



CIDB 2 ME (1ME PE)

CIDB REFERENCE NUMBER: _____

PROJECT NO: ERW202006/TNDR-005

DESCRIPTION: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

DEPARTMENT	DEVELOPMENT
BRIEFING SESSION	THURSDAY, 10 JUNE 2021 @ 11:30 AT ERWAT WATERVAL WCW, WATERVAL FARM, MEADOW ROAD, KLIPRIVIER GPS: 26°26'14.12" S, 28°06'03.55" E
CLOSING DATE	Thursday, 24 JUNE 2021 AT 12:00
FULL NAME OF BIDDER <small>(BIDDING ENTITY) FULL NAME i.e. (CC, (PTY) LTD, LTD, JV, SOLE PROPRIETOR etc.)</small>	
TEL NUMBER	
FAX NUMBER	
E-MAIL ADDRESS	
CENTRAL SUPPLIER DATABASE REG. NO	MAAA _____
BIDDERS OFFER	R _____ INCLUDING VAT

ERWAT STAMP

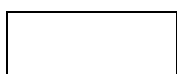
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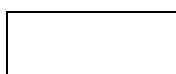
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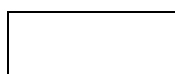
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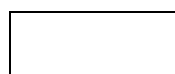
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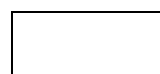
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Employer



Witness 1



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Contractor

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Employer

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T1.1 BID NOTICE: ADVERTISEMENT

Project No.	Project Description	CIDB Grading	Contact	Briefing Session Date	Closing Date	Tender Cost
ERW202006/TNDR-005	SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW	2 ME (1ME PE)	Hlengiwe Nhlapho 011 929 7193	THURSDAY, 10 JUNE 2021 @ 11:30	THURSDAY, 24 JUNE 2021 AT 12:00	R250

BID documents may be purchased at ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein/ Bronkhorstspuit), Kempton Park at a non-refundable fee of **R250** including VAT per BID document during office hours from 08h00 -13h00 and 14h00 -16h00 weekdays. During the COVID 19 lockdown period, briefing sessions will be conducted in divisions due to the social distancing provision. Bidders will however be allowed to request additional information relating to the scope of works. Bidders are requested to submit any queries or clarification, to Ms Phumzile Mdlalose at publictenders@erwat.co.za and cc Ms H Nhlapho at hlengiwe.zwane@erwat.co.za. All queries must be submitted 10 days prior to closing date of tender as set out above. No queries after this date will be considered or addressed. Please note that all queries raised with responses, will be e-mailed to all the bidders who have purchased a tender document for this bid.

Bidders are encouraged to collect bidding documents well in advance to allow them sufficient time to peruse the scope so that any queries can be dealt with timeously. in the event that changes may be required to the scope based on queries raised, an addendum to this effect will be mailed to all bidders who purchased a tender document. Kindly contact Ms Phumzile Mdlalose via e-mail: publictenders@erwat.co.za for access to the bid document. Bids may be purchased from the SCM unit during 10:00 and 14:00 weekdays. No fees are payable for bid documents mailed to the prospective bidders. Kindly note that in the event that a tender document is e-mailed, the bidder accepts the responsibility to print all the pages and documents relating to the tender, to complete such comprehensively and submit the full document with supporting documents in the tender boxes as set out below. Failure to submit the full document will render your bid invalid and non-compliant and will not be accepted or considered for evaluation.

All tender documents must be submitted on the official forms – (**not to be re-typed**). Bid documents completed in ink must be place in a sealed envelope clearly marked: **BID ERW202006/TNDR-005:** and must be placed in the correct Tender Box situated at ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein/ Bronkhorstspuit), Kempton Park, not later than **12h00 on Thursday, 24 JUNE 2021** at which hour and date the BIDS will be opened in public. BIDS shall remain valid for the period of days as indicated in the bid document from date of closing.

All SCM related Enquiries shall be addressed to: Ms Phumzile Mdlalose at 011 929 7115 or publictenders@erwat.co.za. All Technical Enquiries shall be addressed to: Ms.Hlengiwe Nhlapho at 011 929 7193 or hlengiwe.zwane@erwat.co.za. Kindly CC the other party in all correspondence.

Contractor

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Witness 2

Employer

Witness 1

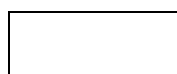
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Bids will be evaluated in terms of ERWAT' Supply Chain Management Policy, the MFMA SCM Regulations, the Preferential Procurement Policy Framework Act and its Regulations, 2017, the General Condition of Contract (GCC) and, if applicable, any other special conditions of contract.

NB: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (as defined in Regulation 44 of the Local Government: Municipal Supply Chain Management Regulations).

ERWAT accepts no responsibility for bidders accessing the tender notices from other sites/sources other than the newspapers used, its website (www.erwat.co.za/procurement) and the National Treasury's e-tender portal (www.etenders.gov.za).

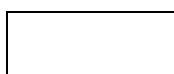
02 June 2021 (date the ad is going on the website and advertised)



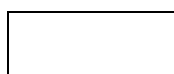
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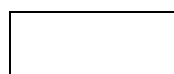
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Employer



Witness 1



Witness 2



SECTION 1: ADMINISTRATIVE COMPLIANCE

PROJECT NO: ERW202006/TNDR-005

SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

T1.2 TENDER DATA

General

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. See www.cidb.org.za which is reproduced without amendment or alteration for the convenience of tenderers as an Annex to this Tender Data.

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

The following variations, amendments and additions to the Standard Conditions of Tender as set out in the Tender Data below shall apply to this tender.

Clause No.	TENDER DATA
F1.1	<p>The Employer is:</p> <p>East Rand Water Care Company (ERWAT) H*artebeestfontein Office Park R25 (Bapsfontein/Bronkhorstspruit Road) Kempton Park</p>
F.1.2	<p>The Tender document's contents is as follows:</p> <p><u>THE TENDER</u></p> <p>Part T1: Tender Procedures</p> <ul style="list-style-type: none"> • Tender notice and invitation to Tender • Tender Data <p>Section 1: Returnable Documents</p>

Contractor

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Employer

Witness 1

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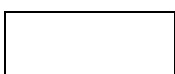
	<ul style="list-style-type: none"> • List of returnable documents • Returnable schedules <p><u>THE CONTRACT</u></p> <ul style="list-style-type: none"> • Agreements and Contract Data • Form of Offer and Acceptance • Contract Data • Form of Guarantee • Occupational Health and Safety • Corporate Governance Breach Clause <p>SECTION 2 – SCOPE OF WORKS AND PRICING</p> <ul style="list-style-type: none"> • SCOPE OF WORKS/SPECIFICATIONS • PRICING SCHEDULE/BILL OF QUANTITIES • LIST OF IMPORTED ITEMS • ALTERNATIVES OFFERED • SITE INFORMATION* <p>*</p> <p>SECTION 3 – CONTRACT DOCUMENTS</p> <ul style="list-style-type: none"> • STANDARD CONDITIONS OF BIDDING • FORM OF OFFER AND ACCEPTANCE • SCHEDULE OF DEVIATIONS • MBD 7.1: CONTRACT FORM – GOODS/WORKS: • PART A: TO BE COMPLETED BY THE BIDDER • PART B: TO BE COMPLETED BY EKURHULENI WATER COMPANY • OCCUPATIONAL HEALTH AND SAFETY AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993) • PERFORMANCE MANAGEMENT SYSTEM: DRAFT PMS • INDEMNITY FORM • SPECIAL CONDITIONS OF CONTRACT • GENERAL CONDITIONS OF CONTRACT <p>Part C4: Site Information C4 Site Information</p>
<p>F1.3</p>	<p>Interpretation</p> <p>The Tender data and additional requirements contained in the Tender schedules that are included in the returnable documents are deemed to be part of these Tender conditions.</p>



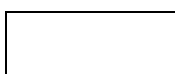
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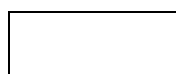
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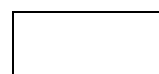
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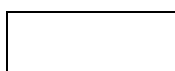


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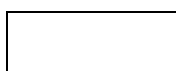


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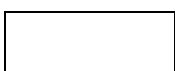
<p>F.1.4</p>	<p>The Employer’s Representatives are: SCM: Ms Phumzile Mdlalose - 011 929 7000 E-mail Address: phumzile.mdlalose@erwat.co.za</p> <p>Technical: Ms Hlengiwe Nhlapho - 011 929 7000. E-mail Address: hlengiwe.zwane@erwat.co.za</p> <p>Attention is drawn to the fact that verbal communication given by the Employer’s representative prior to the close of Request for Proposals (Tender) will not be regarded as binding on the employer. Only information issued formally by the employer in writing to the bidders, under the signature of the Accounting Officer or his nominee will be regarded as amending the Tender documents. Tender offer communicated on paper shall be submitted as an original.</p> <p>In the event that no correspondence or communication is received from ERWAT within one hundred and twenty (120) days after the stipulated closing date and time of the Tender, the Tender proposal will be deemed to be unsuccessful.</p>
<p>F.1.5</p>	<p>Reject or Accept</p> <p>The Employer may accept or reject any variation, deviation, Tender offer, or alternative Tender offer, and may cancel the Tender process and reject all Tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a bidder for such a cancellation and rejection, but will give written reasons for such action upon written request to do so.</p>
<p>F.2.1</p>	<p>CIDB Requirements</p> <p>Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 2 ME (1ME PE) class of construction work, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> 1. Every member of the joint venture is registered with the CIDB: 2. The lead partner has a contractor grading designation in the 2 ME (1ME PE) class of construction work; and 3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 2 ME (1ME PE) class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations. <p>The bulk of the work for this Contract is Mechanical, however it also includes civil, electrical and control & instrumentation aspects. Should these portions be sub-contracted, each Sub-Contractor shall have a sufficient CIDB grading in their field to cover their portion of the Contract price. An indication of the portion of the total Contract price allocated to each Sub-Contractor as well as proof of each Sub-Contractors CIDB grading shall be included in the Tenderers submissions.</p>



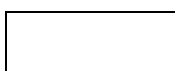
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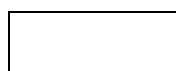
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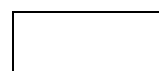
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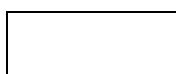


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<p>F.2.2</p>	<p>Cost of Bidding</p> <p>Accept that the Employer will not compensate the Bidders for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.</p>		
<p>F.2.3</p>	<p>Check documents</p> <p>Tenderer shall satisfy himself that the set of tender documents is complete and in accordance with the index. If any page has been omitted or duplicated, or if the script or dimensions, or anything else in the tender document is indistinct, or if doubt exists as to the meaning of any description, or if the tender document contains any obvious errors, the Tenderer shall immediately notify the Employer's Agent accordingly, in writing, so that such discrepancy or indistinctness can be clarified and rectified, as ERWAT or the Agent will not accept any responsibility or consider any claim in connection with such discrepancy or indistinctness, which are not rectified during the tender period.</p>		
<p>F.2.4</p>	<p>Confidentiality and copyright of documents</p> <p>Treat as confidential all matters arising in connection with the Tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a proposal offer in response to the invitation.</p>		
<p>F2.5</p>	<p>Reference Documents</p> <p>Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference</p>		
<p>F2.6</p>	<p>Acknowledge Addenda</p> <p>Acknowledge receipt of addenda to the proposal documents, which the employer may issue, and if necessary apply for an extension of the closing time stated in the Tender data, in order to take the addenda into account.</p>		
<p>F.2.7</p>	<p>The arrangements for a briefing/clarification meeting are:</p> <table border="1" data-bbox="280 1458 1477 1626"> <tr> <td data-bbox="280 1458 679 1626"> <p>Date: 10 June 2021 Time: 11h30</p> </td> <td data-bbox="679 1458 1477 1626"> <p>Location: ERWAT Waterval WCW, Waterval Farm, Meadow Road, Kliprivier</p> <p>GPS: 26°26'14.12" S, 28°06'03.55" E</p> </td> </tr> </table> <p>No individual should represent more than one bidder at the briefing session. Non-completion in full of the fields required on the attendance register may lead to automatic disqualification.</p> <p>At least one member of the JV be represented at the clarification meeting.</p>	<p>Date: 10 June 2021 Time: 11h30</p>	<p>Location: ERWAT Waterval WCW, Waterval Farm, Meadow Road, Kliprivier</p> <p>GPS: 26°26'14.12" S, 28°06'03.55" E</p>
<p>Date: 10 June 2021 Time: 11h30</p>	<p>Location: ERWAT Waterval WCW, Waterval Farm, Meadow Road, Kliprivier</p> <p>GPS: 26°26'14.12" S, 28°06'03.55" E</p>		
<p>F.2.8</p>	<p>Seek clarification</p> <p>Questions or queries must be submitted to the Employer At least Ten (10) working days before the stipulated closing date and time of the Tender. However, ERWAT shall not be liable nor assume</p>		



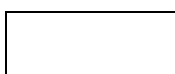
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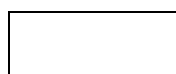
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Witness 2



Employer



Witness 1



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	liability for failure of the bidder to receive response to any questions and / or queries raised by the bidder by the closing time.
F.2.10	<p>Pricing the Tender</p> <p>State the rates and prices in South African Rand (ZAR). Please note that only firm prices would be accepted by ERWAT.</p>
F.2.11	<p>Alterations to documents</p> <p>Bidder must not make any alterations or additions to the proposal documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the bidder. All signatories to the Tender offer shall sign next to all such alterations. Erasures and the use of masking fluid are prohibited. Copies are not allowed, only original documents will be accepted.</p>
F.2.13	<p>Submitting a Tender offer</p> <p>No late, faxed, emailed or other form of Tender will be accepted. Completed Tenders with attached documents, if any, must be submitted in Black ink in sealed envelopes and clearly marked:</p> <p><u>“CONTRACT NO ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW</u> and must be placed in the Public Tender Box at ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein / Bronkhorstspuit), Kempton Park.</p> <p>Accept that the tender submitted to the employer cannot be withdrawn or substituted. No substitute tender offers will be considered.</p> <p>All Tenders received by ERWAT will remain in the Company’s possession.</p>
F.2.14	<p>Information and data to be completed in all respects</p> <p>To facilitate review of this Tender by ERWAT, it is requested that submissions conform to the following format:</p> <ol style="list-style-type: none"> Coversheet: List Tender Statement, the name of your firm, and the name, address and telephone number of a contact person for questions concerning the Tender submitted. Executive Summary: Provide a brief overview of the project, description of the overall approach to the project, key features of the technologies offered and an overview of the performance guaranteed. Relevant Experience and Reference Projects: Information of similar sized projects completed by the Tenderer (in South Africa and worldwide) using the specific technologies requested must be provided. The referenced projects must be comparable in size, complexity and performance achieved to the tendered project Project Team: Provide a project team organogram showing the structure and composition of the proposed team. A CV highlighting the relevant project specific experience for each team member must be supplied. Permanent staff and contracted staff must be distinguished.

Contractor

Witness 1

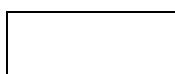
Witness 2

Employer

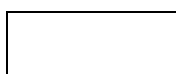
Witness 1

Witness 2

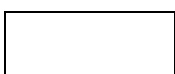
	<p>5. Project Schedule: A detailed project schedule must be submitted showing details with respect to the different phases of the project as well as the different aspects pertaining to engineering, procurement, construction, installation, commissioning and start up. The key milestones during the project must be indicated.</p> <p>6. Mechanical, Electrical and C&I: All information asked for regarding the mechanical, electrical and C&I equipment shall be included here.</p> <p>Accept that Tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive. Responsive Tenders are ONLY those Tenders with all documents and pages, contained herein, that have been signed by the responsible person duly authorised to sign all documents indicated on the returnable document “FORM C Authority of Signatory”.</p> <p>The above is to be read in conjunction with F3.11 below as well as the Project Specifications detailed in Section 2: Scope of Works.</p>
<p>F.2.15</p>	<p>Closing time</p> <p>Closing Date: THURSDAY, 24 JUNE 2021 Closing Time: 12h00</p>
<p>F.2.16</p>	<p>Tender offer validity</p> <p>The Tender offer validity period is 120 Days.</p>
<p>F2.18</p>	<p>Provide other information</p> <p>The bidders are required to submit following documents and if requested to resubmit in case if it was not initially submitted, it will result in automatic disqualification:</p> <ol style="list-style-type: none"> (1) Proof of SARS Tax status (pin issued by the South African Revenue Services); (2) Completion of MBD 2, 4, 5, 6.1, 6.2, 7.1, 8 and 9 forms (3) Copy of municipal Statement not older than 3 months or letter from landlord stating that rates and taxes are not in arrears for more than 90 days from date of closing of bid. (4) In case of Joint Venture – the Joint Venture Agreement (5) Letter of intent to submit Third Party Liability Insurance and All risk contractor’s insurance to cover this contract <p>NB: - Please note that non-compliance to specification may be deemed as an automatic disqualification. Service Providers must quote for all aspects as per the specification.</p>
<p>F2.23</p>	<p>Certificates</p> <p>The Tenderer is required to submit with his Tender a letter of intent from an approved insurer undertaking to provide the Performance Guarantee to the format included in Part C1.3 of this Tender Document.</p>



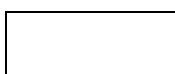
Contractor



Witness 1



Witness 2



Employer

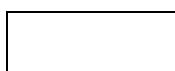


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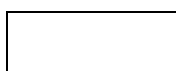


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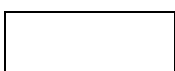
<p>F3.4</p>	<p>Opening of tender</p> <p>Tenders will be opened in public at the ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein / Bronkhorstspuit), Kempton Park.</p>
<p>F3.5</p>	<p>Two-envelope System</p> <p>A two-envelope procedure will NOT be followed.</p>
<p>F3.6</p>	<p>Non-disclosure</p> <p>After the opening of the Tender offers, no information relating to the clarification, determination of responsiveness, evaluation and comparison of Tender offers and recommendations concerning the award of the Tender shall be disclosed to any other Bidder or persons not concerned with such process until the award of the Tender has been announced by ERWAT.</p>
<p>F3.9</p>	<p>Arithmetical errors, omissions and discrepancies</p> <p>ERWAT is to check BID offers for arithmetical errors in the following manner:</p> <ul style="list-style-type: none"> a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern. b) 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. c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices. <p>Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.</p>
<p>F3.11</p>	<p>1. Evaluation of tender offers</p> <p>The Bidders notice is drawn to the fact that the evaluation, adjudication and awarding of this Tender will be in terms of the Supply Chain Management Policy of ERWAT and the Preferential Procurement Regulations of 2017.</p> <p>If the submitted Tender does not comply with the Tender conditions, the Tender may be rejected. If specifications are not met, the Tender may also be rejected. With regard to the above, certain actions or errors are unacceptable, and warrant REJECTION OF THE TENDER, for example:</p> <ul style="list-style-type: none"> ▪ Proof of SARS Tax status (pin issued by the South African Revenue Services); ▪ Non submission of company registration certificates. ▪ Pages that were to be completed being removed from the Tender document and have therefore not been submitted.



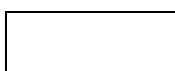
Contractor



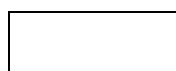
Witness 1



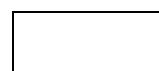
Witness 2



Employer



Witness 1



Witness 2

- Failure to fully complete form of offer.
- Scratching out without initialing next to the amended rates or information.
- Writing over / painting out rates / the use of Tippex/correction fluid or any erasable ink.
- Failure to attend briefing meetings
- The Tender has not been properly signed by a party having the authority to do so, according to the **Form C– “Authority for Signatory”**.
- No authority for signatory submitted.
- Particulars required in respect of the proposal have not been provided: non- compliance of Tender requirements and/or specifications.
- The Bidder’s attempts to influence, or has in fact influenced the evaluation and/or awarding of the contract.
- The Proposal has been submitted after the relevant closing date and time.
- If any municipal rates and taxes or municipal service charges owed by that Bidder or any of its directors to the company, or to any other company or municipal entity, are in arrears for more than three months (90 days).
- If any Bidder who during the last five years has failed to perform satisfactorily on a previous contract with the company or any other organ of state after written notice was given to that Bidder that performance was unsatisfactory.

2. Good standing with SA Revenue Services

- Determine whether the bidders tax matters are in order as provided for by SARS.
- The Bidder must complete the MBD 2 form in the returnable schedule and or attach their valid SARS Pin to verify their Tax matters to the designated page of the Tender document.

If the Tender does not meet the requirements contained in the ERWAT Supply Chain Policy, and the mentioned framework, it will be rejected and may not subsequently be made acceptable by correction or withdrawal of the non-conforming deviation or reservation.

3. Penalties

ERWAT will, if upon investigation it is found that a preference in terms of the Preferential Procurement Policy Framework Act, 2000 and these regulations has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, one or more of the following penalties will be imposed:

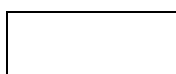
- Cancel the contract and recover all losses or damages incurred or sustained from the Bidder.
- Impose a financial penalty of twice the theoretical financial preference associated with the claim, which was made in the Tender.
- Restrict the firm, its shareholders and directors on obtaining any business from ERWAT for a period of 5 years and blacklisted on the National Treasury database of restricted suppliers.

4. Evaluation Criteria

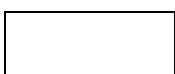
ERWAT will establish a Bid Evaluation Committee (BEC) whose responsibility it is to make recommendations to the Bid Adjudication Committee (BAC). The Bid Evaluation Committee will short list and evaluate the bid document in accordance with the criteria below and make recommendations to the BAC.



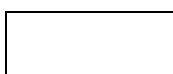
Contractor



Witness 1



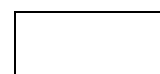
Witness 2



Employer

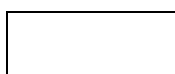


Witness 1

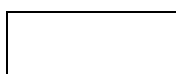


Witness 2

	<ol style="list-style-type: none"> 1) Pre compliance evaluation to be done and pre-qualified bidders goes through for the functionality evaluation. Where some pre compliance information is not provided the ERWAT supply chain will contact the responsible bidder to submit within 5 working days and failure to do so will result in disqualification. 2) Score Bid evaluation points for price and preference points 3) Calculate total Bid evaluation points, to two decimal places 4) Rank Bid offers from the highest number of Bid evaluation points to the lowest 5) Recommend Bidders 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.
	<p>FUNCTIONALITY CRITERIA: -</p> <p>Note: The minimum required score for functionality is stipulated in the functionality table listed elsewhere in the document. Bidders scoring less than the stipulated threshold on functionality shall not proceed to the next stage of the evaluation.</p> <p>Functionality criteria maximum points in respect of each criterion shall be as set out at the bottom of this table.</p> <p>All Tender submission will be evaluated by at least three evaluators against the Table below. Tenderers shall ensure that their tender submissions are sufficiently detailed and that all required information is included in their submissions. Information not provided will result in zero points awarded for the respective item.</p> <p>Tender evaluation points</p> <p>Tender evaluation points will be allocated as per the Supply Chain Management policy and the Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017 including the following:</p> <p>The points allocation for this Tender is:</p> <ol style="list-style-type: none"> a) Price: 80 b) B-BBEE Status Level of Contribution:20 <p>Regulations of disputes, objections, complaints and queries will be handled in accordance with the Supply Chain Management Policy of ERWAT.</p>
<p>F3.17</p>	<p>Provide copies of the contracts</p> <p>The number of paper copies of the signed contract to be provided by the Employer is one.</p>
	<p>The additional conditions of the proposal are:</p> <ol style="list-style-type: none"> 1) ERWAT may also request that the Bidder provide written evidence that his financial, labour and resources are adequate for carrying out the project.



Contractor



Witness 1



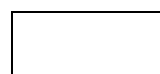
Witness 2



Employer



Witness 1



Witness 2

	<p>2) ERWAT reserves the right to appoint a firm of chartered accountants and auditors and / or execute any other financial investigations on the financial resources of any Bidder. The Bidders shall provide all reasonable assistance in such investigations.</p>
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F.3.11.7.1.1 TECHNICAL / FUNCTIONALITY EVALUATION

Potential service providers will have to achieve a minimum of **75 points out of 100** for their technical proposals before their financial proposals and B-BBEE status are evaluated. This is required so that there is a level of comfort that the potential service provider can deliver the project with the required professionalism and quality.

F.3.11.7.1.1.1 SCORING PROCESS

The Technical / Functional Evaluation Task Team will be established to determine the following:

- Whether or not the Bidder understood the project specifications.
- The bidders experience with similar projects.
- The suitability of the bidder’s proposed Plant and Equipment.
- The quality of the methodology proposed.
- The qualifications and experience of the key staff proposed.
- The suitability of Sub-Contractors proposed.

No alteration of technical / functionality proposals will be permitted after the deadline for receipt of bids. Questions may be asked for clarification needed to evaluate their proposals, but bidders would not be permitted to change the substance or price of their bids after bid opening. Requests for clarification and the bidder’s responses would be made in writing. No interviews will be conducted in this regard.

Contractor

Witness 1

Witness 2

Employer

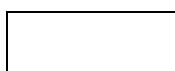
Witness 1

Witness 2

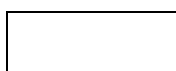
SCORING CRITERIA FOR CIDB CONTRACTS:

The score for the Technical / Functionality Evaluation will be calculated in accordance with the table below:

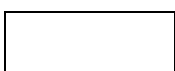
CRITERION	CRITERION DETAILS	POINTS
<p>Company Experience</p>	<p>Company experience in Installation of Pumps, provide completion certificates: (only completion certificates and reference letters will be accepted)</p> <ul style="list-style-type: none"> • 4 and more Letters/Certificates = 35 • 3 Letters/Certificates = 25 • 2 Letters/Certificates = 15 • 1 Letter/Certificate = 5 • None, contactable or denied references = 0 <p>Appointment Letters, Contractual Agreements, and Invoices will not be accepted.</p>	<p>35</p>
<p>Expertise of key staff: Bidder to include Organogram with Full Name and Title of Key Staff as per the hierarchy. The CV or Testimonial to indicate previous employer name, duration, duties related to this bid, contactable references. Copies of the qualifications must also be attached</p>	<p>Expertise of key staff: bidders to supply testimonial letters and/ or record of service with CVs to prove experience</p> <p><u>Team Leader/Site Supervisor must have experience in Mechanical Engineering:</u></p> <ul style="list-style-type: none"> • 0 to 1 or none submitted = 0 • 2 to 5-year experience = 3 • 6 to 7 years in experience = 5 • more than 8 years' experience =7 <p><u>Electrician with a trade test in Electrical Engineering (Heavy Current):</u></p> <ul style="list-style-type: none"> • 0 to 1 or none submitted = 0 • 2 to 5-year experience = 3 • 6 to 7 years in experience = 5 • more than 8 years' experience =7 <p><u>Mechanical Fitter with a trade in Mechanical Engineering (Fitting):</u></p> <ul style="list-style-type: none"> • 0 to 1 or none submitted = 0 • 2 to 5-year experience = 3 • 6 to 7 years in experience = 5 • more than 8 years' experience =7 <p><u>Instrumentation Technician with a trade test in Instrumentation:</u></p> <ul style="list-style-type: none"> • 0 to 1 or none submitted = 0 • 2 to 5-year experience = 3 • 6 to 7 years in experience = 5 • more than 8 years' experience =7 <p><u>Health and Safety Officer with a tertiary degree or diploma in safety management:</u></p>	<p>35</p>



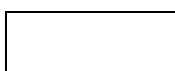
Contractor



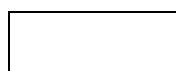
Witness 1



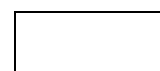
Witness 2



Employer



Witness 1



Witness 2

CRITERION	CRITERION DETAILS	POINTS
	<ul style="list-style-type: none"> • 0 to 1 or none submitted = 0 • 2 to 5-year experience = 3 • 6 to 7 years in experience = 5 • more than 8 years' experience =7 	
Letters of Support	Manufacturer's (Supplier) of Positive Displacement Pumps Statement of Support = 30	30
TOTAL	Bidder must score a minimum of 75 points to be considered for father evaluation	100

Staff members are not limited to one role, subject to meeting the technical capacity to complete the Project successfully. ERWAT reserves the right to request additional information from bidders during BEC phase. Failure to respond or submit such will render your bid invalid

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



LIST OF RETURNABLE DOCUMENTS

1. Failure to fully complete and sign the relevant returnable documents shall render such a Tender offer unresponsive.
2. Bidders shall note that their signatures appended to each returnable form represents a declaration that they vouch for the accuracy and correctness of the information provided, including the information provided by candidates proposed for the specified key positions.
3. Notwithstanding any check or audit conducted by or on behalf of the Employer, the information provided in the returnable documents is accepted in good faith and as justification for entering into a contract with a Bidder. If subsequently any information is found to be incorrect such discovery shall be taken as wilful misrepresentation by that Bidder to induce the contract. In such event the Employer has the discretionary right to terminate the contract.
4. **The Bidder must complete and sign the following returnable Schedules:**

Failure to comply with these requirements may render the tender liable for disqualification.

	Please ensure that the following supporting documents are attached to your Bid Document. Failure to submit the below mentioned documents will result in disqualification of your bid.	To be completed by the Bidder: Please fill in Yes or No if proof and/or documents are attached	For Office Use Only Verified by SCM Official: Please fill in Yes or No if proof and/or document is attached
MBD 1	INVITATION TO BID		
MBD 2	TAX CLEARANCE REQUIREMENTS		
MBD 3.1	PRICING STRUCTURE: FIRM PRICES		
MBD 4	DECLARATION OF INTEREST		
MBD 5	DECLARATION OF PROCUREMENT ABOVE R10 MILLION		
MBD 6.1	PREFERENCE SCHEDULE		
MBD 6.2	LOCAL CONTENT PRODUCTION		
MBD 7.1	CONTRACT FORM: PURCHASE OF GOODS		
	PART 1: TO BE COMPLETED BY THE BIDDER		
	PART 2: TO BE COMPLETED BY ERWAT (THE EMPLOYER)		
MBD 9	CERTIFICATE OF INDEPENDENT BID DETERMINATION		
FORM A	MUNICIPAL SERVICES, RATES AND TAXES OR RENTAL AGREEMENT WITH LANDLORD: Copy of Municipal		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	Statement not older than 3 months before date of closing of bid OR Letter from landlord stating that you are renting from his/her property OR a Copy of Lease agreement and Contact details. Rates and taxes must not be in arrears for longer than 90 (ninety) days of date of closing of bid.		
FORM B	NATIONAL TREASURY CENTRALISED SUPPLIER DATABASE		
FORM C	AUTHORITY OF SIGNATORY		
FORM D	FINANCIAL REFERENCES /BIDDER'S CREDIT RATING AND BANK DETAILS		
FORM E	RECORD OF ADDENDA TO TENDER DOCUMENTS		
FORM F	CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)		
FORM G	OCCUPATIONAL HEALTH AND SAFETY AGREEMENT		
FORM H	Certified Copy of ID documents of owners/members/shareholders (see Bidders Information Section).		
FORM I	Current Certificate of Good Standing from Compensation Commissioner		
FORM J	SANS/SABS/ISO Certification or TQM certification or other certificates required in terms of the regulatory authority as set out in the special conditions of contract		
FORM K	Letter of intent to submit Third Party Liability Insurance and All risk contractors insurance to cover this contract		
FORM L	Copy of Company Registration Documents		
FORM M	Programme of works		
FORM N	Expertise of the key personnel		
FORM O	Audited Financial Statements for the past three financial years on contracts over R10 m value	N/A	
FORM P	PPP4R		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

MBD 1

INVITATION TO BID

YOU ARE HEREBY INVITED TO SUBMIT AN OFFER FOR BID : ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

CLOSING DATE: THURSDAY, 24 JUNE 2021 AT 12:00

The successful bidder will be required to fill in and sign a written Contract Form (MBD7).

Completed Tender documents with attached documents, if any, must be completed in Ink and submitted in a sealed envelope and clearly marked **BID ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WWCW** to be placed in Tender Box at ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein / Bronkhorstspuit), Kempton Park.

Bidders should ensure that bids are in the tender box at the closing time and date, including couriered documents. Any late documents will not be accepted for consideration.

The box is generally open during office hours: 07:00 – 17:00 Mondays to Fridays.

N.B.: Bidders must ensure that they submit the full bidding document with all the pages, all requested information completed and signed, including all supporting documents in the areas provided.

All bids must be submitted on the official forms – (not to be re-typed). Failure to complete the document in full may result in disqualification.

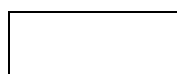
Bids completed in pencil, re-typed or where correction tape/fluid is used will be regarded as invalid bids.

THIS BID IS SUBJECT TO THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

THIS BID WILL BE EVALUATED AND ADJUDICATED ACCORDING TO THE FOLLOWING CRITERIA:

1. Relevant specifications and technical proposals
2. Value for money
3. Capability to execute the contract
4. PPPFA & related regulations (including BBBEE)
5. Standard conditions of bidding
6. Special conditions of contract
7. General conditions of contract
8. Supporting documents where required

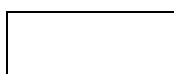
NB: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (see definition on MBD 4 attached)



Contractor



Witness 1



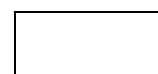
Witness 2



Employer



Witness 1



Witness 2

**THE FOLLOWING PARTICULARS MUST BE FURNISHED
(FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)**

In the case of a Joint Venture – This page is to be completed and submitted in respect of each partner

NAME OF ENTERPRISE							
PHYSICAL ADDRESS:							
POSTAL ADDRESS:							
CONTACT PERSON							
TEL NO: _____		CELL NO: _____					
FAX NO: _____		EMAIL: _____					
COMPANY REGISTRATION NUMBER:							
VAT NUMBER:		TAX REF NUMBER:					
CENTRALISED SUPPLIER DATABASE (CSD) NUMBER:				MAAA _____			
CIDB REGISTRATION NUMBER							
CIDB GRADING							
ERWAT VENDOR NUMBER (NOT COMPULSORY):							
TOTAL NUMBER OF ITEMS OFFERED							
* PREFERENCE POINTS CLAIMED AS PER FORM MBD 6.1		B-BBEE RATING [LEVEL ____]		VALID B-BBEE CERTIFICATE ATTACHED		Yes	No
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/SERVICES/WORKS OFFERED?						Yes	No
DISABLED [_____%]		WOMEN [_____%]		YOUTH [_____%]			

***IF YES, WHO WAS THE CERTIFICATE ISSUED BY?**

A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN
NATIONAL ACCREDITATION SYSTEM (SANAS)
A REGISTERED AUDITOR
A SWORN AFFIDAVIT
(tick applicable block)

**(A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE OR SWORN AFFIDAVIT (SEE MBD6.1)
MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE)**

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/ SERVICES/ WORKS OFFERED?

YES		NO	
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NAME AND SURNAME: _____

SIGNATURE OF BIDDER: _____

CAPACITY UNDER WHICH THIS BID IS SIGNED: _____

DATE: _____

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE AND TECHNICAL INFORMATION MAY BE DIRECTED TO:

SUPPLY CHAIN BIDDING PROCEDURES:

CONTACT PERSON: Phumzile Mdlalose

CONTACT DETAILS: (TEL) 011 929 7000 E-MAIL: publictenders@erwat.co.za

TECHNICAL QUERIES MAY BE DIRECTED TO:

CONTACT PERSON: Hlengiwe Nhlapho

CONTACT DETAILS: (TEL) 011929-7193 E-MAIL: Hlengiwe.zwane@erwat.co.za

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder **must** be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

NEED A TAX CLEARANCE? GO ONLINE

- Electronically request your Tax Compliance Status which will include a unique PIN which you can provide to any third party (if requested) to enable them to verify your tax compliance status online via e-Filing.
- Request a TCC via e-filing which will give you the option to print the TCC.
- Or request a TCC at a SARS branch where a SARS agent will be able to print or e-mail the TCC to you.
- To register for e-filing go to: www.sarsefiling.co.za

A tax compliant status is a holistic view of your tax compliance level across all your registered tax types.

Is your tax compliance status green?

- Ensure all tax returns are submitted
- No outstanding debt owed to SARS
- SARS has been notified of any change of residential or business address
- Your business is registered for all required tax types e.g. PAYE, VAT, income tax.

Check your tax compliance status by logging onto your e-filing profile and viewing your "my compliance Profile" and rectify any non-compliance.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

THIRD PARTY AUTHORISATION TO VIEW BIDDER TCS:

To assist with the evaluation process of your bid we require your consent to check your SARS tax compliance via e-filing. Kindly complete the table below authorising ERWAT to check TCC for tender purposes only.

TCS Details	
Tax payer name	
Trading Name	
Purpose of request	TENDER
Request Reference number	
PIN	
PIN EXPIRY DATE	

Note: Bidders may attach their Tax compliance status printout to the bidding document.

I, _____ in my capacity as _____ duly appointed as authorised signatory holder, hereby grant **ERWAT** permission to check the TCC status of _____ and it is duly understood that the search is for tender purposes only.

NAME AND SURNAME

DESIGNATION

DATE

SIGNATURE

**FOR ERWAT OFFICE USE ONLY:
VERIFIED YES / NO**

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

MBD 3.1

PRICING SCHEDULE – FIRM PRICES
(PURCHASES)

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

NAME OF BIDDER: _____

BID NUMBER: **ERW** _____

CLOSING DATE: _____ TIME: _____

OFFER TO BE VALID FOR **ONE HUNDRED AND TWENTY CONSECUTIVE (120) DAYS** FROM THE CLOSING DATE OF BID.

- REQUIRED BY: **EKURHULENI WATER CARE COMPANY (ERWAT)**
- AT: **PROJECT MANAGEMENT UNIT**
- BRAND AND MODEL _____ OFFERED
- COUNTRY OF ORIGIN _____
- DOES THE OFFER COMPLY WITH ALL SPECIFICATIONS? **YES/NO***
- IF NOT TO SPECIFICATION, INDICATE DEVIATION(S) AND SUBMIT FULL TECHNICAL DETAIL AND DRAWINGS ON DEVIATIONS

- DELIVERY PERIOD: _____ DAYS/WEEKS/MONTHS
- DELIVERY BASIS: _____ FIRM/NOT FIRM

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES / NO

If so, furnish particulars.

4.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES / NO

If so, furnish particulars.

4.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES / NO

If so, furnish particulars.

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

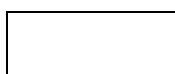
YES / NO

If so, furnish particulars.

4.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract.

YES / NO

If so, furnish particulars.



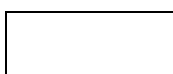
Contractor



Witness 1



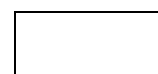
Witness 2



Employer



Witness 1



Witness 2

MBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

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

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and 80/20 preference point system shall be applicable to this tender.

1.3 Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contribution.

1.4 The maximum points for this bid are allocated as follows:

POINTS	
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION	20
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

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

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - i. B-BBEE Status level certificate issued by an authorized body or person;
 - ii. A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - iii. Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where:

- Ps = Points scored for comparative price of bid under consideration
- Pt = Comparative price of bid under consideration
- Pmin = Comparative price of lowest acceptable bid

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (80/20 system)	Kindly tick the applicable level and points
1	20	
2	18	
3	14	
4	12	
5	8	
6	6	
7	4	
8	2	
Non-compliant contributor	0	

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

6.1 B-BBEE Status Level of Contribution: = (maximum of 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

Bidders must note the following with regards to sub-contracting:

- a) The sub-contracting must be to a separate legal entity.
- b) A legal person or unincorporated body of persons cannot sub-contract to themselves.
- c) A joint venture, consortium or unincorporated body of person may not sub-contract to a member of that joint-venture, consortium or unincorporated body of persons.

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

7.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted _____%?

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- ii) The name of the sub-contractor _____
- iii) The B-BBEE status level of the sub-contractor _____

YES		NO	
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iv) Whether the sub-contractor is an EME or QSE
(Tick applicable box)

v) Specify, by ticking the appropriate box, for subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

7.1.2 BIDDERS DECLARATION FOR THE FOLLOWING ADVANCED DESIGNATED GROUPS:

NO.	ADVANCE DESIGNATED GROUPS	BEE Level	Signature
1	(i) an EME or QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm: _____

8.2 VAT registration number _____

8.3 Company registration number: _____

8.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

8.6 COMPANY CLASSIFICATION

- Manufacturer
- Supplier
- Professional service provider
- Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 MUNICIPAL INFORMATION

Municipality where business is situated: _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Registered Account Number: _____

Stand Number: _____

8.8 Total number of years the company/firm has been in business: _____

8.9 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-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we 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 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor 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 –
 - (a) disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.

WITNESSES:

1. _____

2. _____

DATE: _____

<p>_____</p> <p>SIGNATURE(S) OF BIDDER(S)</p> <p>ADDRESS: _____</p> <p>_____</p> <p>_____</p>



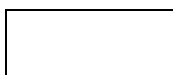
Contractor



Witness 1



Witness 2



Employer



Witness 1



Witness 2

NB – BIDDERS MUST TAKE NOTE THAT ERWAT ONLY ACCEPTS THE FOLLOWING FORMATS OF SWORN AFFIDAVIT FOR EME’S OR QSE’S WHERE YOUR ANNUAL TURNOVER IS LESS THAN R10 MILLION.

NO SWORN AFFIDAVITS WILL BE ACCEPTED WHERE A BEE CERTIFICATE HAS BEEN ISSUED TO A BIDDER.

WHERE A BEE CERTIFICATE AND SWORN AFFIDAVIT HAS BEEN ATTACHED, THE ORIGINAL OR CERTIFIED BEE CERTIFICATE WILL TAKE PRESENDEANCE AND POINTS WILL BE AWARDED BASED ON THE CERTIFICATE ONLY.

Please note that that the form is completed only once annually, as the certificate is valid for a period of one year from date of signature of affidavit.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART A - SWORN AFFIDAVIT: B-BBEE EXEMPTED MICRO ENTERPRISE

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

- The contents of this statement are to the best of my knowledge a true reflection of the facts.
- I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name	
Trading Name	
Registration Number	
Enterprise Address	

- I hereby declare under oath that:
 - The enterprise is__% black owned;
 - The enterprise is__% black woman owned;
 - Based on the management accounts and other information available on the_____ financial year, the income did not exceed R10,000,000.00 (ten million rands);
 - Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% black owned	Level One (135% B-BBEE procurement recognition)	
More than 51% black owned	Level Two (125% B-BBEE procurement recognition)	
Less than 51% black owned	Level Four (100% B-BBEE procurement recognition)	

- The entity is an empowering supplier in terms of **the dti** Codes of Good Practice.
- I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
- The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths Signature & Stamp: _____

COMMISSIONER OF OATHS STAMP

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART B - SWORN AFFIDAVIT: B-BBEE QUALIFYING SMALL ENTERPRISE

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

- The contents of this statement are to the best of my knowledge a true reflection of the facts.
- I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name	
Trading Name	
Registration Number	
Enterprise Address	

- I hereby declare under oath that:
 - The enterprise is _____% black owned;
 - The enterprise is _____% black woman owned;
 - Based on the management accounts and other information available on the _____ financial year, the income did not exceed R50,000,000.00 (Fifty Million Rands);
 - The entity is an Empowering Supplier in terms of Clause 3.3 (a) or (b) or (c) or (d) or as amended 3.3 (e) **(select one)** _____ of the DTI Codes of Good Practice.
 - Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% black owned	Level One (135% B-BBEE procurement recognition)	
More than 51% black owned	Level Two (125% B-BBEE procurement recognition)	
(a) At least 25% of cost of sales, (excluding labour costs and depreciation) must be procurement from local producers or suppliers in South Africa; for the services industry include labour costs but capped at 15%.	(b) Job Creation – 50% of jobs created are for black people, provided that the number of black employees in the immediate prior verified B-BBEE measurement is maintained	
(c) At least 25% transformation of raw material / beneficiation which include local manufacturing, production and /or assembly, and/ or packaging	(d) At least 12 days per annum of productivity deployed in assisting QSE and EME beneficiaries to increase their operation or financial capacity	
(e) At least 85% of labour costs should be paid to South African employees by service industry entities.		

- I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
- The sworn affidavit will be valid for a period of 12 months from the date signed by Commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths Signature & Stamp: _____

COMMISSIONER OF OATHS STAMP

--

Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

MBD 6.2

LOCAL PRODUCTION: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as required in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

- 1.6. A bid may be disqualified if –
 - (a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
 - (b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2. Definitions

- 2.1. **“bid”** includes written price quotations, advertised competitive bids or proposals;
- 2.2. **“bid price”** price offered by the bidder, excluding value added tax (VAT);
- 2.3. **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- 2.4. **“designated sector”** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. **“duly sign”** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).
- 2.6. **“imported content”** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7. **“local content”** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8. **“stipulated minimum threshold”** means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Medium and High voltage cables	90%
Valves	70%
Pipes	100%

Kindly refer to Annexure section of the returnable documents for full details.

4. Does any portion of the services, works or goods offered have any imported content? (Tick applicable box)

YES		NO	
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4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on **www.reservebank.co.za**.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

5. Were the Local Content Declaration Templates (Annex C, D and E) audited and certified as correct?

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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5.1. If yes, provide the following particulars:

(a) Full name of auditor: _____

(b) Practice number: _____

(c) Telephone and cell number: _____

(d) Email address: _____

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the DTI must be informed accordingly in order for the DTI to verify and in consultation with the Accounting Officer / Accounting Authority provide directives in this regard.

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO. ERW201708/TNDR- 013

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity): **ERWAT**

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned _____ (full names),

do hereby declare, in my capacity as _____

of _____ (name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
 - (ii) the declaration templates have been audited and certified to be correct.
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

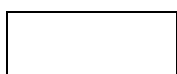
DATE: _____

WITNESS No. 1 _____

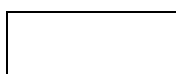
DATE: _____

WITNESS No. 2 _____

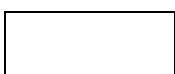
DATE: _____



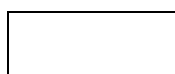
Contractor



Witness 1



Witness 2



Employer



Witness 1



Witness 2

MBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 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 company's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. Been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 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	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes	No
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	Yes	No
4.2.1	If so, furnish particulars:		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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?	Yes	No
4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the company / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes	No
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	No
4.5.1	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 A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SIGNATURE ON BEHALF OF BIDDER

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) 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 MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

BID ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

in response to the invitation for the bid made by: **EKURHULENI WATER CARE COMPANY (ERWAT)**

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

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

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.
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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM A

**MUNICIPAL SERVICES, RATES AND TAXES CLEARANCE CERTIFICATE FOR SUPPLY CHAIN
MANAGEMENT PURPOSE**

The purpose of this form is to obtain prove that municipal services, rates and taxes of the service provider are **not more than three months in arrears** with the relevant municipality / landlord in the municipal area where the service provider conduct his / her business. Kindly attach the latest municipal rates and taxes account not older than 3 months from date of advertising of bid.

Where bidders are not owners of a property and cannot submit a copy of the municipal account, the following must be completed together with a Rental/lease agreement:

(TO BE COMPLETED BY THE LANDLORD)		
Name of the Landlord:		
Property Physical Address:		
Please tick below	Yes	No
Rental: in arrears for more than 3 months	<input type="checkbox"/>	<input type="checkbox"/>
Municipal services: in arrears for more than 3 months	<input type="checkbox"/>	<input type="checkbox"/>
Landlord Signature:		
Date: _____		
Landlord's business stamp here (where applicable)		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM B

**CONFIRMATION OF REGISTRATION ON NATIONAL TREASURY CENTRALISED SUPPLIER
DATABASE**

CONFIRMATION OF CSD VENDOR INFORMATION		
1	VENDOR NAME	
2	CSD APPROVED NUMBER	M _____
3	COMPANY REG NUMBER	
4	COMPANY TAX NUMBER	
5	COMPANY VAT NUMBER	
6	COMPANY BEE LEVEL	
7	CONTACT PERSON	
8	OFFICE TEL. NUMBER	
9	OFFICE FAX NUMBER	
10	E-MAIL ADDRESS	
11	CELL NUMBER	

I, _____ in my capacity as _____ being the
authorized signatory, hereby declare that the above information is true and correct.

AUTHORISED SIGNATORY DESIGNATION

NAME AND SURNAME

RESOLUTION DATE: AUTHORISED SIGNATORY APPOINTMENT

SIGNATURE

DATE

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM C

AUTHORITY OF SIGNATORY TO SIGN BIDS

The bid shall be signed by a person duly authorised thereto and the following is applicable:

Company: A resolution by its board of directors authorising a director or other official of the company to sign the documents on behalf of the company.

Close Corporation: A resolution by its members authorising a member or other official of the corporation to sign the documents on each member's behalf.

Partnership: All the partners shall sign the documents unless one partner or a group of partners has been authorised to sign on behalf of each partner, in which case proof of such authorisation shall be included in the bid.

Joint Venture: Should two or more firms jointly submit a bid, the bid shall be accompanied by the document of establishment of the joint venture, duly registered and authenticated by a notary public or other official deputed to witness sworn statements, which defines the conditions under which the joint venture will function, the period of duration, the persons authorised to represent the Joint Venture and who are obligated thereby, the participation of the several firms forming the joint venture, and well as any other information necessary to permit a full appraisal of its functioning.

One Man Concern: This shall be clearly stated and all documents shall be signed accordingly.

Details of person responsible for Bid Document process:

Name :

Contact number :

Office address :

Signatories for close corporations and companies shall confirm their authority by attaching to this form a **duly signed and dated original or certified copy on the Company Letterhead** of the relevant resolution of their members or their board of directors, as the case may be.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PRO-FORMA FOR COMPANIES AND CLOSE CORPORATIONS:

"By resolution of the board of directors passed on *(date)* _____

Prof./Dr/Mr/Ms _____

has been duly authorized to sign all documents in connection with the Bid Document for Contract Number

_____ and any Contract which may arise there from on

behalf of _____

(BLOCK CAPITALS)

SIGNED ON BEHALF OF THE COMPANY _____

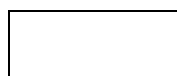
IN HIS CAPACITY AS _____

DATE _____

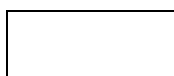
FULL NAMES OF SIGNATORY _____

AS WITNESSES: 1. _____

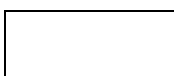
2. _____



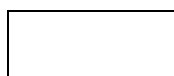
Contractor



Witness 1



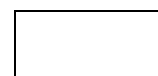
Witness 2



Employer



Witness 1



Witness 2

**PRO-FORMA FOR JOINT VENTURES:
Certificate of Authority for Joint Ventures**

We, the undersigned, are submitting this Bid Document offer in Joint Venture and hereby authorise Mr/Ms _____, authorised signatory of the company _____, acting in the capacity of lead partner, to sign all documents in connection with the Bid Document offer an any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
		Signature: Name: Designation:
		Signature: Name: Designation:
		Signature: Name: Designation:
		Signature: Name: Designation:

N.B.: THE DULY SIGNED AND DATED ORIGINAL OR CERTIFIED COPY OF AUTHORITY OF SIGNATORY ON COMPANY LETTERHEAD SHOULD BE INCLUDED IN THE RETURNABLE DOCUMENTS PACK.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM D

FINANCIAL REFERENCES/ BIDDERS' S CREDIT RATING AND DETAILS OF BIDDERS BANKING INFORMATION

Notes to Bidder:

1. The Bidder shall attach to this form a letter from the bank confirming the bank account and details. Failure to provide the required letter with the Bid Document submission shall render the Bidder's offer unresponsive.
2. The Bidder's banking details as they appear below shall be completed.
3. In the event that the Bidder is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.

BANK NAME:									
ACCOUNT NAME: <i>(e.g. ABC Civil Construction cc)</i>									
ACCOUNT TYPE: <i>(e.g. Savings, Cheque etc)</i>									
ACCOUNT NO:									
ADDRESS OF BANK:									
CONTACT PERSON:									
TEL. NO. OF BANK / CONTACT:									
How long has this account been in existence:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">0-6 months</td> <td style="width: 20%;"><input type="checkbox"/></td> </tr> <tr> <td>7-12 months</td> <td><input type="checkbox"/></td> </tr> <tr> <td>13-24 months</td> <td><input type="checkbox"/></td> </tr> <tr> <td>More than 24 months</td> <td><input type="checkbox"/></td> </tr> </table> <p>(Tick which is appropriate)</p>	0-6 months	<input type="checkbox"/>	7-12 months	<input type="checkbox"/>	13-24 months	<input type="checkbox"/>	More than 24 months	<input type="checkbox"/>
0-6 months	<input type="checkbox"/>								
7-12 months	<input type="checkbox"/>								
13-24 months	<input type="checkbox"/>								
More than 24 months	<input type="checkbox"/>								

Signature on behalf of Bidder

N.B.: ORIGINAL LETTER FROM BANK OR BANK STATEMENT (NOT OLDER THAN THREE MONTHS) SHOULD BE INCLUDED IN THE RETURNABLE DOCUMENTS PACK.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM F

**CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF THE
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.

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 85 OF 1993) on behalf of _____

SIGNED ON BEHALF OF THE COMPANY : _____

IN HIS/HER CAPACITY AS : _____

DATE : _____

SIGNATURE OF SIGNATORY : _____

WITNESS: _____ **WITNESS:** _____

NAME (in capitals): _____ **NAME:** _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM G

OCCUPATIONAL HEALTH AND SAFETY AGREEMENT /PLAN (WHERE APPLICABLE)



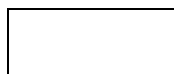
Contractor



Witness 1



Witness 2



Employer



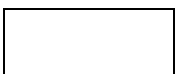
Witness 1



Witness 2

FORM H

CERTIFIED COPY OF ID DOCUMENT/S OF OWNERS/MEMBERS/SHAREHOLDERS



Contractor



Witness 1



Witness 2



Employer



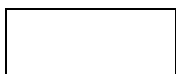
Witness 1



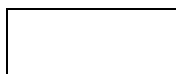
Witness 2

FORM I

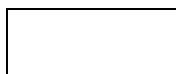
CURRENT CERTIFICATE OF GOOD STANDING FROM COMPENSATION COMMISSIONER



Contractor



Witness 1



Witness 2



Employer



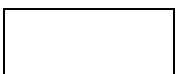
Witness 1



Witness 2

FORM J

REFERENCE STANDARDS AND SPECIFICATIONS



Contractor



Witness 1



Witness 2



Employer



Witness 1



Witness 2

FORM K

**LETTER OF INTENT TO SUBMIT THIRD PARTY LIABILITY INSURANCE AND ALL RISK
CONTRACTORS INSURANCE TO COVER THIS CONTRACT**



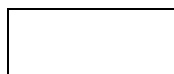
Contractor



Witness 1



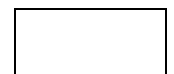
Witness 2



Employer



Witness 1



Witness 2

FORM L

**INLCUDE THE FOLLOWING DOCUMENTS IN THE SUPPORING DOCUMENTS FILE TO BE
SUBMITTED WITH THE ORIGINAL BIDDING DOCUMENT**

1. **FOR CLOSED CORPORATIONS**

CK1 or CK2 as applicable (Founding Statement).

2. **FOR COMPANIES**

- A copy of the Certificate of Incorporation
- Certified Copies of the ID's of the Directors and
- The shareholders' register.

3. **FOR JOINT VENTURE AGREEMENTS**

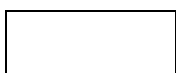
- Copy of the Joint Venture Agreement between all the parties,
- As well as the documents in (1) or (2) and (6) of each Joint Venture member.

4. **FOR PARTNERSHIP**

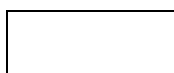
- Certified Copies of the ID's of the partners

5. **ONE-PERSON BUSINESS / SOLE TRADER/SOLE PROPRIETOR**

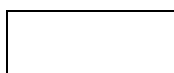
- Certified Copy of ID



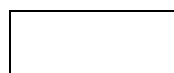
Contractor



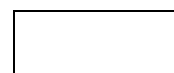
Witness 1



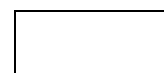
Witness 2



Employer



Witness 1



Witness 2

FORM M

PROGRAMME OF WORKS

Contractor

Witness 1

Witness 2

Employer

Witness 1

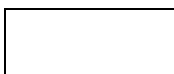
Witness 2

FORM N

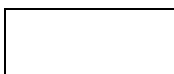
EXPERTISE OF THE KEY PERSONNEL



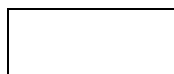
Contractor



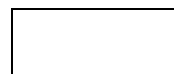
Witness 1



Witness 2



Employer



Witness 1



Witness 2

FORM O

**AUDITED FINANCIAL STATEMENTS FOR THE PAST THREE YEARS FOR BIDS WHERE THE
THRESHOLD EXCEEDS R10 MILLIION**

Not Applicable

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM P

PRE-QUALIFYING CONDITION OF TENDER BELOW R30 MILLION

Regulation 4 of the Preferential Procurement Policy Act, 2000 (Act 5 of 2000) – Preferential Procurement Regulations, 2017 provides the following:

1. Pre-qualification criteria for preferential procurement:

- (1) *If an organ of state decides to apply pre-qualifying criteria to advance certain designated groups, that organ of state must advertise the tender with a specific tendering condition that only one or more of the following tenderers may respond-*
 - (a) *a tenderer having a stipulated minimum B-BBEE status level of contributor;*
- (2) *A tender that fails to meet any pre-qualifying criteria stipulated in the tender documents is an unacceptable tender.”*

1. Bidders attention is drawn to the definitions applicable to this section as set out in the MBD 6.1 form.

2. BIDDERS DECLARATION FOR THE FOLLOWING ADVANCED DESIGNATED GROUPS:

NO.	ADVANCE DESIGNATED GROUPS	BEE Level	Signature
1	(i) EME or QSE		

3. DETAILS OF THE SUB-CONTRACTING PARTY:

- Name of the sub-contractor: _____
- Sub-contracting company registration number: _____
- Rates and taxes not older than 3 months attached: **Yes/No**
- MBD 4 of contracting party attached: **Yes/No**
- BBBEE Level: _____ (Certified or original to be attached)
- CSD number: MAAA_____

4. LIT OF NATIONAL TREASURY ACCREDITED SUPPLIERS:

A list of all suppliers registered on a database approved by the National Treasury is available from National Treasury’s Centralised Supplier Database at: www.csd.org.za.

Kindly contact the Supply Chain Unit should you require any assistance relating to the extraction of the data.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

5. I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the advanced designated groups claimed, based on the B-BBE status level of contribution indicated above of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:
- i. The information furnished is true and correct;
 - ii. In the event of a contract being awarded as a result of advanced designated groups claimed as shown in paragraph 3, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
 - iii. If the B-BBEE status level of the advanced designated groups 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 –
 - a. disqualify the person from the bidding 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. 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
 - e. forward the matter for criminal prosecution.

WITNESSES:

1. _____

1. _____

SIGNATURE(S) OF BIDDER(S)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



SECTION 2 – SCOPE OF WORKS AND PRICING

	DESCRIPTION	BIDDER TO CONFIRM THAT ALL PAGES COMPLETED & SIGNED: YES/NO	FOR OFFICE USE ONLY VERIFIED BY SCM OFFICIAL: YES/NO
2.1	SCOPE OF WORKS/SPECIFICATIONS		
2.2	EVALUATION CRITERIA		
2.3	PRICING SCHEDULE/BILL OF QUANTITIES		
2.4	LIST OF IMPORTED ITEMS		
2.5	ALTERNATIVES OFFERED		
2.6	SITE INFORMATION		
2.7	ANNEXURES (Materials, standard equipment and workmanship/Mechanical & Electrical equipment/Surface and corrosion protection specs/OHS specs)		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2.1 TECHNICAL SPECIFICATION

BID ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

INTRODUCTION

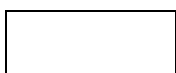
ERWAT hereby invite prospective suppliers to bid for Supply, Delivery, Installation and Commissioning of PST Waste Sludge Feed Pumps (Replacement of Positive Displacement Pumps) For Welgedaght and Waterval WCW. The Standard Technical Specifications covers the general technical requirements with respect to materials, installation, testing, commissioning and guarantee of Supply, Delivery, Installation and Commissioning of PST Waste Sludge Feed Pumps (Replacement of Positive Displacement Pumps) For ERWAT Wastewater Treatment Works. This specification shall be read in conjunction with the rest of this contract in its entirety. If the conditions and/or specifications contained herein are at variance with anything contained in the detail specification, the latter shall take preference, otherwise the Standard Technical Specifications shall apply as if duly included.

BACKGROUND

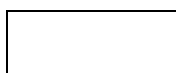
ERWAT’s Waterval and Welgedaght wastewater care work consists of positive displacement pumps installed at the respective Pump Stations from Module 1 to 4 for the purpose of drawing off sludge from the primary sedimentation tanks and the other set of pumps transfer the sludge to the digesters. Each of these pumps motors are connected to the motor control panel which is inside the pump station connected by means of electrical cables and other related auxiliaries. The mentioned pumping system was designed based on the conditions which were prevalent two decades ago, thus, the system proves to be inefficient in today’s conditions which might be due to an increases in population in the surrounding areas both residentially and industrially, state of the equipment, and other changes in operational functions. The currently installed pumps are obsolete and have been repaired several times to restore performance and efficiency however the desired results were not achieved as the pumps are now operating outside the expected service life, repairing the pumps has become uneconomical. Therefore, a project was initiated for the pumps to be replaced with improved new pumps to avoid future operational stoppages

MANDATORY REQUIREMENTS.

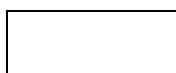
Scope related Information and Documentation required:	
Please ensure that the following supporting documents are attached to your Bid Document. Failure to submit the below mentioned documents will result in disqualification of your bid.	
Item	Description of Document/Proof Sought
1	The Contract CIDB Rating required for this Contract is 2 ME / 1 ME PE Bidders shall submit proof of Current Registration or application to register for this Grading or higher.



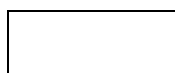
Contractor



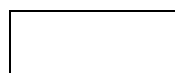
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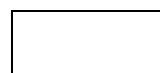
Witness 2



Employer



Witness 1



Witness 2

STAFF COMPLEMENT:

Bidding companies are required to have the following staff complement available for the duration of this contract with a minimum of three years' experience per staff member. Staff members are not limited to one role as indicated in column 2, subject to meeting the technical capacity to complete the Project successfully.

NO	STAFF MEMBER	QUALIFICATION	BIDDERS TO PROVIDE PROOF OF QUALIFICATION WHERE THEY COMPLY OR INDICATE EQUIVALENT
1.	Site Supervisor	National Diploma in Engineering or Higher	
2.	Fitter	Trade Test or Higher	
3.	Electrician	Trade Test or Higher	
4.	Instrumentation Technician	Trade Test or Higher	
5.	Health & Safety Officer	Safety Management Certification or Higher	

*** ERWAT reserves the right to request additional information from bidders during BEC phase. Failure to respond or submit such will render your bid invalid**

Failure to adhere to the above requirements will lead to disqualifications

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCOPE OF WORKS AND REQUIREMENTS

Extent of the works

The Works described include all works required for the design, manufacture, installation and commissioning of a new submersible pumps for the following:

- Waterval Wastewater Care Works – [2x Module 3 Combined Thickened Sludge Pumps]
- Waterval Wastewater Care Works – [3x Module 2 Combined Thickened Sludge Pumps]
- Waterval Wastewater Care Works – [2x Module 2 Digested Sludge Transfer Pumps]
- Waterval Wastewater Care Works – [1x Module 1 Combined Thickened Sludge Pumps]

- Welgedaght Wastewater Care Works – [3x Module 2 PST Pump Station Pumps]

The new installation(s) shall include the following:

- 11x Positive Displacement Pumps (Geared Motor Driven)
- 22x Non – Rising Spindle Wedge Gate Valves
- 11x Ball Type Non-Return Valves
- 11x Control Cables
- 11x Base Plate Assembly
- 22x Pressure Gauges
- 11x Frequency Converter Variable Speed System
- Pipework

This scope of work includes the furnishing of all labour, material and services for the Design, Supply, Manufacture, Testing, Works Inspection, Delivery to Site, Offloading, Placing into Position, Site Assembly, Pre-commissioning, Commissioning Assistance and Rectification of Defects within the Warranty period of twelve (12 No.) months;

- a. Isolate and remove the old pumps including all old electrical cables, electrical starters, valves, pipes and other related auxiliaries. Store as per instruction of the ERWAT Representative(s).
- b. Measurements and sizing of the equipment.
- c. Procuring new equipment for the project as per the Bill of Quantities (BOQ).
- d. Design, manufacture, supply and install the new pumping system (positive displacement pumps, pipe-work, valves, electrical cables, and electrical starters and other related auxiliaries.
- e. The pump design shall allow for easy maintenance whereby the suction chamber can be dismantled to unblock the pump without removing the whole pump in-situ.
- f. Production of the system design drawings which includes (PFDs [Process Flow Diagrams], P&IDs [Pipes & Instrumentation Diagrams, 3D isometric drawings, 2D third angle drawings etc.).
- g. Draught an operating philosophy of the new pumping system.
- h. Draught a maintenance philosophy for the new pumping system and also supply the pump curve for the supplied pumps.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.1.1 Technical scope of work introduction

All work must be carried out in strict accordance with the following standards:

SANS 1091: 2004	National colour standards for paint
SANS 1186-1: 2008	Symbolic Safety Signs Part I: Standards signs and general requirements
SANS 1123:2015	South African pipe flanges standard.
SANS 10103: 2003	The measurement and rating of environmental noise with respect to annoyance and speech communication.
SANS 10140 – 1 : 2008	Identification colour marking
SABS 763	General coating thickness
SANS 62	Standard for Medium Duty for mild steel process pipe
SANS 1062: 1985	Pressure gauges
SANS 664/SANS 665	Standards for resilient seal gate valves
SANS 10142 – 1 – 2003	The wiring of premises Part1: Low-voltage
SANS 455: 2004	Covered electrodes for the manual arc welding of carbon and carbon manganese steels.
SANS 10044 – 1: 2004	Welding Part I to IV
SANS 10238: 2005	Welding and thermal cutting processes – Health and Safety
SANS 32 1997/EN 10240: 1997	Internal and/ or external protective coatings for steel tubes – specification for hot-dip galvanized coatings applied in automatic plants
SANS 121: 2000/ISO 1461: 1999	Hot-dip galvanized coatings on fabricated iron and steel articles – Specification and test methods.
SANS 3575: 2008/ISO 3575: 2005	Continuous hot-dip zinc-coated carbon steel sheet of commercial, lock forming and drawings.
SABS 0214	The design, fabrication and inspection of articles for hot-dip galvanising
ISO 9906:2012	Standards for hydraulic performance tests for customers' acceptance of rotodynamic pumps (centrifugal, mixed flow and axial pumps)
ISO 3506-1:2009	Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1: bolts, screws and studs
SANS 1973-8 & SANS 60439-1	Standards low-voltage switchgear and control gear assemblies

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.1.2 Design specification

The Specification serves to encompass extent of the proposed works. All details, dimensions and instructions shown on the data sheet quoted herein shall form part of this specification.

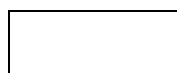
The following are the MINIMUM Specification for the equipment in this Contract. It is the RESPONSIBILITY of the Contractor to **INCLUDE** everything (work and Equipment, etc.) that has been OMITTED.

Waterval Wastewater Care Works [2x Module 3 Combined Thickened Sludge Pumps]

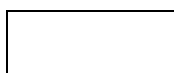
- Pump Type: Positive Displacement Progressive Cavity
- Flow: 15 l/s
- Head: 9 m
- Electric Motor: 11 kW, 380 V, 50 Hz, IP66, 4 Pole
- Electrical Cable: 20 m
- Suction Flange Diameter: 100 mm
- Discharge Flange Diameter: 100 mm
- Electrical Starter: Frequency Converter VSDs
- Pumped Medium: Sludge
- Suction Valve Type: Non-Rising Spindle Wedge Gate Valve
- Discharge Valve Type: Non-Rising Spindle Wedge Gate Valve
- Non-Return Valve Type: Ball Type
- Suction & Discharge Valve Size: 100mm
- Non-Return Valve Size: 100mm

Waterval Wastewater Care Works [3x Module 2 Combined Thickened Sludge Pumps]

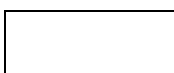
- Pump Type: Positive Displacement Progressive Cavity
- Flow: 7.5 l/s
- Head: 36 m



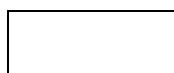
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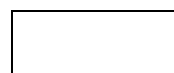
Witness 1



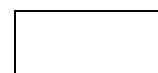
Witness 2



Employer



Witness 1

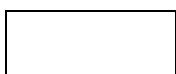


Witness 2

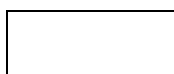
- Electric Motor: 11 kW, 380 V, 50 Hz, IP66, 4 Pole
- Electrical Cable: 20 m
- Suction Flange Diameter: 100 mm
- Discharge Flange Diameter: 100 mm
- Electrical Starter: Frequency Converter VSDs
- Pumped Medium: Sludge
- Suction Valve Type: Non-Rising Spindle Wedge Gate Valve
- Discharge Valve Type: Non-Rising Spindle Wedge Gate Valve
- Non-Return Valve Type: Ball Type
- Suction & Discharge Valve Size: 100mm
- Non-Return Valve Size: 100mm

Waterval Wastewater Care Works [2x Module 2 Digested Sludge Transfer Pumps]

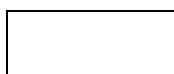
- Pump Type: Positive Displacement Progressive Cavity
- Flow: 12.5 l/s
- Head: 36 m
- Electric Motor: 11 kW, 380 V, 50 Hz, IP66, 4 Pole
- Electrical Cable: 20 m
- Suction Flange Diameter: 100 mm
- Discharge Flange Diameter: 100 mm
- Electrical Starter: Frequency Converter VSDs
- Pumped Medium: Sludge
- Suction Valve Type: Non-Rising Spindle Wedge Gate Valve
- Discharge Valve Type: Non-Rising Spindle Wedge Gate Valve
- Non-Return Valve Type: Ball Type



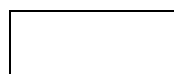
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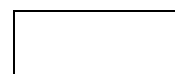
Witness 1



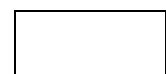
Witness 2



Employer



Witness 1



Witness 2

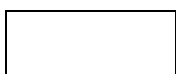
- Suction & Discharge Valve Size: 100mm
- Non-Return Valve Size: 100mm

Waterval Wastewater Care Works [1x Module 1 Combined Thickened Sludge Pumps]

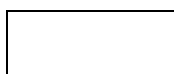
- Pump Type: Positive Displacement Progressive Cavity
- Flow: 7.5 l/s
- Head: 36 m
- Electric Motor: 11 kW, 380 V, 50 Hz, IP66, 4 Pole
- Electrical Cable: 20 m
- Suction Flange Diameter: 100 mm
- Discharge Flange Diameter: 100 mm
- Electrical Starter: Frequency Converter VSDs
- Pumped Medium: Sludge
- Suction Valve Type: Non-Rising Spindle Wedge Gate Valve
- Discharge Valve Type: Non-Rising Spindle Wedge Gate Valve
- Non-Return Valve Type: Ball Type
- Suction & Discharge Valve Size: 100mm
- Non-Return Valve Size: 100mm

Welgedaght Wastewater Care Works [3x Module 2 PST Sludge Pumps]

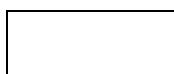
- Pump Type: Positive Displacement Progressive Cavity
- Flow: 30 l/s
- Head: 4 m
- Electric Motor: 7.5 kW, 380 V, 50 Hz, IP66, 4 Pole
- Electrical Cable: 20 m



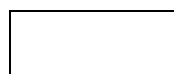
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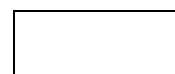
Witness 1



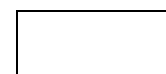
Witness 2



Employer



Witness 1



Witness 2

- Suction Flange Diameter: 100 mm
- Discharge Flange Diameter: 100 mm
- Electrical Starter: Frequency Converter VSDs
- Pumped Medium: Sludge
- Suction Valve Type: Non-Rising Spindle Wedge Gate Valve
- Discharge Valve Type: Non-Rising Spindle Wedge Gate Valve
- Non-Return Valve Type: Ball Type
- Suction & Discharge Valve Size: 100mm
- Non-Return Valve Size: 100mm

(a) Electric Motor;

The electric motor shall be housed in an air filled and watertight chamber. The stator winding and leads shall be insulated with moisture resistant Class H (180 °C) insulation. The stator shall be trickle impregnated with class H varnish and shall be forced fitted into the stator housing. Thermal switches shall be embedded in the stator lead coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to a control panel. The power cable shall include conductors for the monitoring of thermal switches and optional protecting sensors. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be specifically designed for submersible pump usage and designed for continuous duty pumping media of up to 40°C. A performance chart shall be provided showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no load characteristics.

(b) Base Plate;

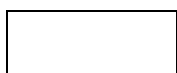
The base plate shall be manufactured from stainless 304L and its dimensions must suit the currently platform where the new propeller pump will be mounted.

(c) Bearing;

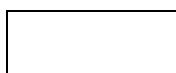
The shaft shall rotate on grease lubricated bearings. The support bearing, provided for radial forces, shall be a rolling bearing. The main bearings shall consist of a double row angular contact ball bearing.

(d) Non – Return Valves;

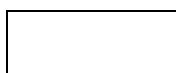
The Non-Returned Valves shall be of the ball type to avoid clogging, with the valve’s body and cover manufactured from cast iron, the ball and the cover ring made from hard or reinforced rubber material (Nitrile Rubber etc.). The valve preferable should be installed in a horizontal position on the discharge side. The valves should be drilled according to SANS/SABS standards for Flanges.



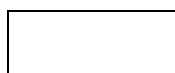
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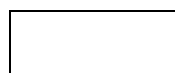
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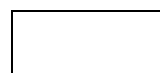
Witness 2



Employer



Witness 1



Witness 2

(e) Suction and Discharge Valves;

The discharge valves shall be non-rising spindle wedge gate valves type with cast iron body and gate, which is hand wheel operated and closing in the clock wise direction. The spindle and nut should be manufactured from stainless steel. The valves should be drilled according to SANS/SABS 1123 standard for Flanges. The valves shall also comply to SANS 664/665.

(f) Pipework;

The pipes (including pipe elbows, wyes and T-pieces) shall be manufactured from Mild Steel SANS 62 medium duty and shall be corrosion protected with twin pack Epoxy to 250 µm (microns meter) DFT (Dry Film Thickness) which is anti-corrosive, anti-fouling and self-cleaning, with flanges drilled according to SANS/SABS 1123 standard. The pipe supports shall be constructed from hot deep galvanised Mild Steel.

(g) Power and Monitoring (Control) Cable;

The power cable shall be sized to the IEC standards and shall be of sufficient length to reach the junction box without the need of any splices.

(h) Gaskets;

The gaskets to be utilized between the joined flanges of the valves, pumps, and pipework shall be manufactured from Nitrile Rubber (NBR –Acrylonitrile Butadiene).

(i) Fasteners;

Bolt and nuts to join the flanges of pipes, pumps and valves together shall be manufactured from stainless steel (316L).

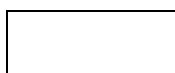
(j) Installation;

The Bidder must include for the complete installation and with the auxiliaries of the plant in running order, including the connecting existing cables from the electric motor to the existing MCC panel. This will also include ensuring the concrete plinth and baseplates are compatible and in a very good condition for mounting. Detailed drawings of the complete installations have to be submitted for approval to the engineer.

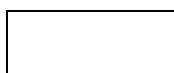
(k) Testing and Inspection;

The following tests are to be carried out:

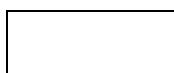
- i. At the supplier's premises, before the complete set of the Pump, and Electric Motor can be delivered to site, ERWAT Representatives must be present during the test to satisfy them that the complete set of the Pump comply with the specification and delivers the specified output. ERWAT must be timeously advised of the date for the test.
- ii. The test shall include a simulated test run at the supplier's premises to establish the mechanical integrity of the assembled equipment, site performance tests to demonstrate efficiency, electric motor insulation test, pressure tests and rotation direction check.
- iii. The Contractor shall provide all instruments and equipment required for testing and any water, power and fuel required for the commissioning and testing.
- iv. Test report/certificate of the tests as specified under (ii) is to be submitted to ERWAT.



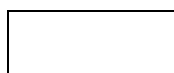
Contractor



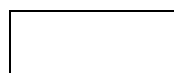
Witness 1



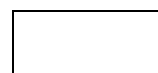
Witness 2



Employer



Witness 1

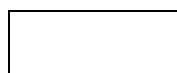


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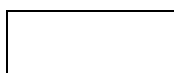
- v. Visual inspections shall also form part of this contract; ERWAT Representatives must also be part of this process to witness and signed off the activity pre-assembly and/or post assembly to verify the quality of material used and the required dimensions.
- vi. The Bidder upon being awarded the contract must submit Product Quality Plan or Quality Control Plan which outlines the stages that requires intervention from ERWAT's Representative I.e. Visual Inspection, Simulation Test Run, Installation and Commissioning Stages.
- vii. Duty points shall be guaranteed either by ISO 9906 or Hydraulic institute.

STANDARD REQUIREMENTS FOR THIS CONTRACT

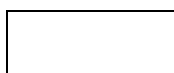
- The Contractor will be required to decommission, remove and transport the existing pumps, equipment and old cables (that need to be removed).
- The Contractor will be required to perform all detailed electrical design, cable works including cable trunking, superstructure and civil work related, the construction of the foundations of the supports for the equipment and installation work associated with this project, including the supply of selected equipment and items as detailed within the schedule of quantities. The supply of all such equipment and or components must fully comply with the specification contained in this document be approved by the Engineer.
- Contractor to do necessary calculations to determine the size and type of cables suitable for use on pumps to be controlled via plc and all necessary cable work (immediate/internal/short cables) to be removed and replaced. All terminations to be done at the bottom, as per existing.
- The awarded bidder should submit the calculations done for determination of cable size, layout schematics of the cable routing from equipment to panel together with its technical specifications to the responsible engineer.
- The scope of work includes the furnishing of all labour, material and services for the Design, Supply, Manufacture, Testing, Works Inspection, Delivery to Site, Offloading, Placing into Position, Site Assembly, Pre-commissioning, Commissioning Assistance and Rectification of defects during Warranty period of 12 months(stipulating turn-around time) for pumps as specified below.
- Only locally produced and locally manufactured cables with a minimum threshold of 90% for local production and content will be considered as per national treasury regulations.
- All equipment and services shall comply with the mandatory requirements of the Occupational Health and Safety Act 85 of 1993 (as amended). Particular reference is made to Section 21 of the Act which, in terms of sub-clause 4, requires the preparation and submission of a risk analysis before any equipment is delivered, off-loaded or erected on site.
- Manufacture and supply of pumps Control Panel in accordance with SANS 10142 requirements so as to fulfil certification thereof.
- Installation and commissioning risk assessment in relation to all the work and activities to be undertaken with regards to this contract as part of submissions.



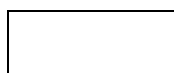
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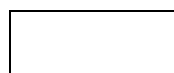
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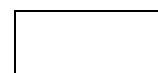
Witness 2



Employer



Witness 1



Witness 2

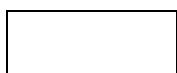
- Delivery of units to the construction site. It is expected of the manufacturer that deliveries to be received and stored by the electrical subcontractor. All equipment (electronic components and cable works) remains a responsibility of the contractor until the project is handed over.
- Prior arrangements of delivery to be coordinated with the Engineer, two weeks prior to delivery.
- Two set of any special tools required per switchgear board that will be required for operation or maintenance purposes including three spare sets of each type of fuse.
- Recommended spares for guaranty period should be OEM product.
- Technical assistance if requested during checking for operational readiness.
- Bidders must include project program with time frames on his/her submission.
- Cleaning and Housekeeping of the area during and after the completion of the Project should be to the satisfaction of the Engineer or their appointed representative
- On completion of the work the contractor must supply ERWAT with three sets of as build drawings as well as COC for the meter panels.
- Manufacture/ Bidder will be responsible for ensuring heat from the Panels is conceded in the design in accordance to manufactures requirements and site conditions. Any additional cooling requirements due to the commissioning and installation of the new equipment will be for the account of the appointed contractor.

CABLE TRAYS

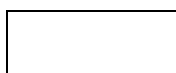
- Material used should be mild steel sheet, coated with grey or silver enamel paint for internal use or a hot-dipped galvanized coating where damp conditions might be encountered.
- Trunking may be secured direct to a surface or suspended by means of brackets.
- Size should be of such dimensions that will accommodate the volume of cable work to be installed therein, contractor to determine this based on cables requiring to be replaced.
- The ratio of the space occupied by all the cables in trunking to the whole space enclosed by the trunking is known as the space factor. The space factor for cables within a trunking should not exceed 45%, this means that the cables must not fill more than 45% of the space enclosed by the trunking.
- The quantities stipulated in the BOQ is estimates only for evaluation purposes. Therefore, the contractor is required to review and verify materials, quantities, field measurements and site construction criteria related to this project. (Including soil resistivity measurements, materials of relative structures, size of area and structures to work on). Billing and payment will be done on actuals as confirmed by the bidder and the engineer.

CABLE TRUNKING

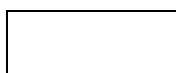
- Material used for trunking should be a non-conductive material preferably PVC.
- Sizing of PVC Trunking and related conductors shall comply with SANS 0142



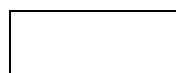
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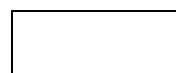
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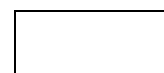
Witness 2



Employer



Witness 1



Witness 2

- Additional 25% Spare capacity shall be allowed. The contractor shall ensure that all trunking is adequately sized to house the necessary wiring.
- Allowance shall be made during LV Cabinet Layout design to ensure that a minimum distance of 50mm is maintained between terminals and PVC Trunking, in order to ensure that conductor core idents are visible at all times. The manufacturer shall also ensure that a space of not less than 50mm shall be maintained between trunking and any component or object.

PANEL ACCESS CONTROL

- The panel must be accessible via panel key
- The panel must be lockable (must be able to lock with padlock minimum size 40mm)

DUTY DESCRIPTION

The distribution switchgear shall be capable of continuous duty at full rating under the following conditions;

- Altitude: 500m - 1800
- Installation location; see Tender Document C4: Site Information
- Exposed to vermin and dust depredations
- Maximum air temperature 40°C
- Minimum air temperature -4°C
- Relative Humidity; 95% Non-condensing
- Operation 24 hours per day, 365 days per year

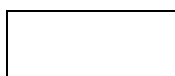
DESIGN CRITERIA

System details;

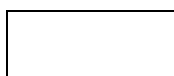
- Bursar voltage 400V \pm 10%
- Phases 3 + N
- Frequency 50 Hz
- Phase rotation R-W-B-R (anti - clockwise)

Note:

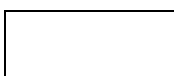
The duration of the maximum short circuit currents shall be deemed to be a minimum of one second. Evidence (in the form of Certificates by ERWAT recognized Testing Authorities) of the ability of the 400V distribution switchgear boards offered to withstand satisfactorily the prospective fault conditions shall be furnished with the tender.



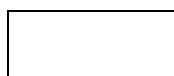
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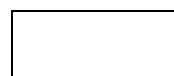
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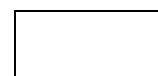
Witness 2



Employer



Witness 1



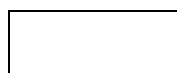
Witness 2

GENERAL MANUFACTURING AND CONSTRUCTION DETAILS

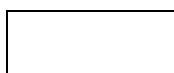
Boards shall conform to IEC 604339.

➤ Mechanical construction

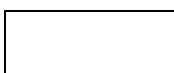
- The distribution boards shall be adjustable pattern comprising one or more fully interchangeable modular, rigid, free standing sections bolted together to form an extensible, composite, rigid, free standing, vermin proof distribution board of uniform appearance to conform to Form 3b of the specifications. The **maximum height** of the sections shall **not exceed 2200mm**. Each section shall be divided vertically into panels. Each panel shall be divided into one or two cubicles one above the other.
- A channel shall be provided under each completed section of transportable length which shall be so constructed that it can be used for lifting the transportable section without distortion taking place.
- All completed sections shall be provided with lifting facilities and shall have sufficient strength to withstand all stresses occurring during transportation, installation and operation without distortion or damage.
- The distribution board shall be compartmentalized to segregate bursar, cable, circuit-breaker and instrument zones. Power bursars shall be completely separated from any other compartment by means of suitably earthed metallic barriers.
- Separate compartments shall be provided for circuit breaker and instrument sections.
- Access to all power bus bar compartments shall be by removable bolted covers. Removable covers shall be provided with captive screws.
- Incoming feeder, outgoing feeder, relay, control transformer and metering and instrumentation cubicles shall have doors suitably constructed to ensure rigidity. Doors shall be fitted with robust steel or brass (Barker Nelson 41200 EMB or equivalent) hinges with at least two 6mm square recessed quick close/open latches (Barker Nelson 26013 Din lock or equivalent). Hinges shall be provided at 500mm intervals per door with a minimum of two hinges per door. Each door, front and rear, shall be fitted with an equal number of hinges and latches. At least one of these latches shall be pad lockable.
- Doors and covers shall be provided with a sufficient gasket to form a firm seal. The neoprene seal shall be a nominal 5mm thick compressed to 3mm on closing of the door. The entire switchboard shall be effectively dust and splash proof to IP54.
- All hinged doors shall open to a minimum of 135° from the closed position, to facilitate easy access for maintenance reinforcement.
- Attention shall be given to ventilation to prevent the accumulation of ionized gases. Suitable drip proof, fine mesh screened, vermin proof openings shall be provided to facilitate air movement by convection. These openings shall be arranged such that the hot gasses or other materials cannot be discharged in a manner injurious to operating personnel.



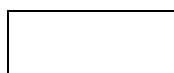
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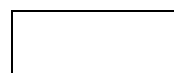
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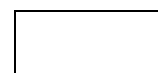
Witness 2



Employer

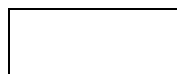


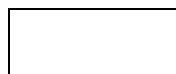
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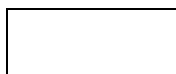


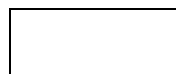
Witness 2

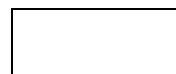
- Sectionalized removable gland plates shall be fitted and shall be fixed by means of captive nuts or screws and so located that ample space is available for the satisfactory entry and termination of cables. Cable entry shall be at the bottom of the board. All gland plates are to be connected to the main panel earth bar via suitably sized copper conductors and unused sections shall be left blank. Gland plates for 3 core cable of cross-sectional area 70mm² and above shall be minimum 5mm plate.
- Gland plates shall be galvanized. The cable gland compartments shall have removable covers attached with standard 6mm square recessed quick close/open latches.
- Suitable termination points shall be provided to enable any multiple three core cables to be terminated without cross-over of different phases and with minimum lengths of cable "tails". All cable termination points and associated connections shall be suitably braced to withstand the available fault currents without damage. If necessary cable support clamps shall be provided for the individual cores after glanding off.
- In addition to any support/bracing required by the electrical conditions, the bursars shall also have sufficient support to prevent stresses being transmitted to the circuit breakers or any components by cable terminations. Particular attention must be paid to the termination arrangements of any multiple incoming 3 core cables.
- The general structure of the board shall be designed and fabricated to ensure that no excessive vibration caused by the operation of any component is transmitted to any other components thereby causing spurious tripping of any device.
- Unless otherwise agreed or stated in this specification all screws, bolts and nuts shall be hexagonal to ISO metric commercial standards and shall be rust proof.
- The switchboard steelwork shall be a minimum of 2mm thick irrespective of the type of steel used Annexure A6 and chassis members shall be a minimum 2.0mm thick steel
- Each cubicle/compartment door shall be labeled with the reference letter(s) of that compartment using durable designation label with 20mm high black letters on a white background. The labels shall have two designation letters, the 1st being the tier, numbered from A left to right and the 2nd the cubicle numbered from top to bottom (e.g. A1,A2, etc.).
- Every door and/or removable cover giving access to a cubicle shall bear a durable designation label suitably inscribed with the description and the equipment number where applicable; using engraved black characters at least 6mm high on white background. Incomers shall be labeled as indicated on the single line diagrams.
- The 400V switchgear shall be provided with a Main Identity label, engraved with 20mm black on white characters and shall be mounted on top of the switchgear.
- All identity labels shall be agreed with the Engineer before manufacture.
- All removable covers/doors protecting live equipment shall be fitted with warning labels. Warning labels shall be engraved white characters 6mm high on a red background.
- Each circuit shall be provided with a blank white/black white traffolyte type label or Gravoply type (or engraved in accordance with designations on drawings).

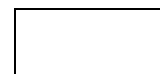

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

- All electrical components/equipment shall be labeled (with designations corresponding to those of the schematic diagrams) to facilitate recognition. Engraving shall be left to the discretion of the manufacturer but shall be legible and durable. The component labels shall be affixed adjacent the component they refer to.
- All labels and label brackets except those for components shall be affixed by machine screws.
- Incomers shall be labeled "INCOMER FED FROM ..." and the standby bus coupler (where applicable) shall be labeled "STANDBY BUS COUPLER".
- Doors to compartments shall be so arranged that normally they cannot be opened whilst the apparatus contained is alive unless this apparatus is fully shrouded or screened to IP20C to prevent inadvertent contact. Doors shall be designed to ensure rigidity and shall be a neat fit in the framework and around the circuit breaker escutcheon plate.
- Circuit breakers shall be interlocked with the panel door to prevent opening of the door when the circuit breaker is in the "ON" position.
- A non-apparent interlock defeat shall be provided for the opening of the door with the circuit breaker in the on position for testing and maintenance. In addition there shall be provision for the attaching of three padlocks to each operating handle in the "OFF" position, which prevents the circuit breaker from being operated.
- All access doors, front and rear, are to be effectively and permanently earthed to the main panel enclosure of the switchgear, by means of a suitable braided copper earth strap, not less than 16mm², crimped with lugs and bolted at each end to the door and enclosure.
 - a. Panels shall be generally of the wall or floor standing cubicle type, suitable for cable entry from the bottom for both power and control cables as per existing. Cables shall be glanded in the rear of the panels in cable compartments (on an individual MCC tier basis).
 - b. All internal cables (cables in the immediate MCC panel room) to be replaced, joining of short cables strictly prohibited, contractor to determine the size of cables to be used through calculations and length of the.
 - c. Should a need arise to extend the external cables, these are to be joined using a standard approved method and type jointing.

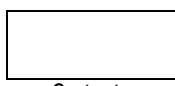
Cable glanding

Unless stated otherwise, all cabling, inclusive of power, control, data and instrument shall be bottom entry. Cable entry shall be via pre-punched gland plates, and shall be glanded within the cabinet to which the associated cable is terminated. Glanding of cables in cabinets different to that in which the cable is terminated shall not be permitted. Spare cable entries shall be plugged using appropriately sized blanking plugs. The use of "push-out" blanking inserts to plug cable entries shall not be permitted.

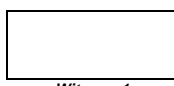
Wiring

Each switchgear board shall be fitted and wired completely at the factory and, only after satisfactory testing, be split if necessary for transport.

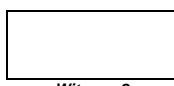
*No power cabling to run in PLC and marshalling cubicles.



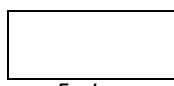
Contractor



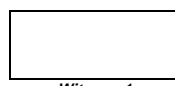
Witness 1



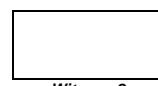
Witness 2



Employer



Witness 1



Witness 2

Control and instrumentation wiring shall be of flexible stranded annealed untinned copper construction and shall comply with the table below. Conductors shall comply with SANS. 1411, Part 1, Table 4, and Class 5.

CT wiring; 2.5mm² phase colored, common return black insulated, earth link

- General control wiring;
- (AC) 1,0mm² Live Brown
 - (AC) 1,0mm² Neutral unprotected - Black
 - (AC) 1,0mm² Neutral Protected - Blue
 - (DC) 2,5mm² Red +
 - (DC) 2,5mm² Black –

LED's and PLC Inputs (DC) 0,75mm² (DC) 2,5mm² Red + (DC) 2,5mm² Black -

Digital Inputs	Grey
Digital Outputs	Orange
Analogue Inputs	Yellow
Analogue Outputs	Purple
(AC) 0,5mm ² Digital Inputs	White
(AC) Digital Outputs	Pink

Notwithstanding the above requirements the vendor shall ensure wire size used is amply rated for the current under ambient conditions. Each end of every wire shall be marked with a wire number by means of the Legrand Cab 3 or equivalent system.

All control/instrument panel wiring shall terminate by means of suitably sized compression crimp lugs or bootlace feral. The minimum voltage rating of the control wiring shall be 600/1000V grade to SANS 1507 and SABS 1411 Pt I and III.

All wiring shall be of the stranded type. Wiring shall be run in plastic trunking. Only where a space problem exists will loomed wiring be acceptable.

Sticks on harness holders are not acceptable.

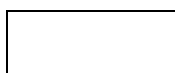
Wire numbering

Cable/wire marking ferrules shall be to the codes laid down in SANS 0142-1 and shall correlate to the appropriate schematic or wiring diagrams.

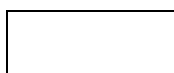
Split or open type marking ferrules shall not be used.

Preferred types are:

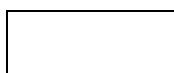
- Grapho or equivalent markers for wires



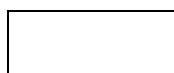
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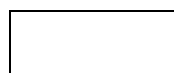
Witness 1



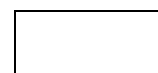
Witness 2



Employer



Witness 1



Witness 2

- Stainless steel engraved markers and steel clips to secure marker in place

Terminals

Rating for motor terminal blocks shall be **40A**. Minimum rating for other terminal blocks shall be in accordance of manufacturing specifications. Terminal strips/blocks shall be marked with designations corresponding with the suppliers/buyers drawings. Generally terminal numbers shall be the same as the relevant wire number. No more than two wires may be connected to any one side of a terminal. 10% spare terminals shall be furnished.

Terminals are to be provided for all door mounted components, diodes, etc.

Preferred type is:

Weidmuller or equivalent

Circuit Breakers

Circuit breakers shall be either fixed pattern moulded case circuit breakers or **withdraw able** pattern air circuit breakers complying with the following requirements:

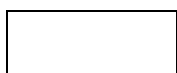
Insulation materials

Any insulation, filling putty, etc, used shall be selected such that it can withstand without injurious effect (mechanically or electrically), all temperatures encountered within the switchboard.

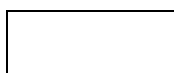
Instruments and meters

All current transformers shall conform to IEC 285. For protection purposes class 10P CTs are to be used: for indicating purposes Class 1 CT's are to be used. In general current transformer mechanical and thermal ratings shall be co-ordinate with the short circuit ratings of the equipment. In general voltmeters and ammeters will predominate and shall be included as follows:

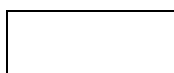
- Incoming feeders shall be equipped with a **single Power meter PM 820MG with a comms module PM8 ECC (Schneider or equivalent)**,
- Outgoing feeders shall be equipped with a suitably sized operated 72mm x 72mm 90° movement suppressed maximum ammeter having an overload rating of 40 x rated current for one second.
- All instruments are to be mounted internally in the outer door/cover to enable external observation of the instruments.



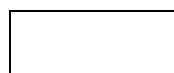
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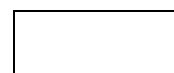
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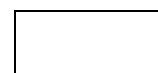
Witness 2



Employer



Witness 1



Witness 2

Preferred component types

The following list specifies the components normally used. This list will apply to all panels, but where specific requirements are also given on schematic and/or general arrangement drawings, the latter drawings shall have priority. Please specify the manufacture for the listed equipment.

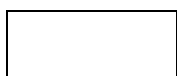
PREFERRED EQUIPMENT LIST		
Item	Description	Manufacture
1	Indicating Lights	
2	Push Buttons	
4	kWh meters	
4	Control relays	
5	Indication only relays	
6	Timers (plug-in)	
7	Indicating instruments	
8	Running hour meters	
9	Limit switches	
10	Selector switches	
11	Air Circuit breakers	
12	Miniature circuit breakers	
13	Contactors	
14	Overload relays	
15	Circuit breakers	
16	Earth leakage relays	
17	Terminals	
18	Cable glands	
19	Wire and cable markers	
20	Cable Ties (UV Resistant)	
21	Diodes	
22	Instrument Transformers	
23	Alarm	
24	PLC	
25	VSD Type	
26	DC Power supply 24V-30V	
27	UPS	

***Specific notes;** Fuses shall **not** be used unless specifically authorized. All short circuit protection shall be provided by means of circuit breakers.

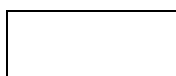
PERFORMANCE AND GUARANTEE

The performance of the items supplied in terms of this specification, as defined by the order, shall be warranted by the Vendor/Contractor and, if so specified, be tested in accordance therewith.

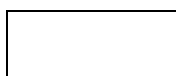
A minimum guarantee period must be specified as is a required from date of site acceptance test.



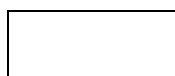
Contractor



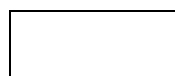
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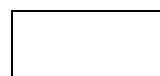
Witness 2



Employer



Witness 1



Witness 2

MAINTENANCE

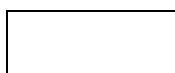
The Contractor shall maintain the equipment for a period of minimum 12 months after the first delivery has taken place. (Maintenance plan stipulating turnaround time to be submitted and approved by project technician)

If during this period the equipment is not in working order, or not working satisfactorily owing to faulty material, design or workmanship, the Contractor will be notified and immediate steps shall be taken by him to rectify the defects and/or replace the affected parts on site at his own expense.

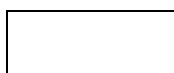
The Contractor shall maintain the equipment in good working condition for the full 12-month period. However, should the Contractor fail to hand over the equipment in good working order on the expiry of the specified 12 months, the Contractor shall be responsible for further monthly maintenance until final delivery is taken.

GENERAL ITEMS

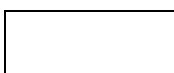
- A Safety File will be required upon receipt of an award letter
- Site induction training has to be completed before any work can be undertaken.
- All the relevant work permits and authorization has to be obtained before any work can be undertaken.
- All work done and equipment supplied has to be in accordance with the relevant and current SANS code and applicable statutory requirements.
- The relevant requirement with regards to the Occupational Health and safety act has to be Complied with, with particular reference to the safety file in accordance with the construction regulation and items covered by this document taking into consideration that that the most current regulation will always take precedence.
- No modifications to equipment may be undertaken without written approval from the designated ERWAT representative.
- All the required tools, consumables, testing facilities, etc. required to perform the work as per the Contract shall be provided by the Contractor.
- ERWAT reserves the right to hold Contractor responsible for any equipment that will be damaged due to Contractor's negligence or poor workmanship.
- Contractors are to note that **ERWAT** reserves the right to award this Contract to more than one Service Provider, to award it in part, in whole or to not award the contract at all.
- All consumables will be included where required.
- Penalties will apply as detailed in section 4.5.
- CIDB of 2ME/1ME PE and will be required.



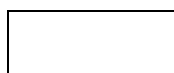
Contractor



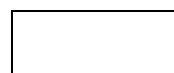
Witness 1



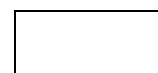
Witness 2



Employer



Witness 1



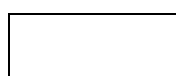
Witness 2

Note: Contractor should not take CONTIGENCIES as the amount which they are entitled to during the project, spending of CONTIGENCIES will be based on the discretion of ERWAT if the need arises and it was not factored into the stipulated scope of work

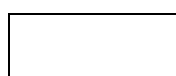
REFERENCE STANDARDS AND SPECIFICATIONS

In general work and materials shall be in accordance with the latest practice and in particular in accordance with the latest revision of the following specifications, and any amendments thereto, the SABS specification taking precedence:

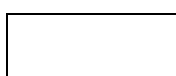
SANS 1091: 2004	National colour standards for paint
SANS 1186-1: 2008	Symbolic Safety Signs Part I: Standards signs and general requirements
SANS 1123:2015	South African pipe flanges standard.
SANS 10103: 2003	The measurement and rating of environmental noise with respect to annoyance and speech communication.
SANS 10140 – 1 : 2008	Identification colour marking
SABS 763	General coating thickness
SANS 62	Standard for Medium Duty for mild steel process pipe
SANS 1062: 1985	Pressure gauges
SANS 664/SANS 665	Standards for resilient seal gate valves
SANS 10142 – 1 – 2003	The wiring of premises Part1: Low-voltage
SANS 455: 2004	Covered electrodes for the manual arc welding of carbon and carbon manganese steels.
SANS 10044 – 1: 2004	Welding Part I to IV
SANS 10238: 2005	Welding and thermal cutting processes – Health and Safety
SANS 32 1997/EN 10240: 1997	Internal and/ or external protective coatings for steel tubes – specification for hot-dip galvanized coatings applied in automatic plants
SANS 121: 2000/ISO 1461: 1999	Hot-dip galvanized coatings on fabricated iron and steel articles – Specification and test methods.
SANS 3575: 2008/ISO 3575: 2005	Continuous hot-dip zinc-coated carbon steel sheet of commercial, lock forming and drawings.
SABS 0214	The design, fabrication and inspection of articles for hot-dip galvanising
ISO 9906:2012	Standards for hydraulic performance tests for customers' acceptance of rotodynamic pumps (centrifugal, mixed flow and axial pumps)
ISO 3506-1:2009	Mechanical properties of corrosion-resistant stainless steel fasteners - Part 1: bolts, screws and studs
SANS 1973-8 & SANS 60439-1	Standards low-voltage switchgear and control gear assemblies



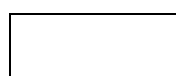
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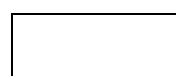
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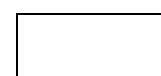
Witness 2



Employer



Witness 1



Witness 2

ATTACHMENT No1

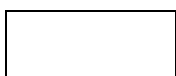
DOCUMENTS TO BE SUPPLIED BY CONTRACTOR

The contractor appointed to carry out the work shall produce a comprehensive set of detailed design drawings suitable for issue for construction as well as provide detailed shop drawings, prior to manufacture of equipment.

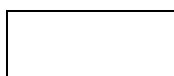
The following drawings shall be provided:

- LV cable routes.
- Cable rack and trench lay outs.
- DB and MCC single line schematic diagrams.
- 400V single line schematic diagram.
- Power cable schedule
- Detailed Distribution Panel
- Wiring and termination schedules as required for construction
- Equipment schedules
- Equipment data sheets

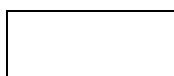
The contractor shall also be responsible for As-Built drawings and operating and maintenance manuals on completion.



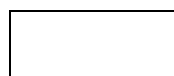
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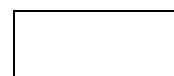
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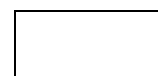
Witness 2



Employer



Witness 1



Witness 2

VERY VALUABLE DOCUMENT REQUIRED

Installation References

The contractor is required to submit equipment references (Brochure) with the tender document for evaluation during the adjudication/evaluation process.

Drawings

The contractor is required to submit a General Layout of the installation with the tender for evaluation during the adjudication/evaluation process. Drawings shall be Hard Copy of A3 size.

Technical Warrantee

All equipment supplied shall have a guarantee/warrantee. Proof of this guarantee shall be submitted with after successful commissioning and commencing on the same day as the final site acceptance test certificate.

5% of the contract amount will be held by ERWAT until the warrantee period on the equipment has lapsed.

Delivery and Warranty Period (Program)

The Delivery Period for the Contract is _____ Months from Date of Official Order. Warranty Period on the Contract shall be as stated above. Projects progress report is to be submitted to the project coordinator on monthly basis.

Confirmation On Spares Availability

Bidder should supply ERWAT with a confirmation from their supplier that spares of this particular equipment will still be available in 10 years' time.

CIDB Rating

The Contract CIDB Rating required for this Contract is CIDB GRADING 2 ME / 1 ME PE_. Bidders shall submit proof of current registration or application to register for this Grading or higher.

Failure to adhere to this requirement will lead to disqualification.

Contract

The contract to be used for this tender will be the ERWAT standard SLA (Service Level Agreement) which will be the binding contract between ERWAT and the successful bidder.

Payments

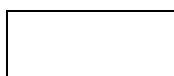
All payments will be discussed and agreed upon on the SLA

Retained Amount

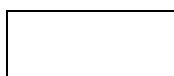
5 per cent of the contract amount will be retained by ERWAT for the entire warrantee period and will only be paid to the contractor after the warrantee has lapsed.



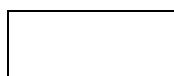
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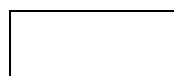
Witness 1



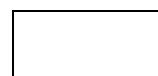
Witness 2



Employer



Witness 1



Witness 2

Time For Completion

The time for completion of this contract, from date of signing SLAs up to and inclusive of commissioning and "first delivery" shall be **[maximum 20 weeks]**. Note that the defects liability period of minimum 12 months commences at first delivery. Final delivery shall take place at the expiry of the defects liability period.

A detailed construction program shall also be submitted within 7 (seven) days after appointment prior signing SLA. This program shall be finalized in liaison with and approved by the Project technician.

Security Of Materials And Equipment

It is the responsibility of the contractor as no uninstalled equipment shall be left on site. The Contractor shall replace any materials damaged or stolen from site prior to first handover with no cost to ERWAT. Therefore, bidders are responsible for insurance on all items until official handover to ERWAT.

Quality Of Materials

All materials shall comply with the relevant specifications

All materials shall be unconditionally guaranteed for a period of 12 months from the date of practical completion, which is first hand over. Where supplier's guarantees are of a shorter duration than 12 months, the Contractor shall unreservedly agree to the extension and cession of all warranties and guarantees to ERWAT.

Finishing And Tidying

In view of the concentration of construction and other activities likely to be experienced during the Contract period, progressive and systematic finishing and tidying will form an essential part of this Contract. On no account will soil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of others. In the event of this occurring the ERWAT will have the right to withhold payment for as long as may be necessary in respect of the relevant Works in the area(s) concerned without thereby prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying shall therefore not be left to the end of the Contract, but shall be a continuous operation.

All removed items/rubble must be removed from ERWAT site to the nearest ERWAT site or approved landfill site/transfer station as indicated by the ERWAT representative and must be priced for.

Certificate Of Compliance And Samples

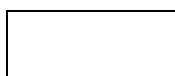
The tenderer shall indicate, section-by-section, whether or not his tender complies in every respect with this specification.

If alternative quotations are submitted, all divergences from this specification shall be clearly stated.

Technical literature consisting of brochures, technical description and configurations shall be submitted for comparative evaluation with the tender.

Failure to comply with the above will invalidate the tender.

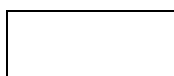
Samples of the various equipment shall be forwarded on request from the Engineer.



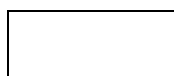
Contractor



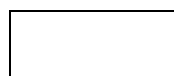
Witness 1



Witness 2



Employer



Witness 1



Witness 2

COC to be issued in accordance with SANS at time of hand over.

Training Of Operating And Maintenance Staff

- a. The Contractor shall undertake to train the Employer's operating and maintenance staff to be fully competent in the operation, maintenance, fault finding, replacement and repair of the equipment.
- b. Before or on completion of the installation, when the system is in running order, the Contractor shall instruct operators in the operation of the system until they are fully conversant with the equipment and the handling thereof.
- c. The Contractor shall take full responsibility for the safety of personnel during training and for the quality of work produced by such personnel under his supervision.
- d. Tenderers have to include in the tender price for a training course for at least two persons of both the operation and maintenance staff over periods of at least 4 hours each. The training has to be in relation to the operating and maintenance of the system that is supplied under this contract.
- e. The operations training course have to contain at least the functions, facilities and operation of the system on the different levels and shall include:
 1. Description of the system.
 2. Operating instructions and procedures for all levels of control personnel.
- f. The maintenance-training course has to contain all normal maintenance procedures and repairs to be done for everyday problems with the system.
- g. All material included in the courses, shall be included in the operating and maintenance manuals.
- h. The contractor shall supply the Engineer with a proposed training course, one month prior to the commissioning of the system.
- i. In the eleventh maintenance month, final courses have to be presented to refresh to the memory of the staff. These courses shall each be for 2 persons over a 4-hour period. The staff shall receive a rounding off course in the maintenance and operating procedures.

Tests And Commissioning

General

The Contractor shall draw up procedures for and execute the following tests and inspection in accordance with Occupational Health and Safety Act and the relevant ISO/SANS/SABS standards :

- Factory tests.
- Site inspections.
- Site tests.
- Acceptance tests.

- a. The Employer and Engineer will have the right to attend any or all tests and inspections.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

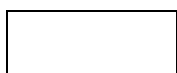
- b. The Contractor must supply all the necessary test equipment to execute the tests.
- c. All completed test and inspection reports must be submitted to the Engineer before acceptance of the system.
- d. The Contractor must execute all tests and submit completed test reports to the Engineer. The Engineer shall have the right to request the Contractor to perform all or some tests in the presence of the Engineer and the Employer.
- e. In the event of failure of the system to pass any of the tests, a re-test will be required within 14 days of the original test. The cost associated with all re-tests will be for the account of the Contractor.

Factory tests

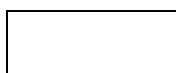
- a. All equipment must undergo factory testing before being delivered to site.
- b. The factory tests must ensure that only specified equipment is supplied.
- c.
- d. The factory test procedures must include at least the following:
 - o Item/equipment description and serial number.
 - o Test equipment description and serial number.
 - o Logical explanation of actions and/or measurements to be taken in order to determine the compliance with the specifications.
- e. Test reports containing the following:
 - Specified values/requirements.
 - Measures/observed values/requirements.
 - Remarks.
 - Name and capacity of person that performed the test.
 - Date of tests.
 - Space for acceptance of test report by Engineer.
- f. The test procedures must be submitted to the Engineer for approval at least two weeks before the scheduled test date.

Site inspections

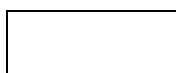
- a. Inspections must be done on all equipment and material delivered to site.
- b. The site inspections must ensure that all equipment and material being delivered complies with the requirements with regard to size, colour, finish, model, etc.
- c. The site inspection procedures must include at least the following:
 - i. Item/material/equipment description and lot/serial number.
 - ii. Logical explanation of characteristics to be checked.



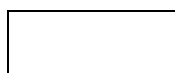
Contractor



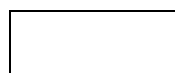
Witness 1



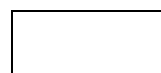
Witness 2



Employer



Witness 1



Witness 2

iii. Inspection reports containing the following:

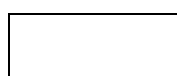
- Characteristics required.
 - Characteristics observed.
 - Remarks.
 - Name and capacity of person that performed the inspection.
 - Date of inspection
- Space for acceptance of inspection report by the Engineer.

• **Site Usage**

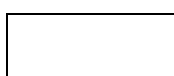
The Contractor; his personnel; and his subcontractors; and suppliers; shall confine their activities to the demarcated site of the Works and the direct access roads thereto. Temporary routes shall be subject to the written approval of the Engineer and be subject to the applicable Standardized Specifications. Contractors staff and sub-contractors must be issued with a valid security pass upon induction on site at time of site establishment available from the Surety and Loss control office/section. All contractors are required to abide by all ERWAT health and safety requirements.

Penalties and Calculation Criteria

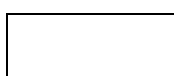
Penalties will take effect as soon as delivery period agreed upon has lapsed. The date of official order is the date when both parties have agreed on terms and signed the service level agreement. The penalties are further discussed on the SLA.



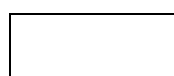
Contractor



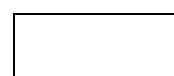
Witness 1



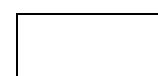
Witness 2



Employer



Witness 1



Witness 2

DATA SHEET

**Failure to fill Data Sheet in full and supply all Equipment Brochures will lead to disqualification. Contractor must fully stipulate the proposed equipment including section not specified by the Engineer, no ticking (✓) or Crossing (x). Contract shall adhere to these specifications.*

Failure to adhere to this requirement will lead to disqualification.

WATERVAL WASTEWATER CARE WORKS [2x Module 3 Combined Thickened Sludge Pumps]			
Item No.	Item Description	Specified: Engineer	Offered: Contractor
1	Pump Type	Horizontal, Positive Displacement, Progressive Cavity	
2	Manufacturer	-	
3	Supplier	-	
4	Model No.	-	
5	Number of units	2	
PUMP			
6	Flow Rate – (l/s)	15	
7	Head – (m)	9	
8	Casing(s)	Cast Iron	
9	Main Shaft	Stainless Steel	
10	Flex Shaft	Stainless Steel	
11	Stator	Nitrile	
12	Stator Housing	Thick Walled Steel Tubing	
13	Rotor	Carbon Steel	
14	Type of seal	Mechanical Seal	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

15	Bearings	High Thrust Taper-Roller	
16	Corrosion Protection	-	
FOUR POLE MOTOR			
14	Manufacturer	-	
15	Supplier	-	
16	Type	High Efficiency	
17	Motor speed	-	
18	Motor size	11 kW	
19	Efficiency	-	
20	Ingress Protection Rating	IP66	
SUCTION & DISCHARGE VALVES			
21	Gate Type	Non-Rising Spindle Wedge	
22	Manufacturer	.....
23	Supplier	.....
24	Gate and Body	Cast Iron	
25	Spindle and Nut	Stainless Steel	
26	Nominal Bore – (mm)	100	
27	Face to Face Length – (mm)	.....
28	Hand Wheel Diameter – (mm)	.....
29	Direction of Closing	Clockwise	
NON – RETURN VALVES			
30	Manufacturer	.....

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

31	Supplier	.....
32	Non-Return Valves (Ball Type) – (mm)	100	
33	Ball	Nitrile Rubber	
34	Cover Ring	Nitrile Rubber	
35	Body and Cover	Cast Iron	
PIPEWORK			
39	Manufacturer	.....
40	Supplier	.....
41	Pipes (including Pipe Elbows, Wyes and T- Pieces)	100	
42	Nominal Bore – (mm)	100	
43	Pipe Support	Hot Galvanized Mild Steel	
DELIVERY PERIOD			
44	Delivery Period (Weeks)	20 weeks	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WATERVAL WASTEWATER CARE WORKS [3x Module 2 Combined Thickened Sludge Pumps]

Item No.	Item Description	Specified: Engineer	Offered: Contractor
1	Pump Type	Horizontal, Positive Displacement, Progressive Cavity	
2	Manufacturer	-	
3	Supplier	-	
4	Model No.	-	
5	Number of units	3	
PUMP			
6	Flow Rate – (l/s)	7.5	
7	Head – (m)	36	
8	Casing(s)	Cast Iron	
9	Main Shaft	Stainless Steel	
10	Flex Shaft	Stainless Steel	
11	Stator	Nitrile	
12	Stator Housing	Thick Walled Steel Tubing	
13	Rotor	Carbon Steel	
14	Type of seal	Mechanical Seal	
15	Bearings	High Thrust Taper-Roller	
16	Corrosion Protection	-	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FOUR POLE MOTOR

14	Manufacturer	-	
15	Supplier	-	
16	Type	High Efficiency	
17	Motor speed	-	
18	Motor size	11 kW	
19	Efficiency	-	
20	Ingress Protection Rating	IP66	

SUCTION & DISCHARGE VALVES

21	Gate Type	Non-Rising Spindle Wedge	
22	Manufacturer	.....
23	Supplier	.....
24	Gate and Body	Cast Iron	
25	Spindle and Nut	Stainless Steel	
26	Nominal Bore – (mm)	100	
27	Face to Face Length – (mm)	.....
28	Hand Wheel Diameter – (mm)	.....
29	Direction of Closing	Clockwise	

NON – RETURN VALVES

30	Manufacturer	.....
31	Supplier	.....
32	Non-Return Valves (Ball Type) – (mm)	100	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

33	Ball	Nitrile Rubber	
34	Cover Ring	Nitrile Rubber	
35	Body and Cover	Cast Iron	
PIPEWORK			
39	Manufacturer	.....
40	Supplier	.....
41	Pipes (including Pipe Elbows, Wyes and T-Pieces)	100	
42	Nominal Bore – (mm)	100	
43	Pipe Support	Hot Galvanized Mild Steel	
DELIVERY PERIOD			
44	Delivery Period (Weeks)	20 weeks	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WATERVAL WASTEWATER CARE WORKS [2x Module 2 Digested Sludge Transfer Pumps]			
Item No.	Item Description	Specified: Engineer	Offered: Contractor
1	Pump Type	Horizontal, Positive Displacement, Progressive Cavity	
2	Manufacturer	-	
3	Supplier	-	
4	Model No.	-	
5	Number of units	2	
PUMP			
6	Flow Rate – (l/s)	12.5	
7	Head – (m)	36	
8	Casing(s)	Cast Iron	
9	Main Shaft	Stainless Steel	
10	Flex Shaft	Stainless Steel	
11	Stator	Nitrile	
12	Stator Housing	Thick Walled Steel Tubing	
13	Rotor	Carbon Steel	
14	Type of seal	Mechanical Seal	
15	Bearings	High Thrust Taper-Roller	
16	Corrosion Protection	-	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FOUR POLE MOTOR

14	Manufacturer	-	
15	Supplier	-	
16	Type	High Efficiency	
17	Motor speed	-	
18	Motor size	11 kW	
19	Efficiency	-	
20	Ingress Protection Rating	IP66	

SUCTION & DISCHARGE VALVES

21	Gate Type	Non-Rising Spindle Wedge	
22	Manufacturer	.....
23	Supplier	.....
24	Gate and Body	Cast Iron	
25	Spindle and Nut	Stainless Steel	
26	Nominal Bore – (mm)	100	
27	Face to Face Length – (mm)	.....
28	Hand Wheel Diameter – (mm)	.....
29	Direction of Closing	Clockwise	

NON – RETURN VALVES

30	Manufacturer	.....
31	Supplier	.....
32	Non-Return Valves (Ball Type) – (mm)	100	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

33	Ball	Nitrile Rubber	
34	Cover Ring	Nitrile Rubber	
35	Body and Cover	Cast Iron	
PIPEWORK			
39	Manufacturer	.....
40	Supplier	.....
41	Pipes (including Pipe Elbows, Wyes and T-Pieces)	100	
42	Nominal Bore – (mm)	100	
43	Pipe Support	Hot Galvanized Mild Steel	
DELIVERY PERIOD			
44	Delivery Period (Weeks)	20 weeks	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WATERVAL WASTEWATER CARE WORKS [1x Module 1 Combined Thickened Sludge Pumps]

Item No.	Item Description	Specified: Engineer	Offered: Contractor
1	Pump Type	Horizontal, Positive Displacement, Progressive Cavity	
2	Manufacturer	-	
3	Supplier	-	
4	Model No.	-	
5	Number of units	1	
PUMP			
6	Flow Rate – (l/s)	7.5	
7	Head – (m)	36	
8	Casing(s)	Cast Iron	
9	Main Shaft	Stainless Steel	
10	Flex Shaft	Stainless Steel	
11	Stator	Nitrile	
12	Stator Housing	Thick Walled Steel Tubing	
13	Rotor	Carbon Steel	
14	Type of seal	Mechanical Seal	
15	Bearings	High Thrust Taper-Roller	
16	Corrosion Protection	-	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FOUR POLE MOTOR

14	Manufacturer	-	
15	Supplier	-	
16	Type	High Efficiency	
17	Motor speed	-	
18	Motor size	11 kW	
19	Efficiency	-	
20	Ingress Protection Rating	IP66	

SUCTION & DISCHARGE VALVES

21	Gate Type	Non-Rising Spindle Wedge	
22	Manufacturer	.....
23	Supplier	.....
24	Gate and Body	Cast Iron	
25	Spindle and Nut	Stainless Steel	
26	Nominal Bore – (mm)	100	
27	Face to Face Length – (mm)	.....
28	Hand Wheel Diameter – (mm)	.....
29	Direction of Closing	Clockwise	

NON – RETURN VALVES

30	Manufacturer	.....
31	Supplier	.....
32	Non-Return Valves (Ball Type) – (mm)	100	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

33	Ball	Nitrile Rubber	
34	Cover Ring	Nitrile Rubber	
35	Body and Cover	Cast Iron	
PIPEWORK			
39	Manufacturer	.....
40	Supplier	.....
41	Pipes (including Pipe Elbows, Wyes and T-Pieces)	100	
42	Nominal Bore – (mm)	100	
43	Pipe Support	Hot Galvanized Mild Steel	
DELIVERY PERIOD			
44	Delivery Period (Weeks)	20 weeks	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WELGEDAGHT WASTEWATER CARE WORKS [3x Module 2 PST Pump Station Transfer Pumps]

Item No.	Item Description	Specified: Engineer	Offered: Contractor
1	Pump Type	Horizontal, Positive Displacement, Progressive Cavity	
2	Manufacturer	-	
3	Supplier	-	
4	Model No.	-	
5	Number of units	3	
PUMP			
6	Flow Rate – (l/s)	30	
7	Head – (m)	4	
8	Casing(s)	Cast Iron	
9	Main Shaft	Stainless Steel	
10	Flex Shaft	Stainless Steel	
11	Stator	Nitrile	
12	Stator Housing	Thick Walled Steel Tubing	
13	Rotor	Carbon Steel	
14	Type of seal	Mechanical Seal	
15	Bearings	High Thrust Taper-Roller	
16	Corrosion Protection	-	
FOUR POLE MOTOR			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

17	Manufacturer	-	
18	Supplier	-	
19	Type	High Efficiency	
20	Motor speed	-	
21	Motor size	7.5 kW	
22	Efficiency	-	
23	Ingress Protection Rating	IP66	
SUCTION & DISCHARGE VALVES			
24	Gate Type	Non-Rising Spindle Wedge	
25	Manufacturer	.....
26	Supplier	.....
27	Gate and Body	Cast Iron	
28	Spindle and Nut	Stainless Steel	
29	Nominal Bore – (mm)	100	
30	Face to Face Length – (mm)	.....
31	Hand Wheel Diameter – (mm)	.....
32	Direction of Closing	Clockwise	
NON – RETURN VALVES			
33	Manufacturer	.....
34	Supplier	.....
35	Non-Return Valves (Ball Type) – (mm)	100	
36	Ball	Nitrile Rubber	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

37	Cover Ring	Nitrile Rubber	
38	Body and Cover	Cast Iron	
PIPEWORK			
39	Manufacturer	.....
40	Supplier	.....
41	Pipes (including Pipe Elbows, Wyes and T-Pieces)	100	
42	Nominal Bore – (mm)	100	
43	Pipe Support	Hot Galvanized Mild Steel	
DELIVERY PERIOD			
44	Delivery Period (Weeks)	20 weeks	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ERWAT GENERAL NOTES:

ERWAT reserves the right to hold the Contractor responsible for any equipment /infrastructure belonging to ERWAT that may be damaged due to Contractor’s negligence or poor workmanship.

PENALTIES – DELIVERY

The Contractor will be penalised in terms of Clause 22 of the National Treasury General Conditions of Contract attached hereto in Section 3.

CONTRACT DOCUMENT

The contract document to be used for this tender will be the ERWAT standard SLA (Service Level Agreement) which will be the binding contract between ERWAT and the successful bidder. Reference will be made to the successful bidder’s tender document.

PAYMENTS

- (a) All payments will be discussed and agreed upon on the SLA.
- (b) Standard payment terms are 30 Days from receipt of valid invoice/tax invoice and statement.

ERWAT will not accept any responsibility for the payment of any invoices submitted by a successful bidder(s) if the relevant invoice does not reflect an official ERWAT purchase order number.

DISCLAIMER – WITHOUT PREJUDICE

While every effort is made to ensure that specifications are drafted in an unbiased manner to allow all potential suppliers to offer their goods or services as set in Regulation 27 of the MFMA Act - SCM Regulations, ERWAT assumes no liability or responsibility for the completeness, accuracy or usefulness of any of the information.

However, in the event that reference is made (intentional or non-intentional) to a particular trade mark, name, patent, design, type, specific origin or producer, ERWAT’s intent is of such that there is no other sufficiently precise or intelligible way of describing the characteristics of the works/goods/services required, in which case the bidder must interpret such reference as indicative only and is thus required to offer such and or an equivalent.

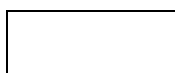
Any reference to any of the above potential trade barriers must be seen to include the word “equivalent”.

Bidders may submit alternative offers subject to such meeting all the minimum standards, specifications, technical data and or legislative provisions applicable to such.

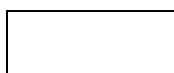
ERWAT does however reserve the right to scrutinise any alternative offers but is under no obligation to accept or award on any alternative offer submitted.

CONFIDENTIALITY

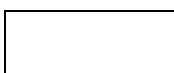
Over and above the provisions of clause B34 of the general conditions the following will apply. In the process of representing the ERWAT in any matter the Bidder will have access to sensitive and confidential



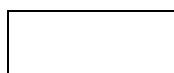
Contractor



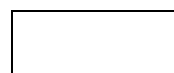
Witness 1



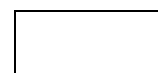
Witness 2



Employer



Witness 1



Witness 2

information. All information accessed, obtained or collected by Bidder and/or its employees must at all times be kept confidential and not be disclosed to any other person without the prior and written authorisation of the ERWAT.

In addition, information may not be used for personal gain by the Bidder or the Bidder's business, any employee, sub-contractor or any agent of the Bidder or any other person, body or organisation, or family receiving the information or data through the Bidder, or any of their employees or agents.

Failure to observe these conditions will constitute a breach of contract, which could result in termination of this contract

PROMOTION OF ACCESS TO INFORMATION ACT, ACT 2 OF 2000

Bidder will be required to fully comply with the requirements of the Access to Information Act, Act 2 of 2000.

In terms of the Promotion of Access to Information Act, Act 2 of 2000, ERWAT is obliged and compelled to provide certain information to the general public.

The Bidder as part of his/her function in collecting data on behalf of ERWAT will be required to comply with the provisions of the Promotion of Access to Information Act, Act 2 of 2000.

The extent where to a bidder will be obliged to supply or refuse the supply of information in terms of the Act will be determined in consultation with ERWAT.

EXTRACTION OF AND DESTROYING OF DATA

Bidders are required to submit to ERWAT all data in a readable, accessible format at the end of their contract.

EXTENT OF THE WORKS – INSTRUMENTATION

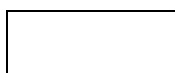
The Control and Instrumentation Scope of Work is detailed in Section C3.1 of this Document. The scope of supply shall include the following:

- The supply and installation of field instrumentation/ equipment.
- The supply and installation of field equipment boxes, junction boxes and connection boxes.
- The supply and installation of power and signal cabling between the field equipment, variable speed drives and the relevant motor control centres/PLC Panel.
- Supply and installation, software programming and system integration of all PLCs and the SCADA system.

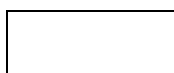
Extent of the Works – Civil

The mechanical, electrical and instrumentation plant and equipment to be supplied under this contract shall be installed mainly in and on existing civil structures.

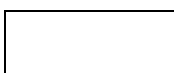
This Contract requires that certain small civil, structural and building work be undertaken for completion of the Works. The potential civil, structural and building work to be undertaken shall include, but is not limited to, concrete work including foundations, slabs, pump and machine bases, grouting of Heavy Duty bolts and puddle pipes, structural steel pipe and cable racks. The work shall be completed in accordance with SABS



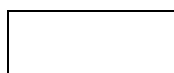
Contractor



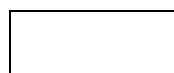
Witness 1



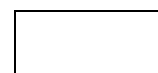
Witness 2



Employer



Witness 1



Witness 2

1200 Standardized Specifications for Civil Engineering Construction together with drawings and particular specifications to be issued by the Engineer during the contract.

Drawings

When setting out and constructing the works, the Contractor shall use only “Approved for Construction by the Employer” Drawings. Only figured dimensions on the drawings shall be used and dimensions shall not be scaled. The Engineer will, on the request of the Contractor in accordance with the provision of the Contract, provide such dimensions as may have been omitted from the Drawings.

The General Arrangement drawings will be made available by the Employer (where available).

Civil As-Built Drawings

Civil As-Built drawings will be made available by the Employer.

Electrical and Instrumentation Drawings

The following drawings are issued for information only:

Contractors Drawings

The contractor appointed to carry out the work shall produce a comprehensive set of detailed design drawings suitable for issue for construction as well as detailed shop drawings, prior to manufacture of equipment. They shall also be responsible for As-Built drawings and operating and maintenance manuals on completion.

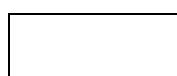
The following electrical drawings shall be provided:

- Plant lay out showing the position of all drives.
- MV and LV cable routes.
- Cable rack and trench lay outs.
- DB and MCC single line schematic diagrams.
- Power cable schedule
- Motor schedule
- Detailed Distribution Panel and MCC arrangement
- Wiring and Termination schedules as required for construction
- Equipment schedules
- Equipment Data Sheets

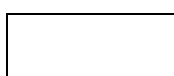
Electrical Design Criteria

The design for all equipment shall be based on the following:

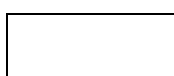
- LV electrical system: 400/230 volts, nominal voltage
(400/230 volt transformer no-load voltage)



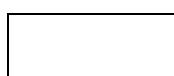
Contractor



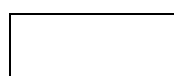
Witness 1



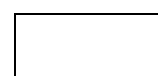
Witness 2



Employer



Witness 1



Witness 2

3 phase 4 wire 50 Hz
System neutral solidly earthed
Maximum fault level 30 kA
Phase rotation anti-clockwise R-Y-B-R

- Maximum voltage drop for power cables for motors: 4,5 %.
- De-rating of cables – as per SANS 10142 – 1 (2003).
- Illumination levels – as per SANS 10114-1 & SANS 10389-

CONSTRUCTION

Standards

It shall be the responsibility of the Contractor to obtain, at his own expense, the most recent copies of the relevant editions of the documents referred to.

The Contractor shall keep copies of the Standard Specifications, copies which are available from the South African Bureau of Standards.

For the purpose of this Contract the following Standard Specifications shall apply:

Mechanical Standards and Specifications

Mechanical Standards are listed in various sections of Technical Specifications.

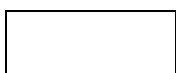
Electrical Standards and specifications

All material and equipment shall comply with recognized national and international standard specifications. Typically, the following standards shall apply:

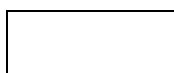
- MV Switchgear SANS 60298
- MV Ring Main Units (RMUs). SANS 60056 & 60265
- MV XLPE cable SANS 1339 and SANS 10198
- Transformers SANS 780
- Mini Subs SANS 1029 and SANS 1030
- Low voltage MCCs SANS 60439
- Low voltage cable SANS 1507
- Luminaires SANS 1279 & SANS 60598
- Earthing and lightning protection SANS 10313 & 61024
- Regulations for the wiring of premises SANS 10142 -1 (2003)

In addition, there shall be compliance with:

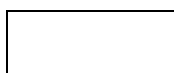
- The Occupational Health and Safety Act
- Regulations of the Supply Authority
- Local Authority by-laws
- Regulations of the Fire office
- Telecommunications legislation



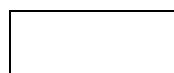
Contractor



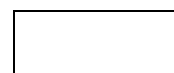
Witness 1



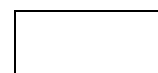
Witness 2



Employer



Witness 1



Witness 2

Site establishment

Services and Facilities provided by the Employer.

(a) Water Sources

There is a potable water supply available. The Site has a water reticulation system which connects directly to a Rand Water supply main. The Contractor will be responsible for supplying all pipework required to convey the water to the Works and for all associated fittings including for an isolating valve and approved water meter. He will further be responsible for paying a proportionate share of the water consumption charges at the ruling tariff at the time of using the water. The Contractor shall regulate his usage of water so as not to inconvenience other users and if necessary supply and erect a storage tank of sufficient capacity to even out unacceptable peak demands. The connection may only be made on the written consent of the Engineer after he is satisfied that the Contractor has made all the necessary and proper arrangements for receiving the water. No warranty is offered or given by the Employer that the existing available reticulated water supply will be adequate for the Contractor's purposes nor that such supply is in any way guaranteed.

Final effluent may be used for water testing of structures and pipelines and shall be available downstream of the final clarifiers or, subject to the Engineers approval, the pressurized reticulation system. The Contractor shall be responsible for supplying all pumps pipe work, tanks and for all associated fittings and he shall not interfere in anyway with the normal operation of the plant. Any temporary works which are approved by the Engineer shall be removed on completion and any damage resulting from his activities, repaired by the Contractor, at his own cost, to the satisfaction of the Engineer.

As the Site is situated on dolomitic strata no leakage or indiscriminate discharge of water will be permitted on or about the Works and failure on the part of the Contractor or his employees to observe this requirement will result in the termination of water supplies until such time as any shortcomings in this regard are rectified.

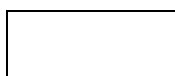
(b) Electricity Supply

The Site is provided with ESKOM power. One or more 380 V 50 Hz power supply points can be made available to the Contractor. The Contractor will be responsible for supplying his own distribution and meter board at each point and cabling to the positions of usage. He shall also be responsible for paying all costs of work required to be carried out by ERWAT in providing the connection and subsequent removal on completion of the Contract and for paying his proportionate share of the electricity charges at the tariff ruling at the time of using the power. The contractor shall be responsible for providing an installation which complies in all respects with the standing regulations of the supply authority. Failure on the part of the Contractor to observe these requirements or maintain his installations in terms therefore will result in the termination of electrical power supplies until such time as any shortcomings in this regard are rectified.

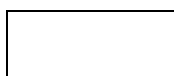
No warranty is offered or given by the Employer that the existing available electricity supply will be adequate for the Contractor's purposes nor that such supply is in any way guaranteed.

(c) Sanitary Services

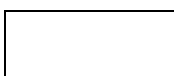
No sanitary services are available for use by the Contractor at the site.



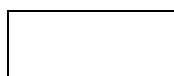
Contractor



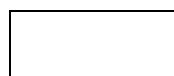
Witness 1



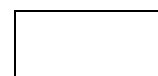
Witness 2



Employer



Witness 1



Witness 2

(d) Telephone Services

To be provided by Contractor

(e) Area for Contractor's Site Establishment

The proposed site of the Contractor's offices, workshops, stores and plant yard will be indicated on site, if requested.

Facilities provided by the Contractor

The Contractor is required to provide a construction camp including offices, workshop, materials, store, sanitary facilities, offices and equipment for his own use as required.

Site Usage

The Contractor; his personnel; and his subcontractors; and suppliers; shall confine their activities to the demarcated site of the Works and the direct access roads thereto. Temporary routes shall be subject to the written approval of the Engineer and be subject to the applicable Standardized Specifications.

MANAGEMENT OF THE WORKS

Planning and Programming

The programme referred to in the General Conditions of Contract shall be a network- based programme in accordance with the precedence method; a detailed cash flow graph indicating projected monthly invoice amounts shall also be provided. The critical path of the programme of work shall be clearly indicated and the programme monitored continually and updated monthly by the Contractor in accordance with his progress.

- (1) In compiling the programme of work, the Contractor shall incorporate the following important specific requirements and constraints:
 - (a) The identification and marking of affected services prior to commencing construction works.
 - (b) The requirements of the Environmental Management Plan (EMP) as specified in the relevant sections of the Particular Specifications and the requirements in respect of inspections and community liaison.
 - (c) The requirements of the Occupational Health Safety (OHS) Act of 1993 and the Construction Regulations, 2003.
 - (d) The relocation of services.
 - (e) An allowance to accommodate "normal" rain days.
- (2) The programme submitted shall include at least the following details:
 - (a) A work breakdown structure identifying the major activity groups.

Contractor

Witness 1

Witness 2

Employer

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Witness 2

- (b) The critical path shall be indicated and floats on non-critical activities shall be shown.
 - (c) The working hours per day, week and month allowed for in the programme with details of resource allocations per activity.
 - (d) Production rates for key activities, e.g. engineering, fabrication, delivery, installation, commissioning, etc.
- (3) In addition the Contractor shall submit to the Engineer at monthly intervals a progress report indicating the following details:
- (a) Work completed in previous month and total progress to date, per activity.
 - (b) Activities behind programme, for which the Contractor shall detail all reasons for such delays as well as the measures to be implemented to make up delays.
 - (c) A GANTT chart showing the original programme, the latest approved version of the programme, actual progress achieved and revised completion sates, if and when applicable.

Failure to comply with all of the foregoing requirements shall entitle the Engineer to use a programme based on his own assumptions to evaluate claims for extension of time for completion of the works, or for additional compensation.

Quality Management

The requirements for Quality Management to be executed under the Contract are set out in Standard Specifications – Section A.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2.3 PRICING SCHEDULE

PRICING INSTRUCTIONS

Pricing instructions mean the criteria as set out below, read together with all parts of this contract document, which it will be assumed in the contract that the tenderer has taken into account when developing his/her prices.

This is a rates based tender and therefore no quantities, sub totals and totals will be applicable in the pricing schedule and orders will only be generated on an as and when required basis according to the rates.

1. **Hard copy:** The pricing schedules below must be filled in by hand and all other comment such as, import, extended lead time, min fee, short shelf life, special conditions, etc. must be filled in on the comments column. This will be seen as the hard copy of the pricing schedule for future references.
2. **Soft copy:** The soft copy will be an electronically excel sheet that will be sent to all bidders that have purchased a tender document. The soft copy/excel spread sheet will be sent after the site briefing so that bidders can start filling it in. It however should not be sent back before the closing of the bid. The complete excel sheet must be sent to phumzile.mdlalose@erwat.co.za and cc. hlengiwe.zwane@erwat.co.za. This will ensure faster and easy capturing of all suppliers prices to be evaluated.
3. The applicable 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.
4. 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 Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Engineer 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.

5. Descriptions in the Bill of Quantities are abbreviated and may differ from those in the Standardized and Project Specifications. No consideration will be given to any claim by the Contractor submitted on such a basis.
6. Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste.
7. 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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Tender is based.

8. 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.
9. An amount or rate shall be entered against each item in the Bill of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Bill.

The Tenderer shall also fill in a rate against the items where the words "rate only" appear in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tendered rates shall apply should work under these items actually be required.

Should the Tenderer group a number of items together and Tender one sum for such group of items, the single tendered sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

The tendered rates, prices and sums shall, subject only to the provisions of the applicable Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

10. The quantities of work as measured and accepted and certified for payment in accordance with the applicable 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 is not to be based on the Bill of Quantities, but only on information issued for construction purposes.

11. For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit : The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
Quantity : The number of units of work for each item
Rate : The payment per unit of work at which the Tenderer Tenders to do the work

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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.

12. The units of measurement indicated in the Bill of Quantities are metric units. The following abbreviations may appear in the Bill of Quantities:

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

13. 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.

14. Rates tendered for BOQ items are deemed to include for all required tools, equipment, plant, materials, labour and supervision necessary to complete that bill item. Of cuts and wastage are to be included in the tendered rate.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

15. Mistakes made by the Tenderer in completion of the BOQ shall not be erased or covered with correcting fluid. A line shall be drawn through the incorrect entry and the correct entry shall be written above the deletion and initialled by the Tenderer. Failure to observe this Condition may lead to the Tender being disqualified.
16. Where sums are entered into the BOQ, whether required or by Contractors choice, it is in the Contractors interest to append a detailed Bill of Quantity for each sum detailing what the sum is made up of.

PRICING SCHEDULE

1. The item number and short descriptions/specification given in the pricing schedule below are brief descriptions used to identify the activities for which prices are required.
2. The rates/ prices in the pricing schedule are to be fully inclusive of VAT prices for the meters described under the several items.
3. *Where quantities/estimations are given in the pricing schedule, these are provisional and do not necessarily represent the actual amount of work to be done. ERWAT reserves the right to increase or reduce the quantity as the need arises.
4. All prices as in the pricing schedule shall be final and binding and shall not be subject to any variation throughout the period of the contract.
5. While it is entirely at the tenderer's discretion as regards to the pricing schedule below, guideline tariffs of fees or indicative time based fee rates are gazetted annually, which are useful documents that will give tenderers some idea of industry norms against which they may compare their rates, sums, percentage fees and/or prices as applicable.
6. Bidders are required to price for all direct and indirect cost relating to the execution of the contract.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PROJECT NO: ERW202006/TNDR - 005

**SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS
(REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL
WWCW**

2.3.1 BILL OF QUANTITIES

CONTENTS

BOQ 1. FOR MODULE 3 COMBINED THICKENED SLUDGE PUMPS

WATERVAL WASTEWATER CARE WORKS [2x Module 3 Combined Thickened Sludge Pumps]					
SECTION 1: PRELIMINARY AND GENERAL					
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
Occupational Health and Safety Requirements					
1	Development of the Occupational Health and Safety File	Each	1		
2	Health and Safety Officer	Each	1		
3	Information Boards and Signs including danger tapes as well as barricades	Sum			
Planning, Execution and Quality Requirements					
4	Factory Testing of all equipment covered by this contract including quality control (tests will conducted as per ISO 9906)	Sum			
5	Manufacturers Operations and Maintenance Manual (Soft and Hard Copies) with Drawings (in both .pdf and .dwg formats)	Each	3		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Equipment Hire					
6	Lifting Equipment (Crane) & Accessories	Sum			
BROUGHT FORWARD		SECTION 1: GENERAL TOTAL			

WATERVAL WASTEWATER CARE WORKS [2x Module 3 Combined Thickened Sludge Pumps]					
SECTION 2: MECHANICAL & ELECTRICAL					
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	SUPPLY AND DELIVERY The following equipment including the preparation and submission of drawings and documents as detailed by the specifications:				
1	Positive Displacement Pump	each	2		
2	Geared Motor	each	2		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	4		
6	Non – Return Ball Type Valve	each	2		
7	Base Plates Assembly	each	2		
8	Electrical Starter (and auxiliaries)	each	2		
9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	ERECTION AND INSTALLATION Handling, including double handling if stored, erection, installation, quality assurance, and providing competent as well as experienced personnel to carry out the work as per this contract.				
1	Positive Displacement Pump	each	2		
2	Geared Motor	each	2		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	4		
6	Non – Return Ball Type Valve	each	2		
7	Base Plates Assembly	each	2		
8	Electrical Starter (and auxiliaries)	each	2		
9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
11	Alterations and Modifications to the Motor Control Electrical Panel (including the integration of the new installation to the old installation)	PC Sum			R 50 000.00
12	Alterations and Modifications to the Civil Structure (Excavating, Core Drilling, Plastering, Backfilling etc.)	PC Sum			R 50 000.00
13	Commissioning and Handover	Sum			
BROUGHT FORWARD		SECTION 2: MECHANICAL & ELECTRICAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

BOQ 2. FOR MODULE 2 COMBINED THICKENED SLUDGE PUMPS

WATERVAL WASTEWATER CARE WORKS [3x Module 2 Combined Thickened Sludge Pumps]					
SECTION 1: PRELIMINARY AND GENERAL					
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
Occupational Health and Safety Requirements					
1	Development of the Occupational Health and Safety File	Each	1		
2	Health and Safety Officer	Each	1		
3	Information Boards and Signs including danger tapes as well as barricades	Sum			
Planning, Execution and Quality Requirements					
4	Factory Testing of all equipment covered by this contract including quality control (tests will be conducted as per ISO 9906)	Sum			
5	Manufacturers Operations and Maintenance Manual (Soft and Hard Copies) with Drawings (in both .pdf and .dwg formats)	Each	3		
Equipment Hire					
6	Lifting Equipment (Crane) & Accessories	Sum			
BROUGHT FORWARD		SECTION 1: GENERAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WATERVAL WASTEWATER CARE WORKS [3x Module 2 Combined Thickened Sludge Pumps]

SECTION 2: MECHANICAL & ELECTRICAL

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	SUPPLY AND DELIVERY The following equipment including the preparation and submission of drawings and documents as detailed by the specifications:				
1	Positive Displacement Pump	each	3		
2	Geared Motor	each	3		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	6		
6	Non – Return Ball Type Valve	each	3		
7	Base Plates Assembly	each	3		
8	Electrical Starter (and auxiliaries)	each	3		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	3		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	3		
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
BROUGHT FORWARD					
ERECTION AND INSTALLATION Handling, including double handling if stored, erection, installation, quality assurance, and providing competent as well as experienced personnel to carry out the work as per this contract.					
1	Positive Displacement Pump	each	3		
2	Geared Motor	each	3		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	6		
6	Non – Return Ball Type Valve	each	3		
7	Base Plates Assembly	each	3		
8	Electrical Starter (and auxiliaries)	each	3		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	3		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	3		
11	Alterations and Modifications to the Motor Control Electrical Panel (including the integration of the new installation to the old installation)	PC Sum			R 50 000.00
12	Alterations and Modifications to the Civil Structure (Excavating, Core Drilling, Plastering, Backfilling etc.)	PC Sum			R 50 000.00
13	Commissioning and Handover	Sum			
BROUGHT FORWARD		SECTION 2: MECHANICAL & ELECTRICAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

BOQ 3. FOR MODULE 2 DIGESTER SLUDGE TRANSFER PUMPS

WATERVAL WASTEWATER CARE WORKS [2x Module 2 Digester Sludge Transfer Pumps]					
SECTION 1: PRELIMINARY AND GENERAL					
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
Occupational Health and Safety Requirements					
1	Development of the Occupational Health and Safety File	Each	1		
2	Health and Safety Officer	Each	1		
3	Information Boards and Signs including danger tapes as well as barricades	Sum			
Planning, Execution and Quality Requirements					
4	Factory Testing of all equipment covered by this contract including quality control (tests will be conducted as per ISO 9906)	Sum			
5	Manufacturers Operations and Maintenance Manual (Soft and Hard Copies) with Drawings (in both .pdf and .dwg formats)	Each	3		
Equipment Hire					
6	Lifting Equipment (Crane) & Accessories	Sum			
BROUGHT FORWARD		SECTION 1: GENERAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WATERVAL WASTEWATER CARE WORKS [2x Module 2 Digester Sludge Transfer Pumps]

SECTION 2: MECHANICAL & ELECTRICAL

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	SUPPLY AND DELIVERY The following equipment including the preparation and submission of drawings and documents as detailed by the specifications:				
1	Positive Displacement Pump	each	2		
2	Geared Motor	each	2		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	4		
6	Non – Return Ball Type Valve	each	2		
7	Base Plates Assembly	each	2		
8	Electrical Starter (and auxiliaries)	each	2		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	ERECTION AND INSTALLATION Handling, including double handling if stored, erection, installation, quality assurance, and providing competent as well as experienced personnel to carry out the work as per this contract.				
1	Positive Displacement Pump	each	2		
2	Geared Motor	each	2		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	4		
6	Non – Return Ball Type Valve	each	2		
7	Base Plates Assembly	each	2		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

8	Electrical Starter (and auxiliaries)	each	2		
9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	2		
11	Alterations and Modifications to the Motor Control Electrical Panel (including the integration of the new installation to the old installation)	PC Sum			R 50 000.00
12	Alterations and Modifications to the Civil Structure (Excavating, Core Drilling, Plastering, Backfilling etc.)	PC Sum			R 50 000.00
13	Commissioning and Handover	Sum			
BROUGHT FORWARD		SECTION 2: MECHANICAL & ELECTRICAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

BOQ 4. FOR MODULE 1 COMBINED THICKENED SLUDGE PUMPS

WATERVAL WASTEWATER CARE WORKS [1x Module 1 Combined Thickened Sludge Pumps]					
SECTION 1: PRELIMINARY AND GENERAL					
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
Occupational Health and Safety Requirements					
1	Development of the Occupational Health and Safety File	Each	1		
2	Health and Safety Officer	Each	1		
3	Information Boards and Signs including danger tapes as well as barricades	Sum			
Planning, Execution and Quality Requirements					
4	Factory Testing of all equipment covered by this contract including quality control (tests will conducted as per ISO 9906)	Sum			
5	Manufacturers Operations and Maintenance Manual (Soft and Hard Copies) with Drawings (in both .pdf and .dwg formats)	Each	3		
Equipment Hire					
6	Lifting Equipment (Crane) & Accessories	Sum			
BROUGHT FORWARD		SECTION 1: GENERAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WATERVAL WASTEWATER CARE WORKS [1x Module 1 Combined Thickened Sludge Pumps]

SECTION 2: MECHANICAL & ELECTRICAL

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	SUPPLY AND DELIVERY The following equipment including the preparation and submission of drawings and documents as detailed by the specifications:				
1	Positive Displacement Pump	each	1		
2	Geared Motor	each	1		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	2		
6	Non – Return Ball Type Valve	each	1		
7	Base Plates Assembly	each	1		
8	Electrical Starter (and auxiliaries)	each	1		
9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	1		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	1		
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	ERECTION AND INSTALLATION Handling, including double handling if stored, erection, installation, quality assurance, and providing competent as well as experienced personnel to carry out the work as per this contract.				
1	Positive Displacement Pump (7.5 l/s, 36m)	each	1		
2	Geared Motor (11 kW, 380V, IP66, 50 Hz, 4P)	each	1		
3	Pipework (100mm diameter)	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge – 100mm diameter)	each	2		
6	Non – Return Ball Type Valve (100mm diameter)	each	1		
7	Base Plates Assembly	each	1		
8	Frequency Converter VSDs	each	1		
9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable</i>	30m	1		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	<i>Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>				
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	30m	1		
11	Alterations and Modifications to the Motor Control Electrical Panel (including the integration of the new installation to the old installation)	PC Sum			R 50 000.00
12	Alterations and Modifications to the Civil Structure (Excavating, Core Drilling, Plastering, Backfilling etc.)	PC Sum			R 50 000.00
13	Commissioning and Handover	Sum			
BROUGHT FORWARD		SECTION 2: MECHANICAL & ELECTRICAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

BOQ 5. FOR WELGEDAGHT MODULE 2 PST PUMP STATION TRANSFER PUMPS

WELGEDAGHT WASTEWATER CARE WORKS [3x Module 2 PST Pump Station Transfer Pumps]					
SECTION 1: PRELIMINARY AND GENERAL					
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
Occupational Health and Safety Requirements					
1	Development of the Occupational Health and Safety File	Each	1		
2	Health and Safety Officer	Each	1		
3	Information Boards and Signs including danger tapes as well as barricades	Sum			
Planning, Execution and Quality Requirements					
4	Factory Testing of all equipment covered by this contract including quality control (tests will conducted as per ISO 9906)	Sum			
5	Manufacturers Operations and Maintenance Manual (Soft and Hard Copies) with Drawings (in both .pdf and .dwg formats)	Each	3		
Equipment Hire					
6	Lifting Equipment (Crane) & Accessories	Sum			
BROUGHT FORWARD		SECTION 1: GENERAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

WELGEDAGHT WASTEWATER CARE WORKS [3x Module 2 PST Pump Station Transfer Pumps]

SECTION 2: MECHANICAL & ELECTRICAL

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	SUPPLY AND DELIVERY The following equipment including the preparation and submission of drawings and documents as detailed by the specifications:				
1	Positive Displacement Pump	each	3		
2	Geared Motor	each	3		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	6		
6	Non – Return Ball Type Valve	each	3		
7	Base Plates Assembly	each	3		
8	Electrical Starter (and auxiliaries)	each	3		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	20m	3		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	20m	3		
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL PRICE
	BROUGHT FORWARD				
	ERECTION AND INSTALLATION Handling, including double handling if stored, erection, installation, quality assurance, and providing competent as well as experienced personnel to carry out the work as per this contract.				
1	Positive Displacement Pump	each	3		
2	Geared Motor	each	3		
3	Pipework	Sum			
4	Nitrile Rubber Gaskets with Flanges Drilled according Table D.	each	No. of Flanges to be joined		
5	Non – Rising Spindle Wedge Gate Valves (Suction & Discharge)	each	6		
6	Non – Return Ball Type Valve	each	3		
7	Base Plates Assembly	each	3		
8	Electrical Starter (and auxiliaries)	each	3		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

9	Power Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	20m	3		
10	Control Cable (Compatible to the Electrical Motors Size.) <i>Price to Include Cable Trenching, Connection and Hot-Dip Galvanized Mild Steel Cable Trays</i>	20m	3		
11	Alterations and Modifications to the Motor Control Electrical Panel (including the integration of the new installation to the old installation)	PC Sum			R 50 000.00
12	Alterations and Modifications to the Civil Structure (Excavating, Core Drilling, Plastering, Backfilling etc.)	PC Sum			R 50 000.00
13	Commissioning and Handover	Sum			
BROUGHT FORWARD		SECTION 2: MECHANICAL & ELECTRICAL TOTAL			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SUMMARY OF SCHEDULES PRICES		
ITEM	DESCRIPTION	TOTAL PRICE
1	BOQ 1. FOR MODULE 3 COMBINED THICKENED SLUDGE PUMPS TOTAL	
2	BOQ 2. FOR MODULE 2 COMBINED THICKENED SLUDGE PUMPS TOTAL	
3	BOQ 3. FOR MODULE 2 DIGESTER SLUDGE TRANSFER PUMPS TOTAL	
4	BOQ 4. FOR MODULE 1 COMBINED THICKENED SLUDGE PUMPS TOTAL	
5	BOQ 5. FOR WELGEDAGHT MODULE 2 PST PUMP STATION TRANSFER PUMPS TOTAL	
6	SUB-TOTAL 1	
7	ADD 10% CONTINGENCY OF SUB-TOTAL 1	
8	SUB-TOTAL 2	
9	15% VAT OF SUB-TOTAL 2	
10	GRAND TOTAL	

***PROCESS OF USING CONTINGENCIES:** *The award of this bid will be done include the contingencies. However, the official purchase order will exclude the 10% contingency. Upon identifying works not covered under the BOQ or other unforeseen circumstances, must be submitted in writing with a detailed quotation of additional works and will only be considered amendment with proper investigation and if turned to be valid, an official order with the relevant required signatures will be issued.*

NOTE: *No works not covered under the BOQ will be reimbursed if not approved accordingly, the contingencies are at ERWAT discretion and will not necessarily be utilised*

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2.4 LIST OF IMPORTED ITEMS

Suppliers to list all items which are not solely South African manufactured.

Also make sure that MBD 6.2 was filled in on page 30-31 # 4.1

ITEM	DESCRIPTION	R VALUE	ROE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2.5 ALTERNATIVE OFFERS

If a bidder wishes to submit an alternative for any of the items in the schedule of quantities, the bidder must indicate on the pricing schedule and complete the form included in the bidding documents.

No alternative bid will be considered, unless an unqualified bid, strictly on the basis of the bid documents, is also submitted.

If subsequently required, the bidder shall submit fully detailed drawings and calculations of the alternative bid in the form set out by the Engineer, and the cost of checking calculations and drawings shall be for the bidder's account, if his bid is accepted.

Only ISO/SANS/SABS or items registered with the relevant regulatory authority will be considered.

Please note that ERWAT reserves the right to accept or not accept the alternative offered.

SIGNATURE OF BIDDER

DATE

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



2.6 SITE INFORMATION

Hartebeestfontein Office Park
R25 Bapsfontein Road,
Kempton Park

GPS coordinates – ERWAT Water Care Works

DD4	
Welgedacht	26°11'29.18" S, 28°28'26.86" E
DD6	
Waterval	26°26'14.12" S, 28°06'03.55" E

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



SECTION 3: THE CONTRACT

	DESCRIPTION	BIDDER TO CONFIRM THAT ALL PAGES COMPLETED & SIGNED: YES/NO	TO & FOR OFFICE USE ONLY VERIFIED BY SCM OFFICIAL: YES/NO
3.1	STANDARD CONDITIONS OF BIDDING		
3.2	FORM OF OFFER AND ACCEPTANCE		
3.3	SCHEDULE OF DEVIATIONS		
3.4	MBD 7.1: CONTRACT FORM – GOODS/WORKS:		
	PART A: TO BE COMPLETED BY THE BIDDER		
	PART B: TO BE COMPLETED BY EKURHULENI WATER COMPANY		
3.5	OCCUPATIONAL HEALTH AND SAFETY AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)		
3.6	PERFORMANCE MANAGEMENT SYSTEM: DRAFT PMS		
3.7	INDEMNITY FORM		
3.8	SPECIAL CONDITIONS OF CONTRACT		
3.9	GENERAL CONDITIONS OF CONTRACT		

Contractor

Witness 1

Witness 2

Employer

Witness 1

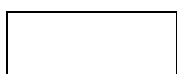
Witness 2

3.1 STANDARD CONDITIONS OF BIDDING

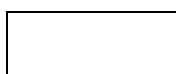
The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

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

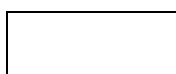
Part No.	Content
1.2.1	<p><u>The Employer:</u></p> <p>EKURHULENI WATER Care Company (ERWAT) Hartebeestfontein Office Park R25 (Bapsfontein/Bronkhorstspuit Road) Kempton Park</p> <p>Hereby represented by: Ms. Hlengiwe Nhlapho Technical related queries can be directed to her at Tel: 011 929 7193 E-mail: Hlengiwe.zwane@erwat.co.za</p>
1.2.2	<p><u>Bid pricing:</u></p> <p>The tendered price must provide for items required, supply, delivery, installation, commissioning, direct and indirect costs applicable to the execution of the required works/goods/services as per the specifications and provided for in the pricing scheduled/Bill of Quantities.</p> <p>Bidders are required to check their calculations for arithmetical errors as the total Tender price, as submitted, will remain fixed.</p> <p>The Value Added Tax (Act 89 of 1991) as amended, is applicable.</p> <p>All prices quoted are to <u>INCLUDE</u> Value Added Tax (VAT), unless specifically stated to the contrary and all prices must be quoted in ZAR, i.e. the currency of the Republic of South Africa.</p> <p>Where the whole or a portion of the tendered price may be affected by rates of currencies or variations in the rate of exchange, the bidder shall, in terms of the tender requirements, state in his tender the amount in foreign currency to be paid or remitted abroad and the exchange rate applied in the conversion of this amount into South African currency in calculating the tender price.</p>



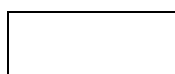
Contractor



Witness 1



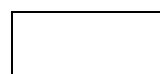
Witness 2



Employer

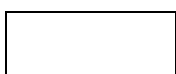


Witness 1



Witness 2

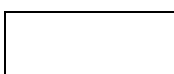
<p>1.2.3</p>	<p><u>Payment Terms:</u></p> <p>Payments will be effected within 30 days from receipt of a valid Invoice/Tax Invoice <u>and</u> Statement.</p> <p>All invoices/tax invoices and statements must comply with the VAT Act No 89 of 1991 before payment can be effected.</p>
<p>1.2.4</p>	<p><u>Briefing/clarification/Site inspections/meetings (where applicable):</u></p> <p>Before tendering, bidders should visit the site and acquaint themselves with all the local conditions, the accessibility of the site, the full extent and nature of the operations, the supply of and conditions affecting labour, carriage, carting, unloading, storage and safe custody of materials, workshop accommodation, the scaffolding, tackle and tools necessary for the execution of the contract generally.</p> <p>Bidders are required to thoroughly acquaint themselves with the nature and extent of the work to be done, and to make allowance for items obviously intended and necessary for the proper completion of the work although not specifically specified. Claims due to lack of knowledge will not be entertained.</p> <p>All uncertainties shall be cleared out with the end user department before the tender closing date.</p> <p>No individual should represent more than one bidder at the briefing session.</p> <p>At least one member of the JV must be present at the clarification meeting.</p> <p><i>Kindly note that the company representative that attends this session will be accepted as a person with the relevant technical expertise applicable to this bid.</i></p> <p>Non-completion in full of the fields required on the attendance register may lead to automatic disqualification.</p> <p><u>Please note:</u> <i>Where a <u>clarification meeting is compulsory</u>, no bids will be accepted if the contractor has not attended this session and documents will only be accepted from contractors whose names appear on the attendance register.</i></p>
<p>1.2.5</p>	<p><u>Alterations to documents:</u></p> <p>No alterations, erasure or addition is to be made in the text of the Document or pricing schedule/BOQ, except to comply with instructions issued by the employer. All signatories to the Tender offer shall sign next to any alterations in such case.</p> <p>Any alteration, erasure or addition made will not be recognised and the original wording of the Document will prevail.</p> <p>Copies are not allowed; only original documents will be accepted.</p>



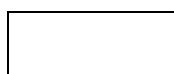
Contractor



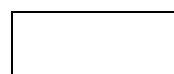
Witness 1



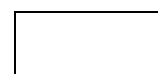
Witness 2



Employer

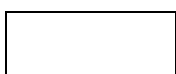


Witness 1

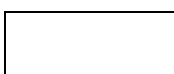


Witness 2

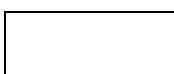
	<p>Bidders shall clarify any doubt about the meaning of any wording in the pricing schedule/bill of quantities before the Tender closing date.</p> <p>The use of correction fluid/tape is strictly prohibited and will render your bid invalid.</p>
1.2.6	<p><u>Technical Specification and standard of work/goods/services:</u></p> <p>The Standard Technical Specifications cover the general technical requirements w.r.t. works/goods/services. These specifications shall be read in conjunction with the rest of this contract in its entirety.</p> <p>All works/goods/services provided under this contract shall be new and unused, and the best of their respective kinds and shall comply with the requirements laid down in the latest editions of the relevant SANS, ISO, BS or other relevant regulatory authorities and standards and their amendments and with the requirements of this specification.</p>
1.2.7	<p><u>Factory Inspections and Tests:</u></p> <p>The Bidder shall advise the End user department in writing of any routine, type or specific tests or commissioning to be carried out on equipment during the course of manufacture in the manufacturer's factory or works or of any stage of completion in the manufacturing process which requires inspections in terms of the Contract and Specifications. The contractor will issue the required COC where applicable.</p> <p>The successful bidder will be required to dispatch goods from the factory at his own risk if the tests have not been witnessed and inspections not been carried out by and approval given by ERWAT for dispatch.</p> <p>ERWAT will only accept risk and responsibility of the works/goods/services on final completion/handover in accordance with the approved guarantee/warranty stipulation and includes insurance.</p>
1.2.8	<p><u>Existing Works and Service:</u></p> <p>The bidder is responsible for obtaining information regarding services and existing works, which may be affected by this bid.</p> <p>Before the Bidder commences with delivery of works/goods/services, they shall discuss with and have the approval of the end user department.</p> <p>The Bidder shall be held responsible for any damage, injury or accident caused as a result of his failure to take the necessary precautionary measures.</p> <p>Should the Bidder in any event be responsible for the interruption of services without approval, the contractor shall be held responsible for any claims that may arise in this regard.</p>



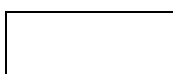
Contractor



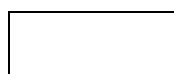
Witness 1



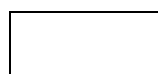
Witness 2



Employer



Witness 1



Witness 2

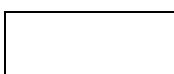
<p>1.2.9</p>	<p><u>Quality Assurance:</u></p> <p>The workmanship shall be of the highest grade and to the satisfaction of the end user department.</p> <p>It will be the full responsibility of the Bidder to undertake appropriate quality control and quality assurance measures during implementation/manufacturing of works/goods/services as well as on site. A quality control procedure shall be forwarded with the program to the end user department (applicable to technical works).</p> <p>Bidders are required to guarantee their products/works for not less than 1 year (12 months) on new goods and services</p> <p>Unless specified otherwise in the SCC the warranty/guarantee shall remain valid for a period of not less than 1 (one) year after the works/goods/services, or portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract; or for eighteen (18) months after the date of shipment from the port of place of loading in the source country whichever period concludes earlier.</p> <p>No guarantee or warranty less than 6 months on refurbished goods will be considered.</p> <p>Bidders are required to indicate the relevant guarantee and or warrantee period offered on their products.</p> <p>Bidders must however submit the guarantees upon request from ERWAT to the end user department at any given time.</p>
<p>1.2 .10</p>	<p><u>Acknowledge Addenda:</u></p> <p>Acknowledge receipt of addenda to the proposal documents, which the employer may issue, and if necessary apply for an extension of the closing time stated in the Tender data, in order to take the addenda into account.</p> <p>All the Contractor's designs are in any event still subject to approval by the Engineer.</p>
<p>1.2.11</p>	<p><u>Submitting a Tender offer:</u></p> <p>No late, faxed, emailed or other form of Tender will be accepted.</p> <p>Completed Tender documents with attached documents, if any, must be submitted in Black ink in sealed envelope and clearly marked <u>with the bid number and full description.</u></p>
<p>1.2.12</p>	<p><u>Proof for confirmation:</u></p> <p>It may be required from a contractor, before acceptance of this tender, to furnish proof to the satisfaction of the owner that the bidder is in a position to secure all the required resources complete this contract within the time provided for in the specification or the time indicated by the bidder.</p>



Contractor



Witness 1



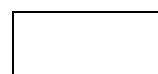
Witness 2



Employer



Witness 1

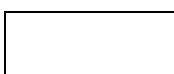


Witness 2

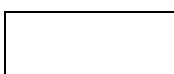
	<p>The bidder shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the Labour Intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.</p>
1.2.13	<p><u>Seek clarification:</u></p> <p>Questions or queries must be submitted to the Employer at least five (5) working days before the stipulated closing date and time of the Tender.</p> <p>However, ERWAT shall not be liable nor assume liability for failure of the bidder to receive response to any questions and / or queries raised by the bidder by the closing time.</p>
1.2.14	<p><u>Tender offer validity:</u></p> <p>Unless otherwise specified in the invitation to bid, this bid shall remain open for acceptance for a period OF <u>ONE HUNDRED AND TWENTY (120) CONSECUTIVE DAYS</u> from the date on which bids are due and during this period the Bidder shall agree not to withdraw his/her bid or impair or derogate from its effect;</p> <p>The written approval of this bid by ERWAT, by way of letter of acceptance, shall constitute a contract binding on both parties;</p> <p>Notwithstanding anything to the contrary in this agreement, the contract shall come into existence with effect from the signature date signed by both parties.</p>
1.2.15	<p><u>Opening of Tender documents:</u></p> <p>Bids are opened in public on closing date and time at ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein / Bronkhorstspuit), Kempton Park.</p>
1.2.16	<p><u>Patents:</u></p> <p>The Bidder shall pay all royalties and expenses and be liable for all claims in respect of the use of patent rights, trade marks or other protected rights and hereby indemnifies ERWAT against any claims arising there-from.</p> <p>All intellectual property rights including, without limitation, copyright, database rights, design and registered design rights, patents and trade mark rights, in the deliverables shall be owned by ERWAT.</p> <p>The contractor, bidder or service provider shall execute any documents to ensure vesting of such rights in the Entity (ERWAT). No trade mark, patent, design or other registration shall be made in the name of the contractor, bidder or service provider, its employees, directors and agents, in relation to any of the deliverables.</p>
1.2.17	<p><u>Registration with relevant regulatory authority:</u></p> <p>Bidders who are compelled to register with controlling authorities regarding their goods/services to be delivered/rendered, should ensure that their relevant registrations are in order prior to the closure of the bids.</p> <p>ERWAT may at any given time request bidders to submit proof thereof.</p>



Contractor



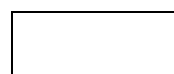
Witness 1



Witness 2



Employer



Witness 1

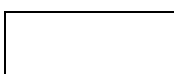


Witness 2

<p>1.2.18</p>	<p><u>Penalties:</u></p> <p>Should the bidder fail to deliver any or all the goods or perform the services within the period specified in the contract or as concluded in the Service Level Agreement, ERWAT may, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day until actual delivery of performance or as stipulated in Schedule 2.</p> <p>ERWAT may consider termination of the contract at it sees fit in terms of the General Conditions of Contract.</p>
<p>1.2.19</p>	<p><u>Increase/decrease in scope of work</u></p> <p>The Employer reserves the right to award the bid in part, split the bid or award in total. The Bidder will have no claim in this respect.</p> <p>Funds allocated to complete the works may be limited. The Employer thus reserves the right to reduce or add to the scope of work to suit the available budget, in which case the contractor will have no claim in this respect.</p>
<p>1.2.20</p>	<p><u>Inspection of plant, equipment and premises</u></p> <p>ERWAT may at any stage during the production or execution, or on completion, be subject to inspect the premises of the bidder or contractor at all reasonable hours for inspection of the bidders plant, equipment and premises prior to the bid being awarded. These inspections shall be carried out as follows:</p> <p>The HOD, designated supervisor or Technical Evaluation Committee will visit the premises upon a formal appointment to inspect all plant and equipment and other items deemed necessary prior to the issue of the bid to the bid adjudication committee.</p>
<p>1.2.21</p>	<p><u>Domicile & South African Jurisdiction</u></p> <p>The laws of the Republic of South Africa shall be applicable to each Contract created by the acceptance of a Bid, and each Bidder shall indicate a place in the Republic and specify it in his Bid as his <i>domicilium citandi et executandi</i> where any legal process may be served on him.</p> <p>Each Bidder shall bind himself to accept the jurisdiction of the Courts of Law of the Republic of South Africa.</p> <p>The parties choose as their respective <i>domicilia citandi et executandi</i> the Following addresses:</p> <p>ERWAT</p> <p>ERWAT Head Office, Hartebeestfontein Office Park, R25 (Bapsfontein / Bronkhorstspuit), Kempton Park.</p>



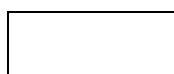
Contractor



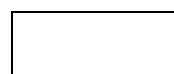
Witness 1



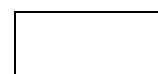
Witness 2



Employer



Witness 1



Witness 2

	<p>The Contractor (physical address):</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Change of these addresses will only be valid if the other party has been notified in writing.</p> <p>All notices between the parties concerned must be in writing.</p> <p>If a notice or document is delivered by hand, written proof of delivery must be obtained. If a document is delivered by official of ERWAT, a statement to that effect will be sufficient.</p> <p>If not delivered by hand, notices and documents will be sent by registered post.</p>
1.2.30	<p><u>Bid Award</u></p> <p>Please note that even though a bid may be awarded and a successful bidder be approved to supply, deliver or render the applicable services to ERWAT, it is not a guarantee that orders will be placed on a regular basis and may only be required on an as and when required basis and will be valid on receipt of an official ERWAT order only.</p>
1.2.31	<p><u>Non-Awards</u></p> <p>Kindly note that bidders, who have submitted a tender, may visit the ERWAT website: www.ERWAT.co.za to view the outcome of the relevant bid.</p> <p>In the event that no correspondence or communication is received from ERWAT within 120 consecutive days after the stipulated closing date and time of the Tender, the tender will be deemed to be unsuccessful.</p> <p>The unsuccessful bidder may on written request (in terms of the Access to Information Act) be given reason why their bid was unsuccessful.</p>
1.2.32	<p><u>Objections and complaints</u></p> <p>Persons may lodge a written objection or complaint to the Accounting Officer, where aggrieved by decisions or actions taken by the municipal entity in the implementation of its supply chain management system, within 14 (fourteen) days of the decision or action taken in terms of Regulation 49 of the Municipal Finance Management Act, Act 56 of 2003 – Supply Chain Management Regulations published under GenN 868 in GG 27636 of 30 May 2005 effective 1 July 2005.</p>
1.2.33	<p><u>EPWP requirements for labour intensive projects</u></p> <p>ERWAT supports labour intensive projects and other services relating to where physical labour is required.</p> <p>All service providers will be required to maximize the use of local unemployed labour on projects or when supplying or delivering services to ERWAT where applicable.</p> <p>All relevant questionnaires and reports are to be completed in full and submitted as part of this bid document.</p>

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

3.2 FORM OF OFFER AND ACCEPTANCE

BIDDERS OFFER:

Please note that this is rates based tender. The contract is limited to Purchase orders issued within the available budget allocated for such on an as and when required basis.

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **BID ERW202006/TNDR-005**

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

By the representative of the Bidder, deemed to be duly authorised, signing this part 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 PRICES FOR THE GOODS, AS SET OUT IN THE PRICING SCHEDULE/BILL OF QUANTITIES (THE PRICES INCLUSIVE OF VALUE ADDED TAX), IS HEREBY CONFIRMED FOR THE PERIOD OF THE CONTRACT PERIOD INCLUDING THE PROVISIONS FOR THE ANNUAL ESCALATIONS (WHERE APPLICABLE)

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 Document Data, whereupon the Bidder becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature(s) _____

Name(s) _____

Capacity _____

For the Bidder _____
(Name and address of organisation)

Name & Signature of Witness: _____
Name Date

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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.

And drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above. Deviations from and amendments to the documents listed in the Bid Document Data and any addenda thereto listed in the Bid Document 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 7 days 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 at or just after the date this Agreement comes into effect. 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 signed copy of this SLA, including the Schedule of Deviations (if any). Unless the Bidder (now Contractor) within five 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.

Signature(s) _____

Name(s) _____

Capacity _____

For the Bidder _____
(Name and address of organisation)

Name & Signature of Witness: _____
Name Date

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

3.3 SCHEDULE OF DEVIATIONS

Notes:

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

1 Subject:

Details:

2 Subject:

Details:

3 Subject:

Details:

4 Subject:

Details:

5 Subject:

Details:

6 Subject:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Details:

7 Subject:

Details:

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Bidder agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Bid Document Data and addenda thereto as listed in the Bid Document Schedules, as well as any confirmation, clarification or change to the terms of the Offer agreed by the Bidder and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the Bid Document 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:

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Witness: _____
Name Signature

Date: _____

FOR THE EMPLOYER

Signatures (s) _____

Name(s) _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Capacity _____

(Name and address of Organisation)

Witness: _____
Name Signature

Date: _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

MBD 7.1

3.4 CONTRACT FORM: PURCHASE OF GOODS/WORKS

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SUCCESSFUL BIDDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SUCCESSFUL BIDDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.







PART A (TO BE FILLED IN BY THE BIDDER)

I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to (name of institution) _____ in accordance with the requirements and specifications stipulated in bid number **BID ERW202006/TNDR-005**: at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.

1. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Pricing schedule(s);
 - Technical Specification(s);
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2017;
 - Declaration of interest;
 - Declaration of bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract
2. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
3. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
4. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
5. I confirm that I am duly authorised to sign this contract.

NAME (PRINT) _____
CAPACITY _____
SIGNATURE _____
NAME OF FIRM _____
DATE _____

WITNESSES	
1	_____
2	_____
DATE:	_____

					
<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

MBD 7.1

CONTRACT FORM: PURCHASE OF GOODS/WORKS

PART B (TO BE FILLED IN BY THE ERWAT REPRESENTATIVE)

1. I _____ in my capacity as

_____ accept your bid under reference number:

BID ERW202006/TNDR-005: dated _____ for the supply of goods/works indicated hereunder and/or further specified in the annexure(s).

2. An official order indicating delivery instructions is forthcoming.
3. I undertake to make payment for the goods/works delivered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice accompanied by the delivery note.

ITEM NO.	PRICE (ALL APPLICABLE TAXES INCLUDED)	BRAND	DELIVERY PERIOD	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)
	<i>Kindly refer to the pricing schedule/BOQ*</i>				

4. I confirm that I am duly authorized to sign this contract.

NAME (PRINT) _____
CAPACITY _____
SIGNATURE _____
NAME OF FIRM _____
DATE _____

WITNESSES	
1.	_____
2.	_____
DATE:	_____

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

3.5 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

THIS AGREEMENT IS made at _____ on the _____

day of _____ in the year _____.

Between EKURHULENI WATER CARE COMPANY (ERWAT) (hereinafter called "the Employer") of the

one part, herein represented by

In his capacity as

and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to the provisions of Act No 7 of 1998, and

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

in his capacity as

and being duly authorized by virtue of a resolution appended hereto as Annexure A;

WHEREAS the Employer requires certain works be constructed, viz DESCRIPTION: 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 engineer requiring him to commence the execution of the Works, to either -

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- (a) the date of the Final Approval Certificate issued in terms of Clause 5.16 of the General Conditions of Contract 2010 (hereinafter referred to as "the GCC"), as contained in the Contract Documents pertaining to this Contract, or
 - (b) The date of termination of the Contract in terms of Clauses 9.1, 9.2, 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 mandatories
 - (iv) Sub-section 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 (as amended by Special Condition of Contract) and all relevant requirements of the above-mentioned Volume, the Mandatory agrees to execute all the Works forming part of this Contract and to operate and utilize all machinery, Plant and equipment in accordance with the Act.

5. The Mandatory is responsible for the compliance with the Act; the safety procedures and rules of the employer 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 (Act No 130 of 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 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.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- b) All incidents referred to in the 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 enquiry conducted in terms of section 32 of the Act into any incident involving the Mandatory and/or his employees and/or his subcontractors.

In witness hereof the parties are to set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE EMPLOYER :

Witness 1 _____

Witness 2

(Name) _____

(Name)

(Print) _____

(Print)

SIGNED FOR AND ON BEHALF OF THE MANDATORY:

Witness 1 _____

Witness 2

(Name) _____

(Name)

(Print) _____

(Print)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

3.6 PERFORMANCE MANAGEMENT SYSTEM

The Municipal Finance Management Act (No. 56 of 2003) Section 116 (2) (d) determines that a Municipality must enter into a Performance Management System (PMS) with all service providers.

A PMS will be concluded with the appointed bidder and the costing for this project will run during the **2020/2021, 2021/2022 and 2022/2023 financial budget year.**

ACCEPTANCE OF PMS AGREEMENT

You are hereby requested to sign this document as acceptance of the agreement.

CONTRACTOR

Signature : _____

Name : _____

Designation : _____

Date : _____

EKURHULENI WATER COMPANY

Signature : _____

Name : **MR. T GOPANE**

Designation : **MANAGING DIRECTOR**

Date : _____

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

3.7 ERWAT INDEMNITY

1. The Contractor hereby agrees to indemnify, hold harmless and defend ERWAT and their officers, employees, agents and representatives, from and against the following liabilities arising as a result of the execution of the work:
 - 1.1 Any liability with regard to claims by governmental authorities or others for non-compliance by Contractor of any Act of Parliament, law, ordinance, regulation or by-law made by a lawful authority provided that such compliance therewith was required for the execution of the Contract or at Law.
 - 1.2 Any liability arising from actual or alleged public or private nuisance arising out of negligent acts or omissions to act of Contractor or its Subcontractors, or of their employees.
 - 1.3 Any liability arising from loss or damage to Contractor and/or Subcontractor's equipment and their other property on site.
 - 1.4 Any liability arising from claims with regard to the death of/or injury or sickness or disease to Contractor' employees or the death of/or injury or sickness or disease to third parties.
 - 1.5 Any liability arising from any loss of/or damage to property belonging to a third party.
 - 1.6 Any liability arising from actual or asserted infringement or improper appropriation or use of patents, copyrights, proprietary information or know- how in respect of the work designed by/or under the responsibility of the Contractor.
 - 1.7 Any liability arising from the death or injury or loss or damage to property of third parties or ERWAT's property as a result of the negligent acts or omissions of contractors or its subcontractor's employees.
 - 1.8 Contractor shall indemnify ERWAT against all claims, proceedings, damages and costs of whatsoever nature arising out of contravention of environmental legislation.

I, _____ the undersigned (duly authorised to sign) hereby declare that I have read and understood the abovementioned and agree to all the above.

COMPANY:	
ADDRESS:	
TEL:	
CELL:	
DATE:	
SIGNATURE:	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

3.8 SPECIAL CONDITIONS OF CONTRACT

1. **ERWATS OBJECTIVES:**

The aim of this bid is to increase the service delivery level of the ERWAT to both its internal and external clients. This will be done by way of the following:

- Reduction in the number of quotation requests
- Improved turn-around times for obtaining purchase orders
- More focused approached to the Entity's core functions.

2. **CONTRACT PERIOD:**

This contract is estimated to be effective for a period of 36 months from date of approval ending 36 months thereafter.

3. **CONTRAT PRICE ADJUSTMENTS FOR LONG TERM CONTRACTS RUNNING OVER A ONE YEAR PERIOD (TERM CONTRACTS):**

The successful bidder(s) pricing will be adjusted annually on written request and must reach the SCM office one (1) month prior to the anniversary of the bid.

Price adjustments will be effective on date of anniversary of this bid. The Entity will not accept any requests for price adjustments other than the adjustments stated above.

Annual price adjustment is calculated on the average Reserve Bank CPI figures for the year at time of anniversary of this bid.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EAST RAND WATER CARE COMPANY (ERWAT): DEVELOPMENT DEPARTMENT
PROJECT NO: ERW202006/TNDR – 005

SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

HEALTH AND SAFETY SPECIFICATIONS

CONTENTS

INTRODUCTION AND BACKGROUND

Background to the construction Health and Safety Specification

Purpose of the construction Health and Safety Specification

HEALTH AND SAFETY SPECIFICATION

Scope

- Provision for Health & Safety Cost
- Interpretations
- Application
- Definitions
- Minimum Administrative Requirements
- Notification of Intention to Commence Construction Work
- Assignment of Contractor's Responsible Person to Supervise Health and Safety on Site
- Competency of Principal Contractor Responsible Persons
- Compensation of Occupational Injuries and Diseases Act (COIDA) Act 130 of 1993
- Occupational Health and Safety Policy
- Health and Safety Organogram
- Preliminary Hazard Identification and Risk Assessment and Progress Hazard Identification and Risk Assessment
- Health and Safety Representative(s)
- Health and Safety Committee(s)
- Health and Safety Training
- Induction
- Awareness
- Competency

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

-
- General Record Keeping
 - Health and Safety Audits, Monitoring and Reporting
 - Emergency Procedures
 - First Aid Box and First Aid Equipment
 - Accident / Incident Reporting and Investigation
 - Hazards and Potential Situations
 - Personal Protection Equipment and Clothing
 - Occupational Health and Safety Signage
 - Contractors
 - Incentives and Penalties
 - Health & Safety Officer (Part-time)
 - Physical Requirements
 - Civil Work
 - Excavations / Trenching
 - Confined Spaces
 - Existing Structures
 - Edge Protection and Penetrations
 - Hazardous Chemical Substances (HCS)
 - Stacking of Materials
 - Plant and Machinery
 - Construction Plant
 - Vessels under Pressure (Gas bottles including Operations)
 - Fire Extinguishers and Fire Fighting Equipment
 - Hired Plant and Machinery
 - Formwork for Structures
 - General Machinery
 - High Voltage Electrical Equipment
 - Portable Electrical Tools / Explosive Power Tools
 - Welding Equipment
 - Public Health and Safety
 - Night Work
 - Occupational Health
 - Occupational Hygiene
 - Welfare Facilities

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- Alcohol and Other Drugs

ANNEXURE A TASK COMPLETION FORM

ANNEXURE B PC RESPONSIBLE PERSON(S)

ANNEXURE C OTHER REQUIREMENTS

ANNEXURE D ACKNOWLEDGEMENT OF H & S SPECS

INTRODUCTION AND BACKGROUND

BACKGROUND TO THE HEALTH AND SAFETY SPECIFICATION

The Construction Regulations (July 2003) place the onus on the Client to prepare a preconstruction Health and Safety specification, highlighting all risks not successfully eliminated during design setting standards for Health and Safety during construction phase.

PURPOSE OF THE HEALTH AND SAFETY SPECIFICATION

To assist in achieving compliance with the Occupational Health and Safety Act 85/1993 and the promulgated Construction Regulations (July 2003) in order to reduce incidents and injuries. These specifications shall act as the basis for the drafting of the construction phase Health and Safety plan by the Contractor.

The specification sets out the requirements to be followed by the Principal Contractor and their Contractors so that the Health and Safety of all persons potentially at risk may receive the same priority as other facets of the project e.g. Cost, programmed, environment, quality etc.

HEALTH AND SAFETY SPECIFICATION

SCOPE

This specification covers the requirements for eliminating and mitigating incidents and injuries on the **ERWAT Wastewater Treatment Works Positive displacement pumps Project**.

The scope also addresses legal compliance, hazard identification and risk assessment, risk control and promoting a Health and Safety culture amongst those working on the project. The specification also makes provision for the protection of those persons other than employees.

Provision for Health & Safety Cost

The Principal Contractor must make provision for the cost of Health & Safety Measures during the construction process as required by the Construction Regulation 4(h).

INTERPRETATIONS

APPLICATION

This specification is a compliance document drawn up in terms of the South African legislation and is therefore binding. It must be read in conjunction with relevant legislation as noted previously.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DEFINITIONS

The definitions as listed in the Occupational Health and Safety Act 85/1993 and Construction Regulations (July 2003) shall apply.

MINIMUM ADMINISTRATIVE REQUIREMENTS

NOTIFICATION OF INTENTION TO COMMENCE CONSTRUCTION WORK

The Principal Contractor shall notify the provincial Director of the Department of Labour in writing that construction work commences.

ASSIGNMENT OF CONTRACTOR'S RESPONSIBLE PERSONS TO SUPERVISE HEALTH AND SAFETY ON SITE

The Principal Contractor shall submit supervisory appointments as well as any relevant Appointments in writing (as stipulated by the OHS Act and Construction Regulations), prior to commencement of work. Proof of competency must be included. See annexure B.

COMPETENCY FOR CONTRACTOR'S APPOINTED COMPETENT PERSON

The Principal Contractors' competent persons for the various risk management portfolios shall fulfil the criteria as stipulated under the definition of Competent in accordance with the Construction Regulations (July 2003). Proof of competence for the various appointments must be included.

COMPENSATION OF OCCUPATIONAL INJURIES AND DISEASES ACT 130 OF 1993 (COIDA)

The Principal Contractor shall submit a letter of good standing from their Compensation Insurer-FEM or Compensation Commissioner to the Client's Representative as proof of registration. Contractors shall submit proof of registration to their Contractor before they commence work on site.

OCCUPATIONAL HEALTH AND SAFETY POLICY

The Contractor and their Contractors shall submit a Health and Safety policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / Contractor.

HEALTH AND SAFETY ORGANOGRAM

The Principal Contractor and their Contractors shall submit an organogram, outlining the Health and Safety site Management Structure including the relevant appointments / competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the site Management Structure.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PRELIMINARY HAZARD IDENTIFICATION AND RISK ASSESSMENT AND PROGRESS HAZARD IDENTIFICATION AND RISK ASSESSMENT

- Roof Work
- Mobile Cranes Management System
- Mechanical
- Working at heights, as per CR8 – Fall Protection Plan, Scaffolding Management
 - Person falling
 - Material falling
 - Protection of decking edges, finished floor slab edges, stairways, floor penetrations, lift shafts, any other openings and areas from where persons may fall.
- Excavations
 - Collapse of Walls
 - People/Equipment falling in Excavations
 - Shoring
 - Underground services
 - Drainage
 - Pipe-Jacking operations
- Confined Space entry
- Formwork and Support Work
 - Casting of Concrete
- Manual and Mechanical Handling
 - Lifting and placement of pipes o
 - Overhead works
- Noise Control
- Dust Control

Principal Contractor to ensure that these risk assessments as well as other risks identified by them are updated monthly or as the risk change and communicated to all relevant parties. CR 7(4)

HEALTH AND SAFETY REPRESENTATIVE(S)

The Principal Contractor and their Contractors shall ensure that Health and Safety Representative(s) are appointed under consultation and trained to carry out their functions. The appointment must be in writing.

The Health and Safety Representative shall carry out regular inspections, keep records and report all findings to the Responsible Person forthwith and at Health and Safety meetings.

HEALTH AND SAFETY COMMITTEES

Principal Contractor shall organize monthly Health & Safety meetings. Minutes and records shall be kept. Principal Contractors Health & Safety representative and responsible person shall attend this meeting.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

HEALTH AND SAFETY TRAINING

Induction

Principal Contractor shall ensure that all undergo site-specific induction presented by a competent person and proof of it too.

Awareness

The Principal Contractor shall ensure that, on site, periodic toolbox talks take place at **least once per week**. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the Health and Safety file. All Principal Contractor have to comply with this minimum requirement.

Competency

All competent persons shall have the knowledge, experience, training and qualifications specific to the work they have been appointed to supervise, control, and carry out. This will have to be assessed on a regular basis e.g.

Periodic audits by the Client's Health & Safety Agent, progress meetings, etc. The Contractor is responsible to ensure that competent Contractors are appointed to carry out construction work.

GENERAL RECORD KEEPING

The Principal Contractor and their Contractors shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the OHS Act 85/1993, and with the Construction Regulations (July 2003). The Principal Contractor shall ensure that all records of incidents / accidents, emergency procedures training, inspections, audits, etc. are kept in a Health and Safety file held in the site office. The Principal Contractor must ensure that every sub-Contractor keeps its own Health and Safety file, maintains the file and make it available on request (The file must include the Sub-Contractor's health and safety plan). These records are crucial for inclusion in the Principal Contractors' consolidated health and safety file for handover to the Client on completion of construction work.

HEALTH AND SAFETY AUDITS, MONITORING AND REPORTING

The Client's Health & Safety Agent shall conduct monthly Health and Safety audits of the work. Operations including a full audit of physical site activities as well as an audit of the administration Health and Safety. The Principal Contractor is obligated to conduct similar audits on their Contractors.

Detailed reports of the audit findings and results shall be reported on at all levels of project management meetings / forums. Copies of the Client audit reports shall be kept in the Primary Project Health and Safety file while the Principal Contractor audit reports shall be kept in their file, a copy being forwarded to the Client. Principal Contractor has to audit their Contractors and keep records of these audits in their Health and Safety files, available on request.

EMERGENCY PROCEDURES

The Principal Contractor shall compile a comprehensive Evacuation Plan with assemble point and contact details in the case of any emergency supplied by the Client's Health & Safety Agent.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FIRST AID BOXES AND FIRST AID EQUIPMENT

The Principal Contractor and their Contractors shall appoint in writing First Aider(s). The appointed First Aider(s) are to be sent for accredited first aid training. Valid certificates are to be kept on site. All Principal Contractor with more than 5 employees shall supply their own first aid box. Principal Contractor with more than 10 employees shall have trained, certified first aider on site at all times & First aid Box adequately stocked at all times.

ACCIDENT / INCIDENT REPORTING AND INVESTIGATION

Injuries are to be categorized into first aid, medical, disabling and fatal. The Principal Contractor must stipulate in its construction phase Health and Safety plan how it will handle each of these categories. When reporting injuries to the Client, these categories shall be used. All contractors must investigate and report on the 4 categories of injuries to the Principal Contractor at least monthly. Contractors must investigate injuries and accidents involving their employees within seven days of the incident in the form on Annexure1 (General Administrative Regulations) and forward a copy on the investigation report to the principal contractor forthwith. **All incidents reportable in terms of the provision of Section 24 of the OHS Act 1993 must be reported to the local Dept. of Labour in the prescribed manner.**

The Principal Contractor must report all injuries to the Client in the form of a spreadsheet, which includes all contractor injuries/incidents and man-hours worked for the month as well as the cumulative total. This report must be done on a monthly basis and must form part of the Principal Contractor's progress report.

HAZARDS AND POTENTIAL SITUATIONS

The Principal Contractor shall immediately notify the Client's Health & Safety Agent of any hazardous or potentially hazardous situations that may arise during the performance of construction activities.

PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING

The Principal Contractor shall ensure that all workers are issued and wear hard hats, protective footwear and overalls. The Principal Contractor and their Contractors shall make provision and keep adequate quantities of SABS or SANS approved PPE on site at all times.

OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The Principal Contractor shall provide adequate on-site OHS signage. Including but not limited to: "no unauthorized entry", "report to site office", "site office", and "hardhat area". Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. Access routes, entrances to structures and buildings, scaffolding and other potential risk areas / operations. All Contractors to adhere to it.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACTORS

The Principal Contractor shall ensure that all Contractors appointed by them comply with this Specification, the OHS Act 85/1993, and Construction Regulation (July 2003).

The Principal Contractor may only appoint a sub-contractor after approving the sub-contractor's health & safety plan. The Principal Contractor must audit each of its Contractors on a monthly basis, with audit reports filed in the health & safety file on site. The audit must include an administrative assessment as well as a physical inspection of the contractor's health & safety system.

The Principal Contractor must stop any Contractor from carrying out construction work that is not in accordance with the Principal Contractor's or Contractor's health & safety plan or if there is an immediate threat to the health and safety of persons.

The Principal contractor shall take all reasonable steps necessary to ensure co- operation between all Contractors to enable each of those Contractors to comply with the provisions of these regulations;

The Principal Contractor must ensure that their Contractor is registered and in good standing with a recognized compensation fund or with a licensed compensation insurer prior to work commencing on site;

The Principal Contractor must ensure that potential Contractors submitting tenders have made provision for the cost of health and safety measures during the construction process; The Principal Contractor shall discuss and negotiate with their Contractor the contents of the health and safety Plan and shall finally approve that plan for implementation;

PENALTIES

Penalties may be imposed for ongoing non-compliance to the provisions of the Client's Health and Safety specification and Principal Contractors' health & safety plans. The penalty procedure shall consist of a written warning with a compliance time frame. Failure to comply within the time frame stipulated would result in a R1000 penalty per non-compliance item per day that the non-compliance persists.

A HEALTH AND SAFETY OFFICER CR 6.6

The Principal Contractor shall provide a full-time safety officer on site and proof of their competency to be attached to their appointment.

PHYSICAL REQUIREMENTS

CIVIL WORK

Principal Contractor to ensure that the Contractor complies with Construction regulation 21 and that the following is undertaken during civil work:

A competent site supervisor to be on site at all times.

- Plant and equipment inspected daily and registers kept.
- All operators of plant and vehicles: trained, competent and physically and psychologically fit. Certificates to be put in their Health & Safety File.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- Workers that are working close to the traffic to be visible and are to wear reflective vests.
- Adequate safety signage to be posted ahead of any work area in the road.
- All signage, including delineators to be maintained and kept clean at all times.
- The required PPE must be worn at all times (Hard hats, safety shoes, overalls, etc.)
- Risk assessments to be conducted on all high-risk activities.
- Speed reduction road signs to be posted.
- Dust control practices used to limit dust generation.

Laying of pipes / Backfilling

- A competent site person to supervise lifting operations at all times.
- No employee to stand under any suspended loads.
- Loads must not be slewed over personnel, plant, site huts or property.
- All lifting equipment and accessories must be marked with the Safe Working Load.
- Slings must not be placed on sharp edges.
- Workers to wear proper PPE at all times.
- Work to be stopped when weather conditions prevent safe operations during trenching work or laying of pipes.
- Everyone to stand clear of any area being backfilled by mobile plant.

EXCAVATIONS, SHORING, DEWATERING OR DRAINAGE

The Principal Contractor and any relevant Contractors shall make provision at tendering stage for shoring, dewatering or drainage of any excavations as per this specification.

The Principal Contractor shall make sure that:

The excavations are inspected before every shift, after any blasting, after an unexpected fall of ground, after any substantial damage to the shoring and after rain, records kept thereof.
Safe work procedures have been communicated to the workers,
The safe work procedures are enforced and maintained by the Contractor's Responsible Persons at all times,
The requirements as per section 11 of the Construction Regulations are adhered to.
Where pipe-jacking activities are taking place safe work procedures /method statements to be submitted to Client's Health & Safety Agent prior to these activities.

Method statement to be developed where shoring will be done, especially near public roads and also where explosives will be / are used.

CONFINED SPACE ENTRY

The Principal Contractor to prepare a confined space procedure in line with General Safety Regulation (5) OHS Act

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EXISTING STRUCTURES

Any adjacent structures that may be affected by work must be considered in the planning process. Precautionary measures must be detailed and applied to prevent damage, uncontrolled collapse of existing structures and/or loss to property and persons during the entire construction phase.

EDGE PROTECTION AND PENETRATIONS

The Principal Contractor must ensure that all exposed edges and openings are guarded and demarcated at all times until permanent protection has been erected. The Principal Contractors' risk assessment must include these items finished floor slab edges, floor penetrations, and all other openings and areas where a person may fall.

Hazardous Chemical Substances (HCS)

The Principal Contractor working with Hazardous chemical substances to obtain copies of all the (MSDS) Material Safety Data Sheets and this is to be kept on site and a copy to be forwarded to Client's Health & Safety Agent.

Stacking Of Materials

The Principal Contractor shall ensure that there are sufficient appointed stacking supervisors and that all materials and equipment is stacked and stored safely. Double handling of material should be avoided and for this purpose, pallets and other stacking options should be used.

Plant And Machinery

Construction Plant

The Principal Contractor shall ensure that all such plant complies with the Requirements of the OHS Act 85/1993 and Construction Regulations (July 2003). The Principal Contractor shall inspect and keep records of inspections of construction plants used onsite. Only authorized / competent persons are to use machinery under proper supervision. Appropriate PPE must be provided and maintained at all times.

Vessels Under Pressure (Vup) And Gas Bottles

The Principal Contractor shall comply with the Vessels under Pressure Regulations, including: Providing competency and awareness training to the operators, Providing PPE, Inspect Equipment regularly and keep record of inspections, Provide appropriate firefighting equipment (Fire Extinguishers) on hand.

Fire Extinguishers And Fire Fighting Equipment

The Principal Contractor shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur. The appropriate notices and signs must be posted as required.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Hired Plant And Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (July 2003) shall apply. The Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the Health and Safety file. All relevant Contractors must ensure the same.

Formwork And Support Work For Structures

The Principal Contractor shall ensure that the provisions of section 10 of Construction Regulations (July 2003) are adhered to. These provisions must include but not be limited to ensuring that all equipment used is examined for suitability before use, that all formwork and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed. Records of all inspections must be kept in a register on site.

General Machinery

The Principal Contractor shall ensure compliance with the Driven Machinery Regulations, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE, and training those who operate the machinery.

High Voltage & Electrical Installations

If high voltage electrical lines are present on the site perimeter, the Contractor must be aware of the location of them and are to demarcate its positions.

These demarcations must be maintained throughout the duration of the construction work. The minimum safety clearances as per Electrical Machinery Regulation 15 must be **adhered to**. All installation must comply with SANS 10142 & the regulations of the OHS Act 85/1993 and Construction Regulation 22.

All temporary electrical installations must be inspected at least weekly.

Portable Electrical Tools And Explosive Powered Tools

The Principal Contractor shall ensure that use and storage of all explosive powered tools and portable electrical tools are in compliance with relevant legislation.

The Contractor shall ensure that all electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and the control measures that are to be implemented e.g. Personal protection equipment, guards, etc.

A competent person to undertake routine inspections and records are to be kept on file. Only authorized trained persons are to use the tools, the safe work procedures to apply. Awareness

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

training to be carried out, compliance enforced at all times, and PPE are **provided and maintained**,

Welding Equipment

Only authorised / trained persons to use the equipment.

The operators are to wear correct PPE - eye/ face/foot/body/respirator.

Flashback arrestors are to be fitted on cylinders and gauges when using gas welding equipment.

Fire prevention methods to be applied.

Where electric arc welders are used, equipment only to be used in a dry area, protected from wetness.

Public And Site Visitor Health And Safety

Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities. Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these inductions must be kept on site in accordance with the Construction Regulations. Principal Contractor to ensure that no unauthorized personal enter the construction area.

Method statements are to be drafted on traffic management on site, including work near the public.

Night Work

Adequate lighting to be provided where required. Personnel should not work alone at night.

Occupational Health

Occupational Hygiene

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and Principal

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Contractor must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards.

The Risk to be looked at includes:

Ventilation

Adequate ventilation / extraction / exhausting in hazardous areas e.g. chemicals / adhesives / welding / petrol or diesel/ motors running and in confined spaces / basements.

Noise

Tasks identified where noise exceeds 85 dBa. All reasonable steps are to be taken to reduce noise levels. Hearing protection is to be used where noise levels cannot be reduced to below 85 dBa.

Dust

Principal Contractor to ensure that employees working with grinders, saws & jackhammers, etc. are issued with dust masks and dust exposure to be minimized at all times.

Welfare Facilities

The Principal Contractor will provide ablution facilities for all on site, including changing facilities & hand washing facilities. Safe and adequate facilities will be provided. Waste bins must be strategically placed and emptied regularly. Safe and clean storage areas must be provided for workers to store personal belongings and personal protective equipment.

Alcohol And Other Drugs

The Principal Contractor is to ensure that no alcohol and other drugs are allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the Contractor forthwith. Any person suffering from any illness / condition that may have a negative effect on his/her safety performance must report this to his/her superior, who shall in turn report this to the Principal Contractor forthwith.

Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. The Contractor concerned must follow a full disciplinary procedure and a copy of the disciplinary action must be forwarded to the Principal Contractor for his records.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

**HEALTH AND SAFETY SPECIFICATIONS (HSS)
PROJECT: SUPPLY, DELIVERY, INSTALLATION
AND COMMISSIONING OF PST WASTE SLUDGE
FEED PUMPS (REPLACEMENT OF POSITIVE
DISPLACEMENT PUMPS) FOR WELGEDAGHT
AND WATERVAL WCW**

Annexure A

The Principal Contractor must submit compliance with Annexure A within **one week** of receiving this Specification.

HSS Item no.	REQUIREMENT	OHS REQUIREMENT	SUBMISSION DATE
2.3.1	Assignment of Responsible Persons to supervise Construction work	OHS Act (section 16.2) & Construction Regulation 6	Before commencement on site
2.3.2	Competence of Responsible Persons	OHS Act (section 16.2) & Construction Regulation 6	Together with H & S plan
2.3.3	Compensation of Occupational Injuries and Diseases - Proof of Registration- FEM or CC	COIDA	Together with H & S plan
2.3.4	Occupational Health and Safety Policy	OHS Act	Together with H & S plan
2.3.5	Health and Safety Organogram	Client Requirement	Together with H & S plan
2.3.6	Initial Hazard Identification and Risk Assessment based on the Client/s assessment	Construction Regulations.	Together with H & S plan
2.3.7	Health and Safety Representative	OHS Act	Submit as soon as There are more than 20 employees on site

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

**HEALTH AND SAFETY SPECIFICATIONS (HSS)
PROJECT SUPPLY, DELIVERY, INSTALLATION
AND COMMISSIONING OF PST WASTE SLUDGE
FEED PUMPS (REPLACEMENT OF POSITIVE
DISPLACEMENT PUMPS) FOR WELGEDAGHT
AND WATERVAL WCW**

Annexure B

The Principal Contractor shall make the following appointments according to the initial risk assessment: (further appointments could become necessary as the project progresses). Contractors shall make the relevant appointments as per their operations. The Client reserves the right to insist on any appointment as determined by its risk assessment of the Contractor concerned.

APPOINTMENT	OHS REFERENCE	REQUIREMENT
CEO Assignee	Section 16(2)	A competent person to assume the overall H & S responsibility - Contractor's Responsible Person
Construction Work Supervisor	CR 6.1	A competent person to supervise and be responsible for Health and Safety related issues on site
Subordinate Construction Work Supervisors	CR 6.2	A competent person to assist with the daily supervision of construction / building work. The person(s) assist the Construction Work Supervisor
Health and Safety Representative(s)	Section 17	A competent person(s) to assist with identifying risks, attend H & S meetings, conduct inspections, assist with investigations, etc.
Incident Investigator	GAR 8	A competent person to investigate incidents / accidents on site, this could either be: * The 6.1 or 6.2 Person * H & S Representative * Member of the H & S Committee * H & S officer
Risk Assessment Co-ordinator	CR 7	A competent person to co-ordinate all assessments on behalf of the Principle Contractor. The same applies to Contractors.
Fall protection plan co-ordinator	CR 8	A competent person to prepare and amend the fall protection plan
First Aiders	GSR 3	A qualified person to address all on site first aid cases
Lifting machine and equipment Inspector	DMR 18	A competent person to inspect lifting machines and equipment
Lifting tackle Inspector	DMR 18	A competent person to inspect lifting tackles
Scaffolding Inspector	SANS 10085-1:2004	A competent person to inspect scaffolding before use and every time after bad weather,

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

APPOINTMENT	OHSA REFERENCE	REQUIREMENT
		etc.
Scaffolding Erector	SANS 10085-1:2004	A competent person to erect scaffolding
Scaffolding Supervisor	SANS 10085-1:2004	A competent person to supervise scaffolding
Stacking Supervisor	CR 26	A competent person to supervise all stacking and storage operations
Explosive powered tools Inspector / Supervisor	CR 19	A competent person to inspect and clean the tools daily and controlling all operations thereof
Temporary electrical installations Supervisor	CR 22	A competent person to control all temporary electrical installations
Fire-fighting equipment Inspector	CR 27	A competent person to inspect fire-fighting equipment

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

OTHER REQUIREMENTS

PROJECT: ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

Annexure C

The Principal Contractor shall comply but not be limited to the following requirements: Reports on these to be addressed to the Client at progress meetings or at least monthly whichever is sooner. A report with supporting documents shall be tabled at the Contractor/s monthly Health and Safety meeting.

WHAT	WHEN	OUTPUT	ACCEPTED BY CLIENT WITH DATE
Construction-phase Health and Safety plan	Within one week of receipt of the Spec.	Principal Contractor to report on status of Principal Contractors' Health and Safety plans	
Health and Safety file	Open file when construction begins and maintain throughout	Have file on hand at meetings	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Awareness Training (Tool Box Talks)	At least weekly	Attendance registers	
Health and Safety Reports	Monthly	Report covering: * Incidents/Accidents and Investigations * Non conformances by employees & contractor * Internal & External H & S audit reports	
Risk assessment	Updated and signed off at least monthly	Documented risk assessment	
Method statements (safe work procedures)	Drawn up before work	Documented set of safe work procedures (method statements) updated and signed off	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	<p>e r s a r e e x p o s e d t o n e w r i s k s</p>		
General Inspections	Weekly and Daily	<p>OHS Act compliance Registers: * Scaffolding * Excavations * Formwork & support work * Explosive tools * Temporary cal Installations</p>	electri-
General Inspections	Monthly	<p>* Fire-fighting equipment * Portable cal equipment * Ladders</p>	electri-
General Inspections	3 - Monthly	<p>* Lifting tackle * oxy-acetylene cutting and welding sets * all prevention and arrest equipment</p>	
General Inspections	6 - Monthly	<p>* Lifting machines</p>	
Workman	Updated Weekly	Table list of Principal Contractors' workman's compensation proof of good standing	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

s C o m p e n s a t i o n			
Constru ction site rules & Section 37.2 Mandato ry Agreem ent	Upda te Wee kly	Table a report of all signed up Mandatory's	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PROJECT: ERW202006/TNDR-005: SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

Annexure D

Acknowledgement of Receipt of the Health and Safety Specifications:

I, _____ representing

_____ Contractor

Have satisfied myself with the content of the construction Health and Safety Specification and shall ensure that the Contractor and its personnel comply with all obligations / requirements in respect thereof.

Signature of CONTRACTOR

DATE

Signature of CLIENT / CLIENT'S AGENT

DATE

COMMENTS:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EAST RAND WATER CARE COMPANY (ERWAT): DEVELOPMENT DEPARTMENT
PROJECT NO: ERW202006/TNDR – 005

SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF PST WASTE SLUDGE FEED PUMPS (REPLACEMENT OF POSITIVE DISPLACEMENT PUMPS) FOR WELGEDAGHT AND WATERVAL WCW

1. ENVIRONMENTAL MANAGEMENT DURING CONSTRUCTION

1.1 INTRODUCTION

A comprehensive Environmental Scoping Report was prepared as part of the environmental and social assessment of the preceded project. Included in the report is an Environmental Management Plan (EMP) and the purpose of this Particular Specification is to make the Contractor aware of his obligations in terms of the EMP during construction and to afford him the opportunity to insert rates and prices in the Schedule of Quantities to cover these obligations.

Sub-Contractors and their employees must comply with all the requirements of this specification. Absence of specific reference to any sub-contractor in any specification does not imply that the sub-contractor is not bound by this specification.

The Contractor must arrange for all his employees and those of his sub- contractors to be informed of this specification before the commencement of construction to ensure:

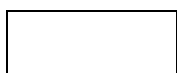
- a.) basic understanding of the key environmental features of the work site and environments, and
- b.) familiarity with the requirements of this document.

1.2 MONITORING AND ASSESSMENT OF COMPLIANCE

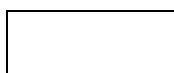
The environmental management performance of the Contractor (including his subcontractors and staff) will be reviewed on a regular basis by the Employer's ECO. The Contractor will be deemed not to have complied with the EMP if:

- a.) There is evidence of negligence or recklessness resulting in the contravention of any of the clauses, both within and outside the boundaries of the construction site;
- b.) The Contractor fails to comply with corrective or other instructions within a time specified by the Engineer;
- c.) The Contractor fails to respond adequately in terms of the contract, to complaints from the public.

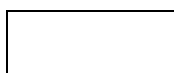
The Contractor will be given a period of 2 weeks after the commencement date of the contract, before compliance is enforced.



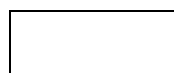
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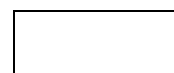
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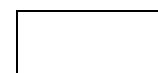
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Via these environmental specifications the Contractor has been made aware of what actions are required of him and/or his subcontractors. Certain do's and don'ts have been given and onus for these controls rests with the Contractor as he is the only person capable of controlling these aspects and a fine/reward system will be implemented to encourage compliance.

Compliance to the EMP will be reported by the ECO in the form of a monthly Environmental Compliance Report which will include all transgressions of the EMP and the environmental specification and rate them in order of significance. The Environmental Compliance Report will be forwarded to the Engineer, the Employer and GDACE on a monthly basis.

A percentage point will be given based on a questionnaire which is attached to the Report. Any percentage compliance above 80% will be considered to be within acceptable limits. If the Contractor has not complied with any of the clauses of the EMP, or the score in the monthly environmental audit drops to below 80% compliance, the ECO will advise the Engineer who shall order the Contractor in terms of the contract to remedy the deficiencies. Failure on the part of the Contractor to carry out such order shall be dealt with in terms of the contract.

Should compliance drop below 60% the ECO shall immediately advise the Engineer who shall have the right in terms of the contract to order in writing the suspension of the Works.

1.3 COMPLIANCE WITH SANS 1200

All environmental clauses stated in the SANS 1200 "Standard Specification for Civil Engineering Construction" as amended in this document shall be adhered to by the Contractor. Where the EMP is in conflict with the Standard Specification, the EMP shall take precedence.

1.4 SITE MANAGEMENT

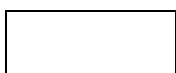
General

The Contractor shall draw up a plan of all parts of the construction site, showing the layout of site establishment, stockpiles, planned access and circulation routes, etc. to depict the scope of his planned operations. The plan shall be submitted to the ECO for comment and approval by the Engineer.

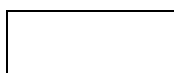
The Works area will be indicated on the layout plan and shall never exceed the boundaries of the site at any given location during the construction period.

Every precaution shall be taken, in accordance with this specification, to prevent pollution of air, soil, ground, and surface water as a result of construction or associated activities.

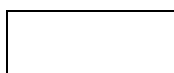
All equipment must be inspected regularly for oil or fuel leaks before it is operated. Leakages must be repaired on mobile equipment or containment trays placed underneath immobile equipment until such leakage has been repaired.



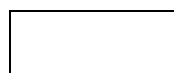
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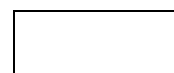
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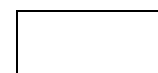
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Housekeeping

The Contractor shall ensure that his working areas are kept clean and tidy at all times. The ECO shall inspect these areas on a regular basis.

Works area

Routes for temporary access and haul roads shall be located within the approved Works area and vehicle movement shall be confined to these roads. Movement of vehicles outside the Works area shall not be permitted without authorisation from the Engineer, after consultation with the ECO.

All construction activities shall be restricted to working areas designated on the drawings and/or demarcated and approved by the Engineer. Materials, including spoil, shall only be stockpiled in the Works area.

Fire risk and burning

Burning of vegetation including tree trunks and stumps cut during site clearing and establishment shall not be permitted.

The Contractor shall ensure that the risk of fire at any location on the site is kept to a minimum.

The Contractor shall supply fire-fighting equipment in proportion to the fire risk presented by the type of construction and other on-site activities and materials used on site. This equipment shall be kept in good operating order.

Open fires for heating and cooking shall only be permitted in protected areas designated by the ECO for this purpose.

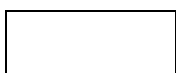
No fires will be allowed adjacent to the boundary fence, either inside or outside the construction site.

Any welding or other sources of heating of materials must be done in a controlled environment, wherever possible and under appropriate supervision, in such a manner as to minimise the risk of veld fires and/or injury to staff.

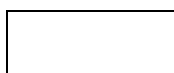
Storage of fuel and other materials

Fuel, lubricants, transmission, and hydraulic fluids shall only be stored in the Works area.

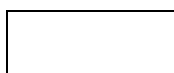
All fuel tanks must be installed above ground, depending on the volume of stored fuel, for easy detection of fuel leaks. All fuel tanks must be placed on a thick plastic sheet so as to



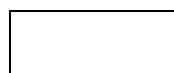
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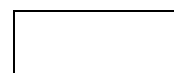
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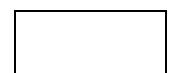
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prevent soil pollution, be set in a bund with earthen walls, and maintained throughout the contract.

Areas made available for fuelling or greasing of equipment and vehicles must be clearly demarcated on the layout plan. In order to prevent soil pollution, these areas must be covered with a protective material (e.g. a thick plastic sheet). No fuelling, greasing, or filling of oils may take place outside these demarcated areas.

The Contractor must provide adequate and approved facilities for the storage and recycling of used oil and contaminated hydrocarbons. Such facilities must be designed and sited with the intention of preventing pollution of the surrounding area and environment.

Cement must be stored and mixed on an impermeable substratum.

Concrete batching plants

Concrete must be mixed only in an area demarcated for this purpose. All concrete spilled outside this area, must be promptly removed by the Contractor and taken to a permitted waste disposal site. After all concrete mixing is complete all waste concrete must be removed from the batching area and disposed of at an approved dumpsite.

The batching plant shall be enclosed by a bund wall with divisions and dedicated compartments for the various types of materials. Air filters shall be monitored and cleaned and replaced as per the supplier's guidelines.

Storm water must not be allowed to flow through the batching area.

Water laden with cement must be collected in a retention area for evaporation and not allowed to escape the batching area. This pond will be cleaned monthly.

Operators must wear suitable safety clothing.

Safety

Equipment and stores should be locked up and not left unattended.

The Contractor must ensure that no unemployed labour seekers are permitted to gather at the site and no camp followers/shebeen operators shall be allowed to operate on or adjacent to the site.

Measures must be taken to prevent any interference that could result in flashover of power lines due to breaching of clearances or the collapse of power lines due to collisions by vehicles and equipment.

Measures must be taken during thunderstorms to protect workers and equipment from lightning strikes.

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All tall structures must be properly earthed and protected against lightning strikes.

The Contractor must have a first aid box available on site and on all vehicles working on site.

The Contractor must submit a copy of the minutes of weekly health and safety meetings to the ECO.

Blasting and drilling

A written warning of 2 days indicating the date and approximate time period of blasting activities shall be given to affected residents for the temporary removal of sensitive domestic animals such as horses, dogs, cats, birds, and cattle, before blasting and/or drilling activities commence during that period.

During blasting the stipulations of the Minerals Act, Act 50 of 1991 shall apply.

Should any warning not be given within the period specified above, the Contractor will be held liable for injuries to or deaths of the affected animals.

In order to minimise the potential impact on animals, it is proposed that soft explosives and/or noise mufflers be used.

When blasting, the Contractor shall take measures to limit flying rock. This may be achieved by matching the charge to the rock type, by using milli-second delay detonators or by using rubber blasting mats placed over the area to be blasted. Flying rock 150mm and larger which falls beyond the cleared working area shall be collected and removed together with the rock spoil.

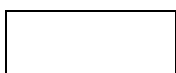
When blasting under power lines the Contractor shall arrange for power to be temporarily switched off or have the lines moved.

Fencing

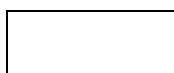
Fencing shall be erected around sensitive natural or cultural elements to protect them from damage. No pedestrian or vehicular access shall be allowed to such fenced areas.

In places where temporary fencing is required, the Contractor shall erect such fencing and, when and where required by the Engineer, re-erect and maintain temporary fencing as necessary. Temporary fencing shall remain in position either until it is replaced by permanent fencing or until completion of the whole of the Works, unless the Contractor requires, or the Engineer directs its earlier removal. The Contractor shall erect and maintain the aforementioned temporary fencing in the locations and for the period described in the Contract.

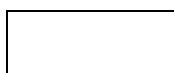
If temporary fencing is removed temporarily for the execution of any part of the Works, it shall be reinstated as soon as practicable by the Contractor.



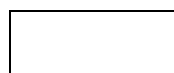
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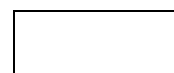
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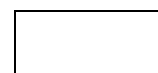
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The clearing for permanent fencing shall be limited to the removal of trees and shrubs within 1m of the fence line. Where possible, the fence line must be aligned to retain trees or tree groups. There shall be no removal of the grass cover or topsoil within this width.

Control Of Damage To Vegetation And Animals

The Contractor shall ensure that all works are undertaken in a manner which minimises the impact on vegetation and animals inside or outside of the Works area.

Vegetation

As much of the existing vegetation as possible shall be retained. The removal of existing vegetation shall only occur at the sites designated for construction activities. Only woody vegetation may be cleared. During clearing of woody vegetation no basal cover or grass and topsoil shall be removed and damage to this layer shall be minimised as far as possible.

Bush and grass veld must only be cleared to provide essential access for construction purposes.

No indigenous shrubs and/or trees shall be cut down by the Contractor. Removal, damage or disturbance of any vegetation outside the Works area is not permitted. Special care shall be taken not to disturb or destroy riverine vegetation.

Trees which have been selected for preservation by the ECO within or adjacent to the Works areas shall be fenced around their drip line. The fence shall be clearly marked with danger tape. No open fires shall be allowed within this fenced area, nor shall vehicles be parked underneath these trees. The area shall also not be used for materials storage or as allocation for temporary buildings. If such trees are located within the 15m working width of the pipeline, the pipeline shall be aligned to avoid these trees wherever possible.

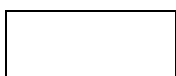
Gathering of firewood shall not be permitted.

The Contractor shall take care that seeds are collected during the removal of alien vegetation in order to counter the spread of this vegetation type. Failure to do so may result in prosecution in terms of the Conservation of Agricultural Resources Act (Act 43 of 1983). A fine not exceeding R5000 and/or 2 years imprisonment can be imposed.

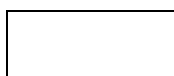
No vehicular access will be allowed on the grassy parts of the construction site.

Disturbance of animals

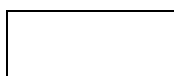
Under no circumstances shall any animals be handled, removed, killed or interfered with by the Contractor, his employees, his sub-contractors or his sub-contractors employees. Snakes and other reptiles that may be encountered on the construction site must not be killed unless the animal endangers the life of an employee. Disturbances to nesting sites of birds must be minimized. Anthills and/or termite nests that occur in the Works area must not be disturbed unless it is unavoidable for construction purposes.



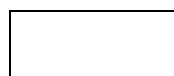
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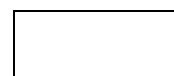
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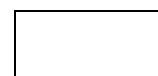
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The Contractor and his employees shall not bring any domestic animals onto the site.

The Contractor shall ensure that the work site is kept clean and tidy and free from rubbish which would attract animal pest species. There shall be no feeding of native animals.

The Contractor shall ensure that domestic and native animals are safe from injury that may arise from unprotected Works.

The Contractor shall advise his workers and subcontractors of the penalties associated with the needless destruction of wildlife, as set out in the Animals Protection Act (Act 71 of 1962) sec. 2 (fine R2 000 and/or 12 months imprisonment).

Control Of Damage To Soil And Water

Stripping of topsoil

Topsoil shall be deemed to be the top 300mm layer of soil. This layer contains organic material, nutrients and plant and grass seed. For this reason it is an extremely valuable resource for the rehabilitation and re-vegetation of disturbed areas.

Topsoil shall be stripped from all areas that are to be utilized during the construction period and where permanent structures and access is required. These areas will include the area comprising the permanent works, pipeline trenches, stockpiles, temporary and permanent access roads, construction camps, lay down areas, and any other area as indicated on the Works area drawings. Topsoil shall be stripped after clearing of woody vegetation and before excavation or construction commences.

Soil shall be stripped to a minimum depth of 150mm and maximum depth of 300mm or to the depth of bedrock where soil is shallower than 300mm. Herbaceous vegetation, overlying grass and other fine organic matter shall not be removed from the stripped soil.

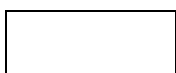
No topsoil which has been stripped shall be buried or in any other way be rendered unsuitable for further use by mixing with spoil or by compaction by machinery.

Topsoil shall be stripped when it is in a dry condition in order to prevent compaction.

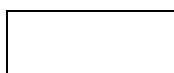
Stripping of topsoil shall be undertaken in such a way as to minimise erosion by wind or runoff.

Stockpiling of topsoil

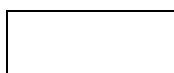
Topsoil should be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. The Contractor shall ensure that subsoil and topsoil are not mixed during stripping, excavation, reinstatement, and rehabilitation. If mixed with clay sub-soil the usefulness of the topsoil for rehabilitation of the site will be lost. Temporary soil stockpiles



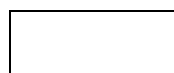
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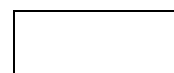
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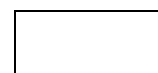
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shall not be higher than 2,5m, and the slopes of soil stockpiles shall not be steeper than 1 vertical to 1,5 horizontal.

Areas from which topsoil is to be removed shall be cleared of any foreign material which may come to form part of the topsoil during removal including bricks, rubble, any waste material, litter any other material which could reduce the quality of the topsoil.

Soil must not be stockpiled on drainage lines or near watercourses.

No vehicles shall be allowed access onto the stockpiles after they have been placed. Topsoil stockpiles shall be clearly demarcated in order to prevent vehicle access and for later identification when required.

After topsoil stockpiling has been completed, the Contractor shall apply soil conservation measures to the stockpiles where and as directed by the Engineer / Environmental Officer. This may include the use of erosion control fabric and/or grass seeding.

Placement of topsoil

Topsoil shall be placed to a minimum depth of 150mm over all areas where it has been stripped, after construction in those areas has ceased. Topsoil placement shall follow as soon as construction in an area has ceased.

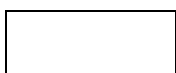
All areas onto which topsoil is to be spread shall be graded to the approximate original landform with maximum slopes of 1:2,5 and shall be ripped prior to topsoil placement. The entire area to be covered with top soil shall be ripped parallel to the contours to a minimum depth of 300mm.

Topsoil shall be placed in the same soil zone from which it had been stripped. However, if there is insufficient topsoil available from a particular soil zone to produce the minimum specified depth, topsoil may be brought from other soil zones on approval by the Engineer after consultation with the ECO.

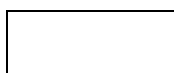
Where topsoil that has been stripped by the Contractor is insufficient to provide the minimum specified depth, the Contractor shall obtain suitable substitute material from other sources at no cost to the employer. The suitability of the substitute material shall be determined by means of a soil analysis which is acceptable to the Engineer.

No vehicles shall be allowed access onto or through topsoil after it has been placed.

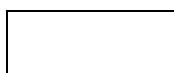
After topsoil placement is complete, cleared and stockpiled vegetative matter shall be spread randomly by hand over the area covered with topsoil



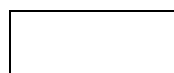
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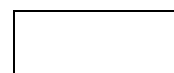
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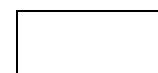
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Control of pollution

As a minimum requirement all waste emissions (hazardous, airborne, liquid and solid) from the site shall be kept within the limits of standards set in terms of relevant national and local pollution legislation and regulations.

General

No waste of a solid, liquid or gaseous nature shall be emitted from the site without approval by the Engineer.

Precautionary measures must be taken to prevent any form of pollution.

Accidental pollution incidents shall be reported to the Engineer and the ECO immediately after they occur and shall be cleaned-up by the Contractor or a nominated clean-up organisation at the expense of the Contractor.

Soil

Vehicle and plant maintenance shall be confined to the areas demarcated for this purpose. Should any amount of fuel, oil transmission or hydraulic fluids be spilled onto the soils the Engineer and the ECO shall be informed immediately. If ordered by the Engineer, tests must be conducted to determine the extent of soil contamination. The polluted soil shall be rehabilitated or remediated to the satisfaction of the Engineer, after consultation with the ECO. Proof of disposal of contaminated soil must be submitted by the Contractor to GDACE within 14 days of the disposal thereof.

Water

Water containing waste shall be prevented from entering the Klip River or the Rietspruit either by seepage or natural flow. Oil absorbent fibres must be used to contain oil spilled in water.

Cost effective measures must be taken to minimise the flow of surface water to trench excavations.

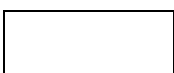
On-site storm water management over the construction site shall be to the satisfaction of the Engineer.

Air

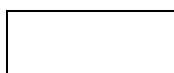
All reasonable measures should be taken to minimise air emissions in the form of smoke, dust, and gases.

All machinery and vehicles used for the Works shall be in good working order. Any vehicle or piece of machinery that visibly emits excess pollutant shall be removed from site.

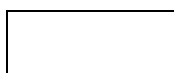
Waste must not be allowed to stand on site to decay, resulting in malodours. No fires shall be allowed if smoke from such fires will cause a nuisance to neighboring residents.



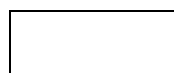
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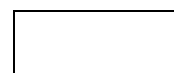
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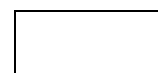
Witness 2



Employer



Witness 1



Witness 2

Sewage

Any spillage of sewage caused by the Contractor or any of his employees or subcontractors during the construction activities shall be cleaned up at the expense of the Contractor.

Management Of Waste

In practice all wastes arising from construction activities are to be handled, transported and disposed of in accordance with the relevant regulations. All efforts should be made to minimise, reclaim or recycle waste, and failing that, dispose of it in a manner licensed by the government for that purpose.

Sanitation

The Contractor shall provide adequate sanitation facilities in accordance with Clause PSA 1.2 hereof. The use of the surrounding veld for toilet purposes shall not be permitted under any circumstance.

Wastewater

Definition: Wastewater is water that is contaminated by humans through their actions.

All run-off from fuel depots, workshops, truck washing areas, and washwater from concreting vehicles and other equipment shall be collected and directed through pollution traps to the operational sewers. If connection to the sewers is not possible, the wastewater shall be collected in settlement ponds, which shall be suitably lined at the Contractor's expense.

Wastewater may not be disposed of directly or indirectly into the Klip River or the Rietspruit. The Contractor shall provide suitable retention and filtration structures (which shall be properly maintained) for the collection of wastewater.

The Contractor shall provide washing and changing facilities. All run-offs from these washing and/or changing facilities shall be contained in the retention structures to the satisfaction of the Engineer.

Solid waste

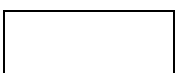
Definition: "Solid Waste" refers to all construction waste (such as rubble, cement bags, waste cement, timber, cans, other containers, wires and nails), household and office waste.

Solid waste shall be collected and stored in demarcated, fenced areas in skips and/or bins. The fenced areas or containers should be designed to prevent solid waste from being blown out by wind and should be strategically and conspicuously placed throughout the site.

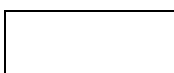
Wherever possible solid waste that can be recovered shall be recycled.

Solid waste shall be disposed of at a registered solid waste disposal site. The prices submitted by the Contractor shall include all transportation and disposal costs of waste. Solid waste shall not be buried nor burned on site.

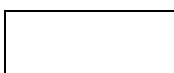
The entire works area and all construction sites must be swept of all pieces of wire, metal, wood or other material foreign to the natural environment.



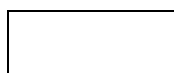
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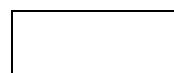
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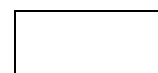
Witness 2



Employer



Witness 1



Witness 2

Hazardous wastes

Definition: Hazardous wastes are those which are proven to be toxic, corrosive, explosive, flammable, carcinogenic, radioactive, poisonous or as determined by the Hazardous Substance Act as amended.

Discharges of hazardous chemicals (such as paint, turpentine, oil and cement), as declared under the Hazardous Substances Act as amended, on the site or to the storm water system are prohibited.

Potentially hazardous raw and waste materials shall be handled and stored on-site in containers with tight lids that must be sealed and must be disposed of at an appropriately permitted hazardous waste disposal site. Such containers must not be used for purposes other than those originally designed for.

The following hazardous waste products shall be disposed of at a registered hazardous waste disposal site:

- a) cement;
- b) diesel, petroleum, oil and lubricants;
- c) explosives;
- d) drilling fluids;
- e) pesticides;
- f) paints and turpentine;
- g) concrete additives; and
- h) any other material which is listed in terms of the Hazardous Substances Act.

The Contractor must maintain a hazardous materials register.

MANAGEMENT OF STORMWATER AND SOIL EROSION

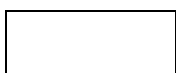
The aim is to minimise soil loss from the site due both to wind and water.

Storm water

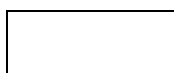
At all stages of the contract, storm water control measures shall be applied to keep soil on-site by minimising

- a) Erosion or leaching of water from temporary stockpiles of topsoil and permanent spoil dumps
- b) Erosion from construction roads, excavations and borrow pits, where applicable
- c) Silt-laden run-off from all areas stripped of vegetation, including excavation surfaces and stockpiles of spoil and topsoil (the correct placement of rocks together with straw bales can be used to prevent silt-laden run-off); and
- d) Contaminated run-off from storage areas;

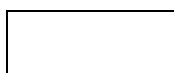
Thereby preventing it from entering waterways or the storm water drainage system.



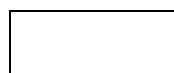
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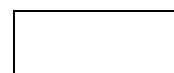
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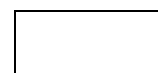
Witness 2



Employer



Witness 1



Witness 2

Natural storm water run-off that is not polluted by site operations shall be diverted around spoil dumps and topsoil stockpiles. Effective measures shall be taken to minimise the flow of storm water to excavations.

Where uncontaminated storm water has accumulated in excavations and needs to be pumped out, it must be disposed of in such a way that erosion does not occur along the course of its passage. Contaminated storm water shall not be disposed of into the waterways, unless it has been treated to the satisfaction of the Engineer, after consultation with the ECO.

Control of erosion

At all stages of the contract, erosion of bare soil, other excavation surfaces and stockpiles of topsoil and spoil shall be prevented by the application of erosion control measures.

Should erosion occur due to negligence on the part of the Contractor to apply adequate measures, the Contractor will be responsible for reinstatement of the eroded area to its former state at his own expense. Any surface water pollution occurring, as a result of this negligence, shall be cleaned up by the Contractor or a nominated clean-up organization at the expense of the Contractor.

Cross and side storm water drainage measures shall be constructed on access and haul roads to the site and on roads within the site.

The Contractor shall ensure that run-off from access and haul roads, and that diverted into cross and side drains, does not cause erosion

CONTROL OF DISTURBANCE TO NEIGHBOURS AND/OR AFFECTED RESIDENTS

All issues and items agreed to in the negotiations and discussions between the Owner and affected residents must be implemented.

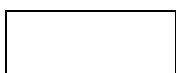
Scenic quality

The Contractor shall position all temporary structures as well as temporary plant on site in locations and at elevations which limit visual intrusion on neighbours. The type and colour of roofing and cladding materials shall be selected to reduce reflection.

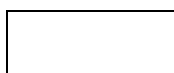
The Contractor shall not establish or undertake any activities which, in the opinion of the Engineer, are likely to adversely affect the scenic quality of the area. The Engineer may direct the Contractor to refrain from such activities or to take ameliorative actions to reduce the adverse effect of such activities on the scenic quality of the environment.

No painting or marking of natural features shall be done. Marking for surveying and other purposes shall only be done with pegs and beacons.

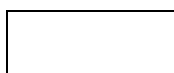
All cut and fill forms shall be rounded at the edges to blend them with the surrounding landforms.



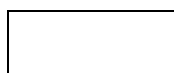
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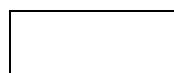
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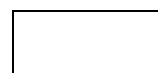
Witness 2



Employer



Witness 1



Witness 2

All packed rock and exposed rock cuttings shall be treated in order to blend their colour with the colours of the natural weathered rocks of the adjacent environment.

The colours of all permanent structures shall be chosen so as to blend in with the dominant colours of the surrounding landscape. Painted surfaces shall be painted with non-reflective (matt) colours.

Noise

All noise levels must be controlled at the source. All employees must be given the necessary ear protection gear. Neighboring residents must be informed of excessive noise factors.

Noise emanating from construction activities must not be "disturbing noise", that is, the sound level from the site measured at the nearest dwelling must not exceed the ambient noise level by 7dBA or more.

Appropriate directional and intensity settings should be maintained on hooters and sirens, if applicable.

Silencer units on plant and vehicles shall be maintained in good working order. Any vehicle/machine emitting excess noise shall immediately be removed from site or effectively repaired.

Where required by the ECO after consultation with the Engineer, the Contractor shall provide noise attenuation measures in the form of cladding and earth berm between sources of on-site noise and neighbours and/or affected property owners.

A speed restriction of 40 km/h shall be imposed on all construction vehicles in order to limit additional noise generated by these vehicles. This restriction shall apply to the site and any road within 2 kilometers of the site.

No loud music shall be allowed on site and in construction camps.

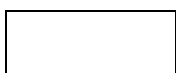
Dust

The Contractor shall ensure that a minimum of dust is generated by construction and related activities. Roads and working areas should be maintained regularly and this may include the sprinkling of water. Water for this purpose shall be used sparingly to not generate run-off and resulting soil erosion.

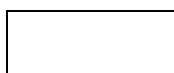
The Contractor shall control dust from spoil dumps as specified above.

Soil and aggregate loads in transit must be kept covered, to prevent wind borne pollution (dust).

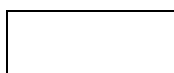
Stockpiles of soil must be kept covered or have a suitable dust palliative applied, such as water or commercial dust suppressants, to prevent windborne pollution.



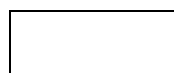
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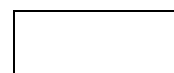
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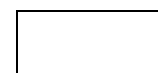
Witness 2



Employer



Witness 1



Witness 2

Social interaction and disruption

The Contractor shall maintain normal working hours (i.e. from 07:00 until 17:00) from Mondays to Fridays for the duration of the construction period. The Contractor must inform all adjacent landowners of any after-hour construction activities and any other activity that could cause a nuisance e.g. the application of chemicals to the work surface.

The Contractor's activities and movement of staff shall be restricted to designated construction areas only. The Contractor and site staff may not interact directly with adjacent landowners but only through the Engineer, who will contact property owners to obtain permission.

The Contractor's staff shall wear special identity cards (with the employees photograph displayed on the card), which shall make identification possible, at all times. Any temporary staff employed by the Contractor or any sub- contractor appointed by the Contractor shall also comply with this clause.

Rapid migration of job seekers could lead to squatting and social conflict with resident communities and increase in social pathologies if not properly addressed. The Contractor must ensure that signs indicating the availability of jobs are installed.

Criteria for selection and appointment, by the Contractor, of construction labour must be established to allow for preferential employment of local communities.

Disruption of services and access

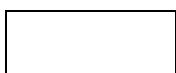
Care must be taken by the Contractor to avoid damaging major and minor pipelines and other services. The relevant authorities must be notified of any interruptions of services, especially the Mid Vaal Local Municipality, the National Roads Agency, Spoornet, TELKOM and ESKOM.

Disruption of access for local residents during construction, and haulage or any other construction activity shall only take place with the prior consent of the Engineer.

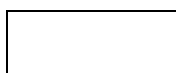
The Contractor shall liaise with the Engineer on a regular basis with regard to specific activities that could cause inconvenience to property owners, especially increased vehicular traffic through residential areas adjacent to the site. The Contractor shall prior to commencement inform property owners of his planned activities within a reasonable period of time.

The movement of construction vehicles through the affected areas shall be restricted to off-peak hours to minimise adverse impacts on private vehicular traffic. Temporary access roads must not be opened until required and must be restored to its former state as soon as the road is no longer needed.

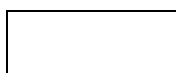
Traffic control



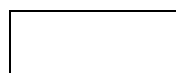
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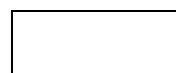
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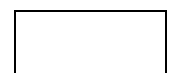
Witness 2



Employer



Witness 1



Witness 2

The Contractor shall ensure that all construction traffic including that of subcontractors, vendors, suppliers of materials and services are notified that a special speed limit of 40 kph shall apply along any road within the adjacent Klipwater Township; and special attention shall be given to road signs. Vehicles not complying with this ruling shall on the instruction of the Engineer, be denied access to the Site.

Archaeology and cultural sites

All finds of human remains must be reported to the nearest police station.

Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).

Work in areas where artefacts are found must cease immediately.

Under no circumstances must the Contractor, his/her employees, his/her sub- contractors or his/her sub-contractors' employees remove, destroy or interfere with archaeological artefacts. Any person who causes intentional damage to archaeological or historical sites and/or artefacts could be penalised or legally prosecuted in terms of the National Heritage Resources Act, 25 of 1999.

A fence at least 2m outside the extremities of the site must be erected to protect archaeological sites.

All known and identified archaeological and historical sites must be left untouched.

Work in the area can only be resumed once the site has been completely investigated. The Engineer will inform the Contractor when work can resume.

Rehabilitation

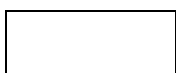
It is important that rehabilitation will commence as soon as feasible and to run in parallel with the construction and not to be left until completion of the works. This will increase the chances of successful rehabilitation as it can be monitored throughout the construction period.

The construction site shall be cleaned and rehabilitated as close as is reasonably possible to its original state.

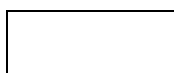
All drainage deficiencies must be corrected.

Cut and fill areas must be restored and re-shaped.

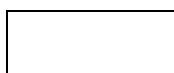
Areas compacted by vehicles during construction must be scarified to allow penetration of plant roots and the re-growth of natural vegetation.



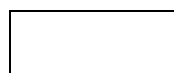
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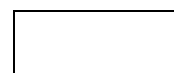
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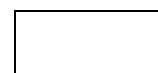
Witness 2



Employer



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Witness 2

Rehabilitation of all the disturbed and compacted areas shall mean that these areas are ripped and covered with topsoil.

- Ripped shall mean - ploughed with a ripper to a depth of not less than 300mm in two directions at right angles.
- Top soiled shall mean - the spreading of a minimum of 150mm of stockpiled topsoil either before or after ripping over the surface to be rehabilitated.

The areas immediately adjacent to the Works which are not designated for paving shall be grassed in accordance with the relevant engineering specification.

All alien vegetation removed during construction shall not be replaced.

The rehabilitated areas will be weeded by the nominated rehabilitation contractor for a period of 1 year.

Response To Public Complaints

The Contractor shall assist the Engineer with responding to queries and complaints from the public regarding construction activities by:

- a.) Documenting the details of such communications and submitting the information to the Engineer for inclusion in the complaints register;
- b.) bringing any such matters to the attention of the Engineer immediately as they arise;
- c.) taking any remedial action as per the Engineer; and d.) discuss such matters at the site meetings.

The Contractor shall assist the Engineer and consult with affected parties for the purpose of explaining the construction process and answering questions raised by affected parties at reasonable times.

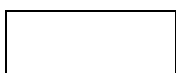
Should the owner of any property, contact the Contractor during the construction period regarding specific requests, the Contractor shall include all pertinent details in his report (Section 2.3 hereof).

Clearance Of Site On Completion

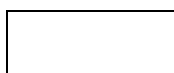
On completion of the Works, the Contractor shall clear away and remove from the site all construction plant, surplus materials, foundations, plumbing and other fixtures, rubbish and temporary works of every kind. Areas thus cleared shall be graded and scarified to restore the ground to its original profile as near as practicable before topsoil placement.

Compliance With Environmental Management Specifications

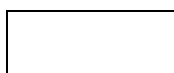
- a.) All persons employed by the Contractor or his subcontractors shall abide by the requirements of these Environmental Management Specifications.



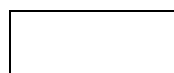
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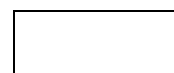
Witness 1



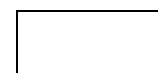
Witness 2



Employer



Witness 1



Witness 2

- b.) Any employees of the Contractor or his subcontractors found to be in breach of any of the Environmental Management Specifications may be ordered by the Engineer to leave the site forthwith. The order may be given orally or in writing. Confirmation of an oral order will be given as soon as practicable but lack of confirmation in writing shall not be a cause for the offender to remain on site. No extension of time will be granted for any delay or impediment to the Contractor brought about by a person ordered to leave the site.
- c.) Supervisory staff of the Contractor or his subcontractors shall not direct any person to undertake any activities which would place such person in contravention of the Environmental Management Specifications.
- d.) Via these specifications the Contractor has been made aware of what actions are required of him and/or his subcontractors. Certain do's and don'ts have been given and onus for compliance rests with the Contractor as he is the only person capable of controlling these aspects. A fine/reward system will be implemented to encourage compliance. For every week that the Contractor successfully complies with the Environmental Management Plan and Specifications a bonus sum of R500 will be generated. However for each and every time that the Environmental Management Plan and Specification is not met, a fine of R500 will be imposed.

Measurement And Payment

Unit:

Under Schedule No. 1 in Bill: Environmental Management Sum

The lump sum tendered shall include full compensation for initiating and maintaining the environmental awareness campaign as required in the Environmental Management Plan and Specifications.

Environmental protection shall be as follows:

- (a) Instrumentation, including associated displays and transmitters, located either outside and above ground level or inside shall have IP 55 or higher rating.
- (b) Instrumentation, including associated displays and transmitters, located in underground chambers shall have IP 68 environmental protection and shall be mounted in an enclosure.
- (c) Outside mounted instruments (in cases in which the mounting arrangement allows), and their displays and transmitters shall be mounted in enclosures. Enclosures shall be of polycarbonate construction with transparent front, Fibox EK or equivalent. The complete enclosure installation shall have an IP 55 rating or higher.

The enclosure size shall be chosen to provide a clearance of 100 mm all-round the instrument.

Contractor

Witness 1

Witness 2

Employer

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A57 MAGNETIC FLOW METERS

A57.1 Meters

Magnetic flow meter sensors shall be full-bore, in-line, double-flanged units with remotely mounted transmitters. The transmitters shall provide local flow indication and 4-20 mA output. Sensors shall, unless otherwise specified, have IP 68 protection and transmitters shall have IP 67 protection.

Magnetic flow meters shall have polyurethane lined stainless steel tubes with either Titanium or Hastelloy C electrodes. Accuracy shall be ± 1 % of flow or better. Rubber linings are acceptable for treated water applications.

Calibration shall be in litres per second unless otherwise specified.

For applications other than for treated water, flow meters shall be provided with an electronically operated electrode cleaning device. Automatic, timed cleaning shall be provided.

A57.2 Installation

The equipment shall be correctly installed, connected, adjusted and calibrated by competent persons. Calibration shall be done in the presence of the Engineer. The operation and signal transmission of meters against electromagnetic interference shall be provided.

The meter shall be installed with a straight pipe length of at least 10 pipe diameters upstream of the sensor and a straight pipe length of at least 5 pipe diameters downstream of the meter. If this is not possible, specific measures shall be taken to provide flow straightening. The complete meter installation shall comply with the manufacturer's instructions.

Grounding rings shall be supplied and installed if the application requires these.

A57.3 Testing

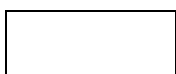
A factory test calibration certificate shall be provided for each flow meter.

The flow meter shall be provided with a simulation test unit for field verification of the measuring system without removal of the sensor. If more than one identical model flow meter is installed, two simulation test units shall be provided.

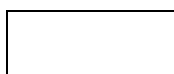
A58 GAUGES

A58.1 Gauges - General

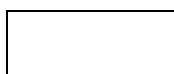
- (a) Gauges shall be of durable, industrial construction. Case and bezel shall be of stainless steel unless this material is unsuitable.
- (b) Scale markings shall be radial, plain, straight, black lines on a white background and shall be spaced so that one scale division represents approximately 1% - 1,5% of the maximum scale value in values of 1, 2 or 5 multiplied by any power of 10 to suit the maximum operating rating.
- (c) On circular gauges the scale shall be concentric and the maximum and minimum scale values shall be near the bottom of the gauge, with the scale symmetrically disposed about



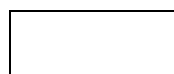
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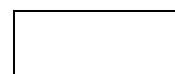
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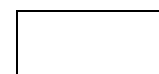
Witness 2



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- the vertical centre line of the gauge.
- (d) The tip of the pointer shall be of the knife edge type extending across the scale divisions and shall be as close as practical to the dial.
 - (e) Wherever applicable, **gauges shall be clearly, strip marked in green to indicate the normal operating range and in red to indicate the non-permissible range of values.** Such markings shall always be on the inner scale face and not on the glass face.
 - (f) The units of measurement shall be clearly marked on the dial. A printed label of approved non-corrosive material indicating the duty of the gauge shall be neatly fixed on or near the gauge.

A58.2 Gauge Installation and Mounting

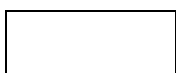
Gauges shall be installed and mounted in accordance with the following:

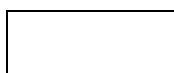
- (a) Gauges shall be mounted vertically and in such a position that they can be easily read from floor level. If this cannot be done, the Engineer's requirements shall be ascertained.
- (b) Nozzles shall be provided for gauge tappings. Nozzles shall comply with the requirements of the Clause "Pipework".
- (c) Gauges for rotational equipment, such as for centrifugal and reciprocating pumps, shall not be mounted directly on pipework but shall be mounted on walls or on pedestal stands mounted so as to avoid vibration. Gauge cocks shall be provided at each end of the connecting pipework.
- (d) Pressure gauges shall be fitted with an isolating and air bleed cock of the type which has the handle in line with the bore of the cock when the cock is open. Gauges on sludge applications shall have a minimum of three cocks of at least 12mm bore, one for venting and sampling, one for isolation and one to isolate a chemical seal to prevent solids getting into the gauge.
- (e) Pressure gauges used on sewage, sludge, powder, chemical or other applications where blockage or corrosion of the gauge is possible, shall be fitted with a diaphragm type chemical seal, both being liquid filled. The portion of the seal in contact with the process liquid shall be of a suitable non-corroding material and, when solids are handled, shall have a large threaded socket connection not smaller than 1" BSP. With liquids containing solids, the gauge and seal shall be mounted on top of a side-mounted cross having one horizontal and one vertical connection plugged, so arranged to permit cleaning (see drawing).

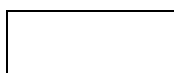
A58.3 Pressure Gauges

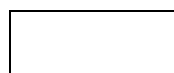
Pressure gauges shall comply with the following:

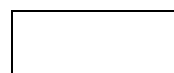
- (a) Pressure, vacuum or compound gauges shall comply with SABS 1062. Gauges shall be of Accuracy class 1.6 and Durability grade A unless otherwise specified. The gauges shall bear the SABS standardisation mark.
- (b) Gauges shall have a scale diameter of not less than 100 mm.
- (c) Calibration shall be in kiloPascals with the full scale reading between 1,5 and 2 times maximum actual operating pressure except where otherwise specified.
- (d) All gauges shall be suitable for continuous operation and shall be liquid filled on all pump applications and where fluctuations in pressure may cause damage.
- (e) Gauges shall not be mounted directly on equipment subject to vibration.
- (f) For dry locations indoors, the casing may be reinforced plastic or epoxy coated aluminium

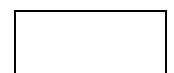

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and the elastic element and shank of stainless steel. For damp indoor locations, particularly in any location where sewage is flowing, and for all locations outdoors, the gauges shall be weatherproof and have the cases and other metal components of grade 316 stainless steel.

- (g) When used on steam lines a siphon shall be fitted between the steam line and the gauge which shall be filled with water before putting the gauge into service.

A58.4 Temperature Gauges

Temperature gauges shall comply with the following:

- (a) Temperature gauges shall have dials not less than 120 mm diameter. Accuracy shall be $\pm 1\%$ of reading or better.
- (b) The gauges shall be fitted vertically into removable 316 stainless steel wells and the gauges shall be removable without leakage from the pipe or vessel. Protrusion into a pipeline shall be kept to a minimum. When handling sludge, sewage or other abrasive liquids the protrusion shall not exceed 15 mm and in this case the wells shall also be of a heavy duty abrasion resistant type.

A59 THERMOMETERS

Thermometers shall be of the liquid column type and the complete tube shall be protected by a sturdy pocket of stainless steel or brass.

A60 CHLORINATION SYSTEMS

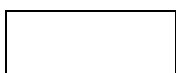
The design of plant installations for chlorination shall suit the application concerned but shall comply, as a minimum, with SABS 0298.

A61 CONTROL SYSTEMS

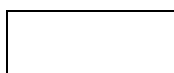
A61.1 General

General requirements for all control systems are as follows:

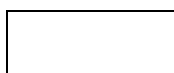
- (a) All control systems, instrumentation, indication, actuation and other equipment which is necessary to provide an efficient, safe, reliable and easy to operate system in accordance with the requirements of the detailed specifications shall be provided.
- (b) Control shall function as an integrated, coherent system.
- (c) Protection systems with interlocks to prevent maloperation, including incorrect sequencing, and to prevent or limit damage to equipment resulting from operating conditions or equipment failure shall be provided.
- (d) Emergency stop stations shall be provided next to each motor driven unit.
- (e) The failure to start, tripping or stopping of any item of equipment shall prevent the start-up or shall initiate the appropriate shut-down procedure of related equipment as and when



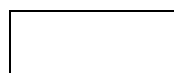
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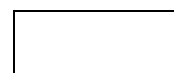
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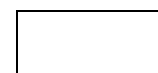
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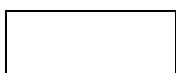
necessary.

- (f) Full details for control systems, sequences, logic charts, protections, control panel layout and design, etc., shall be submitted to the Engineer for approval before manufacture. These shall include drawings and circuit diagrams.
- (g) Indication of measured parameters on digital indicators shall be given to three significant places (or more, but not fewer than three).

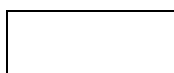
A61.2 SCADA Systems

Control systems which utilise computer based SCADA shall incorporate the following:

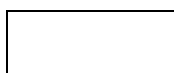
- (a) The control system shall be configured so that the equipment is PLC controlled to the extent that the installation can operate under SCADA failure.
- (b) Functions and information relating to a single item of equipment shall normally be provided on the control panel, MCC or other electrical panel. Functions and information relating to overall control shall normally be provided on the SCADA system.
- (c) Mimic screens provided for SCADA systems shall, where applicable, include at least the following:
 - Overview of scheme; including the process flow diagram and indicating all electronically monitored parameters if these are not included in a sub-system.
 - * Overview of each separate installation.
 - * Individual unit (Centrifuge, compressor, pumpset, etc.).
 - * Equipment sequence selection.
 - * Equipment start interlocks.
 - * For each motor larger than 55 kW, motor status and, where applicable, motor protection relay diagnostic.
 - * Electrical reticulation schematic.
 - * Hardware diagnostic.
 - * Alarms.
 - * Set-points for alarm, trip and control loop functions (including password protected alteration facility).
 - * Record of equipment and process parameters at instant of equipment trip and station trip.
 - * Trending of all monitored system parameters, with separate screens for logical groupings from an operating point of view.
 - * Communication status of control system hardware.
 - * SCADA security system password current settings, including personnel names.
 - * Ancillary equipment status; e.g. security, fire detection, UPS).
 - * Printing.
- (d) Indication of measured parameters shall be provided to three significant places or more.
- (e) All setpoints, such as temperature trip settings, flow trip settings, level settings for pump switch-on, etc., shall be indicated on mimic screens. It shall be possible, with password protection, to alter the set-points.



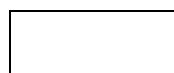
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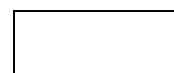
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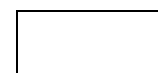
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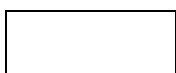
Witness 2

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- (f) All points of inflection of measured parameters shall be recorded.
- (g) At least one colour printer (for graphs, mimics, etc.) and one line printer (for alarms) shall be provided.
- (h) An alarm condition which leads to the control system executing an equipment trip shall be logged and all subsequent alarms which occur as a result of the tripping action shall be logged as subordinate alarms. The condition which caused the trip shall be fully described with respect to the:
- * Item of equipment
 - * Trip setpoint reached.
 - * Description of parameter; i.e. flow, temperature, etc.
 - * Time.
- (i) Alarm conditions which lead to the control system executing an equipment trip shall be provided with a suitable time delay in order to limit the number of tripping actions caused by electrical disturbances or similar occurrences. The time delay for each trip shall be decided in conjunction with the Engineer.

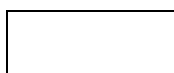
A62 CONTRACTOR'S DRAWINGS

The following requirements apply to the preparation of the drawings:

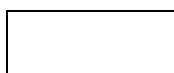
- (a) Drawings shall be prepared in accordance with the latest issue of SABS 0111 (or superseding document). The equivalent BS code of engineering drawing practice will also be acceptable.
- (b) Drawings shall be to A0 size.
- (c) Drawings shall be to scale, with both the scale and the drawing being large enough to clearly show all relevant components of the plant and equipment without misunderstanding.
- (d) Drawings shall be in black ink.
- (e) In addition to the usual plan and two side elevations, sufficient additional sections shall be included to clearly show the arrangement of all plant and equipment.
- (f) General arrangement and detail drawings shall be cross-referenced.
- (g) Items and components shall be systematically and clearly numbered, with consistency (same item numbers) between layout and detail drawings for the same plant or equipment.
- (h) Item lists shall be provided on the drawing or on a separate parts list.
- (i) Item descriptions shall include the material of construction, quantity and full identification information, including, as applicable, brand name, manufacturer's reference number, model



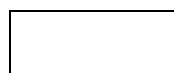
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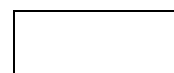
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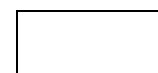
Witness 2



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number, size, rating, source, duty, quantity, etc.

The Contractor shall prepare and correct drawings to satisfy the requirements of the Conditions of Contract and of this Specification to the satisfaction of the Engineer and shall incorporate reasonable changes required by the Engineer.

A63 CONTRACTOR'S RESPONSIBILITY WITH REGARD TO CIVIL WORKS

The Contractor will be responsible for all Civil, Mechanical , Electrical and Instrumentation work.

A64 TUITION

A64.1 General

The Tenderer shall price for tuition of operational and technical staff. Unless otherwise called for in the Detailed Specification, the Tenderer shall price for the on Site personal tuition of operational staff members and engineering staff members.

The Contractor shall also provide all staff involved with printed copies of the tuition material. Printed copies shall preferably also be included in the Manual.

A64.2 Operational Staff Tuition

The Contractor shall provide the following tuition as applicable to the Contract:

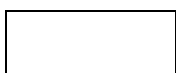
- (a) Start-up, shut-down and operating instruction for all operational modes for the Works shall be provided. This shall be comprehensive and shall include actions to be taken in the case of all alarm conditions and basic fault finding.
- (b) A layout drawing of the installation, a process flow diagram, and a P&ID shall be provided for each Operator. The instructions described in (a) above shall also be provided in printed form for each Operator.
- (c) If the specified control system is SCADA based, the tuition shall include instruction on the SCADA system.

A64.3 Electrical Engineering Staff Tuition

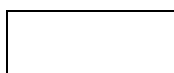
The Contractor shall provide the following tuition as applicable to the Contract:

- (a) Control system software instruction.
- (b) Detailed overview of protection and settings.
- (c) Tuition on setting of protection.
- (d) Motor protection relay and settings.
- (e) Overview of PLC programming for the purposes of making changes and re-loading programs if PLCs are replaced.
- (f) Overview of SCADA system.

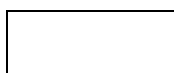
A65 OPERATING INSTRUCTIONS



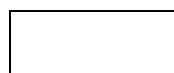
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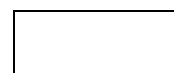
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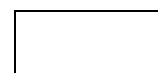
Witness 2



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Wall mounted operating instructions, if specified in the Detailed Specification, shall comply with the following:

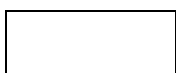
- (a) Start-up, Shut-down and Operating instructions shall be provided. These shall be comprehensive and shall indicate actions to be taken in the case of all alarm conditions. These shall be written from the point of view of the plant operator.
- (b) A layout drawing of the equipment installation, a process flow diagram, and a P&ID shall be provided.
- (c) Instructions shall be framed (wooden frame, glass front, hardboard backing) and shall be attached to the wall in the control room using brass screws.

A66 INSTALLATION, OPERATION AND MAINTENANCE MANUAL

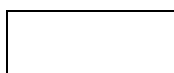
A66.1 Miscellaneous

The Manual shall comply with the following:

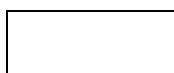
- (a) A Manual for the complete Works is required.
- (b) Two copies of the Manual shall be provided prior to commissioning of the Works. One copy is to be submitted for acceptance by the Engineer and will be returned to the Contractor. The second copy will be used by the operational staff on Site during commissioning. Unless otherwise specified, six copies of the final version of the Manual shall be provided prior to the end of the Trial Operation Period.
- (c) The Manual shall be of a standard acceptable to the Engineer. At least one set shall contain original copies and this set shall be marked "Original". The other sets shall be marked "Copies 2 to 6".
- (d) Binders shall have hard, plastic protected covers utilising four-ring, spring-clip holders. Sufficient binders shall be used to make each volume easy to use. One spare, empty binder shall be provided for every three used. A title label shall be affixed to the spine of all binders. This shall indicate contract number, title and location, Contractor's name and, where required, plant description, volume number and contents.
- (e) Labelled separator sheets shall be provided between each section and sub-section and also wherever volume or complexity make this advisable.
- (f) The Manual shall be in English, shall be easy to use, practically and neatly presented, clearly sectionalised and titled, provided with a Contents List and shall be specifically applicable to the system as installed.
- (g) Where standard equipment manuals are used in any sections, these shall be marked up to be unambiguously applicable to the equipment installed and marking up shall be done in a manner which will be transmitted to photocopies.
- (h) All sections and sub-sections shall be numbered. Numbering of the Contents List shall be sequenced so that section numbering is unique.



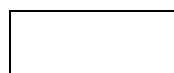
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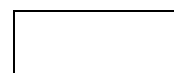
Witness 1



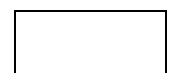
Witness 2



Employer



Witness 1



Witness 2

- (i) Drawings shall be to a scale which makes all details clear. Large drawings shall be held in plastic envelopes in the Manual. A4 and A3 drawings shall be bound directly. Drawings shall also be provided on stiffer diskette in Autocad format.
- (j) Where practical, each section shall form a separate volume.

The Manual shall be divided into sections and shall include the information described below.

Section 1 - General

The following shall be provided:

- (a) Contents List for the complete Manual. This shall consist of:
 - an overall contents list.
 - a detailed contents list in front of each section and/or sub-section.
 - a comprehensive list of all drawings.


The Contents Lists shall be structured so as not to be affected if volumes are added or subtracted from the Manual.

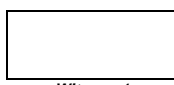
- (b) Equipment List for all individual items of mechanical, electrical, instrumentation and control equipment. The Equipment List shall include the make, model, serial number, description, size, range, performance data, motor and drive details, supplier's name, address and phone numbers, all as applicable.
- (c) The design duty, the position of each unit's installation and its purpose in the system shall be given. Additional information which shall be provided for instruments includes the tag number and setpoints. A schedule of corrosion protection systems used shall be provided for fabrications such as tanks, supporting structures, clarifier bridges, etc.
- (d) Cable schedule for power and instrumentation cables. This shall include the cable construction, conductor material, insulation, protection, voltage rating, start and finish points, route length, duty, load, voltage drop, no. of cores, core area, no. of cores used and gland size. For cable voltages above 400 Volts, the schedule shall also include the purchase details, specification and date of manufacture.
- (e) Cable routes.
- (f) Drawing list of all Contractor's and Tender drawings.
- (g) The detailed specification, Section D of the Specification, may be included in this section.

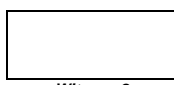
Section 2 – Process, Operation and Control

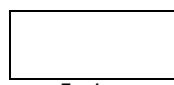
The following shall be provided:

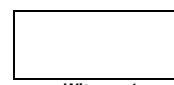
- (h) Description of plant and process design and including all design parameters.
- (i) A description of each system supported by drawings, process flow or circuit diagrams and

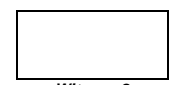

Contractor


Witness 1


Witness 2


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Witness 1


Witness 2

explanatory sketches to assist operating staff.

- (j) Description of control system, including control panels and SCADA system, as applicable and including controls, instruments, settings, indications, alarms, trips, etc. Functional Specification. List of protections, including description, sensor, operating limits, settings, etc.
- (k) Straight forward, step by step, initial startup instructions for commissioning. These shall include operating steps, precautions, settings, adjustments, observations, etc.
- (l) Training manual including normal start up, adjustment, operating and shut down procedures for the system as installed and including settings, adjustments, observations, etc. The procedures shall highlight any safety precautions to be observed.
- (m) Functional description and operation instructions of all electrical panels.
- (n) An Instrument List giving a description of the duty as well as the serial number, normal operating reading, maximum or minimum permissible readings, set-points (activation, warning and trip), etc.
- (o) Trouble-shooting guide, including symptoms, causes and solutions.
- (p) Documents:
 - As-built system, layout and GA drawings.
 - Plant circuit or flow diagrams
 - P&IDs, indicating equipment, piping, valves, instrumentation and safety devices.
 - control panel layouts.
 - I/O list, program listing, loop and logic diagrams for each PLC, if applicable.
 - Paper copies of SCADA mimics, if applicable.
 - System control diagram and logic sequence chart, as applicable.

Section 3 - Maintenance Schedules

The following shall be provided for all mechanical, electrical, instrumentation and control equipment:

- (a) A comprehensive lubrication schedule of recommended and initial lubricants, capacity, lubrication periods, etc., for all items.
- (b) A comprehensive maintenance schedule of routine maintenance by time period for the new installation and including information for individual items.
It is not required that the detail information in supplier's standard manuals is repeated here and cross-references will be acceptable on condition that the position of the supplier's manual in the contents list is given.

Section 4 - Mechanical Equipment and Data Books

The following shall be provided for each item of mechanical equipment:

- (a) A copy of the information applicable to the item and appearing in the Equipment List.

Contractor

Witness 1

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Witness 1

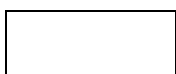
Witness 2

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- (b) A separate table containing the unit's nameplate information; or, a photograph of the nameplate.
 - (c) Technical and descriptive literature, including principle of operation and construction.
 - (d) Installation instructions.
 - (e) Detailed operating instructions.
 - (f) Control and electrical details, including logic sequence, circuit diagrams and software, as applicable.
 - (g) Full technical and maintenance information including instructions for assembly, disassembly, lubrication, adjustment, calibration, reconditioning, repair, etc.
 - (h) A spares list giving the item number, part number, description, quantity and materials. A list of recommended spares.
 - (i) Factory and Site inspection and test reports.
 - (j) Corrosion protection systems used, coating supplier's data sheets and coating repair procedures.
 - (k) Drawings:
 - performance curves.
 - layout drawings.
 - large scale, dimensioned, cross sectional and arrangement drawings of the item for assembly and spares recognition purposes,
 - cross-referenced to the spares list.
 - dimensioned drawings of fabricated equipment.
 - circuit layout of any auxiliary systems.

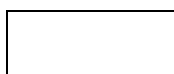
Section 5 - Electrical Equipment

The following shall be provided for each item of electrical equipment:

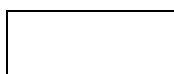
- (a) A copy of the information applicable to the item and appearing in the Equipment List.
- (b) A separate table containing the unit's nameplate information; or, a photograph of the nameplate.
- (c) Technical and descriptive literature, including principle of operation and construction.
- (d) Control and electrical details, including logic sequence, circuit diagrams and software, as applicable.



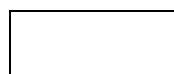
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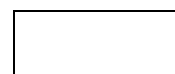
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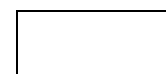
Witness 2



Employer



Witness 1



Witness 2

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- (e) Installation instructions.
 - (f) Detailed operating instructions.
 - (g) Full technical and maintenance information including instructions for assembly, disassembly, lubrication, adjustment, calibration, reconditioning, repair, etc.
 - (h) A spares list giving the item number, part number, description, quantity and materials. A list of recommended spares.
 - (i) Factory and Site test results.
 - (j) Drawings:
 - electrical reticulation.
 - equipment overall dimensions.
 - wiring diagrams.
 - switchboard layout drawings and SLDs.
 - electrical panel construction drawings.

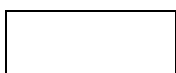
Section 6 - Instrumentation Equipment

The following information shall be provided for each item of instrumentation equipment:

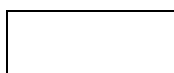
- (bb) A copy of the information applicable to the item and appearing in the Equipment List.
- (cc) A copy of the relevant information in the table of instrumentation in the sub-clause "Operation Section" and including all settings.
- (dd) Installation instructions.
- (ee) Descriptive and technical literature giving full details of performance, operation, calibration, setting, service, maintenance and spares including suitable assembly drawings.
- (ff) Technical and descriptive literature, including principle of operation and construction.
- (gg) Control and electrical details, including logic sequence, circuit diagrams and software, as applicable.
- (hh) Factory test results.
- (ii) Full technical and maintenance information including instructions for assembly, disassembly, lubrication, adjustment, calibration, reconditioning, repair, etc.
- (jj) Drawings:
 - circuit diagrams of both instrumentation systems and individual instruments.
 - overall dimension and installation drawings.

Section 7 - Control Equipment, Network and Software

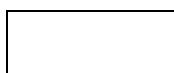
The following shall be provided, as applicable to the Works:



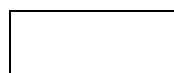
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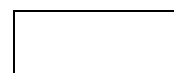
Witness 1



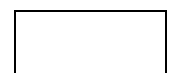
Witness 2



Employer



Witness 1



Witness 2

- (a) A copy of the information applicable to PLCs, transmitters, HMIs, computers, etc. which appear in the Equipment List.
- (b) Cross-referenced listing of all I/O used.
- (c) Prints of SCADA mimic screens (all copies to be provided in colour).
- (d) An annotated program listing.
- (e) Drawings:
 - copy of hardware diagnostic mimic.
 - loop drawings showing field terminal numbers, marshalling terminal numbers and PLC rack/slot/terminal numbers.

Section 8 - Drawings

All drawings not filed elsewhere shall be filed in this section.

Contents List

The contents of the Manual shall be generally as follows:

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

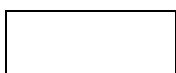
- 1 *GENERAL*
 - e.1.1 *Contents List*
 - e.1.2 *Overall Description of Works*
 - e.1.3 *Equipment List*
 - e.1.4 *Drawing List*
 - e.1.5 *Cable Schedule*

- 2 *PROCESS, OPERATION AND CONTROL*
 - e.2.1 *Description of Plant and Process*
 - e.2.2 *Control System*
 - e.2.3 *Protection System*
 - e.2.4 *Commissioning*
 - e.2.5 *Normal Operation*
 - e.2.6 *Instrument List*
 - e.2.7 *Troubleshooting*

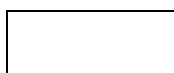
- 3 *MAINTENANCE SCHEDULES*
 - e.3.1 *Lubrication Schedule*
 - e.3.2 *Maintenance Schedule*

- 4 *MECHANICAL EQUIPMENT*
 - e.4.1 *(Item 1; e.g. "Chlorinators")*
 - e.4.2 *(Item 2; e.g. "Pump")*
 - e.4.3 *(etc.)*

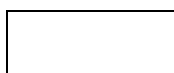
- 5 *ELECTRICAL EQUIPMENT*
 - e.5.1 *(Item 1; e.g. "Transformer")*



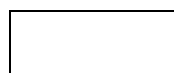
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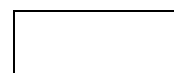
Witness 1



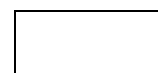
Witness 2



Employer



Witness 1



Witness 2

e.5.2 (Item 2; e.g. "MV Switchboard")

e.5.3 (etc.)

6 INSTRUMENTATION EQUIPMENT

e.6.1 (Item 1; e.g. "Turbidimeter")

e.6.2 (Item 2; e.g. "Pressure Transducer")

e.6.3 (etc.)

7 CONTROL EQUIPMENT, NETWORK AND SOFTWARE

e.7.1 (Item 1; e.g. "PLC")

e.7.2 (Item 2; e.g. "SCADA Software")

e.7.3 (etc.)

8 DRAWINGS

As built drawings and Data Books shall be submitted in triplicate after the commissioning is completed.

A67 STARTING, SITE TESTING AND COMMISSIONING OF PLANT

The Contractor shall advise the Engineer as to when instructions may be given to the Building Contractor to execute any necessary screeding and finishings around the Works. Tenderers shall allow a reasonable period in their installation programme for this work to be done and no compensation for delay in the commencement of testing and commissioning shall accrue to the Contractor during such period.

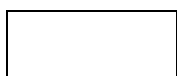
Before starting up any section of the Works, the Contractor shall make all necessary checks to ensure that the installation has been correctly carried out, that all ducts, pipework, tanks, etc., are clean, that all equipment is correctly aligned, lubricated and connected up, and is in all respects ready to start with safety. It shall be noted that all initial fill requirements such as lubricating oil shall be the responsibility and at the cost of the Contractor.

The Contractor shall arrange for the Engineer to be present at initial startup and also, if applicable, for the electrical and control instrumentation sub-contractors to be present.

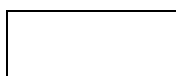
The Contractor shall start up and test each section of the Works. These tests will be carried out to certify that the Works is operating in accordance with the requirements specified and must be witnessed by the Engineer. All necessary modifications and rectifications shall be carried out during this period.

Three copies of reports in writing on all tests shall be submitted by the Contractor within two weeks after the tests have been carried out.

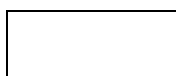
When all tests have been completed to the satisfaction of the Engineer, the Works shall be commissioned. Unless the Engineer states otherwise, the complete plant, including all control functions and control systems shall be commissioned as a unit and the process performance requirements shall be achieved during normal operation. The Contractor shall train the operational staff in the starting, operating and stopping of the Works, and shall train the maintenance staff on the routine maintenance requirem



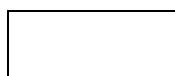
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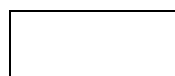
Witness 1



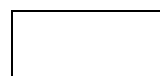
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Employer



Witness 1



Witness 2



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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

3.9 GENERAL CONDITIONS OF CONTRACT

THE NATIONAL TREASURY

Republic of South Africa



**GOVERNMENT PROCUREMENT:
GENERAL CONDITIONS OF CONTRACT**

July 2010

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

TABLE OF CLAUSES

1. Definitions
2. Application
3. General
4. Standards
5. Use of contract documents and information inspection
6. Patent Rights
7. Performance security
8. Inspections, tests and analyses
9. Packing
10. Delivery and documents
11. Insurance
12. Transportation
13. Incidental Services
14. Spare parts
15. Warranty
16. Payment
17. Prices
18. Variation orders
19. Assignment
20. Subcontracts
21. Delays in the supplier's performance
22. Penalties
23. Termination for default
24. Anti-dumping and countervailing duties and rights
25. Force Majeure
26. Termination for insolvency
27. Settlement of Disputes
28. Limitation of Liability
29. Governing language
30. Applicable law
31. Notices
32. Taxes and duties
33. Transfer of contracts
34. Amendments of contracts
35. Prohibition of restrictive practices

GENERAL CONDITIONS OF CONTRACT

1. Definitions

The following terms shall be interpreted as indicated:

- 1.1 “Closing time” means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 “Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 “Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4 “Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 “Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 “Day” means calendar day.
- 1.8 “Delivery” means delivery in compliance of the conditions of the contract or order.
- 1.9 “Delivery ex stock” means immediate delivery directly from stock actually on hand.
- 1.10 “Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the goods are so delivered and a valid receipt is obtained.
- 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12 " Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 “GCC” means the General Conditions of Contract.
- 1.15 “Goods” means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

- 1.16 “Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the goods covered by the bid will be manufactured.
- 1.17 “Local content” means that portion of the bidding price, which is not included in the imported content provided that local manufacture does take place.
- 1.18 “Manufacture” means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 “Order” means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 “Project site,” where applicable, means the place indicated in bidding documents.
- 1.21 “Purchaser” means the organization purchasing the goods.
- 1.22 “Republic” means the Republic of South Africa.
- 1.23 “SCC” means the Special Conditions of Contract.
- 1.24 “Services” means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 “Supplier” means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.
- 1.26 “Tort” means in breach of contract.
- 1.27 “Turnkey” means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.
- 1.28 “Written” or “in writing” means hand-written in ink or any form of electronic or mechanical writing.

2. Application

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific goods, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2 Invitations to bid are usually published in locally distributed news media and on the municipality/municipal entity website.

4. Standards

- 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information inspection

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent Rights

- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 6.2 When a supplier developed documentation / projects for the municipality/ municipal entity, the intellectual, copy and patent rights or ownership of such documents or projects will vest in the municipality / municipal entity.

7. Performance security

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:

- a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents. Another form of acceptable to the purchaser; or
- b) a cashiers' or certified cheque.

7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified.

8. Inspections, tests and analyses

- 8.1 All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that goods to be produced or services to be rendered should at any stage be subject to inspections, tests and analyses, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or organization acting on behalf of the purchaser.
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the goods to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the goods or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such goods or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Goods and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be ejected.
- 8.7 Any contract goods may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods, which do comply with the requirements of the contract. Failing such removal, the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.
- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 22 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

10.1 Delivery of the goods and arrangements for shipping and clearance obligations, shall be made by the supplier in accordance with the terms specified in the contract.

11. Insurance

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified.

12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified.

13. Incidental Services

13.1 The supplier may be required to provide any or all of the following services, including additional services, if any:

- (a) Performance or supervision of on-site assembly and/or commissioning of the supplied goods;
- (b) Furnishing of tools required for assembly and/or maintenance of the supplied goods;
- (c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
- (d) Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
- (e) Training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) in the event of termination of production of the spare parts:
 - (i) advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and

- (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

- 15.1 The supplier warrants that the goods supplied under the contract is new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise.
- 15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the supplier shall, within the period specified and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated.

17. Prices

- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized or in the purchaser's request for bid validity extension, as the case may be.

18. Variation Orders

- 18.1 In cases where the estimated value of the envisaged changes in purchase does not vary more than 15% of the total value of the original contract, the contractor may be instructed to deliver the goods or render the services as such. In cases of measurable quantities, the contractor may be approached to reduce the unit price, and such offers may be accepted provided that there is no escalation in price.

19. **Assignment**

- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. **Subcontracts**

- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. **Delays in the supplier's performance**

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the goods are required, or the supplier's services are not readily available.
- 21.4 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalties.
- 21.5 Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without cancelling the contract, be entitled to purchase goods of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. **Penalties**

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. **Termination for default**

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
- (b) if the supplier fails to perform any other obligation(s) under the contract; or
- (c) if the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner, as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the supplier as having no objection and proceed with the restriction.
- 23.5 Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the purchaser actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) the name and address of the supplier and / or person restricted by the purchaser;
 - (ii) the date of commencement of the restriction
 - (iii) the period of restriction; and
 - (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

- 24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When,

after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to goods or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

25. Force Majeure

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - (b) the purchaser shall pay the supplier any monies due the supplier for goods delivered and / or services rendered according to the prescripts of the contract.

28. Limitation of Liability

- 28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6

- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
- (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

- 29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable law

- 30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified.

31. Notices

- 31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and duties

- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid SARS must have certified that the tax matters of the preferred bidder are in order.
- 32.4 No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

33. Transfer of contracts

- 33.1 The contractor shall not abandon, transfer, cede assign or sublet a contract or part thereof without the written permission of the purchaser.

34. Amendment of contracts

- 34.1 No agreement to amend or vary a contract or order or the conditions, stipulations or provisions thereof shall be valid and of any force unless such agreement to amend or vary is entered into in writing and signed by the contracting parties. Any waiver of the requirement that the agreement to amend or vary shall be in writing, shall also be in writing.

35. Prohibition of restrictive practices

- 35.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder(s) is / are or a contractor(s) was / were involved in collusive bidding.
- 35.2 If a bidder(s) or contractor(s) based on reasonable grounds or evidence obtained by the purchaser has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in section 59 of the Competition Act No 89 Of 1998.
- 35.3 If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.