



Municipal Infrastructure Support Agent (MISA)

Cooperative Governance & Traditional Affairs (CoGTA)

REPUBLIC OF SOUTH AFRICA

TENDER NO. MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

PROCUREMENT DOCUMENT

(Based on NEC3 Engineering and Construction Contract –Option F: Management Contract)

JULY 2021

Issued by:

Chief Executive Officer Municipal Infrastructure Support Agent 1303 Heuwel Avenue Riverside Office Park, Letaba House Centurion, PRETORIA 0046 TEL: 012 848 5300

Name of Tenderer:

1



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT COOPERATIVE GOVERNANCE & TRADITIONAL AFFAIRS (COGTA)

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THE TENDER

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Tender Procedure: Open Tender Procedure

Based on

MISA Supply Chain Management Policy dated 29 March 2021

SANS 10845-1, Construction procurement Part 1: Processes, methods and procedures

SANS 10845-2, Construction procurement Part 2: Formatting and compilation of procurement documentation

SANS 10845-3, Construction procurement Part 3: Standard conditions of tender

Preferential Procurement Regulations 2017

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T1 Tendering Procedure

T1.1 TENDERING NOTICE AND INVITATION TO TENDER

Municipal Infrastructure Support Agent (MISA) hereby, invites proposals from suitably qualified Contractors the for the provision of water supply to Waterval - Section B Mahonisi and Elim Mpheni in Makhado Local Municipality, Vhembe District, Limpopo Province.

Tenderers should have a CIDB contractor grading of **3CE** or higher.

Contracts will be based on the NEC3 Engineering and Construction Contract (**Option F**: Priced Contract with Bill of Quantities).

The project details are hereunder,

TENDER NO.	PROJECT NAME	COMPULSORY BRIEFING SESSION AND SITE VISIT: PLACE, DATE & TIME	TENDER CLOSING DATE & TIME
MISA/MLM/L/014/2021/22	APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE	Makhado Local	05 October 2021
	SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING	Municipality Civic Centre, Cnr	11:00 am
	1NO. BOREHOLE, REI ORBINING EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE	Civic Centre, Cnr Krough & Erasmus Streets, Makhado Compulsory Site Visit on 20 September 2021 at 10:00am	All Bid Proposals to be submitted to: 1303 Heuwel Avenue, Riverside Office Park, Letaba House, Centurion,
			PRETORIA 0046 TEL: 012 484 5300

<u>Compulsory</u> briefing session and site visit will take place at the place and on the date and time shown above unless otherwise amended later. Representative(s) from MISA will meet prospective Tenderers to provide details of the Contract.

The requirement of submissions is detailed in the Tender Data (Ref: T1.2 Tender Data). The tenderers who satisfy the eligibility criteria as set in the tender documents (Ref: T1.2 Tender Data) are to submit their tenders.

Telegraphic, telephonic, telex, facsimile, e-mail and late tenders will not be accepted. Tenderers must submit their tenders using only the tender documentation issued.

Tenders will be evaluated based on preferential procurement framework Act 5 of 2000 and on functionality as prescribed in the Preferential Procurement Regulation 2017.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Issued by:

Municipal Infrastructure Support Agent

1303 Heuwel Avenue

Riverside Office Park, Letaba House

Centurion, PRETORIA 0046

TEL: 012 484 5300



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T1.2 TENDER DATA

The conditions of tender are as contained in the latest edition of SANS 10845-3, *Standard conditions of tender*.

SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3.

Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause number	Tender Data	
3.1	The employer is the Municipal Infrastructure Support Agent (MISA) , an entity within the South African Ministry for Cooperative Governance and Traditional Affairs (CoGTA), established in terms of Presidential Proclamation No. 29 of 2012.	
3.3	The Tender documents issued by the employer comprise the documents listed on the contents page.	
3.4	The Employer's Representative is: Name: Mr. Ntandazo Vimba Physical Address : 1303 Heuwel Avenue, Riverside Office Park,	

Clause number	Tender Data		
	Letaba House, Centurion, Pretoria 0046		
	Private Bag X 105, Centurion 0046		
	Telephone: 012 848 5300		
	Email: <u>lumka.tyikwe@misa.gov.za</u>		
3.5	The language of communications is English		
4.1	ONLY those tenderers who satisfy the following ELIGIBILITY CRITERIA and who provide the required evidence in their tender submission, are eligible to submit tenders and have their tenders evaluated:		
	 The tenderer: 1. In case of a Joint Venture/Consortium submission, shall submit a Joint Venture agreement signed by all parties. 		
	2. Is registered in terms of the Companies Act, 2008 (Act 71 of 2008) or Close Corporation Act, 1984, (Act No. 69 of 1984) or, if a partnership, has a partnership agreement (buy and sell agreement for participating partners in this tender) in place that enables the partnership to automatically continue to function in the event of death or withdrawal of one of the partners.		
	3. In case of having a subsidiary arrangement, shall submit an audited proof (letter or shareholding certificate) of agreement between the holding company and the subsidiary.		
	 Tenderers may only tender under 1 (one) company or 1 (one) consortium – tendering with more than 1 company or consortium will result in immediate disqualification. MISA will recognise the JV/Consortium as single entity for the duration of the contract. 		
	5. The tenderer has a minimum of CIDB grading 3CE or higher (tenderers must submit valid CIDB certificate).		
	6. Attended the compulsory briefing session and signed the attendance register.		
	 None of the documents with correction fluid on them. Any wrong entry, in case of correction, it must be cancelled by a single stroke and initialled by the Authorised signatory. 		
	8. The tender documents issued by MISA are not tampered and remain intact.		

Clause number	Tender Data	
4.7	The arrangements for a compulsory clarification meeting and a site visit are as stated in the Tender Notice and Invitation to Tender (ref: T1.1).	
	No Tender will be considered unless the Tenderer attends the compulsory briefing session and site visit.	
	Tenderers/their authorised representatives must sign the attendance register and detailed contacts in favour of the tendering entity therein. Addenda, if any, will be issued to the tenders only who attended the compulsory briefing sessions.	
4.12	No alternative tender offer will be considered.	
4.13	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:	
	Location of tender box: Reception area of MISA Offices	
4.15	Municipal Infrastructure Support Agent's Office	
	Physical Address:1303 Heuwel Avenue, Riverside Office Park, Letaba House, 1st Floor, Centurion, Pretoria 0046 Private Bag X 105, Centurion 0046	
	Telephone: 012 848 5300	
	Identification details on the Tender package(s):	
	1. Name and Reference number of the tender;	
	2. Address of the employer;	
	 Names of the tendering entity and the contact person; Physical address and contacting details of the tenderer; 	
	 5. Date of submission 	
4.13.4	The tenderer is required to meet the following conditions in addition to the requirement for eligibility criteria as mentioned in Clause 4.1.	
	1. All declaration pages fully completed, signed and submitted.	
	The tender documents completed in all respect, signed off by the authorised person of the tenderer wherever spaces are provided in permanent ink.	
	3. The tenderer must sub-contract a minimum of 25% of the value of the contract to local sub-contractors that have an equal or higher B_BBEE status level of	

Clause number	Tender Data	
	contributor than the tenderer, unless the contract is subcontracted to an EME that has the capacity and ability to execute the subcontract.	
	The tender document issued by MISA is not tampered with and content in the tender	
	document remains intact.	
4.13.5	Tender offer shall be submitted as original, one copy of the original and one scanned copy of the original completed and signed tender documents in a memory stick.	
4.13.6	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.	
4.15	The closing time for submission of tender is as stated in the Tender Notice and invitation to Tender (ref: T1.1)	
4.16	The tender offer validity period is 90 days, exclusive of closing date but inclusive of the 90 th day.	
5.1	The employer will respond to requests for clarification received up to 7 working days before the tender closing time.	
5.2	The employer shall issue addenda until 3 working days before tender closing time.	
5.4	The time and location for opening of the Tender offers are as detailed in the Tender notice and invitation to tender (ref: T1.1) or in any addendum thereafter if applicable.	
5.11.5	The procedure for the evaluation of responsive tenders is Method 4 (Financial offer, Quality and Preference)	
	The total number of tender evaluation points (TEV) shall be determined in accordance with the following formula.	
	TEV = f1 (NFO + NP) + f 2NQ	
	Where f1 and f2 are fractions; f1 equals to 1 minus f2; and f2 equals to 0.4	
	NFO is the number of tender evaluation points awarded for the financial offer made	
	in accordance with 5.11.7 in SANS 10845-3, 2015 where the score for financial offer	
	is calculated using the following formula	

Clause number	Tender Data	
	NFO = W1A	
	Where maximum poin	t for price W1 = 80; (ref: preferential regulations 2017)
), [where P is the comparative price of the Tender under is the comparative price of the lowest qualified Tender]
	NP is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferential Procurement Regulations 2017 (ref: Preferencing Schedule), which is up to maximum 20 points that will be awarded to tenderers who complete the preferencing schedule and who will be found to be eligible for the preference claimed.	
	NQ is the number of tender evaluation points awarded for quality offered in accordance with clause 5.11.9 in SANS 10845-3, 2015 where maximum points for qualification is 100	
	1. Price and Pref	ference
	The total number of evaluation points (T_{EV}) shall be determined in accordance with the following formula.	
	T _{EV} = Ps + N _P	
	Ps is the number of tender evaluation points awarded for the financial offer, where th score for financial offer is calculated using the following formula.	
	Ps = 80 {1 - (Pt - F	P _m)/ P _m },
	Where	
	Ps = Points scored for price of tender under consideration	
	P _t = Price of tender under consideration; and	
	P _{min} = Price of lowest acceptable tender	
	$\mathbf{N}_{\mathbf{P}}$ is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferential Procurement Regulations 2017, which is up to maximum of 20 points.	

Clause number	Tender Data		
	The table below must be used to calculate the score out of 20 for B-BBEE.		
	B-BBEE Status Level of Contribution Number of Points		
	1		20
	2		18
	3		14
	4		12
	5		8
	6		6
	7		4
	8		2
	Non-Compliant Contributor 0		
5.11.9	Independent Regulatory Board of Auditors (IRBA) or a Verification Agency accredited by South African National Accreditation System (SANAS) or an Accounting Officer as contemplated in the Close Corporations Act (CCA) have to be submitted along with the Proposal, if the Tenderer claims the preferential procurement points. A Tender scoring below <u>70 points</u> in Quality shall be considered as DISQUALIFIED for further evaluation and shall be discarded from evaluation.		
	Quality criteria	Evaluation schedule	Maximum number of points
	Experience of the tenderer	Schedule 1	20
	Experience of Key Personnel	Schedule 2	55
	Plant and Equipment	Schedule 3	10
	Approach Paper Schedule 4 15		
	Maximum possible score for quality (M _s) 100		100

Clause number	Tender Data
5.13	 Tender offers will only be accepted if: 1. the tenderer or any of its directors/ shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; 2. the tenderer has not: a. abused the Employer's Supply Chain Management System; or b. failed to perform on any previous contract and has been given a written notice to this effect; 3. the tenderer has completed the compulsory declarations and there are no conflicts of interest, which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.
5.14	The number of paper copies of the signed contract to be provided by the employer is one to the successful Tenderer.



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T2 Returnable Documents

T2.1 LIST OF RETURNABLE DOCUMENTS

A Returnable Schedules required for tender evaluation purposes

The tenderer must complete the following returnable schedules as relevant:

- 1. Record of Addenda to Tender Documents
- 2. Proposed Amendments and Qualifications
- 3. Compulsory Declaration
- 4. Declaration on Consultancy, Goods and Other Services or a Combination Thereof Offered to an Organ of State and / or Municipality
- 5. Preferencing Schedule: Broad Based Black Economic Empowerment Status
- 6. Schedule 1: Experience of the tenderer
- 7. Schedule 2: Experience of key person
- 8. Schedule 3: Plant and Equipment
- 9. Schedule 4: Approach paper

B Other documents required for tender evaluation purposes

The tenderer must provide the following returnable documents:

 Verification certificate from a verification agency accredited by SANAS and recognized as an Accredited B-BBEE Verification Agencies (see www.sanas.co.za/directory/bbee_default.php), a registered auditor approved by IRBA, or a sworn affidavit in the case of a qualifying small enterprise or exempted micro enterprise, if preference points are claimed in respect of Broad-Based Black Economic Empowerment.

C C1.1 Form of Offer and Acceptance

D C1.2 Contract Data (Part 2)

The Tenderer's attention is drawn to Part 2 of the Contract Data which requires the Tenderer to tender a number of financial parameters which are applied to defined Cost in order to calculate the Prices for the Work Done to Date and the Prices.

Failure to tender the required financial parameters in the required manner in Part 2 of the Contract Data or to sign the form of offer and acceptance will result the tender being declared non-responsive.

T2.2 Returnable schedules

1. Record of Addenda to Tender Documents

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10		

Attach additional pages if more space is required.

Signed	Date	
Name	Position	
Tenderer		

2. **Proposed amendments and qualifications**

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed	Date	
Name	Position	
Tenderer		

3. Compulsory declaration

The following particulars must be furnished. In the case of a joint venture, separate declaration in respect of each				
partner must be completed and submitted.				
Section 1: Enterprise Details				
Name of enterprise:				
Contact person:				
Email:				
Telephone:				
Cell no				
Fax:				
Physical address				
Postal address				
Postal address				
Section 2: Particulars of c	omnanies and	close corporations		
Company / Close Corpor	ation registrat	ion number		
Section 3: SARS Informati	on			
Tax reference number				
VAT registration number	:		State Not Registered if not registered for VAT	
Section 4: CIDB registration number				
CIDB Registration number (if applicable)				
Section 5: National Treasu	iry Central Sup	oplier Database		
Supplier number				
Unique registration reference number				
Section 6: Particulars of pr	incipals			
principal: means a natural pers	on who is a partn	er in a partnership, a sole propriet	tor, a director of a company established in terms of	
	No. 71 of 2008)	or a member of a close corporatio	n registered in terms of the Close Corporation Act,	
1984, (Act No. 69 of 1984).				
	I			
Full name of principal	Ident	ity number	Personal tax reference number	

Attach separate page if necessary	1	

Section 7: Record of family member in the service of the state

Indicate by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

- a member of any municipal council □ an employee of any department, national or provincial a member of any provincial legislature public entity or constitutional institution within the a member of the National Assembly or meaning of the Public Finance Management Act of the National Council of Province 1999 (Act No. 1 of 1999) □ a member of the board of directors of any municipal entity
- □ an official of any municipality or municipal entity
- a member of an accounting authority of any national
- or provincial public entity an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of principal	Name of institution, public office, board	Status of se	rvice
	or organ of state and position held	(√ (tick) column)	appropriate
		Current	Within last 12 months

insert separate page if necessary

Section 8: Record of termination of previous contracts with an organ of state

Was any contract between the tendering entities including any of its joint venture partners terminated during the past 5 years for reasons other than the employer no longer requiring such works or the employer failing to make payment in terms of the contract.

□ Yes □ No (Tick appropriate box)

If yes, provide particulars (interest separate page if necessary)

Section 9: Declaration

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the tendering entity confirms that the contents of this Declaration are within my personal knowledge, and save where stated otherwise in an attachment hereto, are to the best of my belief both true and correct, and:

i) neither the name of the tendering entity or any of its principals appears on:

- a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004)
- b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za)
- ii) neither the tendering entity of any of its principals has within the last five years been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa);
- iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
- iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers
- v) has not engaged in any prohibited restrictive horizontal practices including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of contract etc.) or intention to not win a tender;
- vi) has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- vii) neither the tenderer or any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity and are not in arrears for more than 3 months;

viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into in excess of the threshold prescribed by the National Treasury, for SARS to do likewise.

Signed	Date	
Name	 Position	
Enterprise name		

NOTE 1 The Standard Conditions of Tender contained in SANS 10845-3 prohibits anticompetitive practices (clause 3.1) and requires that tenderers avoid conflicts of interest, only submit a tender offer if the tenderer or any of his principals is not under any restriction to do business with employer (4.1.1) and submit only one tender either as a single tendering entity or as a member in a joint venture (clause 4.13.1). Clause 5.7 also empowers the Employer to disqualify any tenderer who engages in fraudulent and corrupt practice. Clause 3.1 also requires tenderers to comply with all legal obligations.

NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is employed in posts on the establishment of departments) from performing or engaging remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department. When in operation, Section 8(2) of the Public Administration Management Act, 2014, will prohibit an employee of the public administration (i.e. organs of state and all national departments, national government components listed in Part A of Schedule 3 to the Public Service Act, provincial departments including the office of the premier listed in Schedule 1 of the Public Service Act and provincial departments listed in schedule 2 of the Public Service Act, and provincial government components listed in Part B of schedule 3 of the Public Service Act) or persons contracted to executive authorities in accordance with the provisions of section 12A of the Public Service Act of 1994 or persons performing similar functions in organs of state from conducting business with the State or to be a director of a public or private company conducting business with the State. The offence for doing 5 years or both. It is also a serious misconduct, which may result in the termination of employment by the employer.

NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that organs of state and municipal entities not award a contract to a person who is the service of the state, a director, manager or principal shareholder in the service of the state or who has been in the service of the state in the previous twelve months.

NOTE: 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the annual statements particulars of any award made to a close family member in the service of the state.

NOTE: 5 Corrupt activities which give rise to an offence in terms of the Prevention and Combating of Corrupt Activities Act of 2004) include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other moneys stipulated or otherwise provided for in any contract and the manipulating by any means of the award of a tender.

NOTE: 6 Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice including agreements between parties in a horizontal relationship which have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constitute collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.



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4. Declaration on consultancy, goods and other services or a combination thereof offered to an organ of state and/ or municipality

The following particulars must be furnished in relation to tenders for organs of state and municipal entities where:

- a) consultancy services are required; and
- b) goods, services or a combination thereof where the estimated total of the prices exceeds R 10 million including VAT.

In the case of a joint venture, separate municipal declarations and returnable documents

shall be submitted in respect of each partner.

Section 1: Enterprise Details

Name of	
enterprise:	
Contact person:	
Email:	
Telephone:	
Cell no	
Fax:	
Physical address	
Postal address	

Section 2: Declaration for services:

The enterprise has been awarded the following services by an organ of state during the last five years.

1	Name of organ of state	Estimated number of contracts	Nature of service, e.g., quantity surveying	Service similar to required service (yes / no) last 5 years

Attach separate page as necessary		

Section 3 Goods, services or a combination thereof where the estimated total of the prices exceeds R 10 million including VAT

I / we certify that

- 1) (tick one of the boxes):
 - the enterprise is not required by law to prepare annual financial statements for auditing
 - the enterprise is required by law to have audited annual financial statements and attached the audited financial statements for the past three financial years, or since the establishment as the enterprise was established within the past three years
- 2) the enterprise and its directors has / have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days (*i.e.: all municipal accounts are paid up to date*);

3) source of goods and / or services :

(tick one of the boxes and insert percentages if applicable):

- goods and / or services are sourced only from within the Republic of South Africa
- More with a sourced from with a source of the source of

I furthermore confirm that the following contracts were awarded to the enterprise by an organ of state during the last five years and attached particulars of any material non-compliance or dispute concerning the execution of such contracts:

Name of organ of state	Estimated number of contracts	Nature of contracts

Attach separate page as necessary	

I, the undersigned who warrants that I am duly authorised on behalf of the tendering entity, hereby declare that the contents of this Declaration are within my personal knowledge, and save where stated otherwise are to the best of my belief both true and correct

Signed		
	Date	
Name	Position	
Enterprise name		

5 Preferencing schedule: Broad Based Black Economic Empowerment Status

Preamble

Section 10(b) of the Broad-Based Black Economic Empowerment Act of 2003 (Act No. 53 of 2003) states that "*Every organ of state and public entity must take into account and. as far as is reasonably possible. apply any relevant code of good practice issued in terms of this Act in developing and implementing a preferential procurement policy:*"

A number of codes of good practice have been issued in terms of Section 9(1) of the B-BBEE Act of 2003 including a generic code of good practice and various sector codes. The sector codes vary the metrics, weightings and targets used in the generic code of good practice to establish the overall performance of an entity and its B-BBBEE status. The B-BBEE status needs to be assessed in accordance with the applicable code.

1 Conditions associated with the granting of preferences

Tenderers who claim a preference shall provide sufficient evidence of their B-BBEE Status in accordance with the requirements of section 2 in respect of the applicable code as at the closing time for submissions, failing which their claims for preferences will be rejected.

2 Sufficient evidence of qualification

2.1 Exempted micro enterprises

Sufficient evidence of qualification as an Exempted Micro-Enterprise is a :

- a) a registered auditor's certificate or similar certificate issued by an accounting officer as contemplated in the Close Corporation Act of 1984 in respect of the entity's last financial year or a 12 month period which overlaps with its current financial year; or a certificate issued by a verification agency and which is valid as at the closing date for submissions; or.
- b) a sworn affidavit B-BBEE Exempted Micro Enterprise (see <u>www.thedti.gov.za/gazzettes/Affidavit_EME.pdf</u>

2.2 Enterprises other than micro exempted enterprises

Sufficient evidence of B-BBEE Status is:

- a) an original or certified copy of the certificate issued by a verification agency accredited by the South African National Accreditation System (SANAS) or registered auditors approved by Independent Regulatory Board for Auditors (IRBA) and which is valid as at the closing date for submissions; or.
- b) a sworn affidavit B-BBEE Qualifying Small Enterprise (see <u>www.thedti.gov.za/gazzettes/BBEE_QUALIFYING_SMALL_ENTERPRISE.pdf</u>)

3 Tender preferences claimed

The scoring shall be as follows:

B-BBEE Status Level of Contribution	Number of Points
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-complaint contributor	0

4 Declaration

The tenderer declares that

- a) the tendering entity is a level contributor as stated in the submitted evidence of qualification as at the closing date for submissions
- b) the tendering entity has been measured in terms of the following code (*tick applicable box*)
- □ Generic code of good practice
- □ Other specify
- c) the contents of the declarations made in terms of a) and b) above are within my personal knowledge and are to the best of my belief both true and correct

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the tenderer confirms that he / she understands the conditions under which such preferences are granted and confirms that the tenderer satisfies the conditions pertaining to the granting of tender preferences.

Signature :

Duly authorised to sign on behalf of :
Telephone :
Fax: Date :
 Name of witness

6. Schedule 1: Experience of the tenderer (20 points)

The experience of the tenderer as a company (as opposed to key staff members) in the construction or installation of new municipal water infrastructure which includes reservoirs, pump stations and water treatment plants as a main contractor for municipalities and other organs of state over the last **10 years**.

The information shall be within the previous **10 years** and must only include completed projects prior to closing date for submissions.

Tenderers should briefly describe his or her experience in this regard, emphasising the nature of the works and complexity and attach this to this schedule.

Note: Signed completion letters with contactable references on the client's letterhead should be included for each project for ease of reference. Only projects with completion letters will be evaluated.

Description of contracts relating to the construction or installation of new municipal water infrastructure which includes reservoirs, pump stations and water treatment plants, location and nature of the works

The scoring of the tenderer's experience will be as follows:

Letter of completion or reference letter for completed project: The construction or installation of new municipal water infrastructure which includes reservoirs, pump stations and water treatment plants. This experience must only relate to instance where the tenderer acted as the main contractor. One letter on client's letterhead per project completed.

10 points

a)	Less than 3 projects	=	0 points
b)	3 projects	=	5 points
c)	4 projects	=	7 points

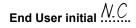
d) 5 or more projects = 10 points

2. Highest value (Total Project Value) of a completed single project of the type of projects mentioned in item 1

				10 points
a)	Below R3 Million	=	0 points	
b)	R 3 Million to below R 5 Million	=	5 Points	
c)	R 5 Million to below R 10 Million	=	7 Points	
d)	R 10 Million and above	=	10 points	
Tot	tal			20 points

MISA reserves the right to verify all information presented by the tenderer.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.



Signed	Date	
Name	 Position	
Enterprise name		

7. Schedule 2: Experience of key personnel (55 Points)

Total Points for key personnel = Contracts Manager = 15, Civil Engineer = 15, Geohydrologist = 10, Site Agent = 5, Foreman = 5, H&S Officer = 5, Total = 55

The experience of the key person who will be responsible for the management of the physical construction processes and the coordination, administration and management of resources on the Site will be evaluated in relation to the scope of work from two different points of view:

1) General experience (total duration of work activity), level of education and training and positions held.

2) The education, training, skills and experience and knowledge of issues which are pertinent to the scope of work.

The CV of individuals will be used for evaluation of the each of the personnel for this section.

The scoring of the experience of key person (contracts manager) staff will be as follows:

Key Personnel	=	(55 Total Points)
1. Contracts Manager	=	(15 points)
 1.1. Experience a) Below 5 years b) 5 to below 7 years c) 7 to below 10 years d) 10 years and above 1.2. Qualifications a) Degree or B Tech in Civil Eng/Construction Management b) Honours Degree or above in Civil Eng/Construction Management 	= = = = = =	3 points
2. Civil Engineer	=	(15 points)
 2.2. Experience a) Below 5 years b) 5 to below 7 years c) 7 to below 10 years d) 10 years and above 2.3. Qualifications a) Degree or B Tech in Civil Eng/Construction Management b) Honours Degree or above in Civil Eng/Construction Management 	= = = = =	
 3. Geo-Hydrologist 3.1. Experience a) Below 5 years b) 5 to below 7 years c) 7 to below 10 years d) 10 years and above 	= = = = =	(10 points) 5 points 0 points 3 points 4 points 5 points
 3.2. Qualifications a) Bachelor's degree in Hydrogeology, Geohydrology, Hydrology, Geology, Geophysics, or Geography b) Honours degree in Hydrogeology, Geohydrology, Hydrology, Geology, Geophysics, or Geography 	= =	5 points 4 points 5 points

Key Personnel	=	(55 Total Points)
 4. Site Agent 4.1. Experience a) Below 5 years b) 5 to below 7 years c) 7 to below 10 years 	= = = =	(5 points) 2 points 0 points 1 point 2 points
 4.2. Qualification a) Diploma in Civil Engineering b) Degree or B Tech in Civil Engineering 	= = =	3 points 2 points 3 points
5. Foreman/Supervisor	=	(5 points)
 5.1. Experience a) Below 5 years b) 5 to below 7 years c) 7 to below 10 years 5.2. Qualification a) N6 certificate in civil engineering b) Diploma in Civil Engineering 	= = = = =	2 points 0 points 1 point 2 points 3 points 3 points
6. Health and Safety Officer	=	(5 points)
 6.1. Experience a) 5 to below 7 years b) 7 to below 10 years c) 10 years and above 	= = = =	2 points 0 points 1 point 2 points
 6.2. Qualification a) SAMTRAC or Equivalent b) Diploma/degree in Health and Safety 	= = =	3 points 2 points 3 points

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed		Date	
		D '''	
Name		Position	
Enterprise name			

8. Schedule 3: Plant and Equipment (10 points)

Points will be allocated as indicated below for plant and equipment **<u>owned and / or hired</u>** by the Tenderer, and which will be available for the project, should the Tenderer be successful. Tenderers must complete the table below for availability of plant and equipment.

Type of Equipment	Own	Hire	Total Points
TLB – 1 required (2 points)			
Excavator 20 tons min – 1 required (2 points)			
Tipper (10m³ minimum) – 2 required (2 points)			
Bomag type pedestrian roller – 1 required (2 points)			
Pickup Trucks – 2 required (2 points)			
Total scored			

Points for plant and equipment will only be allocated if;

- 1. In case where plant is owned by the Tenderer, Proof of ownership must be in the form of a license disc or certificate of ownership as per e-natis requirements in the name of the company or directors must be attached.
- 2. In case where the plant is to be hired the Tenderer, a letter from a Plant Hire Company addressed to the tenderer with reference to this project clearly indicating the list of plant to be hired must be attached.
- 3. In case where the Tenderer own part of the required plant and part will be hired, the tenderer must attach proof of ownership as per 1 above and plant hire letter as per 2 above accordingly.

Note: No other proof of ownership will be considered

9. Schedule 4: Approach Paper (15 points)

The approach paper must respond to the scope of work (reference: C3 Scope of work), the nature of the contract, the main option that has been selected for the contract and outline the proposed approach / methodology including that relating to the controlling programming and management of sub-consultants in relation to the works that may be provided over the term of the contract. The approach paper should not be longer than **5 pages**. The approach paper as such needs to:

Table of Contents:	sting of contents of the approach paper with page numbers and/ references to annexures any);		
Executive Summary:	brief summary of the whole contents of the approach paper;		
Approach:	Detailed approach that the tenderer feels best to deliver the intended services for the Project with identification of tasks, for each of the activities/ deliverables as have been foreseen in 'Part C3. Scope of work', detailing at least the following:		
	1. Understating of Project Scope		
	 Methodology to be adopted; including generic Project implementation schedule for the services as given in scope of work (Activity, task and sub-task wise to achieve the deliverables); Organogram for the proposed project team and their responsibilities; 		
	3. Identified project implementation Risks and Risk Management proposal;		
	4. Quality control mechanism to be adopted for project deliverables;		

5. Construction methods

The scoring of the approach paper will be as follows:

Evaluating Point	Assessment Criteria	Maximum allocated point(s)
Understating of the Project Scope and methodology	Demonstration of clear understanding of Project objectives (1), scope and deliverables with timeframes (1). Adequacy and appropriateness will be assessed (1). informative appropriateness of proposed approach/implementation (1) and presentation and organogram of team (1) including outline approach to be used when working with for sub-consultants (1)	6 points
Project implementation Risks and Risk Management	Adequacy of understanding of project risks (2) and appropriateness of proposed mitigation measures (1)	3 points
Quality Control and Quality Assurance mechanism to be adopted	Appropriateness and adequacy of tools (1) and processes (2) to ensure quality control and assurance in all phases of the project as part of the quality plan.	3 points
Construction method	Detailed explanation of step-by-step construction stages indicating the sequencing and how the works are carried out (2). These should include methods used to ensure correct occupational health and safety environment acceptable practices (1).	3 points

The undersigned, who warrants that s/he is duly authorised to do so on behalf of the enterprise, confirms that the content of the reference his/her letter(s) presented by the tenderer are within his/her personal knowledge and are to the best of knowledge both true and correct.

Signed	Date	
Name	 Position	
Enterprise name		



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT

Cooperative Governance & Traditional Affairs

Reference no.: MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

The Contract

<u>Based on</u>

Based on NEC3 Engineering and Construction Contract -

Option F: Priced Contract with Bill of Quantities)



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT

Cooperative Governance & Traditional Affairs

Reference no.: MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

C1 Agreements and Contract Data

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 provision of services as described in Part 1 of the Contract Data.

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 authorised, 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 OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT AND EXPENSES, calculated in

accordance with the conditions of contract as detailed hereunder:

Total Amount: R(in figure), (Rand

_____) (in word)

This Offer may be accepted by the *Employer* by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the conditions of contract identified in the Contract Data.

Signature		Date:	
Name			
name			
Concoity			
Capacity			
	3	38	
Tender Referen	ce: MISA/MLM/L/014/2021/22		End User initial

For the

tenderer:

		(Insert name and address of	
Name	&	organisation)	
signature	;	Di	ate
of witnes	S		

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 Consultant 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 Form of Offer and Acceptance)

Part C2 Pricing Data

Part C3 Scope of Work

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable 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 Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of 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 securities, 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 fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

End User initial M.C.

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.

Date:

Signature	
Name(s)	Mr Ntandazo Vimba
Capacity	Chief Executive Officer

For the Municipal Infrastructure Support Agent

Employer

Schedule of Deviations

1 Subject	
Details	
Details	
2 Outlinet	
-	
Details	
4 Subject	
-	······
Dotailo	
5 Subiect	
, Details	
	42

Tender Reference: MISA/MLM/L/014/2021/22

End User initial .M.C.

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 returnable 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.



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT COOPERATIVE GOVERNANCE & TRADITIONAL AFFAIRS (COGTA)

TENDER NO. MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

C1.2 CONTRACT DATA

The *Conditions of Contract* are the core clauses and the clauses for main Option, dispute resolution option W1 and Secondary options X7, X13, X16, Z Of the NEC3 Engineering and Construction Contract (April 2013 edition) published by the Institution of Civil Engineers (ICE), copies of which may be obtained from Engineering Contract Strategies (+27) 011 803 3008

Each item of data given below is cross-referenced to the clause in the NEC3 Engineering and Construction Contract to which it mainly applies.

C1.2.1 PART ONE - DATA PROVIDED BY THE *EMPLOYER*

Clause			Data
1	General		
10.1		The Employer is	Municipal Infrastructure Services Agent
		Physical Address:	Letaba House, Riverside Office Park
			1303 Heuwel Avenue, Centurion, Pretoria 0046
		Postal Address:	Private Bag X105, Centurion 0046
		Telephone:	012 848 5300
10.1		The Project Manager is: Ms Mushaisano Ramusetheli	
		As stated in the Cont	ract Quality Criteria

Clause	Data	
10.1	The Supervisor is : (the contracts manager)	
	As stated in the Contract Quality Criteria	
11.2 (1)	The Accepted Programme is the programme identified in the Contract Data or the latest accepted by the Project Manager. The latest accepted programme supersedes previously accepted programmes.	
11.2 (13)	The <i>works</i> are the Siting, Drilling, 1 No. Borehole, Refurbishing 1no. Borehole, Testing, Equipping and Energizing Of Boreholes, Rising Main And Elevated Storage Tanks At Waterval - Section B Mahonisi And Elim Mpheni In Makhado Local Municipality, Vhembe District, Limpopo Province	
11.2 (14)	The following matters will be included in the Risk Register None	
11.2 (15)	The <i>boundaries</i> of the sites are as per the proposed site layout and locality plan as per C3: Scope of Works.	
11.2 (16)	The Works Information is in section Part C3: Scope of works of this tender document	
12.2	The law of the contract is the law of the Republic of South Africa	
13.1	The language of this contract is English	
13.3	The period of reply is 2 weeks	
2	The Parties' main responsibility	
26.1	If the <i>Contractor</i> subcontracts work, he is required to submit a signed agreement with proposed Sub contractor / consultant detailing the proposed scope and exclusivity of the relationship and intention to get into a subcontracting agreement based on the NEC3 Engineering and Construction Subcontract should he be successful.	

Clause	Data	
26.2	The Contractor must submit proposed Sub-contractor / consultant with an ECSA registration as Professional Civil Engineer or Professional Civil Technologist (appropriate certificates to be submitted).	
26.3	The conditions of contract for the Subcontractor shall be the NEC3 Engineering and Construction Subcontract Edition: 3 Reprinted with Amendments 2013, which is to be signed by both parties should the Contractor be successful.	
3	Time	
30.1	The starting date is 14 days after the date of issuance (exclusive) of the award letter unless otherwise agreed by the Parties.	
33.1	The <i>completion date</i> for the whole of the <i>services</i> is Six (6) Calendar Months after the start date.	
11.2(2)	The <i>completion date</i> for the whole of the <i>services</i> is as per the approved program submitted within 14 days after appointment.	
31	The <i>Contractor</i> submits programme with the tender according to the <i>Scope</i> , considering the <i>starting date</i> and <i>completion date</i> , which will be adjusted, if need be, based on proposed duration in the programme through consultation.	
32	The Contractor submits revised programme at intervals no longer 4 weeks	
4	Testing and Defects	
42	The defects date is 12 months after Completion of the whole of the works.	
43	The <i>defect correction period</i> is two weeks after completion of the whole of the works.	
5	Payment	
50.1	The assessment interval is monthly on or before the 20 th day of each successive month.	

End User initial .M.C.

Clause	Data	
51.1	The currency of this contract is the South African Rand.	
51.2	Each certified payment is made within 30 days of the assessment.	
51.4	The interest rate is the Prime lending rate of the Employer's Bank.	
6	Compensation events	
60.1 (13)	The place where the weather is to be recorded is Makhado.	
60.1 (13)	The weather measurements to be recorded for each calendar month are	
	The cumulative rainfall (mm)	
	The number of days with rainfall more than 5mm	
7	Title	
	No data required for this section of the conditions of contract.	
70.2	80% of the value of materials on site could be claimed by the contractor	
8	Indemnity, Insurance and Liabilities	
84.1	The Contractor is to provide the insurances stated in the Insurance Table in Section 84.2	
84.2	The minimum amount of cover for insurance against the Contractor's liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and liability for bodily injury to employees of the Contractor to or death of a person (not an employee of the Contractor) caused by activity in connection with this contract as prescribed in section 84.2 of the NEC 3 ECC	

Clause	Data		
	Insurance against	Minimum amount of cover or minimum limit of indemnity	Period following Completion of the whole of the services or earlier termination
	Loss of or damage of the works, Plant and Materials	The replacement cost, including the amount stated in the Contract Data for the replacement of any Plant and Materials provided by the Employer	Till the end of the <i>defects date</i> .
	Loss of or damage to Equipment	The replacement cost	Till the end of the completion date.
	Liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this contract.	R5 million without limit to the number of claims	Till the end of the completion date.
	Liability for death of or bodily injury to employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with this contract	That which is prescribed by the Compensation injuries and Diseases Act No. 130 of 1993 as amended and whatever the Consultant deems desirable in addition	Till the end of the completion date.
	Professional Indemnity Insurance (Professional Civil Engineering Services)	R1 million without limit to the number of claims	Till the end of the completion date.
85.1	Before the starting date an applicable insurance policie certificates are signed by the	s to the Project Manag	er for acceptance. Th
00.4	The Frankey or provides as in		

86.1 The *Employer* provides no insurance cover.

Clause Data		
Option W1	DISPUTE RESOLUTION	
W1.2	The <i>Adjudicator</i> is the person selected by the Parties in terms of the relevant Z Clause from the Panel of NEC Adjudicators set up by ICE-SA, a Joint Division of the Institution of Civil Engineers and the South African Institution of Civil Engineering (see <u>www.ice-sa.org.za</u>).	
W1.2	The <i>adjudicator nominating body</i> is the Chairman of ICE-SA, a Joint Division of the Institution of Civil Engineers and the South African Institution of Civil Engineering (see <u>www.ice-sa.org.za</u>).	
W1.4	The tribunal is arbitration	
W1.4	 The <i>arbitration procedure</i> is as set out in the latest edition of Rules for the Conduct of Arbitrations published by the Association of Arbitrators (Southern Africa) or its successor body The place where arbitration is to be held is To be Advised The person or organisation who will choose an arbitrator if the Parties cannot agree a choice or if the <i>arbitration procedure</i> does not state who selects an arbitrator, is the Chairman of the Association of Arbitrators (Southern Africa) or its successor body 	
Option X7	Delay Damages	
Х7	The <i>delay damages</i> for completion of the wholes of the works are R2,000.00 per day	
Option X13	Performance Bond	
X13	The amount of the performance bond is 10% of value of Contract	
Option X16	Retention	
X16	The retention percentage is 10%	

Clause	Data		
Z	Additional Conditions of Contract		
	The additional conditions of contract are		
Z1	Selection and appointment of the Adjudicator		
	A Party may at any time notify the other Party of the names of two persons he has chosen from the Panel of NEC Adjudicators set up by ICE-SA, a Join Division of the Institution of Civil Engineers and the South African Institution of Civil Engineering (see <u>www.ice-sa.org.za</u>) whose availability to act as the <i>Adjudicator</i> the notifying Party has confirmed. The other Party selects one of the two persons chosen to be the <i>Adjudicator</i> within four days of receiving the notice, failing which the person chosen by the notifying Party will be the <i>Adjudicator</i> . The Parties appoint the selected <i>Adjudicator</i> under the NEC3 Adjudicator's Contract, April 2013.		
Z2	Tax invoices The <i>Contractor</i> 's invoice.		
	Delete the first sentence of core clause 51.1 and replace by:		
	The Employer makes each payment within thirty days from the date of receip (exclusive) of the <i>Consultant</i> 's invoice showing the details, which this contract requires or, if a different period is stated in the Contract Data, within the period stated.		
Z3	Acts or omissions by mandatories		
	In terms of Section 37(2) of the Occupational health and Safety Act of 1993 (Act 85 of 1993), the <i>Contractor</i> hereby agrees that the <i>Employer</i> is relieved of any and all of its liabilities in terms of Section 37(1) of this Act in respect of any acts or omissions of the <i>Contractor</i> and his employees to the extent permitted by this Act, and that this contract comprises the written agreement between the <i>Employer</i> and the <i>Contractor</i> contemplated in section 37(2).		
Z4	Subcontractors		

End User initial

Clause

Data

The *Contracto*r submits the name of each proposed subcontractor to the *Employer's* representative for acceptance. A reason for not accepting the subcontractor is that his appointment will not allow the Contractor to Provide the Works. The Contractor does not appoint a proposed subcontractor until the Project Manager has accepted him.

Ζ5

Guarantee

The maximum guaranteed sum is equal to **10** % of the total of the Prices and reduces to the following diminishing amounts:

Guarantor's liability expressed as a percentage of the total of Prices	Period of liability
Maximum guaranteed sum of 10 %	From the date this demand bond comes into effect and until the date by when the Price for Work Done to Date has reached or exceeds 50 % of the total of Prices
Reducing to the guaranteed sum of 6 %	From the date by when the Price for Work Done to Date has reached or exceeds the amount stated above and until the date of Completion of the whole of the <i>works</i>
Reducing to the guaranteed sum of 3 %	From the day after the date of Completion of the whole of the <i>works</i> and until the date of issue of the last Defects Certificate.
Reducing to the guaranteed sum of 1 %	From the day after the date of issue of the last Defects Certificate and up to and including the day on which there are no amounts due by either Party to the other.

End User initial M.C.

Clause

Data

Transfer of rights

The *Employer* owns the *Contractor's* rights over material prepared for this contract by the *Contractor* except as stated otherwise in the Works Information. The *Contractor* obtains other rights for the *Employer* as stated in the Works Information and obtains from a subcontractor equivalent rights for the *Employer* over the material prepared by the subcontractor. The *Contractor* provides to the *Employer* the documents which transfer these rights to the *Employer*

C1.2.2 PART TWO - DATA PROVIDED BY THE CONTRACTOR

The *Contractor* is advised to read the NEC3 Engineering and Construction (Third edition of June 2005) and the relevant Guidance Notes and Flow Charts, published by the Institution of Civil Engineers, in order to understand the implications of this Data, which is required. Copies of these documents may be obtained from Engineering Contract Strategies (telephone (27) 011 803 3008).

Each item of data given below is cross-referenced to the clause in the NEC3 Engineering and Construction Short Contract to which it mainly applies.

Clause	Data
10.1	The Contractor is
	Name:
	Physical Address:
	Post Code:
	Postal Address: Post Code:
	Telephone: Fax:
	Mobile: Email:
11.2 (8)	The Direct fee percentage is
11.2 (8)	The subcontracted fee percentage is
11.2 (18)	The working areas are the site and
24.1	The <i>Contractor's</i> key persons are: 1 Name:

	Position in the Project Team:	·
	Responsibilities:	
	Qualifications:	
	Experience:	
	Physical Address:	
	Post Code:	
	Postal Address: Post Code:	
	Telephone: Fax:	
	Mobile: Email:	
	(Please use separate pages referring to this clause for detailing this information for all <i>Contractor's</i> key persons)	
11.2(14)	The following matters will be included in the Risk Register	
11.2 (21)) The <i>bill of quantities</i> is	
11.2 (31)) The tendered total of the Prices is	
52.1	The percentage for overheads and profit added to the Defined Cost for people is%	
52.1	The percentage for overheads and profit added to other Defined Cost is%	

End User initial M.C.



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT

Cooperative Governance & Traditional Affairs

Reference no.: MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL -SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

C1.3 SECURITIES: PERFORMANCE BOND

(to be reproduced exactly as shown below on the letterhead of the Surety)

{Insert name and registered address of the Contractor}

Date:

Tender Reference: MISA/MLM/L/014/2021/22

End User initial .<u>M.C</u>

Dear Sirs,



and duly authorised thereto do hereby bind ourselves as Surety and co-principal debtors in solidum for the due and faithful performance of all the terms and conditions of the Contract by the *Contractor* and for all losses, damages and expenses that may be suffered or incurred by the *Employer* as a result of non-performance of the Contract by the *Contractor*, subject to the following conditions:

Tender Reference: MISA/MLM/L/014/2021/22



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- 1. The terms *Employer*, *Contractor*, *works* and Defects Certificate have the meaning as assigned to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.
- 2. We renounce all benefits from the legal exceptions "Benefit of Excussion and Division", "No value received" and all other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
- **3.** The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner which the *Employer* deems fit and without being advised thereof the Surety shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Surety. Without derogating from the foregoing compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this performance bond.
- 4. This bond will lapse on the earlier of
 - the date that the Surety receives a notice from the *Employer* stating that the last Defects Certificate has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or
 - the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Employer*.
- 5. Always provided that this bond will not lapse in the event the Surety is notified by the *Employer*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.
- 6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Surety of a certificate signed by the *Employer* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.
- 7. Our total liability hereunder shall not exceed the sum of:

R_____

8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa.

Signed at	on this	C	day of	200_
	-			
				1
Signature(s)				
Name(s) (printed)				
Position in Surety company				
Signature of Witness(s)				
č				
Name(s) (printed)				

C1.3 SECURITIES: REDUCING VALUE GUARANTEE

(to be reproduced exactly as shown below on the letterhead of the Surety)

{Insert name and registered address of the Employer}

Date:

Dear Sirs,

REDUCING VALUE GUARANTEE FOR CONTRACT NO.

With reference to the above numbered contract made or to be made between

{Insert registered name of the Employer}

{Insert registered name and address of the Contractor}

(the Contractor), for

{Insert details of the works from the Contract Data}

Tender Reference: MISA/MLM/L/014/2021/22

(the Employer) and

(the works).

l/We	the under	signe	d	
on Guar	behalf	of	the	
	ysical add	lress		

and duly authorised thereto, do hereby undertake to pay the *Employer* forthwith on receipt of written demand from the *Employer* up to the maximum guaranteed sum of

(say)

R_____

in respect of amounts due by the *Contractor* to the *Employer* for whatever reason in terms of the contract between the *Employer* and the *Contractor* in respect of the *works*. The following further terms shall apply:

1 The Guarantor's liability shall be limited to the diminishing amounts of the guaranteed sum as set out below:

Guarantor's Liability	Period of Liability
-----------------------	---------------------

1.1	Maximum guaranteed sum:	From the date this demand bond comes into effect and until the date by when the Price for Work Done to Date has reached or exceeds R
1.2	Reducing to the guaranteed sum of: R	From the date by when the Price for Work Done to Date has reached or exceeds the amount stated in 1.1 above and until the date of Completion of the whole of the <i>works</i>
1.3	Reducing to the guaranteed sum of R	From the day after the date of Completion of the whole of the <i>works</i> and until the date of issue of the last Defects Certificate.
1.4	Reducing to the guaranteed sum of: R	From the day after the date of issue of the last Defects Certificate and up to and including the day on which there are no amounts due by either Party to the other.

1.5 Thereafter this demand guarantee shall lapse.

- 2 The terms *Employer, Contractor, works*, Price for Work Done to Date, Completion, Defects Certificate and Party have the meaning given to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.
- 3 The *Employer* shall have the absolute right to arrange his affairs with the *Contractor* in any manner which the *Employer* deems fit and the Guarantor shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Guarantor. Without derogating from the foregoing, any compromise, extension of the Completion Date, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this demand guarantee.

- 4 The Guarantor chooses domicilium citandi et executandi for all purposes in connection herewith at the address appearing above.
- 5 This Reducing Value Guarantee is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa.
- 6 The Employer returns this Guarantee to the Guarantor when it has lapsed in terms of clause 1 above or on payment in full thereof whichever is the earlier.

Signed	on this	day	of	20
at				
Guarantor:				
Representative		Representative		
Name (printed)		Name (printed)		
		62		
ender Reference: MI	SA/MLM/L/014/2021/22		End User initial	



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT

Cooperative Governance & Traditional Affairs

Reference no.: MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

PART C2: PRICING DATA

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PART C2: PRICING DATA	ERROR! BOOKMARK NOT DEFINED.
C2.1 PRICING INSTRUCTIONS	
C2.2 SCHEDULE OF QUANTITIES	

C2.1 PRICING INSTRUCTIONS

- 1) The Conditions of Contract, the Contract Data, the Specifications (including the Project Specifications) and the Drawings shall be read in conjunction with the Bill of Quantities.
- 2) The Bill comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.
- 3) Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Project Manager is obliged to base his assessment of the rates to be paid for such additional work on the rates the Contractor inserted in the Bill. Clause 8 of each Standardized Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Project Specifications, all set out which ancillary or associated activities are included in the rates for the specified operations
- 4) Descriptions in the Bill of Quantities are abbreviated and may differ from those in the Standardized and Project Specifications. No consideration will be given to any claim by the Contractor submitted on such a basis. The Bill has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities. Should any requirement of the measurement and payment clause of the appropriate Standardized or Project Specification(s) be contrary to the terms of the Bill or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardized, Project, or Particular Specification as the case may be, shall prevail
- 5) Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste. The final design drawings and accompanying construction bill of quantities provided by the contractor and design engineer, will be approved by the assigned MISA project manager and will be required to facilitate implementation of the C.2.2 Schedule of quantities.

- 6) The amounts and rates to be inserted in the Bill of Quantities shall be the full inclusive amounts to the Employer for the work described under the project specifications. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Tender is based.
- 7) An amount or rate shall be entered against each item in the Bill of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Bill.
- 8) The Tenderer shall also fill in a rate against the items where the words "rate only" appear in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tendered rates shall apply should work under these items actually be required.
- 9) Should the Tenderer group a number of items together and tender one sum for such group of items, the single tendered sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.
- 10) The tendered rates, prices and sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.
- 11) The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and <u>not</u> the quantities stated in the Bill of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities certified for payment.
- 12) Quantities for measurement and payment shall be re-measurable, this means that payment will be made for actual work done, not necessarily for quantity stated in the BoQ.

13) Ordering of materials are not to be based on the Bill of Quantities, but only on information issued

for construction purposes.

- 14) Provisional Sums in the schedule of quantities shall be utilised at the discretion of the Project Manager. In addition, provisional sums may be omitted entirely by the Project Manager if so required.
- 15) Those parts of the works to be constructed using labour-intensive methods have been marked in the schedule of quantities with the letters Ll in a separate column filled in against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract. The items marked with the letters Ll are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.
- 16) Where minimum labour intensity is specified by the design the contractor is expected to use his/her initiative to identify additional activities that can be done labour intensively in order to comply with the set minimum labour intensity target.
- 17) Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 18) For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:
 - **Unit** : The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
 - **Quantity** : The number of units of work for each item
 - **Rate** : The payment per unit of work at which the Tenderer tenders to do the work

- Amount : The quantity of an item multiplied by the tendered rate of the (same) item
- Sum : An amount tendered for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units
- 19) The units of measurement indicated in the Bill of Quantities are metric units. The following abbreviations may appear in the Bill of Quantities:

mm	=	millimetre
m	=	metre
km	=	kilometre
km-pass	=	kilometre-pass
m²	=	square metre
m²-pass	=	square metre-pass
ha	=	hectare
m³	=	cubic metre
m³-km	=	cubic metre-kilometre
kW	=	kilowatt
kN	=	kilonewton
kg	=	kilogram
t	=	ton (1 000 kg)
%	=	per cent
MN	=	meganewton
MN-m	=	meganewton-metre
Sum	=	Sum
PC Sum	=	Prime Cost Sum
Prov Sum	=	Provisional Sum

....

C2.2 SCHEDULE OF QUANTITIES

The Bill of Quantities is structured as outline below. Where there is gaps and omissions in specifications and/or BOQ the applicable Standard shall apply.

Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amounts tendered under such items.

The final design drawings and accompanying construction bill of quantities provided by the contractor and design engineer, will be approved by the assigned MISA project manager and will be required to facilitate implementation of the tendered Schedule of Quantities below.

No	Description	Unit	Qty	Rate	Amount
1.	Preliminary and General Costs				
1.1	Preliminary & Generals: to include scheduled time- related items, scheduled fixed-charge and value related items for 6 months of the contract duration, to include Cost to allow for Employment of CLO for the duration of the Contract (R4, 500 p.m. & Payment of PSC members for attendance of meetings for the duration of the contract (5 No members at R200 per member per meeting), and any other required preliminary and generals to cover 2 Production Boreholes Sites.	Sum	1		
2	Borehole Construction				
2.1	Construct 1 No. New Production Boreholes. Costs to include borehole drilling, pump testing, water quality testing, and all related valves, meters, sensors, gauges, interconnecting pipework, lightning protection and related appurtenances required for the production borehole. Cost to also include the	Sum	1		

No	Description	Unit	Qty	Rate	Amount
	provision and equipping of all necessary mechanical and electrical equipment. Cost to cover drilling and pump testing of 3 potential borehole drills per each production borehole site, in instances where dry boreholes are encountered or where the borehole sustainable yield is less than 0.5l/s.				
2.2	Assessment and Refurbishment of 1 No. existing boreholes. Costs to include pump testing, water quality testing, and all related valves, meters, sensors, gauges, interconnecting pipework, lightning protection and related appurtenances required for the production borehole. Cost to also include the provision and equipping of all necessary mechanical and electrical equipment.	Sum	1		
2.3	Supply, install and commission package treatment plants (Filtration Systems) with design capacity of 5m3/hour for the 2 boreholes where necessary. Allow for quality testing after treatment and energizing of treatment plants	Prov.Sum	1	200 000	200 000
2.4	Supply and install concrete pumphouses on the 2 boreholes. Allow for fencing around the pumphouse and elevated tank. Fence must be 1.8-metre-high anti-climb, hot-dipped galvanized welded 'diamond mesh' razor wire, topped with razor coil. The security fence must surround the entire installation. Access must be provided via a 3.0 metre lockable 'swing-gate' with a tamper proof lock and chain. A total fence length of 150 m must be allowed per site.	Sum	1		

No	Description	Unit	Qty	Rate	Amount
2.5	Provision of 3 hard copies of O&M Manual. (Note: A Separate BoQ, itemising and quantifying items provided under this Sum shall be issued before construction is commenced which shall form the final basis for payment).	Sum	1		
3	Electrical Supply				
3.1	ESKOM Electricity supply and connections to 2 boreholes. Electricity line estimated at 700m to cover the 2 boreholes each with a separate transformer.	Sum	1		
3.2	Allow for supply, installation, and commissioning of Solar Panels where ESKOM connection is not feasible on the 2 boreholes	Rate Only	1		Rate Only
4	Supply, Install Elevated Tanks				
4.1	Design, supply and install 10KL elevated Jojo tanks and related appurtenances. Tank to be installed on steel stand with height of up to 10m for each of the 2 sites	Sum	1		
5	Pipework				
5.1	Reticulation network: Allow for 40mm Ø HDPE pipe network with trench depth of 400mm and 2 communal standpipes. Rate to include excavation, supply, handle, lay and bed (class C bedding) complete with installation of fittings, pressure testing, disinfection, and commissioning at each of the 2 sites. Allow pipe length of up to 50m.	Sum	1		
6	Professional Engineering Fees				

No	Description	Unit	Qty	Rate	Amount	
6.1	Professional Engineering Fees to include Assessments, design, BoQ, specifications, drawings, construction monitoring, reporting & closeout' Including ISD & Disbursements for the entire Supply and Construction scope of work for the 2 production borehole sites.	Sum	1			
7.	Other Costs					
7.1	Hydrogeological Investigations- cost to include, inter alia, feasibility assessments, siting of 2 production boreholes sites up to a limiting no. of 6 if required and Borehole Registration.	Sum	1			
7.2	Topographical Surveys, Construction and As-built Drawings	Sum	1			
7.3	Geotechnical Investigation	Sum	1			
	SUB-TOTAL					
	15% VAT					
	TOTAL (To be carried to form of Tender)					

on

Tender Reference: MISA/MLM/L/014/2021/22

End User initial .M.C.

Enterprise name



MUNICIPAL INFRASTRUCTURE SUPPORT AGENT

Cooperative Governance & Traditional Affairs

Reference no.: MISA/MLM/L/014/2021/22

APPOINTMENT OF A MANAGEMENT CONTRACTOR FOR THE SITING, DRILLING, 1 NO. BOREHOLE, REFURBISHING 1NO. BOREHOLE, TESTING, EQUIPPING AND ENERGIZING OF BOREHOLES, RISING MAIN AND ELEVATED STORAGE TANKS AT WATERVAL - SECTION B MAHONISI AND ELIM MPHENI IN MAKHADO LOCAL MUNICIPALITY, VHEMBE DISTRICT, LIMPOPO PROVINCE

PART C3: SCOPE OF WORK

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 PART C3: SCOPE OF WORK
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PART C3: SCOPE OF WORK

C3.1 DESCRIPTION OF THE WORKS AND SERVICES

1 EMPLOYERS' OBJECTIVES

MISA's objective is to appoint a management contractor, the siting and drilling of 1 borehole, assessment and refurbishment of 1 No. borehole. Testing, Equipping and Energizing, Rising Main, Reticulation and Elevated Storage Tanks will be provided for the 2 boreholes which are located at Waterval - Section B Mahonisi and Elim Mpheni in Makhado Local Municipality, Vhembe District, Limpopo Province

Ultimately the objective is to appoint a suitably experienced civil engineering contractor on a 'design and construct' basis to implement the specified engineering proposal. The design proposal as indicated in the Scope of Works, is to be used a basis for quotation. The contractor will also be responsible to enlist the services of a professional engineer or technologist who will in his professional capacity be liable for the detail design development, documentation, contract administration and close-out, required for implementation for the provision of water supply to the affected settlements. The objective of the employer is to improve lives of Waterval - section B Mahonisi and Elim Mpheni communities within the Makhado Local Municipality by providing access to basic water supply.

2 BACKGROUND

Vhembe District Municipality with its headquarters in Thohoyandou was established in 2000 through the process of transformation of Local Government. It was established in terms of Municipal Structures Act 117 of 1998 as a demarcated sphere of governance. It is composed of four local municipalities, namely, Collins Chabane, Makhado, Musina and Thulamela. It covers 21 407 km2 and has population of over 1.1 million living in 274 480 households.

Makhado Local Municipality is one of the municipalities within Vhembe District. Approximately 416 728 people currently reside within the Municipality and based on the vastness of the rural populace the municipality can be classified as predominately rural.

Vhembe District Municipality is the Water Services Authority (WSA) whilst all the Local Municipalities are Water Services Provider (WSP). WSAs are responsible for planning, implementing and operating the necessary infrastructure to provide effective, affordable and sustainable water and sanitation services to their customers. Vhembe District is a water stressed area which experiences prolonged dry periods and extreme droughts.

Due to limited resources (financial and technical) the Municipality is struggling to adequately operate and maintain its water and sanitation infrastructure. Vhembe District Municipality experiences serious water shortages in some of its towns because they do not get sufficient water from both underground and surface water sources. In some cases, strategic projects for bulk supply are delayed, existing boreholes have dried up, there are illegal connections affecting downstream supply, there are burst pipes due to aged infrastructure and sometimes the communities are growing at a faster pace than the WSA can provide water. It is therefore in this regard that this project is part of the funding to equip and connect new drilled boreholes and refurbishment of existing ones, in order to augment water supply to various communities within Makhado Local Municipality.

3 MISA INVOLVEMENT

MISA was requested to provide an intervention and provide water in the area with no access to water in villages under Makhado Local Municipality in Vhembe District Municipality, Limpopo Province. The project entails:

- Drilling of 1 new borehole: Siting, drilling, testing for yield and quality, equipping, and energizing. Elevated storage tanks, reticulation, and standpipes.
- Assessment and Refurbishment of 1 new borehole: testing for yield and quality, equipping, and energizing. Elevated storage tanks, reticulation, and standpipes

The current water supply to these communities is unreliable, not sustainable. To address the challenges, MISA has investigated the situation and identified provision of boreholes and refurbishment of concrete Sand Well and Chlorination facilities for additional water supply as a sustainable solution to the water shortage problem.

4 MISA AIM

The primary aim of the project is to provide the communities with water source, bulk water supply, and storage infrastructure to ensure sustainable water supply to the community. The communities are as indicated below:

Village	Coordinated		Population benefiting	Household benefiting
	South	East		
Waterval - section B Mahonisi	23.152925	30.064427	3500	875
Elim Mpheni village	23.145342	30.057478	13188	3166

5 OVERVIEW OF THE WORKS

The overview of the works is to supply potable water to communities in Makhado Local Municipality through:

- Drilling of 1 new borehole: Siting, drilling, testing for yield and quality, equipping, and energizing. Elevated storage tanks, reticulation, and standpipes.
- Assessment and Refurbishment of 1 new borehole: testing for yield and quality, equipping, and energizing. Elevated storage tanks, reticulation, and standpipes
- Pumphouse and fencing

The projects are at Waterval - Section B Mahonisi and Elim Mpheni in Makhado Local Municipality, Vhembe District, Limpopo Province

6 EXTENT OF THE WORKS

6.1 DESK STUDY

Existing borehole information from our in-house database and previous studies conducted within the defined project area will be assessed to compare yields, water levels and water quality in order to determine whether the aquifers are stable or deteriorating. Aerial photos and other data obtained from previous groundwater investigations will be studied and extrapolated to identify geological structures such as dykes, faults and lineaments that can be used for water balances sheet.

6.2 SITING

Use available and appropriate method to site the boreholes to ensure that it produces adequate yield. The location of the borehole must be at least 30-50 m away from a potential pollution source such as on-site toilets, cattle kraals or cemeteries

6.3 HYDRO-CENSUS

Borehole verification within a 1 km radius of the identified community will be conducted to verify the use of groundwater in the area. Existing boreholes and springs in the defined areas will be the direction of groundwater in the area.

6.4 **GEOPHYSICAL INVESTIGATION**

A geophysical survey will be conducted to identify and accurately position any structural features and lithology changes which could influence groundwater movement. The geophysical survey to accurately define the positions of structural features, weathering zones

and other features of significance to groundwater occurrence will comprise Electro Magnetic 34(EM-34) and magnetic profiling supported by Vertical Electrical Resistivity Soundings (VES) if required. The survey will assist in selecting sites for the drilling of groundwater boreholes.

A proton precision magnetometer (G-856 Memory-Mag.) will be used for the magnetic surveys as well as EM 34. The Magnetic and EM survey method are useful in identifying intrusive dykes and geological contact zones. A station spacing of 10 m will be used during the survey. Data from the magnetic survey will be processed and presented as profiles using spread sheets (MS Office Excel).

The magnetic traversing will be done using a proton fluid magnetometer, the magnetic survey will be run in conjunction with the EM-34 survey.

6.5 DRILLING OF BOREHOLE

Groundwater boreholes will be drilled in order to facilitate aquifer parameter testing and groundwater sampling. The boreholes will be drilled using down the hole air percussion equipment. The exploration drilling will be drilled according but not limited to the DWS minimum standards and guidelines. Drilling of boreholes must include but not limited to;

- a) The development of a minimum of 2 production boreholes shall entail hydrogeological investigations, siting, drilling of new boreholes, and test pumping. At least 3 limiting borehole drills, pump testing and water quality tests will be provided per site over the 2 sites.
- b) MISA will inform the service provider based on yield tests and water quality which boreholes to equip.
- c) The borehole development shall further entail the removal of drilling fines from aquifer pores, removal of drilling foam/mud, and establishing a gravel pack filter around the borehole-aquifer interface.
- d) Borehole development method for use shall be determined by the hydrogeological investigation recommendations.
- e) The borehole diameter shall be determined by the findings of the hydrogeological investigations and site conditions.
- f) The selection of a pump type and capacity shall be based on
 - Maximum required/available capacity and safe yield
 - Total pumping head
 - Maximum pumping rate feasible and
 - Type of power available.

- g) All Boreholes shall be identifiable by a DWS unique number and GPS coordinates.
- h) All Boreholes shall be registered on the National Groundwater Database managed by DWS.
- i) The boreholes are to be fully screened (from the water table to bedrock) with a 0.5 m sump. A fine screen (5 mm long and 0.6 mm wide) is to be used to prevent sediment entry into the borehole and fine gravel pack is to be installed in the borehole annulus around the screen. The size of the gravel pack particles should be larger than slot/screen sizes. A bentonite pellet seal is to be installed above the depth at which the water table occurs

6.6 **REFURBISHMENT OF BOREHOLE**

Existing boreholes will be assessed to determine the detailed refurbishment work required and also ascertain if the boreholes are still viable enough to be equipped. Refurbishment of boreholes must include but not limited to;

- a) The refurbishment of existing boreholes shall entail hydrogeological investigations and pump tests. Pump testing and water quality tests will be provided per site. In instances where the borehole sustainable yield is less than 0.5l/s siting and redrilling of new borehole will be done, with prior approval from MISA.
- b) MISA will inform the service provider based on yield tests and water quality which boreholes to equip.
- c) The selection of a pump type and capacity shall be based on;
 - Maximum required/available capacity and safe yield
 - Total pumping head
 - Maximum pumping rate feasible and
 - Type of power available.
- d) All Boreholes shall be identifiable by a DWS unique number and GPS coordinates.
- e) All Boreholes shall be registered on the National Groundwater Database managed by DWS.
- f) The boreholes are to be fully screened (from the water table to bedrock) with a 0.5 m sump. A fine screen (5 mm long and 0.6 mm wide) is to be used to prevent sediment entry into the borehole and fine gravel pack is to be installed in the borehole annulus around the screen. The size of the gravel pack particles should be larger than slot/screen sizes. A bentonite pellet seal is to be installed above the depth at which the water table occurs

6.7 BOREHOLE AND AQUIFER PARAMETERS

The newly drilled boreholes will be subjected to aquifer testing. This will be done with the aid of positive displacement pumps, and it will entail step drawdown test to determine borehole efficiencies and constant rate test to determine the aquifer parameters and yield estimates. It is anticipated that a 24 to 72-hour constant discharge tests will be done in the respective boreholes.

6.7.1 Step Tests

Step drawdown tests will be performed to more clearly define the optimum yield at which the constant discharge test can be run. The tests will involve pumping each of the boreholes at four sequentially higher pumping rates each maintained for an equal length of time, generally not less than 60 minutes. The magnitude of drawdown of the water level in the borehole in response to each of these pumping rates will be measured and recorded on a time schedule as well as the actual pumping rate maintained during each step.

6.7.2 Constant Discharge Tests

Once the step drawdown tests have been completed each borehole will be subjected to a constant discharge test over 24 to 72 hours in order to obtain aquifer parameters such as transmissivity and Distribution.

The constant discharge tests will be performed to assess the productivity of the aquifer according to its response to the abstraction of water.

This response can be analysed to provide information in regard to the hydraulic properties of the aquifer. These tests will require the boreholes to be pumped at a single pumping rate which is kept constant for the duration of the test. The pumping rates will be set at yields which will be considered to be sustainable for the duration of the tests. The drawdown in water level in the boreholes will be measured during the course of the tests and recorded against a time schedule. Should there be any boreholes within close proximity to pumped borehole, the drawdown in water level will be measured and recorded on the same time schedule as the pumped borehole. Water level measurements will be recorded during the recovery period following the end of pumping of each borehole.

6.7.3 Groundwater Sampling

Groundwater samples will be collected from the tested boreholes at the end of the pump testing exercise in order to obtain a representative elementary volume of the aquifer.

These samples will be submitted to an accredited analytical laboratory for the analyses of major cation and anion distribution, pH, electrical conductivity, total alkalinity and the water quality be classified according DWS Drinking Standards as well as SANS 241-1:2015.

6.7.4 Protecting Ground Water

- a) The site conditions and layout shall determine the feasible measures to be put in place to protect the groundwater from contamination and equipment from theft and damage.
- b) The following guidelines shall be followed when determining the feasibility of protecting the borehole:
 - a. Where required, a pump house shall be designed so that it is easy to do repairs to the pump equipment and allow for the removal of the pipes from the borehole.
 - b. The perimeter fence around the borehole shall be a protected by a 5m x 5m steel palisade fence perimeter.

6.8 BOREHOLES EQUIPPING

6.8.1 Borehole

The borehole collar is to be below ground surface.

- a) A section of steel casing with a lockable cap should be installed around the borehole collar
- b) The borehole name is to be painted on each borehole with a stencil.
- c) The borehole shall be fitted with a flow meter.
- d) All boreholes shall be fitted with a conduit pipe to facilitate monitoring of groundwater test levels.
- e) Boreholes shall be disinfected where the water chemical analysis recommends action.
- f) A borehole cap shall be used to seal the borehole.
- g) The site at each borehole is to be cleaned after completion of the borehole.

6.8.2 Submersible pump

Submersible borehole pump complete with steel manhole cover.

The pump will be determined as per point number 6 above, under Drilling of Borehole.

6.8.3 Storage

- 10 000 liters steel tank or as suitably designed after determination of borehole safe yield
- 1 x 7.5 m high steel stand. All steel members to be designed to SANS 10162 and treated with relevant corrosion protection measures.

6.8.4 Water pipework and standpipes

All necessary pipework, connections, standpipes and ancillary works shall be implemented by the contractor even when they are not expressly mentioned in the BOQ.

6.8.5 Electrical Power Supply

- Connection to existing Eskom supply is the preferred option as requested by Vhembe District. Solar will be considered where it is not feasible to provide Eskom connections.
- Supply and Installation of solar panels to adequately operate borehole pump system.
- The sizing of the solar panel installation will also be dependent on the borehole pump size and related electrical system needs.

6.8.6 Securing Borehole Area

Precast concrete pumphouses will also be provided where feasible, as requested by Vhembe district

Where it is not feasible to provide concrete pumphouse, security fence meeting the specifications as discussed in bullet number 2, under point 2 of Protecting of Ground Water above and will include gates and locks, will be provided.

6.8.7 Commissioning

- a) Once the boreholes are completed and functional, commissioning must be done on site with representatives of Vhembe District and the Local Municipality and MISA.
- b) The service provider must prepare a close-out report to be submitted to MISA and the Local Municipality.
- c) The service provider must provide an operational and maintenance manual for the boreholes.
- d) The service provider must provide certificates of warranty for all applicable moving parts which will include pumps.

7 PROJECT DELIVERABLES

The contractor will be responsible for the complete project implementation, including final design and implementation / construction, required to achieve the deliverables as indicated below. The contractor will therefore also be required to include the services of an ECSA registered Professional Civil Engineer (Pr Eng) or Professional Civil Engineering Technologist (Pr Tech Eng) with proven, relevant project experience, to implement the proposed engineering design and contract management in their professional capacity.

The successful tenderer will be requested to deliver the following during completion of the project;

7.1 KEY DELIVERABLE

- a) Field observations and measurements;
- b) Pumping test graphs and details;
- c) Groundwater sample chemical results from accredited SANAS laboratory;
- d) Appendices containing pumping test graphs and borehole management recommendations;
- e) Borehole locality maps;
- f) Hydrogeological investigation reports and registration of production boreholes with DWS;
- g) Project Specifications, Bills of Quantities, Construction drawings, as-built drawings and social facilitation (ISD) reports;
- h) Secured fully functional boreholes equipped with storage, power supply, lightning protection, pipework and stand taps;
- i) Warranty and guarantee certificates for installed infrastructure;
- j) Health and Safety (OHSA, 2003) and Environmental Management (NEMA, 2003) related documentation and project records;
- k) Close Out Report and As-built drawings.

7.2 ADDITIONAL DELIVERABLES

- a) Site Assessment Report and Condition Assessment Reports for the project
- b) Project Implementation Plan,
- c) Detailed Design Report and Summary of General Legislative Authorisations
- d) Monthly Implementation Progress Reports
- e) Monthly Site Meetings Agenda, Minutes and Arrange Site Visits for Relevant Stakeholders

- f) Close-Out Report including pictures before and after the Works and a file of all Contractual Documentation.
- g) Approved Work Orders,
- h) Test results for water samples, bedding compaction and or pipe replacement (where necessary),

8 LEGISLATIVE REQUIREMENTS

The contractor must conduct due diligence and will be responsible to obtain all the required authorizations from the relevant authorities, including, but not limited to;

General Authorization (DWS)

- a) Environmental Impact Assessment (if required)
- b) Any 'wayleaves' required (Local Municipality, SANRAL, etc.)
- c) Compliance with the OHS Act regulations (Rate to include for risk assessment specific to the COVID-19 pandemic and other adjustments to ensure compliance for the assignment including maintenance of a register for workers contacts.)
- d) Furthermore, the contractor shall comply will all legislation as prescribed by the Department of Labour, Occupational Health and Safety Act and Department of Environmental Affairs.

9 DESIGN CONSIDERATIONS

The proposed engineering solution must be signed off by the appointed Consultant either registered as a Professional Civil Engineer (Pr Eng) or Professional Civil Engineering Technologist (Pr Tech Eng) with ECSA, to ensure all deliverables are met as per the required scope of works. The final design proposal must additionally be submitted for review to the designated engineering professional from MISA before any works can begin.

The design parameters as prescribed by the Red Book (Guidelines for Human Settlement Planning and Design) will generally be applied throughout the design process. The proposed engineering design strategy should allow for the following design parameters:

9.1 GENERAL DESIGN CRITERIA AND PHILOSOPHY

The basic design principles as prescribed by the Red Book (Guidelines for Human Settlement Planning and Design) will generally be applied throughout the design process. This includes the calculation the water demand.

Practical and situation specific design amendments will also be considered and where justified, given precedence over Red Book dictated design guidelines, in order to ensure long term sustainability of the infrastructure.

All construction shall be according to SANS 1200 (Standardised Specification for Civil Engineering Construction).

9.2 WATER DEMAND & STORAGE

Average water demand will be estimated according to the Red Book (Guidelines for Human Settlement Planning and Design) and more specifically to RDP standard. Average water demand will be estimated according to the Red Book (Guidelines for Human Settlement Planning and Design) and more specifically to RDP standard.

The design parameters (assumptions) are as follows;

General parameters:

•	Household content	= 4 persons
•	Growth	= 1% per annum
•	Consumption rate	= 40 litres/capita/day
•	Peak Factor	= 6

9.3 SUPPLY PIPELINES

Pipeline design parameters regarding minimum pipe gradients, diameters and cover depths, as prescribed by the Red Book (Guidelines for Human Settlement Planning and Design) will generally be applied throughout the design process.

The contractor will be required to subcontract the detail design services to a suitably experienced consultant.

10 LOCATION OF THE WORKS

The target areas fall under the jurisdiction of the Makhado Local Municipality. The locality of the target areas are shown in the Figure 1 below.

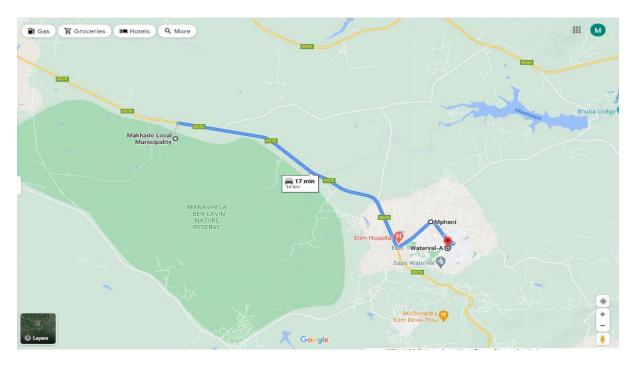


Figure 1: Settlement Locality

11 PROJECT MANAGEMENT STRUCTURES

The PSP will work strictly under the management of a Project Management Team (PMT) led by the MISA Provincial Manager for Limpopo Province.

All other project administrative related issues will be managed by MISA and payment certificates will be submitted to the MISA National Office in Pretoria through the MISA Provincial Manager for Limpopo, after approval of completed works.

Progress reporting will be required per payment certificate and should reflect progress on site.

12 TIME FRAMES

The estimated timeframe for completion of all the activities as described herein the C3: Scope of work is 6 months from the date of start of work.

13 FACILITIES AND EQUIPMENT TO BE PROVIDED BY THE EMPLOYER

The Employer shall provide no facility or equipment.

14 FACILITIES AND EQUIPMENT TO BE PROVIDED BY THE SERVICE PROVIDER

The Service Provider shall provide all equipment and facilities required to provide the services relating to successful completion of the project.

15 MEASUREMENT AND PAYMENT

The P&Gs are to cover scheduled time-related items, scheduled fixed-charge and value related items, all compliance with the legislated OHS Act Requirements including all requirements in line with the Disaster Management Act relating to the prevention and management of the COVID-19 pandemic for the duration of the contract commencing from the date the Contractor establishes site in line with the contract and terminating on the date of the final inspection of the Works. Furthermore, the Contractor will maintain all relevant information of workers and visitors to facilitate effective contact tracing, if and when required.

The P&Gs are also to include full compensation at the Service Provider's costs to provide a monthly stipend to the Community Liaison Officer (CLO) of R4, 500 monthly and monthly airtime of R500 to complete all responsibilities required for the successful completion of the project. Additionally, this pay item will include full compensation for all PSC members to attend meetings for the duration of the contract at R200 per sitting per month.

16 TEMPORARY WORKS

The rate shall cover all costs pertaining to the provision, erection, moving, re-erection and maintenance of all temporary barricades, road signs, lights, flagmen, etc. as required, for the guarding and protection of the works, for the construction, gravelling and maintenance of access roads and detours to the site of the works, borrow pits or spoil sites, as well as for the later removal or the cleaning and tidying up thereof, for making the necessary traffic arrangements and arrangements with regard to the moving and/or re-erection of existing traffic signs, as well as all other costs to accommodate the traffic during construction.

17 ENGINEERING DESIGN WORK AND ACTIVITY MATRIX

Early completion of the works is of prime importance.

Programming of the Works is to be done in conjunction with the Engineer. No alterations to the programme will be allowed once the work has commenced without the written consent of the Engineer.

The Contractor's programme shall be submitted in MS Project format and in print version. The programme shall be of the critical path type and shall include details of the resources to be employed. The programme shall indicate all project dependencies whether under the direct control of the Contractor or not.

The Contractor shall update the approved programme at monthly intervals and shall if required, reflect alterations to the order of the Works ordered by the Engineer.

The compilation of the construction programme and any amendments thereto during the course of construction shall be at the cost of the Contractor and shall not be measured elsewhere in this contract.

18 EMPLOYER'S DESIGN

No design will be provided by the Employer.

19 DESIGN BRIEF – DRAWINGS

All information in the possession of the Contractor that is required by the Engineer's Representative in order to complete the As-Built drawings and to prepare a completion report for the Employer must be submitted to the Engineer's Representative before a Certificate of Practical Completion will be issued for the Works. Similarly, the Contractor will be required to submit full details of all pipes, valves, meters and specials in a suitable loose bound format, including any special operational and maintenance procedures related thereto, for incorporation in the overall operation and maintenance manual for the Scheme prior to the issue of a Certificate of Completion for the Works.

Only figured dimensions on the Drawings may be used in the interpretation thereof, and the Drawings shall not be scaled unless the Contractor is so instructed by the Engineer in writing. The Engineer will upon written request provide any dimensions that may have been omitted from the drawings.

20 SUBCONTRACTING

If the Contractor subcontracts work, he is required to submit a signed agreement with proposed Sub contractor / consultant detailing the proposed scope and exclusivity of the relationship and intention to get into a subcontracting agreement based on the NEC3 Engineering and Construction Subcontract should he be successful.

21 CONSTRUCTION

Applicable SANS Standards for construction work

For this Contract the latest issues of the following Standard Specifications for Civil Engineering

Construction, applicable at the date of tender advertisement, shall apply -

SANS 1200 A :	1986	General	
SANS 1200 AA:	1986	General (Small Works)	
SANS 1200 AB:	1986	Engineer's Office	
SANS 1200 C :	1980	Site Clearance (Amendment 1, 1982)	
SANS 1200 D :	1988	Earthworks (Amendment 1, 1990)	
SANS 1200 DB:	1989	Earthworks (Pipe Trenches)	
SANS 1200 GA:	1982	Concrete (Small Works)	
SANS 1200 HA:	1990	Structural Steelwork (Sundry Items)	
SANS 1200 L:	1983	Medium-Pressure Pipelines	
SANS 1200 LB	:	1983 Bedding (Pipes)	
SANS 1200 LF	:	1983 Erf Connections (Water)	

The term project specifications appearing in any of the SANS 1200 standardised specifications must be replaced with the terms scope of work.

22 WORKS SPECIFICATIONS

SABS 1200 A : GENERAL

Materials Quality

Materials shall bear the official mark of the appropriate standard.

Samples on which laboratory testing is required, shall be delivered free of charge to site. The Contractor is responsible for the cost of all testing to ascertain that the materials do comply with the specified minimum requirements of the relative materials and no additional payment will be made for such testing.

The Contractor shall inform the Engineer of any control testing to be done at least 48 hours before such tests are required and must allow in his program for the time necessary for the tests and the processing of the results thereof.

23 PLANT AND MATERIALS

PLANT

All plant should be provided as per the requirements listed in the evaluation schedule under plant and equipment

MATERIALS

All in situ pavement material shall be classified as soft material for excavation purposes.

Materials used for selected layers shall comply with the requirements of standard specification 1200 M.

24 CONSTRUCTION EQUIPMENT

All plant should be provided as per the requirements listed in the evaluation schedule under plant and equipment

25 EXISTING SERVICES

25.1 DETECTION, LOCATION, AND EXPOSURE

If existing services are not shown on the drawings but the existence thereof can be reasonably expected, the Contractor shall, in conjunction with all relevant authorities, determine the exact depth and location of such services before the commencement of construction. After locating the exact position of services, whether indicated on the drawings or not, such services shall be deemed to be known services and the Contractor shall be liable for all costs and subsequent costs arising from the damage thereof as a result of the Contractor's activities. These services must also be indicated on the "as built" drawings.

Where the Contractor is responsible for the cost of repairs carried out by the Employer or others, the costs will be recovered by means of a deduction from the Contractor's monthly payment certificate. The Employer will attend to the payment of monies due to others.

26 SITE ESTABLISHMENT

Site establishment must meet the minimum standards as per the site establishment checklist to be issued at appointment.

27 SITE USAGE

a) Built-up Areas

The Contractor's attention is drawn to the fact that the Works will be constructed inside builtup areas. The Contractor shall exercise all necessary precautions and take all necessary steps to ensure the safety and convenience of the public. In addition, 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 Scope of Work. Allowance must be made by the Contractor in his programming for delays resulting from the aforesaid.

After reinstatement, both the Contractor and the owner/occupant shall sign the form confirming that the condition of the fence is at least equivalent to its condition before dismantling.

b) 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.

c) 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.

d) Unauthorised persons

The Contractor shall keep unauthorized persons from the works at all times under no circumstances may any person except guards be allowed to sleep on the building site.

28 PERMITS AND WAYLEAVES

All necessary permits and wayleave applications and approvals must be sought before commencement of construction.

29 ALTERATIONS, ADDITIONS, MODIFICATIONS TO EXISITNG WORKS

Prior assessments on modification work (refurbishment of existing boreholes) must be done and approval on proposed scope granted by MISA before proceeding with the work.

30 INSPECTION OF ADJOINING PROPERTIES

Not applicable on this project.

31 WATER FOR CONSTRUCTION PURPOSES

All costs must include sourcing of water for construction purposes and must be borne by the contractor. It is envisaged that quantities required for this project will not warranty the need for a Water Use Licence.

32 SURVEY CONTROL AND SETTING OUT OF THE WORKS

Setting out of the works is the sole responsibility of the Contractor. The Contractor shall, within two (2) weeks after the site has been handed over to him, ascertain himself of the correctness of all pegs and bench marks. Any discrepancy shall immediately be reported in writing to the Engineer. Any costs or subsequent costs arising from discrepancies which had not been reported to the Engineer within the aforementioned period, shall be the sole responsibility of the Contractor.

33 MANAGEMENT OF THE WORKS

a) Site Administration

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.

b) Daily Site Diary

The daily site diary in accordance with the pro forma supplied by the Engineer, shall be kept up to date by the Contractor's Representative and will be signed on a daily basis by the Engineer's Representative.

c) 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.

d) Information in Respect of Employees

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 subcontractors (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.

e) Site Instructions

Site instructions 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.

f) 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.

g) 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. Each progress payment certificate shall include work executed. The Engineer's Representative shall have a period of five (5) calendar days to review the draft certificate in collaboration with the Contractor.

Upon agreement by the Engineer's Representative by not later than the 25th of each month, the certificate shall be submitted by the Contractor in a neat typed form in accordance with the prescribed format, and with the correct spelling, to the Engineer by not later than the 28th of each month (or on the first working day thereafter), together with four additional copies, for certification.

The tax invoice submitted with the certificate shall be dated the 1st of the month following the period certified. All costs for the preparation and submission of progress certificates shall be borne by the Contractor.

h) 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 endeavors 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.

i) Workmanship and Quality Control

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and of the Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality-control 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, will be deemed to be included in the rates tendered for the various items of work. The Contractor's attention is drawn to the provisions of the various Standardised Specifications regarding the minimum frequency of process control testing that is to be executed. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control of the quality of the Works at all times.

Upon completion and submission of each portion of the Works to the Engineer for examination, the Contractor shall furnish the Engineer with the results of relevant tests, measurements and levels, thereby indicating compliance with the Specifications. The Engineer will not examine

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or inspect any portion of work submitted for approval unless the request for inspection and approval is accompanied by relevant tests, measurements and levels indicating compliance.

The Contractor shall make suitable arrangements for process control prior to commencement with the Works. Should he intend using site personnel for this purpose he shall ensure that suitably trained and competent personnel take charge of the necessary test work, and that the necessary equipment is at their disposal prior to commencement of the Works. Failure to comply with these requirements shall be just cause for the Engineer to order suspension of the Works without additional remuneration.

34 HEALTH AND SAFETY

The Contractor shall manage health and safety in accordance with the latest edition of the MISA Occupational Health and Safety Specification for Construction Works Contracts. The footprint of any environmental impacts associated with drilling activities is to be kept to a minimum and the work site is to be always maintained in good order. Portable toilets are to be utilised and maintained in good order.

This specification shall be used in conjunction with all other applicable safety specifications, legislation and regulations in force at the time of the contract. Where unique site specifications are in force, those site specifications shall take precedence over this specification.

34.1 ENVIRONMENTAL MANAGEMENT PLAN

Objective of the Environmental Management Plan

The EMP has the following objectives:

- a) To state standards and guidelines that are required to be achieved in terms of environmental legislation.
- b) To set out the mitigation measures and environmental specifications which are required to be implemented for all phases of the project in order to minimise the extent of environmental impacts, to manage environmental impacts and where possible, to improve the condition of the environment.
- c) To provide guidance regarding method statements which are required to be implemented to achieve the environmental specifications.
- d) To define corrective actions which must be taken in the event of non-compliance with the specifications of this EMP.
- e) To prevent long-term or permanent environmental degradation.

34.2 ENVIRONMENTAL POLICY

The Contractor will undertake (and procure that its subcontractors undertake) the development and operation of the project in an environmentally responsible way.

To achieve this policy statement, the Contractor will include this Environmental Management Plan with all project documents that it issued to any third party who carries out all or part of the Contractor's obligations in terms of the Contract.

The Contractor will procure design and construction in an environmentally responsible way by imposing adherence to the provisions of the EMP as a contractual obligation in respect of all project documents for design, construction, operation and maintenance activities.

34.3 METHOD STATEMENT

As a result of the investigation on expected environmental issues, the following aspects need to be focused upon and actions be taken in the EMP:

- Visual
- Waste Management and Control
- Noise Management.
- Water Management
- Vegetation
- Construction impacts
- Archaeological or Graves
- Stockpiles
- Storage tanks for diesel and fuel
- Rehabilitation after closure
- Environmental Monitoring and Auditing.

The Contractor must ensure and monitor the implementation of these management steps. On an overall framework, the effectiveness of all environmental management measures will have to be monitored and audited on a regular basis.

34.4 MANAGEMENT MEASURES

The environmental management measures described in this Environmental Management Plan are applicable to all sites.

The following actions need to be implemented in order to reduce or mitigate the anticipated impact on environmental conditions resulting from activities undertaken by the Contractor.

34.5 VISUAL IMPACTS

Any change in the local view through the introduction of a new development or infrastructure in the line of sight can be considered as a visual impact. The significance of the impact is influenced by the nature or "quality" of the affected landscape, the degree of change in the landscape which occurs as a result of the development, as well as the capacity of the landscape to absorb the impact. Visual impacts are usually considered most significant when the development is not of a similar nature to other developments in the area, or is readily viewed from areas of public access and view points, or in areas which are characterised by significant natural features.

34.6 MANAGEMENT MEASURES

Screening vegetation could be planted to soften/obscure the structures where practical. The choice of screening vegetation is very important. It should be consistent with the natural vegetation of the area so as to blend in with the surrounding landscape and not appear out of place. Placement should follow a irregular pattern where possible, similar to surrounding vegetation, in order to avoid a "plantation-like" or geometric appearance.

34.7 WASTE MANAGEMENT AND CONTROL

The management and proper handling of solid and liquid waste is essential. This aspect needs proper control and monitoring during the full construction period. Waste is not allowed to burn on site.

It is important to control any waste products that might be generated during normal operating activities like bitumen, fuel oil and diesel.

34.8 MANAGEMENT MEASURES

a) Solids

• Accessible waste disposal bins must be distributed over the site and it is suggested that large waste bins be put out on various places within the site.

- A skip or similar should be placed centrally at the site. All waste disposal bins should be emptied in this skip and the skip should be emptied at least on a weekly basis.
- A maintenance contract must be signed with an approved contractor and the waste must be disposed of at an approved waste site. Site personnel could consider moving the waste to the local municipal refuse site themselves if they have the means to do this.
- General hygiene conditions should be kept at the waste bins and skips throughout the period of occupation. It is recommended that the areas be disinfected on a regular basis by using JIK or granular chlorine.

b) Liquid

Liquid waste, other than sewage waste, must be collected in closed containers. Waste to be collected includes:

- Mechanical oil,
- Hydraulic fluid,
- Grease
- Used cooking oil,
- Paint and resins.

Used oil must be recycled through a recognized recycler.

c) Construction

Construction waste (wood, steel and concrete) should be collected and placed in specially designated areas on the site for removal by the contractor to the disposal site. If possible, construction waste should be made available to local people for usage.

d) Noise Management

Standards and guidelines for the control of noise, vibration and shock which are of relevance to this project are primarily controlled under the Occupational Health and Safety Act (No 85 of 1993) in terms of the workplace in industry;

- e) Management Measures
 - Work activities should be planned not to generate more noise than the 65dB level stipulated. Noise levels above 65dB would require mitigation measures. The Contractor shall restrict all of its operation and maintenance operations which result in

undue noise disturbance to the hours of 06:00 to 18:00. Any work outside of these hours should be agreed in writing with the affected parties. If construction is to take place during the night, it should be limited to those activities generating minimum noise.

- Personnel shall equip noisy machinery with standard silencers and take care not to increase ambient noise levels unreasonably bearing in mind the construction action and the machinery required.
- Personnel working in conditions with high noise levels shall be equipped with the required safety equipment to reduce the exposure of the individual to the noise. Regular monitoring of workers conditions should be undertaken.
- Records of all noise level measurements shall be kept for the duration of any contract or operation.

f) Water Management

The construction of any structure can have a significant impact on the storm water runoff and hydrology of the surrounding area. This is usually most significant during and after rainfall and particularly after heavy rainfall. This may result in higher than normal flow volumes which could disrupt the local hydrology and runoff patterns of the area. This in turn may result in soil erosion and the swift delivery of pollutants into the drainage system.

Management Measures

- Gabions (or similar structures) or vegetated swales could be used to slow the water down in areas prone to soil erosion
- The velocity of the water must be reduced (energy dissipated) before entering the natural drainage system.

g) Vegetation

Construction of the proposed work will result in the clearing of vegetation for the pipeline routes.

Management Measures

- The clearing of vegetation should be limited to the extent of the area to be utilised for construction;
- The Euphorbia cooper trees or any other tree should be avoided as far as possible;
- Trees that need to be cleared should be either replanted or replaced.
- h) Construction Impacts

Impacts associated with construction could include the following:

- Air pollution generated during the construction phase;
- Increased noise emanating from construction activity (See 2.3);
- Activities at construction camp site.
- i) Air Quality

Air quality during the construction phase, is generally affected by dust generated during activities such as earth moving and by emissions from construction vehicles and equipment.

Dust generated during the construction phase results from a number of the construction activities, including earthworks, loading and offloading material, drilling and crushing operations, and dust entrained by construction vehicles on site. Wind blown dust may result from denuded areas and earth stockpiles. Dust can temporarily reduce visibility and it is an irritant to the nose and eyes. Heavy dust loading may reduce plant growth.

Potential impacts on air quality during construction will be as a result of:

- dust generated during construction activities; and
- emissions from construction vehicles and equipment.

Management Measure

Dust should be suppressed through a watering management programme, especially during windy conditions and in the dry winter months.

j) Construction Camp Site

Management Measures

- The construction camp site must be located on a location that will ensure that minimal erosion damage takes place.
- Proper sanitation facilities must be supplied.
- If vegetation is removed or damaged, it must be properly rehabilitated.
- The use of fires for cooking should be prohibited, so as to prevent to the risk of veld fires.
- The construction camp should be properly controlled with access limited to workers only.
- A proper rehabilitation plan should be in place to reinstate and landscape areas used after construction.

k) Stockpiles

Should stockpiling become necessary during any operation the areas for the stockpiling of material shall be indicated and demarcated on a site plan.

The areas chosen for stockpiling shall have no indigenous trees and shrubs present that may be damaged during operations. In determining the location of these temporary stockpile areas, cognisance must be taken of sensitive and no-go areas, and should be located within the construction site, where feasible. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of these temporary stockpiles, the Contractor shall at all times ensure that they are:

- Positioned and sloped to create the least visual impact.
- Constructed and maintained so as to avoid erosion of the material and contamination of the surrounding environment.
- Kept free from all alien/undesirable vegetation.
- Ensure that no excessive dust is generated from these stockpiles.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated/deposited during construction shall remain on-site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained.

I) Storage Tanks

The following extract has been made from the relevant standards that are applicable to the temporary fuel storage facilities:

m) General

A bund provides containment for any loss of chemical / oil from the storage tank and associated pipe work. It should consist of a base and surrounding walls, which must be constructed of, or lined with, a material impermeable to the substance stored. Ideally, pipe work should not pass through the bund wall. However, if this is unavoidable, the material used for sealing around the pipe must be resistant to attack by the substance stored and the overall integrity of the bund should not be compromised.

n) Rainwater

Although in some areas rainwater will often evaporate from within the bund, a collection sump should be included in the base. If there is a need to remove accumulated rainwater, this should be done with a manually operated pump or by bailing from the sump. This water may be

contaminated and should be disposed of with care to ensure no pollution occurs. If in doubt about this, contact your local Agency office for advice.

There must be no outlet directly connecting the bund to any drain, sewer or watercourse or discharging onto a yard or unmade ground.

o) Capacity

There are two acceptable methods for calculating bund capacity. Normally, the capacity of the bund has been calculated to give containment for 110% of the total volume for single tanks and hydraulically linked tanks. Where two or more tanks are installed within the same bund, 110% of the largest tank or 25% of the total capacity of all tanks, whichever is the greater, is used.

p) Maintenance of storage tanks

Bunds, tanks and pipe work should be inspected regularly for signs of damage and should be checked at least weekly. Any accumulated rainwater, oil or debris should be removed and any defects to the bund wall or lining should be repaired promptly using the appropriate technique to ensure the bund retains its integrity. Damage to the tank or pipe work should be dealt with immediately.

q) Rehabilitation after Closure

After the completion of work the site must be rehabilitated to the following project or contract specifications. All site facilities that were utilised during constriction needs to be removed and the site needs to be rehabilitated.

The site must be thoroughly cleaned up from pollutants and debris prior to decommissioning.

C3.2 GENERAL REQUIREMENTS

1 Management requirements

- a) The Contractor shall in providing the Works observe all statutes, by-laws and associated regulations and industry norms established in relevant South African national standards published in terms of the Standards Act of 2008 or standards recommended by professional associations.
- b) The Contractor shall, where design services are required, manage the implementation of packages from stage 3 and onwards in accordance with the provisions of the latest edition of the National Treasury Standard for Infrastructure Procurement and Delivery Management.

2 Construction requirements

The Contractor shall only incorporate in the works materials (substances that can be incorporated into the works), products (item manufactured or processed for incorporation into the works), components (products manufactured as distinct units to serve a specific function or functions) and assemblies (set of related components attached to each other) which are:

- a) Fit for their intended purpose; and
- b) Capable of fulfilling required functions under intended use conditions or when in use, with planned maintenance, under the influence of the environmental actions or a result of a selfageing process for a period of time within industry accepted norms.

3 Design requirements

The Subcontractor appointed by the Contractor to provide design services shall:

- a) Observe in the provision of the services all relevant statutes, by-laws and associated regulations, the provisions of National Treasury's Standard for Infrastructure Procurement and Delivery Management, standards of professional conduct and industry norms established in relevant South African national standards published in terms of the Standards Act of 2008 or standards recommended by professional associations; and
- b) Provide the services in accordance with the relevant 'Guideline Scope of Services' as per the Guideline for Services and Processes for Estimating Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No.46 of 2000) as a project leader, lead designer, designer, cost consultant and supervising agent.

4 MANAGEMENT

4.1 GENERAL

The Contractor shall:

- a) Provide a fortnightly progress report covering the Scope or Works.
- b) Be required to participate in regular progress meetings with the client and other stakeholders.

4.2 HEALTH AND SAFETY

The Contractor shall manage health and safety in accordance with the latest edition of the MISA Occupational Health and Safety Specification for Construction Works Contracts. The footprint of any environmental impacts associated with drilling activities is to be kept to a minimum and the work site is to be maintained in good order at all times. Portable toilets are to be utilised and maintained in good order.

4.3 COMPLETION STRATEGY

- a) The Contractor shall develop a completion strategy to minimise the correction of defects after Completion and to achieve Completion on or before the Completion Date. Such a strategy shall include a systematic approach to ensuring that employees and subcontractors search for defects as the work progresses, programme their work in such a manner that defects are corrected ahead of Completion and sufficient time is allowed for commissioning.
- b) The completion strategy should be framed around the systematic acceptance and / or testing of materials, plant, workmanship and subsystems as the works proceed in order to address issues ahead of completion and the allocation of tasks to ensure satisfactory completion.

4.4 **PROGRAMME**

The additional information to be shown on the programme are the dates for submission of end of stage deliverables associated with the latest edition of the National Treasury Standard for Infrastructure Procurement and Delivery Management.

4.5 PROCUREMENT: PROMOTION OF SECONDARY (DEVELOPMENTAL) PROCUREMENT OBJECTIVES

The Contractor shall achieve in the execution of a Package Order key performance indicators which promote a range of secondary procurement objectives including those relating to local economic development, Broad-Based Black Economic Empowerment and local labour.

The Contractor shall provide in a format acceptable to the Project Manager monthly data which facilitates the reporting on key performance indicators relating to secondary procurement objectives to a wide range of stakeholders.

4.6 **REPORTING**

The Contractor shall report on the socio-economic indicators such as jobs created and employment of local labour specified in a Package Order.

4.7 COMMUNICATIONS

All communications with the Employer which are made in terms of the contract should be made using the standard templates provided by MISA.

4.8 INVOICES

Invoices submitted shall be a Tax invoices. The invoice shall comply with requirements, if any, established by the Employer.

Detailed payment certificates, clearly indicating progress on payment items shall be submitted for approval before any invoice shall be issued. Separate payment certificates shall be submitted for the engineering and construction deliverables. Payment will be according to actual verified progress.