

	REQUEST FOR BID ENGINEERING PROCUREMENT AND CONSTRUCTION / TURNKEY	Form No: RW SCM 00048 F Revision No: 07 Effective Date: 16 Sept 2022
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BID NUMBER: RW10380857/22

**TURNKEY TENDER FOR THE CONSTRUCTION OF BUILDING AND CIVIL
INFRASTRUCTURE ACROSS ZUIKERBOSCH PUMPING STATION - PACKAGE 3 (SUB-
PACKAGE 2)**

MINIMUM CIDB CONTRACTOR GRADING FOR THIS BID: 8CE / 8GB or Higher

ISSUE DATE:	Thursday, 12 January 2023		
NON-COMPULSORY BRIEFING SESSION DATE:	N/A		
BRIEFING SESSION VENUE:	N/A		
CLOSING DATE:	Tuesday, 02 May 2023		AT 12:00 pm
SITE VIEWING DATE/S:	REFER TO T1.1 BID NOTICE AND INVITATION		

BIDDER INFORMATION				
BIDDER NAME				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	
CELLPHONE NUMBER				
E-MAIL ADDRESS 1				
E-MAIL ADDRESS 2				
VAT REGISTRATION NUMBER			CIDB GRADING	
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		CENTRAL SUPPLIER DATABASE No:	MAAA.....
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS SWORN AFFIDAVIT (EMEs and QSEs)	[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:	
E-MAIL ADDRESS (Submissions must be made to this address)	iepenquiries@randwater.co.za

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SECTION A: BID

PART T1: BIDDING PROCEDURES

T1.1. BID NOTICE AND INVITATION TO BID

<p>Rand Water invites bids for the Turnkey Tender for the Construction of Building and Civil infrastructure across Zuikerbosch Pumping Station.</p> <p>The technical requirements for the <i>works</i> are fully stated in the employers' requirement / bid documentation.</p>	
Minimum Contractor CIDB Grading Required	<p>8 CE / 8GB</p> <p>Contractors shall have a Contractor grading equal to or higher than a contract grading designated above.</p>
Contracting Strategy	EPC / Turnkey
Classification	Complex work
Procurement Procedure	Rand Water uses a single volume approach.
Awarding Strategy	The maximum number of suppliers to be awarded this bid is 01 . Rand Water reserves the right to award to multiple bidders.
Access to the Bid Documents	<p>The bid documents are downloadable on the National Treasury e-Tender Publication portal which can be accessed through the following link: http://www.etenders.treasury.gov.za.</p> <p>No bid documents will be issued to Contractors at site meetings. Please ensure that bid documents have been downloaded from the National Treasury e-Tender Publication portal prior to the site meeting date.</p> <p>Bids shall only be submitted on the bid documentation that is issued by the Employer. This bid document (as issued through the National Treasury e-Tender Publication portal) must be submitted in full together with the returnable documents.</p>
Bid Clarifications	<p>Bidders can seek clarification by no later than fifteen (15) calendar days before the bid closing date.</p> <p>Rand Water will provide a final response on clarifications by no later than ten (10) calendar days before the closing date.</p>
Bid Addenda	Rand Water shall issue addenda, where applicable, by no later than ten (10) calendar days before the closing date. Bid addenda will be published on the eTender Publication Portal.
Bid Submission Location	Bids must be submitted before or on closing date and time at the following address: Main Reception, 522 Impala Road, Glenvista

Bid Validity	<p>To be valid for 180 days after closing date</p> <p>Rand Water reserves the right to extend the validity period for a period reasonable for business requirements.</p>
Subcontracting	<p>Bidders must utilise the National Treasury's Central Supplier Database (CSD) for identification of potential subcontractors from the pool of EMEs or QSEs to advance designated groups.</p> <p>The responsibility to subcontract with competent and capable subcontractors rests with the main contractor/ supplier.</p> <p>As far as possible, the bidder must consider subcontractors from the area/s where the project will be taking place.</p> <p>Where CIDB related works are subcontracted, each Subcontractor must also be registered with the appropriate CIDB grading in accordance with the value of the work to be undertaken by that Subcontractor.</p>
Rotation of Suppliers	<p>In the spirit of providing equal opportunities to potential suppliers and in view of not supporting monopolies, Rand Water shall apply rotation of suppliers to ensure equitable share in Rand Water's awarded contracts.</p>
Site Viewing Date/s, Time and Venue	<p>The schedule for site viewing will be issued on or before the 31 January 2023</p> <p>THE RELEVANT PPE IS REQUIRED TO ENTER THE STATION</p>

T1.2. BID DATA

The conditions of this bid are the Standard Conditions of Tender as contained in the document CIDB Standard for Uniformity in Engineering and Construction Works Contracts (August 2019) Annexure C and may be obtained from the CIDB.

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

The contractor shall achieve in the performance of the contract the Contract Skills Development Goal (CSDG) established in the Standard for Developing Skills through Infrastructure Contracts (published in GN 43495 of 20 March 2020)

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

CLAUSE NUMBER (CIDB)	BID DATA
C.1.1	The Employer is Rand Water.
C.1.2	The bid documents issued by the Employer are detailed on the contents page of this bid document.
C.1.4	The <i>Bid</i> Employer's Representative/s is stated on the cover page of this bid document.
C.1.6.3	The Employer shall evaluate this bid in accordance with the evaluation criteria stated in this bid.

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C.2.1	<p>Only those Bidders 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 an 8CE / 8GB class of construction work, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit bids 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 8CE / 8GB class of construction work; or not lower than one level below the required grading designation in the class of works construction works under considerations and possess the required recognition status. 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 an 8CE or 8GB class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.
C.2.7	The arrangement for a non-compulsory site meeting (where applicable) is as stated in the Notice and Invitation to Bid.
C.2.8	The due date for seeking clarification is as stated in the Bid Notice and Invitation to Bid.
C.2.12	<p>In addition to the information appearing in C2.12 of the CIDB Standard Conditions of Tender, the following statements shall apply:</p> <ul style="list-style-type: none"> • Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative bid offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. • Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. • Pricing Data must reflect all assumptions in the development of the pricing proposal. • The pricing of the alternative bid offer may not exceed the pricing of the main bid offer. <p>Acceptance of an alternative bid offer will mean acceptance in principle of the offer. In the event that the alternative bid offer is accepted, it will be a contractual obligation for the Bidder to accept full responsibility and liability that the alternative bid offer complies in all respects with the Employer's standards and requirements.</p>
C.2.13.5 C.2.13.7	<p>Bidders must submit one (1) copy of the bid document and returnable documents AND <i>Compact disc (CD) or USB flash drive with pdf format of the bid document and returnable documents.</i></p> <p>The Employer's address for delivery of the bid offers is stated in the Bid Notice and Invitation to Bid.</p>

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	The bid submission must be sealed and endorsed with both the bid number and the description of the bid, as it appears on the front cover of this bid.
C.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed bid offers will not be accepted.
C.2.15	The closing time for submission of bid offers is as stated in the Bid Notice and Invitation to Bid.
C.2.16	The bid offer validity period is as stated in the Bid Notice and Invitation to Bid. No bid substitutions will be allowed after the closing date and time.
C.2.23	See 2.1 List of Returnable Documents for a comprehensive list of certificates and additional documents required for submission with this bid.
C.3.4	Rand Water will make available the names, prices and preference points for submissions to interested parties who make request for such information, at least one (1) week after the closing date. (CIDB Best Practice Guideline #A3 Evaluation tenders offers, February 2008)
C.3.11	<p>Rand Water's evaluation process comprises of the following steps. Specific criteria to be utilised for this bid are contained in <u>T1.3 Evaluation Criteria</u></p> <p>a) Test for responsiveness/ Pre- Qualifiers Refer to the criteria as stated in T1.3 of this bid document. All pre-qualifiers must be met in order for the bid submission to be considered further.</p> <p>b) Functionality evaluation Refer to the criteria as stated in T1.3 of this bid document. A minimum score of 70 percent must be obtained for the bid submission to be considered further.</p> <p>c) Price i. Price Analysis Rand Water uses a Financial Tolerance Range in order to assess how reasonable the market response prices are. These ranges will assist with eliminating bid prices that are deemed to be excessively high or low to complete the works. The higher limit ensures that Rand Water does not pay more than it believes the value of service or goods is worth, and the lower limit ensures that Rand Water is not exposed to risk of work not being completed or prices increasing subsequent to the award because the award price was too low to complete said scope.</p> <p>d) Preference Points</p> <p>WHERE PROCUREMENT VALUE IS R0 < R50 000 000 (INCL. VAT):</p>

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

The following table will be used to calculate the score out of 20 for BBBEE:

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

WHERE PROCUREMENT RAND VALUE IS >= R50 000 000 (INCL. VAT):

$$P_s = 90 * \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

The following table will be used to calculate the points out of 10 for BBBEE:

B-BBEE Status Level of Contributor	Number of Points
1	10
2	9
3	6
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

Where:

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

Rand Water does not bind itself to accept the bid with the lowest price

	<p>BBBEE STATUS (P_p = 10/20 maximum)</p> <p>Quantification of procurement contribution to B-BBEE</p> <p>Points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:</p> <table><tr><th>B-BBEE Status Level of Contributor</th><th>Number of point (90/10 system)</th><th>Number of point (80/20 system)</th></tr><tr><td>1</td><td>10</td><td>20</td></tr><tr><td>2</td><td>9</td><td>18</td></tr><tr><td>3</td><td>6</td><td>14</td></tr><tr><td>4</td><td>5</td><td>12</td></tr><tr><td>5</td><td>4</td><td>8</td></tr><tr><td>6</td><td>3</td><td>6</td></tr><tr><td>7</td><td>2</td><td>4</td></tr><tr><td>8</td><td>1</td><td>2</td></tr><tr><td>Non-compliant contributor</td><td>0</td><td>0</td></tr></table> <p>Bidders will not be disqualified from the bidding process for not submitting a certificate substantiating the B-BBEE status level of contribution or is a non-compliant contributor. <i>Such a bidder will score zero (0) out of maximum of 10 for B-BBEE</i></p> <p>SUMMARY</p> <p>The total number of functionality/ quality (PF) shall be the sum total of the product of quality criteria by weight allocated.</p> <p>The total number of adjudication points (PT) shall equal the sum of the bid price points (Ps) and the BBBEE status points (PP) i.e.</p> <p>PT = Ps + PP</p> <p>Rand Water does not bind itself to accept the bid with the highest number of adjudication points.</p>	B-BBEE Status Level of Contributor	Number of point (90/10 system)	Number of point (80/20 system)	1	10	20	2	9	18	3	6	14	4	5	12	5	4	8	6	3	6	7	2	4	8	1	2	Non-compliant contributor	0	0
B-BBEE Status Level of Contributor	Number of point (90/10 system)	Number of point (80/20 system)																													
1	10	20																													
2	9	18																													
3	6	14																													
4	5	12																													
5	4	8																													
6	3	6																													
7	2	4																													
8	1	2																													
Non-compliant contributor	0	0																													
C.3.17	The number of paper copies of the signed contract to be provided by the Employer is 1 (one).																														

T1.3. EVALUATION CRITERIA

T1.3.1. TEST FOR RESPONSIVENESS / PRE-QUALIFIERS

1. Completed and signed Form of Offer.
2. Letter of Good Standing from the Department of Labour or an Accredited Institution.
3. The use of correction fluid or any other similar substance to make corrections is not permitted.
4. Bidder must subcontract a minimum of 30% of the value of the contract to a QSE/s or EME that is a minimum 51% black owned.
 5. *The following evidence must be submitted:*
 - a) *Subcontracting agreement stipulating the percentage to be subcontracted*
 - b) *CSD report/s for Subcontractor/s*
 - c) *CIDB Registration for Subcontractor/s, where CIDB related works are subcontracted Where CIDB related works are subcontracted, each Subcontractor must also be registered with the appropriate CIDB grading in accordance with the value of the work to be undertaken by that Subcontractor. Where the CIDB requirement for subcontracted work is not met, this pre-qualifier has not been met.*
 - d) *Proof of B-BBEE status for Subcontractor/s*
5. Bidders must be 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 CIDB grading of this bid; in accordance with the CIDB prescripts.
6. Fully completed Local Content Declaration Forms for each of the designated sectors as provided and minimum stipulated thresholds for this bid, as outlined in Schedule T2.2.1 (List included on Page 32).
7. Submission of Socio-Economic Development (SED) proposal in accordance with Rand Water's requirements and targets in T2.2.9 and the signing of the SED schedule in its entirety.
8. The bidding entity must have the ability to execute all required Engineering Consulting services in accordance with the Engineering Act of SA, Engineering Profession Act 46 of 2000. Proof of employment or signed contract agreement with the relevant Engineering Consultant or Consulting company must be submitted with the tender.
9. In the case of a Joint Venture, Consortium or a similar entity, a signed agreement or letter of intent between members/partners must be submitted together with the bid. It is a condition of this bid that Joint Ventures, Consortium or similar entities must, upon award, incorporate its entities within a prescribed time period (per the conditions precedents contained in the bid document).

T1.3.2. FUNCTIONALITY EVALUATION

Bid submissions will be evaluated on the criteria outlined in items (A-J) below. Each Item (A to J) has an assigned "Weight" and "Rating" scale. During the evaluation process, Bidders shall be assigned a "Rating" for each item in A to J.

The maximum "Score" that a Bidder can achieve will be equal to the "Weight" for a particular item. The Total Scores of each functionality criterion will be multiplied by its weight and then the total score summed up to a total score out of 100.

A detailed description of the "Rating" scales and associated adjudication documentation are as follows:

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Table T1.1: Functional Evaluation Requirements

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. RECORD OF PREVIOUS EXPERIENCE: (15)	Experience must be relevant to the current scope/ work (with contactable client ref.) This is based on contractor history and managing projects of a similar nature and size to this bid. The reference must be written confirmation from clients and may include a completion certificate.					
A.1 Designs	T2.2.10	5	Minimum of seven or more project completion certificates and/or referee letter which include experience on designs of multidisciplinary projects	Minimum of five to six project completion certificates and/or referee letter which include experience on designs of multidisciplinary projects	Minimum of two to four project completion certificates and/or referee letter which include experience on designs of multidisciplinary projects	No submission or submission that does not at least meet weak requirements.
A.2 Construction / Installation	T2.2.10	10	Minimum of seven or more project completion certificates or referee letters of projects of a similar nature and size to this bid.	Minimum of five to six project completion certificates or referee letters of projects of a similar nature and size to this bid.	Minimum of two to four project completion certificates or referee letters of projects of a similar nature and size to this bid.	No submission or submission that does not at least meet weak requirements.
B. HUMAN RESOURCE CAPACITY (25)	Adjudicated based on Human Resource Capacity Schedule (including company's Project Team vs. Company Organogram; Project Team Member List including CV's, resource allocation). The purpose is to establish an overall picture of the company's human resource capacity and ability to undertake the work. Proof of employment such as valid three months bank statement / Payslips and signed contract for each and every key resource/personnel must be submitted over and above the requirements below (B.1. and B.11). (The three months base date is the Bid closing date, which means the resource must have been employed by the company/JV/Consortium for a minimum of three months at Bid submission date)					
B.1. Construction Manager	T2.2.11	3	B.Sc., B.Eng. Or B.Tech. Certificate in built environment and 10 years project and construction management work experience with SACPCMP professional registration as Pr.CM or Pr. CPM	B.Sc., B.Eng. Or B.Tech. Certificate in built environment and 9 years project and construction management work experience with SACPCMP professional registration as Pr.CM or Pr. CPM	B.Sc., B.Eng. Or B.Tech. Certificate in built environment and 8 years project and construction management work experience with SACPCMP professional registration as Pr.CM or Pr. CPM	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
B.2. Construction Supervisor	T2.2.11	3	National Diploma in built environment certificate with a minimum of 10 years construction supervision experience and registered with SACPCMP as a Candidate PrCM	National Diploma in built environment certificate with a minimum of 9 years construction supervision experience and without registration SACPCMP as a Candidate PrCM	National Diploma in built environment certificate with a minimum of 8 years construction supervision experience and without registration with SACPCMP as a Candidate PrCM	No submission or submission that does not at least meet weak requirements.
Construction Health and Safety Manager	T2.2.11.	2	SHE Diploma or SAMTRAC or equivalent qualification with 10-12 years SHE Officer construction working experience and registered with SACPCMP as CHSO / CHSM.	SHE Diploma or SAMTRAC or equivalent qualification with 7-8 years SHE Officer construction working experience and registered with SACPCMP as CHSO / CHSM.	SHE Diploma or SAMTRAC or equivalent qualification with 4-5 years SHE Officer construction working experience and registered with SACPCMP as CHSO / CHSM.	No submission or submission that does not at least meet weak requirements.
B.3. Construction Health and Safety Officer	T2.2.11	2	SHE Diploma or SAMTRAC or equivalent qualification with 6 years SHE Officer construction working experience and registered with SACPCMP as CHSO / CHSM.	SHE Diploma or SAMTRAC or equivalent qualification with 4-5 years SHE Officer construction working experience and registered with SACPCMP as CHSO / CHSM.	SHE Diploma or SAMTRAC or equivalent qualification with 1-3 years SHE Officer construction working experience and registered with SACPCMP as CHSO / CHSM.	No submission or submission that does not at least meet weak requirements.
B.4. Quality Officer	T2.2.11	2	Qualification in quality management with 8 years quality management systems experience	Qualification in quality management with 7 years quality management systems experience	Qualification in quality management with 6 years quality management systems experience	No submission or submission that does not at least meet weak requirements.
B.5. Environmental Officer	T2.2.11	2	National Diploma in Environ Sciences or BSc in Environmental Management or equivalent, with 5 years appropriate Environmental Control Officer experience and in-field experience with monitoring of Construction types of projects	National Diploma in Environ Sciences or BSc in Environmental Management or equivalent, with 4 years appropriate Environmental Control Officer experience and in-field experience with monitoring of Construction types of projects	National Diploma in Environ Sciences or BSc in Environmental Management or equivalent, with 3 years appropriate Environmental Control Officer experience and in-field experience with monitoring of Construction types of projects	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
B.6. Civil Engineer/Technologist (Structures)	T2.2.11	3	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 10 years water engineering experience in water retaining structures	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 9 years water engineering experience in water retaining structures	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 8 years water engineering experience in water retaining structures	No submission or submission that does not at least meet weak requirements
B.7. Civil Engineer/Technologist (Water)	T2.2.11	2	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 10 years water engineering experience in particular big diameter pipelines	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 9 years water engineering experience in particular big diameter pipelines	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 8 years water engineering experience in particular big diameter pipelines	No submission or submission that does not at least meet weak requirements.
B.8. Civil Engineer/Technologist (Transport)	T2.2.11	2	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 10 years road engineering experience	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 9 years road engineering experience	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 8 years road engineering experience	No submission or submission that does not at least meet weak requirements.
B.11. Mechanical Engineer/Technologist	T2.2.11	2	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 10 years' experience in big diameter pipelines valves and related mechanical equipment.	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 9 years' experience in big diameter pipelines valves and related mechanical equipment.	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 8 years' experience in big diameter pipelines valves and related mechanical equipment	No submission or submission that does not at least meet weak requirements.
B.9. Electrical Engineer/Technologist	T2.2.11	2	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 10 years experience in heavy current application in water utility	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 9 years' experience in heavy current application in water utility	B.Sc. or B.Eng. or B.Tech. Certificate, Pr. Eng or Pr. Tech. Eng and 8 years' experience in heavy current application in water utility	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
C. PLANT AND EQUIPMENT RESOURCE CAPACITY (15)	Adjudicated based on Equipment Resource Capacity (i.e. office space and requisite tools, vehicles and working tools). The purpose is to establish an overall picture of the company's equipment resource capacity and ability to undertake the work. Rand Water will confirm the information submitted when conducting due diligence.					
C.1 Design Phase	T2.2.12	4	Proof of ownership or lease of office space Proof of ownership of design related hardware (high spec computer, plotters, printers, etc) Proof of possession of either hardcopies or electronic copies of the relevant Design Codes, relevant licensed software e.g. AUTOCAD, Prokon, or similar software performing similar functions etc. and associated hardware capable of running software for 3D designs.	Proof of ownership or lease of office space Proof of lease of design related hardware (high spec computer, plotters, printers, etc) Proof of possession of either hardcopies or electronic copies of the relevant Design Codes, relevant licensed software e.g. AUTOCAD, Prokon, or similar software performing similar functions etc. and associated hardware capable of running software for 3D designs.	Proof of ownership or lease of office space Proof of lease of design related hardware (high spec computer, plotters, printers, etc) No proof of possession of either hardcopies or electronic copies of the relevant Design Codes, relevant licensed software e.g. AUTOCAD, Prokon, or similar software performing similar functions etc. and associated hardware capable of running software for 3D designs	No submission or submission that does not at least meet weak requirements.
C.2 Construction Phase	T2.2.12	11	Proof of ownership of plant and equipment relevant to this bid	Proof of lease of plant and equipment relevant to this bid	Proof of letter of intent to lease plant and equipment relevant to this bid	No submission or submission that does not at least meet weak requirements.
D. PROJECT RISK MANAGEMENT (10)	As per risk register provided					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
D.1. Response to tender document risks register	T2.2.16	10	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for each and every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for each and every risk.	Effectively address less than 100% of risks on the risks register including filling of all the response actions and response strategies for each and every risk.	No submission or submission that does not at least meet weak requirements.
E. DETAILED PROJECT PROGRAMME (10)	Aligned with employer's completion dates with the following specifications.					
E.1. Programme Schedule	R1.17	10	Effective, sequential and integrated level 3 MS project schedule with durations (start and finish dates), indication of critical path. Programme schedule to be aligned to ECSA Stage 1 to Stage 6 or SACPCMP stages.	Effective, sequential and integrated level 2 MS project schedule with durations (start and finish dates), indication of critical path. Programme schedule to be aligned to ECSA Stage 1 to Stage 6 or SACPCMP stages	Effective, sequential and integrated level 1 MS project schedule with durations (start and finish dates), indication of critical path. Programme schedule to be aligned to ECSA Stage 1 to Stage 6 or SACPCMP stages	No submission or submission that does not at least meet weak requirements.
F. METHOD STATEMENT (15)	Specific method statement in accordance with the scope of work, Aligned with Contractual requirements					
F.1. Designs	R1.18	3	Comprehensive Design and Engineering Plan - logical sequencing of appropriate designs activities across 90% - 100% of applicable engineering disciplines.	Details of Design and Engineering Plan - logical sequencing of appropriate designs activities across 70% -89% of applicable engineering disciplines.	Details of Design and Engineering Plan - logical sequencing of appropriate designs activities across less than 70% of applicable engineering disciplines.	No submission

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
F.2 Equipment and Construction	R1.18	7	Comprehensive Plant, Labour, equipment, and material management plan including list of long lead items. Construction and Equipment Activity plan including sequencing of activities to ensure plant is always running	Plant, Labour, equipment, and material management plan including list of long lead items. Construction and Equipment Activity plan including sequencing of activities to ensure plant is always running	Plant, Labour, equipment, and material management plan including list of long lead items. Construction and Equipment Activity plan <u>excluding</u> sequencing of activities to ensure plant is always running	No submission or submission that does not at least meet weak requirements.
F.3 Quality Control and Assurance	R1.18	3	Detailed methodology on how quality control and assurance will be managed plus sample of QCP	Basic Methodology on how quality control and assurance will be managed <u>with</u> a sample of QCP	Basic Methodology on how quality control and assurance will be managed <u>without</u> a sample of QCP	No submission or submission that does not at least meet weak requirements.
F.4. Safety Management	R1.18	2	Detailed methodology on how safety will be managed with a sample of typical task-based risk assessment	Detailed methodology on how safety will be managed but without a sample of typical task-based risk assessment	Basic methodology on how safety will be managed but without a sample of typical task-based risk assessment	No submission or submission that does not at least meet weak requirements.
G. SHERQ (5)	Adjudicated based on Contractors Health, Environment, Risks, Safety and Quality Policy, Plan and documentation submitted					
G.1. SHERQ Management Systems	R1.11	5	ISO 9001, ISO 45001 and ISO 14001 certificates	No ISO but have internal management system for health and safety, quality and environmental, <u>coupled</u> with signed SHEQ Plan, signed SHE Policy and signed Quality Policy	No ISO but have internal management system for health and safety, quality and environmental, <u>without</u> signed SHEQ Plan, signed SHE Policy and signed Quality Policy	No submission or submission that does not at least meet weak requirements.
H. FINANCIAL HEALTH (10)	<p>Financial Health- If an entity will be funding itself, it is to submit valid three years financial statements. In the event that an entity having a funder, a valid stamped letter from the funder indicating that they will fully fund your contract is to be submitted.</p> <p>When the valid three years financial statements are submitted, H1 and H2 will be calculated for scoring. If a valid stamped letter from the funder indicating that they will fully fund your contract is to be submitted the Bidder will obtain full score for H1 & H2.</p>					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
H.1. Liquidity	R1.8	2	Current assets / Current liabilities; Current assets - Inventory / Current liabilities ratios both equal to 1 while Cash generated from operations / Debt ratio is greater than 0.4501	Current assets / Current liabilities; Current assets - Inventory / Current liabilities ratios both are equal to 1 while Cash generated from operations / Debt ratio is between 0.21 and 0.4501	Current assets / Current liabilities; Current assets - Inventory / Current liabilities ratios both are less than 1 while Cash generated from operations / Debt ratio is less than 0.21	No submission or submission that does not at least meet weak requirements.
H.2. Debt, gearing and solvency	R1.8	2	Long-term debt / Equity of less than 0,345; Long term debt/EBITDA of less than 1,95 and Total Assets/Total liabilities of more than 1,5	Long-term debt / Equity between 0,345 and 0,505; Long term debt/EBITDA between 1,95 and 3,95 and Total Assets/Total liabilities between 1 and 1,5	Long-term debt / Equity of more than 0,505; Long term debt/EBITDA of more than 3,95 and Total Assets/Total liabilities of less than 1	No submission or submission that does not at least meet weak requirements.
H.3. Financial Management Plan	R1.8	6	Comprehensive Financial Management Plan, including cash flows incorporating all the activities of the contract for its duration.	Basic Financial Management Plan, including cash flows incorporating all the activities of the contract for its duration.	Basic Financial Management Plan, including cash flows not incorporating activities of the contract for its duration.	No submission or submission that does not at least meet weak requirements.

	<p style="text-align: center;">REQUEST FOR BID ENGINEERING PROCUREMENT AND CONSTRUCTION / TURNKEY</p>	<p>Form No: RW SCM 00048 F Revision No: 07 Effective Date: 16 Sept 2022</p>
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T1.3.3. PRICE

Rand Water uses a Financial Tolerance Range in order to assess how reasonable the market response prices are. These ranges will assist with eliminating bid prices that are deemed to be excessively high or low to complete the works. The higher limit ensures that Rand Water does not pay more than it believes the value of service or goods is worth, and the lower limit ensures that Rand Water is not exposed to risk of work not being completed or prices increasing subsequent to the award because the award price was too low to complete said scope.

The financial tolerance range for this bid is **-25% to +25%**.

Rotation of suppliers for bids will be done on the following conditions:

- a) Aggregate value of R250 million (inclusive of all taxes) awarded.
- b) Where an award to be made to the supplier results in the cumulative value exceeding the rotation threshold for bids, that award can be made which will constitute the last award to the supplier in the financial year.
- c) As its objective criteria, Rand Water shall therefore not award to a Bidder that scores the highest points if such Bidder has already exceeded the rotation threshold for bids.

In making the determination on the aggregate value of work awarded to a supplier, Rand Water shall consider the supplier's relations and as such, where Rand Water had awarded work to entities and/or persons that are related and/or inter-related to the supplier, the value of such awards shall be used as a measure of assessing the aggregate value of the work awarded to the supplier.

- d) This bid document is one of approximately 48 IEP sub-packages/bids. Therefore, one Director is limited to a maximum of one award of IEP sub-packages/bid/contract. This means, if an Entity has a director/s awarded one IEP contract there will be no award of any other IEP contract to the entity.
- e) However, Rand Water reserves a right to award more than one bid to one entity or Director.
- f) No subcontracting of work to "own entities/subsidiaries" or where cross-directorship exists.

PART T2: RETURNABLE DOCUMENTS

T2.1. LIST OF RETURNABLE DOCUMENTS

T2.1.1 All documentation listed in table T2.1 below shall form part of the Contract. *The Bidder must utilise this list as a checklist prior to bid submission.*

T2.1.2 Non-submission of any item listed only under the column “Required for Bid Evaluation” may result in the bid being rejected by the Employer.

T2.1.3 Attach additional pages if more space is required.

Table T2.1 List of Returnable Documents

ITEM	DESCRIPTION OF DOCUMENT TO BE RETURNED	REQUIRED FOR BID EVALUATION	ONLY REQUIRED AFTER BID AWARD
T2	Returnable schedules (supplied with the bid document)		
T2.2.1	Compulsory Enterprise Questionnaire including SBD 4 and 6.1	•	
	<i>SBD 6.2 and Annexure C where local content designation if applicable</i>	•	
T2.2.2	Record of Addenda to Bid Documents	•	
T2.2.3	Proposed Subcontractors	•	
T2.2.4	Alternative Bid	•	
T2.2.5	Qualifications to Bid	•	
T2.2.6	Requirements with regard to fluctuations in the cost of labour and materials	•	
T2.2.7	FOB Prices of imported equipment/materials for which foreign exchange would be required and importing charges	•	
T2.2.8	Declaration of Insurance	•	
T2.2.9	Socio-Economic Development Plan	•	
T2.2.10	Record of Previous Experience, Quality of Workmanship and Safety	•	
T2.2.11	Human Resource Capacity Schedule	•	
T2.2.12	Equipment Resource Capacity (Plant and Equipment)	•	
T2.2.13	Safety, Health, and Environment	•	
T2.2.14	Details of Equipment (including manufacturer's data sheets and technical publications)	•	
T2.2.15	Recommended Spares, Special tools and servicing facilities	•	
T2.2.16	Project Risk Management	•	
C1.1	Letter of Bid (Form of Offer and Acceptance)	•	
C1.2	Contract Agreement		•

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ITEM	DESCRIPTION OF DOCUMENT TO BE RETURNED	REQUIRED FOR BID EVALUATION	ONLY REQUIRED AFTER BID AWARD
C2.2	Pricing Schedule / Bill of Quantities (BoQ) The Bidder is required to submit the following: <ul style="list-style-type: none"> - Excel® format of the completed pricing schedule or BoQ in a compact disc (CD) or USB flash drive. - Printed format and signed version of the completed pricing schedule or BoQ. 	.	
C3.1	Dates for Delivery and Completion NOTE: A DETAILED PROJECT PROGRAMME MUST BE INCLUDED WITH THE BID SUBMISSION	.	
R 1	Required documentation not issued with the bid document:		
R 1.1	Certificate of Contractor Registration issued by CIDB OR A copy of the application form for registration in terms of the CIDB Act	.	
R 1.2	Proof of tax compliance status and a valid SARS Tax PIN		.
R 1.3	Letter of Good Standing from the Department of Labour or an Accredited Institution	.	
R 1.4	Performance Guarantee / Bond		.
R 1.5	Resolution Letter for the Main Contractor (a letter authorising the person completing the bid to sign on behalf of the company)	.	
R 1.6	Resolution Letter for the Subcontractor/s (a letter authorising the person completing the bid to sign on behalf of the company)	.	
R 1.7	Signed Subcontracting Agreement	.	
R 1.8	3-year financial statements (audited where applicable)	.	
R 1.9	Certified copy of B-BBEE Certificate or Certified copy of Sworn Affidavit for EMEs or QSEs	.	
R1.10	Main Contractor's internal Safety and Health Policy and Project Specific SHE Plan (compliance with the project specific SHE specification)	.	
R 1.11	Comprehensive SHEQ Plan (compliance with SHEQ Specification, including written agreement on Safety, Health and Environmental matters and all documents required for SHEQ compliance)		.
R1.12	Contractors' tools and Equipment Inventory		.
R1.13	Staff list		.
R1.14	Site Clearance Certificate		.
R1.15	Job Creation Report/Statistics (To be submitted Monthly)		.
R1.16	ISO 9001 Certification / proof of In-house Quality Management System (must include proof of a Document Control System and proof of a Non-conformity Management	.	

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ITEM	DESCRIPTION OF DOCUMENT TO BE RETURNED	REQUIRED FOR BID EVALUATION	ONLY REQUIRED AFTER BID AWARD
	System) including Sample/template of Quality Control Plan and appointment of Quality Representative		
R1.17	Detailed Project Programme in the following: a) Gantt Chart Format b) Level 3 schedule activities c) Credible and Aligned to Rand Water's Programme d) Resource loaded schedule Monthly cash flows, project to completion.	•	
R1.18	Method Statement: as per requirements under functionality.	•	

T2.2. RETURNABLE SCHEDULES

T2.2.1. COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: CSD Number:

Section 5: Particulars of sole proprietors and partners in partnerships:

Name *	Identity Number *	Personal income tax number *

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 6: Particulars of companies and close corporations

Company registration Number:	
Close Corporation number:	
Tax reference number:	

Section 7: SBD 4 issued by National Treasury must be completed for this bid.

Section 8: SBD 6.1 issued by National Treasury must be completed for this bid.

Section 8: SBD 6.2 and Annexure C issued by National Treasury must be completed for this bid (if applicable).

I the undersigned, who warrants that he/she is duly authorized to do so on behalf of the enterprise:

- authorizes the employer to verify the Bidders tax clearance status from the South African Revenue Services that it is in order;
- confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- confirms that I / we are not associated, linked or involved with any other bidding entities submitting bid offers and have no other relationship with any of the Bidders or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date: _____

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**
- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES/NO

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

3.1 I have read and I understand the contents of this disclosure;

3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

3.3 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 consortium² will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 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.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 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

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

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

1.2

a) The value of this bid is estimated to exceed R50 000 000 (all applicable taxes included) and therefore the 90/10 preference point system shall be applicable; or

b) The 90/10 preference point system will be applicable to this bid.

1.3 Points for this bid shall be awarded for:

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

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

	POINTS
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTOR	10
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;

- (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 Bidder to provide goods or services in accordance with specifications as set out in the bid documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) 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 90/10 PREFERENCE POINT SYSTEMS

A maximum of 90 points is allocated for price on the following basis:
 90/10

$$\text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

- P_s = Points scored for price of bid under consideration
- P_t = Price of bid under consideration
- P_{\min} = Price of lowest acceptable bid

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

- 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 (90/10 system)
1	10
2	9
3	6
4	5
5	4
6	3
7	2
8	1
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 CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 6.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 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

- 7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

YES		NO	
-----	--	----	--

- 7.1.1 If yes, indicate:

- What percentage of the contract will be subcontracted.....%
- The name of the sub-contractor.....
- The B-BBEE status level of the sub-contractor.....
- Whether the sub-contractor is an EME or QSE

(Tick applicable box)

YES		NO	
-----	--	----	--

- Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at least 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

In the case of more than one subcontractors, submit a list of subcontractors with the above details (7.1.1)

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]

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- 8.7 Total number of years the company/firm has been in business:.....
- 8.8 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.

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

SBD 6.2

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Standard Bidding Document (SBD) 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, 2017, 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, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced or 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 South African Reserve Bank (SARB) on the date of advertisement of the bid as indicated in paragraph 3.1 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 this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

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

Note: The local content declaration minimum requirement indicated below is for the items known to Rand Water at the present moment, however, given that this is a turnkey contract, once the activity schedule has been broken into more details as more information becomes available, the Contractor will then be required to provide a detailed declaration with all items listed. However, that declaration will not form part of pre-qualifiers and will be done post pre-qualifier evaluation.

Industry/sector/sub-sector	Minimum threshold for local content
Steel products and components	100%
Furniture Products	85
Electrical and telecom cables	90%
Valves products and actuators	70%
Conveyance Pipes	80% – 100%
Plastic Pipes	100%
Cem I to Cem V or Masory Cement types	100%

- 3.** Does any portion of the goods or services offered have any imported content?
(Tick applicable box)

YES		NO	
-----	--	----	--

- 3..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 SARB for the specific currency on the date of advertisement of the bid.

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

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

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

- 4.** 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 AO/AA provide directives in this regard.

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. RW10380857/22

ISSUED BY: RAND WATER

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
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 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 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (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 / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

SATS 1286.2011

Annex C

Local Content Declaration - Summary Schedule

(C1)	Tender No.
(C2)	Tender description:
(C3)	Designated product(s)
(C4)	Tender Authority:
(C5)	Tendering Entity name:
(C6)	Tender Exchange Rate:
(C7)	Specified local content %

Note: VAT to be excluded from all calculations

Pula EU GBP [illegible]

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value	R 0
--------------------------	-----

(C21) Total Exempt imported content	R 0
-------------------------------------	-----

(C22) Total Tender value net of exempt imported content	R 0
---	-----

(C23) Total Imported content	R 0
------------------------------	-----

(C24) Total local content	R 0
---------------------------	-----

(C25) Average local content % of tender	
---	--

T2.2.2. RECORD OF ADDENDA TO BID DOCUMENT

We acknowledge receipt of communications from the Employer amending the bid document before the submission of this bid offer. We confirm that these amendments have been taken into account in this bid offer.

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

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.3. PROPOSED SUBCONTRACTORS

We notify the Employer that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then on official award of Contract by the Employer to us, this list duly signed below shall be binding between us.

The appointment of the proposed Subcontractors shall be subject to the approval of the Employer.

Please note it is compulsory to declare the percentage of work to be completed by the Subcontractor.

Name and Address of Proposed Subcontractor	Nature and Extent of Work	Previous Experience with Subcontractor	CIDB Grading
1)			
2)			
3)			
4)			
5)			

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.4. ALTERNATIVE BID

- T2.2.4.1. Alternative bids will be accepted on the conditions described in [T1.2 Bid Data](#) (CIDB Clause C2.12)
- T2.2.4.2. Should the Bidder wish to submit an alternative bid he shall set out his proposals clearly hereunder or alternatively state them in a covering letter attached to his bid and referred to hereunder, failing which the bid will be deemed to be unqualified.
- T2.2.4.3. If no departures or modifications are described, the schedule shall be marked NIL and signed by the Bidder.

Page	Item	Proposed alternative	Price saving (if any) to the Employer if proposal is accepted

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____



Should the Bidder wish to qualify any aspect of the bid (e.g. limitations, assumptions, limited liability, etc.), he shall set out his terms clearly hereunder or alternatively state them in a covering letter attached to his bid and referred to hereunder, failing which the bid will be deemed to be unqualified.

If no qualifications are made, the schedule shall be marked NIL and signed by the Bidder.

[illegible]

Official Capacity:

T2.2.6. REQUIREMENTS WITH REGARD TO FLUCTUATIONS IN THE COST OF LABOUR AND MATERIALS

T2.2.6.1. The Bidder shall delete whichever of the following statements are not applicable to the bid. *Where the Bidder has not indicated the applicability of fluctuations, Rand Water shall regard the fluctuations as not applicable.*

FLUCTUATIONS IN - Wages and allowances:	*TO APPLY/NOT TO APPLY
Price of materials:	*TO APPLY/NOT TO APPLY

* Delete whichever is not applicable.

FORMULAE OR BASIS FOR THE ADJUSTMENT OF THE BID PRICE

If firm prices are not quoted the Bidder shall supply the following information:

T2.2.6.2. Formula by which the bid price is to be multiplied in order to arrive at the adjusted price:

.....
.....

T2.2.6.3. Definition of all symbols used in the above formula:

.....
.....
.....
.....

T2.2.6.4. Any special materials or equipment to be excluded from the application of the formula stating the method and basis of price variation to be applied to such materials or equipment:

.....
.....
.....

RECORDING OF WEATHER AND ABNORMAL RAINFALL

If during the time for completion of the works or any extension thereof abnormal rainfall or wet conditions shall occur then an extension of time in accordance hereof shall be granted by the

Employer calculated in accordance with the formula given below for each calendar month or part thereof.

$$V = (Nw - Nn) + ((Rw - Rn)/X)$$

V	Extension of time in calendar days in respect of the calendar month under consideration.
Nw	Actual number of days during the calendar month on which a rainfall of Y mm or more has been recorded.
Nn	Average number of days, as derived from existing rainfall records, on which a rainfall of Y mm or more has been recorded for the calendar month.
Rw	Actual rainfall in mm recorded for the calendar month under consideration.
Rn	Average rainfall in mm for the calendar month as derived from existing rainfall records.

For purposes of the contract Nn, Rn, X and Y shall have those values assigned to them in the Contract Data and/or the Specification. The total extension of time shall be the algebraic sum of all monthly totals for the period under consideration, but if the total is negative the time for completion shall not be reduced due to subnormal rainfall. Extensions of time for part of a month to be calculated using pro rata values of Nn and Rn. This formula does not take account of flood damage that could cause further or concurrent delays and will be treated separately as far as extension of time is concerned.

The factor (Nw-Nn) shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds Y mm. The factor (Rw-Rn)/X shall be considered to represent a fair allowance for variations from the average in the number of days during which the rainfall did not exceed Y mm but wet conditions prevented or disrupted work.

The following average rainfall figures are applicable:

INFORMATION SOURCE: South African Weather Service
Pretoria, Tel.: 082 233 8484

Y = 10 mm/24 hour day; X = 20 mm

STATISTICAL INFORMATION: (VEREENIGING – EXTRACTED IN 2014)		
STATION: VEREENIGING 0438784 3		
Month	RAINFALL	
	Nn = Average number of days during the calendar months in which a rainfall of more than Y-mm has been received	Rn = Average monthly rainfall
January	13.5	115.9
February	11.1	82.1
March	9.9	79.5
April	7.6	33.9
May	3.7	17.7
June	1.2	4.7
July	0.3	0.4
August	1.8	6.5
September	3.5	23.4
October	9.8	62.4

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PACKAGE 3 (SUB-PACKAGE 2)

November	12.5	86.6
December	13.9	114.4
Total	88.8	627.4

The Contractor shall be permitted to take his own rainfall measurements on site subject to the Employer's representative approval, but access to the measuring gauge(s) shall be under the Employer's Representative 's control. The Contractor is to provide and install all the necessary equipment for accurately measuring the rainfall as well as to provide, erect and maintain a security fence plus gate, padlock and keys at each measuring station, all at his own cost.

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.7. F O B PRICES OF IMPORTED EQUIPMENT/MATERIALS FOR WHICH FOREIGN EXCHANGE WOULD BE REQUIRED AND IMPORTING CHARGES

- T2.2.7.1. The Bidder shall complete each schedule listing the F O B value of all items of equipment/materials for which foreign exchange would be required.
- T2.2.7.2. Bidders based on the supply of locally manufactured equipment and/or materials priced competitively, will be given preference by the Employer provided such equipment and/or materials, and the manufacture thereof, are of sufficiently high standard to meet the Employer's requirements.
- T2.2.7.3. If no items are to be imported or if firm prices are submitted the relevant section of the schedule shall be marked NIL. If the equipment contains imported equipment/materials then the Bidder shall complete the schedule listing the F O B value of all items of equipment/materials, which have been or are to be imported. Prices tendered for this imported equipment/material shall be quoted in **currency of origin**. It will therefore be the responsibility of the employer (Rand Water) to take out a Forward Cover for this imported equipment/material, when and if deemed prudent. All charges for the Employer's account referred to in the General Conditions of Contract and any changes in the rates of exchange will only be paid or allowed by the Employer in respect of items listed in this schedule. Bidder shall be expected to provide full documentation (i.e. Invoice, Bill of Lading, etc.) supporting foreign currency requirements for this imported equipment/material to support the Employer application to the SARB for the exchange control approval.
- T2.2.7.4. The Bidder shall sign each schedule.
- T2.2.7.5. For evaluation purposes, the prices of imported equipment/material sourced directly from outside South Africa quoted in currency of origin will be converted to Rand using the closing rate exchange rate published by SARB on the date, one week (7 day calendar days) prior to the closing date for the Bidder.

"Imported content" means that portion of the price represented by the cost of components, parts or materials which have been, or are still to be imported (whether by the Bidder or his suppliers or Subcontractors) and which cost includes the overseas cost plus direct importation costs, such as freight, all landing charges, dock dues, import duties and the like at the South African port of entry, as well as inward transportation and handling to the factory in the Republic where the equipment offered is produced, manufactured, processed, assembled, packed or otherwise prepared.

The Bidder shall state in the appropriate column the F O B values of equipment/materials, which have already been imported, and which still have to be imported.

Item	Description and country of origin	Rate of exchange	F O B value	
			Already imported	To be imported
			R	R
Total F O B values				

Table T2.2.7.1: F O B Prices

The exchange rate to be used for conversion of the foreign content to local content shall be the closing exchange rate published by South African Reserve Bank (SARB) on the date, one week (7-day calendar days) prior to the closing date of the Bid.

IMPORT PERMIT: The Bidder shall state what arrangements have been or are to be made to obtain the necessary import permit(s).

.....

.....

Item	Rate	Total
PORT OF LANDING	R	R
Freight on tons at		
Insurance on R		
Customs duty on R		
Landing charges on tons at		
Wharfage on tons at		
Forwarding and agency on tons at		
Railage on kg at		
Sundry importing charges		
.....		
TOTAL:		

Table T2.2.7.2: F O B Prices

Guaranteed date of shipping

Guaranteed date of delivery to railway authority



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INFRASTRUCTURE ACROSS ZUIKERBOSCH PUMPING STATION-
PACKAGE 3 (SUB-PACKAGE 2)

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.8. DECLARATION OF INSURANCES

I/We hereby declare that the insurance policies enumerated below have been effected by me/us in accordance with the Contract Data.

Cover effected	Insurer	Policy	Expiry date
COID			
Unemployment Insurance			
Employer's Liability			
Motor Vehicle Liability			
Contractor's Equipment			
Manufacturing/Fabrication Premises			
Professional Indemnity	as applicable		

Table T2.2.8: Declaration of Insurance

Copies of the abovementioned policies are attached.

In respect of COID, a copy of the current receipt and letter of good standing is attached.

Name of Contractor:

Signed by or on behalf of Contractor: _____ Official Capacity: _____

Date: _____

NOTE: This schedule shall be completed and submitted to Rand Water within 14 days from the commencement date of the contract and will serve as a condition precedent. The Contractor shall ensure that all policies are in place for the full period under the contract, and where policies need to be renewed and/or any changes effected, Rand Water is to be provided with the renewal confirmation and/or details of changes within 14 days of such renewal or changes.

T2.2.9. SOCIO-ECONOMIC DEVELOPMENT

Rand Water intends to achieve the objective of promoting an environment that is health, safe, efficient, productive, harmonious, free from disruption and localises opportunities for communities in close proximity to the project. Such an environment will assist contractors in implementing the projects successfully. All contractors, subcontractors (including SMMs) and site service providers within the project have a role and responsibility in achieving this objective. Accordingly, the Main Contractor is wholly responsible in ensuring the provision, implementation and maintenance of the required socio-economic deliverables, as approved by Rand Water.

The Bidder shall submit a plan with regard to SED targets set by Rand Water for each respective SED element during the Request for Bid (RFB) phase. Bidders have to submit SED plans as part of their proposals in reaction to the RFB. Bidders are required to demonstrate through their SED plans how the involvement of black persons and historically disadvantaged individuals (HDIs) will be secured, as well as their commitment to the respective SED elements.

Rand Water regards the **local-to-site area** as historically disadvantaged areas in the district municipality. In areas that are not demarcated according to district municipalities, the historically disadvantaged areas in the metropolitan municipalities shall be regarded as local-to-site areas.

Key performance areas and deliverables on SED are outlined as follows:

ITEM NO.	KEY PERFORMANCE AREAS	DELIVERABLES
1.	Participation of Local Enterprises	<ul style="list-style-type: none"> The Bidder must ensure that in the project implementation plan the following target is prioritized and this must be clearly outlined in the declaration of intent: <ul style="list-style-type: none"> Work allocation to local enterprises A minimum of 5% of the total work will be allocated to local black owned enterprises. The Bidder must specify in the SED plan the work items to be allocated to local enterprises that are minimum 51% black owned. This plan must also indicate the Rand value and the scope of work. Rand Water's Database of Local Business for the target area/s will be availed.
2.	Job Creation	<ul style="list-style-type: none"> The Bidder's workforce in the project must consist of locals (historically disadvantaged) as follows: <ul style="list-style-type: none"> Unskilled Labourers: 100% (50% women, 50% youth) Semi-skilled: a minimum of 30% (50% women, 50% youth) Skilled: a minimum of 25% (50% women, 50% youth) The method of recruitment must be pre-approved by Rand Water. It is acknowledged that people will be employed on a part-time basis in many instances. It is however required that

ITEM NO.	KEY PERFORMANCE AREAS	DELIVERABLES
		<p>employees who were employed at the unskilled level exit with a certificate of completion of accredited training.</p> <ul style="list-style-type: none"> A recruitment plan must be submitted which will indicate how the employment of local labour will be achieved versus the Bidder's existing (permanent) and seconded labour which will be assigned to the project.
3.	Skills Development	<ul style="list-style-type: none"> The Bidder must submit a proposed skills development programme targeting the following levels: <ul style="list-style-type: none"> Unskilled to Semi-skilled (50% Youth, 50% Women) Undergraduate (50% Youth, 50% Women) Graduate (50% Youth, 50% Women) The proposed programmes must be accredited, giving credit value to the beneficiaries. The programmes must incorporate workplace learning and/or on-the-job training with the theoretical knowledge provided. Programmes can only be implemented once approval has been provided by Rand Water.
4.	Social Responsibility	<ul style="list-style-type: none"> A programme must be structured to ensure effective delivery to address identified community needs in a significant and sustainable manner. The Bidder must submit proposed social responsibility initiative/s which could be rolled out across the project duration and must have impact beyond the project implementation. Examples may include Cooperative Development, NGO Support, School Support Programmes can only be implemented once approval has been provided by Rand Water.
5.	Social Facilitation	<ul style="list-style-type: none"> A key component in aiding the realisation of the SED objectives is effective community liaison with all the relevant role-players, structures, civic organisations and the community at large. Provision must be made for a Community Liaison Officer (CLO) for the duration of the project. The CLO must be sourced locally.

The Bidder agrees to adhere to the Rand Water's SED requirements.

Name of Bidder: _____

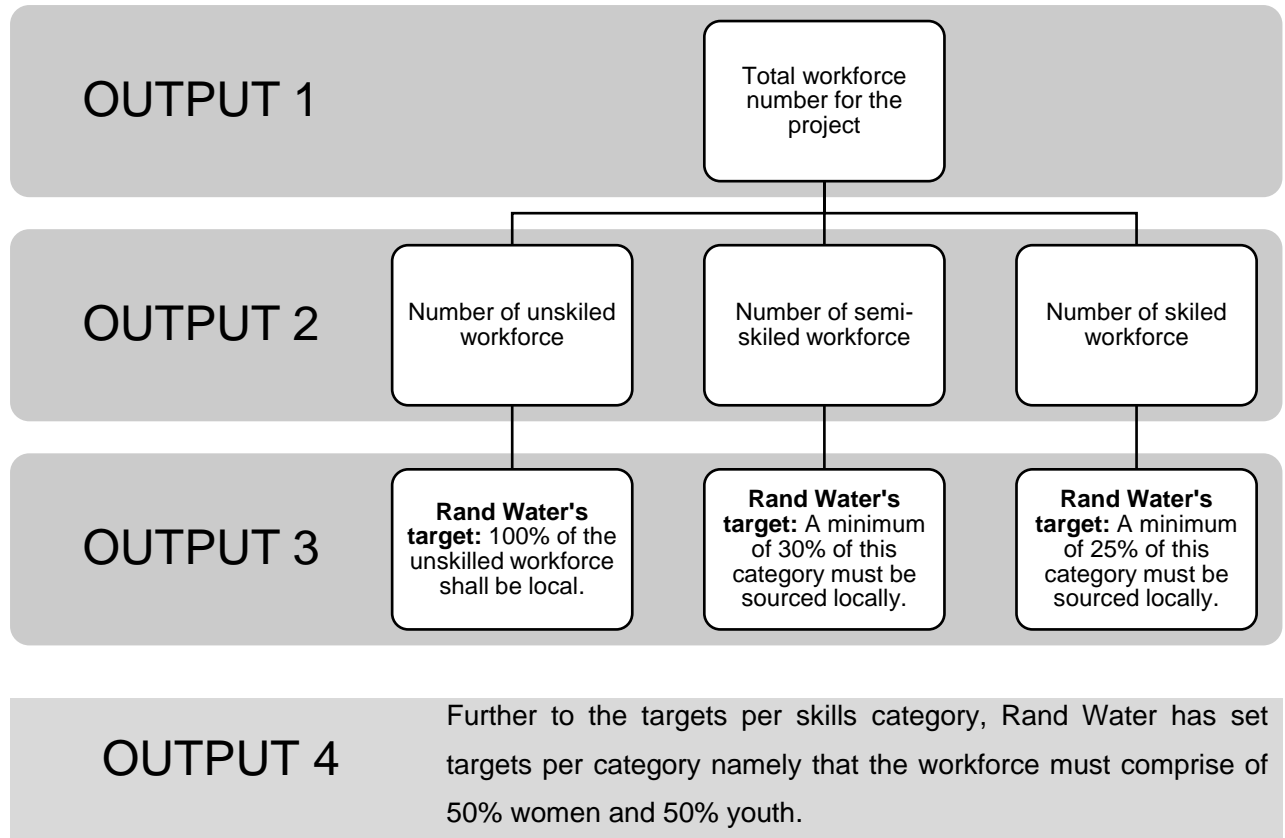
Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.9.1. JOB CREATION REQUIREMENT

The Bidder's recruitment plan must indicate the following information:



The Bidder must ensure that the required recruitment plan adheres to the requirements of this section and must also include a proposed method of recruitment.

The Bidder agrees to adhere to the Rand Water's SED requirements.

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.9.2 SED MATRIX

KEY PERFORMANCE AREA	INDICATOR	MEASURE	TARGET	QUANTITY	COST	TIMELINE			COMMENTS
						START	END	DURATION	
Job Creation Total workforce number for the project: (insert) 	Employment: Unskilled Insert Rate:	Percentage of total projected workforce in the skills category	100%						
	Employment: Semi-skilled Insert Rate:	Percentage of total projected workforce in the skills category	Minimum 30%						
	Employment: Skilled Insert Rate:	Percentage of total projected workforce in the skills category	Minimum 25%						
Skills Development	Accredited Training Programmes: Unskilled (MANDATORY)	Rand Value	Rand value as per the BoQ						
		Number of unskilled people trained on accredited training	Number of unskilled indicated in the Bidder's recruitment plan						
	Work Integrated Learning: Undergraduates	Rand Value	Rand value as per the BoQ						
		Number of undergraduates trained and provided workplace experience	Number of unskilled indicated in the Bidder's recruitment plan						

KEY PERFORMANCE AREA	INDICATOR	MEASURE	TARGET	QUANTITY	COST	TIMELINE			COMMENTS
						START	END	DURATION	
	Professionalisation Programmes: Graduates	Rand Value	Rand value as per the BoQ						
		Number of graduates trained and provided workplace experience	Number of unskilled indicated in the Bidder's recruitment plan						
Social Responsibility	Community development initiatives	Rand value	Rand value as per the BoQ						
Social Facilitation	Appointment of CLOs	Rand value	Rand value as per the BoQ						
Participation of Local Enterprises	Work allocated to local enterprises that are 51% black owned	Rand value	Rand value as per the BoQ						
	Procurement of non-core services and materials from local enterprises that are a minimum 51% black owned	Rand value	100%						
TOTALS					The Bidder must indicate the total cost				

Rand Water will commence the monitoring of SED implementation three (3) months after the acceptance of the letter of award by the successful Bidder. The Bidder agrees to adhere to the Rand Water's SED requirements.

Name of Bidder: _____



RW10380857/22

**TURNKEY TENDER FOR THE CONSTRUCTION OF BUILDING AND CIVIL INFRASTRUCTURE ACROSS ZUIKERBOSCH
PUMPING STATION- PACKAGE 3 (SUB-PACKAGE 2)**

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

T2.2.9.3. SED CHECKLIST

All items in this checklist must be completed. If any of the items are not addressed as required (i.e. indicated as "No" or no attachment where an attachment is required), the Bidder's submission will be deemed non-responsive.

	ITEM	REQUIREMENT	YES	NO
1.	Job Creation	Attach the Recruitment Plan (refer to T2.2.13.1)		
2.	Skills Development	Attach a comprehensive proposal for training programmes for unskilled, undergraduate and graduate, as applicable. The provision of accredited training for the unskilled group is a mandatory requirement.		
3.	Social Responsibility	Attach a comprehensive proposal for local community development.		
4.	Participation of Local Enterprises	<ul style="list-style-type: none"> The work highlighted for Participation of Local Enterprises is work that must be issued to local enterprises that are a minimum 51% black owned. This is a minimum. The Bidder must ensure that the work to be allocated to local enterprises amounts to a minimum of 5% of the whole work. This must be indicated clearly in the Bidder's SED plan. The sourcing of local enterprise shall be a competitive process. The method of sourcing must be pre-approved by Rand Water. Attach a procurement plan for non-core services and materials required. Rand Water's target is that the Bidder must procure 100% of these services and materials from local enterprises that are a minimum 51% black owned. 		
5.	Social Facilitation	The Bidder must provide the costing with reference to the SED part of the BOQ		

The Bidder agrees to adhere to the Rand Water's SED requirements.

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

T2.2.10. RECORD OF PREVIOUS EXPERIENCE, QUALITY OF WORKMANSHIP AND SAFETY

The Bidder shall provide details of **completed** works (similar to the work set out in this bid). Individuals listed as references must be contactable and willing to provide information relating to the performance of the Bidder (in terms of safety and health, workmanship, documentation, timeous completion, etc.). In order to verify the quality of workmanship, an inspection of the works may also be undertaken should Rand Water deem it necessary.

The Bidder must take into cognisance the functionality criteria in providing the record of previous experience. Information must be provided in the following format:

Description of Works	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role ^(Note 1) :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
Contact Details of Reference at Client Company	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
Note 1 – Role refers to the Contractor's responsibility w.r.t. the claimed experience. For example Single Contractor, Main Contractor but with electrical sub – contractor, Sub – contractor for civil construction etc.	

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

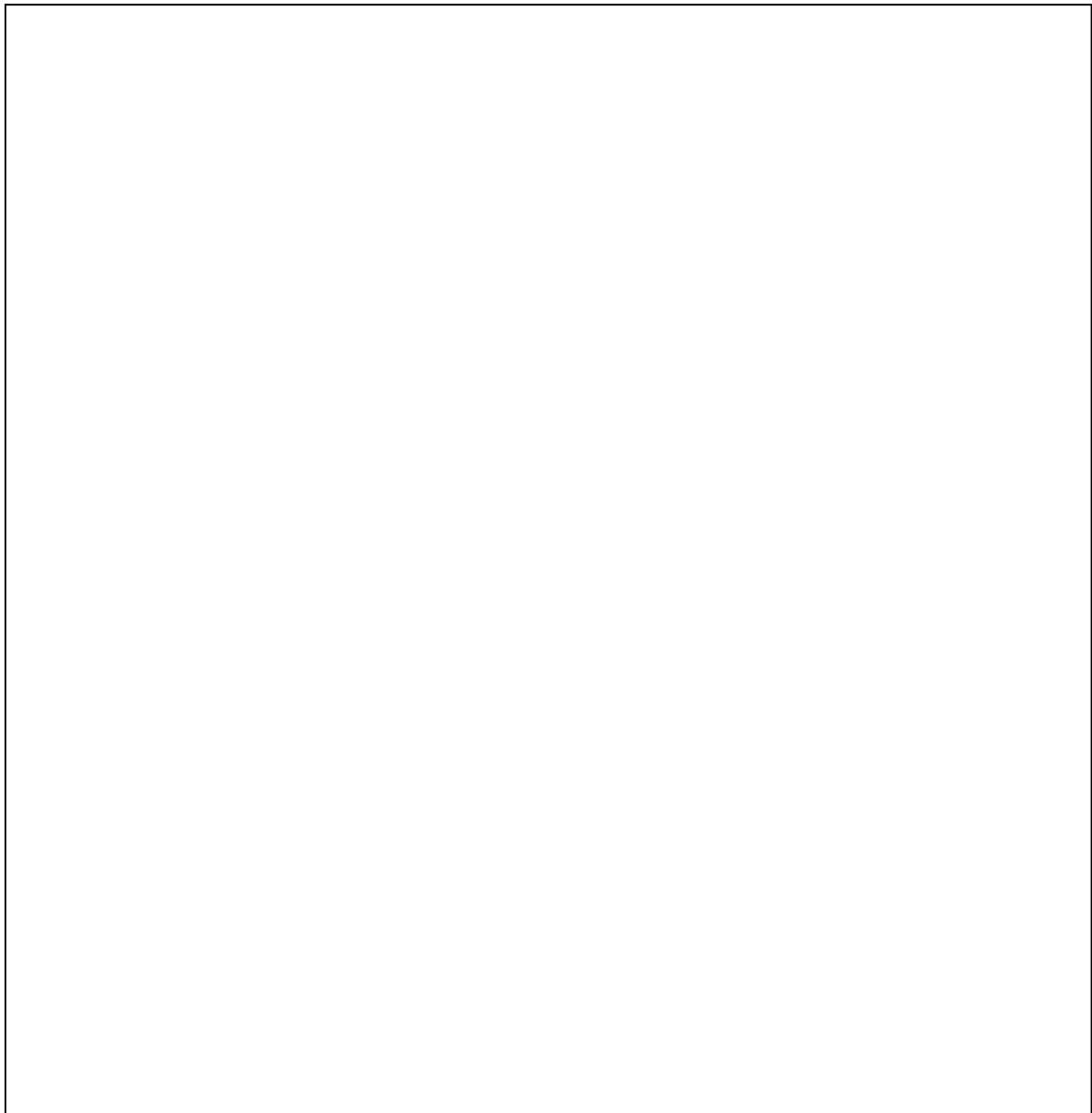
Date: _____

T2.2.11. HUMAN RESOURCE CAPACITY SCHEDULE

The aspects covered by T2.2.11.1, T2.2.12.2 and T2.2.12.3 will be viewed in conjunction with each other to establish an overall picture of the Bidder's capacity and ability to undertake the work specified in this document.

T2.2.11.1. Project Team Organogram vs. Company Organogram

The Bidder shall detail in the block below their company organogram and the Resources dedicated to this contract must be clearly indicated. In addition, sub-contractor and Joint-Venture arrangements must be clearly indicated:



cont.

[illegible]

Doc No. RW SCM 00048 F

T2.2.11.3. List of Current Contracts (Workload)

Contract or Work Title	Client	Contract Value (excl. VAT)	Role ^{NOTE 1}	Progress
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
<p>NOTES</p> <p>1. Role refers to the Contractor's responsibility w.r.t. the claimed experience for example Single Contractor, Main Contractor but with Electrical subcontractor, Sub-contractor for civil construction etc.</p> <p>2. Stage refers to the current stage of the work (example design, procurement, construction, installation, commissioning, handed over, in Defects Liability Period etc.)</p> <p>3. Attach additional signed copies of this schedule if insufficient space is available.</p>				

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____



T2.2.12. EQUIPMENT RESOURCE CAPACITY (PLANT AND EQUIPMENT)

[illegible]

Name of Bidder:

Signed by or on behalf of Bidder: _____ Official Capacity: _____

Date: _____

T2.2.13. SAFETY, HEALTH, AND ENVIRONMENT

1. Safety, Health and Environment Policy

Bidders shall submit a copy of their company's internal Safety, Health and Environment Policy.

2. Safety, Health and Environment (SHE) Plan

Bidders shall submit the project specific SHE plan as per the project specific SHE Specification

3. Safety, Health and Environment (SHE) Risk assessment

Bidders shall submit the project specific SHE risk assessment.

4. Construction Health and Safety Manager / or Officer

Bidders shall submit the details of the name and particulars of the person proposed to be appointed as the Construction Health and Safety Manager/or Officer (include proof of registration with SACPCMP).

5. DIFR Status

Bidders shall furnish their DIFR Status for 2 years in the table below, based on the following formula.

$$DIFR \text{ (annual)} = \frac{(\text{Number of Disabling Injuries})(200000)}{(\text{Number of Hours Worked})}$$

Number of Hours Worked (annual) = Total Number of Employees x Average Hours Worked per Employee per Year

	Current Year	Last Year
Number of Disabling Injuries		
Total Number of Employees		
Average Hours Worked per Employee per Year		
Number of Hours Worked per Year		
Calculated DIFR		

Table T2.2.17: Safety, Health, and Environment



Signed by or on
behalf of Bidder:

Official Capacity:

Date:

[illegible]

RW10380857/22
TURNKEY TENDER FOR THE CONSTRUCTION OF BUILDING AND CIVIL
INFRASTRUCTURE ACROSS ZUIKERBOSCH PUMPING STATION-
PACKAGE 3 (SUB-PACKAGE 2)

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

T2.2.15. RECOMMENDED SPARES, SPECIAL TOOLS AND SERVICING FACILITIES

Number recommended	Description	Price each
		R

SERVICING FACILITIES (Name and address of depot and available facilities).

.....

.....

.....

Special tools provided

.....

.....

.....

Name of Bidder:

Signed by or on
 behalf of Bidder:

Official
 Capacity:

Date:

T2.2.16. PROJECT RISK MANAGEMENT
PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
1	Health & Safety	Use of public transport to and from work, sharing of working tools, etc.	Monkey-pox, SARS CoV 2 or any viral infection on surfaces (seats, infected personnel, chairs, money etc) & COVID-19 infected persons	Health effects, local transmission of COVID-19 or Monkey-pox	Threat	Likely	Major		
2	Construction	Excavations for foundations, pipe-laying trenches, and cable trenches	Cutting/damaging of existing underground services such as electrical cables, optic fibre lines, water pipelines, etc.	Possible electrocution, injury from high pressured water pipes and disruption of water supply and/or services	Threat	Extremely Likely	Major		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
3	Health & Safety	Compromised Safety of personnel	Security building to be used as a construction site with heavy machinery operated whilst personnel are in office	Possible injuries to personnel	Threat	Extremely Likely	Major		
4	Health & Safety	Theft of Arms and/or ammunition	Construction crew working in close proximity to the Arms room during construction period.	Arms landing in the wrong hands in local community Loss of critical security equipment for Rand Water	Threat	Likely	Major		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
5	Health & Safety	Electrocution	Operating portable electrical tools (drilling) in a confined space where dry isolation is not possible, and the plant is live - Engine Room 4B reservoir	Potential injuries to personnel and/or fatalities	Threat	Likely	Major		
6	Health & Safety	Chemicals	Working with chemicals/bonding material inside a confined space – Engine Room 4B	Chemical burns	Threat	Likely	Major		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE ASSESSMENT	RISK	RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
7	Operations	Localised flooding at Engine Room 4B	Capacity of drainage inadequate for handling volumes of water drained	significant impact on Operations and water supply due to the possible damage to pumping equipment.	Threat	Extremely Likely	Major		
8	Construction	Pipe-laying	Compression of personnel by pipe lengths inside trenches during pipe-laying activities	Bodily injuries on affected personnel	Threat	Likely	Major		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
9	Construction	Demolitions and rubble removal at security points where personnel are deployed	Demolitions carried out and usage of heavy vehicles for rubble removal	Potential injuries to nearby personnel	Threat	Likely	Major		
10	Construction	Labour strikes	Wage negotiations	Construction work will be delayed	Threat	Likely	Major		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
11	Construction	Community strike	Non agreement with local community requirements. Lack of proper communication. Contractor damages Rand Water infrastructure during construction	Project delayed. Delays, work stoppages Riots/strikes, vandalism, risk to property and personnel. Project cost increase	Threat	Likely	Major		
12	Construction	Differing site conditions	Unexpected services encountered construction	Delays project and Increase cost	Threat	Likely	Major		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
13	Construction	Wet condition or Damage to the works	Rainy season. Flooding of the works due to major rainfall events	Construction work will be delayed. Damage to the bedding or backfilling. Collapsing of the trench walls, negative time impact due to re-work. Ultimate project costs increase	Threat	Likely	Major		
Any additional Risks identified by the Bidder that are deemed critical for the execution of the project may be included in the section below:									
14									

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE ASSESSMENT	RISK	RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
15									
16									

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT

Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:

RISK IDENTIFICATION						QUALITATIVE ASSESSMENT	RISK	RISK RESPONSE PLAN	
No	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
17									

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

T2.2.17. PENALTY TABLE

The Bidder is required to acknowledge the penalty table by signing this schedule.

PENALTY TABLES					
DELAYS ON ITEMS ATTRACTING PENALTIES	Value of Contract (Excl VAT.) in millions R				
	<1	≥1<5	≥5<20	≥20<50	≥50
PROGRAMME AND PRELIMINARY DOCUMENTS (Rand's per day delay)	1 000	5 000	10 000	10 000	10 000
DRAWINGS AND DESIGN PACK (Rand's per day delay)	2 500	10 000	15 000	20 000	25 000
SECTIONAL COMPLETION	1% of the value of the outstanding work/ week				
OVERALL COMPLETION	1% of the value of the outstanding work/ week				
COMMISSIONING (Rand's per day delay)	5 000	10 000	15 000	20 000	25 000
REMEDYING OF DEFECTS					
a) Critical to asset functioning/ running (Rand's per day delay)	5 000	25 000	50 000	50 000	50 000
b) Not critical to asset functioning/ running (Rand's per day delay)	500	2 500	5 000	5 000	5 000
SHEQ					
a)SHEQ non-conformances, corrective and preventative actions not resolved within the agreed target dates	500	2 500	5 000	5 000	5 000
Agreed target dates exceeding 5 working days					
b) Non-reporting of SHEQ incidents and statistics within the required timeframe	500	2 500	2 500	5 000	5 000
Within a shift / Within 24 hrs					
c) Repeat SHEQ non conformances	1 000	5 000	10 000	10 000	10 000
d) Overtime Work without the required approvals during Construction phase (Rands)	1 000	5 000	10 000	10 000	10 000
SED Implementation					
Failure to implement SED objectives (Rands per day delay)	1 000	5 000	10 000	10 000	10 000

Name of Bidder:

Signed by or on behalf of Bidder: _____ Official Capacity: _____

Date: _____

SECTION B: CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1. FORM OF OFFER AND ACCEPTANCE

C1.1.1. LETTER OF BID

LETTER OF BID

DESCRIPTION: TENDER FOR THE DESIGN AND CONSTRUCTION OF CIVIL & BUILDING
INFRASTRUCTURE ACROSS ZUIKERBOSCH PUMPING STATION

BID NO: RW10380857/22

TO: The Bid Submission Box
Rand Water Head Office
522 Impala Road
Glenvista
Johannesburg
Attention: **The Sourcing Manager – Mr L Moloi**

We have examined the Conditions of Contract, Specifications, Drawings, Schedules, the attached
Appendix and Addenda No.'s for the execution of the above named Works.
We offer to execute and complete the Works and remedy any defects therein in conformity with this Bid
which includes all said documents, for the total sum of in South **African Rand**
(ZAR _____)

(_____)

Amount in Words inclusive of all taxes) or such other sum as may be determined in accordance with
the Conditions of Contract.

The total ZAR value quoted above, to include the sum of imported equipment/material sourced directly
from outside South Africa. The applicable currency of origin/s must be converted to South African Rand
(ZAR) using the closing rate of exchange as published by SARB on the date, one week (7 day calendar
days) prior to the closing date for the Bid.

**The Bidder shall further complete the offer/letter and stipulate the sum in the currency of
origin (i.e. Euro, USD, GBP or any other currency) as noted below.**

for the sum of in **Euro** (€ _____)
(_____ **Amount in Words inclusive of all
taxes*)**

or such other sum as may be determined in accordance with the Conditions of Contract.

for the sum of in **USD** (\$ _____)
 (_____ **Amount in Words inclusive of all taxes**
 *)

or such other sum as may be determined in accordance with the Conditions of Contract.

for the sum of in **GBP** (£ _____)
 (_____ **Amount in Words inclusive of all taxes**
 *)

or such other sum as may be determined in accordance with the Conditions of Contract.

for the sum of in **any other currency** _____
 (_____ **Amount in Words inclusive of all taxes ***)

or such other sum as may be determined in accordance with the Conditions of Contract.

***Applies to international suppliers that are registered for all taxes in South Africa**

We accept your suggestions for the appointment of the DAB.

We agree to abide by this Bid for a period of **180** days from the Submission Date and Time for Bids and it shall remain binding upon us and may be accepted at any time before that date. We acknowledge that the Appendix forms part of this Letter of Bid.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as is reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion.

Unless and until a formal Agreement is prepared and executed this Letter of Bid, together with your written acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Signature..... in the capacity of.....

duly authorized to sign bids for and on behalf of.....

Address:

Date:.....

Signature of Witness: _____

Signature of Witness: _____

Name of Witness: _____

Name of Witness: _____

Date: _____ Date : _____

C1.1.2. CONTRACT AGREEMENT

This Agreement made on the _____ day of (month) _____ (year) _____
between

RAND WATER
(hereinafter called “the Employer”)

And

(hereinafter called “the Contractor”).

Whereas the Employer desires that the Works known as **tender for the design and construction of civil & building infrastructure across Zuikerbosch Pumping Station** should be executed by the Contractor, and has accepted a bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - a. The Letter of Award
 - b. The Letter of Bid
 - c. The Conditions of Contract
 - d. The Employer’s Requirements

- e. The Returnable Schedules
- f. The Contractor's Proposal
- g. The Bid Addenda (where applicable)
- h. Additional Information Provided by Contractor (where applicable)

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein, in conformity with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price at the times and in the manner prescribed by the Contract.

Authorised signature of Employer

Authorised signature of Contractor

for and on behalf of the Employer

for and on behalf of the Contractor

Name: _____

Name: _____

Designation: **CHIEF EXECUTIVE**

Designation: _____

Date: _____

Date: _____

In the presence of the undersigned witnesses:

Name: _____

Name: _____

Signature: _____

Signature: _____

Date: _____

Date: _____

C1.2. CONTRACT DATA

PART 1: PREAMBLE:

This Engineering Procurement Construction (“EPC”) template has been created for the purpose of providing a standardized document to be used in the sourcing of the Turnkey Contractor (s) for the execution of the Infrastructure deliver sourcing model namely: Integrated Execution Programme;

Rand Water as the Employer uses a Red and Yellow Book as their conditions of contracts for infrastructure projects, however for the implementation of the Integrated Execution, the contracting strategy has changed as influenced by the complexity and the size of projects to be executed;

The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for EPC/Turnkey Projects (“Silver book”) Second edition 2017” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and the “Particular Conditions” will be applicable and shall be used;

The Employer shall appoint a single contractor (meaning on contractor, a joint venture, or consortium) a turnkey contract, where an employer hands full responsibility over to the contractor for all design, engineering and construction. This approach expects the employer to “wait for the keys” and to have little day-to-day management of the project as work progresses;

Now therefore, it is recorded as that the following approach to the procurement of Works has been adopted and should be recorded therein

- (i) where the Contractor is to take total responsibility for the design and execution of building or engineering works,
- (ii) At the onset, it is worth noting that the Employer's Requirements shall include an outline design for the Works, in that some of the packages have a significant amount of design work that has been done by the Employer from concept, preliminary to detailed design;
- (iii) In such circumstances, the Employer aver and notwithstanding the fact that this is a turnkey contract, the Employer elects to issue the aforementioned designs to the Contractor during the tender stage with the proviso that the Contractor shall be:
 - deemed to have scrutinized, verified and satisfied him/herself with the accuracy of the information;
 - shall take on full responsibility for such design; the contractor being responsible both for the integration of the design and the construction of the works.
 - the contractor shall make necessary amendments to the aforementioned designs as professionals;
 - the Employer shall not be responsible for any error, inaccuracy or omission of any kind in the Employer's Requirements and shall not be deemed to have given any representation of accuracy and completeness of data;
 - Full accountability and responsibility passes to the Contractor;

PART 2 –

Joint Ventures / Consortiums:

- Bidder shall be a firm that is a private entity or a company or any combination of such entities in the form of a Joint Venture / Consortiums or a similar entity. In this case, a signed Joint Venture agreement or a letter of intent must be submitted as part of the returnable documents.
- Bidders who submit as a combined entity must ensure that they incorporate a Joint Venture upon award to ensure that the contract is executed by an entity with a legal *persona* (*Please see conditions precedents below*). There is no limit on the number of members in a JV.

- During the bidding process, the employer will accept unincorporated entities in the form of JV and Consortiums. However, signed agreements or a letter of intent must be submitted with the bid.
- In the case of a Joint Venture or Consortiums or similar entity, all members/partners shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms.
- The member/partners shall nominate a Representative who shall have the authority to conduct all business for and on behalf of all the members of the Joint Venture or Consortium or similar entity during the Bidding process.

CONDITIONS PRECEDENTS

- It is the employers' requirements that, in the event the Joint Venture, Consortium or similar entity is awarded the Contract, it shall within 30 days from the date of issuance of the letter of award, submit the following:
 1. In case of entities which only submitted letters of intent, bidders must submit signed agreements;
 2. Bidders must further submit proof of incorporation of the entity confirming incorporation either as Joint Venture, Consortium or similar entity.

Failure to incorporate shall forthwith render the appointment and or award null and void and Rand Water shall terminate the agreement with immediate effect.

PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

General Conditions (GC)

- a) This Section refers to the "General Conditions" which form part of the "Conditions of Contract for EPC/Turnkey Projects ("Silver book") "Second Edition 2017" published by the *Fédération Internationale des Ingénieurs-Conseils* (FIDIC). **The text of the certain identified clauses of these General Conditions shall be modified to align with business operations of the Employer.**
- b) **The appointed Contractor must obtain** an original copy of the above FIDIC "*Conditions of the Contract for EPC/Turnkey Projects*".

Particular Conditions (PC)

The following Particular Conditions shall supplement the General Conditions. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions.

Particular Conditions

Part A - Contract Data

Conditions	Sub-Clause	Data
1.1 Definitions		
Contract Agreement	1.1.8	<i>Delete the whole contents and replace with: means the Contract Agreement, the Letter of Acceptance, the Letter of Tender, these Conditions, the Employer's Requirements, the Schedules, the Contractor's Proposal, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.</i>
Insert new Clause.	1.1.8 (a)	<i>"Contractor's Proposal" means the document entitled Proposal, which the Contractor submitted with the Letter of Tender, as included in the Contract. Such document may include the Contractor's preliminary design.</i>
Employer	1.1.27	<i>Delete the whole contents and replace with: "Employer" means Rand Water which is a body corporate established in terms of Section 83 of the Water Services Act 107 of 1997. Notwithstanding that Rand Water is the Employer. <u>Notwithstanding that Rand Water is the Employer.</u> <u>Rand Water shall delegate and name a person who shall be referred to as the Employer within 42 days after acceptance of the award.</u></i>
Employer's Representative	1.1.30	<i>To delete the words" the person named by the Employer in the Contract Data and replace with <u>"The name is of the Employer's Representative shall be made known to the Contract within 14 days of accepting the award.</u> <u>OR</u></i>

Conditions	Sub-Clause	Data
		<u>Rand Water officially appointed personnel's, who shall be appointed as and when needed.</u>
JV Undertaking	1.1.40	<p><i>To substitute the definition with:</i></p> <p><i>means a Letter of Intention to incorporate a company within 30 days after award.</i></p> <p><i>The intention to incorporate must be signed in terms of the delegated authority / passed resolution.</i></p>
Site	1.1.67	<i>[Describe any other places as forming part of the Site]</i>
Time for Completion	1.1.76	<p><i>To add the following words:</i></p> <p><i>'the time for completion of the whole of the Works and the time for completion of sections, if applicable'.</i></p> <p><i>Time for completion shall be as per the officially approved project programme, by the Employers Representative.</i></p>
Works	1.1.79	<p>To insert the following:</p> <p>means all design, engineering, procurement, construction, erection, installation, testing commissioning, put into operation, training, and activities and services necessary for a complete and operable Asset/ Facility as per the terms of this Agreement or as implied by the Agreement,</p> <p>and includes all activities and services which (although not mentioned in the Contract) are necessary for stability or for the completion, or safe and proper operation, of the Works.</p>
Add the following clause: Milestones	1.1.81	<i>Milestone are control points in the project that help to chart progress. They are used as signal posts for a project's start or end date. Milestones may correspond to the completion of a key deliverable, allowing the next phase of the work to begin.</i>

Conditions	Sub-Clause	Data
Add the following definition: Cession	1.1.82	<i>Shall mean a bilateral juristic act whereby rights and/ obligations are being transferred from the cedent (the person transferring the rights) in favour of the Cessionary (the one who accepts transfer of personal rights and becomes the holder of that rights and the corresponding obligation(s))</i>
1.3 Notices and Other Communications		
Electronic transmission system	1.3 (a)(ii)	<i>Accepted electronic system by Employer, include email, electronic document may be shared through electronic storage devices viz. Compact Discs (CD), Flash Drives, electronic documentation sharing platforms viz WeTransfer, DropBox</i>
Address of Employer for communications	1.3 (d)	<i>The physical address is noted, but since communication is done electronically it should therefore be directed to the electronic address provided by the engineer officially, through employer's notices.</i>
Address of Employer's Representative for communications	1.3 (d)	To be given one the Employer's Representative is named or appointed.
Address of Contractor for communications	1.3 (d)	<i>The electronic address too should be communicated through official communication from officially appointment contractor personnel.</i>
1.4 Law and Language		
Governing Law	1.4	<i>At the end of the following paragraph "The Contract shall be governed by the law of the country (or other jurisdiction) stated in the Contract Data (if not stated, the law of the Country), excluding any conflict of law rules." add The Contractor shall also at all times conform in all respects with the provisions of any Act of Parliament, Regulations, Bye-law of any Local or any other Statutory Authority or other Enactment having the force of law which may be applicable to the performance of its obligations under the Contract and shall indemnify, and keep indemnified the Employer, against damages that</i>

Conditions	Sub-Clause	Data
		<i>it may suffer as a result of any breach by the Contractor, its agents or employees, including any hired labour, of any such Act, Regulation, Bye-law or other Enactment and including all legal costs on the attorney and client scale which may be payable as a result of any claims or proceedings in respect of the Contract."</i>
Ruling language	1.4	English
Language for communications	1.4	English
1.6 Contract Agreement		
Time for the Parties to sign a Contract Agreement	1.6	48 days after receipt of letter of acceptance
1.8 Care and Supply of Documents		
Number of additional paper copies of Contractor's Documents	1.8	One original document.
1.14 Limitations of liability		
Total liability of the Contractor to the Employer under or in connection with the Contract	1.14	Shall not exceed the contract value/price.
2.1 Right of Access to the Site		
Time for access to the Site	2.1	<p><i>To delete the clause and replace with:</i></p> <p><i>the right of access to and possession of all parts of the Site shall be given by "No later than the 42 days after Commencement Date"</i></p> <p><i>The contractor must meet all the site access requirements before being granted site access, these include permits, safety files, securities, insurances, approval by engineer of completion date (programme). Employer has no reason not</i></p>

Conditions	Sub-Clause	Data
		<p><i>granting site access except during construction such as plant shutdowns etc.</i></p> <p><i>[If it is not practical or feasible to give the right of access to and possession of all parts of the Site by the Commencement Date as per, Sub-Clause 2.1:</i></p> <p><i>The Employer shall give right of access within reasonable time as may be required to enable the Contractor to proceed in accordance with the Program or, if there is no Program at that time, the initial program submitted under Sub-Clause 8.3 [Program"]</i></p> <p><i>In the instances where the Employer is aware of any reason(s) that may potentially delay the issuing of site on time as required, the Employer shall notify the Contractor within reasonable time before the actual date of expected Site Access Date. Upon receiving this notice, the contractor shall not be entitled to any delay damages"</i></p>
Employers Administration		
Employer's Representative	3.1	<p>The words "full authority" in paragraph 2 of the clause is deleted and replaced by:</p> <p>"The authority vested in the Employer's Representative expressly excludes the authority to issue variations of the Works as provided for in Sub-Clause 13.1 [Right to Vary]."</p>
Engineer's Duties and Authority	3.1(b)(ii)	Variations resulting in an increase of the Accepted Contract Amount more than _20% shall require approval of the Employer.
	4.2	Performance Security

Conditions	Sub-Clause	Data
Contractors Obligation(s)	4.2.1	<ul style="list-style-type: none"> In the second paragraph of this Sub-Clause to add the following word". <p>"The Contractor shall deliver the performance security/ guarantee in the form of a <i>"demand guarantee" or "performance bond" issued by a reputable financial Services Provider</i>".</p> <p>"The Contractor shall ensure that the performance guarantee shall remain valid and enforceable until the Issuance of the Completion or Takeover certificate has been issued and the works have been certified to have been completed".</p> <p>"The Guarantor hereby unconditionally and irrevocably guarantees to pay the Employer from time to time any or all monies due and owing to the Employer from the Contractor under the Agreement arising out of the default or non-performance by Contractor of its obligations thereunder, of which the Employer shall be the sole judge, provided that the liability thereto shall not exceed the sum equivalent to <i>10% of the contract value/ Amount</i>".</p>
	4.2.1.1	<p>"Should the Contractor fail to provide the said security within the specified time the Employer, in his sole discretion, shall either:-</p> <p>(a) Withhold payment from the Contractor until the amount withheld is equivalent the required 10% value of Accepted Contract Amount, or</p> <p>(b) Proceed to terminate the contract forthwith.</p>
4.4 Subcontractors		
Maximum allowable accumulated value of work subcontracted (as a percentage of the Contract Price)	4.4(a)	30%

Conditions	Sub-Clause	Data
<i>Parts of the Works for which subcontracting is not permitted</i>	4.4(b)	<i>None</i>
4.19 Temporary Utilities		
Period of payment for temporary utilities	4.19	<i>As per general payment terms (As per Preliminary and General, that are fixed, and time based)</i>
4.20 Progress Reports		
Number of additional paper copies of progress reports	4.20	<i>One paper copy for the Engineer</i>
5.1 General Design Obligations		
General Design Obligations	5.1	(a) insert at the end of the sentence the following: “they shall be registered with the Engineering Council of South Africa in their respective area of expertise and disciplines. (b) Substitute the Clause with “comply with the Design Procedures and Processes as stated in the Employer’s Requirements; and
Design Obligations <i>conti</i>	5.1	The paragraph of the subsection starting with the following word: However, the Employer shall be responsible for the correctness...amend the aforesaid by adding sub-paragraph (e). (e) Instance where outline technical information has been provided the Contractor shall use such information as Employer’s requirement.
5.4 Contractor’s Undertaking		
Contractor’s Undertaking	5.3	Insert sub-paragraph (c): (c) the works meet the performance criteria for testing.

Conditions	Sub-Clause	Data
		(d) <i>provide risk management through early warning process, through notifying the Employer of risks in reasonable time before they occur.</i>
5.5 Training		
Training	5.5	<p>Delete the Clause in its entirety and replace same with the following new Clause(s):</p> <p>5.5.1</p> <p>The Contractor shall carry out the training of Employee's of the Employer in the operation and maintenance of the Works, and any other aspect of the Works to the extent specified in the Employer's Requirements.</p> <p>5.5.2</p> <p>If the Contract specifies training which is to be carried out before taking-over, the Works shall not be FIDIC Particular Conditions of Contract 14 considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until this training has been completed.</p>
5.6 As-Built Records		
As - Built Records	5.6	<p>To add the following at the end of the paragraph:</p> <p>"The Contractor shall obtain the consent of the Engineer as to their size, the referencing system, and other relevant details.</p> <p>Prior to the issue of any Taking-Over Certificate, the Contractor shall supply to the Engineer the specified numbers and types of copies of the relevant as-built drawings, in accordance with the Employer's Requirements. The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until the Engineer has received these documents".</p>

Conditions	Sub-Clause	Data
6.5 Working hours		
Normal working hours	6.5	
8.1		
Commencement of Works	8.1	Insert the words “design and” before the word “execution” (Third paragraph)
8.3 Programme		
Number of additional paper copies of program:	8.3	as will be determined by the Engineer
8.8 Delay Damages		
Delay Damages payable for each day of delay	8.8	<p><i>To add at the end of the paragraph:</i></p> <p><i>Proven identified and proven actual costs incurred for that work (excluding profit) less estimated cost for the project.</i></p> <p><i>The penalty table in the tender document @page 71 shall be used to determine the applicable % to be imposed per day,</i></p>
Maximum amount of Delay Damages	8.8	Not exceeding 10% of the Accepted Contract Amount, less provisional sum.
13.4 Provisional Sums		
Percentage rate to be applied to Provisional Sums for overhead charges and profit	13.4(b)(ii)	10 %
14.2 Advance Payment		

Total Advance Payment	14.2	Delete advance payment does not apply.
Period of payment of Advance Payment to the Contractor	14.2.2	Delete
Repayment of Advance Payment	14.2.3	Delete

14.3 Application for Interim Payment

Application for Interim Payment:	14.3	<p>The Clause is amended by deleting of the words “end of the period of payment” in the first sentence of the Clause and replace the words with “20th day of each month.”</p> <p>And by Addition of the following wording at the end of the Sub-Clause:</p> <p>“In the event that the Contractor fails to submit a Statement by end of business day on the 25th day of the month. The submission shall be regarded as late submission and any late submission will only be evaluated in the following month.”</p> <p><i>Rand Water shall endeavour to make payment within 30 days from date of monthly statement, date of the aforesaid monthly statement should reflect the last day of the month wherein the services being invoiced were rendered.</i></p> <p>The rest of the Sub-Clauses will remain unchanged.</p>
Number of additional paper copies of Statements	14.3(b)	
Percentage of retention	14.3(iii)	<ul style="list-style-type: none"> To the extent to which monies are to be retained by the Employer. A maximum 5% of the contract value or amount shall be retained and a portion of the retention money (2.5%) will be released on achieving practical completion / issuance of Takeover certificate. and the balance (2.5%) shall be payable after the relevant defect's notification period has expired.

Limit of Retention Money (as a percentage of Accepted Contract Amount)	14.3(iii)	5%
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14.5 Plant and Materials intended for the Works

Plant and Materials	14.5(b)(i)	If Sub-Clause 14.5 applies: Plant and Materials for payment when shipped <i>Package/ Project specific [list].</i>
	14.5(c)(i)	If Sub-Clause 14.5 applies: Plant and Materials for payment when delivered to the Site: <i>Applicable to all Material on Site (MOS), subject to approval by Engineer [list].</i>

14.7: Payment

Minimum amount of interim payment	14.7 (a)	To be deleted. Advance payments are not applicable.

14.7 Payment: To add the following words

Any payment due and payable to the contractor shall be made in accordance with Clause 14.3 above.

14.8 Delayed Payment

Financing charges for delayed payment (percentage points above the average bank short-term lending rate as referred to under sub-paragraph (a))	14.8	<i>Delete</i>
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14.9 Release of Retention Money

Release of Retention Money	14.9	<p>Deletion of the Sub-Clause and substitute with the following:</p> <p>The retention amount to be deducted from the submitted payment certificate shall be 5%, and shall be released as follows:</p> <ul style="list-style-type: none"> <i>The two and half percent (2.5%) cash retention shall remain be released at the issuance of the takeover certificate.</i> <i>The remaining two and a half percent (2.5%) retention of money shall be released after the expiry date of the defect's notification period.</i> <p>In the first paragraph, add after the words "issued for the Works," the following words:</p> <p>" the Works have passed all specified tests (including the Tests after Completion, if any)"</p>
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17.2 Liability for Care of the Works

Forces of nature, the risks of which are allocated to the Contractor	17.2(d)	<p>Force Majeure Event:</p> <p><i>"If either party is prevented from performing any of its obligations in terms of this contract as a result of any event beyond its control including war, riots, earthquakes, hurricanes and or encroachments it shall not be liable for any failure to perform its obligations while such event persists and either party shall have the right to terminate the contract if the event persists for a period in excess of 30 days."</i></p> <p><i>upon invoking force majeure at the time of its occurrence, the contract is suspended for the duration of the force majeure event with a commensurate extension of the delivery schedule.</i></p>
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Sub-Clause 17.5: Indemnities

fourth paragraph add: construction or execution of the Works, (ii) the use of the Contractor's Equipment, or (iii) the proper use of he Works.

Insurance: Clause 19:

19.1 General Requirements

To add the following to the
Clause on General
Requirements

19.1

- Notwithstanding anything to the contrary in this **Clause 19 [Insurance]** (and notwithstanding the definitions and other terms of the Contract), the scope and extent of insurance cover provided by the Employer as the Insuring Party, and the Employer's obligations as the Insuring Party under this Sub-Clause, are subject to the terms of the Employers Insurance policies and in particular as reference in paragraph **C1.2.3. EMPLOYER'S INSURANCE MANUAL of the Tender document.**
- Without derogating from the foregoing, the obligations of the Employer as Insuring Party provided thereto and or in this Sub-Clause are specifically subject to the provisions of the said policies. The Clause shall be read in conjunction with the Employers Insurance Manual. Where there is conflict, the manual shall take precedence.

21 Disputes and Arbitration

The Employer shall establish a panel of independent adjudicators and Arbitrators to deal with the dispute avoidance and determinations as provided for in clause 3.5 and other related matters. The clauses dealing with Disputes and Arbitration will be amended, customized and a harmonised Edition will be issued as an Appendix to this Contract.

Cession And Assignment

imitation of Cession	New Clause	<p>CESSION AND ASSIGNMENT.</p> <p><i>Assignments of contracts:</i></p> <ul style="list-style-type: none"> (a) <i>In line with National Treasury PFMA SCM INSTRUCTION NO. 8 OF 2022/2023 the assignment of contract is prohibited.</i> (b) <i>The appointed bidder shall not <u>assign</u>, <u>abandon</u> or <u>transfer</u> any of its <u>rights</u> and/or <u>obligations</u> in <u>terms of this Agreement</u> (whether in part or in whole) or <u>delegate</u> any of its obligations in terms of this Agreement.</i> (c) <i>National Treasury avers that action of assigning one's rights and obligations to another party is contrary to the prescript of section 217 of the Constitution.</i> <p><i>Cession Agreement:</i></p> <ul style="list-style-type: none"> (a) <i>As per the Instruction Note 8 of 2022/2023 Cession of rights is only permissible wherein, the service provider cedes (transfer) its right to be paid for the services it rendered in terms of the contract to a third party.</i> <p><i>The Cession of right to be paid for services rendered is permissible on condition that the supplier is ceding to a Financial Services Provider (FSP) or a State Institution.</i></p>
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C1.2.3. EMPLOYER'S INSURANCE MANUAL

PRINCIPAL CONTROLLED INSURANCE CLAUSES - FOR USE WITH THE EMPLOYER'S CONTRACTS

PARTICULAR CONDITION 18

18.1 Insurance Effected by the Employer.

18.1.1 Notwithstanding anything elsewhere contained in this Contract and without limiting the obligations liabilities or responsibilities of the Contractor in any way whatsoever (including but not limited to any requirement for the provision by the Contractor of any other insurances) the **Employer** shall effect and maintain as appropriate in the joint names of the **Employer** the Contractor and where relevant subcontractors the following insurances which are subject to the terms limits exceptions and conditions of the Policy:

- a) **CONTRACT WORKS** Insurance - which will provide cover against accidental physical loss of or damage to the Works including temporary works, Plant and Materials intended to form part of the Permanent Works
- b) **SASRIA SPECIAL RISKS** Insurance - in respect of riot and associated risks of damage to the Works, including temporary works, Plant and Materials intended to form part of the Permanent Works.
- c) **PUBLIC LIABILITY** Insurance - which will provide indemnity against the insured parties legal liability in the event of accidental death of or injury to third party persons and/or accidental loss of or damage to third party property arising directly from the execution of the contract on or about the Site and occurring during the period of insurance with a limit of indemnity of R250,000,000 in respect of all claims arising from any one occurrence or series of occurrences consequent on or attributable to one source or original cause.

18.1.2 The **Employer** shall pay any premium due in connection with the insurance effected by the **Employer**. All of the aforementioned policies are renewed on an annual basis and are thus applicable for the year they are placed, that is, a 12-month period commencing 01 July and ending 30 June of the ensuing year. In terms of all details contained hereunder, they are thus applicable until 30 June. Policy terms, conditions and deductibles may change on the 01 July depending on the outcome of the renewal. This will thus be the case for every ensuing year of insurance.

18.1.3 The Contractor shall not include any premium charges for this insurance except to the extent that he may deem necessary in his own interests to effect supplementary insurance to the insurance effected by the **Employer**. The **Employer** reserves the right to call for full

information regarding insurance costs included by the Contractor.

18.1.4 Any further clarification of the scope of cover provided by the Policies arranged by the **Employer** should be obtained from the **Employer**:

Mr. Bafana Gamede
Tel: 011 682 0362
Fax: 011 682 0765
Email: bgamede@randwater.co.za

OR
Ms. Lerato Mosweu

Tel: 011 682 0709
Fax: 011 682 0765
Email: mmosweu@randwater.co.za

18.1.5 In the event of any occurrence which is likely to or could give rise to a claim under the insurances arranged by the **Employer** the Contractor shall:

- a) In addition to any statutory requirement or other requirements contained in the Contract immediately notify the **Employer** by telephone and or e-mail giving the circumstances nature and an estimate of the loss or damage or liability.
- b) Complete a Claims Advice Form available from the **Employer** to whom the form must be returned without delay.
- c) Negotiate the settlement of claims with the Insurers through the **Employer's** Insurance Brokers and shall when required to do so obtain the **Employers** approval of such settlement.

The **Employer** and Insurers shall have the right to make all and any enquiries on the site of the Works or elsewhere as to the cause and results of any such occurrence and the Contractor shall co-operate in the carrying out of such enquiries.

18.1.6 The Contractor will be liable for the amount of the Deductible (First Amount Payable) in respect of any claim made by or against the Contractor or Subcontractors under the insurances effected by the **Employer**.

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18.1.7 The Contractor will be liable for the amount of the Deductible (First Amount Payable) in respect of any claim made by or against the Contractor or Subcontractors under the insurances effected by the **Employer**.

Insured Contracts

All contracts undertaken by the Insured involving Design, Construction, Testing, Commission in respect of new works, capital expenditure, Upgrade, modification, retrofitting, or alteration and/or additions to existing facilities undertaken by the Insured or other Insured Parties acting on their behalf but excluding.

- i) Projects with an estimated period exceeding 36 months (excluding Defects Liability period)
- ii) Projects exceeding R500 million at inception
- iii) Contracts involving Tunnelling

All Sums Insured inclusive of VAT.

Where more than one Contractor is involved in the same claim the Deductible will be borne in pro-rata amounts by each Contractor in proportion to the extent of each Contractor's admitted claim.

The Deductibles (First Amount Payable) for which the Contractors are responsible and which are applicable in respect of each and every occurrence or series of occurrences attributable to one source or original cause giving rise to loss or damage or liability indemnifiable are as follows:

- a) Under the **Contract Works Insurance** in respect of loss or damage
 - Wet Risks:
 - 10% of the claim with a minimum R10,000 and a maximum of R 500,000
 - Maintenance:
 - 10% of the claim with a minimum R10,000 and a maximum R500,000
 - Other contracts:
 - 10% of the claim with a minimum of R10,000 and maximum of R250,000
- b) Under the **Sasria** (Special Risks) Insurance:

0.10% of the Contract Value in respect of loss by theft following an insured peril subject to a minimum of R2,500 and a maximum of R25,000
- c) Under the Public Liability Insurance in respect of loss of or damage to property R 25,000
- d) Under any other insurances shall be as specified in such insurance policy.

18.1.7 Any amount which becomes payable to the Contractor or any of his Subcontractors as a result of a claim under the Contract Works Insurance shall if required by the **Employer** be paid net of the Deductible to the **Employer** who shall pay the Contractor from the proceeds of such payment upon rectification repair or reinstatement of the loss or damage but this provision shall not in any way affect the Contractor's obligations liabilities or responsibilities in terms of the Contract.

In respect of any amount which becomes payable as a result of a claim under any Public Liability Insurances the Contractor or his Subcontractors shall be required to pay the amount of the Deductible to the Insurer to facilitate settlement of such claim.

18.2 **Insurance Effected by the Contractor.**

18.2.1 Without in any way detracting from any requirements contained elsewhere in this contract the Contractor and Subcontractors shall where applicable provide as a minimum the following:

- a. Insurance of Contractors Equipment (including tools offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the Site for a sum sufficient to provide for their replacement.
- b. Insurance in terms of the provisions of the Social Security Act as may be amended or in terms of any similar Workers Compensation and Unemployment Insurance enactment's in the Contractors' or Sub Contractor's operational, manufacturing or assembly locations.
- c. Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability indemnity.
- d. Where the Contract involves manufacturing and/or fabrication of the Works or parts thereof at premises other than at the Site the Contractor shall satisfy the **Employer** that all Plant and Materials for incorporation in the Works are adequately insured during manufacture and/or fabrication. In the event of the **Employer** having an insurable interest in such Works during manufacture or fabrication then such interest shall be noted by endorsement to the relevant Policies of Insurance.

Special Condition

- e. **Only applicable if contracts works involves elements of design**

PROFESSIONAL INDEMNITY Insurance – of not less than R 1 000 000 for a period of insurance

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commencing on the date of award of the Contract. The Insurance shall include Retroactive cover to the date of Conceptual Design commencement and should be in effect for a period of 12 months after completion of the works.

Notwithstanding the required limit as set out above, "Professional Indemnity" the contractor will be liable for the full amount of the claim arising out of their errors and omission.

18.2.2 The insurances to be provided by the Contractor and his Sub-contractor shall

- a) Be effected with Insurers and on terms approved by the **Employer** – these terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause
- b) Be maintained in force for whatever period the perils to be insured by the Contractor are at risk (including any Defects Notification Period during which the Contractor is responsible for the care of the Works)
- c) Within the respective periods stated in the Bid [document](#) submit to the **Employer** the relevant Policy or Policies of Insurance or evidence acceptable to the Employer that such insurances have been effected.

18.2.3 In the event that the Contractor or his Subcontractor receives any notice of cancellation or restrictive modification to the insurance provided to them they shall immediately notify the **Employer** in writing of such cancellation or restriction and shall advise what action the Contractor or his Sub-contractor will take to remedy such action.

If the Contractor fails to effect and keep in force the insurances referred to then the **Employer** may effect and keep in force any such insurances and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount paid by the **Employer** from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.

18.3 **Subcontractors.**

The Contractor shall:

- a) Ensure that all potential and appointed Subcontractors are aware of the whole contents of this clause, and
- b) Enforce the compliance by Subcontractors with this clause where applicable.

APPENDIX

DECLARATION OF INSURANCE

I hereby declare that the Insurances enumerated below have been effected in accordance with Conditions of Contract applicable to **Bid Number: RW10380857/22**

I further declare that all premiums in respect of the insurances are fully paid up to date and that the insurances shall not be amended and/or cancelled without the prior knowledge and consent of the Employer.

Cover Effected	Clause No	Insurer and Policy Number	Expiry Date
a) Contractors Equipment	PC 18.2.1a)		
b) COIDA	PC 18.2.1b)		
c) Motor Vehicle Liability	PC 18.2.1c)		
d) Manufacturing/Fabrication Premises	PC 18.2.1d)		
e) Professional Indemnity (Where Applicable)	PC 18.2.1e)		

N.B.: This Declaration of insurance must be completed and signed by

- i) The Contractor and.
- ii) The Insurer or Insurance Broker appointed by the Contractor

and returned to the Employer together with a letter of good standing from the Workman's Compensation Commissioner in respect of Item b) above.

SIGNED:

- i) For and on behalf of the Contractor

.....

Official Capacity:.....

SIGNED:

- ii) For and on behalf of the Insurer / Broker (delete whichever is not applicable)

.....

Official Capacity:.....

PART C2: PRICING DATA

C2.1. PRICING ASSUMPTIONS

1. The Pricing Activity Schedules (C2.2) shall be used to assist both parties in administering and agreeing any changes/variations, which may arise during the course of the Contract.
2. These Pricing Activity Schedules shall be used to calculate the value of work completed in the evaluation of interim/final payments.
3. The Contractor is deemed to have allowed opposite each item contained in these Pricing Activity Schedules whatever costs and charges it may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out in the Contract.
4. No claim whatsoever will be entertained in respect of errors or omissions in pricing due to the brevity of a description of any item contained in these Pricing Activity Schedules which items are fully described or can reasonably be inferred when read in conjunction with the relevant clauses provided for in the Conditions of Contract, Specifications, Drawings or other relevant documentation.
5. Any item left un-priced will be deemed to be provided for elsewhere and no claim for any extras arising out of the Contractor's omission to price any item will be entertained.
6. *The contractor shall determine the contract skills participation goals, expressed in Rand, which shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the Standard for Developing Skills through Infrastructure Contracts for the applicable class of construction works.*

a. Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications

- i. The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard for Developing Skills through Infrastructure Contracts and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.*

b. Payment to the contractor to accommodate Work Integrated Learners and Candidates for professional registration

- i. *The contractor shall apportion the cost of accommodating work integrated learners (P1 and P2 learners) and candidates for professional registration by using Table 3 in the Standard for Developing Skills through Infrastructure Contracts and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.*

c. Payment to the contractor for supervision and mentoring Part/Full Occupational qualification and Trade qualifications learners

- i. *The employer shall make no provision for an additional payment item for the payment of the supervisor and/or mentors for the provision of training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule for the training of part/full time occupational learners and/or trade qualification learners.*

d. Payment to the contractor for mentoring Work Integrated Learners and Candidates for professional registration

- i. *The contractor shall apportion the cost of mentoring work integrated learners (P1 and P2 learners) and candidates for professional registration by using Table 3 in the Standard for Developing Skills through Infrastructure Contracts and will form part of the cost as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule for training.*

C2.2. ACTIVITY SCHEDULES

The Bidder must refer to **Annexure C2.2: Activity Schedules** provided with this bid document.

In relation to in the Standard for Developing Skills through Infrastructure Contracts (published in GN 43495 of 20 March 2020):

Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications learners

- a.** *Should the contractor select Part/Full Occupational qualification and/or Trade qualifications, then the employer shall make provision for payment to the contractor as indicated in Table 3 in the Standard for Developing Skills through Infrastructure*

Contracts as provided in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule for training.

2. Payment to the contractor to accommodate Work Integrated Learners and Candidates for professional registration

- a.** *Should the contractor select Work Integrated Learners and/or Candidates for professional registration, then the employer shall make provision for payment to the contractor as indicated in Table 3 in the Standard for Developing Skills through Infrastructure Contracts as provided in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule for training.*

3. Payment to the contractor for Mentors to accommodate Work Integrated Learners and Candidates for professional registration

- a.** *Should the contractor select Work Integrated Learners and/or Candidates for professional registration, then the employer shall make provision for payment to the contractor as indicated in Table 3 in the Standard for Developing Skills through Infrastructure Contracts as provided in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule for training.*

The Bidder is required to submit the following:

- **Excel® format of the completed pricing schedule or BoQ in a compact disc (CD) or USB flash drive.**
- **Printed format and signed version of the completed pricing schedule or BoQ.**

PART C3: SCOPE OF WORK

C3.1. DATES FOR DELIVERY AND COMPLETION

1. It is estimated that the Contract will be placed on or before **31 March 2023** access to undertake work will only become available after the issue of the Site Access Certificate.
2. The Bidder shall state the proposed start and completion dates based on the above approximate date, these dates shall comply with the dates mentioned below in T2.2.1.4
3. The Bidder shall simultaneously fill in the period required to complete the work in days or weeks from the date of acceptance of the offer by the Employer. This shall be used to adjust dates should the Contract placement date vary.
4. All equipment and plant shall be handed over by dates indicated below and the Bidder's programme shall comply with this requirement by the Employer.
 - a. **P.04053** completion date: 30 July 2026
 - b. **P.00727** completion date: 30 November 2024
 - c. **P.03688** completion date: 30 July 2025
 - d. **P.04103** completion date: 30 July 2026
 - e. **P.04882** completion date: 30 November 2024
 - f. **P.05203** completion date: 30 November 2025

Item	Start Date	Completion Date	Working Period
PHASE 1: DESIGN			
PHASE 2: EQUIPMENT PROCUREMENT/MANUFACTURING			
PHASE 3: CONSTRUCTION/INSTALLATION			
PHASE 4: TESTING & COMMISSIONING			
PHASE 5: HANDOVER			

Table C3.1: Dates for delivery and completion P.04053

NOTE THAT A DETAILED PROJECT PROGRAMME MUST BE INCLUDED WITH THE BID SUBMISSION

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

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Date: _____

Item	Start Date	Completion Date	Working Period
PHASE 1: DESIGN			
PHASE 2: EQUIPMENT PROCUREMENT/MANUFACTURE			
PHASE 3: CONSTRUCTION/INSTALLATION			
PHASE 4: TESTING & COMMISSIONING			
PHASE 5: HAND OVER			

Table C3.1.2: Dates for delivery and completion for P.00727

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

Item	Start Date	Completion Date	Working Period
PHASE 1: DESIGN			
PHASE 2: EQUIPMENT PROCUREMENT/MANUFACTURE			
PHASE 3: CONSTRUCTION/INSTALLATION			
PHASE 4: TESTING & COMMISSIONING			
PHASE 5: HAND OVER			

Table C3.1.3: Dates for delivery and completion for P.03688

Name of Bidder: _____

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Signed by or on _____ Official
 behalf of Bidder: _____ Capacity: _____

Date: _____

Item	Start Date	Completion Date	Working Period
PHASE 1: DESIGN			
PHASE 2: EQUIPMENT PROCUREMENT/MANUFACTURE			
PHASE 3: CONSTRUCTION/INSTALLATION			
PHASE 4: TESTING & COMMISSIONING			
PHASE 5: HAND OVER			

Table C3.1.4: Dates for delivery and completion for P.04103

Name of Bidder: _____

Signed by or on _____ Official
 behalf of Bidder: _____ Capacity: _____

Date: _____

Item	Start Date	Completion Date	Working Period
PHASE 1: DESIGN			
PHASE 2: EQUIPMENT PROCUREMENT/MANUFACTURE			
PHASE 3: CONSTRUCTION/INSTALLATION			
PHASE 4: TESTING & COMMISSIONING			
PHASE 5: HAND OVER			

Table C3.1.5: Dates for delivery and completion for P.04882

Name of Bidder: _____

Signed by or on _____ Official
 behalf of Bidder: _____ Capacity: _____

Date: _____

Item	Start Date	Completion Date	Working Period
PHASE 1: DESIGN			
PHASE 2: EQUIPMENT PROCUREMENT/MANUFACTURE			
PHASE 3: CONSTRUCTION/INSTALLATION			
PHASE 4: TESTING & COMMISSIONING			
PHASE 5: HAND OVER			

Table C3.1.7: Dates for delivery and completion for P.05203

Name of Bidder: _____

Signed by or on _____ Official
 behalf of Bidder: _____ Capacity: _____

Date: _____

***NOTE THAT A DETAILED OVERALL PROJECT PROGRAMME SHOWING
 INTERPAHES/ITERDEPENDENCIES AMONGST ALL PROJECTS MUST BE INCLUDED WITH THE BID
 SUBMISSION**

C3.2. SCOPE OF WORK

The proposed building and civil scope of work for all projects listed below shall comply with all applicable Rand Water and SANS standard specifications to deliver a turnkey solution as per the defined scope of each project below, as a minimum.

The Bidder must refer to the following documentation that are applicable to all the listed projects below:

- i. General Design Standards (Annexure Package 3)
- ii. Quality Management (Annexure Package 3)

C3.2.1 PROJECT P.04053 – CONSTRUCTION OF ENVIRONMENTAL MANAGEMENT SERVICES (EMS) OFFICES & TRANSPORT WORKSHOP @ WORKS AREA 1

C.3.2.1 Scope of work

ENVIRONMENTAL MANAGEMENT SERVICES YARD

The EMS yard shall comprise of an office building, a tea/change room, green area, refurbished tractor storage structure, equipment storage structure, fertiliser store, poison store-room, plant, tool shed and a Transport Workshop.

1. Capacity

The following table lists the proposed number of employees and contractors that would utilise the facilities at the EMS yard:

Rand Water Staff and Contractor Staff Compliment

Item	Information
Number of Males	88
Number of Females	64

1.1 Deliverables per tea/change room and green area building

A new single building structure shall comprise of a Tea room, Kitchen, Male change room, Female change room, Wash-Room and Green area meeting rooms.

Tea Area

The deliverables of the tea area are:

- i. An open plan dining room
- ii. Storage facilities for staff lunch boxes
- iii. Air conditioners

Kitchen

The deliverables of the kitchen are:

- i. A small kitchen area with built-in cupboards and top counter.
- ii. The kitchen and Tea area shall be adjacent without physical separation.

Male Change Room

The deliverables of the Male change room are:

- i. Showers
- ii. Benches
- iii. Lockers
- iv. Heaters
- v. Wash basins
- vi. Toilets
- vii. Urinals

Female Change Room

The deliverables of the Female change room are:

- i. Showers
- ii. Benches
- iii. Lockers
- iv. Heaters
- v. Wash basins
- vi. Toilets

Wash Room

The deliverables of the Wash room are:

- i. Wash trough

Green Area Meetings Rooms

The deliverables of the green area meetings rooms are:

- i. Four separate green area meeting rooms.

1.2 Deliverables Per Ems Office Building

- i. A New Single Building Shall Comprise of 10 EMS Offices.

1.3 Deliverables Per Tractor Storage

- i. A New Structure Shall Comprise Of Sheds For Trucks And Similar Machines.

1.4 Deliverables Per Equipment Storage

- i. A New Structure Shall Comprise Of Sheds For Smaller Sized Equipment Such As Lawn Mowers.

1.5 Deliverables per Poison Store

- i. A New Structure Shall Comprise Of A Room In Compliance With The Necessary Regulation.

1.6 Deliverables Per Plant and Tool Shed

- i. A New Structure Shall Comprise Of A Room For Plant Tools.

1.7 Deliverables Per Fertiliser Store

- i. A new structure shall comprise of a room for fertilisers.

2. DELIVERABLES PER WORKSHOP

- i. A new structure shall comprise of a workshop for the transport section.

3. OTHER DELIVERABLES

Other general deliverables include:

- Sewer shall be pumped to the relevant existing system,
- Small Power and Lighting shall be provided as well as area lighting,
- Provide a manual irrigation system,
- The area will include carports,
- Access roads shall also be provided,
- Fencing shall enclose the EMS yard,
- Data network for office computers and equipment,
- Potable water,
- Fire hydrant and fire detection systems,
- Intruder detection/alarm system for the offices,
- CCTV cameras.

4. OTHER WORKS

- Rock and debris shall be removed and dumped at designated facilities off-site,
- The owners of the petrol lines shall be notified when construction commences and other way leaves as necessary (e.g. Telkom) that is identified during design phase,
- Assess the existing MCC panel at Engine Room 1 and upgrade accordingly.

5. RELOCATION & TEMPORARY WORKS

The temporary works related to relocation are:

- Relocation of current staff and equipment to a temporal area which has been provided by site,
- This includes the running of water, electricity and fiber network connections from the source to the temporary offices,
- Establishment of porta camp offices, ablutions, green area meeting room and kitchen for EMS and Transport Staff,
- Establishment of temporary workshop area for the servicing of small cars and the temporary housing of workshop cranes and workshop equipment,
- Temporary Porta Camp Offices for Supply Chain Staff (10 Employees) as follows:
 - 1 office for 1 X Sourcing Manager
 - 1 office for to accommodate 2 X Senior Buyers
 - 1 open plan office to accommodate 7 X Buyers
- Temporary Porta Camp Offices for Cleaning Staff, complete with temporary water, electricity and fiber network connection:
 - 1 Office for Cleaning Supervisor)

**RW10380857/22
TURNKEY TENDER FOR THE CONSTRUCTION OF BUILDING AND CIVIL
INFRASTRUCTURE ACROSS ZUIKERBOSCH PUMPING STATION-
PACKAGE 3 (SUB-PACKAGE 2)**

- 2 Offices for 2 X Team Leaders - Team A and Team B
- 1 Green Area room for Team A (40 people per team) at **Works Area 1**
- 1 Green Area room for Team B (60 people per team) at **Works Area 2**

The Bidder must refer to the following Technical documentation provided with this bid document:

- i. Employers' Requirements (Annexure P.04053 P3 SP1 – 1)
- ii. Environmental Authorisation Compliance (Annexure P.04053 P3 SP1 - 2)
- iii. Health and Safety Requirements (Annexure P.04053 P3 SP1 - 3)
- iv. Schedule of Payments (Annexure P.04053 P3 SP1 - 4)

**C3.2.2 PROJECT P.00727 – ZUIKERBOSCH FILTER HOUSE 1 UPGRADE - CONDITION
ASSESSMENT, REFURBISHMENTS AND DETAIL DESIGNS**

C.3.2.2 Scope of work

Condition Assessments

- i) The work includes the Structural and Condition Assessment of the Filter House 1 infrastructure.
- ii) The civil engineering scope shall include the following:
 - a) Condition and structural assessment of the reservoir and the super structure, including foundation works.
 - b) Geotechnical investigations.
 - c) Assess Structural remedial and rebar corrosion requirements to existing filter house structure, filter basins, galleries and reservoir walls with limited cover and exposed rebar
 - d) Assess extent of cracks on brick walls
 - e) Assess Corrosion and deflection testing for steel crawl beam carrying (beam steel look in good state) 2500 kg (crane electrically operated),
 - f) Assess Structural strengthening requirements including spall and corrosion of existing corbels (2 No off, approximately 5m) support for 2500kg crane capacity
 - g) Assess Leak, dampness & crack on existing roof/walls
 - h) Assess requirement for new roof structure over uncovered filter area.
 - i) A hip of filter sand is currently stored on top of the filter beds roof, which probably not designed for, thus, investigate the roof deflections and stability thereof. Rand water already has a project that's going to provide sand storage (P.01605)
 - j) Settlement assessment at the entrance of the Filter House 1,
 - k) Provide drawings, specifications and BoQ for all the scope required.
- iii. The structural and integrity assessment is to be conducted by an accredited Professional Structural Engineer with 15 years of experienced in assessment of water retaining and concrete structures.
- iv. The qualified Structural Engineer selected to conduct the structural assessment and recommendations shall meet the following minimum requirements:

- a) An internationally re-cognised bachelor's degree in Civil Engineering;
- b) Professional registration with ECSA;
- c) Familiarity with water retaining structure construction practices.

Submission Requirements

The Structural Engineer shall be responsible for the following:

- a) General Information
 - b) Name and address of the building
 - c) Number of storey's in each block of building
 - d) Description of main usage of the building
 - e) Maintenance history of the building, if known
- i. *Structural System*
 - a) Description of the structural forms, systems and materials used in different parts of the building e.g. reinforced concrete, pre-stressed concrete, steel, etc.
 - b) Description of the soil condition and foundation system, if known
 - c) Identification critical structures and structures without redundancies (e.g. transfer girders, slender columns, cantilever structures, long span structures, cable structures, etc.)
- ii. *Diary of Visual Inspection*
 - a) Dates of inspection for different parts of the buildings
 - b) Description of any areas not covered by the visual inspection, the reasons and an assessment of whether such areas are critical to overall structural integrity of the building.
- iii. *Survey of Loading*
 - a. Records of and comments on the observations on the loading conditions, indicating the usage at different parts of the building and identifying any misuse, abuse or deviation from intended use. Special attention should be paid to industrial buildings (e.g. factories and warehouses).
 - b. State whether existing usage and loading condition is compatible with the intended purpose of the structure.
 - c. State whether any misuse, abuse or deviation from intended use has given rise to excessive loading which can adversely affect the building structure.
 - d. Recommendations on any remedial actions to be taken by the owners e.g. restricting the usage, relocating heavy machineries, further investigation on the adequacy of the structure.
 - e. Where there is deviation from its intended use resulting in overloading or supporting higher design-imposed load as recommended in SANS10160, the need for further design check on structural adequacy and display of allowable imposed loading signage shall be recommended in the inspection report.
- iv. *Survey of Addition or Alteration Works*
 - a. Records of and comments on the findings of any addition and alteration works to the building structure. Such information can be obtained by visual inspection, engineering

judgment, interviewing the management corporation, owners and users, and checking the drawings if available to the engineer.

- b. State whether any addition and alteration works have given rise to excessive loading or other adverse effects on the building structure.
 - c. Recommendations on any remedial actions to be taken by the owners e.g. the need for the removal of the addition and alteration works.
- v. *Survey of Signs of Structural Defects, Damages, Distress, Deformation or Deterioration*
- a. Records of observations of any signs of structural defects, damages, distress, deformation or deterioration must be recorded. This could entail judicious removal of plaster or architectural finishes to establish the underlying structural condition. The seriousness of any structural defects should be assessed.
 - b. Comments on the extent, possible causes and assessment of the seriousness of these identified problems.
 - c. Assess whether the identified problems are any of the following:
 - Defects of no structural significance
 - Defects requiring remedial action and/or monitoring
 - Suspected defects of structural significance requiring full structural investigation and immediate action
 - d. Recommendations on remedial actions and/or monitoring is necessary to ensure the structural stability and integrity of the building.
 - e. If there are signs of significant structural problems, the engineer shall make recommendations for a full structural investigation to be carried out without further delay. The full structural investigation shall comprise of the following:
 - Obtaining information relating to the design, construction, maintenance and history of the building;
 - Assessing the structural adequacy of the building by checking the structural plans and calculations and reconstructing the structural plans if they are not available;
 - Carrying out tests on the materials used and structural elements of the building;
 - Carrying out load test on parts of the building if necessary;
 - Recommending appropriate safety precautionary and remedial measures to restore the structural stability and integrity of the building structure.
- vi. *Survey of exposure to aggressive environment:*
- a) Presence of column(s) immersed in water (e.g. ground floor water tank, etc.)
 - b) Presence of aggressive chemical which may accelerate the deterioration of structural elements, particularly in industrial buildings (sulphates, chlorides)
 - c) Survey of retaining walls and slope protection structures (e.g. Soil nails, ground anchors, short-crete slope)

- d) Evidence of wall movement, inadequate surface drainage, unintended imposed loading behind wall, corrosion of anchor blockhead, spalling of shotcrete protection, tension cracks, presence of big trees nearby etc.
 - e) Survey of safety barriers (e.g. parapets and railings)
 - f) Signs of corrosion, excessive deflection, spalling, cracks, etc. observed on safety barriers particularly those in buildings where large crowds are expected (e.g. shopping malls, institutional buildings, sport halls, stadiums, theatres, etc.)
- vii. *Other Surveys or Checks Carried Out:*
- a. Presence of heavy suspended fixtures in crowded locations, such as heavy false ceilings over high human-traffic areas like food courts, lobbies etc.
 - b. Records of and comments on any known maintenance problems and previous rectification carried out on the building structure. Useful plans, sketches, photographs and tabulations could also be included to illustrate the findings of the inspection

Conclusions on the structural condition shall include conclusions on loading conditions; addition and alteration works; structural defects, damage, distress, deformation, deterioration; and overall structural integrity and stability.

viii. *Drawings, Photographs and Quantities*

- a. The Structural Engineer shall submit drawings and a Bill of Quantities for each proposed remedial method if required.
- b. All sketches, plans and photographs shall contain, but not be limited to, the following information:
- c. All sketches, plans and photographs should have proper titles, explanations and cross-references to the main body of the report. (Note: Although photographs are often used by structural engineers as a record of their inspections, **the entire collection of photographs should not be submitted indiscriminately**, e.g. photographs of non-structural elements with no defects.)
- d. All drawings shall comply with Rand Water Design Office requirements and shall be subject to the approval of the Design Engineer. Rand Water will not be responsible for any delays, loss or inconvenience to the Contractor through failure to comply with this requirement.
 - Final drawings shall be on unfolded, untearable transparent film, with a polyester base, having a matt finish on both sides and a thickness of 0.075 mm. These Drawings shall bear Rand Water's contract number. In addition, where drawings have been completed using CAD programme, compact disc copies of each drawing shall be provided either on AUTOCAD or DXF format.
 - Drawings shall not be larger than size A0 in accordance with SANS 10111-2011. In all cases the drawing is to be in accordance with this standard.
- e. Filter House 1 has had refurbishment scope of work proposals in 2005, 2013, 2016 and 2019:
 - Diagnostic assessment of concrete structures (above and below ground level) to establish structural integrity and repair methodology
 - Concept design, analysis and construction of new roof

- Roof water proofing and rainfall disposal
 - Investigation of factors to be considered/controls to be implemented during construction stage
- ix. *The aid of the structural layout:*
- a. Identify critical areas for inspection
 - b. Identify the allowable imposed loads, in order to assess the usage and possibility of overloading
 - c. Verify if unauthorised addition or alteration works that affect the structure of the building have been carried out
- x. *Conduct a visual inspection of the structure to identify the following:*
- a. The types of defects
 - b. Any signs of material deterioration
 - c. Any deviation from intended use, misuse and abuse which can result in overloading
- xi. *Professional Assessment:*
- a. The assessment shall include but not limited to the following: Connection failure, Instability, Floor Settlement, Foundation Settlement, Tilt, Spalling Concrete, Corrosion of Steel, etc.
 - b. Comments on the extent, possible causes and assessments of the seriousness of these identified problems
 - c. Assess whether the identified problems are:
 - Defects of no structural significance
 - Defects requiring remedial action and/or monitoring
 - Suspected defects of structural significance requiring full structural investigation and immediate action
 - d. If there are signs of significant structural problems, the engineer shall make recommendations for a full structural investigation to be carried out without delay
 - e. The full structural investigation shall include but not limited to:
 - Obtaining information relating to the design, construction, maintenance and history of the building;
 - Assessing the structural adequacy of the building by checking the structural plans and calculations and reconstructing the structural plans if they are not available;
 - Carrying out tests on the materials used and structural elements of the building.
 - Carrying out load test on the parts of the building if necessary.
 - Recommending appropriate safety precautionary and remedial measures to restore the structural stability and integrity of the building structure.

NB! Any structural assessment to be conducted should include non-destructive testing (NDT) due to the instability status of the building in question.

The Bidder must refer to the following Technical documentation provided with this bid document:

- i. Employers' Requirements (Annexure P.00727 P3 SP1 – 1)

- ii. Environmental Authorisation Compliance (Annexure P.00727 P3 SP1 - 2)
- iii. Health and Safety Requirements (Annexure P.00727 P3 SP1 - 3)
- iv. Schedule of Payments (Annexure P.00727 P3 SP1 - 4)

C3.2.3 PROJECT P.03688 - ZBS CONSTRUCT ROOF OVER MAIN ENTRANCES

C.3.2.3 Scope of work

The overall scope for this project is for the construction of roofs over main entrances at the Zuikerbosch Pumping Station

The work includes, but not limited to the following major activities:

1. Architectural Scope of Work

The scope of works will include detailed designs and construction of roofs to cover the following main entrances and associated work at Zuikerbosch Pumping Station:

1.1 Main entrance Gate

- The proposed solution is the erection of a temporary guard house east (closer to the provincial road)
- Demolition of the existing guard house (**PE # G1**) that is not compliant with the National Key Point (N.K.P) regulations
- To provide a new guard house (**PE # G1**) that complies with the updated N.K.P regulations.
- To widen the roads to double entrance and exit roads.
- And construction of a roof structure with a clearance height of 5.7m over the guard house.
- This will provide protective shelter for both the PS staff and people entering and exiting the plant, ensuring that all security protocol will be observed.
- Furthermore, it was also identified that abnormal vehicle will not be able to fit through this new roof, therefore there will be an entrance limit of 5.7m high to accommodate abnormal vehicles.
- There will be a culvert constructed along this new entrance to protect the existing Sewer Line that is allocated underneath the new area identified for the culvert. This gate will also be used to divert traffic during the construction and installation period for the main gate.

1.2 Entrance Gates to Works Area 1

- The proposed solution is to provide a roof structure with a clearance height of 5.7m over the entrance at Rec Club side (**MAN #G6**) which is dual road with 2 boom gates, biometrics access control pads. The existing security guard houses at these entrances will have to be updated to comply with the NKP regulations and conditions.

- This will provide protective shelter for both the PS staff and people entering and exiting the plant, ensuring that all security protocol will be observed.
- A height restriction of 5.7m shall apply to all vehicles inclusive of abnormal load vehicles.
- The same will apply to the entrance gate at the old lime plant area.

1.3 Entrance Gates to Works Area 2

- The proposed solution is to provide a roof structure with a clearance height of 5.7m high roof over the entrance at the WA2 system 3 guard house which is dual road with 2 boom gates, biometrics access control pads. The existing security guard house at the entrance will be left in its current condition.
- This will provide protective shelter for both the PS staff and people entering and exiting the plant, ensuring that all security protocol will be observed.
- A height restriction of 5.7m shall apply to all vehicles inclusive of abnormal load vehicles.
- Making use of WA2 system 3 guard house, demolition of the existing WA2 System 4 guard house (**2WAG #G9**) that is not compliant of the N.K.P regulations can begin.
- To provide a new guard house (**2WAG #G9**) that complies with the updated N.K.P regulations.
- To widen the roads to double entrance and exit roads.
- And construction of a 5.7m high roof structure over the guard house.
- This will provide protective shelter for both the PS staff and people entering and exiting the plant, ensuring that all security protocol will be observed.
- A height restriction of 5.7m shall apply to all vehicles inclusive of abnormal load vehicles.
- There will be a culvert constructed along this new entrance to protect the existing Sewer Line that is allocated underneath the new area identified for the culvert. This gate will also be used to divert traffic during the construction and installation period for the main gate.

2. Civil Scope of Work

The Civil Scope of Works under this project shall include, but not be limited to the following principal items):

- Fencing and hoarding off of site
- Detection, protection and/or relocation of existing services on site
- Clearing and making good of site
- Removal and relocation of trees
- Dewatering of site
- Compaction control and other relevant soil testing
- Demolishing of 2 guard houses

- Excavation for new foundations, apron slabs and ramps for guard houses and steel structures
- Exposing of existing sewer lines and construction of culvert at the main entrance gate and entrance gate to works area 2
- Stabilising and compaction of in-situ material for new foundations
- Importing, backfilling and compaction of quality material for the new foundations
- Construction of 5 new steel roof structures, 2 new guard houses and foundation slabs
- Construction and widening of the roads to double entrance and exit roads at the main entrance gate and entrance gate to works area 2
- Back-filling, stabilising and compacting of material for exposed services
- Disposal of surplus material
- The rectification of defects during the "Defects Liability Period"

3. Mechanical Scope of Work

The mechanical scope of works shall comprise the turnkey solution of a Heating, Ventilation and Air Conditioning (HVAC) system.

4. Electrical Scope of Work

The proposed scope of work shall include, but not be limited to the following:

- Provision for the decommissioning and removal of redundant small power and lighting equipment in the three guard houses that will be refurbished.
- Provision for new small power and lighting equipment and circuits in these three guard houses to be refurbished in order to comply with the latest SANS 10142-1, SANS 10114-1 & 2, SANS 10389-1, SANS 10400 and Rand Water specifications and standards.
- Provision for the decommissioning and removal of the small power and lighting equipment in the main site entrance guard house that will be demolished in order to construct the new guard house.
- Provision for a power supply to the new temporary guard house to be provided at the main site entrance.
- Provision for the decommissioning and removal of the small power and lighting equipment in the 2WA main entrance guard house that will be partially demolished in order to construct the new guard house.
- Provision for the design, supply, delivery, offload, installation, testing, and commissioning of complete small power and lighting installations for the two new guard houses to be constructed respectively at the site main entrance and at the 2WA main entrance.
- Provision for the possible rerouting or protection of electrical cabling affected by construction works.
- Provision for man holes, conduits and PVC sleeve systems at the two new guard houses to allow for all Bio Metric access control, turnstile and boom gate services.
- Provision for the lighting installations at all five roof covers structures.

- Provide for UPS power back up supply to required loads at each of the five guard houses.
- Provision for the power requirements for HVAC installations.
- Design, supply, delivery, offload, installation, testing, and commissioning of a new earthing and lightning suppression system for each of the five guard houses complete with soil resistivity testing.
- Provide for a detailed lux level simulation report for interior and exterior lighting installations prior to installation and allow for lux level testing and a report on completion of the installation works.
- Provide for certificate of compliance (COC) test certificates for all installations.
- Provision for all soft and hard copy shop drawings and as built drawings as well as equipment manuals, test and commissioning documentation, engraved type labels, etc.

5. Project Deliverables

- Supply in construct of 1 temporary guard house at main entrance
- Demolish of 2 guard houses one at 2wa will be partially demolished as the generator room and MCC will remain
- Provision of roofs over 5 main entrances.
- Ensure that the existing automated boom gates and biometrics access control systems are still functional after roof installation.
- Ensure that the 3 existing guard houses to remain for upgrading comply with the NKP regulations and conditions.

The Bidder must refer to the following Technical documentation provided with this bid document:

- i. Employers' Requirements (Annexure P.03688 P3 SP1 – 1)
- ii. Environmental Authorisation Compliance (Annexure P.03688 P3 SP1 - 2)
- iii. Health and Safety Requirements (Annexure P.03688 P3 SP1 - 3)
- iv. Schedule of Payments (Annexure P.03688 P3 SP1 - 4)

C3.2.4 PROJECT P.04103 - ZBS CONSTRUCT SECURITY CONTROL ROOM @WA1

C.3.2.4 Scope of work

The scope entails the construction of additional office accommodation adjacent to the existing building together with the re-engineering of the existing available space at the Risk Control building. The required work should be executed such as to ensure:

- Compliance with National Key Point (NKP) Regulations
- Electrical wiring is in accordance with SANS 10142-1 "South African National Standard for the Wiring of Premises, Part 1: Low Voltage Installations"

- HVAC and fire suppression system are in accordance with the relevant building regulations (SANS 10400)

1. ARCHITECTURAL SCOPE OF WORK

The proposed architectural scope of work shall include, but not be limited to the following:

- i) The turnkey solution of an extension to the existing Control Room which should consist of the following rooms:
 - Control room
 - Multi-purpose meeting area
 - Office
 - Male and Female cloak rooms
 - Kitchen / Canteen.
 - Weapon and ammunition store
 - Fire-arms collection and discharge area.
- ii) Furniture used must comply with the NKP Security Regulator's requirements
- iii) As part of the design of the Control Room Extension, a new facade has been proposed to uplift the existing building and to tie in with the future proposed Water Wise building
- iv) In addition to the extension, the existing control room, duty room and ops/server room will be re-engineered to an office, store, and a meeting room
- v) As part of uplifting the look and feel of the building it is recommended that the existing building be refurbished where required. This will include but not be limited to the existing:
 - Offices
 - Toilets
 - Kitchens
 - Stores
 - Meeting rooms
 - Carports

It is recommended that the existing carports on the southern, eastern, and western faces of the building be removed and replaced with a modern carport design which will suit solar installations. The parking area paving will also be required to be adjusted to suit the proposed layouts.

2. CIVIL SCOPE OF WORK

- i) The design and construction of layer works based on recommendations from the geotechnical investigation
- ii) Design and construction of foundations

- iii) Design and construction of structural system including columns, beams and slabs
- iv) Design and construction of concrete gutter
- v) Design and construction of arms and ammunition room reinforced concrete walls
- vi) Miscellaneous structural elements design and construct

3. MECHANICAL SCOPE OF WORK

The mechanical scope of works shall comprise of turnkey solution for Heating, Ventilation and Air Conditioning (HVAC) system, water supply pipeline, Hot & Cold-water system, fire protection & detection systems.

4. ELECTRICAL SCOPE OF WORK

The electrical scope of work shall consist of the following as a minimum:

- i. Provision for a new miniature substation to accommodate the existing risk building and additional extension complete with new medium voltage cabling.
- ii. Provision for all cable excavations, compaction, and backfilling
- iii. Provision for new small power and lighting distribution boards complete with "Raw", UPS and Emergency Power sections in the new extension. This distribution board shall be equipped and designed to be compatible with a future photovoltaic system.
- iv. Provision for a small power and lighting installation in new extension complete with power supplies to all HVAC equipment provided by mechanical.
- v. Provision for new UPS unit and batteries for this area
- vi. Provision for all power, control and earth cabling forming part of this project.
- vii. Provision for an enclosed standby generator to cater for the loads in the new extension.
- viii. Provision for all conduit requirements for Fire, access control, CCTV and IT Data services designed, specified, and provided by specialist service providers.
- ix. Provision for an Earthing and lightning protection system for the new extension and repositioned radio mast.
- x. Provision for all testing and QCP requirements
- xi. Provision for all documentation.
- xii. Provision for requirements on existing small power and lighting installation affected by new additions.
- xiii. Provision for the removal of the existing external power supply distribution board and disconnection of the 150mm² 4 core power cable on both ends of the cable. The existing small power and lighting loads in this distribution board shall be rerouted to the new small power and lighting distribution board in the existing building.

- xiv. Provision for new small power and lighting distribution boards in the existing building to replace the obsolete distribution boards.
- xv. Provision to relocate the existing circuits to the new distribution board in the existing building.
- xvi. Provision to replace all the existing power skirtings in the existing building with new skirtings'
- xvii. Provision to correct all non-compliant installations and wiring in the existing building.
- xviii. Provision for the test and issue of an electrical Certificate of Compliance (CoC) for the entire electrical installation.

5. IT SCOPE OF WORK

The IT scope of work includes but is not limited to:

- i. Supply and Install network points
- ii. Replace current Cat 5 cables with Cat 6
- iii. Re-route and terminate cables at the server room
- iv. Splice and re-route fibre to the sever room
- v. Provide network cabinets for the network cable termination
- vi. Provide network cabinets to host the network devices
- vii. Provide 24 port Power Over Ether (POE) switches
- viii. Provide Access Points (APs) for the board rooms
- ix. Radio mast IT equipment & cables to be removed
- x. Re-install radio mast IT equipment with new cables

6. AUTOMATION SCOPE OF WORK

- i) The automation scope of works comprises the design, supply, installation, testing and putting into service a Building Management System (BMS) that will consist of a Fire detection system, biometric access control and logging, CCTV system with Artificial Intelligence (AI) capabilities. Perimeter fence intrusion detection, barrier crossing, alerting, and alarming shall form part of this SOW.
- ii) It is incumbent upon the Contractor to provide all labour, supervision, installation and consumable materials, equipment, tools, services and every permanent or temporary item necessary for this undertaking. This SOW shall include intruder detection around the building as well as intercom system.
- iii) The design and specifications shall provide integration with the existing security provisions. This includes provision for telecommunication towers and radio, or fibre links as would be determined and required for delivery of communication services between the Risk Building, site main gate and the works areas entry/exit points and perimeter fencing.

- iv) The Contractor shall also be responsible to train Rand Water security personnel on the effective use of this new BMS.
- v) The Contractor shall make recommendations for the effective use of the new BMS for facilitation of security protocols with regards to emergency preparedness and disaster recovery.

a) Access Control

- The system shall work on biometric authentication input specifically Facial and Fingerprint recognition to gain access to restricted areas
- The system shall also support car registration number plate recognition
- The system shall be able to integrate with third-party systems such as SAP and Maximo for time and attendance
- The system shall operate in line with local regulations and standards
- The system shall be capable of integrating with IP video surveillance and other security systems
- The system shall support all configurable features, like zoning, time-based access, role-based access, level-based access, count-based access

b) Visitor management system

This part of the system will automate the management of visitors, making the entire process of a visitor's entry and exit smooth and secure for the guests as well as hosts. This component will be characterized as follows:

- Streamlined visitor management process, with check-in process by capturing images and other info, sending instant visitor notifications, printing custom badges, and collecting signatures all in a few taps on the screen.
- Automatic host notification of visitor arrival, through email and SMS
- Segregation of visitors into categories i.e., delivery, vendor, contractor, etc.
- Capable to cater for visitors with cars, linking details of the car to the guest
- Fully integrated with access control hardware, i.e., biometric scanners and access control hardware such as boom barriers and turnstiles
- Vehicle Scanning at entry.

c) Server Room and Database Management

- Artificial Intelligent (AI) capable of capturing employee facial data and details.
- AI processing of live streamed data against stored profiles for faster processing of access protocols
- Alarming engine to prompt operator on any possible deviations with the elimination of nuisance alarms
- Integrate and use Active directory authentication
- Adaptive Multifactor Authentication (MFA)

- Integrate with Rand Water applications including SAP (ERP) and Maximo.
- Server room water leak, temperature, humidity, and alarming shall be part of the server room.
- The server room shall have biometric and facial recognition access.

d) Video Surveillance Management System and Virtual Matrix with AI software

- The system must be coupled with installation of high-resolution cameras capable of 4K picture quality.
- The system shall consist of a new Graphic Processing Unit (GPU) server capable of performing analytics, training, and inference. Inference shall be performed from multiple IP camera streams in real time. The IP cameras shall be located across Zuikerbosch station.
- GPU server software shall perform Training, Validation, Object Detection, abnormal scene detection, Facial Recognition, Boundary Crossing Detection, Motion Detection as well as have ability to minimize nuisance alarms by Area Masking.
- The system shall include a 8K narrow bezel video wall panels complete with video wall controller.
- Automatic display based on triggers from access control, building fire detection systems, motion sensors, object detection and facial recognition algorithms.
- Event based as well as continuous recording and low and high resolution.
- Shall be able to handle the AI processing of IP footage from all the cameras at the same time.
- The system shall be trainable using new pictures and optimizable as new visitors and staff are introduced.
- The system shall send intrusion violation SMS and email alerts to authorized personnel.
- Recording, and live streaming capability.

e) Equipment requirements

- The service provider is expected to supply, install and commissioning all the equipment needed for a full working solution
- The IP camera equipment shall be industrial grade and be at least IP65 rated for outdoor usage
- Equipment shall come with necessary ancillaries for its operation, i.e. power supplies, cables and connectors, etc.
- Electronic equipment must have a mean-time-between-failures (MTBF) of at least 87,600 hours (i.e., lifespan of 10 years)

f) Training, Maintenance and Support

- The service provider is expected to train Rand Water personnel on the use of the system

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- The service provider shall furnish Rand Water with all the necessary Operations & Maintenance manuals related to the deployed system
- The service provider shall supply all the maintenance spares necessary to maintain the installation for a period of twelve (12) months

The Bidder must refer to the following Technical documentation provided with this bid document:

- i. Employers' Requirements (Annexure P.04103 P3 SP1 – 1)
- ii. Environmental Authorisation Compliance (Annexure P.04103 P3 SP1 - 2)
- iii. Health and Safety Requirements (Annexure P.04103 P3 SP1 - 2)
- iv. Schedule of Payments (Annexure P.04103 P3 SP1 - 2)

**C3.2.5 PROJECT P.04882 –LEAK REPAIR AT ENGINE ROOM 4B – CONDITION ASSESSMENT
AND REMEDIAL WORK**

C.3.2.5 Scope of work

1. CIVIL SCOPE OF WORK

The scope of work envisioned for the contractor includes:

- a) Conduct an exploratory inspection and assessment of the leak. These will also include work execution planning, evaluation of existing stormwater system and current scour to check if pipes can handle the capacity in case of isolation, etc.
- b) Conduct a detailed condition assessment for ER4 reservoir, Suction chambers and engine room walls. The work will be done per compartment from 1 to 4 under separate shutdowns
- c) Internal face (inside suction duct):
 - i. Conduct detailed condition assessment of the concrete in the suction duct, to establish the root cause of the leaks and extent of deterioration
 - ii. It may be necessary to perform material & structural integrity tests. It is recommended that these inspections and assessment are conducted together with repair product manufacturers to determine suitable repair products for application in given environment
 - iii. Preparing work area to adequately access the area to be assessed and refurbished, this may include pumping and drying
 - iv. The repair work may be done under water in case Rand Water Operations cannot allow plant shutdown for repair of this work
 - v. Development of a remedial methodology and specifications for the suction duct
 - vi. Execution of the remedial work inside the suction duct including surface preparation as prescribed
 - vii. Clearing suction duct of all debris and other foreign objects generated during work execution
- d) External face (on the engine room side of the wall)
 - i. Conduct detailed condition assessment of the concrete on the engine room side of the wall, to establish identifying defects and extent of deterioration. It may be necessary to

perform material structural integrity tests. It is recommended that these inspections and assessment are conducted together with repair product manufacturers to determine suitable repair products for application in given environment, including possibilities of working when the reservoir is in operation

- ii. Check if rebar of the wall is not corroded and compromised
 - iii. Develop of appropriate remedial methodology and specifications to address mechanism of the leaking/damaged wall and structural strengthening (if necessary) not just a patch repair without a proper bonding to the concrete substrate, considering that the wall is a water retaining structure originally designed to be watertight with max crack width of 0.2mm
 - iv. Execute remedial work as per final methodology and specification, including surface preparation and curing
 - v. Apply appropriate sealing agent on the affected wall on the engine room side
 - vi. Clearing engine room of all debris and other foreign objects generated during work execution
- e) Project closeout - the submission of a project including closeout report documenting findings from the condition assessments, remedial methodology, execution, amongst others

All work is to be executed making use of appropriate equipment and trained personnel and under supervision of the Professional Engineer (Pr ENG), registered with Engineering Council of South Africa (ECSA) and experienced in structural concrete repairs of water retaining structures. Appropriate quality control and quality assurance should be exercised to ensure desired objective of the project are realised. Remedial work on both sides of the wall can be executed concurrently.

2. ELECTRICAL SCOPE OF WORK

The scope of work envisioned for the contractor includes the following as a minimum:

- a) Provide a sizeable three phase mobile diesel generator to supply temporary power to the mobile sump pumps to be used at both the reservoir and Engine Room 4B.
- b) Provide temporary small power and lighting during the repairs inside the reservoir.
- c) Ensure appropriate health and safety precautions are taken into consideration during the execution of the work.
- d) Welding plugs inside the Engine Room shall be utilised to supply power to any additional sump pump that might be required to ensure excess water is pumped out of the Engine Room.

3. MECHANICAL SCOPE OF WORK

The Mechanical Scope of work shall comprise of supply, delivery, installation, commissioning and put into operation of the following:

- Temporary mobile diesel dewatering pumps.
- Electrical dewatering sump pumps
- Flexible pipe for water drainage completes with fittings.
- Removal and decommission of mobile drain pumps, pipes, and fittings once the repair works is completed.
- Refurbishment of isolation valves
- Access steelwork replacement/refurbishment

The Bidder must refer to the following Technical documentation provided with this bid document:

- i. Employers' Requirements (Annexure P.04882 P3 SP1 – 1)
- ii. Environmental Authorisation Compliance (Annexure P.04882 P3 SP1 - 2)
- iii. Health and Safety Requirements (Annexure P.04882 P3 SP1 - 2)
- iv. Schedule of Payments (Annexure P.04882 P3 SP1 - 2)

C3.2.6 PROJECT P.05203 – UPGRADE DRAINAGE SYSTEM AT SYSTEM 4

C.3.2.7 Scope of work

1. Flood Drainage Channel

Reconfigure the engine room and reservoir platform to allow for flood water to collect at predefined points; and construct flood drainage channels at those collection points to drain flood water away from that area. The shortcoming to this proposed solution is that there are no overflow points at the engine room and reservoir area. Hence during the near flooding incident, the overflow discharged through the reservoirs' roof, posing a risk to the structural integrity of the reservoir and damage. This option is not feasible.

2. Additional Overflow Pipeline

Construct a duplicate of the 1992 scheme overflow pipeline with the pipe diameter sized to accommodate the difference in capacity between the total required capacity 1800Mℓ/d and the existing installed capacity.

The line should operate under gravity flow and freely discharge into the existing Forebay spillway, upstream of the existing overflow outlet structures.

3. Open Channel System (Overflow Channel)

The proposed overflow channel system would be constructed only from the eastern side of system 4; as opposed to constructing from both the eastern and western side, due to the physical constraint of the delivery pipelines on the western side. This infers that the proposed channel should have capacity to convey the entire overflow of 1800 Mℓ/d. Two discharge options for the proposed channels that were considered were as follows:

a) Overflow Channel – Forebay Spillway

Construct an overflow channel system (approximately 600m long) collecting overflow from the sedimentation tank's overflow and the east overflow chamber, this channel is to drain into the existing Forebay overflow channel. The proposed channel will connect to the existing Forebay spillway downstream of the channel transition (from grass to concrete lined), as spillway section upstream of this transition is higher than the inverts or floor levels at the overflow structures. The shortcoming to this proposed solution is the existing Zuikerbosch to Mapleton (B8) pipeline, which is a physical constraint for the proposed open channel.

b) Overflow channel – River

Construct an overflow channel system (approximately 1000m long) collecting overflow from the sedimentation tank's overflow and the east overflow chamber, this channel is to drain directly into the Zuikerboschrand River. The shortcoming to this proposed solution is the B8 pipeline which is a physical constraint that needs to be overcome; this solution will trigger the need of a water use license, because a new discharge point to discharge treated water into a water resource (Zuikerboschrand River) will be created; in addition to the proposed channel additional infrastructure (culverts, stilling basin) will be required.

4. Preferred solution

The most suitable solution is to upgrade the drainage system **as per option 2 above** (Overflow drainage pipeline). This option meets the required operational capability; requires less maintenance; there are fewer OHS hazards; and the physical (B8 pipeline) constraint can be navigated much better as compared to open channel.

The drain shall be designed to include a flow meter which will measure the water discharge in the drain and displays it on the SCADA system.

Additionally, the following auxiliary work should be included: Construct a hump, which would serve as a bund wall, at the entrance of the engine room; Reshape the paving near the engine room entrance to allow overland flow to properly drain into the existing storm water drain.

The Bidder must refer to the following Technical documentation provided with this bid document:

- i. Employers' Requirements (Annexure P.05203 P3 SP1 – 1)
- ii. Environmental Authorisation Compliance (Annexure P.05203 P3 SP1 - 2)
- iii. Health and Safety Requirements (Annexure P.05203 P3 SP1 - 2)
- iv. Schedule of Payments (Annexure P.05203 P3 SP1 - 2)

The Bidder must refer to **Annexure C3.2: Scope of Work (including drawings, where applicable)** provided with this bid document.

C3.3 METHODOLOGY AND TECHNICAL APPROACH

Methodology for the Design Phase; the proposed sequencing of the design shall be as follows;

- a) Turnkey contractor shall put together a multidisciplinary team lead by a Lead Design Engineer who is competent and professionally registered with ECSA in the main discipline who will work concurrently with the RW Design Lead for the main discipline.

- b) Turnkey contractor shall go through the Tender documents, drawing and specifications, and existing drawings as given at tender stage and understand the SOW.
- c) The turnkey contractor shall conduct Site Investigations- contractor verifies if the tender conditions as specified at stage are still applicable to the site or plant conditions.
- d) If the project is not within an existing site or where route selection is required, or site layout still has to be acquired the contractor may commence to secure land as per the Land Acquisitions Procedure specified in this tender document.
- e) Once the route has been confirmed, contractor may begin the process of acquiring land from landowners and conduct Environmental Impact Assessment processes in the form of applying for the Environmental Authorization, Water Use License Application and Heritage Permits from DEA, DWS and PHRAG (refer to the procedure of managing the environmental authorizations program). For any project i.e., Pipelines, Reservoirs, Buildings etc. it is advisable to commence designs once 90% of the service agreements have been acquired. Land for pipelines shall include the land required for cathodic protection. For reservoirs the land must be secured for the reservoir as well as for the inlet, outlet pipelines and access roads up to the battery limits set within the project
- f) Service detection and or geotechnical studies may commence once land has been confirmed in the step above. The services detection and geotechnical studies must be done on the land where the servitude has been registered and servitude has been acquired
- g) Contractor may commence with the preliminary Process or Mechanical designs in projects where mechanical or process equipment is required. Equipment sizing and selection as per the tender specifications maybe concluded in parallel to a geotechnical study if new structure is required
- h) Power requirements from the load list for the mechanical/ process equipment can be given to the electrical designer to commence the electrical designs.
- i) Automation Design follow once the operational philosophy of how the plant will be run is firmed up
- j) Contractor verifies if mechanical, process equipment, electrical and automation requirements can fit into architecture building specified in the tender drawings if not contractor adjusts building or designs a new building to house the equipment design requirements taking into cognizance the maintenance requirements of each type of equipment
- k) Where the architectural designs submitted in the tender are deemed adequate by the contractor and the contractor elects to take over the risk, the same drawings maybe used with the following amendments
- l) The foundation details must be added onto the revised drawings
- m) All references to the “engineer details or specification” must be replaced with the structural design’s details

- n) The generic specification for all schedules must now be updated with the actual products used
- o) The architectural drawings must now reference civil structural and small power and lighting drawings
- p) A preliminary design review can now be held by the Design Office
- q) Contractor provides structural designs details for the structure which must include the access roads, storm water drainage
- r) The contractor then integrates all disciplines above, ensuring that all drawings talk to each other etc. are signed off by the professionally registered persons registered in their own specialist categories. The contractor shall ensure that all interfaces are managed to deliver a functional project
- s) Where the projects are within a sub-package the contractor shall design for project dependencies taking into cognizance the sequence of commissioning required
- t) A detailed design review can be held
- u) Design is frozen
- v) Implementation commences.
- w) Project is commissioned and handed over
- x) Package is completed and handed over.

The scope of work for the “Designer” within the “Turnkey Consortium” **during the design stage shall** follow the stages indicated in the Guideline Professional Fees (*Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 46 of 2000*), the applicable latest version. The “Designer” shall remain in place through-out the project lifecycle only terminating upon the project completion

Payment shall be upon a completed accepted deliverable duly approved by the approval process outlined in the contract terms and conditions.

Stage 1 – Inception

Defined as: Establish client requirements and preferences, assess user needs and options, appointment of necessary consultants, establish the project brief including project objectives, priorities, constraints, assumptions aspirations and strategies.

- a) Assist in developing a clear project brief, this shall be formalised into an approved SOW.
- b) Conduct project initiation meetings.
- c) Advise on the rights, constraints, consents and approvals.
- d) Define the scope of services and scope of work required.

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- e) Inspect the site and advise on the necessary surveys, analyses, tests and site or other investigations where such information will be required for Stage 2 including the availability and location of infrastructure and services.
- f) Determine the availability of data, drawings and plans relating to the project.
- g) Advise on criteria that could influence the project life cycle cost significantly
- h) Provide necessary information within the agreed scope of the project to other consultants involved.

Deliverables will typically include:

- agreed scope of services and scope of work
- signed agreement
- report on project, site and functional requirements
- schedule of required surveys, tests, analyses, site and other investigations
- schedule of consents and approvals and related timeframes.

Stage 2 – Concept and Viability (often called preliminary design)

Defined as: Prepare and finalise the project concept in accordance with the brief, including project scope, scale, character, form and function, plus preliminary programme and viability of the project.

- a) Attend design and consultants' meetings.
- b) Establish the concept design criteria.
- c) Prepare initial concept design and related documentation.
- d) Advise the client regarding further surveys, analyses, tests, and investigations that may
- e) be required.
- f) Establish regulatory authorities' requirements and incorporate into the design.
- g) Refine and assess the concept design to ensure conformance with all regulatory
- h) requirements and consents.
- i) Establish access, utilities, services, and connections required for the design.
- j) Participate in coordinated design interfaces with architect or other consultants involved.
- k) Prepare process designs (where required), preliminary designs, and related documentation for approval by authorities and client and suitable for costing.
- l) Provide cost estimates and life cycle costs, as required.
- m) Liaise, co-operate, and provide necessary information to the client, principal consultant and other consultants involved.

Deliverables will typically include:

- conceptual designs
- schedule of required surveys, tests and other investigations and related reports
- process design
- preliminary design
- cost estimates, as required.

Stage 3 – Design Development (also termed detailed design)

Defined as: Develop the approved concept to finalise the design, outline specifications, cost plan, financial viability, and programme for the project.

- a) Review documentation programme with principal consultant and other consultants involved.

- a) Attend design and consultants' meetings.
- b) Incorporate client's and authorities' detailed requirements into the design.
- c) Incorporate other consultants' designs and requirements into the design.
- d) Prepare design development drawings including draft technical details and specifications.
- e) Review and evaluate design and outline specification and exercise cost control.
- f) Prepare detailed estimates of construction cost.
- g) Liaise, co-operate, and provide necessary information to the principal consultant and
- h) other consultants involved
- i) Submit the necessary design documentation to local and other authorities for approval.

Deliverables will typically include:

- Design development drawings
- Outline specifications
- Local and other authority submission drawings and reports
- Detailed estimates of construction costs.

Stage 4 – Documentation and Procurement

Defined as: Prepare procurement and construction documentation, confirm and implement the procurement strategies and procedures for effective and timeous procurement of necessary resources for execution of the project.

- a) Attend design and consultants' meetings
- b) Prepare specifications and preambles for the works
- c) Accommodate services design
- d) Check cost estimates and adjust designs and documents, if necessary, to remain within budget
- e) Formulate the procurement strategy for all plant, labour, equipment, materials and all long lead items required for the projects or projects
- f) Prepare documentation for contractor procurement for the above items ensuring the requisite financing is in place
- g) Review designs, drawings, and schedules for compliance with approved budget ensuring that no additional funds outside of the contract value is required
- h) Call for tenders and/or negotiation of prices and/or assist the principal consultant or
- i) quantity surveyor where relevant.
- j) Liaise, co-operate, and provide necessary information to the project team as required
- k) Evaluate tenders
- l) Prepare contract documentation for signature
- m) Assess samples and products for compliance and design intent
- n) Assist in pricing, documentation and tender evaluation as required when the detailed
- o) services for these activities are provided by others

Deliverables will typically include:

- specifications
- services co-ordination
- working drawings
- budget construction cost
- contractor tender documentation
- contractor tender evaluation report
- contractor tender recommendations
- priced contract documentation.

Stage 5 – Contract Administration and Inspection

Defined as: Manage, administer, and monitor the construction contracts and processes including preparation and coordination of procedures and documentation to facilitate practical completion of the works.

- a. Attend site handover.
- b. Issue construction documentation in accordance with the documentation schedule
- c. including, in the case of structural engineering, reinforcing bending schedules and detailing, and specifications of structural steel sections and connections.
- d. Carry out contract administration procedures in terms of the contract.
- e. Prepare schedules of predicted cash flow.
- f. Prepare pro-active estimates of proposed variations for client decision-making.
- g. Attend regular site, technical and progress meetings.
- h. Inspect the works for conformity to contract documentation
- i. Review the outputs of quality assurance procedures and advise the contractor and client on adequacy and need for additional controls, inspections, and testing.
- j. Adjudicate and resolve financial claims by contractors.
- k. Assist in the resolution of contractual claims by the contractor.
- l. Establish and maintain a financial control system.
- m. Clarify details and descriptions during construction as required.
- n. Prepare valuations for payment certificates to be issued by the principal agent.
- o. Witness and review of all tests and mock-ups carried out on site.
- p. Check and approve contractor drawings for compliance with contract documents.
- q. Update and issue drawings register.
- r. Issue contract instructions as and when required. Review and comment on operation and maintenance manuals, guarantee certificates and warranties.
- s. Inspect the works and issue practical completion and defects lists.
- t. Arranging for the delivery of all test certificates, including any Certificates of Compliance, statutory and other approvals, and record drawings and operating manuals.

Deliverables will typically include:

- Schedules of predicted cash flow
- Construction documentation
- Drawing register
- Estimates for proposed variations
- Contract instructions
- Financial control reports
- Valuations for payment certificates
- Progressive and draft final accounts
- Practical completion and defects list
- All statutory certification and certificates of compliance as required by the local and
- Other statutory authorities.

Stage 6 – Close-Out

Defined as: Fulfil and complete the project close-out, including necessary documentation to facilitate effective completion, handover, and operation of the project.

- a) Inspect and verify the rectification of defects.
- b) Receive, comment, and approve relevant payment valuations and completion
- c) certificates.
- d) Prepare and/or procure operations and maintenance manuals, guarantees and
- e) warranties.
- f) Prepare and/or procure as-built drawings and documentation.
- g) Conclude the final accounts where relevant.

Deliverables will typically include:

- Valuations for payment certificates
- Works and final completion lists
- Operations and maintenance manuals, guarantees and warranties
- As-built drawings and documentation
- Final accounts

Additional services

The following services are additional to the normal services provided by the turnkey contractor. The turnkey contractor shall price for these services in his form of offer letter.

- i. Additional services pertaining to all stages of the project
- ii. All services related to defining the scope of work, planning, studies, investigations and assessments, and that are normally paid for on a time and cost basis.
 - a) Valuation for purchase, sale or leasing of plant, equipment, material, systems, land or buildings or arranging for such valuation
 - b) Making arrangements for way leaves, servitudes or expropriations

- c) Negotiating and arranging for the provision or diversion of services and or infrastructure not forming part of the works
- d) Additional work in obtaining the formal approval of the appropriate government departments or public authorities, including the making of such revisions as may be required because of decisions of such departments or authorities arising out of changes in policy, undue delay, or other causes beyond the consulting engineer's control
- e) Additional work related to monitoring as required by any government departments or authorities to facilitate regulatory approvals and certification (e.g., Mines Health and Safety Act, 29 of 1996)
- f) Topographical and environmental surveys, analyses, tests and site or foundation or other investigations, model tests, laboratory tests and analyses carried out on behalf of the client
- g) Setting out or staking out the works and indicating any boundary beacons and other reference marks
- h) Preparation of drawings for manufacture and installation or detailed checking of such for erection or installation fit
- i) Detailed inspection, reviewing and checking of designs and drawings not prepared by the consulting engineer and submitted by any contractor or potential contractor as alternative to those embodied in tender or similar documents prepared by the consulting engineer
- j) Inspection and testing, other than on site, of materials and plant, including inspection and testing during manufacture
- k) Preparing and setting out particulars and calculations in a form required by any relevant authority
- l) Abnormal additional services by or costs to the consulting engineer due to the failure of a contractor or others to perform their required duties adequately and on time
- m) Executing or arranging for the periodic monitoring and adjustment of the works, after final handover and completion of construction and commissioning, to optimise or maintain proper functioning of any process or system
- n) Investigating or reporting on tariffs or charges leviable by or to the client
- o) Advance ordering or reservation of materials and obtaining licences and permits
- p) Preparing detailed operating, operation and maintenance manuals
- q) Preparing record drawings on designs done by others or related to alterations to existing works
- r) Additional services, duties and/or work resulting from project scope changes, alterations and/or instructions by the client, or his duly authorised agents, requiring the consulting engineer to advice upon, review, adapt and/or alter his completed designs and/or any other documentation

and/or change the scope of his services and/or duties. Such additional services are subject to agreement in writing between the consulting engineer and the client prior to the execution thereof

- s) Work and or services related to targeted procurement that could entail but is not necessarily limited to any or all of the following: Incorporation of any targeted participation goals, the measuring of key participation indicators
- t) The selection, appointment, and administration of participation
- u) Auditing compliance to the above by any contractors and/or professional consultant
- v) Exceptional arrangements, communication, facilitation, and agreements with any stakeholders other than the client and contractors appointed for the works on which the consulting engineer provides services
- w) Any other additional services, of whatever nature, specifically agreed to in writing between the consulting engineer and the client
- x) Building Information Modelling (BIM) compliancy. Where BIM is a specified project requirement, the appointment a BIM manager, the preparation and approval by the client of the BIM Execution Plan and the additional effort over conventional projects to set up the project to be fully BIM compliant as required by the client.

Construction Monitoring Level 3

Level 3: Full-time Construction Monitoring (full-time staff resident on site for the duration of the works and paid for by the client as an additional service)

The full-time construction monitoring staff must:

- (i) maintain a full-time presence on site to constantly review samples of materials and work procedures, for conformity to contract documentation, provide design/ technical clarifications and review completed work prior to covering up, or on completion, as appropriate
- (ii) assist with the preparation of as-built records and drawings to the extent required in the agreement with the client
- (iii) where the consulting engineer is the sole professional service provider or principal agent, carry out such administration of the project as is necessary on behalf of the client.

The following Projects are covered under one Tender document:

Item No.	Project Number	Project Description
1	P.04053	ZBS Construction of EMS change & meeting room @WA1
2	P.00727	Zuikerbosch Filter House 1 upgrade – Condition Assessment Phase
3	P.03688	ZBS Construct roof over main entrances
4	P.04103	ZBS Construct security control room @WA1

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5	P.04882	Leak repair at Engine Room 4B – Condition Assessment
6	P.05203	Upgrade Drainage system at System 4

This Sub Package consists of one contracting strategy where all projects have the same terms and conditions for Turnkey.

1. Contents of the Package

The packages comprise of the following:

P Number	Project Description	SUB-PACKAGE	Contracting Strategy
P.04053	ZBS Construction of EMS change & meeting room @WA1	2	Turnkey
P.00727	Zuikerbosch Filter House 1 upgrade		
P.03688	ZBS Construct roof over main entrances		
P.04103	ZBS Construct security control room @WA1		
P.04882	Leak repair at Engine Room 4B		
P.05203	Upgrade Drainage system at System 4		

2. Sequence of Designs within a package

The design work can be undertaken simultaneously for all the projects as all projects are independent of each other. For projects involving condition assessments, shutdowns of the respective infrastructure is required, therefore sequencing of these projects will be in line with Rand Water's planned shutdowns.

3. Sequence Projects

The contractor shall design and refurbish as per the following sequence.

- First submit a work breakdown structure clearly indicating the interdependencies between the different projects within these packages
- In parallel, the contractor shall schedule a program for the following as he/she deems fit.

Item No.	Project Number	Project Description
1	P.04053	ZBS Construction of EMS change & meeting room @WA1
2	P.00727	Zuikerbosch Filter House 1 upgrade – Condition Assessment
3	P.03688	ZBS Construct roof over main entrances
4	P.04103	ZBS Construct security control room @WA1
5	P.04882	Leak repair at Engine Room 4B – Condition Assessment
6	P.05203	Upgrade Drainage system at System 4

PART C4: SITE INFORMATION

C4. SITE INFORMATION

C4.1 Zuikerbosch Pumping Station

The Bidder must refer to **Annexure C4: Site Information** as provided with this bid document.