread and endanger life, property or the environment, alert the landowner and Fire Department.			
Land Owner	Reporting	Alert the owners of adjacent land.			
HSO	Reporting	Report the incident to an Inspector (designated under section 28 of the Occupational Health & Safety Act, 1993) within the prescribed period and manner.			
SECO	Reporting	Report the incident to the following authorities: 1. DEA (Director General), 2. SA Police Services, 3. Fire Department, 4. DREAD (provincial Head of Department) or Rustenburg Local Municipality, and 5. Any persons whose health may be affected by the incident.			
SECO	Reporting	Provide the following information: 1. The nature of the incident, 2. Any risks posed by the incident to public health, safety & property, 3. The toxicity of substances or by-products released by the incident, and 4. Any steps that should be taken in order to avoid or minimise the effects of the incident on public health and the environment.			
ECO/Applicant/S ite Agent/RE	Reporting	<ul> <li>If the nature of the impact constitutes a gross violation of the EA or any legislation:</li> <li>The ECO must report the incident to the applicant.</li> <li>The applicant must report the incident to the Rustenburg Local Municipality, DREAD, DEA, and DWS.</li> <li>The Site Agent and/or Manager must report the incident to their Environmental Group Manager, Divisional MD and CEO.</li> <li>The Resident Engineer must report the incident to his Superiors.</li> </ul>			

	PRESCRIBED REPORTING PROCEDURE					
	Incident recording					
Personnel	Responsibility	Action				
SECO	Investigation	Conduct an investigation, including interviews, and record all details of the incident.  The cause must be investigated.				
SECO	Reporting	Complete an Environmental Incident Report and forward it to all key project personnel, with the exception of the Emergency Services.				
SECO	Reporting	Within 14 days of the incident, report the incident to the following authorities:  1. DEA (Director General),  2. DREAD (provincial Head of Department),  3. Rustenburg Local Municipality, and  4. Bojanala Platinum District Municipality.				
SECO	Reporting	Provide the following information: 1. The nature of the incident, 2. The substances involved and an estimation of the quantity released and their possible acute effect on persons & the environment & data needed to assess these effects, 3. Initial measures to minimise impacts, 4. Causes of the incident, whether direct or indirect including equipment, technology, system or management failure, and 5. Measures taken & to be taken to avoid a recurrence of such incident.				
	•	Progress reporting				
SECO	Revising Procedures	Identify methods for preventing the incident from re- occurring and revise method statements and/or procedures for implementing as early as possible.				
SECO	Training	Conduct either a toolbox talk or environmental awareness training/re-induction to the employee(s) responsible for the spill and include additional mitigations to avoid a re-occurrence.  • Keep the program, including a signed attendance register, in the on-site environmental file.				

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Part C3 Scope of Works Section C3.5 Management



# RUSTENBURG WATER SERVICES TRUST

# BID No RLM/RWST/OMM/0103/2024/25

# **GROUPED WATER SANITATION INFRASTRUCTURE UPGRADE PROJECTS.**

RE-ADVERT: UPGRADE AND EXTENSION OF BOSPOORT WATER TREATMENT **WORKS - MECHANICAL AND ELECTRICAL WORKS** 

# C3.5.5 CONTRACT SKILLS DEVELOPMENT GOALS

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
2_Vol1A_ME_June25_Part C	23.5-3.6				June 2025

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#### C.3.5.5.1 General

The Contractor shall, in the performance of the Contract, achieve the Contract Skills Development Goal (CSDG) as established in Government Gazette No. 48491 of 28 April 2023.

The applicable CSDG for this contract is 0.25%.

#### C3.5.5.2. **Procurement**

Based on the agreed skills methods the contractor may employ part/full Occupational Qualification Learners and /or Trade Qualification Learners and/or Work Integrated Learners and/or Candidates directly or through a Skills Development Agency (SDA), training provider or skills development facilitator (Form A1 - List of CIDB accredited SDAs). The contractor shall ensure that no more than one Method shall be applied to any individual concurrently in the calculation of the CSDG for the contract.

The contractor may only place 33% employees employed by him or that of his subcontractors contributing to the CSDG.

The contractor shall employ at least 60% of the learners from a Public FET / TVET college should the contractor select to have trade qualification learners (Method 2) contributing to the CSDG.

#### C3.5.5.3. Management

The contractor shall achieve the measurable CSDG by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the Skills Methods as agreed: Part/Full Occupational Qualification Learners (Method 1) and/or Trade Qualification Learners (Method 2) and/or Work Integrated Learners (Method 3) and/or Candidates (Method 4) as per the Standard in relation to work directly related to the contract or order as indicated under clause 4.2 and 4.3 in the Standard.

The contractor must ensure all beneficiaries of the Standard are registered with CIDB Skills **Development Agency (SDA)** 

#### The Format of Communications:

The contractor shall, within 30 days of award of the contract and in the specific format (Form A2 Baseline Training Plan), submit to the Employer's Agent a baseline training plan.

The contractor shall submit to the Employer's Agent:

- an interim contract compliance training report in the specific format (Form A3 Project Interim Report) at intervals which do not exceed 3 months; and
- a final contract compliance training report, in the specific format (Form A5 Project Completion Report). This report shall, respectively, be submitted within 15 days of; reaching completion, end of the service, the delivery date for all work required or practical completion (in the case of

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
02 Vol1A ME June25 Part	C3.5-3.6				June 2025

02 Vol1A ME June25 Part C3.5-3.6

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Part C3 Scope of Works Section C3.5 Management



professional service), service, design and construct contracts, and engineering and construction works contracts

#### The Key Personal:

For Structured Workplace Learning Opportunities for Learners (Method 1 and Method 2)

The Contractor shall:

- appoint a responsible supervisor to allocate learning tasks, to learners in line with their training
- appoint an artisan in the applicable trade with a minimum of 3 years to mentor learners associated with structured workplace learning.

For Structured Workplace Learning for Candidates (Method 3 and Method 4)

The contractor shall:

- a. appoint a supervisor who is actively engaged in work directly associated with the contract to issue tasks,
- b. appoint a suitable mentor as required by the professional body or statutory council.

#### **Management Meetings:**

The contractor shall report to the Employer's Agent on the implementation and progress of the CSDG.

# The Forms for contract administration:

The contractor shall submit to the Employer's Agent the following proformas:

- Form A2 Baseline Training Plan
- Form A3 Project Interim Report
- Form A5 Project Completion Report

#### Records:

The contractor shall:

- keep records for learners and candidates of the hours worked and registration with the cidb SDA, Sector Education Training Authorities SETA's (where required) and professional statutory councils (where required) particulars towards compliance with this Standard.
- ensure all the documentation required in terms of clause 4 in the Standard is provided in a timely manner and according to a prescribed format where applicable.
- upon termination of the opportunities provided to satisfy the CSDG, certify the quantum and nature of the opportunity and submit the certificate and counter-certified by the relevant individual, to the Employer's representative for record-keeping purposes.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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Part C3 Scope of Works Section C3.5 Management



#### **Payment Certificates:**

The contractor shall:

- achieve the measurable CSDG as agreed by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the Skills Methods as per the Standard in relation to work directly related to the contract or order as indicated under clause 4.2 and 4.3 in the Standard.
- submit payment certificates to the Employer's Representative at intervals determined in the Contract.

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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Witness 2 June 2025

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# **PRO-FORMA DOCUMENTS**

Annexure 1 - Form A1 List of Recognised Skills Development Agencies

Annexure 2 - Form A2 Baseline Training Plan

Annexure 3 - Form A3 Project Interim Report

Annexure 4 - Form A4 Supervisor Agreement

Annexure 5 - Form A5 Project Completion Report

Witness 1 Witness 2 Witness 1 Contractor Employer Witness 2 June 2025

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# Annexure 1 Form A1 List of Recognised Skills Development Agencies

CID	CIDB Recognised Skills Development Agencies							
No.	Name of SDA	SDA Registration Number	Status	Recognition date end	Province	Contact person	Contact number	Email address
C1	CIDB SDA	SDA/ZA/16/0001	Active	01/04/2025	National	Pranveer Harriparsadh	012 482 7230	pranveerh@cidb.org.za
C2						Thabelo Remaru	012 482 7249	thabelor@cidb.org.za
C3								
C4								

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
02_Vol1A_ME_June25_Part C	3.5-3.6				June 2025

C3.5.5-6

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# **Annexure 2 - Form A2 Baseline Training Plan**

# CIDB SKILLS STANDARD BASELINE TRAINING PLAN

Estimated start date  Estimated Completion date:  Size of Organisation   Small (1-49	Estimated start date  Estimated Completion date:  Size of Organisation   Small (1-49 employees)   Medium (50-149 (2150 employees)	Contractor Name:					
Estimated Completion date:  Size of Organisation   Small (1-49 employees)   Medium (50-149 employees)   Earge (2150 employees)	Estimated Completion date:    Size of Organisation	CRS Number:					
Contractor Contact Details   Contact Details	Size of Organisation   Small	Estimated start date					
Contractor Contact Details	Contractor Contact Details   Contractor Contact Details   Contract Details	Estimated Completion	date:				
Contractor Contact Details   Name of Contact Person	Contractor Contact Details  Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method  Number of Unemployed Learners  Method 1:  Skills Programme  Method 2:  Method 2:  O  Skills Programme  Method 2:  O  Duration of Number of Unemployed Learners  Placement  Notional Cost  Plastering  R57 000  Plastering  Plastering  R92 000  Plastering  Plastering  R92 000  Pland P2 learners or a 240 credit qualification  Method 4:  Candidacy with 360 credit qualification  Project Management  Project Management  Plastering  Project Management  Plastering  R184 500  R184 500	Size of Organisation	Small		Medium	Large	
Contractor Contact Details	Contractor Contact Details		(1-49		(50-149	(≥150	
Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method  Number of Unemployed Learners  Method 1: Skills Programme  Method 2: FET College Graduates/ Apprenticeship  Method 3: Apprenticeship  Method 3: Apprenticeship  Method 4: Candidacy with 360 credit qualification  Method 4: Candidacy with 360 credit qualification  Method 4: Candidacy with 360 credit qualification  Duration of Total Notion. Cost  Specialisation/Trade  Area/s of Specialisation/Trade  Placement  Notion. Cost  Notion. Cost  Placement  Notion. Cost  Notion. Cost  Placement  Notion. Cost  Notion. Cost  Placement  Notion. Cost  Placement  Notion. Cost  Placement  Notion. Cost  Notion. Cost  Notion. Cost  Placement  Notion. Cost  Notion. Notion. Cost  Notion. Cost  Notion. Cost  Notion. Notion. Cost	Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method Number of of Unemployed Learners  Method 1: 1 3 Scaffolding 3 months R57 000  Skills Programme  Method 2: 0 2 Bricklaying and Plastering  Method 3: Plastering  Method 4: 0 0 1 Project Management 9 months R184 500 oredit qualification  Method 4: Candidacy with 360 oredit qualification		employe	es)	employees)	employees	s)
Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method  Number of Unemployed Learners  Method 1: Skills Programme  Method 2: Holder College Graduates/ Apprenticeship  Method 3: Apprenticeship  Method 3: Apprenticeship  Method 4: Candidacy with 360 credit qualification  Method 4: Candidacy with 360 credit qualification  Duration of Total Notion Cost  Bricklaying and Palearners  Plastering  Plastering  Project Management  Project Management  Pannths  R184 5	Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method Number of of Unemployed Learners  Method 1: 1 3 Scaffolding 3 months R57 000  Skills Programme  Method 2: 0 2 Bricklaying and Plastering  Method 3: Plastering  Method 4: 0 0 1 Project Management 9 months R184 500 oredit qualification  Method 4: Candidacy with 360 oredit qualification						
Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method  Number of Unemployed Learners  Method 1: Skills Programme  Method 2: Holder College Graduates/ Apprenticeship  Method 3: Apprenticeship  Method 4: Candidacy with 360 credit qualification  Method 4: Candidacy with 360 credit qualification  Duration of Total Notion Cost  Placement Notion Cost  Project Management  Project Management  P months R184 5	Name of Contact Person  Designation of Contact Person  Contact Details  Cell Number:  Landline Number:  Email address:  Construction Skills Development Goal (CSDG) Baseline Training Plan  Training Method Number of of Unemployed Learners  Method 1: 1 3 Scaffolding 3 months R57 000  Skills Programme  Method 2: 0 2 Bricklaying and Plastering  Method 3: Plastering  Method 4: 0 0 1 Project Management 9 months R184 500 oredit qualification  Method 4: Candidacy with 360 oredit qualification						
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Training Method    Number of Of Unemployed Employed Learners	Training Method    Number of Of Unemployed Employed Learners			Email addres	SS		
Training Method    Number of Of Unemployed Employed Learners	Training Method    Number of Of Unemployed Employed Learners	Construction Skills	Dovalone	ont Gool (CSB)	C) Racolino Troining P	)lan —	
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Method 2: FET College Graduates/ Apprenticeship  Method 3: P1 and P2 learners or a 240 credit qualification  Method 4: Candidacy with 360 credit qualification  Method 5: P1 or project Management	Method 2: FET College Graduates/ Apprenticeship  Method 3: P1 and P2 learners or a 240 credit qualification  Method 4: Candidacy with 360 credit qualification  Method 5: P1 or project Management				Jeanneranny		
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Apprenticeship  Method 3: P1 and P2 learners or a 240 credit qualification  Method 4: Candidacy with 360 credit qualification  O  1 Project Management Project Manage	Apprenticeship  Method 3: P1 and P2 learners or a 240 credit qualification  Method 4: Candidacy with 360 credit qualification  O  The project Management project Mana	FET College			• •		
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P1 and P2 learners or a 240 credit qualification  Method 4: 0 1 Project Management 9 months R184 5 Candidacy with 360 credit qualification	P1 and P2 learners or a 240 credit qualification  Method 4: 0 1 Project Management 9 months R184 500 credit qualification	Apprenticeship					
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qualification     Project Management     9 months       Method 4:     0     1       Candidacy with 360 credit qualification     Project Management     9 months	qualification     9 months       Method 4:     0       Candidacy with 360 credit qualification     Project Management       9 months     R184 500       R184 500	P1 and P2 learners or					
Method 4: 0 1 Project Management 9 months R184 5 Candidacy with 360 credit qualification	Method 4: 0 1 Project Management 9 months R184 500 Candidacy with 360 credit qualification	a 240 credit					
Candidacy with 360 credit qualification	Candidacy with 360 credit qualification	qualification					
credit qualification	credit qualification	Method 4:	0	1	Project Management	9 months	R184 500
qualification	qualification	Candidaey with 260					
		Candidacy With 300	1				
Total 1 6 P333.5	Total 1 6 R333 500				1	ĺ	
1001   100   1000		credit					
		credit	1	6			R333 500

**Contractor Details** 

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June 2025

Note: Refer to Table 3 in the Standard for Developing Skills through Infrastructure Contracts Government Gazette 43495 of 3 July 2020 for the notional costs

Contractor's Representative Name:			Designation:		
Signature:			Date:		
Employer's Representative Name:			Designation:		
Signature:			Date:		
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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# **Annexure 3 - Form A3 Project interim report**

CIDD Faralassa Number				P	ROJI	ECT INTERIM	TRAINING RI	EPORT								
OIDD EI No					Se	ction A: Empl	oyer Informat	tion								
CIDB Employee Number:																
Employee Name:																
						Section B: 0	ontract Dale									
CIDB Contract Number:																
Contract Title:																
Tender Value (R):																
Contract Skills Development Goal (R):																
SIP Number (if applicable):																
SIP Project Code (if applicable):																
						D.C.	•••									
Training Methods:						Detin	itions									
Method 2: structured workplace learning o college qualifications.  Method 3: work integrated learning opport Method 4: structured workplace learning o	' nities for Uni	iversity of Technology or Comp	orehens ion in a	sive Ui profe	nivers	sity students o	· ompleting their	national diplomas.	•			·				
Gender Ethnic	Group		Metho	aining od (ple tick)							Sup		g docu luest (l			ilable o
									B				_			
Learner / Candidates full name and surname  Black  White	Indian	Identity Number	M1 M	12 M3	8 M4	Placement state Date	Placement end date	Occupation description	Description of Practical Task completed (as per logbook or POE)	Status	Learner Training Plan	Attendance Register	Signed Logbook / POE	Medical Assessments	Induction	Health and Safety Training PPE Register
Candidates full name and surname  Black Hemale  White	Indian					state Date		description	Practical Task completed (as per logbook or POE)	Status  Completed	Learner Training Plan	Attendance Register	Signed Logbool / POE	Medical Assessments	Induction	Safety Training PPE Register
Candidates full name and surname  Black Hemale  White	Indian	·		12 M3 ×		state Date	end date	description	Practical Task completed (as per logbook or POE)  Read and interpret drawings	Completed	Learner Training Plan	Attendance Register	Signed Logbool	Medical Assessments	Induction	Health and Safety Training PPE Register
Candidates full name and surname  Black Hemale  White	Indian	·				state Date	end date	description	Practical Task completed (as per logbook or POE)  Read and interpret drawings Set out building as per							Health and Safety Trai
Candidates full name and	Indian	·				state Date	end date	description	Practical Task completed (as per logbook or POE)  Read and interpret drawings	Completed	× Learner Training Plan	X Attendance Register	Signed Logbool	X Medical Assessments	X Induction	X Health and Safety Training X PPE Register
Candidates full name and surname  Black Hemale  White	Indian	·				state Date	end date	description	Practical Task completed (as per logbook or POE)  Read and interpret drawings Set out building as per drawing Transfer leaves using	Completed In progress						Health and Safety Trai
Candidates full name and surname  White	Indian	·				state Date	end date	description	Practical Task completed (as per logbook or POE)  Read and interpret drawings Set out building as per drawing Transfer leaves dumpy level	Completed In progress In progress						Health and Safety Trai

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# **Annexure 4 - Form A4 Supervisor Agreement**

# Supervisor/Learner Agreement

#### Memorandum of understanding between Supervisor and Learner

The Contractor is responsible for the effective management of the learning opportunities provided through the CIDB Standard for the Development of Skills through Infrastructure Contracts (CIDB Skills Standard). The attainment of successful learning outcomes and professional development of the learners is largely dependent on the relationship between the assigned Supervisor and the Learner. As a participant in the implementation of the CIDB Skills Standard you agree to the Supervisor relationship and commit to endeavour through the challenges of a construction project to give value to the training programme.

#### The Responsibilities of a Supervisor to the Learner include:

- stimulating a passion for construction,
- sharing technical and practical knowledge,
- fostering the development of technical and leadership skills,
- facilitating networking within the working community,
- instilling an expectation of personal growth and learning by the Learner,
- developing knowledge and understanding in the areas of health, safety, environment, quality and production,
- inculcating professionalism and a desire for continual improvement by the Learner,
- creating a nurturing relationship that instils a sense of discipline and professional pride,
- giving constructive feedback and
- signing the Learners logbook.

Supervisor's nam	e
Signature:	Date:
The Responsibi	lities of a Learner are:
<ul> <li>adhere to</li> </ul>	o the Host Employer's onsite rules and policies,

- have an expectation of personal growth and learning,
- to be enthusiastic and motivated,
- to be open and accept supervision from the Supervisor and other colleagues,
- to develop a thorough understanding of health, safety, environment, quality and production,
- to have a positive attitude,
- to display a strong sense of discipline and to be conscious of time management,
- to operate within the team,
- to take the time to learn and practice new skills,
- to make time to fill in your logbook and obtain the Supervisor's signature for completed tasks.

•								
Intern's Name:			ID No:					
Signature:					····			
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			
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# **Annexure 5 - Form A5 Project Completion Report**

Form A5: cidb PROJECT	ASSESSMENT SCHEME: STANDARD FOR DEVELOPING SKILLS PROJECT COMPLETION REPORT
	Section A: Contractor / JV Information
cidb Contractor Registration Number	
of main / lead contractor	
Name of contractor /Joint Venture	
Contact Person	
Designation	
e-mail	
Mobile	
Office Telephone	0
	Section B: Employer Information
cidb Employer Number	
Employer Name	
	Section C: Contract Data
cidb Contract Number	
Contract Title	
Date of Completion	
Tender Value R	.00
	Section E: Budgeted Training Costs
GB 0,50% x Tende	er Value = R
CE 0,25% x Tende	
CE & GB 0.375% x Tende	er Value = R
EB 0,25% x Tende	er Value = R
EP 0,25% x Tende	er Value = R
ME 0,25% x Tende	er Value = R
SW 0,25% x Tende	
S	ection F: Actual Training Costs Achieved
Actual training costs achieved R	.00
CSDG achieved	Yes No No