



TENDER No: 25/2025

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS			
Name of Tendering Entity			
Name of Tendering Entity Representative			
Physical Address of Tendering Entity			
Postal Address of Tendering Entity			
Contact Details of Tendering Entity	<p>Tel:</p> <p>Fax:</p> <p>Cell:</p> <p>Email:</p>		
Tender Amount carried from Form of Offer (including VAT)	R (incl VAT)		
CIDB Grading		CRN No.:	
Tax PIN	PIN		
CENTRAL SUPPLIER DATABASE (CSD)	MAAA		

LESEDI LOCAL MUNICIPALITY**CONTRACT No.: 25/2025**

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS****SUMMARY FOR BID OPENING PURPOSES**

NAME OF BIDDING ENTITY:

.....

PHYSICAL / STREET ADDRESS:	POSTAL ADDRESS:

TELEPHONE NUMBER:

FAX NUMBER :

E-MAIL ADDRESS :

CONTRACT PRICE : R

(Amount brought forward from the Form of Offer and Acceptance) *

SIGNED BY AUTHORISED REPRESENTATIVE OF THE BIDDING ENTITY:

DATE:

* Should any discrepancy occur between this figure and that stated in the Form of Offer and Acceptance, the latter shall take precedence and apply.



LESEDI LOCAL MUNICIPALITY

CONTRACT No: 25/2025

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS**

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C4	Site Information	(WHITE)
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LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS

PART T1: BIDDING PROCEDURES



TENDER NO: 25/2025

LESEDI LOCAL MUNICIPALITY

CONTRACT No: 25/2025

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND
RENSBURG PUMP STATIONS.**

PART T1: BIDDING PROCEDURES

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T1.1 BID NOTICE AND INVITATION TO BID

ADVERTISED IN: SOWETAN

PUBLISHING DATE: 25 SEPTEMBER 2025

TENDER NOTICE: 25/2025

LESEDI LOCAL MUNICIPALITY

Tenders are hereby invited for the following Office: Infrastructure Services Department: Water & Sanitation.

TENDER No.: 25/2025

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.

Bidders must be registered with the Construction Industry Development Board (CIDB) in a contractor grading designation determined in accordance with the sum tendered for a **5 ME** class of construction work or higher.

Adjudication:

Tenders will be evaluated using functionality evaluation criteria of **100 points** of which the bidder is required to score the minimum of **75 points** in order to be considered for further evaluation. Tenders will be evaluated using the 80/20 preference point system which awards **80 points for Price** and **20 points for Specific Goals** in accordance with the table below:

SPECIFIC GOALS (20 POINTS)				
HDI (% Shareholding) (proof of points claimed required)	Youth	Woman	Disabled	Black
	3	5	2	5
Area of Origin (Proof of street address required)	Sedibeng (DISTRICT)		Gauteng (PROVINCE)	
	3		2	
PRICE	80			
TOTAL POINTS	100			

Documents Collection: Documents can be downloaded from the e-portal or Lesedi Local Municipality's Website.

Technical Enquiries: Mr Star Moholobela
Tender Documents: Ms. Sibulelo Mokoena

Tel: (016) 466 1965
Tel: (016) 466 1947

Documents available: As from 30 September 2025 on www.etenders.gov.za or www.lesedi-lm.gauteng.gov.za

Closing date: 27 October 2025

Time: 12:00

Tender Box

Venue: Tender boxes are situated at the Supply Chain Management Unit, situated on the upper level of the West Wing of the Lesedi Local Municipality Civic Centre, Corner Du Preez and H. F. Verwoerd Streets in Heidelberg.

COMPULSORY TENDER DOCUMENTS (DISQUALIFICATION CRITERIA):

1. Tax Clearance Certificate / Tax Compliance Status documents with Pin. Each company within the Joint Venture / Consortium must submit Tax Clearance Certificate or a copy of Tax Compliance Status document with Pin.
2. Vat clearance certificate if service provider is registered for VAT.
3. Certified copies of all directors ID.
4. Copy of company registration documents.
5. Copy of latest municipal account (Rates, taxes and Services account) which is not more than 3 months old at the time of closing.
6. The bidding entity as well as all its directors must submit a Municipal account (Rates, taxes and Services account) which is not more than three (3) months in arrears or valid lease agreement which is on the name of the entity. If the director is leasing, they must also provide a valid lease agreement on their names.
6.1 If the business operates from the different address as per CIPC document, an affidavit must be provided.
7. Central Supplier Database (CSD) registration full report.
8. Completed and Signed Schedule of Quantities. (As per attached pricing schedule)
9. In the event that an item is not going to be charged on the schedule of quantities the number "0" must be inserted and not a dash (-).
10. Authority of Signatory must be completed and signed by way of directors' resolution. In the event of a business being a sole proprietor or one-person business, a letter of authority is not required.
11. Tenders must submit the relevant copy of Workmen's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993). A Letter of Good standing certificate must be submitted (Construction - Mechanical related).
12. Audited annual financial statements for the past three years or since the date of establishment if established during the past three years for bids above R10 million.
13. MBD 1: Invitation to Tender
14. MBD 4. Declaration of Interest.
15. MDB 5. Declaration of Procurement above R10 million (VAT included).
16. MBD 6.1 Preferential Points.
17. MBD 8: Declaration of Bidder's Past Supply Chain Management Practices.
18. MBD 9: Certificate of Independent Bid Determination.
19. CIDB Grading for a 5 ME class of construction work or higher.
20. Bidders must sign or initial each page by authorized signatory.
21. Tenders must submit a letter confirming that the company has a Budget to implement this project and there will not be delays in implementation this project due to financial constraints.
22. Bid Documents must be completed in full.
23. The municipality reserves the right to verify all returnable submissions. Fraudulent submissions will result in automatic disqualification.

BIDDING TENDER CONDITIONS:

1. All suppliers of good and services must be registered in the National Treasury web-based Central Suppliers Database (CSD). As per National Treasury Instruction No. 4 A of 2016/2017 National Treasury Supplier Database, organs of state must ensure that suppliers awarded business with the State, excluding instances mentioned in paragraph 3.3, are registered on the CSD prior to award letter/purchase order/signed contract being issued.
2. Tenders by joint ventures are to be accompanied by the Document Formation of the joint venture, duly registered and authenticated by a Notary Public or other official deputized to witness sworn statements. This document must define precisely the conditions under which the joint venture will function, the period for which it will function, the persons authorized to represent and obligate it, the address for correspondence, the participation of several firms forming the joint venture and any information necessary to permit a full appraisal of its functioning, including a clause to the effect that the members of the joint venture are jointly and severally bound.
3. No late tender will be accepted.
4. Telefax or e-mail tenders will not be accepted.
5. Tenders may only be submitted on the bid documents as provided by Lesedi Local Municipality.
6. The use of tippex is not allowed on the bid documents.
7. In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by a full signature of the authorized person at each and every alteration. The Municipality reserves the right to reject the Bid if corrections are not made in accordance with the above.
8. Bids completed in pencil will be regarded as invalid bids.
9. No page(s) may be removed from the original tender document.
10. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the tender document.
11. The lowest or any tender will not necessarily be accepted, and Lesedi Local Municipality reserves the right to accept a tender in whole or in part.
12. The Municipality reserves the right to appoint and not to appoint.
13. The Municipality reserve the right to negotiate a fair market-related price with recommended bidders after a competitive bidding process or price quotations.
14. The validity period for this tender is ninety (90) days.
15. All tender prices must be inclusive of VAT for all registered VAT vendors.
16. The bid will be evaluated on an 80/20 principle where 80 points will be price, and 20 points will be Specific Goals.
17. Tender documents may be downloaded from e-tender portal at www.etenders.gov.za as well as www.lesedilm.gauteng.gov.za

NB* NO TENDER DOCUMENTS ON USB WILL BE CONSIDERED FOR EVALUATION

**PART A
INVITATION TO BID**

YOU ARE HEREBY INVITED TO TENDER FOR REQUIREMENTS OF LESEDI LOCAL MUNICIPALITY					
TENDER NUMBER:	25/2025	CLOSING DATE:	27 OCTOBER 2025	CLOSING TIME:	12H00
DESCRIPTION	THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.				
THE SUCCESSFUL TENDERER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					
TENDER RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE TENDER BOX SITUATED AT (STREET ADDRESS)					
Supply Chain Management Unit					
Lesedi Local Municipal Building					
Corner H. F. Verwoerd and Du Preez Street					
Heidelberg					
1438					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT <input type="checkbox"/> Yes <input type="checkbox"/> No		
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL ITEMS OFFERED COMPLY WITH SPECIFICATIONS	<input type="checkbox"/> Yes <input type="checkbox"/> No	TOTAL BID PRICE (As per the price schedule)	R
SIGNATURE OF BIDDER	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
QUERIES MAY BE DIRECTED DURING OFFICE HOURS: MON – FRI BETWEEN 07:30 TO 16H00 TO			
FOR BIDDING PROCEDURE		FOR TECHNICAL INFORMATION	
CONTACT PERSON	SIBULELO MOKOENA	CONTACT PERSON	MR STAR MOHOLOBELA
TELEPHONE NUMBER	016 466 1947	TELEPHONE NUMBER	016 466 1965
E-MAIL ADDRESS	sibulelom@lesedi.gov.za	E-MAIL ADDRESS	starm@lesedi.gov.za

PART B TERMS AND CONDITIONS FOR BIDDING

BID SUBMISSION:

BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

TAX COMPLIANCE REQUIREMENTS

BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.

BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.

APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.

FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.

BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.

IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.

WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA) ☐ YES ☐ NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA ☐ YES ☐ NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION ☐ YES ☐ NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

T1.2 BID DATA

The Conditions of Bid are the Standard Conditions of Bid as contained in the latest edition of ISO 10845-3.

The Standard Conditions of Bid make several references to the Bid Data for details that apply specifically to this bid. The Bid Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of bid. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Bid to which it mainly applies.

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

The word “bid” or any of its derivatives shall be interchangeable with the word “tender” and its derivatives.

The word “Employer” shall be interchangeable with the word “Purchaser”.

The word “Contractor” shall be interchangeable with the word “Supplier”.

The word “Employer’s Agent” shall be interchangeable with the term “Employer’s Representative”.

The additional conditions of bid are:

Clause number	Bid Data
3.1	<p>The Employer is: LESEDI LOCAL MUNICIPALITY P. O. BOX 201 HEIDELBERG 1438.</p>
3.2	<p>The bid documents issued by the Employer comprise of:</p> <p>THE BID</p> <p>Part T1 Bidding Procedures Part T1.1 Bid Notice and Invitation to Bid Part T1.2 Bid Data</p> <p>Part T2 Returnable Documents Part T2.1 Returnable Schedules Required for Bid Evaluation Purposes Part T2.2 Other Documents Required for Bid Evaluation Purposes Part T2.3 Returnable Schedules That will be Incorporated in the Contract</p> <p>THE CONTRACT</p> <p>Part C1 Agreements and Contract Data C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Form of Guarantee C1.4 Agreement in terms of Occupational Health and Safety Act, 1993</p>

Clause number	Bid Data
	<p>Part C2 Pricing Data C2.1 Pricing Instructions C2.2 Bill of Quantities</p> <p>Part C3 Scope of Works C3.1 Description of the Works C3.2 Engineering C3.3 Procurement C3.4 Management C3.5 Construction C3.6 Health and Safety Specification C3.7 Environmental Management Plan</p> <p>Part C4 Site Information C4 Site Information</p> <p>Part C5 Appendices C5 Appendices</p>
3.4	<p>The Employer is: Lesedi Local Municipality No.1 H. F. Verwoerd Street Heidelberg 1441</p> <p>Contact Person: Mr Star Moholobela Tel: 016 466 1965</p> <p>The Employer's Agent is: Watson Consulting Engineers (Pty) Ltd 113 River Road Lyttelton Manor Centurion 0157</p> <p>Contact Person: Ms. Philile Mthembu Phone: 010 023 4260</p> <p>Bidders shall note that verbal information given by the Employer's Agent during clarification meetings, site visits or at any time prior to the award of the Contract will not be regarded as binding on the Employer. Only information issued formally in writing in terms of an Addendum (Clause 4.7) or Clarification of a Bid Offer (Clause 4.8) will be considered as amending the Bid Documents.</p>
3.4	The language for communication is English.
3.6	A two-envelope system will not be followed.

Clause number	Bid Data						
4.1	<p>Only those bidders who are registered with the CIDB in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 5 ME class of construction work, are eligible to submit bids.</p> <p>Joint Ventures are eligible to submit bids provided that:</p> <ol style="list-style-type: none"> (1) each member of the joint venture is registered with the CIDB, (2) the lead partner has a contractor grading designation from 5 ME class of construction work; and (3) the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations (according to the CIDB website Joint Venture Grading Designation Calculator) is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 5 ME class of construction work. 						
4.13	<p>The <u>whole original</u> bid document, <i>as issued by the Lesedi Local Municipality (LLM)</i>, shall be submitted. No copies will be accepted.</p> <p>Bids may only be submitted on the Bid documentation issued by the LLM.</p>						
4.15	<p>The employer's address for delivery of bid offers and identification details to be shown on each bid offer package are:</p> <p>Location of bid box: Bid Box</p> <p>Physical address: Bid Box situated at the Supply Chain Management Department, Municipal Building, corner H. F. Verwoerd and Du Preez Street, Heidelberg, during office hours Monday to Friday, 0730hrs till 1600hrs. The bid closes on 27 October 2025 at 12:00pm. No late, or e-mailed or faxed bids will be considered. All objections and complaints must be lodged within 14 days and in writing to the Municipal Manager 's Office.</p> <p>Identification details: Contract Number: 25/2025</p> <p>DESCRIPTION OF PROJECT: THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS</p> <p>Identification details: The bidder must clearly indicate the contents on the front of the envelope, with the following details:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 40%;">(i) Bid No.: 25/2025</td><td style="width: 60%;">THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS</td></tr> <tr> <td>(ii) The closing date of the bid:</td><td>27 October 2025 at 12:00pm</td></tr> <tr> <td>(iii) The name and address of the bidder:</td><td>.....</td></tr> </table>	(i) Bid No.: 25/2025	THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS	(ii) The closing date of the bid:	27 October 2025 at 12:00pm	(iii) The name and address of the bidder:
(i) Bid No.: 25/2025	THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS						
(ii) The closing date of the bid:	27 October 2025 at 12:00pm						
(iii) The name and address of the bidder:						
4.13	Telephonic, telegraphic, telex, facsimile or e-mailed bid offers will not be accepted.						

Clause number	Bid Data																		
4.15	The closing time for submission of bid offers is 12:00pm on 27 October 2025.																		
4.16	<p>The bid offer validity period is 90 Days calculated from the bid closure date.</p> <p>If the bid validity expires on a Saturday, Sunday or public holiday, the bid shall remain valid and open for acceptance until the closure of business on the following working day.</p>																		
5.4	Bids will be opened immediately after the closing time for bids at the: Supply Chain Management Department, Municipal Building, corner H. F. Verwoerd and Du Preez Street, Heidelberg.																		
5.11	The procedure for evaluation of responsive bids is Method 3.																		
5.11.4	<p>The financial offer is scored using the formula in Paragraph 5.11.7 on Page 30 where the value of W_1 is 80 points.</p> <p>Up to 100 minus W_1 bid evaluation points are awarded to bidders who complete the preferencing schedule and who are found to be eligible for the preference claimed.</p>																		
5.11.9	<p>EVALUATION OF BID OFFERS</p> <p><u>Prequalification / Quality Criteria</u></p> <p>Bidders will be assessed based on the quality criteria as set out in the table below. Bidders scoring less than 75 points will be considered non-responsive.</p> <p>Bidders shall fill in the relevant information on the Quality Criteria Schedules / Returnable Schedules in Part T2 (summarised on Page 33) and this information shall be used to award points for quality on the following basis per category:</p> <table><tr><th colspan="4">FUNCTIONALITY CRITERIA – BID RATING MATRIX</th></tr><tr><th>Criteria</th><th>Evaluation Indicators</th><th>Points Allocated</th><th>Weight</th></tr><tr><td colspan="3">1. COMPANY EXPERIENCE</td><td>Max = 40 Points</td></tr><tr><td rowspan="2">Company experience as a main contractor with regards to the construction of pumpstations</td><td>4 or more pumpstations projects greater than R3m construction value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.</td><td>40 points</td><td rowspan="2">40</td></tr><tr><td>3 pumpstations projects greater than R3m value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.</td><td>30 points</td></tr></table>	FUNCTIONALITY CRITERIA – BID RATING MATRIX				Criteria	Evaluation Indicators	Points Allocated	Weight	1. COMPANY EXPERIENCE			Max = 40 Points	Company experience as a main contractor with regards to the construction of pumpstations	4 or more pumpstations projects greater than R3m construction value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.	40 points	40	3 pumpstations projects greater than R3m value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.	30 points
FUNCTIONALITY CRITERIA – BID RATING MATRIX																			
Criteria	Evaluation Indicators	Points Allocated	Weight																
1. COMPANY EXPERIENCE			Max = 40 Points																
Company experience as a main contractor with regards to the construction of pumpstations	4 or more pumpstations projects greater than R3m construction value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.	40 points	40																
	3 pumpstations projects greater than R3m value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.	30 points																	

Clause number	Bid Data			
		2 pumpstations projects greater than R3m construction value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD/MM/CFO/CEO/Manager.	20 points	
		1 pumpstations projects greater than R3m construction value successfully completed. (Attach matching signed appointment letter, reference letter and completion certificates as proof). Signed by relevant senior official, HOD, MM, CFO, CEO, Manager.	10 points	
		0 pumpstations projects greater than R3m construction value successfully completed.	0 points	
	2. FINANCIAL STABILITY Max = 5 Points			
	Bank Rating (Attach stamped Bank rating Certificate as Proof)	Bank Code Report		5
		- Code A	5 points	
		- Code B	4 points	
		- Code C	3 points	
		- Code D	2 points	
		- Code E	1 point	
	3. COMPANY EQUIPMENT Max = 20 Points			
	Plant compatibility (Refer to Page 36-37)	2 Ton Chain Block (Proof of Purchase or letter of intent to hire from hiring company on the hire company's letter head with contactable reference).	5 points	5
		Concrete Mixer (Proof of Purchase or letter of intent to hire from hiring company on the hire company's letter head with contactable reference).	5 points	5
		LDV (Proof of vehicle registration or letter of intent to hire from hiring company on the hire company's letter head with contactable reference).	10 points	10
	4. COMPANY KEY PERSONNEL Max = 35 Points			
	Key Personnel 1 No. Years' Experience of Key Project Personnel as per Form D3	Contracts Manager with relevant pump stations experience BSc / B-Tech / National Diploma in Mechanical Engineering (Attach CV and certified copies of relevant qualifications)	8 years or more = 12	12
			5 – 7 years = 10	
			3 – 4 years = 8	
			<2 years = 0	

Clause number	Bid Data				
	Key Personnel 2 No. Years' Experience of Key Project Personnel as per Form D3	Site Agent with relevant pumpstations experience National Diploma in Mechanical Engineering and experience in Mechanical Engineering works or higher (Attach CV and certified copies of relevant qualifications)	8 years or more = 10	10	
			6 – 7 years = 8		
			4 – 5 years = 6		
			<3 years = 0		
	Key Personnel 3 No. Years' Experience of Key Project Personnel as per Form D3	Mechanical Fitter with relevant pumpstations experience Minimum N3 in Mechanical (Fitting and Turning) with Trade certificate, minimum 3 years' experience. (Attach CV and certified copies of relevant qualifications)	5 years or more = 8	8	
			3 – 4 years = 5		
			<2 years = 0		
	Key Personnel 4 No. Years' Experience of Key Project Personnel as per Form D3	Electrician with relevant pumpstations experience Minimum N3 in Electrical with WIREMAN'S LICENSE, Minimum 2 years' experience in MV and LV, (Attach CV and certified copies of relevant qualifications and registrations)	4 years or more = 5	5	
			2 – 3 years = 3		
			<2 years = 0		
		TOTAL SCORE	100		
	<u>Notes:</u> Submit Curriculum Vitae and Certified Qualification certificates for all key personnel listed above. All foreign qualifications must be accompanied by a relevant SAQA certificate				
	5.13	<p>Only those bidders who can demonstrate that they will have in their employ, management and supervisory staff satisfying the requirements of the scope of work for labour-intensive competencies for supervisory and management staff during the validity of the contract are eligible to submit bids.</p> <p><i>In addition to the above:</i></p> <ul style="list-style-type: none">• the bidder has in his or her possession an original valid Tax Clearance Certificate or TCS pin number thereof, issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations;• the bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation and is not suspended;• the bidder or any of its directors is not listed on the Register of Bid 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;• the bidder has not:<ul style="list-style-type: none">- Abused the Employer's Supply Chain Management System; or- Failed to perform on any previous contract and has been given a written notice to this effect; and			

Clause number	Bid Data
	<ul style="list-style-type: none"> the bidder has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the bid process. <p>The bidder must submit to the Employer, names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirement. The contractor shall ensure that the minimum supervisor to worker ratio of 1:20 for effective supervision of Labour-intensive works for all LI activities.</p>
5.17	The number of paper copies of the signed contract to be provided by the Employer is one.
5.17.1	The tendered rates and prices shall not be subject to Contract Price Adjustment (CPA).
	<p>CERTIFICATES</p> <ol style="list-style-type: none"> Attach a valid Tax Clearance Certificate or TCS pin number thereof, issued by the South African Revenue Services. If a bidder is a registered company required by law to have its annual financial statements audited or independently reviewed in compliance with the requirements of the Companies Act, Act No. 71 of 2008, or any other law, audited or independently reviewed annual financial statements as the case may be, prepared within six (6) months of the end of the bidder's most recent financial year together with the audited or independently reviewed annual financial statements for the two immediately preceding financial years, unless the bidder was only established or commenced business within the past three (3) years in which case all of its annual financial statements must be submitted; If a bidder is a registered close corporation, annual financial statements in compliance with the provisions of the Close Corporations Act, Act No. 69 of 1984, prepared within nine (9) months of the end of the bidder's most recent financial year together with the annual financial statements for the two immediately preceding financial years, unless the bidder was only established or commenced business within the past three (3) years in which case all of its annual financial statements must be submitted; If the bidder only commenced business within the past three (3) years, the bidder is required to submit annual financial statements in compliance with the provisions of subsections (4) and (5) above for each of its financial years since commencing business; If a bidder is not required by law to have its annual financial statements audited or independently reviewed, or is not a Close Corporation, then non-audited annual financial statements for the periods referred to above must be submitted.

ANNEXURE F: STANDARD CONDITIONS OF BID AS CONTAINED IN SANS 10845-3 STANDARD FOR UNIFORMITY IN CONSTRUCTION PROCUREMENT

STANDARD CONDITIONS OF BID

3 GENERAL

3.1 Actions

The employer and each bidder submitting a bid offer shall comply with these conditions of bid. In their dealings with each other, they shall discharge their duties and obligations as set out in Clause 4 and 5 timeously and with integrity, and behave equitably, honestly, and transparently, comply with all legal obligations, and not engage in anticompetitive practices.

The employer and the bidder and all their agents and employees involved in the bid process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Bidders shall declare any potential conflict of interest in their bid submissions. Employees, agents, and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:

- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
- 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect, or family interests in the bid or outcome of the procurement process and any personal bias, inclination, obligation, allegiance, or loyalty which would in any way affect any decisions taken.

The employer shall not seek, and a bidder shall not submit a bid without having a firm intention and the capacity to proceed with the contract.

3.2 Bid Documents

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

3.3 Interpretation

The bid data and additional requirements contained in the bid schedules that are included in the returnable documents are deemed to be part of ISO 10845.

The standard conditions of bid contained in this part of ISO 10845, the bid data and bid schedules which are only required for bid evaluation purposes, shall not form part of any contract arising from the invitation to bid.

For the purposes of these conditions of bid, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.

- b) **comparative offer** means the bidder's financial offer after all tendered parameters that will affect the value of the financial offer has been taken into consideration in order to enable comparisons to be made between offers on a comparative basis;
- c) **corrupt practice** means the offering, giving, receiving, or soliciting of anything of value to influence the action of the employer or his staff or agents in the bid process;
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the bid process or the award of a contract arising from a bid offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;
- e) **organization** means a company, firm, enterprise, association, or other legal entity, whether incorporated or not, or a public body;
- f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

3.4 Communication and employer's agent

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

3.5 The employer's right to accept or reject any bid offer

The employer may accept or reject any variation, deviation, bid offer, or alternative bid offer, and may cancel the bid process and reject all bid offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a bidder for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

The employer may not subsequent to the cancellation or abandonment of a bid process or the rejection of all responsive bid offers re-issue a bid covering substantially the same scope of work within a period of six months unless only one bid was received and such bid was returned unopened to the bidder.

3.6 Procurement procedures

3.6.1 General

Unless otherwise stated in the bid data, a contract will, subject to 5.13, be concluded with the bidder who in terms of 5.11 is the highest ranked or the bidder scoring the highest number of bid evaluation points, as relevant, based on the bid submissions that are received at the closing time for bids.

3.6.2 Competitive negotiation procedure

Where the bid data require that the competitive negotiation procedure is to be followed, bidders shall submit bid offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of 5.4, the employer shall announce only the names of the bidders who make a submission. The requirements of 5.8 relating to the material deviations or qualifications which affect the competitive position of bidders shall not apply.

All responsive bidders, or not less than three responsive bidders that are highest ranked in terms of the evaluation method and evaluation criteria stated in the bid data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of 4.17, the employer may request that bids be clarified, specified, and fine-tuned in order to improve a bidder's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

At the conclusion of each round of negotiations, bidders shall be invited by the employer to make a fresh bid offer, based on the same evaluation criteria, with or without adjusted weightings. Bidders shall be advised when they are to submit their best and final offer.

The contract shall be awarded in accordance with the provisions of 5.11 and 5.13 after bidders have been requested to submit their best and final offer.

3.6.3 Proposal procedure using the two-stage system

3.6.3.1 Option 1

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

3.6.3.2 Option 2

In the first stage, bidders shall submit only technical proposals. The employer shall invite all responsive bidders to submit bid offers in the second stage, following the issuing of procurement documents.

The employer shall evaluate bids received during the second stage in terms of the method of evaluation stated in the bid data and award the contract in terms of these conditions of ISO 10845.

4 BIDDER'S OBLIGATIONS

4.1 Eligibility

4.1.1 Submit a bid offer only if the bidder satisfies the criteria stated in the bid data and the bidder, or any of his principals, is not under any restriction to do business with employer.

4.1.2 Notify the employer of any proposed material change in the capabilities or formation of the bidding entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the bidder to submit a bid offer and obtain the employer's written approval to do so prior to the closing time for bids.

4.2 Cost of bidding

Accept that, unless otherwise stated in the bid data, the employer will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any testing necessary to demonstrate that aspects of the offer comply with requirements.

4.3 Check documents

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

4.4 Confidentiality and copyright of documents

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

4.5 Reference documents

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

4.6 Acknowledge addenda

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

4.7 Clarification meeting / Briefing session

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

4.8 Seek clarification

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

4.9 Insurance

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

4.10 Pricing the bid offer

Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT)), and other levies payable by the successful bidder.

Show VAT payable by the employer separately as an addition to the tendered total of the prices.

Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

State the rates and prices in Rand unless instructed otherwise in the bid data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

4.11 Alterations to documents

Do not make any alterations or additions to the bid documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the bidder. All signatories to the bid offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

4.12 Alternative bid offers

Unless otherwise stated in the bid data, submit alternative bid offers only if a main bid offer, strictly in accordance with all the requirements of the bid documents, is also submitted as well as a schedule that compares the requirements of the bid documents with the alternative requirements that are proposed.

Accept that an alternative bid offer may be based only on the criteria stated in the bid data or criteria otherwise acceptable to the employer.

4.13 Bid submissions

4.13.1 General submission requirements

Submit one bid offer only, either as a single bidding entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the bid data.

Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

Submit

- a) the parts of the bid offer communicated on paper as an original plus the number of copies stated in the bid data, with a translation of any documentation in a language other than the language of communication established in 3.4, and
- b) the parts communicated electronically in the same format as they were issued by the employer.

4.13.2 Signatures

Sign the original and all copies of the bid offer where required in terms of the bid data.

State in the case of a joint venture which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the bid offer.

NOTE: The employer holds all authorised signatories liable on behalf of the bidder.

4.13.3 Bid Securities

Submit, as required as part of the submission, a bid security from a bank or insure that is in a strong enough commercial position to carry such security in the name of the bidder, or in the names of each of the members of joint venture, in the amount, for the period and in the form specified in the bid data.

4.13.4 Inclusion of certificates

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

4.13.5 Sealing of documents

Seal the original and each copy of the bid offer as separate packages marking the packages as "ORIGINAL" and "COPY". Unless otherwise specified in the bid data, seal the "ORIGINAL" and "COPY" packages in a single package and state on the outside of such package the employer's address and identification details specified in the bid data, as well as the bidder's name and contact details.

Where a two-envelope system is required in terms of the bid data, place and seal the returnable documents listed in the bid data in an envelope marked "FINANCIAL PROPOSAL" and place the remaining returnable documents in an envelope marked "NON-FINANCIAL PROPOSAL". Each envelope shall state on the outside the employer's address and identification details stated in the bid data, as well as the bidder's name and contact address. Seal the original bid offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the bid data.

4.13.6 Employer's acceptance of bid submissions

Accept that the employer will not assume any responsibility for the misplacement or premature opening of the bid offer if the outer package is not sealed and marked as stated.

Accept that bid offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the bid data.

4.14 Information and data to be completed in all respects

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

4.15 Closing time

Ensure that the employer receives the bid offer at the address specified in the bid data not later than the closing time stated in the bid data. Accept that proof of posting shall not be accepted as proof of delivery.

Accept that, if the employer extends the closing time stated in the bid data for any reason, the requirements of the standard conditions of bid in this part of ISO 10845 apply equally to the extended deadline.

4.16 Bid offer validity

4.16.1 Period of validity

Hold the bid offer(s) valid for acceptance by the employer at any time during the validity period stated in the bid data after the closing time stated in the bid data.

If requested by the employer, consider extending the validity period stated in the bid data for an agreed additional period with or without any conditions attached to such extension.

4.16.2 Withdrawal of bids

Accept that a bid submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for bids that a bid is to be withdrawn or substituted.

Where a bid submission is to be substituted, submit a substitute bid in accordance with the requirements of 4.13 with the packages clearly marked as "SUBSTITUTE".

4.17 Clarification of bid offer after submission

Provide clarification of a bid offer during the evaluation of bid offers, in response to a request from the employer to do so.

Note: Such clarifications can include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of bidders or substance of bid offer is sought, offered, or permitted.

4.18 Other material

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

Dispose of samples of materials provided for evaluation by the employer, where required.

4.19 Inspections, tests, and analysis

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

4.20 Submit securities, bonds, policies, etc.

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

4.21 Check final draft

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

4.22 Returning other bid documents

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

5 THE EMPLOYER'S UNDERTAKINGS

The employer shall carry out the following undertakings:

5.1 Respond to requests from the bidder

Unless otherwise stated in the bid Data, respond to a request for clarification received up to five working days before the bid closing time stated in the Bid Data and notify all bidders who obtained procurement documents.

Consider any request to make a material change in the capabilities or formation of the bidding entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a bidder to submit a bid offer in terms of a previous procurement process.

Deny any such request if, as a consequence,

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the pre-qualification process

5.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the bid documents to each bidder during the period from the date that bid documents are available until three days before the bid closing time stated in the Bid Data.

If, as a result a bidder applies for an extension to the closing time stated in the Bid Data, the Employer may grant such extension and, shall then notify all bidders who drew documents.

5.3 Returning late bid offers

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

5.4 Opening of bid submissions

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

Announce at the meeting held immediately after the opening of bid submissions, at a venue indicated in the bid data, the name of each bidder whose bid offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main bid offer only.

Make available, upon request, to all interested persons the record of bid parameters that are announced in respect of each bid received.

5.5 Two-envelope system

Where stated in the bid data that a two-envelope system is to be followed, open only the technical proposal of valid bids in the presence of bidders' agents who choose to attend at the time and place stated in the bid data and announce the name of each bidder whose technical proposal is opened.

Evaluate the quality of the technical proposals offered by bidders, then advise bidders who remain in contention for the award of the contract of the time and place when the financial proposals will be opened.

Open only the financial proposals of bidders, who score in the quality evaluation more than the minimum number of points for quality stated in the bid data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to bidders whose technical proposals failed to achieve the minimum number of points for quality.

5.6 Non-disclosure

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

5.7 Grounds for rejection and disqualification

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

5.8 Test for responsiveness

Determine, after opening and before detailed evaluation, whether each bid offer properly received:

- a) complies with the requirements of these Conditions of Bid,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the bid documents.

A responsive bid is one that conforms to all the terms, conditions, and specifications of the bid documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

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

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

5.9 Arithmetical errors, omissions, and discrepancies

Check responsive bids for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

Check the highest ranked bid or bidder with the highest number of bid evaluation points after the evaluation of bid offers in accordance with 5.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - (i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - (ii) the summation of the prices.

Notify the bidder of all errors or omissions that are identified in the bid offer and either confirm the bid offer as tendered or accept the corrected total of prices.

Where the bidder elects to confirm the bid offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other correction required by this checking process or in the bidder's addition of prices, the total of the prices shall govern, and the bidder will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

5.10 Clarification of a bid offer

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

5.11 Evaluation of bid offers

5.11.1 Financial offer and quality

In the case of a financial offer and quality:

- a) Score each bid in respect of the financial offer made and the quality offered in accordance with the provisions of 5.11.7 and 5.11.8, rejecting all bid offers that fail to score the minimum number of points for quality stated in the bid data, if any.
- b) Calculate the total number of bid evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_P$$

where:

N_{FO} is the number of bid evaluation points awarded for the financial offer made in accordance with 5.11.7;

N_Q is the number of bid evaluation points awarded for quality offered in accordance with F.3.11.8.

- c) Rank bid offers from the highest number of bid evaluation points to the lowest.
- d) Recommend bidder with the highest number of bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Rescore and re-rank all bidders should there be compelling and justifiable reasons not to recommend the bidder with the highest number of bid evaluation points and recommend the bidder with the highest number of bid evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated.

5.11.6 Decimal places

Score financial offers, preferences, and quality, as relevant, to two decimal places.

5.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive bid offers using the following formula:

$$N_{FO} = W_1 \times A$$

where:

N_{FO} is the number of bid evaluation points awarded for the financial offer.

W_1 is the maximum possible number of bid evaluation points awarded for the financial offer as stated in the Bid Data.

A is a number calculated using the formula and option described in Table 1 as stated in the Bid Data.

Table 1 – Formulae for calculating the value of A^a

Formula number	Basis for comparison	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + (\frac{P - P_m}{P_m}))$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - (\frac{P - P_m}{P_m}))$	$A = P_m / P$
^a	P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the bid offer under consideration.		

5.11.8 Scoring preferences

Confirm that bidders are eligible for the preferences claimed in accordance with the provisions of the bid data and reject all claims for preferences where bidders are not eligible for such preferences.

Calculate the total number of bid evaluation points for preferences claimed in accordance with the provisions of the bid data.

5.11.9 Scoring quality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the Bid Data.

Calculate the total number of bid evaluation points for quality using the following formula:

$$N_Q = W_2 \times S_O / M_S$$

where:

S_O is the score for quality allocated to the submission under consideration;

M_S is the maximum possible score for quality in respect of a submission; and

W_2 is the maximum possible number of bid evaluation points awarded for the quality as stated in the bid data.

5.12 Insurance provided by the employer

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

5.13 Acceptance of bid offer

Accept the bid offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the bidder:

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

5.14 Prepare contract documents

If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the bid documents to take account of:

- a) addenda issued during the bid period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful bidder.

Complete the schedule of deviations attached to the form of offer and acceptance, if any.

5.15 Complete adjudicator's contract

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

5.16 Notice to successful and unsuccessful bidders

Notify the successful bidder of the employer's acceptance of his bid offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the bid data or agreed additional period.

After the successful bidder has been notified of the employer's acceptance of the bid, notify other bidders that their bid offers have not been accepted.

5.17 Provide copies of the contracts

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

5.18 Returning of bid securities

Return the securities to the successful bidder and unsuccessful bidders before the expiry period stated in the bid data or in the bid security.

5.19 Providing written reasons for actions taken

Provide upon request written reasons to bidders for any action that is taken in applying any of this part of ISO 10845 but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of bidders or might prejudice fair competition between bidders.



LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

**THE APPOINTMENT OF A CONTRACTOR FOR THE
UPGRADING OF EMASDAL, HEIDELBERG AND
RENSBURG PUMP STATIONS.**

PART T2: LIST OF RETURNABLE DOCUMENTS

LESEDI LOCAL MUNICIPALITY

CONTRACT No: 25/2025

FOR

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.

PART T2: LIST OF RETURNABLE DOCUMENTS

The bidder must complete the following returnable documents.

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NOTE:

Although the documents under Part T2 is headed "Returnable Documents" in line with the CIDB model, these are not the only documents to be returned together with the bid. **All** the documents indicated on Part T1, must be completed, and signed where applicable and submitted as a **complete set of documents**

T2.1 RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION PURPOSES

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Form 2.1.1 Schedule of Constructional Plant

The Bidder shall state below what Constructional Plant will be available for the work should he be awarded the Contract.

Note:

Submit proof of ownership of all plant listed in the schedule, and if hired, submit a letter of intent of the plant to be hired from the registered plant leasing entity.

DESCRIPTION, SIZE, CAPACITY AND WORKING CONDITION	NUMBER

DESCRIPTION, SIZE, CAPACITY AND WORKING CONDITION	NUMBER

Form 2.1.2 Size of Enterprise and Current Workload

What was your turnover in the previous financial year? R_____

What is the estimated turnover for your current financial year? R_____

Physical facilities:

Provide information on offices, factories, yards, and warehouses occupied by your enterprise (attach details if the space provided is not enough).

Description	Address	Area (m ²)

SMME STATUS - (COMPULSORY)

TO BE COMPLETED FOR STATISTICAL PURPOSES ONLY AND WILL NOT BE USED FOR EVALUATION PURPOSES

Provide details on the following:

Sector / Sub-Sector in accordance with the Standard Industrial Classification	
Total Full-time Equivalent of paid Employees	
Total Annual Turnover	
Total Gross Asset Value	
Size or Class (Medium, Small, Very Small, Micro)	

NOTE: If all of the above does not adhere to the definition of a single class, use the total Annual Turnover only to decide on the class.

List your current contracts and obligations:

Description	Value (R)	Start date	Duration	Expected completed date

Do you have the capacity to supply the goods and services described in this bid, should the contract be awarded to you?

Form 2.1.3 Schedule of Labour Content

The bidder must complete a standard table reflecting the labour-force anticipated to be employed on this contract, including labour employed by sub-contractors.

Type of Labour	Man-days	Minimum Wage Rate per unit	Total Wage Cost (Excl VAT)
Permanent Staff			
Temporary Staff			
SMME / HDEs Labour			
		Total	
		Percentage	

Notes to Bidder:

- (1) Labour is defined as hourly-paid personnel.
- (2) The penalty for non-compliance during the contract or fraudulent disclosure is discussed in the specifications.
- (3) Percentage will be calculated using tendered amount (Excl. VAT) before contingencies.

Form 2.1.4 Proposed Key Personnel

The Bidder shall list below the key personnel (including first nominee and the second-choice alternate), whom he proposes to employ on the project should his Bid be accepted, both at his headquarters and on the Site, to direct and for the execution of the work, together with their qualifications, experience, positions held and their nationalities.

DESIGNATION	NAME OF	NATIONALITY	SUMMARY OF	
	(i) NOMINEE (ii) ALTERNATE		QUALIFICATIONS	EXPERIENCE AND PRESENT OCCUPATION
<u>HEADQUARTERS</u> Partner/Director				
Contract's Manager				
<u>CONSTRUCTION MONITORING</u> Construction Manager				
Mechanical Fitter				
Electrician				
Other key staff (Give designation)				

Form 2.1.5 Schedule of Previous Work Carried Out by Bidder

Provide the following information on **relevant previous experience**. Indicate comparable projects of similar or larger size. This information is material to the award of the Contract.

No points will be awarded if reference cannot be reached or if it refuses to supply information. Give at least two (2) names and telephone numbers and e-mail address per reference.

EMPLOYER (Name, tel no. and email address)	CONSULTING ENGINEER'S AGENT (Name, tel no. and email address)	NATURE OF WORK CARRIED OUT PREVIOUSLY	VALUE OF WORK	YEAR OF COMPLETION

Form 2.1.6 Financial Ability to Execute the Project

Provide details on the surety you will provide if the bid is awarded to you

AMOUNT:

Which of the following institutions will provide surety?

- Bank registered in terms of the Bank Act 1990 (Act 94 of 1990): _____
- Insurance Company registered in terms of the Short-Term Insurance Act 1998 (Act 53 of 1998): _____
- Cash: _____

Provide the estimated cash flow on the project in terms of submissions of payment certificates or payment schedules to the Employer

Month No.	Amount (VAT included)		a – b Net cash-flow	Cumulative cash-flow
	a Received	b Payments made		
1			d	j=d
2			e	j+e=k
3			f	k+f=l
4			g	l+g=m
5			h	m+h=n
6			Etc.	Etc.
7				
8				
9				
10				
11				
12				
Maximum negative cash-flow: Take the largest negative number in the last column and write it in here → → → → → →				

Notes:

- (i) Value added tax to be included in all amounts
 - (ii) Assume payment of certificates within 30 days of approval of certificate
- From what sources will you fund the above negative amount (e.g., Funds internally available, bank overdraft, loan, etc)

NAME OF BIDDING ENTITY

Form 2.1.7 Joint Venture / Consortium Authority**JOINT VENTURE / CONSORTIUM INFORMATION**

(Complete only if applicable)

The parties hereto form a Joint Venture / Consortium for the purpose of jointly bidding and obtaining the award of contract for **THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING AND OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.**

and of jointly performing such contract under joint and several responsibilities.

The share of the partners in the Joint Venture/ Consortium shall be:

Full Name and address of Lead enterprise

..... %

.....

Full Name and address of 2nd enterprise

..... %

.....

Full Name and address of 3rd enterprise

..... %

.....

The Lead Partner is hereby authorised to incur liabilities, receive instructions, payments, sign all documents in connection with the bid, and to be responsible for the entire execution and administration of the contract for and on behalf of the partners.

The parties hereto shall make available to the Joint Venture / Consortium the technical advice and benefit of their individual experience and shall, in all other respects, endeavour to share the responsibility and burden of the performance of the Joint Venture / Consortium.

To this end the parties hereto shall share, in the above proportions, in all risks and obligations arising out of or in connection with the Contract, especially in the provisions of all necessary working capital and guarantees, in profit and loss and personnel.

The Lead Partner shall supply, in its name, the necessary insurance prescribed for the industry and such other insurance as may be prescribed by the LLM, for the amount and period as stated in the Contract Data.

The Joint Venture / Consortium may not be terminated by any of the parties hereto until either:

- (a) the contract has been awarded to another bidder; or
- (b) the work undertaken by the Joint Venture / Consortium under the contract has been completed and all liabilities and claims incurred by and made by the Joint Venture / Consortium have been settled, the bid is cancelled or the period of validity of bid extended.

No party to the Agreement shall be entitled to sell, assign or in any manner encumber or transfer its interest or any part thereof in the Joint Venture / Consortium without obtaining the prior written consent of the other party hereto.

The Parties of the Joint Venture / Consortium shall cooperate on an exclusive basis. No Party shall during the validity period of the bid submit a bid to or enter into a Contract with the LLM or any other party for the Project, either alone or in collaboration with a third party.

Authorised Signature Lead Partner.....

Name

Designation

Signed at..... on

Authorised Signature of 2nd Partner.....

Name

Designation

Signed at..... on

Authorised Signature of 3rd Partner.....

Name

Designation

Signed at..... on

(ALL SIGNATORIES SHALL CONFIRM THEIR AUTHORITY BY ATTACHING TO THE LAST PAGE OF THE BID, ORIGINAL OR CERTIFIED COPIES OF DATED AND SIGNED RESOLUTIONS OF THE MEMBERS/DIRECTORS/PARTNERS AS THE CASE MAY BE.)

In the event that there are more than 3 Joint Venture / Consortium partners, additional page/s may be added in order to furnish the requested information and authorised signatures.

Form 2.1.8 Schedule of Proposed Subcontractors

The Municipality may require the contractor to work with Local Subcontractors.

1. Definitions**1.1 Targeted Labour**

Individuals, employed by the contractor in the performance of the contract, who are defined as the target group in the contract and who permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

The minimum required job creation target is 1.25 full time equivalent (FTE) jobs per million Rand contract sum, where 1 FTE job is equivalent to 230 days of employment.

1.2 Target Group

For this project, the target group shall be based on the table below. However, specifically excluded from the Target Group is the contractor's own staff unless such staff are also from the Target Area.

The Municipality may require the contractor to work with Local Subcontractors that are in the following categories:

- a) an EME or QSE;
- b) an EME or QSE which is at least 51 % owned by black people;
- c) an EME or QSE which is at least 51 % owned by black people who are youth;
- d) an EME or QSE which is at least 51 % owned by black people who are women;
- e) an EME or QSE which is at least 51 % owned by black people with disabilities;
- f) an EME or QSE which is 51% owned by black people living in rural or under developed areas or townships;
- g) a cooperative which is at least 51 % owned by black people;
- h) an EME or QSE which is at least 51 % owned by black people who are military veterans; or
- i) more than one of the categories referred to in paragraphs (a) to (h).

1.3 Target Area

For this project, the target area is: Lesedi Local Municipality

Supporting Targeted Labour / Job Creation Calculation

The Bidder must complete the table below to reflect the anticipated jobs created in completing this Contract.

The minimum Job Creation content is as specified in SANS 10845-5.

Row No.	Description	A	B	C	D
		No. persons to employ	No. Days Employed	No. Labour Days (A x B)	No. FTE Jobs to Create (C/230)
1	Unskilled Labourers				
2	Semi-skilled Labourers				
3	Skilled Site Personnel (Operators, Section Leaders, Etc)				
4	Skilled Office Personnel (Clerks, Safety Agents, Laboratory Staff)				
5	Site Management Personnel				
6	Off-Site Office Personnel				
7	Other (Specify)				
8	Other (Specify)				
9	TOTAL (Sum Rows 1 to 8)				*
10	TOTAL Tendered Contract Price (from Form of Offer and Acceptance)				
11	Contractual Number of FTE Jobs to Create ((Row 10 / 1,000,000) x 1.0)				

Notes

1. * This amount should be greater than or equal to the amount in Row 11.
2. The bid will be non-responsive if the minimum job creation content is not achieved.
3. The above information will be monitored by the Employer's Agent during the construction phase. This undertaking by the Contractor will be part of the minimum Procurement Targets and penalties for non-conformance will be calculated according to those specified in the Bid Data.

SIGNED ON BEHALF OF THE BIDDER:

Form 2.1.9 Financial References

DETAILS OF BIDDING ENTITY'S BANK

If the bidder is a Joint Venture or partnership, the information requested below is required for each member / partner.

I/We hereby authorise the Employer / Employer's Agent to approach all or any of the following banks for the purposes of obtaining a financial reference:

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO BIDDER
Name of bank	
Contact person	
Branch name	
Branch code	
Street address	
Postal address	
Telephone number	()
Fax number	()
Account number	
Type of account, (i.e. cheque account)	

BIDDER'S TAX DETAILS

Bidder's VAT vendor registration number:

Bidder's SARS tax reference number:

T2.2 OTHER DOCUMENTS REQUIRED FOR BID EVALUATION PURPOSES

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Form 2.2.1 Tax Clearance Certificate Requirements

A VALID ORIGINAL TAX CLEARANCE CERTIFICATE OR COPY OR TCS NUMBER THEREOF, OBTAINED FROM SARS TO BE SUBMITTED WITH BID DOCUMENTS.

Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.

Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

Note:

1. Failure to affix such documentation as prescribed to this page shall result in this bid not being further considered for the award of the contract, by the Bid Evaluation Committee.

NAME OF BIDDING ENTITY

TAX CLEARANCE CERTIFICATE/COPY OF TAX COMPLIANCE STATUS DOCUMENT (TCS) MUST BE ATTACHED IN A SEPARATE DOCUMENT

Form 2.2.2 General Declaration:

I/We, the undersigned:

- (a) *bid to supply and deliver to LESEDI LOCAL MUNICIPALITY [hereafter "LLM"] all or any of the supplies and to render all or any of the articles, goods, materials, services or the like described both in this and the other Schedules to this Contract;*
- (b) *agree that we will be bound by the specifications, prices, terms and conditions stipulated in those Schedules attached to this bid document, regarding delivery and execution;*
- (c) *further agree to be bound by those conditions, set out in, "PARTS T1; T2; C1; C2; C3 and C4", attached hereto, should this bid be accepted in whole or in part;*
- (d) *confirm that this bid may only be accepted by the LLM by way of a duly authorised Letter of Acceptance;*
- (e) *declare that we are fully acquainted with the Bid document and Schedules, and the contents thereof and that we have signed the Bill of Quantities and completed the Returnable Schedules and declarations, attached hereto;*
- (f) *declare that all amendments to the bid document have been initialled by the relevant authorised person and that the document constitutes a proper contract between the LLM and the undersigned;*
- (g) *certify that the item/s mentioned in the bid document, qualifies/qualify for the preference(s) shown;*
- (h) *acknowledge that the information furnished is true and correct;*
- (i) *accept that in the event of the contract being awarded as a result of preference claimed in this bid document, I may be required to furnish documentary proof to the satisfaction of the LLM that the claims are correct. If the claims are found to be inflated, the LLM may, in addition to any other remedy it may have, recover from me all cost, losses or damages incurred or sustained by the LLM as a result of the award of the contract and/or cancel the contract and claim any damages which the LLM may suffer by having to make less favourable arrangements after such cancellation;*
- (j) *declare that no municipal rates and taxes or municipal service charges owed by the bidder or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than three (3) months;*
- (k) *declare that I have not failed to perform satisfactorily during the last five (5) years on a previous contract with the Municipality, Municipal entity or any other organ of state, after written notice was given to me that my performance was unsatisfactory;*
- (l) *declare that the signatory to the bid document is duly authorised;*
- (m) *agree that documentary proof regarding any bidding issue will, when required, be submitted to the satisfaction of the LLM;*
- (n) *declare that the Broad-Based Black Economic Empowerment Certificate submitted herewith in terms of Regulation 10 of the Preferential Procurement Regulations, 2011 is based on true and accurate information and has been obtained from a duly accredited verification agency (or, in the case of an Exempted Micro-Enterprise (EME) from a registered auditor, accounting officer or accredited verification agency);*
- (o) *declare that the following responses to be true and correct:*

Does the bidder have participation in the submission of any other offer for the supplies / services described in the attached documents?

(Tick applicable box)

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

If YES, the following information must be supplied:



a. The name(s) of the other Bidder(s) involved

.....

b. The full details of the Bidder(s) participation

.....

(p) declare that all of the information furnished is true and correct.

Signed at.....this.....day of..... 20.....

Name of Authorised Person:

Authorised Signature:

Name of Bidding Entity:

Date:

As witness: 1.

2.

NAME OF BIDDING ENTITY

Form 2.2.3 Declaration of Interest

MBD 4

1. No bid will be accepted from persons in the service of the state*.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorized representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
 - 3.1 Full Name of Owner of the Bidding Entity:
 - 3.2 Identity Number if applicable:
 - 3.3 Position occupied in the Company (Director, trustee, shareholder)
 - 3.4 Company Registration Number if applicable:
 - 3.5 Tax Reference Number:
 - 3.6 VAT Registration Number:

* MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal Council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

*Shareholder means a person who owns shares in the company or business entity, exercises control and is actively involved in its management.

- 3.7 The names of all directors / trustees / shareholders / members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
- 3.8 Are you presently in the service of the state*
(Tick applicable box)
- 3.8.1 If so, furnish particulars.

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

.....
.....

3.9 Have you been in the service of the state for the past twelve months?

(Tick applicable box)

YES	NO

3.9.1 If so, furnish particulars.

.....

.....

3.10 Do you have any relationship (close family member, partner, or associate) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

(Tick applicable box)

YES	NO

3.10.1 If so, furnish particulars.

.....

.....

3.11 Are you, aware of any relationship (close family member, partner, or associate) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

(Tick applicable box)

YES	NO

3.11.1 If so, furnish particulars

.....

.....

3.12 Are any of the company's directors, managers, principal shareholders or stakeholders in service of the state?

(Tick applicable box)

YES	NO

3.12.1 If so, furnish particulars.

.....

.....

3.13 Are any spouse, child, or parent of the company's directors, trustees, managers, principal shareholders, or stakeholders in service of the state?

(Tick applicable box)

YES	NO

3.13.1 If so, furnish particulars.

.....

.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders or stakeholders of this company have any interest in any other company or business entity whether or not the latter is bidding for this contract?
(Tick applicable box)

YES	NO

3.14.1 If so, furnish particulars.

.....
.....

4. Full details of directors / trustees / members / shareholders:

Full Name	Identity Number	Employee Number

CERTIFICATION

I, THE UNDERSIGNED (NAME)CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE AND/OR THE LLM MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SHOULD THE INFORMATION REQUIRED ON THIS FORM NOT DULY BE SUPPLIED, THIS BID WILL BE REJECTED.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidding Entity

NAME OF BIDDING ENTITY

Form 2.2.4 Declaration for Procurement Above R10 Million (VAT Included)

MBD 5

BIDDERS MUST COMPLETE THE FOLLOWING QUESTIONNAIRE:

- 1.1 Are you by law required to prepare annual financial Statements?**
(Tick applicable

box)

YES	NO

If yes:

- 1.1.1 If a bidder is a registered company required by law to have its annual financial statements audited or independently reviewed in compliance with the requirements of the Companies Act, Act No. 71 of 2008, or any other law, audited or independently reviewed annual financial statements, as the case may be, prepared within six (6) months of the end of the bidders most recent financial year together with the audited or independently reviewed annual financial statements for the two immediately preceding financial years must be submitted, (unless the bidder was only established within the past three (3) years in which case all of its annual financial statements must be submitted).
- 1.1.2 If a bidder is a registered close corporation, annual financial statements in compliance with the provisions of the Close Corporations Act, Act No. 69 of 1984, prepared within nine (9) months of the end of the bidders most recent financial year together with the annual financial statements for the two immediately preceding financial years must be submitted, (unless the bidder was only established within the past three (3) years in which case all of its annual financial statements must be submitted).
- 1.1.3 **Annual financial statements submitted must comply with the requirements of the Companies Act or the Close Corporations Act. Summaries and/or extracts of annual financial statements shall not be acceptable and shall result in the rejection of the bid.**

- 1.2 If your answer to 1.1 above is YES then, did you only commence business within the past three years?**
(Tick applicable box)

YES	NO

1.2.1 If yes, the bidder is required to submit annual financial statements in compliance with the provisions of 1.1.1 and 1.1.2 above for each of its financial years since commencing business.

- 1.3 If your answers to 1.1 above is NO, un-audited financial statements must be submitted with your bid for the periods specified in 1.1.1, 1.1.2 or 1.2.1 above, as the case may be.**

.....

- 2. Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days?**

YES	NO

(Tick applicable box)

- 2.1 If no, this serves to certify that the bidder has 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.**

- 2.2 If yes, provide particulars.**

.....

.....

-
3. **Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?**
(Tick applicable box)

YES	NO

- 3.1 **If yes, furnish particulars.**

.....
.....

4. **Will any portion of goods or services be sourced from outside the Republic and if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?**
(Tick applicable box)

YES	NO

- 4.1 **If yes, furnish particulars**

.....
.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

NAME OF BIDDING ENTITY

Form 2.2.5 Declaration of Bidder's Past Supply Chain Management Practices
MBD 8

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

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).	<input type="checkbox"/>	<input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Bid Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No. 12 of 2004)? (To access this Register, enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Bid Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	<input type="checkbox"/>	<input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	<input type="checkbox"/>	<input type="checkbox"/>
4.3.1	If so, furnish particulars:		

Item	Question	Yes	No
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF THE CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

NAME OF BIDDING ENTITY

Form 2.2.6 Certificate of Independent Bid Determination**MBD 9**

- 1 This Form “2.2.6” must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This Form “2.2.6” serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (Form “2.2.6”) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids, and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices, or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(BID NUMBER: 25/2025): THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.

in response to the invitation for the bid made by:

LESEDI LOCAL MUNICIPALITY

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities, or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

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

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement, or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors, or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements, or arrangements with

any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

NAME OF BIDDING ENTITY

Form 2.2.7: Declaration for Municipal Accounts

MUST BE COMPLETED FOR THIS BID

Declaration in terms of paragraph 38(1)(d)(i) of the Supply Chain Management Policy of the LLM, irrespective of the contract value of the bid:

NB: Please note that this declaration must be completed by ALL bidders.

- (i). I, the undersigned hereby declare that the signatory to this bid document; is duly authorised and further declare:
- (ii) I declare that if the bid is awarded to the bidding entity, any moneys due to the bidding entity for services/goods rendered shall be utilised to offset any monies due to a municipality or a municipal entity.
- (iii) The following account/s of the bidding entity has reference:

Municipality

Account number

.....

(NB: If there is insufficient space above, please submit on a separate page)

PLEASE NOTE further that if no municipal rates and taxes or municipal charges are payable by the bidding entity, indicate the reason/s for that in the space below by means of a tick next in the relevant block.

Bidding entities who operate from informal settlements	
Bidding entities who operate from a property owned by a director / member / partner	
Bidding entities who operate from somebody else's property	
Bidding entities who rent premises from a landlord	
Other (Please specify)	

Signed at.....this.....day of..... 20...

Name of Duly Authorised Signatory: (Please print)

Authorised Signature:

As witness: 1.

2.

NAME OF BIDDING ENTITY

Form 2.2.8: Authority of Signatory**AUTHORITY FOR SIGNATORY(COMPULSORY)**

Please note that the sole proprietors or “one-person business” are not required to submit an official and duly signed authority of signatory.

Signatories for close corporations and companies shall confirm their authority by signing on behalf of the company/firm **by attaching to this page** a duly signed and dated copy of the relevant resolution of their members or their board of directors, as the case may be.

An example for a company is shown below:

Printed on company letterhead:

“By resolution of the board of directors passed on _____ 20_____

Mr. _____

has been duly authorized to sign all documents in connection with the bid for

Tender _____ No. _____

and any Contract, which may arise there from on behalf of

SIGNED ON BEHALF OF THE COMPANY _____

IN HIS CAPACITY AS _____

DATE: _____

SIGNATURE OF SIGNATORY: _____

AS WITNESSES: 1 _____

2 _____

I/we, the undersigned, who is / are duly authorised to do so on behalf of the company / firm, certify that the points claimed, based on the B-BBEE status level of contribution indicated in paragraph 7 of the foregoing certificate, qualifies the company / firm for the preference(s) shown and I / we acknowledge that:

The information furnished is true and correct;

The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.

In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;

If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –

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

WITNESSES

1.

2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS

.....

.....



Form 2.2.11: CSD Full Report

ATTACH THE CENTRAL SUPPLIER DATABASE (CSD) REGISTRATION FULL REPORT IN A SEPARATE DOCUMENT



LESEDI LOCAL MUNICIPALITY

CONTRACT No.: 25/2025

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF EMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS.**

T2.3 RETURNABLE SCHEDULES THAT WILL BE INCORPORATED IN THE CONTRACT

<u>CONTENTS</u>	<u>PAGE</u>
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Form 2.3.1 Form Concerning Fulfilment of The Construction Regulations, 2003

In terms of regulation 4(3) of the Construction Regulations, 2003 (hereinafter referred to as the Regulations), promulgated on 18 July 2003 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her bid for the due fulfilment of all the applicable requirements of the Act and the Regulations.

- 1 I confirm that I am fully conversant with the Regulations and that my company has (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations. (Tick)

YES	
NO	

- 2 Proposed approach to achieve compliance with the Regulations (Tick)

Own resources, competent in terms of the Regulations (refer to 3 below)	
Own resources, still to be hired and/or trained (until competency is achieved)	
Specialist subcontract resources (competent) - specify:	
.....	
.....	
.....	
.....	
.....	
.....	

- 3 Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):

.....

.....

.....

- 4 Provide details of proposed training (if any) that will be undergone:

.....

.....

.....

.....

5 Potential key risks identified and measures for addressing risks:

.....

.....

.....

.....

6 I have fully included in my tendered rates and prices (in the appropriate payment items provided in the Schedule of Quantities) for all resources, actions, training, and any other costs required for the due fulfilment of the Regulations for the duration of the construction and defects repair period. (Tick)

YES	
NO	

SIGNATURE OF PERSON(S) AUTHORISED TO SIGN THIS BID:

1 ID No.:

2 ID No.:

**Form 2.3.2 Record of Addenda to Bid Documents**

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

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

Attach additional pages if more space is required.

.....
Signature of Authorized person:

.....
Date:

Name:

Position:

Form 2.3.3 Adjudication of Bids**PROCUREMENT FORM***ADJUDICATION OF BIDS*

Bids are adjudicated in terms of LLM Supply Chain Management Policy, and the following framework is provided as a guideline in this regard.

1. Technical adjudication and General Criteria

Bids will be adjudicated in terms of inter alia:

- Compliance with bid conditions
- Technical specifications

If the bid does not comply with the bid conditions or technical specifications, the bid shall be rejected.

2. Infrastructure and resources available

Evaluation of the following in terms of the size, nature, and complexity of goods and/or services required:

- Physical facilities
- Plant and equipment available for the contract owned by the bidder
- Plant and equipment the bidder intends renting or acquiring, should the contract be awarded to him.

3. Size of enterprise and current workload

Evaluation of the bid's position in terms of:

- Previous and expected current annual turnover
- Current contractual obligations
- Capacity to execute the contract.

4. Staffing profile

Evaluation of the bid's position in terms of:

- Staff available for this contract being tendered for
- Qualifications and experience of key staff to be utilised on this contract.

5. Previous experience

Evaluation of the bid's position in terms of his previous experience. Emphasis will be placed on the following:

- Experience in the relevant technical field
- Experience of contracts of similar size
- Some or all of the references will be contacted to obtain their input.

6. Financial ability to execute the contract

Evaluation of the bid's financial ability to execute the contract. Emphasis will be placed on the following:

- Surety proposed
- Estimated cash-flow
- Contact the bidder's bank manager to assess the bidder's financial ability to execute the contract and the bidder hereby grants his consent for this purpose.

7. Good standing with SA Revenue Service

Establish whether a valid original tax clearance certificate or copy thereof has been submitted with the Bid document on closing date of the bid. If no such Certificate or copy thereof has been submitted, the bid must be rejected. If a valid original tax clearance certificate has not been submitted, the bidder shall be requested in writing to submit a valid original tax clearance certificate by a specific date and at a specific venue.

NB. Failure to submit a valid original tax clearance certificate in terms of the afore-stated written request shall result in the rejection of the bid.

The bidder **must affix a valid original Tax Clearance Certificate or copy thereof** to the **last page** of the bid document.

In bids where Consortia / Joint Ventures / Sub-contractors are involved; each party must submit a separate Tax Clearance Certificate.

Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.

Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

NB:

If the bid does not meet the requirements contained in the LLM Supply Chain Management Policy, and the mentioned framework, it shall not be considered an acceptable bid and shall be rejected by the LLM and may not subsequently be made acceptable by correction or withdrawal of the non-conforming deviation or reservation.

8. Adjudication using a Points System

Acceptable bids will be evaluated using a system that awards points on the basis of bid price and Specific Goals. Failure on the part of a bidder to fill in and/or to sign this form and submit a CSD registration report together with the bid, will be interpreted to mean that preference points for Specific Goals are not claimed.

For bids with a bid amount equal to or below R 50 000 000.00 (all applicable taxes included) a maximum of 80 points is allocated for price and a maximum of 20 points for Specific Goals. For bids with a bid amount above R 50 000 000.00 (all applicable taxes included) a maximum of 90 points is allocated for price and a maximum of 10 points for Specific Goals.

The LLM shall award the Contract to the Bidder obtaining the highest number of points for Price and Specific Goals calculated in accordance with the Preferential Procurement Regulations, 2022, unless there are grounds that justify the award to another bidder, in accordance with the provisions of Section 2 (f) of the Procurement Policy Framework Act, Act No. 5 of 2000.

9. Remedies

The LLM must act in terms of paragraph 20 of the Preferential Procurement Policy Regulations, 2022, against the bidder or person awarded the contract upon detecting that the bidder submitted false information regarding specific goals or any of the conditions of the contract have not been fulfilled.

Form 2.3.4 Preference Points Claim Form In Terms Of The Preferential Procurement Regulations, 2022

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

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

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state
(delete whichever is not applicable for this tender).

a) The applicable preference point system for this tender is the 90/10 preference point system.

b) The applicable preference point system for this tender is the 80/20 preference point system.

c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
TOTAL POINTS FOR PRICE AND SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20	or	90/10
$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$	or	$Ps = 90 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20	or	90/10
$P_s = 80 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$	or	$P_s = 90 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$

Where

P_s = Points scored for price of tender under consideration
P_t = Price of tender under consideration
P_{max} = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.)

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender		Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Locality: Enterprise registered within the Republic of South Africa (to be verified on CSD)	Gauteng (PROVINCE)	2	
	Sedibeng (DISTRICT)	3	
Youth: Enterprise has at least 1 Director aged 35 or under (to be verified on CSD)		3	
Black: Enterprise has at least 1 Director who is Black (to be verified on CSD)		5	
Woman: Enterprise has at least 1 Director who is female (to be verified on CSD)		5	
Disability: Attach letter from registered and authorized medical professional confirming disability.		2	
TOTAL		20	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

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

–

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

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

.....

Form 2.3.5 General Information:

1. Details of Bidding Entity

NAME OF BIDDER

POSTAL ADDRESS

STREET ADDRESS

TELEPHONE NUMBER

CODE.....NUMBER.....

CELLPHONE NUMBER

FACSIMILE NUMBER

CODE NUMBER.....

E-MAIL ADDRESS

VAT REGISTRATION NUMBER

HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN ATTACHED?

(Tick applicable box)

YES	NO

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED?

(Tick applicable box)

YES	NO

IF YES, WHO WAS THE CERTIFICATE ISSUED BY?

(Tick applicable box)

- ☐ AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)
- ☐ A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM (SANAS)
- ☐ A REGISTERED AUDITOR

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA

FOR THE GOODS/SERVICES/WORKS OFFERED?

(Tick applicable box)

YES	NO

(IF YES, ENCLOSE PROOF)

2. Legal entity: Mark with an X.

Sole proprietor	
Partnership	
Close corporation	
Company	
Joint venture / Consortium	
Trust	
Tertiary Institution	
Public Entity	

3. In the case of a Joint venture / Consortium, provide details on joint venture/ consortium partners:

Joint venture /Consortium member	Type of entity (as defined above)

4. Income tax reference number: **(COMPULSORY)**
(In the case of a joint venture / consortium, provide for all joint venture / consortium members)

_____	_____
_____	_____

5. VAT registration number **(COMPULSORY)**:
(In the case of a joint venture / consortium, provide for all joint venture / consortium members)

_____	_____
_____	_____

6. Company, Close Corporation, or trust registration number (**COMPULSORY**):
(In the case of a joint venture, provide for all joint venture members)

7. Details of proprietor, partners, Close Corporation members, company directors, or trustees indicating technical qualifications where applicable (Form on the next page).
8. For joint ventures / consortiums, the following must be attached:
- Written authority **of each JV / consortium partner**, for authorized signatory.
 - The joint venture / consortium agreement.
9. For Trusts the following must be attached
- a. Certified copy of the trust deed;
 - b. Certified copies of the Letters of Authority issued in terms of S6 of the Trust Property Control Act, Act No. 57 of 1988;
 - c. Certified copy of the resolution of the trustees of the trust authorising the signatory to sign the bid on behalf of the trust.

SIGNATURE OF AUTHORIZED PERSON :

DATE :

DETAILS OF PROPRIETOR, PARTNERS, CLOSE CORPORATION MEMBERS, COMPANY DIRECTORS, TRUSTEES

(In the event of a joint venture / consortium, to be completed by all of the above of the joint venture / consortium partners)

Name and Surname	Identity Number	Relevant qualifications and experience	Years of relevant experience

NAME OF BIDDING ENTITY

EQUITY OWNERSHIP – (COMPULSORY)

TO BE COMPLETED FOR STATISTICAL PURPOSES ONLY AND WILL NOT BE USED FOR EVALUATION PURPOSES

List all partners, shareholders or members of bidding entity by name, identity number, citizenship, gender, race, HDI status and ownership.
In the case of a Joint Venture, Consortium or Partnership complete an “Equity ownership” for each member.

Name and Surname	Position occupied in Enterprise	Identity number	Citizenship	Gender Male / Female	Race	HDI Status (Y/N)	%Owned by HDI's	% Owned by Women		% Owned by Disabled
								Black	White	

PLEASE NOTE

KINDLY ATTACHED COPIES OF IDENTITY DOCUMENTS OF THE ABOVEMENTIONED MEMBER

OCCUPATIONAL HEALTH AND SAFETY INFORMATION FOR BIDS

THE CONTRACTOR SHALL/MUST SUBMIT THE FOLLOWING TO THE MANAGER OH&S TO OBTAIN A CERTIFICATE OF COMPLIANCE FROM OHS LESEDI LOCAL MUNICIPALITY BEFORE ANY WORK MAY COMMENCE.

1. Proof of Registration with the Compensation Commissioner.
2. Letter of "Good Standing" with Compensation Commissioner.
3. Certified copy of first aid certificate.
4. Physical address where contract is taking place (on Company letterhead).
5. Detailed description of intended work (on Company letterhead).
6. List of all Personal Protective Equipment issued to employees (company letterhead).
7. List of ALL employees on site (on company letterhead).
8. Detailed Health and Safety Plan (on company letterhead).
9. Comprehensive Risk Assessment (Qualification and Contact details of Risk Assessor).
10. Public Liability and Commercial Insurance Certificate.
11. All related statutory appointments.
12. Certificates of relevant Training.

The above list represents the minimum content of a safety file in terms of the Construction Regulations, 2014 (the regulations) as promulgated in Government Gazette No. 37305 and Regulation Gazette No. 10113 of 7 February 2014.

PLEASE REMEMBER:

- (1) IN THE CASE OF A JOINT VENTURE / CONSORTIUM, THE VALID ORIGINAL TAX CLEARANCE CERTIFICATE OR COPY/IES THEREOF, OF EACH ENTITY CONSTITUTING THE JOINT VENTURE / CONSORTIUM, MUST BE SUBMITTED WITH THE BID DOCUMENT.



LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

**THE APPOINTMENT OF A CONTRACTOR FOR THE
UPGRADING/REFURBISHMENT OF EMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS.**

PART C1: AGREEMENT AND CONTRACT DATA

LESEDI LOCAL MUNICIPALITY**CONTRACT No.: 25/2025**

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF EMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS.****PART C1: AGREEMENT AND CONTRACT DATA****CONTENTS****PAGE**

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C1.1 Form of Offer and Acceptance**FORM OF OFFER AND ACCEPTANCE
(AGREEMENT)****OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

The Bidder, identified in the Offer signature block below, has examined the documents listed in the Bid Data and addenda thereto as listed in the Bid Schedules, and by submitting this Offer has accepted the Conditions of Bid.

By the representative of the Bidder, deemed to be duly authorised, signing this apart of this Form of Offer and Acceptance, the Bidder 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 VALUE ADDED TAX IS

R _____ (in figures),
_____ rand (in
words);

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 to the Bidder before the end of the period of validity stated in the Bid Data, whereupon the Bidder becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the Bid documents and the receipt by the Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE BIDDER:

Signature(s) _____

Name(s) _____

Capacity _____
(Name and address of organisation)

Name and signature of Witness _____

Date _____

ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Bidder's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Bidder's Offer shall form an agreement, between the Employer and the Bidder upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract, are contained in

- Part C1 Agreements and Contract Data, (which includes this Agreement)
- Part C2 Pricing Data
- Part C3 Scope of Work
- Part C4 Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Bid Data and any addenda thereto listed in the Bid Schedules as well as any changes to the terms of the Offer agreed by the Bidder and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

The Bidder shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the, Conditions of Contract identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Bidder receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Bidder (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.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the Bid documents and the receipt by the Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE LLM:

Signature(s)

Name(s)

Capacity

_____	_____
_____	_____
_____	_____

LESEDI LOCAL MUNICIPALITY
(Name and address of organisation)

Name and signature of witness _____

Date _____

C1.2 Contract Data

CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works (2015) 3rd Edition, published by the South African Institution of Civil Engineering, is applicable to this Contract and is incorporated herein by reference.

Copies of these Conditions of Contract may be obtained from the South African Institution of Civil Engineering, Tel. No. (011) 805-5947/48/53 or requested on the email address civilinfo@saice.gov.za and website www.saice.gov.za.

PART 1: DATA PROVIDED BY THE EMPLOYER

The following contract specific data are applicable to this Contract:

Clause	
1.1.1.13	The Defects Liability Period is 365 days (<i>measured from the date of the Certificate of Completion</i>).
1.1.1.14	The time for achieving Practical Completion is 5 months (<i>measured from the Commencement Date</i>).
1.1.1.15	The Employer is LESEDI LOCAL MUNICIPALITY, represented by any Employee duly authorised thereto in writing.
1.1.1.16	The Employer's Agent is WATSON CONSULTING ENGINEERS (PTY) LTD, represented by any Employee duly authorised thereto in writing.
1.1.1.26	The Pricing Strategy is: Re-measurement Contract. The municipality reserves the right to purchase material through cession agreement.
1.2.1.2	The Employer's address for receipt of communications is: LESEDI LOCAL MUNICIPALITY P.O. BOX 201 HEIDELBERG 1438.
3.2.3	The Employer's Agent shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract: <ol style="list-style-type: none"> 1. Clause 5.12: Extension of Time for Practical Completion 2. Clause 6.3: Variations 3. Clause 6.6.3: Expenditure of Contingency Allowance 4. Clause 10.1.5 The Employer's Agent shall rule on any claim lodged by the Contractor, but the final approval shall be upon written approval from Lesedi Local Municipality in accordance with the standard documentation of processing claims.
5.3.1	The documentation required before commencement with Works execution are: Health and Safety Plan (Refer to Clause 4.3) Initial Programme of Works (Refer to Clause 5.6) Security (Refer to Clause 6.2) Insurance (Refer to Clause 8.6)
5.3.2	The time to submit the documentation required before commencement with Works execution is 14 days.
5.4.2	The access and possession of Site shall not be exclusive to the Contractor but as set out in the Site Information.

Clause																
5.8.1	<p>The non-working days are Sundays.</p> <p>The special non-working days are:</p> <div><div>1. Public holidays and voting days if published prior to the bid closing date.</div><div>2. The year-end break commencing and ending on dates as specified by SAFCEC.</div></div>															
5.12.2.2	<p>ABNORMAL CLIMATIC CONDITIONS:</p> <p>EXTENSION OF TIME FOR PRACTICAL COMPLETION</p> <p>As the work to be performed will be done over short periods of time, no extension of time will be given for abnormal weather. Special situations with special influence will have to be motivated to the Employer's Agent for consideration.</p>															
5.12.2.4	<p>DELETE AND REPLACE WITH:</p> <p>"Any disruption of labour on site which is entirely beyond the Contractor's control".</p>															
5.12.3	<p>DELETE AND REPLACE WITH:</p> <p>"If an extension of time is granted and for which compensation is payable in terms of the Contract, the Contractor shall be paid in accordance with the rates tendered for the extension of time at the closing of bids and in terms of the Contract."</p>															
5.13.1	<p>The penalty for failing to complete the Works within the abovementioned time limit, plus approved extensions of time or condonation thereof will be imposed in line with the DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE QUANTITY SURVEYING SERVICES-PROCUREMENT DOCUMENTATION GUIDELINES FOR BUILDING CONTRACTORS, 2023 (QS002).</p>															
5.16.3	<p>The latent defect period is ten (10) years for mechanical engineering works.</p>															
6.2.3	<p>ADD THE FOLLOWING:</p> <p>Tenderers must submit letter of intent for surety/guarantee for mechanical tenders.</p> <p>Where surety is required, it shall be in the form of cash, or a bank guaranteed cheque from a banking institution registered in terms of the Banks Act, 1990 (Act No. 94 of 1990) or from an insurer registered in terms of the Insurance Act, 1943 (Act No. 27 of 1943).</p> <p>Bank guarantees will be required as follows:</p> <table><tr><th>Category</th><th>Project Value</th><th>Guarantee</th></tr><tr><td>A</td><td>≤ R 500 000</td><td>2.5%</td></tr><tr><td>B</td><td>R 500 001 – R 1 000 000</td><td>5%</td></tr><tr><td>C</td><td>R 1 000 001 – R 2 000 000</td><td>7.5%</td></tr><tr><td>D</td><td>> R 2 000 000</td><td>10%</td></tr></table>	Category	Project Value	Guarantee	A	≤ R 500 000	2.5%	B	R 500 001 – R 1 000 000	5%	C	R 1 000 001 – R 2 000 000	7.5%	D	> R 2 000 000	10%
Category	Project Value	Guarantee														
A	≤ R 500 000	2.5%														
B	R 500 001 – R 1 000 000	5%														
C	R 1 000 001 – R 2 000 000	7.5%														
D	> R 2 000 000	10%														
6.8.2	<p>Contract Price Adjustment: The contract shall be not subject to CPA Contract Price Adjustment.</p>															
6.8.3	<p>Price adjustments for variations in the cost of special materials are not allowed.</p>															
6.10.1.5	<p>The percentage advance on materials not yet built into the Permanent Work is 80%.</p>															
6.10.3	<p>The percentage retention on the amounts due to the Contractor is 10% to be reduced to 5% at works completion upon the issuing of Certificate of Completion. The balance of retention will be payable after final completion or expiry of the defects liability period as stated in 5.14.5.2</p> <p>The limit of retention money is 10% of the Contract Sum.</p>															
8.6.1.1.2	<p>The value of Plant and materials supplied by the Employer to be included in the insurance sum is R Nil.</p>															
8.6.1.1.3	<p>The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R Nil.</p>															
8.6.1.3	<p>The limit of indemnity for liability insurance is R 2 000 000 for any single claim, the number of claims to be unlimited during construction and Defects Liability Period.</p>															

PART 2: DATA PROVIDED BY THE CONTRACTOR**Clause**

1.1.1.9 The Contractor is

1.2.1.2 The Contractor's address for receipt of communications is:

Physical address:

Postal address:

.....

.....

.....

.....

.....

.....

.....

.....

Telephone:

Fax:

E-mail:

Clause

1.2.1 The security to be provided by the Contractor shall be:

Performance guarantee of 10% of the Contract Sum.

6.5.1.2.3 The percentage allowance to cover overhead charges is%.

6.8.3 The variation in cost of special materials is the calculation of the price differences during the specific periods and escalating the prices on the basis of their respective indices.

VARIATIONS TO THE GENERAL CONDITIONS OF CONTRACT ARE:**Clause**

1.1.1.5 The contract shall come into effect when the employer issues a letter to the contractor stating that his bid has been accepted / the contract has been awarded to the contractor or upon receipt of the signed contract document by the contractor from the employer.

5.3.3 The Contractor shall not commence with the Works until they have an approved project specific health and safety plan in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2003 and complied with the initial requirements thereof.

5.14.1 Practical Completion

Should the Employer's Agent not issue such a list within 14 days, Practical Completion shall be deemed to have been achieved on the said fourteenth day.

5.14.2 Issue of Certificate of Practical Completion

The Contractor shall notify the Employer's Agent, who shall inspect the works and the Employer's Agent.

5.14.4 Certificate of Completion

Contractor shall notify the Employer's Agent, who shall inspect the works and the Employer's Agent.

6.10.4 Payment and Related Matters

In the third sentence replace "28" with "30".

THE ADDITIONAL CONDITIONS OF CONTRACT ARE:**Clause****C3.1.7.1 Payment for the Labour-Intensive Component of the Works:**

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in derelict.

C3.1.7.2 Applicable Labour Law

The Ministerial Determination 4: Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment act of 1997 by the Minister of Labour in Government Notice NR347 of 4 May 2012, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers. An EPWP contract shall be signed between the contractor and the EPWP participant using the template appended. The contracts shall expire on earlier of (i) 31 March, (ii) at the end of the project; or (iii) completion of the works allocated.

C3.1.7.3 Introduction

This document contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of an EPWP.

In this document –

- (a) “*department*” means any department of the State, implementing agent or contractor;
- (b) “*employer*” means any department, implementing agency or contractor that hires workers to work in elementary occupations on a EPWP;
- (c) “*worker*” means any person working in an elementary occupation on a EPWP;
- (d) “*elementary occupation*” means any occupation involving unskilled or semi- skilled work;
- (e) “*management*” means any person employed by a department or implementing agency to administer or execute an EPWP;
- (f) “*task*” means a fixed quantity of work;
- (g) “*task-based work*” means work in which a worker is paid a fixed rate for performing a task;
- (h) “*task-rated worker*” means a worker paid on the basis of the number of tasks completed;
- (i) “*time-rated worker*” means a worker paid on the basis of the length of time worked.

C3.1.7.4 Terms of Work

- (a) Workers on an EPWP are employed on a temporary basis or contract basis.

C3.1.7.5 Normal Hours of Work

- (a) An employer may not set tasks or hours of work that require a worker to work–
 - a. more than forty hours in any week
 - b. on more than five days in any week; and
 - c. for more than eight hours on any day.
- (b) An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- (c) A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

C3.1.7.6 Meal Breaks

- (a) A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- (b) An employer and worker may agree on longer meal breaks.
- (c) A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.
- (d) A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

C3.1.7.7 Special Conditions for Security Guards

- (a) A security guard may work up to 55 hours per week and up to eleven hours per day.
- (b) A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

C3.1.7.8 Daily Rest Period

- (a) Every worker is entitled to a daily rest period of at least twelve consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

C3.1.7.9 Weekly Rest Period

- (a) Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

C3.1.7.10 Sick Leave

- (b) Only workers who work for more than 24 hours have the right to claim sick pay in terms of this clause
- (c) A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- (d) A worker may accumulate a maximum of twelve days' sick leave in a year
- (e) Accumulated sick leave may not be transferred from one contract to another contract.
- (f) An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- (g) An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- (h) An employer must pay a worker sick pay on the worker's usual payday.
- (i) Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
- (j) absent from work for more than two consecutive days: or
- (k) absent from work on more than two occasions in any eight-week period.
- (l) A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorized to issue medical certificates indicating the duration and reason for incapacity.
- (m) A worker is not entitled to paid sick leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

C3.1.7.11 Maternity Leave

- (a) A worker may take up to four consecutive months' unpaid maternity leave.
- (b) A worker is not entitled to any payment or employment-related benefits during maternity leave.
- (c) A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

- (d) A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- (e) A worker may begin maternity leave –
- (f) four weeks before the expected date of birth; or
- (g) on an earlier date –
 - a. if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - b. if agreed to between employer and worker; or
 - c. on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- (h) A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

C3.1.7.12 Family responsibility leave

Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of –
 - the employee's spouse or life partner; or
 - the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

C3.1.7.13 Statement of Conditions

An employer must give a worker a statement containing the following details at the start of employment –

- (a) the employer's name and address and the name of the EPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the EPWP.
- (f) An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- (g) An employer must supply each worker with a copy of these conditions of employment.

C3.1.7.14 Keeping Records

Every employer must keep a written record of at least the following –

- (a) the worker's name and position;
- (b) certified ID copies of all locally employed labour
- (c) signed Contracts between the employer and the EPWP Participants
- (d) Attendance Registers for the EPWP Participants
- (e) Monthly Reporting Template as per EPWP requirements
- (f) in the case of a task-rated worker, the number of tasks completed by the worker;
- (g) in the case of a time-rated worker, the time worked by the worker;
- (h) proof of payments made to each worker.

The employer must keep this record for a period of at least three years after the completion of the EPWP.

C3.1.7.15 Payment

- (a) An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- (b) A worker may not be paid less than the minimum EPWP wage rate of R 220,64 per day or per task. This will be adjusted annually on the 1st of November in-line with Ministerial determination.
- (c) A task-rated worker will only be paid for tasks that have been completed.
- (d) An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- (e) A time-rated worker will be paid at the end of each month.
- (f) Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- (g) Payment in cash or by cheque must take place –
 - a. at the workplace or at a place agreed to by the worker;
 - b. during the worker's working hours or within fifteen minutes of the start or finish of work;
 - c. in a sealed envelope which becomes the property of the worker.
- (h) An employer must give a worker the following information in writing –
 - a. the period for which payment is made;
 - b. the numbers of tasks completed or hours worked;
 - c. the worker's earnings;
 - d. any money deducted from the payment;
 - e. the actual amount paid to the worker.
- (i) If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.
- (j) If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

C3.1.7.16 Deductions

- (a) An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- (b) An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- (c) An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- (d) An employer may not require or allow a worker to –
 - a. repay any payment except an overpayment previously made by the employer by mistake;
 - b. state that the worker received a greater amount of money than the employer actually paid to the worker; or
 - c. pay the employer or any other person for having been employed.

C3.1.7.17 Health and Safety

- (a) Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- (b) A worker must –
 - a. work in a way that does not endanger his/her health and safety or that of any other person;
 - b. obey any health and safety instruction;
 - c. obey all health and safety rules of the EPWP;
 - d. use any personal protective equipment or clothing issued by the employer;
 - e. report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

C3.1.7.18 Compensation for Injuries and Diseases

- (a) It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on an EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- (b) A worker must report any work-related injury or occupational disease to their employer or manager.
- (c) The employer must report the accident or disease to the Compensation Commissioner.
- (d) An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

C3.1.7.19 Termination

- (a) The employer may terminate the employment of a worker for good cause after following a fair procedure.
- (b) A worker will not receive severance pay on termination.
- (c) A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- (d) A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available.
- (e) A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available.

C3.1.7.20 Certificate of Service

On termination of employment, a worker is entitled to a certificate stating –

- (a) the worker's full name;
- (b) the name and address of the employer;
- (c) the EPWP on which the worker worked;
- (d) the work performed by the worker;
- (e) any training received by the worker as part of the EPWP;
- (f) the period for which the worker worked on the EPWP;
- (g) any other information agreed on by the employer and worker.

C3.1.7.21 Contractor's default in payment to Labourers and Employees

- (a) Any dispute between the Contractor and labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene.
- (b) The Employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the Contract.

C3.1.7.22 Provision of Hand-tools

- (a) The Contractor shall provide his labour force with hand tools of adequate quality, sufficient in numbers and make the necessary provisions to maintain the tools in good and safe working conditions.

C3.1.7.23 Reporting

The Contractor shall submit monthly returns/reports as specified below:

- (a) Signed Master rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance.
- (b) Certified ID copies of all locally employed labour
- (c) Signed Contracts between the employer and the EPWP Participants
- (d) Attendance Registers for the EPWP Participants
- (e) Monthly Reporting Template as per EPWP requirements
- (f) Plant utilization returns

C1.3 Form of Guarantee**PRO FORMA****CONTRACT No.: 25/2025**

WHEREAS LESEDI LOCAL MUNICIPALITY (hereinafter referred to as "the Employer") entered into, a Contract with

_____ (hereinafter called "the

Contractor") on the _____ day of _____ 20____ for the construction of

_____ at

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS _____ has/have at the request of the Contractor, agreed to give such guarantee;

NOW THEREFORE WE, _____ do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and execution for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the Completion Date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money.
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our total liability hereunder shall not exceed the sum of _____ (R_____)

The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon the Guarantor's liability hereunder shall cease.

We hereby choose our address for the serving of all notices for all purposes arising here from as



IN WITNESS WHEREOF this guarantee has been executed by us at _____

on this _____ day of _____ 20____

As witnesses:

1. _____ Signature _____

2. _____ Signature _____

Duly authorized to sign on behalf of _____

Address _____

C1.4 Agreement In Terms Of The Occupational Health And Safety Act, 1993 (Act No. 85 of 1993)

THIS AGREEMENT made at _____

on this the _____ day of _____ in the year _____

between **LESEDI LOCAL MUNICIPALITY** (hereinafter called "the **Employer**") of the one part, herein represented by

in his capacity as _____

and

(hereinafter called "the Mandatory") of the other part, herein represented by

in his capacity as _____

WHEREAS the Employer is desirous that certain works be constructed, **THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.** and has accepted a Bid by the Mandatory for the construction, completion, and maintenance of such Works and whereas the Employer and the Mandatory have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatory with the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1 The Mandatory shall execute the work in accordance with the Contract Documents pertaining to this Contract.
- 2 This Agreement shall hold good from its Commencement Date, which shall be the date of a written notice from the Employer or Employer's Agent requiring him to commence the execution of the Works, to either
 - (a) the date of the Final Approval Certificate issued in terms of Clause 5.16.1 of the General Conditions of Contract (hereinafter referred to as "the GCC"),
 - (b) the date of termination of the Contract in terms of Clauses 9.1, 9.2 or 9.3 of the GCC.
- 3 The Mandatory declares himself to be conversant with the following:
 - (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:
 - (i) Section 8 : General duties of employers to their employees;
 - (ii) Section 9 : General duties of employers and self-employed persons to persons other than employees;
 - (iii) Section 37 : Acts or omissions by employees or mandataries, and
 - (iv) Subsection 37(2) relating to the purpose and meaning of this Agreement.
 - (b) The procedures and safety rules of the Employer as pertaining to the Mandatory and to all his subcontractors.
- 4 In addition to the requirements of Clause 8.4 of the GCC and all relevant requirements of the above-mentioned Volume 3, the Mandatory agrees to execute all the Works forming part of this Contract and to operate and utilise all machinery, plant and equipment in accordance with the Act.
- 5 The Mandatory is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.

- 6 ***The Mandatory warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.***
- 7 The Mandatory undertakes to ensure that he and/or subcontractors and/or their respective employers will at all times comply with the following conditions:
- (a) The Mandatory shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Mandatory shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
 - (b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
 - (c) The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Mandatory and/or his employees and/or his subcontractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE LLM:

WITNESS

NAME
(IN CAPITALS)

SIGNED FOR AND ON BEHALF OF THE MANDATORY:

WITNESS

NAME
(IN CAPITALS)

CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT No. 85 OF 1993)

The signatory for the company that is the Contractor in terms of the above-mentioned Contract and the Mandatory in terms of the above-mentioned Act shall confirm his or her authority thereto by attaching to this page a duly signed and dated copy of the relevant resolution of the Board of Directors.

An example is given below:

"By resolution of the Board of Directors passed at a meeting held on _____ 20.....,
Mr/Ms _____ whose signature
appears below, has been duly authorised to sign the AGREEMENT in terms of THE OCCUPATIONAL HEALTH AND
SAFETY ACT, 1993 (ACT No. 85 of 1993) on behalf of _____

SIGNED ON BEHALF OF THE COMPANY : _____

IN HIS/HER CAPACITY AS : _____

DATE : _____

SIGNATURE OF SIGNATORY : _____

WITNESS

NAME
(IN CAPITALS)



LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

**THE APPOINTMENT OF A CONTRACTOR FOR THE
UPGRADING/REFURBISHMENT OF EMMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS.**

PART C2: PRICING DATA

**LESEDI LOCAL MUNICIPALITY
CONTRACT No.: 25/2025**

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF
EMMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS.****PART C2 PRICING DATA****Payment for the Labour-Intensive Component of the Works:**

Those parts of the works to be constructed using labour-intensive methods are marked in the bill of quantities with the letters LI either in a separate column or as a prefix or suffix 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 deviation from the contract. The items marked with the letters LI 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.

Where minimum labour intensity is specified in the design, the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity targets.

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. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in derelict.

Linkage of Payment for Labour-Intensive Component of Works to Submission of Project Data

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframes stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted. Lesedi Local Municipality may institute a penalty relating to outstanding labour information.

The following information shall be maintained on site and submitted in electronic/hard copy formats:

- Certified ID copies of all locally employed labour
- Signed Contracts between the employer and the EPWP Participants
- Attendance Registers for the EPWP Participants
- Proof of Payment of EPWP Employees
- Monthly Reporting Template as per EPWP requirements



TENDER NO: 25/2025

**LESEDI LOCAL MUNICIPALITY
CONTRACT No 25/2025**

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF EMASDAL,
HEIDELBERG AND RENSBURG PUMP STATIONS.**

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C2.1 Pricing Instructions

- 1 The General 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.

Although the Bidder 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 Employer's Agent 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.

- 3 Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste.

- 4 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 several items. 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 Bid is based.

- 5 The quantities set out in the schedule of quantities are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given in the schedule of quantities, will be used to determine payments to the contractor.

- 6 A price or rate MUST be entered against each item in the Schedule of Quantities, whether the quantities are stated or not.

The Bidder MUST 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.

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.

- 7 The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not 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.

Ordering of materials are not to be based on the Bill of Quantities, but only on information issued for construction purposes.

- 8 Payment for the Labour-Intensive Component of the Works:
Those parts of the works to be constructed using labour-intensive methods are marked in the bill of quantities with the letters LI either in a separate column or as a prefix or suffix 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 deviation from the contract. The items marked with the letters LI 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.

Where minimum labour intensity is specified in the design, the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity targets.

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. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in derelict.

9 Linkage of Payment for Labour-Intensive Component of Works to Submission of Project Data

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframes stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted. Lesedi Local Municipality may institute a penalty relating to outstanding labour information.

The following information shall be maintained on site and submitted in electronic/hard copy formats:

- Certified ID copies of all locally employed labour
- Signed Contracts between the employer and the EPWP Participants
- Attendance Registers for the EPWP Participants
- Proof of Payment of EPWP Employees.

10 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 Bidder bids 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.

11 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
m ²	=	square metre
m ² -pass	=	square metre-pass
ha	=	hectare
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
kW	=	kilowatt
kN	=	kilonewton
kg	=	kilogram
t	=	ton (1 000 kg)
%	=	per cent
MN	=	meganewton
MN-m	=	meganewton-metre
PC Sum	=	Prime Cost Sum
Prov Sum	=	Provisional Sum
No	=	Number



TENDER NO: 25/2025

NB: PLEASE NOTE:

A. BID PRICES ARE TO BE FIRM.

Signature of person authorised to sign bid documents

Name in block letters

Designation

Date

C2.2 Bill of Quantities

CONTENTS

SECTION A	:	PROJECT MANAGEMENT
SECTION B	:	EMASDAL PUMPSTATION
SECTION C	:	RENSBURG PUMPSTATION
SECTION D	:	HEIDELBERG PUMPSTATION
SECTION E	:	BERGENDALE PUMPSTATION
	:	EMASDAL PUMPSTATION ELECTRICAL
	:	RENSBURG PUMPSTATION ELECTRICAL
	:	HEIDELBERG PUMPSTATION ELECTRICAL

SUMMARY OF BILL OF QUANTITIES**CALCULATION OF BID SUM**

Failure to provide rates / sums for ALL items in the Bill of Quantities will result in disqualification of bid

An EXCEL version of the Bill of Quantities has been provided.

Please take note of the Instruction below:

The Tenderer shall populate the spreadsheet with his rates and thereafter fill in the Bill of Quantities in the tender document as per the excel spreadsheet output.

The tenderer shall not tamper with the quantities provided on the excel spreadsheet.

Where a Provisional Sum has been provided in the Cell, DO NOT OVERWRITE the RATES.



LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF EMASDAL, HEIDELBERG AND RENSBURG WATER PUMP STATIONS

PART C3: SCOPE OF WORK

LESEDI LOCAL MUNICIPALITY**CONTRACT No.: 25/2025**

FOR

**THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING/REFURBISHMENT OF
EMMASDAL, HEIDELBERG AND RENSBURG WATER PUMP STATIONS.****PART C3: SCOPE OF WORK**

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STATUS

In the event of any discrepancy between the Scope of Works and a part or parts of the SANS 1200 Standardized Specifications, the Bill of Quantities or the Drawings, the Project Specifications shall take precedence and prevail in the Contract.

C3.1 Description of The Works

C3.1.1 LLMs Objectives

The following dynamics characterize the South African water sector:

3.2.1 Growing water supply infrastructure needs, as the country experience rapid urbanization, leading to densification and the necessity for increased investment in water supply infrastructure to meet the rising water demand.

3.2.2 Insufficient municipal capacity for medium- to long-term planning, project preparation, project implementation, operations, maintenance, and infrastructure asset management.

3.2.3 Aged and ageing infrastructure – most of which are more than 40 years old and have exceeded their design lifespans.

3.2.4 Poor revenue collection, weak credit profiles, declining internally generated revenues, and indebtedness to Water Boards.

3.2.5 Failures in governance, management and financial viability: The latest report from the Auditor General paints a general picture of an increase in the number of dysfunctional municipalities which are being placed under some intervention or being assessed as financially distressed.

The objectives of the project are:

- (a) To provide and maintain water supply to the residents receiving water from sources served by the Emasdal, Heidelberg and Rensburg Pump Stations
- (b) The Municipality also intends for the communities directly or indirectly affected by the project to benefit by being involved in the project;
- (c) To deliver public infrastructure using labour intensive methods where feasible. Labour-intensive works comprise the activities described in SANS 1921-5. Such works shall be constructed using local workers who are temporarily employed in terms of this Scope of Work.

In order to achieve the above objectives, the following will need to be carried out:

- (i) Upgrading of 3 x Water Pump Stations
- (ii) Repairing of 1 x Water Pump Stations

C3.1.2 Overview of The Works

The work to be carried out in this project includes the following, as per drawings listed in C3.2.5:

- Site Establishment
- Supply
- Installation of water pumps
- repairing of water pumps
- Testing
- Reinstatement
- Finishing and Excess material removal from site
- Commissioning.

All the scope described and quantified in the Bill of Quantities will be undertaken within the Lesedi Local Municipality.

C3.1.3 Extent of Works

The work to be carried out under this contract includes supply of equipment, material, and labour requirements for the successful completion of the projects with the constraints of time, cost and quality.

This description of the Works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract.

The drawings included at the back of this document define the scope of this contract and indicate all work to be done. They may be supplemented by additional drawings to supply information regarding details of construction and exact lines, levels, and depths.

The contractor is to co-ordinate all his operations and activities with the employer and other contractors working on the site, shall make timeous arrangements with the employer and other contractors to supply and position material and items to be built in or permanently covered up and shall afford the Employer and other contractors full access to the site and their work in progress at all reasonable times to enable them to complete their work before the completion date of this contract.

The Contractor shall take due care not to damage any of the work done by the Employer or other contractors and any such damage shall be repaired at his cost.

The contractor shall co-ordinate the cutting into and connecting of services to existing services with the Local Authority and obtain their prior approval for any work to be done in this regard.

Approximate quantities of each type of work are given in the Schedule of Quantities.

C3.1.4 Location of The Works

The targeted area is Lesedi.

The project locality is indicated in Part C4 (Site Information) of this document.

C3.1.5 Temporary Works

The temporary works will cater for accommodation of traffic and protection of services as required in terms of the project specification.

The contractor is to design, supply, construct, demolish and spoil at his own cost any temporary works required in order to carry out the construction works as required.

C3.2 Engineering

C3.2.1 Design

Works designed by, per design stage:

Concept, feasibility, and overall process	Consultant
Basic engineering and detail layouts to bid stage	Consultant
Final design approval for construction stage	Employer
Temporary works	Contractor
Preparation of "As-built" drawings	Contractor / Employer's Agent

- The Consultant is responsible for the design of the Permanent Works as reflected in the Contract Documents unless otherwise stated.
- The Contractor is responsible for the design of the Temporary Works and their compatibility with the Permanent Works.
- The Contractor shall supply all details necessary to assist the Employer's Agent in the compilation of the "As-built" drawings.

C3.2.2 LLM's Design

None. The Consultant is responsible for the design.

C3.2.3 Contractor's Design

Not applicable.

C3.2.4 Drawings

The Works shall be constructed in accordance with the design drawings included in the Contract Documents.

The Contractor will be supplied with three (3) unreduced paper prints of each of the drawings and any others required for construction. These copies are issued free of charge and the Contractor shall make any additional copies he may require at his own cost.

Only figured dimensions shall be used and drawings shall not be scaled unless otherwise instructed.

The levels given on construction drawings are subject to confirmation on site, and the Contractor shall submit all levels to the Engineer for confirmation before he commences any construction work. The Contractor shall also check all clearances given on the drawings and shall inform the Engineer of any discrepancies.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends, and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis.

Any information in the possession of the Contractor, which the Engineer requires to complete his record drawings shall be supplied to the Engineer's Representative before a certificate of completion will be issued.

C3.2.5 List of Drawings

These are appended to the document in pdf format –

- (a) MCC Single Line Layouts for Heidelberg, Emasdal and Rensburg Pump Stations – LS.EE.01
- (b) Emasdal Pumpstation - LS.ME.P01
- (c) Rensburg Pumpstation - LS.ME.P02
- (d) Heidelberg Pump Station - LS.ME.P03

Construction drawings would be issued to the successful tenderer on Site hand-over.

C3.3 Procurement**C3.3.1 Preferential Procurement****C3.3.1.1 Requirements**

The contract is for CIDB registered **5 ME** or higher Contractors. Acceptable bids will be evaluated by using a system that awards points on the basis of 80 points for bid price and 20 points for Specific goals.

C3.3.1.2 Resource standard pertaining to targeted procurement

Not applicable for this contract.

C3.3.2 Subcontracting**C3.3.2.1 Scope of mandatory subcontract works**

The Municipality may require that the Contractor sub-lets to local sub-contractors appropriate portions of the works that are classified as being reserved for labour-intensive construction methods.

C3.3.2.2 Preferred subcontractors / suppliers

The Contractor shall be responsible for all work carried out by subcontractors on his behalf. The Employer's Agent will not liaise directly with any such sub-contractor, nor will he become involved in any problems and/or disputes related to payments, programming, workmanship, etc, unless provided for in the Conditions of Contract. Such problems and/or disputes shall remain the sole concern of the Contractor and his subcontractors.

C3.3.2.3 Subcontracting procedures

As per General Conditions of Contract.

C3.3.2.4 Attendance on subcontractors

As per General Conditions of Contract.

C3.4 Management

C3.4.1 Management of the Works

C3.4.1.1 Planning and programming

C3.4.1.1.1 Submitted programme

The Contractor's programme, required in terms of Clause 5.6.1 of GCC 2015, shall be in a bar chart form.

In addition to the requirements of Clause 5.6.1 of GCC 2015, the Contractor's programme shall show:

- a) The various activities, related to a time scale, for each element of the Works, including those of Nominated and/or Subcontractors, in sufficient detail to be able to assess construction progress,
- b) Critical path activities and their dependencies,
- c) Key dates in respect of work to be carried out by others,
- d) Key dates in respect of information to be provided by the Engineer and/or others,

If any change to the critical path occurs, the Contractor shall as soon as practicable notify the Engineer in writing.

The Contractor's programme and method statement will not be accepted as the basis for claims for additional compensation without due reference to all relevant associated factors.

C3.4.1.1.2 General Allowances

When drawing up his programme, the Contractor shall, take into consideration and make allowance for, inter alia:

- a) Expected weather conditions and their effects,
- b) Known physical conditions or artificial obstructions,
- c) Searching for, dealing with, and carrying out alterations to the existing services,
- d) The accommodation of public access and traffic,
- e) The provision and implementation of the health and safety plan in terms of the Construction Regulations, 2014 of the Occupational Health and Safety Act, and
- f) The design, testing and approval of the concrete mixes

C3.4.1.2 Review of progress

The Contractor shall review his progress each month and should progress lag behind the latest accepted programme, by more than 2 weeks, he shall submit a revised programme and method statement of how he proposes to make up the lost time. If, in the opinion of the Engineer, such revised programme will not make up the lost time, the Engineer shall have the right to request the Contractor to reorganize his work in a manner which will ensure an acceptable programme. Claims for additional payment to meet any costs incurred due to such re-organisation will not be accepted.

C3.4.1.3 Methods and procedures

C3.4.1.3.1 Method Statements

When requested by the Engineer, the Contractor shall submit, within 2 weeks (14 days) of date of such written request, a method statement detailing the Contractor's proposed construction procedure of certain elements of the Works.

No work shall commence before the method statement has been submitted and approved. The approval shall not relieve the Contractor from his responsibilities in terms of the General Conditions of Contract.

C3.4.1.3.2 Neatness of The Site

The general neatness and tidiness of the vicinity of Kaydale are of particular concern. The Works will be visible to the public. The Contractor shall, therefore, on a day-to-day basis, keep the area of the Works in a condition acceptable to the Engineer.

C3.4.1.4 Weather conditions

C3.4.1.4.1 Extension of time for completion resulting from abnormal rainfall

Extension of time for completion will not be considered for normal rainfall but only for abnormal rainfall or saturated conditions and will be calculated in accordance with the following method:

- a) The Contractor shall, in his programme, allow for the anticipated number of working days on which work could be delayed - as given in the Schedule below.
- b) Extension of time will be calculated for each calendar month or part thereof over the full period for the completion of the Work, plus any approved extension thereof, as follows:
 - (i) A delay caused by abnormal rainfall will only be accepted for extension of time if, in the opinion of the Engineer, it delays an item or items which lie on the critical path determined by the Contractor's programme. Only delays on working days will be considered.
 - (ii) Abnormal rainfall will be considered to be days, as approved, on which rain delayed operations, less the anticipated number of days given in the Schedule below.
 - (iii) The net extension of time determined for each month, which may be negative, shall accumulate algebraically to determine the net number days for extension of time due to abnormal rainfall, but a negative total at the end of the construction period will not be taken into account.
 - (iv) Where a portion of a month is involved, a pro rata number of days shall be calculated.

SCHEDULE

Anticipated number of working days on which work could be delayed as a result of rainfall and saturated conditions.

Month	Days	Month	Days
January	2	July	1
February	2	August	1
March	1	September	2
April	1	October	3
May	1	November	4
June	1	December	4

C3.4.1.4.2 Recording of weather

The Contractor shall provide a rain gauge as directed by the Engineer and precautions shall be taken to restrict access to the rain gauge by unauthorised persons.

C3.4.1.5 Quality plans and control

The Contractor shall prepare a quality management plan to be followed during the course of the Contract.

The quality management plan shall

- i. clearly indicate the methods, programmes, procedures, and other methods that the Contractor intends using as process control to ensure compliance of materials and workmanship with the requirements of the Contract (process control testing)
- ii. Include the proof of status of calibration of all measuring devices that are to be used during the course of the Contract.

C3.4.1.6 Environment**C3.4.1.6.1 Protection of the environment****C3.4.1.6.1.1 Environment management plan**

The Contractor shall comply with the provisions of the environmental management specification.

C3.4.1.6.1.2 Fires and burning of vegetation

No fires may be lit except at places approved by the relevant authority. The Contractor shall ensure that the fire hazard on and near the Site is reduced to a minimum and shall take immediate and effective steps to extinguish any fire that may break out.

Burning of vegetation and trees cleared from the Site and/or any other material may only be done on site if permitted in writing by the relevant authority and shall then be strictly controlled by a competent supervisor, shall be carried out strictly in accordance with any directions given and shall be carried out solely at the risk of the Contractor.

C3.4.1.6.1.3 Preservation of flora and fauna and soil conservation

The Contractor shall:

- a) take all precautions to prevent:
 - i) the erosion of soils and/or
 - ii) loss of or injury to domestic and other animals from any lands used or occupied by the Contractor.
- b) refrain from destroying, removing, or clearing trees, timber, and scrub to any extent greater than is necessary for the execution of the Contract,
- c) take care to cause the minimum of disturbance to the fauna and flora.
- d) erect temporary fences on the servitude lines during the construction period to prevent loss of fauna. The fences shall be removed as soon as construction and testing are complete.
- e) take precautions to keep the risk of fire to a minimum,
- f) arrange that timber for firewood be obtained only from such places as may be approved by the Engineer;
- g) take such measures as to ensure that his employees are aware of all laws and restrictions governing the hunting, disturbing, capturing, or destroying of animals and birds in the vicinity of the camp or the Works or the taking of fish from any water; and
- h) prohibit all firearms from the site and temporary camps.

C3.4.1.7 Format of communications

Communications and instructions shall be given in writing and sent either by post, or facsimile. Site instructions shall be given in the Site Communication Book, which shall be a triplicate book provided by the Contractor.

C3.4.1.8 Management meetings

The Contractor will be required to attend the following site meetings during the term of the contract:

- a) An inaugural site meeting to be held within three weeks after the Commencement Date.
- b) Monthly site meetings from the order to commence the Works until the Completion of the Works.
- c) Monthly Health and Safety meetings.

C3.4.1.9 Daily records

Daily records of all site activities and progress of work shall be kept by the Contractor. Any possible causes for delay to the Contract or which may result in additional costs to the Employer shall be recorded as clearly as possible. The records shall also include the plant on Site and personnel employed. The records shall be kept at all times in the Engineer's Site Office.

C3.4.1.9.1 Monthly labour returns

The Contractor shall submit with each statement for payment a labour return showing the Number of Person Days and Labour Days recorded for the Contract. The returns shall be similar to the format approved by the Engineer.

C3.4.1.10 Lighting

Should the Contractor wish to undertake work when natural lighting is inadequate for the type of work to be performed, he shall, at his own expense, provide and maintain in good and safe condition adequate high-powered flood lighting for all the work areas where he is operating.

C3.4.1.11 Payment certificates

The statement to be submitted by the Contractor in terms of Clause 6.10 of the General Conditions of Contract shall be prepared in accordance with the standard payment certificate prescribed by the Engineer and shall be provided electronically in Microsoft Excel format.

All costs incurred by the Contractor resulting from the preparation and submission of the statements shall be borne by the Contractor.

C3.4.2 Site establishment**C3.4.2.1 Services and facilities existing and/or provided by the Employer****C3.4.2.1.1 Water and power supply and other services**

The Contractor shall make his own arrangements and pay all installation and consumption charges for the supply of water, electrical power and other services required.

C3.4.2.1.2 Camps and depot

The Contractor may erect his site offices and storage depot within the boundaries of the area indicated by the Engineer.

No housing is available, and the Contractor shall make his own arrangements to house his employees and transport them to and from the Site. All arrangements for housing workmen shall be made in accordance with and subject to applicable regulations and requirements.

C3.4.2.2 Facilities provided by the Contractor

C3.4.2.2.1 Facilities for the Engineer

The Contractor shall provide for the use of the Engineer, maintain and service, as applicable, the following facilities as specified in SANS 1200 A:

- a) two name-boards,
- b) one furnished office,
- c) conference room (furnished),
- d) latrine and ablution facilities,
- e) carport for 2 vehicles,
- f) 1 x Smart Phone
- g) photo-copying machine,
- h) I7, 12GB Ram notebook computer and A3 printer / scanner,
- m) a site instruction book,
- n) protective clothing,
- o) safety equipment,
- p) medical facilities,
- q) nine 150 mm concrete cube moulds and a temperature-controlled cube-curing water bath,

Unless specified otherwise, on completion of the Works these facilities shall revert to the Contractor who shall remove them from the site excluding items f, g and h.

The term "use of the Engineer" will be deemed to include, as appropriate, use by the Engineer's staff and the Engineer's Representative and his staff.

C3.4.3 Existing services

C3.4.3.1 Treatment of existing services

C3.4.3.1.1 Continuance of operation of existing services

All existing services shall be maintained in operation unless prior arrangements have been made with the relevant authority and written permission for an interruption of the service has been granted and adequate notice has been given to the affected residents.

C3.4.3.1.2 Continuous operation of existing works

The construction works take place around existing services. Existing works must remain in operation at all times. The Contractor shall ensure that, wherever possible, the Employer's personnel have unhindered access to, and use of, all parts of the existing works at all times, as necessary.

The Contractor's operations shall also be carried out in such a way as to minimize the formation of dust and the fouling of water in the existing works.

The Contractor shall provide sufficient notice to the Engineer when he intends to interrupt the operations of the existing works in order to effect connections with the new works. Approval for such work will be given only when the timing of the work is suitable to the Employer.

C3.4.3.1.3 Connection to existing services

All connections to the existing systems shall be undertaken in a manner and at times to be approved by the Engineer. It is anticipated that this work may have to be done at night in order to minimise inconvenience to users. No claims for additional payment will be considered in this regard.

C3.4.3.1.3 Permits and way leaves

A wayleave from the relevant department of the Lesedi Local Municipality will be required prior to the Contractor commencing work on Site.

C3.5 Construction

C3.5.1 Works Specifications

C3.5.1.1 Mechanical Specifications

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS

DETAILED SPECIFICATION FOR MECHANICAL WORK

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1.0 SCOPE

This specification covers the detailed design parameters, manufacture, supply, installation, test and commissioning of Centrifugal Pumps. The Specification shall be read in conjunction with that of the Project Specification.

2.0 INTERPRETATIONS

Abbreviations In this Specification the following abbreviations will apply: -

- ❖ ANSI: American National Standards Institute
- ❖ ASTM: American Society for Testing and Materials
- ❖ BS: British Standards Institution
- ❖ SANS: South African National Standards
- ❖ SIS: Swedish Institute of Standards
- ❖ DIN: Deutsch Industry Normen
- ❖ ISO: International Organisation for Standardization
- ❖ ASME: American Society of Mechanical Engineers
- ❖ SAECC: South African Electrolytic Corrosion Committee
- ❖ AGMA: American Gear Manufactures Association

2.1.1 Security

The Contractor shall be responsible for ensuring the security of all his facilities, plant, equipment and personnel on the site. Prior arrangement must be made with the client to house guards after hours on the site.

2.1.2 Programme

The contractor shall supply detailed work programme 14 days after the award of the tender

2.1.3 Occupational health and safety

The contractor shall submit a Health and Safety plan to the engineer who shall submit the file to the appointed OH&S Agent. The Agent will review the file and if the file adheres to the applicable legislation and specification, will approve the file. No work shall commence without an approved OH&S file (including site establishment).

3.0 STANDARDS

All design standards for the centrifugal pumps shall be subject to the latest amendments and editions of the following standard specifications: -

- ❖ SANS 10400: National Building Regulations
- ❖ BS 5304: Code of practice for safeguarding of machinery
- ❖ SANS 9096-1: 1994: Testing of welders, where applicable to the type of welding required
- ❖ BS 292 Part 1: 1987: Dimensions of ball bearings, cylindrical and spherical roller bearings
- ❖ SANS 10162-4: Structural use of Steel Part 4: The design of cold-formed stainless steel structural
- ❖ SANS 1044-3: Welding Part 3: The fusion of steel (including stainless steel): Tests for the approval of welding procedures
- ❖ SANS 10044-4: Welding Part 4: The fusion welding of steel (including austenitic stainless steel): Tests for the approval of welders working where weld procedure approval is not required.
- ❖ SANS 10064: The preparation of steel surfaces for coating
- ❖ SANS 10102-4: Selection of pipes for buried pipelines Part 1: General Provisions
- ❖ SANS 10104: Hand railing and balustrading (safety aspects)
- ❖ SANS 10341: Installation and maintenance of bearings – General guidelines
- ❖ SANS 1700-5-9: Fasteners Part 5: General requirements & material properties
- ❖ Section 8: Corrosion resistant stainless-steel fasteners-Bolts, Screws & Studs
- ❖ SANS 1700-5-10: Fasteners Part 5: General requirements & material properties Section 8: Corrosion resistant stainless-steel fasteners-Nuts
- ❖ BS EN ISO 14847:1999: Rotary positive displacement pumps. Technical requirements
- ❖ BS EN 734:1995: Pumps and pump units for liquids. Common safety requirements
- ❖ BS EN 12162:2001: Liquid pumps. Safety requirements. Procedure for hydrostatic testing
- ❖ BS EN 60041:1995: Field acceptance tests to determine the hydraulic performance of hydraulic turbines, storage pumps and pump-turbines.
- ❖ BS EN 60994:1993: Guide for field measurement of vibrations and pulsations in hydraulic machines (turbines, storage pumps and pump-turbines)
- ❖ BS EN 22858:1993: End-suction centrifugal pumps (rating 16 bar). Designation, nominal duty points and dimensions
- ❖ BS EN 23661:1993: End-suction centrifugal pumps. Baseplate and installation dimensions
- ❖ BS EN 733:1995: End-suction centrifugal pumps, rating with 10 bar with bearing bracket. Nominal duty point, main dimensions, designation system
- ❖ SANS 1123: Pipe Flanges
- ❖ ISO 281: Rolling bearings -- Dynamic load ratings and rating life
- ❖ BS 4999: General requirements for rotating electrical machines. Specification for standard dimensions
- ❖ BS 5316 Part 2: Pump test codes

4.0 PUMPS

Design Parameters

Centrifugal pumps shall have stable non-overloading characteristics and the shaft speed shall not exceed 1500 rpm.

The pumps shall be of the highest quality and shall be suitable for continuous operation over long periods with a minimum amount of maintenance at high-sustained efficiency. In all applications, with exception of clear water pumps, non-clogging impellers must be used.

Pumps shall be designed as to remove the impeller cover without moving the pump, pipe work or motor. Each pump shall have a drip tray with a 20 mm diameter galvanised drain pipe to the nearest drainage point.

The pump design shall make adequate provision for the balancing of residual axial thrust.

Pumps shall be supplied complete with suction and delivery pressure gauges complete with air bleed and isolating cocks, shaft couplings and guards, gland leakage piping, base plates, foundation bolts and other necessary equipment.

Detailed performance curves for the pump type shall be provided during the tendering process from the pump supplier.

The curves shall indicate the following:

- ❖ Head (metres) vs. flow (litres/second) - 0% to 120% duty flow
- ❖ Power absorbed in kW - 50% to 120% of duty flow
- ❖ Pump efficiency – 0% to 120% duty flow
- ❖ Net positive suction head curves required by the pumps at the specified flow rate.

The efficiency curve shall be flat over a wide range in order to provide efficient working at various pump operating conditions.

Pumps shall be able to operate without cavitation over a full range as specified without throttling. Pumps are required to operate continuously at an ambient temperature of 40°C.

The following quantities shall be guaranteed by the Contractor:

- ❖ Minimum flow rate of the pump at the specified total head.
- ❖ Maximum power demand at the specified total head.
- ❖ Minimum efficiency at the specified total head.
- ❖ Maximum net positive suction head required by the pump at the specified flow rate.

5.0 PUMP CASING

The pump casings shall be manufactured from cast iron or cast steel depending on the stresses corresponding to the required test pressures. Unless otherwise stated the dimensions and drilling of the suction and discharge flanges shall be SANS 1123 to the design pressures as specified but with a minimum of 10 Bar.

The pressure rating of the flanges shall at least be equal to the maximum static pressure plus the pump shut-off pressure.

Casings shall be designed for not less than the following working pressures or 1.5 times the actual working total discharge pressure, whichever is the greater.

- ❖ Horizontal Split casing: 1000 kPa
- ❖ End Suction type: 1000 kPa
- ❖ Vertical Split Casing: 600 kPa
- ❖ Single stage: 1.5 times working pressure.

6.0 END SUCTION PUMPS

End suction pumps are arranged with a central suction connection and a tangential discharge connection. Both these connections shall be suitably flanged. The casings shall be split at right angles to the shaft to enable the easy withdrawal of the impeller assembly. The volute casing shall be preferably a separate casing from the pump bearing and base assembly, but bolted and spigoted thereto.

For end suction pumps of more than 5.5 l/s and not more than 70 l/s capacity, the casing shall be arranged to have a removable casing cover on the motor side so that the pump may be dismantled without disturbing the suction or delivery piping.

7.0 HORIZONTALLY SPLIT CASINGS

These shall be double entry type casings, which are split on the axial centreline. The suction and delivery branches must be cast integral with the part of the pump incorporating the pump base.

The other half of the casing must be easily removable for an internal examination of the pump without the necessity of disturbing either the suction or delivery pipe work or rotating assembly.

The casing shall be fitted with suitable renewable corrosion resisting wearing rings and bushes in all positions where fine clearances require to be maintained. Wearing rings shall be made of high-quality bronze or stainless steel.

All casings must be fitted with ceramic or stainless-steel neck rings where fine clearances must be maintained between stationary and moving parts, to suit the fluid pumped.

8.0 SEMI-CONCENTRIC BACK PULL-OUT DESIGN CASINGS

The pump casing shall be semi-concentric back pull-out design, with the first half of the circumference after the pump outlet being cylindrical. The remaining circumference shall spiral outwards towards the flanged centreline discharge. The casing shall be manufactured from cast iron.

All casings shall be provided with the following tappings as a minimum requirement:

- ❖ One suction pressure gauge tapping
- ❖ One discharge pressure gauge tapping
- ❖ One bleeder cock tapping
- ❖ One filling point tapping
- ❖ Suitable tapping or, where possible, internal drilling to provide water for the glands.

All casings shall be heavily ribbed and strengthened as necessary to resist hydraulic forces, and internal passages shall be smoothly finished to minimize hydraulic forces.

9.0 PUMP IMPELLER

Each impeller after machining and dressing shall be independently statically balanced and the complete rotating assembly with coupling shall be dynamically balanced. All impellers shall be of a non over loading design. Impellers shall be securely keyed and fixed to the shaft by means of suitable shaft nuts and locking sleeves.

All bolting devices must be securely locked so that they cannot accidentally come loose. Bolting devices shall be made of corrosion resistant materials.

10.0 PUMP SHAFT

The pump shafts shall be of sufficient dimension in order to avoid excessive torsional or bending stresses and deflection. The pump shaft shall be designed so that the critical speed of the rotating assembly is well above the maximum pump operating speed.

The impeller shall be secured to the shaft in such a way that it can be readily removed without any damage to the impeller and the shaft. The shafts shall be protected by replaceable sleeves manufactured from non-corrosive material. The shaft shall be manufactured from stainless steel.

11.0 SHAFT COUPLING

The pump and motor shall be connected by a flexible coupling in such a way as to prevent them from uncoupling regardless of which way the impeller may be rotating.

The coupling shall accommodate small axial, lateral and angular misalignments without imposing undue stresses on the shaft and bearings. The coupling shall be enclosed in a stationery solid-plate guard to the Engineers satisfaction.

12.0 BEARINGS

All bearings shall be suitable for shaft rotation in both directions. All bearings shall be for a life of at least 100 000 hours at an (L10) rating. Bearings for the output shaft shall be designed to withstand bending, up thrust, down pull, thermal expansion and radial loads imposed by the impeller.

The rotating assembly shall be positively located in the axial direction and thrust bearings will therefore be required.

For ease of lubrication all bearing grease pipes must be piped to grease nipples on the outer cover of the pump support frame.

13.0 BEARING HOUSING

The bearing housing shall be manufactured from cast iron and shall be oil bath lubricated. Oil level sight glasses shall be provided with level markers for running and filling minimum and maximum positions respectively. These shall be arranged for easy viewing and shall take into account the angle of mounting.

The bearing housing and motor stool design shall provide accurate, self-aligning mounting for the flanged electric motor.

14.0 LUBRICATION

In the case where oil lubrication is required, adequate provision shall be made for the cooling of the oil. The bearings shall be required to operate at temperatures no higher than 60°C.

Oil reservoirs of sufficient capacity shall be fitted with easily accessible oil level indicators, which are to be clearly marked in order to indicate the oil standing and running levels.

15.0 GLANDS AND SEALS

Low pressure glands of the stuffing box pattern shall allow repacking without having to dismantle the pump. If mechanical seals are offered, they shall be manufactured from 316 SS to prevent the pump from leaking and shall be cartridge-type seals with O-rings and silicon carbide or tungsten carbide faces.

The cartridge seal shall be pre-assembled and pre-tested, requiring no adjustments and settings from the installer. Any springs required to push the seal faces together shall be shielded from the fluid that is to be pumped. The cartridge shall include a heat-treated sleeve and an iron seal gland.

Full details of the seals and glands indicating the materials, finishes, clearances etc. shall be submitted with the Tender. A spare mechanical seal for each size and type shall be supplied.

16.0 VENT COCKS

Vent cocks shall be fitted at all high points to the pump casing. These cocks shall be adequately sized in order to allow the trapped air to be released freely.

An automatic air vent shall be fitted to each pump casing if specified. This device shall be suitable for the remote operation of an indicator to show the open and closed positions of the air vent.

17.0 BASE PLATE

The base plate of the pump and motor shall be rigid. The pump and motor shall be situated on the upper face of each base plate, which shall be machined flat and smooth to ensure that the pump and motor are bedded properly without the use of spacers.

The pump/motor base plate shall be completely aligned prior to grouting and provision shall be made to grout within the base plate itself to facilitate vibration-free operation.

Base plates which have a mass greater than 200 kg shall have two jacking bolts at right angles with a lock nut at every corner of the unit.

18.0 DRIVE UNIT

The pump shall be driven by a fixed electric speed motor and a speed reducer.

19.0 GEARBOX / MOTOR COUPLING

The coupling shall be fully rated to transmit the motor full load power and tested to prove the above features together with static and dynamic balance. The motor shall be coupled to the gearbox input shaft with either a V-belt or a flexible coupling. V-belts and couplings are to be provided with protective cover guards.

20.0 MONITORING DEVICES

Full detail of all monitoring devices offered must be submitted with the Tender.

PRESSURE GAUGES

Pressure gauges shall be fitted with an isolating cock, shall be vibration and shock resistant and shall be calibrated to read with an accuracy of $\pm 1\%$ of the indicated pressure. Three 20mm minimum diameter ball valves shall be employed to zero the gauge, to isolate it and to vent to atmosphere. A chemical seal shall be used to insulate the gauge from the media being measured.

The faceplate diameters of the pressure gauges shall be at least 100 mm. The gauges shall indicate the water pressure in kilopascal and shall have a range of a maximum of 50% higher than the normal maximum working pressure. All gauge glass must conform to internationally recognized standards.

These standards include DIN 7081, BS 3463 and JIS B 8211.

A calibration certificate is to be provided with each pressure gauge.

TEMPERATURE DETECTORS

If required oil lubricated bearings and glands offered shall be fitted with temperature detectors. The temperature detectors shall be PT100 – RTD's

If grease lubricated bearings are offered, the Tenderer will indicate in his Tender if temperature detectors can in fact be used. If temperature detectors are not feasible, an alternative means of monitoring bearings must be offered.

NO-FLOW PROTECTION

Each pump shall be protected against no flow by a flow meter installed in the discharge line from the pump.

INDICATOR ON AUTOMATIC AIR VENT

If an automatic air vent is required for the pump casing, it shall be fitted with an indicator to indicate the open and closed positions of the air vent. The air vent shall be suitable for remote operation and air vent control shall be mounted on the control panel inside the pump station.

21.0 GLAND LEAKAGE

If a gland leakage device is required in order to monitor the gland leakage it shall be supplied and fitted with adjustable alarm contacts designed to close when gland leakage rises to a preset value.

22.0 PIPEWORK

All suction and delivery pipes shall be connected to the pump casing by means of flexible connections. All flexible connections shall be installed as close to the pump's casings as possible, and in any event, shall be between the suction valve and the pump casing and delivery non-return valve and the pump casing. In all cases the flexible connection shall be in the section of piping of smallest diameter.

Double Victaulic joint are generally preferred for flexible connections, but approved re-enforced rubber bellow units are acceptable for low-pressure services.

All valves and pipework external to the pump casing and separated there from by means of flexible connections shall be securely anchored to prevent movement.

23.0 HOLDING DOWN BOLTS

The contractor shall be responsible for the supply of all necessary holding down bolts for the machines supplied by him/her. The holding down bolts shall be manufactured from 316 SS.

All bolts necessary for assembling all equipment shall be supplied by the contractor.

24.0 VIBRATION AND NOISE

The pumps as well as the motors will comply with the requirements of BS 4999. The Contractor may be requested by the Engineer to carry out vibration tests. The noise level shall not exceed 85 dBA at 1m.

25.0 DESIGNATION AND INFORMATION PLATES

Each pump shall be supplied with an information plate secured to the pump casing in a visible position indelibly marked with the following details: -

- ❖ Maker's name, pump type and serial number
- ❖ Year of manufacture
- ❖ Rated duty of pump in litres per second

- ❖ Head in metres at rated duty
- ❖ Pump speed in r/min
- ❖ Mass of completely assembled pump in kilogram

26.0 INTERCHANGEABILITY

Where two or more similar pump units are required, these units will be identical in all respects.

All similar parts of items supplied will be interchangeable without any additional machining or fitting.

27.0 RECOMMENDED SPARE PARTS

The Tenderer must submit details of spare parts recommended to be kept in store by the Employer with his Tender.

The detail will include a full description of the parts, part identification, number required, guaranteed delivery time and total price delivered to Site.

28.0 OPERATION AND MAINTENANCE MANUAL

The Contractor shall hand over to the Engineer four sets of the Operation and Maintenance Manual compiled for each installation not later than at the time of commissioning of the installation. These manuals are a prerequisite for final takeover of the plant. The Operation and Maintenance Manual will contain the following:

1. Brief description of the plant and installation.
2. Concise operating instructions.
3. Routine maintenance instruction.
4. Precautionary measures, elementary trouble location, rectifying measures and emergency actions.
5. Detailed information on equipment.
6. Lists of spare parts including names and addresses of suppliers.

29.0 DRAWINGS

The drawings included in the Tender Documents are the Engineer's proposal for the plant layout. Should the Tenderer offer alternative layouts, he shall submit drawings with his Tender in order for it to be evaluated.

Before the Contractor carries out any work, he will submit detailed working drawings to be approved by the Engineer. Approval of these drawings does not relieve the Contractor from his responsibility for the correctness of the drawings.

30.0 INSTALLATION

The pump and motor shall be aligned to within ± 0.025 mm full indicator movement on dial gauge, regardless of the coupling type. After the pump and motor feet are tightened down, ad pipework erected and tightened, both angular and parallel alignment shall be checked and recorded at each quarter revolution. These readings shall be submitted to the Engineer and is a prerequisite for handover.

Upon completion, dowel pins shall be fitted to facilitate relocation at any future time.

31.0 INSPECTION, TESTING AND COMMISSIONING

Testing by Manufacturer

The Manufacturer will carry out all tests on materials, quality control tests, dimensional checking and routine tests on parts to ensure that the pumps and materials conform to the requirements of the relevant SANS or BS specifications and to this Specification. The Engineer will not necessarily attend these tests but records must be kept and all test results will be made available to the Engineer.

32.0 WITNESSED TESTING

In addition to the above, a number of performance tests will also be carried out in the testing facility of the supplier before equipment is transported to Site. These tests can be carried out in the workshop of the manufacturer/supplier if it is suitably equipped or another approved test facility.

The Engineer may witness these tests and the Contractor will notify the Engineer two weeks in advance of the date and place at which the equipment may be inspected and tested. When tests and inspections have met the satisfaction of the Engineer a certificate of workshop acceptance will be issued. These certificates are a prerequisite before payment for "Materials on Site" can be passed. The Engineer's acceptance will in no way relieve the Manufacturer of any of his obligations to design, manufacture and supply pumps strictly in accordance with the Specification.

Performance tests shall include: -

1. Hydraulic tests on the pump casing. The test pressure will be equal to 1½ times the maximum working pressure at the delivery end of the pump. The testing will be done with blank flanges bolted onto the flanges. The pressure will be maintained for at least 15 minutes. No sign of sweating, leaking, undue deformation and stressing or defect of any kind will be evident during the test period.
2. Tests to prove that the rotating parts are dynamically balanced.
3. Performance tests on pump and driving unit.
4. NPSH requirements if called for in the Project Specifications.

A performance test shall be carried out in accordance with BS 5316 Part 2 - Class B tests if specified. Unless otherwise stated, the Contractor will be required to conduct the performance test on the combined pump/motor unit.

If a performance test of the pump and its driving unit is not possible at the manufacturer's works, this shall be stated in the Tender with reasons to allow the Engineer opportunity to make alternative proposals.

33.0 TESTING BY AN INDEPENDENT FACILITY

The Employer may require that an independent testing facility or institution such as the South African Bureau of Standards carry out performance tests. A separate item for performance testing will be provided in the Schedule of Quantities to allow for this.

Failure to Pass Performance Test

Should the pump unit fail the performance test, whether performed at the manufacturer's works or at an independent institution, the Engineer shall authorise any amendments to the plant which may be considered necessary to meet the guaranteed quantities within the permissible tolerances laid down in BS 5316 Part 2 - Class B tests and prove with further test that the equipment conform to the Specification.

All costs involved in the re-testing of pump units will be borne by the Contractor.

Should the pump unit fail to pass the test with more than 5% variation on the actual guaranteed figures, the engineer will reject the pump unit and request the Contractor to replace the unit so rejected.

Should the pump unit still fail to pass the test, but the actual figures do not vary by more than

5% from the actual guaranteed figures, the Engineer may:

1. Request the Contractor to carry out amendments to ensure the compliance of the unit with the Specification; or
2. Accept the equipment but impose a penalty for non-compliance on the Contractor. A sum will be calculated based on the additional energy used over the life expectancy of the equipment and this will be deducted from the Contract price for each pump set for every kilowatt by which the gross demand exceeds the guaranteed figure with permissible tolerances.

34.0 COMMISSIONING

On completion of the installation the Contractor will check all items for satisfactory functioning. He will then inform the Engineer of his intention to commission the plant. The Engineer may request control measurements on pump alignment at this stage.

A detailed programme of his proposed commissioning procedures will be submitted not later than two weeks prior to the commissioning date.

After a successful running period of 4 hours (to be witnessed by the Engineer) the Contractor will hand over the installation to the Employer as well as the Operation and Maintenance Manuals. The Completion Certificate will only be issued after the units have been in successful operation for 14 consecutive days and the acceptance tests successfully completed.

During the first 14 days of operation, the Contractor will rectify any problems with the units on Site within 24 hours of being telephonically notified. During the remainder of the maintenance period, the Contractor will, within 14 days of being notified, commence rectifying any possible problems that the Employer may encounter with the equipment supplied under this Contract.

Should the Contractor fail to meet the above requirements, the Employer may appoint others to undertake the necessary repair work at the Contractor's cost.

35.0 TESTS AT THE SITE OF THE WORKS

The Engineer may require that site tests are performed to verify performance figures guaranteed by the Contractor. Flow rate, total head and power input to the pump/motor units shall be determined, as accurate as Site conditions permit, for one or more points on the pump curves close to the specified duty point. The Contractor shall provide suitable instruments with recent calibration certificates.

Should these measured and calculated quantities differ from those guaranteed by more than the tolerances allowed by BS 5316 Part 1 - re-testing of the unit at any testing facility, or the recalibration of the measuring instruments.

Should the subsequent test results still fall outside the allowable tolerances costs shall be borne by the Contractor. In the event of the subsequent test being successful, costs shall be borne by the employer.

36.0 COLOUR CODES

The standard final colour codes for equipment supplied under this Contract shall be in accordance determined by the contractor and be fully defined.

37.0 MEASUREMENT AND PAYMENT

Payment under scheduled items shall be made per complete installation as specified, electrical connections, etc. and grouting, etc. Measurement and payment will distinguish between supply / delivery and installation / commissioning of the equipment.

The tendered rates or sums shall cover the cost of design, drawings, manufacture, supply, testing at the manufacturers works, delivery to site, offloading, installation, site testing, setting into operation, the supply of O & M manuals, commissioning and maintenance during the warranty period of all equipment specified and also for anything not specifically mentioned but obviously required, (e.g. all ancillaries, including all bolts, fastenings and brackets, safety guards and any work or material required for the proper installation of such equipment) to enable the equipment to be installed and/or function safely and correctly as specified. No claims whatsoever for extras will be allowed on the grounds that a necessary piece of equipment or a part thereof is not specifically mentioned.

Appendix A

DATA SHEET FOR THE PUMPS EMASDALE

ITEM	DESCRIPTION
Pump make	
Pump Model	
Head (m)	71.9
Flow rate	701m ³ /hr
Motor rating kW	165
Efficiency	
Number of stages	Single
Shaft Seal	
Impeller material	
Stage casing	
Shaft material	
Spacer sleeve	
Painting	

DATA SHEET FOR THE PUMPS RENSBURG

ITEM	DESCRIPTION
Pump make	
Pump Model	
Head (m)	41.72
Flow rate	174m ³ /hr
Motor rating kW	26.1
Efficiency	
Number of stages	Single
Shaft Seal	
Impeller material	
Stage casing	
Shaft material	
Spacer sleeve	
Painting	

DATA SHEET FOR THE PUMPS HEIDELBURG

ITEM	DESCRIPTION
Pump make	
Pump Model	
Head (m)	161
Flow rate	145.26m ³ /hr
Motor rating kW	106
Efficiency	
Number of stages	Single
Shaft Seal	
Impeller material	
Stage casing	
Shaft material	
Spacer sleeve	
Painting	

DATA SHEET FOR THE PUMPS BERGENDALE PUMP STATION

ITEM	DESCRIPTION
Pump make	
Pump Model	
Head (m)	
Flow rate	106.4m ³ /hr
Motor rating kW	15
Efficiency	
Number of stages	Single
Shaft Seal	
Impeller material	
Stage casing	
Shaft material	
Spacer sleeve	
Painting	

C3.5.1.2 Electrical Specifications

STANDARD SPECIFICATIONS FOR ELECTRICAL WORK

HEIDELBERG PUMP STATION, RENSBURG PUMP STATION AND EMASDAL PUMP STATION

1. LOW VOLTAGE PVC INSULATED POWER CABLES

1.1. SCOPE

This specification covers the supply of 600 / 1000 V PVC insulated power and control cables. All cables shall be rated 600 / 1000 V.

1.2. STANDARD

Cables shall be manufactured strictly in accordance with the requirements of the latest edition of SABS 1507.

1.3. CONDUCTORS

Conductors shall consist of untinned annealed copper wires in accordance with the latest edition of SABS 1411: Part I.

1.4. INSULATION

The insulating material shall comprise of PVC in accordance with the latest edition of SABS 1411: Part II.

1.5. BEDDING

The bedding shall consist of a continuous PVC extruded sheath.

1.6. ARMOURING

The armouring shall consist of one layer of round galvanised steel wire complying with the requirements of the latest edition of SABS 1411: Part VI.

1.7. SERVING

An impermeable PVC outer sheath complying with the latest edition of SABS 1411: Part II shall be provided.

1.8. MARKING

As per the requirements of the latest edition of SABS 1507. The number of cores and cross-sectional area shall be included in the marking.

1.9. TESTS

All routine tests as prescribed by the latest edition of SABS 1507 shall be carried out and test certificates shall be submitted in duplicate for each cable drum delivered to site.

1.10. CABLE DRUMS

The cable drums shall be capable of taking a round spindle and be lagged with strong, closely fitted battens, at the inner and outer circumference so as to prevent damage to the cables. The spindle bearing plates shall be steel. The dimensions of the drum shall not exceed 1100 mm width, 2000 mm diameter and the spindle bearing plate shall not be less than 9 mm thick. Each drum shall be clearly marked on both sides in accordance with the latest edition of SABS 1507.

The ends of the PVC sheathed cable shall be sealed to avoid penetration of moisture. Each cable drum shall be numbered.

The end protruding from the drum shall be protected against mechanical damage.

2. SWITCHBOARDS AND MOTOR CONTROL CENTRES

2.1. GENERAL

The boards shall be either of substantial sheet steel or galvanized steel construction. Sheet thickness shall not be less than 2 mm.

All boards, panels and cubicles shall be vermin and dust proof and the minimum degree of protection to SABS 1222 shall be:

Doors closed:

Inside substations and motor control rooms: IP 42.

All other locations: IP 55.

Doors open:

All locations: IP 4X.

The above requirements are applicable in the as installed position. Particular attention shall be given to the ventilation of outdoor mounted boards, to eliminate build-up of excessive heat inside the boards caused by the sun or internal heat generation. All the necessary precautions shall be taken to ensure that the temperature of the air in any portion of the assembly does not rise more than 15°C above the ambient air temperature.

Hinged door panels shall be secured on robust hinges; a sufficient number being provided to ensure that the door may open without distortion and having regard to the dimensions of the door and any equipment mounted thereon. The number of hinges shall be to the approval of the Engineer.

Hinged panels shall be secured by approved catches, and at least one catch on each hinged door or panel shall be capable of being padlocked.

All door panels shall be provided with gaskets of resilient, non-perishable material which shall be to the approval of the Engineer.

Due care shall be taken that the live side of the MAIN SWITCH is suitable protected to the approval of the Engineer so that no live conductors are exposed when the panel door is opened or the panel cover is removed.

All panel doors shall be fitted with a suitable device preventing the door from opening to wide.

Lifting lugs shall be provided for equipment lifts heavier than 150 kg.

Removable gland plates shall be provided. These gland plates shall be of adequate thickness or construction for the cables to be terminated without distortion of the gland plate but shall not be less than 2 mm mild steel.

All threaded fasteners used for sheet metal assembly shall be cadmium plated and passivated, and threads shall, if necessary, be undercut to permit easy engagement of threads.

The arrangement of all circuit components shall be to the approval of the Engineer.

3. ELECTRICAL EQUIPMENT

3.1. Busbars including busbar trunking

Busbars, risers and droppers shall be air-insulated and shall be fabricated from high-conductivity copper. Aluminium busbars will not be permitted.

Busbars shall be rated for a normal current equal to the incoming circuit rating and designed in accordance with the requirements of BS 159.

The busbar current density shall not exceed 1,3 A/mm².

Busbars and supports shall be constructed to withstand the forces to be encountered on occurrence of fault currents up to the full fault levels specified without reference to the type or speed of operation of the protective devices used. Porcelain or glass supports are not acceptable.

Joints and Tee-off connections in busbars shall be made by means of high-tensile bolts, nuts and approved locking washers. A minimum of two such bolts shall be used per joint or tee.

The joint contact areas shall be smooth, very flat and polished or silver plated for dry jointing.

The joints shall not be taped in order to facilitate visual inspection and checking of bolt tensions.

Busbars shall be provided with phase colour markers, red, white, blue (and black in the case of four wire systems). Such colour identification may take the form of coloured bands at intervals along the busbar run of not more than 800 mm. The combined width of the colour bands per phase shall not be less than 300 mm per 800 mm busbar length.

All covers, whether hinged or bolted, giving access to busbars and incoming circuits shall have placed thereon the international dangerous voltage symbol. If the cover is reversible, it shall be placed on both sides of the plate.

3.2. Air circuit breakers

Air circuit breakers shall be triple pole, latching and of the trip-free design of either the draw-out or permanently mounted design.

The breakers shall comply with the requirements of IEC 157-1 and a certificate showing that the complete switchgear, including busbars, instrument transformers, meters and protective devices has been type-tested in accordance with KEMA, ASTA or equivalent requirements shall be provided.

Circuit breaker current ratings shown on drawings or indicated in the specification shall be the current rating of the circuit breaker after all de-rating factors have been taken into account.

Mechanical interlocks shall be provided to prevent draw-out type circuit breakers from being racked in or out when closed.

All circuit breakers shall be provided with mechanical position indicators for both the on and off positions.

Special maintenance tools, where required, shall be provided with each breaker.

3.3. Moulded case circuit breakers

Moulded case circuit breakers shall be of the fixed pattern, non-adjustable type unless otherwise specified.

Moulded case circuit breakers for current ratings of 1 000 A and over are not acceptable as main breakers unless specifically approved or required.

The breakers shall comply with the requirements of SABS 156 and/or IEC 157-1, BS 3871 Part 1 and BS 4752 Part 8.

Provision shall be made for quick-break under overload or short circuit operation.

Temperature rise

For moulded case circuit breakers, the temperature rise under full load conditions shall be limited to the following:

Contacts 80°C

3.4. Terminals (busbar connected) 70°C

Terminals (cable connected) 50°C

Cable connected terminals will normally not be permitted. Adequately sized busbar extensions shall be employed to provide the circuit breaker with means of dissipating heat generated internally as well as at the terminal.

The full load current rating of the current limiting circuit breakers shall not exceed 100 A where current limiting circuit breakers are used to protect 5 kA circuit breakers to SABS 156.

3.5. Combination fuse switches

Combination fuse switches shall comply with SABS 152 and shall be of the independent manual operation type and shall afford minimum protection of IP21 to IEC 144.

The rated operational voltage shall be suitable for the voltage rating of the board and for 380 V and 400 V boards shall not be less than 415 V AC.

The combination fuse switch units shall be rated for uninterrupted duty and shall be of utilisation category AC-23.

Switches shall be triple pole and shall have two positions viz "on" and "off".

Provisions

Double break contacts on each pole.

Arc barriers on each pole.

Silver plated copper contacts.

Neutral link where required.

Mechanically operated ON/OFF indicator.

Auxiliary switch facility.

Full inter-changeability of equivalent rated units.

3.6. Switch operators

Switch operating mechanisms shall include operators for CFS's, moulded case circuit breakers and motor protection circuit breakers for factory build assemblies.

Switch operating mechanisms shall be door mounted, and the switches shall be fixed mounting.

Switch operating mechanisms shall positively engage with the switch shaft when the door is fully closed and shall be so interlocked with the door so that:

It shall not be possible to gain access via a cover or door to any live points unless the switch is in the open position.

It shall not be possible to re-close the door or cover unless the switch is in the open position. Operation of the switch with the door open is permissible.

Clear indication shall be given, both with the access cover or door open or closed, as to whether the switch is in the open or closed position. This indication shall be in English and Afrikaans unless internationally accepted symbols is used, i.e. I (ON) and O (OFF). Colour indication alone will not be acceptable.

Operating handles shall be pad lockable in the "off" position. The mechanisms shall accept not less than two padlocks each having a shackle diameter of 6 mm.

3.7. HRC fuse links

Fuses and fuse bases shall comply with the requirements of SABS 172, BS 88, DIN 43620, VDE 0660 Part 4, or IEC Publications 269-1 and 269-2, and shall be provided with an indicating device to show the "blown" state of the fuse.

Motor circuit fuse links as defined in BS 88 shall be permitted on motor starting circuits only.

Fuse current ratings shall be indicated on engraved 20 x 12 mm white-black-white trifoliate labels in 4 mm figures. The labels are to be fitted at the fuse bases and shall not be obscured by wiring.

3.8. Contactors

Contactors shall comply with the requirements of SABS 1092 and shall satisfactorily withstand the thermal and dynamic effects arising from the magnitude and duration of through fault currents dictated by the characteristics of the associated protective devices and shall be selected in accordance with the kW/current rating table in clause 3.8 (d).

Contactors shall be triple-pole electromechanically operated air-break type, held in or latched pattern as specified.

Contactors shall be classified as utilisation category AC3 uninterrupted duty for motor starting and as utilisation category AC1 intermittent duty, Class 1, 60% for heater duty.

3.9. Auxiliary relays

Auxiliary relays for control purposes shall be of the multiple pole type and shall preferably possess the feature of field convertible contact configuration.

Plug-in type relays shall have:

Positive-acting mechanical retaining clips. Contact friction alone as a retaining method is unacceptable.

A keyed member on plug and socket sides to prevent incorrect insertion.

Clear and indelible markings on both the relay and its base indicating the circuit reference in conformity with the associated circuit and connection diagrams.

Auxiliary time delay relays shall be of electronic or synchronous motor-driven type and the time setting shall be infinitely adjustable over the range of 5 - 100 % of the maximum delay. Timing relays deriving the delay function by thermal or pneumatic means will not be acceptable.

Auxiliary relays shall have a minimum of 4 individual contacts and shall preferably have the facility to add an extension block with an additional four (4) individual contacts.

3.10. Current and voltage transformers

Current and voltage transformers shall be designed, constructed and tested in accordance with the requirements of BS 3938 and BS 3941 respectively.

Current transformers shall be of the low-impedance type and shall, where ratio, class and output requirements permit, preferably be of the ring-type bar-primary design.

Current transformers for ammeters and metering purposes shall be of 1 A secondary and, unless otherwise specified, shall be of accuracy class 1,0. The rated output shall be selected according to the requirements of the driven circuit but shall not be less than 5 VA.

3.11. Pushbuttons and selector switches (other than instrument selector switches)

Pushbuttons shall be of the one-hole fixing, oil tight pattern.

Operators (and the mating holes) shall be keyed to prevent rotation of the assembly in the panel.

Contacts shall be adequately rated for the circuit duty but shall not be less than 10 A, 220 V AC or 120 V DC rating.

Pushbutton operators shall be coloured to indicate their function as follows:

Green	-	To indicate action e.g. "start", "forward", "reverse", "up", "down", "close"* or to close a circuit.
Red	-	To stop a function e.g. "stop", "open", * or to open a circuit.
Black	-	Test functions only.

* NOT in the sense of a valve or gate.

In addition the operator shall carry an internationally acceptable symbol indicating its function or shall have mounted immediately above it a clear legend of its function or action.

Operators initiating a motion or circuit closure shall be flush with the surrounding bezel, while operators stopping a function or opening a circuit shall project beyond the bezel.

Operators providing a selective function e.g. local/remote or auto/manual, shall operate in a semi-rotational manner with equal angular displacement about an imaginary vertical centre line.

3.12. Indicating lamps

Indicating lamps shall be of the multiple LED type, with a minimum of four LED's per indicating lamp, suitable for operation on supply voltages of up to 240 V, Kimden type KRE-222F or approved equal and similar equivalent.

Indicating lamps shall be continuously rated for a voltage of 10 % in excess of the rated voltage.

The LED indicator and lens assembly shall be replaceable from the exterior of the panel. It shall be possible to execute this operation without the use of any special tools.

Indicating lamp colours shall follow the following standard:

Red	-	Circuit off i.e. open*, motor stopped, etc.
Green	-	Circuit in operation, i.e. closed*, motor running, etc.
Amber	-	Alarm condition, trip indication.

*Not in the sense of a valve or gate.

Indicating lamps shall render good visibility under conditions of an ambient illumination level of 400 Lux.

3.13. Control-circuit and auxiliary supply transformers

Control circuit and auxiliary transformers shall be single-phase double wound with an earth screen between windings and shall be either air insulated or cast epoxy-resin encapsulated.

Voltage adjustment over the range 95 - 105% of nominal ratio shall be provided by off-circuit tapings.

Transformers shall be provided with isolating switches on the h.v. side and with protection on both the h.v. and l.v. sides.

The protection on the h.v side shall be rated sufficient to withstand inrush currents.

Control transformers shall be rated as follows:

(Sum of sealed-in burden of all contactors, relays, timers and lamps fed from that unit) Plus (Pickup burden of largest Contractor fed from that unit) Plus 10%.

The regulation on closing the largest circuit with all the loads except that of the largest load, or if there is more than one, one of the largest loads, imposed on the transformer, shall not exceed 5%.

One side of the transformer secondary winding, or the star point thereof, shall be connected to earth via a removable bolted link.

4. SWITCHBOARDS AND MOTOR CONTROL CENTRES: CONSTRUCTIONAL REQUIREMENTS

4.1. General

All boards, including Motor Control Centres shall comply with the requirements of IEC 439-1 Low-voltage Switchgear and Controlgear Assemblies or approved similar specification. For the approval of such claimed similar specification, the Engineer requires one copy of said specification in English.

The Tenderer shall provide documentary evidence that the design of the Assemblies offered has been fully type-tested and complies in all respects with the requirements of IEC 439-8.

The internal separation of circuits shall be either Form 3b or Form 4 to IEC 439-1 (refer paragraph 7.7 of IEC 439-1). All internal separation of circuits shall have an enclosure rating of IP4X or better to SABS 1222.

All boards, including motor control centres, shall in addition to the specified items, make provision for at least 15 spare unequipped spaces complete with busbars, partitioning into compartments etc for future extensions. This space shall be to the approval of the Engineer.

The maximum height of all MCC boards shall be 2 200 mm unless otherwise approved by the Engineer. No equipment other than busbars and/or inter panel control wiring shall be installed higher than 1 800 mm above finished floor height, neither shall any equipment, other than cable glands and inter panel control wiring be installed lower than 300 mm above finished floor level.

Earthing

Each Assembly shall be provided with a solid rectangular hard-drawn high-conductivity copper earth bar, conforming to the following requirements:

The cross-sectional area of the bar shall not be less than 500 mm², nor less than 50 mm in width.

The bar shall be securely connected in each panel or cubicle to bare metal.

A terminal stud shall be provided at each end of the earth bar, 12 mm dia and of not less than 20 mm free thread length complete with 2 nuts, 2 washers and lock nut, for connection of an external earth.

The earth bar shall, except at joint and connection points, be painted green.

All points shown as earthed on diagrams shall be connected directly to this earth bar.

(b) All hinged doors shall be provided with a flexible earth connection across the hinge to the approval of the Engineer.

Wiring and connections

Wiring shall be carried out using multistrand, single-core PVC-insulated copper conductor, 660/1 000 V grade (minimum), to SABS 1507, sized and derated where required for the currents to be carried. Single-strand conductor shall not be used and no conductor shall be less than 2,5 mm² cross-sectional area, nor be of less than 7 strands in lay-up.

Power-circuit conductors shall be coloured according to the phase to which they are connected (or black in the case of conductors, which may carry alternative phases, e.g. reversing circuits).

All wiring shall be carried out on the front of panels.

Control-circuit wiring shall be coloured in accordance with the following:

Wire colour	Circuit particulars
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Red (white, blue)	Red (white, blue) phase connections in current and voltage-transformer circuits or connections in red (white, blue) phase power circuits.
Black	Neutral (star-point) connections whether earthed or unearthed insulated wires.
Orange / black	Connections in AC control circuits. (black = neutral)
White and brown	Connections in DC control circuits.
Green and green/yellow	Earth wires and earthing

All conductors shall be identified in conformity with the approved circuit and connection diagrams. No number shall be used more than once in each panel except where electrically identical. Wires/conductors shall have the same number on either end of the wire and all wires which are electrically identical shall have the same wire number.

All circuit diagrams shall clearly identify all wire numbers and at all termination/connection points the terminal identification markings or numbers.

Marking shall be done by means of solid heavy-duty interlocking ferrules bearing clear permanent engraved black characters on white background.

Adhesive strips or split ferrules shall not be used. Both ends of each conductor shall be identified by markers.

Power circuits shall be terminated either, on stud-type terminals; or by means of clamp-type terminals, provided that the terminal is of a type whereby a captive serrated pressure plate is interposed between conductor strands and captive clamping screws.

Such terminals shall be so arranged or shrouded as to prevent, in so far as is reasonably possible, accidental short circuit or contact by maintenance personnel.

Stud-type terminals shall be so sized as to accept the conductor size and lug used and shall in no case be less than 6 mm diameter. Studs shall not be used for current-carrying purposes unless made of brass and then only for the absolute minimum length.

Cable lugs shall not be provided but all studs shall be complete with 2 washers, 1 lock washer and nut.

Ferrous threaded fasteners used for connection purposes shall be cadmium plated and passivated and where necessary threads shall be undercut to facilitate engagement of mating components. Washers shall be similarly treated. Threads shall comply with ISO (metric) thread-form standards.

Control-circuit wiring shall be terminated for cable-connection purposes by means of feed-through pattern terminal blocks, mounted on 32DIN46277 rail section.

Spring-load clamping arrangements accommodating crimped-type cable lugs are preferred ("KLIPPON" type RSF 1 or equivalent.)

Terminals shall be mounted not less than 125 mm above the gland plate, but this dimension shall be increased in cases of larger size conductor termination to facilitate cable connection.

Terminations made to stud or bolted terminals shall be affected by use of pre-insulated ring-tongue compression-type lugs applied by the use of approved tools used in compliance with the manufacturer's instructions.

4.2. Labelling

Labels shall consist of either -

Engraved sandwich board ("Trifoliate", "Darvic" or equal).

Reverse engraved acrylic material ("Perspex") with filled letters and reverse sprayed.

Labels shall be rectangular in form with proportions appropriate to the wording, and shall have true, parallel, lightly bevelled edges and shall be neatly and squarely fixed.

Engraving shall be of uniform height, character and line width.

The type of material or process shall be such as to finish with black letters against a white background, except in the case of cautionary labels where the letters shall appear white on a red background.

For outdoor applications (where specified) labels shall be brass or aluminium (with letters filled in black), lightly sanded with fine grit paper and clear lacquered.

All lettering shall be in upper-case letters except where standard abbreviations of units are used, e.g. kWh, kVA, etc.

The material used shall be selected having regard to the size and fixing methods of the label and the label shall not warp in service.

Labels shall be fixed by the use of either -

Self-tapping screws

Metal-thread screws and nuts.

These shall be nickel plated in either case and adequate clearance shall be allowed around lettering to accommodate these. Adhesive fixing alone will not be accepted. Extruded aluminium section is preferred, provided the label is firmly held.

All terminal strips shall be labelled in conformity with the associated circuit and connecting diagrams.

Labels shall contain the following minimum information:

The equipment name in English.

The equipment plant reference number (tag no).

4.3. Drawings

4.3.1. Tender drawings

The following information shall be supplied with the tender:

Dimensional outline drawings

Typical layout of equipment in or on panels, boards or cubicles

Typical circuit diagrams of power, control, alarm and indication circuits.

4.3.2. Contract drawings

All drawings shall be labelled in English and shall bear the equipment's designation.

The following drawings shall be submitted not later than three weeks after placing of the order for approval by the Engineer.

Circuit diagrams of power, control, alarm and indication circuits.

Layout of equipment in or on panels, boards and cubicles.

Internal wiring diagrams of panels, boards and cubicles showing cable connections to associated equipment.

Internal wiring diagrams of any individual specialised components.

Equipment and material lists.

The format, symbolism and presentation of all diagrams and schedules shall be to the approval of the Engineer and shall be arrived at by discussion and mutual agreement. Drawing standards and symbols as per IEC 617 and IEC 113 are preferred.

The Supplier should take note that approval of his submitted drawings does not relieve him of any responsibility if there are errors in his design or obvious errors in drawings supplied to him by the Engineer.

The Supplier shall not commence manufacture prior to the approval of his drawings by the engineer

After approval of the drawings, a transparent copy of each drawing printed on polyester film, of a quality suitable for microfilming, shall be supplied to the engineer.

5. FACTORY TESTING AND INSPECTION

The Engineer reserves the right to visit and enter the manufacturer's works during the design and manufacturing stages for the purposes of interim and final inspections and for progress information acquisition.

The Engineer reserves the right to be present at all or any tests (or, at the engineer's discretion repeats of such tests) conducted on the equipment.

One week's notice of pending tests shall be given to the Engineer in writing.

The tests shall include (in addition to the routine tests as laid down in the relevant specification) the following:

Visual inspection of equipment and quality of material (before and after working) for soundness of construction, correctness of equipment used, soundness of connections, veracity of wiring as depicted by circuit and connection diagrams, adherence to dimensions and finish.

Primary current injection of all protective and overload relay devices and connections.

Secondary current injection tests on each protective relay (at not less than three points) to prove compliance of the relay with the approved characteristic.

Insulation-resistance and over potential tests of all main, secondary and control circuits as laid down by the appropriate specifications.

Operational (functional) tests of all equipment at rated, under and overvoltage application as laid down in the appropriate specifications.

Tests to prove compliance of the equipment with the specified degree of protection (e.g. dust, water and vermin-proof).

Resistance ("Ductor") tests on all busbars and joints.

Three copies of all test records are to be submitted to the Engineer for approval.

6. SITE TESTING AND COMMISSIONING

Commissioning and testing on site shall be carried out by experienced personnel under the Manufacturer's supervision and shall be the Contractor's responsibility.

All equipment necessary for the purpose of the tests must be provided by the Contractor and remains the property of the Contractor.

All tests and checks are to be recorded in writing and records sent to the Engineer.

6.1. Testing

The following shall be checked: that all instruments, relays and tripping circuit connections have been correctly made phase rotation that labels are correct.

The 2000 V megger test shall be applied as follows:

On all coils, instruments windings and relays to ascertain whether any breakdown of insulation has taken place.

Between phases of all main conductors and earth. (Internal and external circuits).

Between all main conductors and earth.

Auxiliary circuits

- Current circuits and earth
- Potential circuits and earth
- Between current circuits and potentials circuits.

6.2. Commissioning

Carry out all necessary adjustments to ensure correct operation of the equipment, mechanisms and interlocks.

Adjust the protective relays to the settings required.

Operate all circuits and check that all interlocks and field controls operate correctly. Check that all meters are reading correctly.

Measure and record the following data:

No load and full load voltage at the load terminals.

(No load and full load current.

Serial number and nameplate detail of load equipment.

Rating detail of all MCC equipment.

Instruct the client's staff in the operation and servicing of the equipment.

Hand over all loose items together with lists of such items and obtain receipt from client's representative.

Clean all equipment and thoroughly clean plant rooms and leave in neat and tidy condition.

7. CABLE TRAYS AND LADDER RACKS

7.1. METAL CABLE TRAYS

All cable trays shall, unless specified otherwise, be heavy duty cable tray standard pattern by D-Engineering, Sankeystrut, Powastrut, Unistrut or equal and approved.

Metal cable trays shall be manufactured from perforated rolled steel. Metal trays manufactured to the following standards shall be used:

- | | | |
|--------------------------|---|---|
| Less than 150mm wide | - | 1,2mm minimum thickness with 12mm minimum return. |
| 150mm to 450mm | - | 1,2mm minimum thickness with 19mm minimum return. |
| Above 450mm (Heavy duty) | - | 2,5mm minimum thickness with 76mm return. |

The cable tray edges are to be turned up on both sides to improve rigidity but where necessary the sides of the tray are to be reinforced with galvanised steel angle minimum 25mm x 25mm x 3mm with 25mm x 3mm cross braces at 600mm centres.

The upstands of trays up to 450mm wide shall not be perforated and the top of the upstand shall be smooth. The same cable tray type shall be used in long parallel tray runs.

Both standard electrical duty and heavy-duty trays shall be hot-dip galvanised after perforation and bending of the edges.

Ladder racks shall not be substituted by the Contractor for trays where cable trays have been specified by the Engineer in preference to ladder racks.

7.2. CABLE LADDERS

Metal cable ladders shall consist of a 76mm high side rail of 2mm minimum thickness. Cross pieces consisting of "SANKEYSTRUT" P4000 (Type CL), type KCL or D-Engineering rung type MR or HR channel sections shall be spaced at maximum intervals of 250mm. Where cables of 10mm² or smaller are installed on cable ladders, the spacing of the cross pieces shall be 125mm. Cables shall be clamped in position by means of purpose-made cable clamps that fit into the cross pieces. Cross pieces or rungs shall be welded to the side rail or stringer using continuous welds. The material shall be cut and welded in such a way that no crevices are formed, and a 100% cover is obtained during the galvanising process.

Cable ladders consisting of slotted metal rails which accommodate plastic or metal cable binding bands may be used in vertical cable runs against walls, etc. These cable ladders will be considered in horizontal cable runs for small cables for communication and control wiring upon the prior approval of the engineer.

7.3. ACCESSORIES

Horizontal and vertical bends, T-junctions and cross connections shall be supplied by the Contractor. The dimensions of these connections shall correspond to the dimensions of the linear sections to which they are connected. The radius of all bends shall be 1m minimum. The inside dimensions of horizontal angles or connections shall be large enough to ensure that the allowable bending radius of the cables is not exceeded. Sharp angles shall be 45° mitred.

8. PROGRAMMABLE LOGIC CONTROLLER (PLC)

The system provided shall be capable of interfacing with existing architectures where specified, performing as a standalone system or as an integrated part in a distributed control system.

The PLC shall be capable of communicating with other equipment via a communication network as specified.

8.1. FUNCTIONAL REQUIREMENTS

The PLC shall act as interface between the process components (e.g. motors, valves, measuring instruments, etc.) and the control system and as such shall perform the following four main tasks:

- Process signal acquisition
- Process signal output
- Process automation tasks
- Transfer of collected data to the monitoring and supervisory system.

9. TECHNICAL REQUIREMENTS

9.1. General

All hardware shall be purposefully designed for industrial use. Standard office or home type equipment will not be acceptable.

The system provided shall be a fully workable and operational system complete with all racks, power supplies, processors, I/O modules, communication interfaces and cables, etc.

Output relays associated with digital signals shall be considered part of the I/O function.

All field connections to computer equipment shall be adequately protected against the effects of EMI/RFI surges.

The contractor will be responsible for ensuring electromagnetic compatibility of the control system components with one another and with the overall electrical and mechanical installation on the total plant.

Apart from any other right the engineer may have in terms of the contract, he shall have the right to set the standard and to accept or reject part of the specified equipment depending on the quality of workmanship and materials offered.

PLC detail requirements

Architecture

The PLC control system shall be based on a modular and open architecture. The PLC shall act as interface between field equipment and HMI equipment where specified.

Mechanical features

The PLC's shall be installed in standard electrical cabinets with adequate dimensions to the approval of the engineer.

The controller shall be modular in form. Each processor or I/O module shall not occupy more than one slot.

The system shall make use of prefix wiring. Wiring directly to I/O modules shall not be allowed to ensure easy removal and inserting of modules without disturbing any wiring.

The design shall be such that the minimum number of function cards are required to support binary input/output and analog input/output.

All function cards shall be interchangeable between PLC's with the necessity to set jumpers or dip switches affecting the PLC's address configuration.

Once the address of an I/O module has been selected no address displacements shall occur within that particular PLC installation if I/O modules are interchanged or when gaps are left between modules.

The I/O modules shall be installed in any available slot and shall not require any special tools for removal or replacement.

The I/O modules shall have a removable termination faceplate.

9.2. Environmental conditions

PLCs shall perform reliably and shall be suitable for the environment in which they will be installed.

9.3. Power supply

The power supply shall be suitable for connection to the mains supply voltage as detailed in the detail specification and Part A of this specification.

The power supply shall contain isolated, internal power sources suitable for I/O modules requiring external power.

The power supply shall be compatible with main CPU racks as well as expansion racks.

The power supply shall contain integral thermal overload and short circuit protection. Once activated, this condition shall only be manually resettable.

The power supply to each PLC and I/O module shall be protected against surges as detailed in the Standard Specification: Earthing and Protection of Electronic Equipment.

Central processing unit

The CPU shall be a modular type.

The CPU shall contain adequate program memory for the application as well as any possible future expansion where specified.

The CPU shall contain a standard ladder logic instruction set as well as advanced math and communication capability.

The CPU shall contain a real time calendar/clock that can be accessed by the user program.

The volatile memory (RAM) of the PLC shall not require an external battery to support it during a power failure but shall be supplied with an internal battery providing back-up for a minimum of ninety (90) days.

System diagnostics

Status of low or dead battery shall be indicated by a LED indicator on the CPU module.

Status on processor RUN mode shall be indicated by a LED indicator on the CPU module.

Status of communication shall be indicated by a LED indicator on the CPU module.

Status of a forced bit shall be indicated by a LED indicator on the I/O module.

Status of Processor and I/O faults shall be indicated by LED's (eg analog input wire break etc).

Status for each individual signal shall be indicated by LEDs.

Programming

Programming shall be done through a user-friendly software package running on an IBM compatible PC.

The programming package shall provide the capability of reading, writing, and verifying the configuration and program with a diskette backup.

The operating system shall be suitably selected for the programming software

The software shall provide on-screen help information throughout its execution paths.

It shall have the capability of programming the relay logic ladder program to the PLC, monitor program and references address status while the PLC is in run or stop mode.

The software will be capable of generating a printout of the relay ladder program for documentation purposes.

It shall be possible to connect a hand-held terminal to the PLC for local operation of plant and set-point adjustment and for interrogation of process variables.

The hand-held terminal may be in the form of a "notebook" computer.

I/O Terminals

Terminal blocks shall be removable, and common to all discrete and analog I/O to allow for convenient pre-wiring of field devices.

All external field devices shall be terminated to a common terminal strip within the PLC enclosure.

Terminals shall be clearly identified by terminal block number and wire number.

The terminals for all incoming and outgoing 4-20mA signals shall comply with the surge protection units specified in the STD SPEC: Earthing and Protection of Electronic Equipment.

The terminal strip shall have at least 25% spare space after all incoming cables (including spare cores) have been terminated.

Control and monitoring functions

The PLC shall monitor or and control all points connected to the PLC as detailed in the detail specification.

The control and monitoring functions of the PLC shall include the following (as detailed in the detail specification):

Contact (binary) inputs.

Contact (binary) outputs.

Binary inputs and outputs with supervised field wiring.

Analogue inputs and outputs.

Closed loop PID control.

Digital I/O

Input specifications

All voltage signals to the module shall be obtained from the DC power source on the PLC power supply.

Output Specifications

Discrete output modules shall be relaying type capable of switching 2 amps per output.

Analog I/O

Analog input

- All analog input signal modules shall be of the 4 to 20 mA type unless indicated to the contrary.
- The analog input modules shall be capable of converting inputs in the range of 4 to 20 mA.
- Resolution of the converted analog input signal shall not be less than 12 bits.
- All channels shall be updated every PLC scan.

Analog output

- All analog output signal modules shall be of the 4 to 20 mA type unless indicated to the contrary.
- Resolution of the converted analog output signal shall be not less than 12 bits.
- All output channels shall be updated every PLC scan.
- The analog current outputs shall be configured to default to 4 mA in the event of a CPU failure.

PID control

The PLC shall provide three terms, proportional, integral and derivative control where required.

The PLC shall contain an automatic loop tuning feature.

The following minimum tuning and setting capabilities shall be available:

- Anti-windup protection
- Direct or reverse acting
- Output value to control, 0 to 100%
- Set point
- Proportional gain
- Integral gain
- Derivative gain
- Variable sampling time
- Alarming features (eg deadband, rate of exchange, etc).

9.4. Communications

A communication interface device shall be supplied with each PLC to allow the PLC to communicate data with other PLC devices as well as HMI equipment as specified.

The PLC shall control all plant operations local to its environment and shall operate independently of other connected equipment.

Transmission shall be of a digital format with a speed not less than 2400 baud or as specified in the detail specification.

Data hi-way

The data hi-way shall act as interface between the PLC's and Supervisory Control systems and shall be to the equipment suppliers' standard.

The data hi-way shall be by means of twisted pairs or optical fibre connection as required in the detail specification.

10. TESTING AND COMMISSIONING

The contractor shall provide all equipment, instrumentation and supplies necessary to perform site testing and commissioning.

Original copies of all data produced, including results of each test procedure shall be submitted to the engineer at the conclusion of each phase of testing.

Once the installation has been completed, the contractor shall test, adjust and commission each control loop and system and shall verify proper operation of each item in the sequences of operation, including hardware and software and all communication links before the system is placed on-line.

During the testing and commissioning period, the contractor shall identify failures, determine causes of failures and deliver a written report to the engineer detailing the nature of each failure the corrective action taken, results of tests performed and shall recommend when testing should be resumed.

11. DOCUMENTATION

Written software and PLC ladder diagrams showing the proposed control shall be submitted to the engineer for review prior to system start-up.

The contractor shall be responsible to provide schematics showing system architecture including network, wiring ladder diagrams and I/O layouts referred to in the I/O list etc as part of the O&M manuals.

C3.6 Health and Safety Specification

C3.6.1 Scope

C3.6.1.1 The Health and Safety Specifications pertain to The Upgrading of Emasdal, Heidelberg and Rensburg Pump Stations and Repairing of Bergendale Pump Station

C3.6.1.2 Its purpose is to provide the Contractors with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work. It further aims to protect persons other than its employees against any potential hazards to their health and safety arising out of the activities of persons at work during construction on site.

C3.6.2 Interpretations

C3.6.2.1 Definitions

Purpose of the Act: To provide for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery] the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work] to establish an advisory council for occupational health and safety] and to provide for matters connected therewith.

The Act: means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)] "Agent" means a competent person who acts as a representative for a client] "Client" means any person for whom construction work is performed.

Construction manager: means a competent person responsible for the management of the physical construction processes and the coordination, administration, and management of resources on a construction site]

Construction site: means a workplace where construction work is being performed]

Construction supervisor: means a competent person responsible for supervising construction activities on a construction site]

Construction work: means any work in connection with, the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure] or the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system] or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work]

Contractor: means an employer who performs construction work]

Designer: means, a competent person who prepares a design] checks and approves a design] arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer] or designs temporary work, including its components] an architect or engineer contributing to, or having overall responsibility for a design] a building services engineer designing details for fixed plant] a surveyor specifying articles or drawing up specifications] a contractor carrying out design work as part of a design and building project] or an interior designer, shopfitter or landscape architect]

Excavation work: means the making of any manmade cavity, trench, pit, or depression formed by cutting, digging, or scooping.

Fall protection plan: means a documented plan, which includes and provides for, all risks relating to working from a fall risk position, considering the nature of work undertaken] the procedures and methods to be applied in order to eliminate the risk of falling] and a rescue plan and procedures]

Health and Safety File: means a file, or other record containing the information in writing required by the Construction Regulations]

Health and Safety Plan: means a site, activity, or project specific documented plan in accordance with the client's health and safety specification]

Health and Safety Specification: means a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work]

Method Statement: means a document detailing the key activities to be performed in order to reduce as reasonably practicable the hazards identified in any risk assessment]

Principal contractor: means an employer appointed by the client to perform construction work]

Risk Assessment: means a program to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard.

National Building Regulations: means the National Building Regulations made under the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and promulgated by Government Notice No. R. 2378 of 30 July 1990, as amended by Government Notices No's R. 432 of 8 March 1991, R. 919 of 30 July 1999 and R. 547 of 30 May 2008]

Structure: means, any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure] any false work, scaffold or other designed or used to provide support or means of access during construction work] or any fixed plant in respect of construction work which includes installation, commissioning, decommissioning or dismantling and where any construction work involves a risk of a person falling.

C3.6.3 Site Establishment

C3.6.3.1 A site establishment risk assessment is required prior to commencement and a SHE plan is to be approved prior to Contractors being able to commence with site establishment work.

C3.6.3.2 During site establishment hazards like electricity, water pipes, etc. are to be identified.

C3.6.3.3 Welfare facilities, including sanitary facilities must be provided.

C3.6.4 Notices and Signage

C3.6.4.1 The principal contractor shall ensure that the necessary signage is displayed onsite. The signage shall be displayed at the entrance to the construction site and at strategic points on the site. All symbolic safety signage shall conform to the requirements of SANS 1186 and be appropriate to the risks and activities on site and at the site camp.

C3.6.5 Plant and Equipment

- C3.6.5.1** The principal contractor shall ensure that all construction vehicles and mobile plant are kept, used, maintained, and inspected as required by Regulation 23 of the Construction Regulations, so as to protect the health and safety of employees and the public, and to ensure proper care of the plant and vehicles.
- C3.6.5.2** Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried. All construction vehicles and mobile plant travelling, working, or operating on public roads shall comply with the requirements of the National Road Traffic Act, 1996.

C3.6.6 Housekeeping

- C3.6.6.1** The Principal Contractor shall maintain a high standard of housekeeping within the site. A 'Clean as you go' approach is required and will be monitored daily by the CHSO. Materials and equipment must be properly stored. Waste must be removed from site at appropriate intervals.
- C3.6.6.2** Safe and demarcated passageways are to be maintained for employees around the working areas.
- C3.6.6.3** Suitable and sufficient labelled waste storage facilities shall be strategically placed across the site.

C3.6.7 Stacking and Storage

- C3.6.7.1** The principal contractor shall ensure that adequate, demarcated storage areas are provided. In addition, these areas shall be kept neat and under control. No stacking is allowed outside on walkways.
- C3.6.7.2** A demarcated lay down area is to be allocated.

C3.6.8 Fall Protection

- C3.6.8.1** Fall protection focuses on all fall risks from work at heights. Well-designed access using temporary works are to be utilized where necessary and limit the need for workers to use fall arrest equipment.
- C3.6.8.2** Whenever persons are required to work in a fall risk position where there is potential exposure to falling either from, off, or into, the Principal Contractor shall be required to develop a fall protection that shall be reviewed and approved by the client Agent and communicated to employees.
- C3.6.8.3** Fall protection equipment shall be used where fall prevention is not possible and shall comply with SANS Standards and any other recognised international standards.
- C3.6.8.4** All persons required to work in fall risk positions shall be declared medically fit. Working on fall risk positions shall only be carried out under the supervision of a competent person.
- C3.6.8.5** Appropriate full body safety harnesses will be worn when working at an elevation of 2 (two) meters or more.

C3.6.9 Pipe Handling and Storage

- C3.6.9.1** A pipe handling, transportation and storage procedure must be developed and submitted to the client Safety Agent for approval prior to commencement of such activities.
- C3.6.9.2** A competent person must be appointed to supervise pipe handling and transportation activities. Load-tested lifting machinery must be used for pipe lifting.

C3.6.10 Ladders

C3.6.10.1 Inspection of ladders will be done regularly.

C3.6.10.2 Stepladders and extension ladders will be inspected for broken or damaged joints or latches. Aluminium ladders will be inspected for cracks and broken welds.

C3.6.10.3 Ladders that are damaged will be marked and removed from site.

C3.6.10.4 Where a ladder is used it must be either tied down in position or held by an assistant.

C3.6.10.5 Appropriate storage will be provided for ladders.

C3.6.11 Lifting Equipment

C3.6.11.1 Where lifting equipment shall be used; all lifting machine operators shall be competent to operate such machines with valid permits and training certificates. Load testing certificates for lifting devices, slings and chains in line with the statutory requirements are to be kept on record.

C3.6.11.2 No person is to walk or work under suspended loads, including excavators, and between a load and a solid object where they might be crushed if the load should swing or fall. Guide ropes and banksmen to be used to prevent loads from swinging.

C3.6.11.3 All lifting tackle should be examined prior to use and such inspections are to be recorded on a register.

C3.6.11.4 All hooks shall be fitted with a safety latch/catch.

C3.6.11.5 All lifting tackle should be conspicuously and clearly marked with identification particulars and the maximum mass load which it is designed for.

C3.6.11.6 A risk assessment should be conducted prior to starting a lifting task.

- i. Account should be taken of wind forces.
- ii. Lifting machines are erected taking into account a safe distance from excavations.
- iii. When working in close proximity to
- iv. power lines, the contractor must apply for a permit. Refer to Electrical Machinery Regulation 15 of the OHS Act.
- v. Account should be taken of the bearing capacity of the ground.

C3.6.12 Cutting, Welding, and Hot Work

C3.6.12.1 The Principal Contractor shall comply with Section 9 of the General Safety Regulations, with regards to the welding, flame cutting, grinding, soldering or similar operations associated with the works.

C3.6.12.2 The construction supervisor will ensure that all hot work requirements have been met as per the risk assessment.

C3.6.12.3 Carry out hot work (welding and flame cutting) away from flammable material to prevent the heat generated by such work igniting the flammable material.

C3.6.12.4 When welding or cutting work is performed, an adequate number of approved fire extinguishers shall

be provided by the contractor.

C3.6.13 Hazardous Chemical Substances (HCS)

C3.6.13.1 All HCS containers are to be clearly labelled. Containers that are not marked will not be allowed.

C3.6.13.2 No HCS to be stored in food or drink containers.

C3.6.13.3 Users of HCS to wear/use the correct PPE as per the HCS material safety data sheet.

C3.6.13.4 Users of HCS to be adequately trained in the HCS that they are handling.

C3.6.13.5 The Principal Contractor is to maintain a register of all the HCS used on site.

C3.6.14 Flammable Substances

C3.6.14.1 The Principal Contractor must ensure that no person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapours being present unless adequate precautions are taken.

C3.6.14.2 The workplace is to be effectively ventilated. Where this cannot be achieved:

- i. Employees must wear suitable respiratory equipment]
- ii. No smoking or other source of ignition is allowed in the area] and
- iii. The area is conspicuously demarcated as “flammable”.

C3.6.14.3 Flammables are to be stored in a well-ventilated, reasonably fire-resistant container, cage or room that is kept locked with access control measures in place. Sufficient firefighting equipment is installed, and fire prevention methods practiced.

C3.6.15 Electrical Installations

C3.6.15.1 Method statements and safe work procedures will be required for all work involving electrical equipment including competent operators, supervision, registers are to be in place.

C3.6.15.2 Certificates of Compliance (CoCs) by the appropriate Electrical AIA are to be available for temporary and permanent installations, including the appropriate inspections.

C3.6.15.3 Electrical distribution boards used shall be fitted with suitable earth leakage protection.

C3.6.15.4 The electrical Contractor must be registered with the Electrical Contracting Board of South Africa.

C3.6.15.5 The electrical Contractor must conduct a risk assessment for the site to ascertain cables or equipment that are hazards.

C3.6.15.6 The safety plan must incorporate a safety standard for electrical installations.

C3.6.15.7 All electrical equipment must be inspected daily, and a register must be kept in the safety file of these inspections.

C3.6.15.8 Prior to any work on new/ existing structures the Principal Contractor shall ensure that all electrical services are identified and where relevant the required lockouts are implemented in accordance with a lockout procedure.

C3.6.16 Portable Electrical Equipment

C3.6.16.1 Regular inspections of Portable Electrical Equipment (i.e., drills, grinders etc.) must be carried out by a competent person appointed in writing and inspection results must be recorded in a register]

C3.6.16.2 Only competent authorised persons are to be allowed to use portable electrical equipment] and correct protective equipment must be worn.

C3.6.16.3 The portable electrical equipment must be maintained in good condition at all times to prevent electrical shock and the main power source should incorporate an earth leakage protection device and be double insulated.

C3.6.16.4 All equipment must be fitted with a switch to allow for safe and easy starting and stopping.

C3.6.16.5 Portable electrical equipment must not be used in wet conditions.

C3.6.17 Hand and Pneumatic Tools

C3.6.17.1 All hand tools (hammers, chisels, spanners, etc.) must be recorded on a register and inspected by the supervisor on a monthly basis as well as by users prior to use.

C3.6.17.2 All pneumatic tools should be numbered, recorded, and inspected at least monthly as well as by users prior to use.

C3.6.17.3 Tools with sharp points in tool boxes must be protected with a cover.

C3.6.18 Welfare Facilities

C3.6.18.1 The Principal Contractor after considering the number of people onsite shall provide 1 sanitary facility for every 30 workers, changing facilities for each sex and sheltered eating areas.

C3.6.18.2 Drinking water shall be provided for the workers onsite.

C3.6.19 Personal Protective Equipment (PPE)

C3.6.19.1 In terms of Section 8 of the OHS Act, the duty of the employer is to take steps to eliminate or mitigate any hazard or potential hazard to the safety or health of employees before resorting to PPE.

C3.6.19.2 The Principal Contractor shall use the following SANS or the relevant internationally recognised authority approved risk-based PPE at all times, as a minimum:

- i. Head protection (Hard hat]
- ii. Steel toe capped safety boots
- iii. Eye protection]
- iv. Conti Suits]
- v. High visibility vests] and
- vi. If there are particular activities/areas/risk assessments that require a specific type of PPE, then that specific PPE requirement must be adhered to (i.e., for dusty environments – eye goggles] for welding – welding helmet] etc.).

C3.6.19.3 The Contractor shall ensure that his employees understand why the personal protective equipment is

necessary and that they use them correctly.

C3.6.19.4 Strict noncompliance measures must be administered to any employee not complying with the use of PPE and shall be removed from the Site.

C3.6.19.5 The Principal contractor must provide a detailed plan on the issuing, maintenance, and replacement of PPE for all his employees and subcontractors on site.

C3.6.19.6 The Principal contractor is required to keep an updated register of all PPE issued, including that of his subcontractors.

C3.6.19.7 Visitors to wear safety boots and hard hats as a minimum.

C3.6.20 Security and Public Safety

C3.6.20.1 The Principal Contractor shall make necessary provisions for security onsite to guard the construction material and plant.

C3.6.20.2 The Security personnel shall maintain access control by use of a register.

C3.6.20.3 Perimeter hoarding must be erected around the perimeters of the construction site with signage to prevent unauthorized access by members of the public and to protect the members of the public from injuries that may be caused by construction activities.

C3.6.20.4 The contractor must ensure that a temporary pedestrian walkway is provided and clearly marked to accommodate pedestrian traffic. The walkways must be sufficient in size and load bearing to accommodate the usual pedestrian traffic in that area. They must also be accessible to all pedestrians including for persons with disabilities.

C3.6.20.5 Prior to the commencement of the construction project, the public must be notified of the upcoming construction activities and an awareness regarding public safety must take place.

C3.7 Environmental Management Plan

C3.7.1 Scope

This environmental management programme (EMP) sets out the methods by which proper environmental controls are to be implemented by the Contractor. The duration over which the Contractor's controls shall be in place cover the construction period of the project as well as the limited time after contract completion defined by the General Conditions of Contract, and the project specifications, as the Defects Liability Period (maintenance period).

The provisions of this EMP are binding on the Contractor during the life of the contract. They are to be read in conjunction with all the documents that comprise the suite of documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specifications or Record of Decision, the terms herein shall be subordinate.

The EMP is a dynamic document subject to similar influences and changes as are brought by variations to the provisions of the project specification. Any substantial changes shall be submitted to the Employer in writing for approval.

C3.7.2 Definitions

Alien Vegetation: alien vegetation is defined as undesirable plant growth which shall include, but not be limited to, all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.

Construction Activity: a construction activity is any action taken by the Contractor, his subcontractors, suppliers, or personnel during the construction process as defined in the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7, 1998)

Environment: environment means the surroundings within which humans exist and that could be made up of

- i. the land, water and atmosphere of the earth;
- ii. micro-organisms, plant and animal life;
- iii. any part or combination of (i) and (ii) and the interrelationships among and between them; and
- iv. the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental Aspect: an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

Environmental Impact: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

Record of Decision: a record of decision is a written statement from the National Department of Environmental Affairs and Tourism, (N.DEAT), that records its approval of a planned undertaking to install water supply infrastructure and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

C3.7.3 Identification of Environmental Aspects and Impacts

The Contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

- i. waste generation
- ii. stormwater discharge
- iii. emission of pollutants into the atmosphere
- iv. chemical use operations
- v. energy use operations
- vi. water use operations
- vii. use of natural resources
- viii. noise generation

Thereafter the Contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified, and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the Contractor shall provide plans and measures for the Engineer's approval, which will limit and contain the magnitude, duration, and intensity of the impact. The Contractor shall demonstrate that he/she is capable of carrying out any repair and reinstatement of the damaged environment. These requirements shall be concurrent with the time constraints to produce an approved construction programme according to subclause 5.6 of the general conditions of contract.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

- i. Pollution of atmosphere, soil or water
- ii. Destruction or removal of fauna and flora and effect on biological diversity
- iii. Deformation of the landscapes soil erosion
- iv. Destruction of historical/heritage sites
- v. Effect on the built environment
- vi. Effect on agricultural land and wetlands

General good construction practice will play an important role in avoiding the occurrence of an Impact. The Contractor's attention is drawn, in this regard, to C3.7.8 Environmental Management of Construction Activities

C3.7.4 Legal Requirements

C3.7.4.1 General

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the Contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The Contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

C3.7.4.2 Statutory and other applicable legislation

The Contractor is deemed to have made himself conversant with all legislation pertaining to the

environment, including provincial and local government ordinances, which may be applicable to the contract.

C3.7.5 Administration of Environmental Obligations

C3.7.5.1 Appointment of a Designated Environmental Officer (DEO)

For the purposes of implementing the conditions contained herein, the Contractor shall submit to the Engineer for approval the appointment of a nominated representative of the Contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the Engineer to make a decision. The Engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the Contractor has been approved, he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The Engineer will be responsible for issuing instructions to the Contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the Engineer, but not less frequently than once a month.

The Engineer shall have the authority to instruct the Contractor to replace the DEO if, in the Engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times.

C3.7.5.2 Administration

Before the Contractor begins each construction activity the DEO shall give to the Engineer a written statement setting out the following:

- i. The type of construction activity.
- ii. Locality where the activity will take place.
- iii. Identification of the environmental aspects and impacts that might result from the activity.
- iv. Methodology for impact prevention for each activity or aspect.
- v. Methodology for impact containment for each activity or aspect.
- vi. Emergency/disaster incident and reaction procedures.
- vii. Treatment and continued maintenance of impacted environment.
- viii. The Contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the Engineer whenever there is a change or variation to the original.

The Engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the Contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the Contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

C3.7.5.3 Good Housekeeping

The Contractor shall undertake “good housekeeping” practices during construction as stated in clause 1217 of the COLTO Standard Specifications for Roads and Bridges. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

C3.7.6 Training

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The Contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- i. The importance of conformance with all environmental policies
- ii. The environmental impacts, actual or potential, of their work activities
- iii. The environmental benefits of improved personal performance;
- iv. Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency’s environmental management systems, including emergency preparedness and response requirements;
- v. The potential consequences of departure from specified operating procedures;
- vi. The mitigation measures required to be implemented when carrying out their work activities.
- vii. In the case of permanent staff, the Contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the Contractor shall inform the Engineer when and how he/she intends concluding his environmental training obligations.

C3.7.8 Environmental Management of Construction Activities

C3.7.8.1 Site Establishment

C3.7.8.1.1 Site Plan

The Contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the Contractor shall submit to the Engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the Contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the Contractor’s intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the Engineer for consultation during rehabilitation of the site.

C3.7.8.1.2 Vegetation

The Contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the Engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the Engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

C3.7.8.1.3 Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

C3.7.8.1.4 Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc.). Only domestic type wastewater shall be allowed to enter this drain.

C3.7.8.1.5 Heating and Cooking fuel

The Contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

C3.7.8.2 Sewage Treatment

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the Engineer.

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any

circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The Contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the Engineer.

C3.7.8.3 Waste Management

The Contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

C3.7.8.3.1 Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the Engineer. Disposal of solid waste shall be at a DWS licensed landfill site or at a site approved by DWS in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site.

C3.7.8.3.2 Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the Contractor shall provide litter collection facilities for later safe disposal at approved sites.

C3.7.8.3.3 Hazardous Waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a DWS approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the Engineer.

C3.7.8.4 Control at The Workshop

The Contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop)

C3.7.8.4.1 Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the Contractor to, and used or worn by, the staff whose duty it is to manage and maintain the Contractor's and his subcontractor's and supplier's plant, machinery and equipment.

C3.7.8.4.2 Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the Engineer.

The Contractor shall provide proof to the Engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the Contractor shall furnish the Engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

C3.7.8.4.3 Fuel and Gas Storage

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

C3.7.8.4.4 Oil and Lubricant Waste

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

C3.7.8.5 Clearing the Site

In all areas where the Contractor intends to, or is required to clear the natural vegetation and soil, either within the pipe route, or at designated or instructed areas outside the pipe route, a plan of action shall first be submitted to the Engineer for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the Engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The Contractor shall be responsible for the re-establishment of grass within the pipe route boundaries for all areas disturbed during pipe construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, pipe construction has to be stored temporarily or otherwise within the pipe route, or at designated or instructed areas outside the pipe route. This responsibility shall extend until expiry of the Defects Liability Period.

C3.7.8.6 Soil Management

C3.7.8.6.1 Topsoil

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water and Sanitation waste disposal site. The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The Contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The Contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the Engineer. The Contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

C3.7.8.6.2 Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the Engineer, and stored separately from the topsoil if not used for pipe construction. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

C3.7.8.7 Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, and organic materials.

The Contractor shall submit to the Engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

C3.7.8.8 Earthworks and Layerworks

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of

construction, the Contractor shall have complied with the requirements of sections C3.7.8.5 and C3.7.8.7. In addition, the Contractor shall take cognisance of the requirements set out below.

C3.7.8.8.1 Quarries and borrow pits

The Contractor's attention is drawn to the requirement of the Department of Minerals and Energy, that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. It is the responsibility of the Contractor to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the Contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities.

C3.7.8.8.2 Excavation, hauling and placement

The Contractor shall provide the Engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The Contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity.

C3.7.8.8.3 Spoil sites

The Contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the Defects Liability Period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the Engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the Engineer. No spoil site shall be located within 500 m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation.

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The Engineer will assist the Contractor in obtaining the necessary approval if requested by the Contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75 mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the Contractor. This will include both strip and full sodding. The Contractor may motivate to the Engineer for other acceptable stabilising methods. The Engineer may only approve a completed spoil site at the end of the Defects Liability Period upon receipt from the Contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability. The Contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

C3.7.8.8.4 Stockpiles

The Contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However,

should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the Engineer for his approval, together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the Contractor shall at all times ensure that they are:

- i. Positioned and sloped to create the least visual impact;
- ii. Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- iii. Kept free from all alien/undesirable vegetation.

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 at the Contractor's cost until clearance from the Engineer and the relevant Authority is received.

Material milled from the existing road surface that is temporarily stockpiled in areas approved by the Engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in-situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the Engineer.

In all cases, the Engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated.

C3.7.8.8.5 Blasting activities

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the Contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the Contractor shall, prior to any drilling of holes in preparation for blasting, supply the Engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The Contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the Contractor from his responsibilities in this regard. The Contractor shall also indicate to the Engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

C3.7.8.8.6 Batching sites

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relative authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section C3.7.8.3, with the exception that the Contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the Contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and

settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The Engineer will assist the Contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the Engineer for approval.

The Contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart.

C3.7.8.9 Spillages

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the Contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the Contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the Engineer. The Designated Environmental Officer will assess the situation in consultation with the Engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the Contractor in consultation with the DEO and the Engineer. Areas cleared of hazardous waste shall be re-vegetated according to the Engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the Engineer. The costs of containment and rehabilitation shall be for the Contractor's account, including the costs of specialist input.

C3.7.8.10 Areas of Specific Importance

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The Contractor may offer alternative solutions to the Engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

C3.7.8.10.1 Archaeological Sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the Engineer of such discovery. The National Monuments Council is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with Subclause 4.7.1 of the General Conditions of Contract).

C3.7.8.10.2 Graves and middens

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the Engineer informed of the

discovery. The National Monuments Council should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with the National Monuments Council, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred. (Read with Subclause 4.7.1 of the General Conditions of Contract).

C3.7.8.11 Noise Control

The Contractor shall endeavor to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

C3.7.8.12 Dust Control

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

C3.7.9 Record Keeping

The Engineer and the DEO will continuously monitor the Contractor's adherence to the approved impact prevention procedures and the Engineer shall issue to the Contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the Engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the Employer or relevant environmental departments.

C3.7.10 Compliance and Penalties

The Contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty.

The following penalties shall apply for environmental violations:

C3.7.10.1 Unnecessary removal or damage to trees

- i. 600 mm girth or less : R 5 000 per tree
- ii. Greater than 2 600 mm, but less than 6 180 mm girth : R10 000 per tree
- iii. Greater than 6 180 mm girth : R30 000 per tree

C3.8.10.2 Serious violations

- i. Hazardous chemical/oil spill and/or dumping in non-approved sites. : R10 000 per incident
- ii. General damage to sensitive environments : R 5 000 per incident
- iii. Damage to cultural and historical sites. : R 5 000 per incident
- iv. Uncontrolled/unmanaged erosion (plus rehabilitation at the Contractor's cost): R1 000 to R5 000 per incident
- v. Unauthorised blasting activities. : R 5 000 per incident
- vi. Pollution of water sources. : R 10 000 per incident

The Engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final.

C3.7.10.3 Less serious violations:

- i. Littering on site. : R1 000 per incident
- ii. Lighting of illegal fires on site. : R1 000 per incident
- iii. Persistent or un-repaired fuel and oil leaks. : R1 000 per incident
- iv. Excess dust or excess noise emanating from site. : R1 000 per incident
- v. Dumping of milled material in side drains or on grassed areas : R1 000 per incident
- vi. Possession or use of intoxicating substances on site. : R 500 per incident
- vii. Any vehicles being driven in excess of designated speed limits. : R 500 per incident
- viii. Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife : R2 000 per incident
- ix. Illegal hunting. : R2 000 per incident
- x. Urination and defecation anywhere except in designated areas. : R 500 per incident

The Engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.



LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS

PART C4 : SITE INFORMATION

LESEDI LOCAL MUNICIPALITY

CONTRACT No.: 25/2025

FOR

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS

PART C4: SITE INFORMATION

SITE INFORMATION

1 LOCATION OF SITES

Pump Station Name	Location	
	Longitude	Latitude
Emasdal Pump station	28°20'42.78"E	26°32'42.89"S
Rensburg Pump station	28°22'43.38"E	26°31'29.94"S
Heidelberg Pump Station	28°21'5.23"E	26°29'34.73"S
Bergendale Pump Station	28°20'38.00"E	26°28'43.00"S

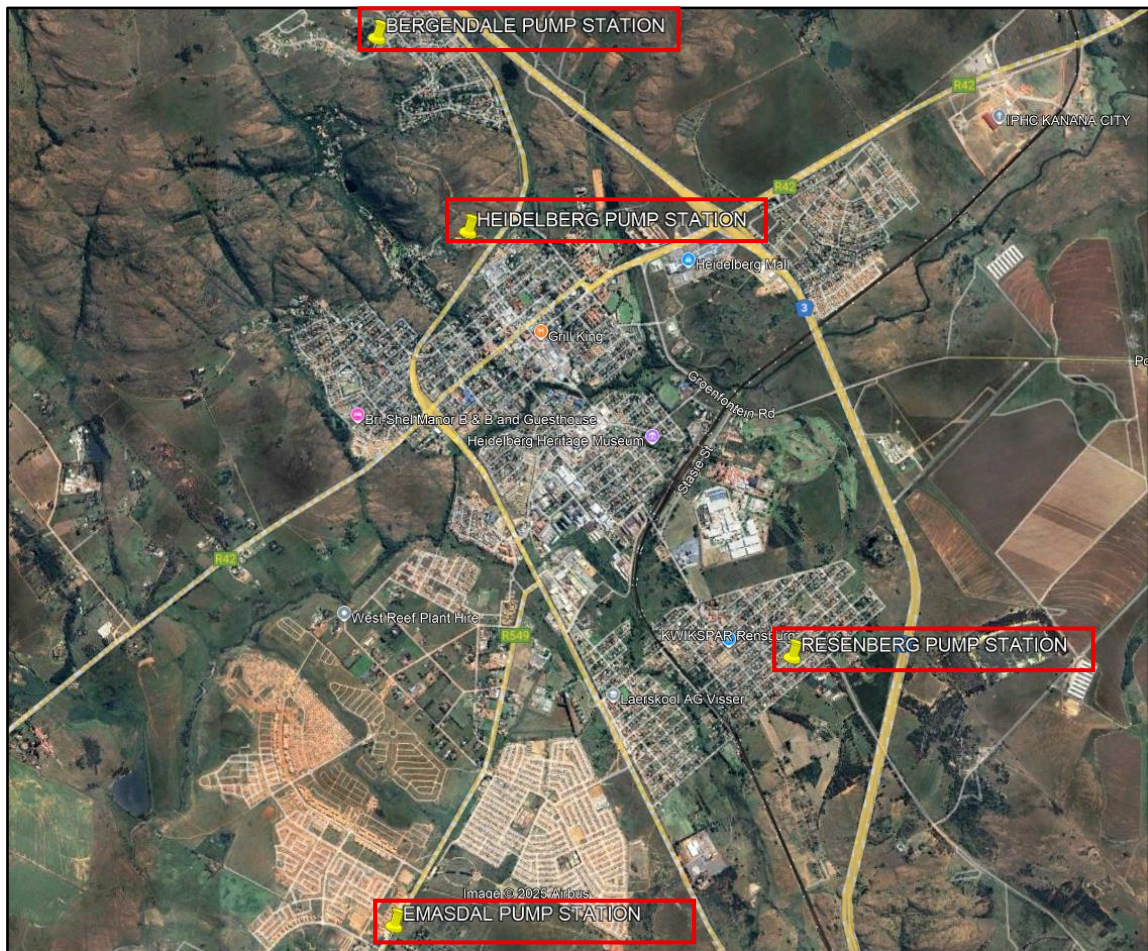


Figure 1: Locality Plan / Site Layout

STATUS OF DOCUMENTATION:

Should there be any discrepancy between the various documentation that governs this Bid (whether issued or not), the order of precedence shall be:

1. The drawings issued for construction purposes,
2. The Schedule of Quantities,
3. The specific specifications, i.e. the variations to the standard specifications,
4. This Project Specification, and lastly
5. The standard specifications referred to.

BID CHECKLIST

This list is aimed at assisting all bidders to submit complete bid documents.

Bidders are to check the following points before the submission of their tender document and to complete YES/NO next to each item as an indication that the bidder has complied with the provision of the item concerned. If any of the items are marked as NO – it might lead to the disqualification of your bid.

ITEM	DESCRIPTION	YES	NO
1.	Provided copy of your company registration document.		
2.	Provided certified copy of your company VAT registration Certificate		
3.	Tax clearance certificate/copy of tax compliance status (TCS) document has been submitted – in the name of the bidding entity		
4.	The bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, which is in arrears for more than three (3) months? No bid will be awarded to a company and its directors that owe more than three (3) months charges to any municipality or metro.		
5.	Lease agreement/municipal account of not older than three months in the name of the bidding entity. (Copy of the lease agreement will only be accepted if water and lights are part of lease payment).		
6.	All pages of the bid document have been read by the bidder and the returnable schedules and MBD forms duly completed and signed.		
7.	All pages requiring information have been completed in full and in black ink.		
8.	No pages removed from the tender document		
9.	The pricing schedule has been signed.		
10.	A copy of the resolution of your Board of Directors, similar to the attached specimen, authorizing the signatory to sign the tender and the subsequent contracts, has been attached and signed.		
11.	JV agreement has been attached and signed (if applicable)		

12.	Bidder must attach the Central Supplier Database (CSD) registration full report.		
13.	In case of any amendments made, was it signed in full by the authorized signatory? Please note that the use of tipp-ex will lead to immediate disqualification.		
14.	<p>Please declare any interest as required in terms of MBD - 4 truthfully and correctly as incorrect declarations are considered a criminal offence.</p> <ul style="list-style-type: none"> ▪ Personal Tax Numbers included ▪ State Employee Number / Persal Number ▪ Identity number ▪ Name 		
15.	Please take note of the functionality evaluation criteria that will be applied to your submission in order to ensure that your company has the necessary capacity and capability to successfully execute this tender, if appointed. Ensure that sufficient information is included in your submission to ensure successful evaluation of your bid.		

PLEASE NOTE:

- ❖ No contract will be awarded to a service provider if the service provider or its directors are in arrears with their municipal accounts for more than three (3) months.
- ❖ In case of a Joint Venture, please note that individual documents have to be submitted for all parties in the JV, like tax clearance certificates, municipal accounts, etc.
- ❖ No communication with Lesedi Municipal officials is allowed after the closing date of the tender. The only authorized form of communication will be through the Supply Chain Management Office.
- ❖ No bids will be accepted if not submitted on the correct closing date and time. No late bids will be considered, even if only late by a minute.



LESEDI LOCAL MUNICIPALITY

TENDER NO. 25/2025

THE APPOINTMENT OF A CONTRACTOR FOR THE UPGRADING OF EMASDAL, HEIDELBERG AND RENSBURG PUMP STATIONS

PART C5: APPENDICES