



# REQUEST FOR BID PROFESSIONAL SERVICES

Form No: RW SCM 00049 F  
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Effective Date: 04 Nov 2024

**BID NUMBER: RW10412064/24**

## APPOINTMENT OF ENGINEERING FIRM/CONSULTANT FOR THE DESIGN ENGINEERING OF NORTHERN WORKS WATER RECLAMATION PLANTS AT RAND WATER FOR A PERIOD OF 5 YEARS.

<b>ISSUE DATE:</b>	THURSDAY, 28 NOVEMBER 2024	
<b>NON-COMPULSORY BRIEFING SESSION DATE:</b>	N/A	
<b>BRIEFING SESSION VENUE:</b>	A PRESENTATION WILL BE UPLOADED ON THE NATIONAL TREASURY WEBSITE UNDER E-PORTAL.	
<b>CLOSING DATE:</b>	THURSDAY, 13 FEBRUARY 2025	AT 12H00PM
<b>SITE VIEWING DATE/S</b>	N/A	

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

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			
BUYER		SOURCING MANAGER	
<b>CONTACT PERSON</b>	VONGANI MAGEZA	<b>CONTACT PERSON</b>	BONGANI NDWANDWE
<b>TELEPHONE NUMBER</b>	011 682 0675	<b>TELEPHONE NUMBER</b>	011 682 0724
<b>E-MAIL ADDRESS</b> <small>(Submissions must be made to this address)</small>	<a href="mailto:vmageza@randwater.co.za">vmageza@randwater.co.za</a>	<b>E-MAIL ADDRESS</b>	<a href="mailto:bndwandw@randwater.co.za">bndwandw@randwater.co.za</a>

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## SECTION A: BID

### PART T1: BIDDING PROCEDURES

#### T1.1. BID NOTICE AND INVITATION TO BID

<p><b>Rand Water invites bids for the appointment of engineering firm/consultant for the design engineering of Northern Works water reclamation plants at Rand Water for a period of 5 years.</b></p>	
<b>Procurement Procedure</b>	Rand Water uses a single volume approach.
<b>Awarding Strategy</b>	The number of suppliers to be awarded this bid is <b>One (1)</b> .
<b>Access to the Bid Documents</b>	<p>The bid documents are downloadable on the National Treasury e-Tender Publication portal which can be accessed through the following link: <a href="http://www.etenders.treasury.gov.za">http://www.etenders.treasury.gov.za</a>.</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>
<b>Bid Clarifications</b>	<p>Bidders can seek clarification by no later than <b>fifteen (15)</b> calendar days before the bid closing date.</p> <p>Rand Water will provide a final response on clarifications by no later than <b>ten (10)</b> calendar days before the closing date.</p>
<b>Bid Addenda</b>	Rand Water shall issue addenda, where applicable, by no later than <b>ten (10)</b> calendar days before the closing date. Bid addenda will be published on the eTender Publication Portal.
<b>Bid Submission Location</b>	<p>Bids must be submitted before or on closing date and time at the following address:</p> <p><i>Rand Water Head Office   522 Impala Road   Glenvista   2058 (in the Bid Submissions Box at the Main Gate)</i></p>
<b>Bid Validity</b>	<p>To be valid for <b>180</b> days after closing date</p> <p>Rand Water reserves the right to extend the validity period for a period reasonable for business requirements.</p>

## T1.2. BID DATA

The Standard Conditions for Bidding are outlined below and must be read in conjunction with the applicable procurement legislative prescripts:

CLAUSE NUMBER	BID DATA
T1.2.1	The Employer is Rand Water.
T1.2.2	The bid documents issued by the Employer are detailed on the contents page of this bid document.
T1.2.3	The Employer's Representative/s is stated on the cover page of this bid document.
T1.2.4	The Employer shall evaluate this bid in accordance with the evaluation criteria stated in this bid.
T1.2.5	The arrangement for a non-compulsory site meeting (where applicable) is as stated in the Notice and Invitation to Bid.
T1.2.6	The due date for seeking clarification is as stated in the Bid Notice and Invitation to Bid.
T1.2.7	<p>Bidders may propose alternative bid offer only if the main tender offer, strictly in accordance with all the requirements of this bid document, is also submitted as well as a schedule that compares the requirements of this bid document with the alternative requirements that are proposed.</p> <p>An alternative bid offer will only be considered if the main bid offer is the winning bid. Additionally, the following statements shall apply:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions.</li> <li>• Pricing Data must reflect all assumptions in the development of the pricing proposal.</li> <li>• <i>The pricing of the alternative bid offer may not exceed the pricing of the main bid offer.</i></li> </ul> <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 Contractor to accept full responsibility and liability that the alternative bid offer complies in all respects with the Employer's standards and requirements.</p>
T1.2.8	<p>Bidders must submit <b>one (1)</b> original bid document and returnables.</p> <p>USB flash drive with pdf format of the bid document and returnables may be provided in addition of the required document.</p>

	<p>The Employer's address for delivery of the bid offers is stated in the Bid Notice and Invitation to Bid.</p> <p>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.</p>
T1.2.9	Telephonic, telegraphic, telex, facsimile or e-mailed bid offers will not be accepted.
T1.2.10	The closing time for submission of bid offers is as stated in the Bid Notice and Invitation to Bid.
T1.2.11	<p>The bid offer validity period is as stated in the Bid Notice and Invitation to Bid.</p> <p><i>No bid substitutions will be allowed after the closing date and time.</i></p>
T1.2.12	See 2.1 List of Returnable Documents for a comprehensive list of certificates and additional documents required for submission with this bid.
T1.2.13	<p><i>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></i></p> <p><b>a) Test for responsiveness/Pre - qualification</b>  <i>Refer to the criteria as stated in T1.3 of this bid document. All test for responsiveness must be met in order for the bid submission to be considered further.</i></p> <p><b>b) Functionality evaluation</b>  <i>Refer to the criteria as stated in T1.3 of this bid document. A minimum score of 70 points must be obtained for the bid submission to be considered further.</i></p> <p><b>c) Preference Point System</b>  <i>The (80/20 or 90/10) Preferential Point System will be used to evaluate price and specific goal on received written price quotations. Where 80/ 90 will be allocated for Price and 20 / 10 for the Specific goals.</i></p> <p><b>i. Price Analysis</b></p> <p><b>ii. Specific Goal</b></p> <p>Rand Water specific goal is to empower previously disadvantaged designated groups. This specific goal will be evaluated and measured by using the SANAS accredited B-BBEE certificate or sworn affidavit for QSE or EME or the dtic B-BBEE certificate.</p> <p><b>Points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:</b></p> <p><b>WHERE PROCUREMENT VALUE IS R0 &lt; R50 000 000 (INCL. VAT):</b></p> $P_s = 80 * \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$ <p><b>WHERE PROCUREMENT RAND VALUE IS &gt;= R50 000 000 (INCL. VAT):</b></p> $P_s = 90 * \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$

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***

**BBBEE STATUS (P<sub>p</sub> = 10/20 maximum)**

Quantification of procurement contribution to B-BBEE

Points will 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 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

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. **Such a bidder will score zero (0) out of maximum of 10/20 for B-BBEE**

**d) Objective Criteria**

Refer to the criteria as stated in [T1.3 Evaluation Criteria](#) of this bid document.

A bid must be awarded to the bidder who scored the highest total number of points in terms of the preference point systems (price and B-BBEE points), unless objective criteria in terms of section 2(1)(f) of the Act justify the award of the bid to another bidder.

**SUMMARY**

The total number of functionality/ quality (P<sub>F</sub>) shall be the sum total of the product of quality criteria by weight allocated.

The total number of adjudication points (P<sub>T</sub>) shall equal the sum of the bid price points (P<sub>s</sub>) and the BBBEE status points (P<sub>p</sub>) i.e.

**P<sub>T</sub> = P<sub>s</sub> + P<sub>p</sub>**

**Rand Water does not bind itself to accept the bid with the highest number of adjudication points.**

T1.2.14	Rand Water shall provide to the successful bidder the signed copy of the contract after completion and signing of the form of offer and acceptance.
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## T1.3. EVALUATION CRITERIA

### T1.3.1. TEST FOR RESPONSIVENESS

1. Fully completed and signed Form of Offer.

### T1.3.2. FUNCTIONALITY EVALUATION

Bid submissions will be evaluated on the criteria outlined in items (A-I) 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 I.

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.

***Responses are required to meet a minimum of 70 percent to be further evaluated.***

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

**Professional Services (Engineering)**

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
<b>A. RECORD OF PREVIOUS EXPERIENCE: (20)</b>			Relevant to the current scope/ work (with contactable client ref.) This is based on consultant 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. If works that was costed was multi-disciplinary, the disciplines that were covered on the scope can be considered under one completion certificate or reference letter, however, it will have to be clear on the completion certificate or reference letter what disciplines were covered by the scope.			
<b>A 1. Provision of Engineering designs services, including commissioning of the full plant</b>	<b>T2.2.7</b>	<b>10</b>	Minimum of five (5) projects (provision of service) completion certificate/reference letter on provision of engineering designs of Reclamation Plants, Water treatment/purification Plants, Wastewater treatment Plants and various other designs of process plants.	Between 3 and 4 projects (provision of service) completion certificate/reference letter on provision of engineering designs of Reclamation Plants, Water treatment/purification Plants, Wastewater treatment Plants and various other designs of process plants	Between 1 and 2 projects (provision of service) completion certificate/reference letter on provision of engineering designs of Reclamation Plants, Water treatment/purification Plants, Wastewater treatment Plants and various other designs of process plants	No submission or submission that does not at least meet weak requirements.
<b>A.2. Application of water use licences (WUL), conducting environmental impact assessments (EIA),</b>	<b>T2.2.7</b>	<b>5</b>	Minimum of five (5) projects (provision of service) completion certificate/reference letter where	Between 3 and 4 projects (provision of service) completion certificate/reference letter where successful application of WUL was achieved, successfully conducting an EIA,	Between 1 and 2 projects (provision of service) completion certificate/reference letter where successful application of WUL was achieved, successfully conducting an EIA,	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%)
Geohydrological or Hydrological studies			successful application of WUL was achieved, successfully conducting an EIA, geohydrological and/or hydrological studies.	geohydrological and/or hydrological studies.	geohydrological and/or hydrological studies.	
A. 3. Provision of Land management services which include but not limited to, land acquisitions, service detections, etc	T2.2.7	5	Minimum of five (5) projects (provision of service) completion certificate/reference letter on acquisition of land for business use or industrial use through successful negotiations, conducted service detections etc.	Between 3 and 5 projects (provision of service) completion certificate/reference letter on acquisition of land for business use or industrial use through successful negotiations, conducted service detections etc	Between 1 and 2 projects (provision of service) completion certificate/reference letter on acquisition of land for business use or industrial use through successful negotiations, conducted service detections etc	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>B. PERFORMANCE ON PREVIOUS RELATED WORK DONE (5)</b>	<p>Overall performance score for similar work previously done.</p> <p>The bidder must submit a record of performance on previous work which must have a percentage rating by the client.</p> <p>The letters/ performance scores submitted shall be for the projects submitted on criterion A above.</p>					
<b>B.1 Performance Score</b>	<b>T2.2.7</b>	<b>5</b>	<p>Three or more (3) References/completion certificates with a <u>performance score</u> of 70% or above.</p> <p>Performance Scores of design projects completed of similar nature (Reclamation plants, wastewater treatment plants, water treatment plants). Designs of multidisciplinary projects</p>	<p>Two (2) References with a <u>performance score</u> of 70% or above.</p> <p>Performance scores of design projects completed of similar nature (Reclamation plants, wastewater treatment plants, water treatment plants).</p>	<p>One (1) Reference with a <u>performance score</u> of 70% or above.</p> <p>References of design projects completed of similar nature (Reclamation plants, wastewater treatment plants, water treatment plants).</p>	<p>No submission or submission that does not at least meet weak requirements.</p>
<b>C. HUMAN RESOURCE CAPACITY (25)</b>	<p>Adjudicated based on Human Resource Capacity Schedule (including company's Project Team vs. Company Organogram; Project Team Member List including CVs with qualifications, 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 current employment such as valid three months bank statement and Payslips and signed contract for every key resource/personnel must be submitted over and above the requirements below (C.1. and C6). 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. The</p>					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
resources provided must be South African, otherwise an equivalent SAQA accredited qualification with proof from SAQA is required and the foreign resource must have a valid working permit, failing which does resources will not be considered for evaluation.						
<b>C.1. Engineering designs services and conducting geotechnical services etc</b>	<b>T2.2.8</b>	<b>10</b>	Minimum of 6 Professionally registered (ECSA) personnel with Degree (BSc, B.Eng.; B.Tech) in Civil, Mechanical; Structural; Electrical; Automation (C&I); Process/Chemical Engineering, with minimum of ten (10) years of relevant and related experience in engineering designs of Reclamation Plants, Water & Wastewater treatment Plants and various other designs of process plants, including experience in	Between 4 and 5 Professionally registered (ECSA) personnel with Degree (BSc, B.Eng.; B. Tech) in Civil; Mechanical; Structural; Electrical; Automation(C&I); Process/Chemical Engineering, with minimum of five (5) to seven (7) years of relevant and related experience in engineering designs of Reclamation Plants, Water & Wastewater treatment Plants and various other designs of process plants.	Between 1 and 3 Professionally registered (ECSA) personnel with Degree (BSc, B.Eng.; B. Tech) in Civil; Mechanical; Structural; Electrical; Automation(C&I); Process/Chemical Engineering, with minimum of two (2) to four (4) years of relevant and related experience in engineering designs of Reclamation Plants, Water & Wastewater treatment Plants and various other designs of process plants.	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%)
			computational fluid dynamics Modelling for analysis of system parameters and CAESAR II Modelling for piping stress analysis			
<b>C.2. Environmental management</b>	<b>T2.2.8</b>	<b>5</b>	Minimum of three personnel with Degree (BSc or B.Tech.) in Environmental Science/Management plus a Professional registration with related Professional Registration body (EAPASA or SACNASP) and more than 8 years' experience as environmental assessor professional/specialist;	Minimum of two personnel with Degree (BSc or B.Tech.) in Environmental Science/Management plus a Professional registration with related Professional Registration body (EAPASA or SACNASP) and 5 to 6 years' experience as environmental assessor professional/specialist.	Minimum of one personnel with Degree (BSc or B.Tech.) in Environmental Science/Management plus a Professional registration with related Professional Registration body (EAPASA or SACNASP) and 2 to 4 years' experience as environmental assessor professional/specialist.	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>C.3 Geohydrology and/or Hydrology</b>	<b>T2.2.8</b>	<b>5</b>	Minimum of three personnel with applicable B Eng /B Tech degree and with a minimum of ten (10) experience in geohydrology or hydrology design and professionally registered	Minimum of two personnel with applicable B Eng/B Tech degree and five (5) to seven (7) years' experience in geohydrology or hydrology design and professionally registered	Minimum of one personnel with applicable B Eng/B Tech degree and two (2) to four (4) years' experience in geohydrology or hydrology design and professionally registered	
<b>C.4. Land management services</b>	<b>T2.2.8</b>	<b>5</b>	Minimum of three personnel with Survey/Geomatics Degree (BSc, BEng, or B.Tech.) plus, Professional Registration with related professional body (SAGC) and with a minimum of ten (10) years related experience	Minimum of two personnel with Survey/Geomatics Degree (BSc, BEng, or B.Tech.) plus, Professional Registration with related professional body (SAGC) and with a minimum of five (5) to seven (7) years related experience	Minimum of one personnel with Survey/Geomatics Degree (BSc, BEng, or B.Tech.) plus, Professional Registration with related professional body (SAGC) and with a minimum of two (2) to four (4) years related experience	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>D. PLANT AND EQUIPMENT RESOURCE CAPACITY (15)</b>	Adjudicated based on Equipment Resource Capacity (i.e., office space, required design software e.g., AutoCAD, AutoCAD Plant 3D, AutoCAD MEP, Sofistik, Surge Analysis, Civil 3D, Navisworks 3D, CAESAR II Modelling software, Prokon etc and requisite tools, vehicles and working tools). In addition, the consultant shall have the adequate Design Codes e.g., BS13445, BS8007, EN BS 1295 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.					
<b>D.1 Design Phase</b>	<b>T2.2.9</b>	<b>15</b>	Proof of ownership for: Design office space Proof of ownership of relevant licensed design software's e.g. AutoCAD, AutoCAD Plant 3D, AutoCAD MEP, Sofistik, Surge Analysis, Civil 3D, Navisworks 3D, CAESAR II Modelling, Prokon etc.	Proof of lease agreement for: Design office space Proof of lease agreement for relevant licensed design software's e.g. AutoCAD, AutoCAD Plant 3D, AutoCAD MEP, Sofistik, Surge Analysis, Civil 3D, Navisworks 3D, CAESAR II Modelling, Prokon etc.	A letter of intent to lease Design office space and relevant licensed design software's e.g. AutoCAD, AutoCAD Plant 3D, AutoCAD MEP, Sofistik, Surge Analysis, Civil 3D, Navisworks 3D, CAESAR II Modelling, Prokon etc	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>E. PROJECT RISK MANAGEMENT (7.5)</b>	<b>As per risk register provided. Provide a full report on the risk's response plan</b>					
<b>E.1. Response to tender document risks register</b>	<b>T2.2.11</b>	<b>7.5</b>	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for 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 every risk	Effectively address less than 100% of risks on the risks register including filling of all the response actions and response strategies for every risk.	No submission or submission that does not at least meet weak requirements.
<b>F. FINANCIAL MANAGEMENT PLAN (7.5)</b>	This is going to be evaluated on the how the Bidder has articulated the financial management such as initial investment and cashflow throughout the project					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
<b>F1. Financial Management Plan (5)</b>		<b>7.5</b>	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.
<b>G. METHOD STATEMENT (7.5)</b>	<b>Specific method statement in accordance with the scope of work, Aligned with Contractual requirements, logical and aligned to the scope of work.</b>					
<b>G.1. Method Statement</b>		<b>7.5</b>	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 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>H. SHERQ (5)</b>	<b>Adjudicated based on Consultants Health, Environment, Risks, Safety and Quality Policy, Plan and documentation submitted</b>					
<b>H.1. SHEQ Management Systems (5)</b>		<b>5</b>	ISO 9001, ISO 45001 and ISO 14001 certificates	Less than three ISO certificates but have internal management system for health and safety, quality and environmental. This must be coupled with signed SHEQ Plan, signed SHE Policy and signed Quality Policy	Less than three ISO certificates but have internal management system for health and safety, quality and environmental. This must be coupled without signed SHEQ Plan, signed SHE Policy and signed Quality Policy	No submission or submission that does not at least meet weak requirements.
<b>I. DETAILED PROJECT PROGRAMME (7.5)</b>	Aligned with employer's completion dates with the following specifications.					
<b>I.1. Programme Schedule</b>		<b>7.5</b>	Effective, sequential and integrated level 3 MS feasibility and design phase project schedule with durations (start and finish dates), indication of critical path. Programme schedule to be aligned to ECSA	Effective, sequential and integrated level 2 MS feasibility and design phase 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 feasibility and design phase 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.



CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
			Stage 1 to Stage 6 or SACPCMP stages.			
<b>Total</b>		<b>100</b>				

#### **T1.3.4. PREFERENCE POINT SYSTEM**

The **80/20** or **90/10** will be applied in this bid.

#### **T1.3.5. OBJECTIVE CRITERIA**

Rand Water shall apply objective criteria in accordance with the PPPFA.

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.*

## **PART T2: RETURNABLE DOCUMENTS**

### **T2.1. LIST OF RETURNABLE DOCUMENTS**

**T2.1.1 ALL RETURNABLES ARE REQUIRED FOR PURPOSES OF EVALUATION IRRESPECTIVE OF WHETHER THEY ARE DESIGNATED DISQUALIFIABLE OR NON-DISQUALIFIABLE.**

**T2.1.2 Returnable required at Tender closing (disqualifiable):**

These returnables are required to be fully completed, signed (if required on the returnable) and submitted with the bid at Bid closing date and time. If not fully completed, signed (if required on the returnable) and/or submitted by Bid closing, the bidder will be disqualified.

<b>No.</b>	<b>Description</b>	<b>Action Required</b>
1.	Form of Offer	Submit fully completed and signed copy
2.	Pricing Schedule / Bill of Quantities (BoQ)	Attach copy
3.	SBD 4 Bidder's Disclosure	Complete 6.4 and sign
4.	SBD 6.1 Preference Points	Complete 6.1 and sign
5.	Compulsory Enterprise Questionnaire	Complete T.2.2.1 and sign
6.	Resolution Letter for the Main Contractor (a letter authorising the person completing the bid to sign on behalf of the company)	Attach copy

**T2.1.3 Returnable required at Tender Closing date and time for evaluation**

These returnables are required to be submitted at bid closing date and time. A bidder that does not submit the required returnable at stipulated deadline or submits an incomplete returnable; will not be disqualified but will be scored accordingly.

No.	Description	Action Required
1.	B-BBEE certificate	Attach copy
2.	Proof of tax compliance status and a valid SARS Tax PIN	Attach copy
3.	Alternative Bid	Complete T2.2.2 and sign
4.	Qualifications to Bid	Complete T2.2.3 and sign
5.	Requirements with regard to fluctuations in the cost of labour and materials	Complete T2.2.4 and sign
6.	Record of Previous Experience, Quality of	Complete T2.2.6 and sign
7.	Human Resource Capacity Schedule,	Complete T2.2.7 and sign
8.	Equipment Resource Capacity (Plant and Equipment),	Complete T2.2.8 and sign
9.	SHERQ (Safety, Health, and Environment)	Complete T2.2.9 and sign
10.	Project Risk Management	Complete T2.2.10 and sign
11.	Financial Management Plan	Attach copy
12.	Method Statement	Attach copy

**T2.1.4 Returnable required at Tender closing (non-disqualifiable)**

These returnables are required to be fully completed, signed (if required on the returnable) and submitted with bid at Bid closing date and time; however, if not submitted by Bidder or submitted with incomplete information or without a required signature, the Senior Buyer / Sourcing Manager will, in writing, request the bidder to submit the returnable within 5 working days. If the returnable is not fully completed, signed if required and/or received by the Senior Buyer / Sourcing Manager within 5 working days of the request, the bidder will be disqualified.

No.	Description	Action Required
1.	Declaration of Insurance <i>(Including Professional Indemnity)</i>	Complete T2.2.5 and sign
2.	<ul style="list-style-type: none"> <li>3-year financial statements (audited in accordance with the organisation's relevant PI score, however limited to a minimum assurance level of an Independent Review). In addition, the current year's management report</li> </ul>	Attach copy and sign

## 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: CSD Number:**

**Section 4: 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 5: Particulars of companies and close corporations**

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

**Section 6: SBD 4 issued by National Treasury must be completed for this bid.**

**Section 7: SBD 6.1 issued by National Treasury must be completed for this bid.**

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

- i) authorizes the employer to verify the Bidders tax clearance status from the South African Revenue Services that it is in order;
- ii) 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;
- iii) 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;
- iv) 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
- v) 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: \_\_\_\_\_



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 consortium<sup>2</sup> 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 reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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



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

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL  
 PROCUREMENT REGULATIONS 2022**

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

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

**1. GENERAL CONDITIONS**

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

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

*(delete whichever is not applicable for this tender).*

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

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

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

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

The maximum points for this tender are allocated as follows:

	POINTS
<b>PRICE</b>	80/90
<b>SPECIFIC GOALS</b>	20/10
<b>Total points for Price and SPECIFIC GOALS</b>	<b>100</b>

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

## 2. DEFINITIONS

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

## 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

### 3.1. POINTS AWARDED FOR PRICE

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

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

$$P_s = 80 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right) \quad \text{or} \quad P_s = 90 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

$P_s$  = Points scored for price of tender under consideration

$P_t$  = Price of tender under consideration

$P_{min}$  = Price of lowest acceptable tender



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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)

**DECLARATION WITH REGARD TO COMPANY/FIRM**

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

4.4. Company registration number:  
.....

4.5. TYPE OF COMPANY/ FIRM

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

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm,

certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
  - (a) disqualify the person from the tendering process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person’s conduct;
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
  - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution, if deemed necessary.

	..... <b>SIGNATURE(S) OF TENDERER(S)</b>
<b>SURNAME AND NAME:</b>	.....
<b>DATE:</b>	.....
<b>ADDRESS:</b>	.....
	.....
	.....
	.....

**T2.2.2. 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: \_\_\_\_\_





**T2.2.4. 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:

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

Name of Bidder:

Signed by or on \_\_\_\_\_ Official  
behalf of Bidder: \_\_\_\_\_ Capacity: \_\_\_\_\_

Date: \_\_\_\_\_

**T2.2.5. 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			

**Table T2.2.5: 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.

**T2.2.6. 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:

<b>Description of Works</b>	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role <sup>(Note 1)</sup> :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
<b>Contact Details of Reference at Client Company</b>	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
<small>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.</small>	

Name of Bidder:

Signed by or on behalf of Bidder: \_\_\_\_\_ Official Capacity: \_\_\_\_\_

Date: \_\_\_\_\_

**T2.2.6. 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:

<b>Description of Works</b>	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role <sup>(Note 1)</sup> :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
<b>Contact Details of Reference at Client Company</b>	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
<small>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.</small>	

Name of Bidder:

Signed by or on behalf of Bidder: \_\_\_\_\_ Official Capacity: \_\_\_\_\_

Date: \_\_\_\_\_

**T2.2.6. 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:

<b>Description of Works</b>	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role <sup>(Note 1)</sup> :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
<b>Contact Details of Reference at Client Company</b>	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
<small>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.</small>	

Name of Bidder:

Signed by or on behalf of Bidder: \_\_\_\_\_ Official Capacity: \_\_\_\_\_

Date: \_\_\_\_\_

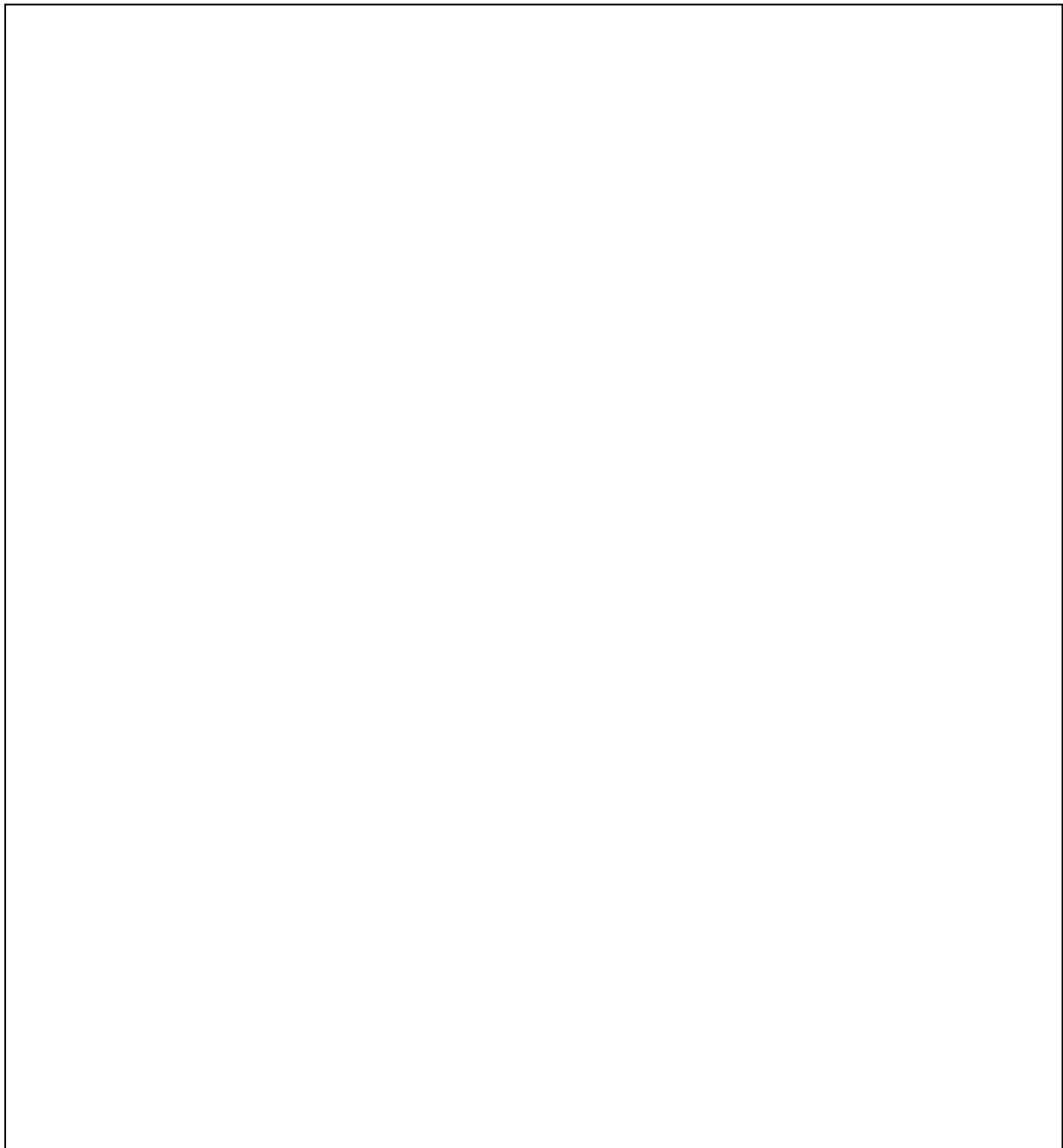
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## T2.2.7. HUMAN RESOURCE CAPACITY SCHEDULE

The aspects covered by T2.2.7.1, T2.2.7.2 and T2.2.7.3 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.

### T2.2.7.1. 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.



**T2.2.7.3. List of Current Contracts (Work Load)**

Contract or Work Title	Client	Contract Value (excl. VAT)	Role <sup>NOTE 1</sup>	Progress
				Award Date: Completion Date: % Complete: Stage <sup>NOTE2</sup> :
				Award Date: Completion Date: % Complete: Stage <sup>NOTE2</sup> :
				Award Date: Completion Date: % Complete: Stage <sup>NOTE2</sup> :
				Award Date: Completion Date: % Complete: Stage <sup>NOTE2</sup> :
				Award Date: Completion Date: % Complete: Stage <sup>NOTE2</sup> :

**NOTES**

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.
2. Stage refers to the current stage of the work (example design, procurement, construction, installation, commissioning, handed over, in Defects Liability Period etc.)
3. Attach additional signed copies of this schedule if insufficient space is available.

Name of Bidder: \_\_\_\_\_

Signed by or on behalf of Bidder: \_\_\_\_\_

Official Capacity: \_\_\_\_\_

Date: \_\_\_\_\_



**T2.2.9. SAFETY, HEALTH, AND ENVIRONMENT**

**1. Safety and Health Policy**

Bidders shall submit a copy of their company’s internal Safety and Health 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. 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

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

**Table T2.2.17: Safety, Health, and Environment**

Name of Bidder: \_\_\_\_\_

Signed by or on behalf of Bidder: \_\_\_\_\_ Official Capacity: \_\_\_\_\_

Date: \_\_\_\_\_

**T2.2.10. PROJECT RISK MANAGEMENT**

<b>PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT</b>									
Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:									
<b>RISK IDENTIFICATION</b>						<b>QUALITATIVE RISK ASSESSMENT</b>		<b>RISK RESPONSE PLAN</b>	
<b>#</b>	<b>RISK CATEGORY</b>	<b>RISK EVENT</b>	<b>CAUSE</b>	<b>EFFECT</b>	<b>THREAT OR OPPORTUNITY</b>	<b>PROBABILITY</b>	<b>IMPACT</b>	<b>RESPONSE STRATEGY</b>	<b>RESPONSE ACTIONS</b>
1	Feasibility stage	Delays in obtaining relevant information	Limited information	Infrastructure to be constructed not known	Delays in commencement. Or increase in project costs	Medium	High		
2	Feasibility Stage	Interested and Affected parties	Stiff Opposition from I and A parties to project implementation	Regulatory Compliance required for the project to commence may not be acquired in time	Delays in commencement. Or increase in project costs	Medium	High		
3	Design Phase	Poor Quality Design of designs submitted for review (incl. drawings)	Lack of Design Experience for the Design Team	Incomplete Designs	Threat	Medium	Medium		

<b>PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT</b>									
Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:									
<b>RISK IDENTIFICATION</b>						<b>QUALITATIVE RISK ASSESSMENT</b>		<b>RISK RESPONSE PLAN</b>	
<b>#</b>	<b>RISK CATEGORY</b>	<b>RISK EVENT</b>	<b>CAUSE</b>	<b>EFFECT</b>	<b>THREAT OR OPPORTUNITY</b>	<b>PROBABILITY</b>	<b>IMPACT</b>	<b>RESPONSE STRATEGY</b>	<b>RESPONSE ACTIONS</b>
4	Design Phase	Extended Design Review Period	Submission of poor design reports and packages by the Consultant	Extension of time to complete the project (cost overrun)	Threat	Low	Medium		
5	Design Phase	Lack of integration across disciplines and across other linked projects	Submission of incoherent design reports and packages by the Consultant	Re-work of the design to accommodate impact of design changes in one discipline.	Threat	Low	Medium		
6	Human Resources	Key staff resign	Working conditions, work pressure, remuneration	Negative time impact	Threat	Low	Medium		

<b>PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT</b>									
Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:									
<b>RISK IDENTIFICATION</b>						<b>QUALITATIVE RISK ASSESSMENT</b>		<b>RISK RESPONSE PLAN</b>	
<b>#</b>	<b>RISK CATEGORY</b>	<b>RISK EVENT</b>	<b>CAUSE</b>	<b>EFFECT</b>	<b>THREAT OR OPPORTUNITY</b>	<b>PROBABILITY</b>	<b>IMPACT</b>	<b>RESPONSE STRATEGY</b>	<b>RESPONSE ACTIONS</b>
7									
8									

Name of Bidder: \_\_\_\_\_

Signed by or on behalf of Bidder: \_\_\_\_\_

Official Capacity: \_\_\_\_\_

Date: \_\_\_\_\_

### T2.2.11. PENALTY TABLE

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

<b>PENALTY TABLES</b>					
<b>DELAYS ON ITEMS ATTRACTING PENALTIES</b>	<b>Value of Contract (Excl VAT.) in millions R</b>				
	<1	≥1<5	≥5<20	≥20<50	≥50
PROGRAMME AND PRELIMINARY DOCUMENTS (Rand's per day delay)	2 000	10 000	20 000	20 000	20 000
DRAWINGS AND DESIGN PACK (Rand's per day delay)	5 000	20 000	30 000	40 000	50 000
SECTIONAL COMPLETION	2% of the value of the outstanding work/ week				
OVERALL COMPLETION	2% of the value of the outstanding work/ week				
COMMISSIONING (Rand's per day delay)	10 000	20 000	30 000	40 000	50 000
<b>REMEDYING OF DEFECTS</b>					
a) Critical to asset functioning/ running (Rand's per day delay)	10 000	50 000	100 000	100 000	100 000
b) Not critical to asset functioning/ running (Rand's per day delay)	1 000	5 000	10 000	10 000	10 000
<b>SHERQ</b>					
a)SHERQ non conformances, corrective and preventative actions not resolved within the agreed target dates	1 000	5 000	10 000	10 000	10 000
Agreed target dates exceeding 5 working days					
b)Non-reporting of SHERQ incidents and statistics within the required timeframe	1 000	5 000	10 000	10 000	10 000
Within a shift / Within 24 hrs					
c) Repeat SHERQ non conformances	2 000	10 000	20 000	20 000	20 000
During Construction phase	2 000	10 000	20 000	20 000	20 000

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

##### LETTER OF TENDER

**DESCRIPTION:** APPOINTMENT OF ENGINEERING FIRM/CONSULTANT FOR THE DESIGN ENGINEERING OF NORTHERN WORKS WATER RECLAMATION PLANTS AT RAND WATER FOR A PERIOD OF 5 YEARS.

**TENDER NO:** RW10412064/24

TO: The Tender Box  
Rand Water Head Office  
522 Impala Road  
Glenvista  
Johannesburg  
Attention: Mr Bongani Ndwandwe

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 Tender 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 Tender.

The Tenderer 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, as set out in the Appendix to Tender.

We agree to abide by this Tender for a period of 180 days from the Submission Date and Time for Tenders 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 Tender.

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 Tender, 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 tender you may receive.

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

duly authorized to sign tenders 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 **APPOINTMENT OF ENGINEERING FIRM/CONSULTANT FOR THE DESIGN ENGINEERING OF NORTHERN WORKS WATER RECLAMATION PLANTS AT RAND WATER FOR A PERIOD OF 5 YEARS** 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 (incorporating the Appendix to Tender)
  - 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: \_\_\_\_\_  
Designation: **GROUP CHIEF EXECUTIVE**  
Date: \_\_\_\_\_

Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Date: \_\_\_\_\_

In the presence of the undersigned witnesses:

Name: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

Name: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

## C1.2. CONTRACT DATA

### C1.2.1. GENERAL CONDITIONS

The General Conditions of Contract are based on the “Client/Consultant Model Services Agreement” as published by the Federation Internationale des Ingenieurs-Conseils (FIDIC).

Fourth Edition 2006

As published by the Federation Internationale des Ingenieurs-Conseils (FIDIC)

### C1.2.2. PARTICULAR CONDITIONS OF CONTRACT

The General Conditions shall be amended by the Particular Conditions of Contract as detailed herein.

The following clauses – of the “Client/Consultant Model Services Agreement”, Fourth Edition 2006, as published by the Federation Internationale des Ingenieurs-Conseils (FIDIC) shall be amended as stated below:

## 1 GENERAL PROVISIONS

### 1.1 Definitions

The following words and expressions shall have the meanings assigned to them except where the context otherwise requires:

1.1.1 “**Accepted Contract Amount**” means the amount recorded in the Letter of Acceptance unless otherwise defined in the Contract Agreement; which amount may be adjusted under the terms of the Agreement.

1.1.2 “**Agreed Compensation**” means additional sums as defined in Annexure1 [*Remuneration and Payment Schedule*] which are payable under the Agreement.

1.1.3 “**Agreement**” means the terms and conditions comprising the documents listed in the Letter of Acceptance, unless otherwise defined in the Contract Agreement.

1.1.4 “**Client**” means Rand Water which is a body corporate established in terms of Section 83 of the Water Services Act 107 of 1997, who employs the Consultant, and legal successors to the Client and permitted assignees, to perform the Services.

1.1.5 “**Commencement Date**” means the date recorded in the Letter of Acceptance, unless otherwise defined in the Contract Agreement.

1.1.6 “**Consultant**” means the professional firm or individual named in the Agreement, who is employed by the Client to perform the Services.

1.1.7 “**Contract Documents**” means the Contract Agreement as well as all the documents listed therein, or the documents listed in the Letter of Acceptance if there is no Contract Agreement.

1.1.8 “**Country**” means the Republic of South Africa.

1.1.9 “**day**” means a calendar day and a “**year**” means 365 days.

1.1.10 “**Letter of Acceptance**” means the letter of formal acceptance, signed by the Client, of the Consultant’s tender.

1.1.11 “**Party**” means the Client or the Consultant and “**Parties**” means the Client and Consultant collectively while “**third party**” means any other person or entity as the context requires.

1.1.12 “**Project**” means the project named in the Particular Conditions for which the Services are to be required.

1.1.13 “**Services**” means the services defined in Appendix 1 [*Scope of Services*] to be performed by the Consultant in accordance with the Agreement and comprise Normal Services, Additional Services and Exceptional Services.

1.1.14 “**Time for Completion**” means the time period stated for this purpose in the Particular Conditions.

1.1.15 “**Works**” means the permanent works (if any) to be executed (including the goods and equipment to be supplied to the Client) for the achievement of the Project.

1.1.16 “**written**” or “**in-writing**” mean hand-written, type-written, printed or electronically made, and resulting in a permanent un-editable record.

### 1.2 Interpretation

1.2.1 The headings herein shall not be taken into consideration in the interpretation of these Conditions.

1.2.2 The singular includes the plural and vice-versa where the context requires.

1.2.3 The documents forming this Agreement are to be taken as being mutually explanatory of one another, if there is a conflict between any of the provisions contained in the contract documentation the precedence of such documents shall be in the order prescribed in the Contract Agreement.

1.2.4 Words indicating one gender include all genders.

1.2.5 Provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing, and signed by both Parties.

### 1.3 Communications

Whenever provision is made for the giving or issue of any notice, instruction or other communication by any person, such communication shall be in writing in the language of the Agreement, which notice, instruction or other communication shall not be unreasonably withheld or delayed.

### 1.4 Governing Language and Law

1.4.1 The language of the Agreement is English.

1.4.2 The Agreement shall be governed, construed and interpreted in accordance with the law of the Republic of South Africa.

### 1.5 Changes in Legislation

If after the date of the Agreement the cost or duration of the Services is altered as a result of changes in or additions to the laws or regulations in any country in which the Services are required by the Client to be performed the agreed remuneration and time for completion shall be adjusted accordingly.

### 1.6 Whole Agreement

The Contract Documents constitute the whole agreement between the Parties and no prior representation, and/or previous agreement, and/or representation, and/or previous agreement, and/or negotiations whether oral or written, which is not incorporated in the Agreement shall be of any force or effect. In addition no representation or agreement or addendum varying, adding to, deleting or cancelling this Agreement shall be of any force or effect unless reduced to writing and signed non-electronically by both Parties.

### 1.7 Waiver

No grant by either Party to the other of any indulgences, condonation, waiver or allowance shall, in respect of any specific event or circumstance other than in respect of which the grant was made, constitute a waiver of the rights of the grantor in terms of the Agreement or an estoppel of the grantor's right to enforce the provisions of the Agreement.

### 1.8 Assignment

Neither the Client nor the Consultant shall, without the written consent of the other, assign the Contract or any part thereof or any obligation under the Contract.

### 1.9 Subcontracting

The Consultant shall not without the written consent of the Client initiate or terminate any sub-contract for performance of all or part of the Services.

### 1.10 Intellectual Property Rights

For the purposes of this Sub-Clause, Intellectual Property means statutory and common law proprietary rights in respect of patents, designs, copyright, know how, confidential information, domain names, drawings, data and all other rights in respect of Intellectual Property compiled, created or prepared in execution of the Services to be performed in terms of the Agreement.

As between the Parties, all rights, title and interest and copyright in and to any Intellectual Property, and other intellectual property rights in the Consultant's documents and other design documents made by (or on behalf of) the Consultant and in and to any and all documents prepared in connection with the Agreement shall vest in the Client.

### 1.11 Notices

Notices to be served under the Agreement shall be in writing and will take effect from receipt at the addresses stated in the Particular Conditions. Delivery can be by email and/or registered post.

### 1.12 Publications

The Consultant, either alone or jointly with others, shall not publish any material relating to the Services or the Project without the prior written approval of the Client.

### 1.13 Conflict of Interest Corruption and Fraud

Notwithstanding any penalties that may be enforced against the Consultant under the Law, the Client will be entitled to terminate the Agreement in accordance Sub-Clause 4.6.2 and the Consultant shall be deemed to have breached Sub-Clause 3.3.1 if it is shown that the Consultant is guilty of:

- a) offering, giving, receiving or soliciting anything of value with a view to influencing the behaviour or action of anyone, whether a public official or otherwise, directly or indirectly in the selection process or in the conduct of the Agreement; or
- b) misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Client, including the use of collusive practices intended to stifle or reduce the benefits of free and open competition.

### 1.14 Confidentiality

Unless otherwise provided for in the Agreement, and with the exception of those matters set out hereinbelow, the Parties warrant that each shall keep confidential all matters relating to the Project, and that the Parties, their employees, agents and servants shall not divulge or disclose to any organisation or any person any information, data, documents, secrets, dealings, transactions or affairs relating to or incidental to the Works and/or the Project.

The obligation of confidentiality shall not apply to the following:-

- (a) any matter generally available in the public domain otherwise than as a result of a breach of this Sub-Clause;
- (b) any disclosure which may reasonably be required for the performance of that Party's obligations under the Agreement;
- (c) disclosure of information which is required by statute, regulation or any other law;
- (d) the provision of information to contractors, consultants, sub-contractors or suppliers for purposes of executing the Works and/or the Project, provided that the obligations of confidentiality herein shall be imposed mutatis mutandis upon such contractors, consultants, sub-contractors or suppliers in their respective contracts; or
- (e) the provision of information to any third person with the express written permission of the other Party.

## 2. THE CLIENT

### 2.1 Information

The Client shall timeously provide to the Consultant, free of cost, all information that may be reasonably required for the provision of the Services. The Consultant shall be entitled to rely on the accuracy and completeness of such information furnished by or on behalf of the Client.

### 2.2 Decisions

The Client shall give his decision on all matters properly referred to him in writing by the Consultant within a reasonable time so as not to delay the Services to be provided.

### 2.3 Equipment and Facilities

The Client shall make available, free of cost, to the Consultant for the purpose of the Services the equipment and facilities described in Annexure 2 [*Schedule of Personnel, Equipment, Facilities and Services of Others to be Provided by the Client*].

### 2.4 Client's Personnel

2.4.1 In consultation with the Consultant, the Client shall at his own cost arrange for the selection and provision of personnel in his employment to the Consultant in accordance with Annexure 2 [*Schedule of Personnel, Equipment, Facilities and Services of Others to be Provided by the Client*]. In connection with the provision of the Services such personnel shall take instructions only from the Consultant.

2.4.2 If the Client cannot supply Client's personnel for which he is responsible and it is agreed to be necessary for the satisfactory performance of the Services, the Consultant shall arrange for such supply as an Additional Service.

### 2.5 Client's Representative

2.5.1 The Client shall appoint a Client's Representative to carry out those duties delegated to him in terms of the Agreement and in addition shall monitor and report to the Client on conformance by the Consultant with the provisions of the Agreement. In addition the Client's Representative shall be authorised to receive, on behalf of the Client, all notices, correspondence and other communications issued pursuant to the Agreement.

2.5.2 The Client's Representative shall have no authority to relieve the Consultant of any of its duties, obligation or responsibilities under the Agreement or to amend any of the terms thereof.

2.5.3 All services to be provided by the Consultant shall be to the reasonable satisfaction of the Client's Representative. In addition the Client's Representative may instruct the Consultant to:-

- (a) appoint additional personnel at no cost to the Client where the Client's Representative considers that the Consultant is not complying with the provisions of the Contract and/or to
- (b) terminate the involvement of any person on the Contract where the Client's Representative considers the presence of such person to be contrary to the interests of the Agreement and/or the Project.

2.5.4 No approval given by the Client's Representative shall relieve the Consultant of its obligations under the Contract.

2.5.5 Where the Client's Representative is required to determine value, quantities, cost or extensions of time he shall consult and endeavour to reach agreement with the Consultant and in all cases shall determine such matters fairly, reasonably and in accordance with the Agreement.

2.5.6 The Client's Representative may from time to time delegate any of his duties to an assistant, and may at any time revoke any such delegation. Such delegation or revocation shall be in writing and shall not take effect until a copy of same has been delivered to both Parties.

2.5.7 Any determination, instruction, inspection, examination, test, consent, approval or other similar act by an assistant delegated in terms of Sub-Clause 2.5.6 shall have the same effect as if it had been

given by the Client's Representative itself. However, in the event of the Consultant questioning or disputing any determination or instruction, given by the said assistant, the Consultant may refer such matter to the Client's Representative, who shall confirm, reverse or vary such determination or instruction.

### 2.6 Services of Others

The Client shall at its cost arrange for the provision of services from others as described in Annexure 2 [*Schedule of Personnel, Equipment, Facilities and Services of Others to be Provided by the Client*] and the Consultant shall co-operate with the suppliers of such services but shall not be responsible for them or their performance.

### 2.7 Payment of Services

The Client shall pay the Consultant for the Services in accordance with Clause 5 [*PAYMENT*] hereof.

## 3. THE CONSULTANT

### 3.1 Scope of Services

The Consultant shall perform Services relating to the Project. The Scope of Services to be provided are as stated in Appendix 1 [*Scope of Services*].

### 3.2 Normal, Additional and Exceptional Services

3.2.1 Normal Services are those described as such in Appendix 1 [*Scope of Services*].

3.2.2 Additional Services are those described as such in Appendix 1 [*Scope of Services*] or which by written agreement of the Parties are otherwise additional to Normal Services.

3.2.3 Exceptional Services are those which are not Normal or Additional Services but which are necessarily performed by the Consultant in accordance with Sub-Clause 4.7 [*Exceptional Services*].

### 3.3 Duty of Care and Exercise of Authority

3.3.1 The Consultant shall exercise reasonable skill, care and diligence in the performance of its obligations under the Agreement.

3.3.2 Where the Services include the exercise of powers to certify or exercise discretion in terms of a contract between the Client and any third party the Consultant shall act in accordance with that contract, but as an independent professional acting with reasonable skill, care and diligence.

### 3.4 Client's Property

Anything supplied by or paid for by the Client for the use of the Consultant shall be the property of the Client and where practical shall be so marked.

### 3.5 Supply of Personnel

3.5.1 The personnel who are proposed by the Consultant to work in the Country shall be subject to acceptance by the Client with regard to their qualifications and experience; such acceptance shall not be unreasonably withheld.

3.5.2 Where the Client requires the Consultant to nominate key Personnel in Annexure 6 [*Schedule of Consultant's Key Personnel*] hereto, such Personnel shall not be removed from the Project without the Client's express permission. Substituted Personnel shall have equivalent qualifications and experience.

3.5.3 The Consultant shall furnish the Client and the Client's Representative with a list of addresses and telephone numbers of personnel in the Consultant's organisation who may be contacted in any emergency both during and outside normal working hours.

### 3.6 Consultant's Representative

3.6.1 The Consultant shall appoint a Consultant's Representative who shall give of his whole time to directing the execution of the Services to be provided by the Consultant in terms of the Agreement. In addition the Consultant's Representative shall be authorised to receive, on behalf of the Consultant, all notices, instructions, consents, approvals, certificates, determinations, correspondence and other communications issued pursuant to the Agreement.

3.6.2 The Consultant shall not revoke the appointment of the Consultant's Representative without the prior consent of the Client's Representative.

3.6.3 The Consultant's Representative may from time to time delegate any of his duties to any competent person, and may at any time revoke any such delegation. Such delegation or revocation shall be in writing and shall not take effect until the Client's Representative has received prior notice signed by the Consultant's Representative, specifying the powers, functions and authority being delegated or revoked.

### 3.7 Changes in Personnel

3.7.1 If it is necessary to replace any of the personnel provided by the Consultant, the Consultant shall arrange for replacement by a person of comparable competence as soon as reasonably possible.

3.7.2 The cost of such replacement shall be borne by the Consultant except where the replacement is requested by the Client, and in such case:

- (a) the request shall be in writing stating the reasons for it; and
- (b) the Client shall bear the cost of replacement unless it is agreed that misconduct or inability to perform satisfactorily is accepted as the reason for the replacement by the Consultant.

### 3.8 Co-operation with Others

The Consultant may be required to perform the Services in conjunction with other consultants or specialists who are providing services to the Project and he may make recommendations to the Client in respect of such appointments for certain parts of the Project. In such case the Consultant shall only be responsible for his own performance and the performance of his sub-consultants or specialists who have specifically been appointed by the Consultant to assist him with the Services to be provided under this Agreement.

### 3.9 Statutory Obligations, Notices Fees and Charges

3.9.1 The Consultant shall 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 Agreement and shall indemnify, and keep indemnified the Client, against damages that it may suffer as a result of any breach by the Consultant, 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 Agreement.

3.9.2 The Consultant shall be responsible for payment of all costs, taxes, duties, levies and charges arising out of compliance with such laws and regulations.

3.9.3 The Consultant shall be liable for, and shall indemnify the Client against any claim arising out of the Consultant's non-compliance with any laws and regulations applicable to the execution of this Agreement.

### 3.10 Progress Meetings

3.10.1 The Consultant shall arrange and attend meetings with the Client and/or its representatives at the request of the Client, but not less frequently than once every month during the currency of the Agreement, in order to monitor the progress of the Services to be provided.

3.10.2 The purpose of the meetings is also to raise and address matters of concern to the Client, and/or the Consultant. The Consultant shall be responsible for chairing the meetings, taking minutes and distributing minutes within one week of the date of each meeting.

### 3.11 Safety Procedures

At all times the Consultant shall:-

- (a) comply strictly with the Client's site SHE Specifications/Rules, applicable legislation, other requirements and regulations from time to time in force, a copy of which is deemed to be incorporated into and shall be read as part of the Agreement;
- (b) be responsible for the safety and welfare of all its employees and shall comply to all relevant SHE requirements;
- (c) familiarize himself with all the Client's internal SHEQ systems, regulations, policies and procedures and all legislative or statutory requirements with regard to the health and safety of the Consultant's employees;
- (d) ensure that all his personnel are fully briefed with regards to all relevant policies and safety procedures and that all personnel have attended any required inductions;
- (e) ensure that all personnel sign their acceptance of these procedures and regulations – which signed documents are to be kept in a register which is to be made available at all times for inspection;
- (f) at its own cost provide all of its employees with all necessary safety equipment, namely, safety boots, hard hats, overalls etc. and will at all times adhere to the Client's standards as well as the site rules and regulations, including his sub-consultants and their employees, the South African safety regulations in particular, the Occupational Health and Safety Act (No. 85 of 1993) and relevant regulations and their latest revisions;
- (g) be responsible for the discipline of its employees and shall, at the Client's request, remove from the site any incompetent or undesirable employees.

### 3.12 Security

The Consultant shall at all times remain responsible for the security of his own equipment. In addition the Consultant shall fully acquaint himself and strictly comply with all the Client's security regulations particularly with regard to personnel, plant, material and equipment entering or leaving the Client's property.

### 3.13 Health and Safety

3.13.1 The Consultant is responsible for the safety and welfare of its employees and Sub-consultants employed on the Project and shall provide medical facilities as such facilities shall only be provided for by the Client under special circumstances.

3.13.2 The Consultant's attention is directed to the requirements of the Occupational Health and Safety Act No. 85 of 1993 as amended, its Regulations and the site rules and regulations of the Client shall at all

times be adhered to by the Consultant, his employees and his Sub-consultants.

### 3.16 Protection of the Environment

The Consultant's attention is directed to Client's SHEQ Policy a copy of which is appended to the Agreement as Appendix 2 (Technical Part).

The Consultant shall comply with all requirements, stipulations and the like of any Environmental Impact Assessment undertaken and/or issued in respect of the Project and/or the Works.

## 4.COMMENCEMENT, COMPLETION, VARIATION AND TERMINATION

### 4.1 Effective Date

5. The Agreement is effective from the date of the Letter of Acceptance or on the effective date of the Contract Agreement whichever is the latter.

6.

### 7. 4.2 Commencement and Completion

The Services shall be commenced on the Commencement Date, shall proceed in accordance with the Time Schedule in Annexure 3 [*Time Schedule for Services*], and shall be completed within the Time for Completion, subject to extensions in accordance with the Agreement.

### 4.3 Variations

4.3.1 The Client may order variations to the Services in writing or may request the Consultant to submit proposals, including the time and cost implications, for variations to the Services.

4.3.2 The incorporation into the Agreement of any variations to the Services ordered by the Client, including any increase in the Consultant's fees and reimbursable costs, shall be agreed between the Consultant and the Client.

### 4.4 Delays

If the Services are impeded or delayed by the Client or his contractors so as to increase the scope, cost or duration of the Services:

- (a) the Consultant shall inform the Client of the circumstances and probable effects;
- (b) the increase in scope and/or costs shall be regarded as an Additional Service; and
- (c) the time for completion of the Services shall be increased accordingly.

### 4.5 Changed Circumstances

If circumstances arise for which neither the Client nor Consultant is responsible and which make it irresponsible or impossible for the Consultant to perform in whole or in part the Services in accordance with the Agreement he shall promptly dispatch a notice to the Client.

In these circumstances:

- (a) if certain Services have to be suspended, the time for their completion shall be extended until the circumstances no longer apply plus a reasonable period not exceeding 42 days for resumption of them; and
- (b) if the speed of performing certain Services has to be reduced, the time for their completion shall be extended as may be made necessary by the circumstances.

### 4.6 Abandonment, Suspension or Termination

4.6.1 The Client may suspend all or part of the Services or terminate the Agreement by notice of at least 30 days to the Consultant who shall immediately make arrangements to stop the Services and minimise further expenditure.

4.6.2 If the Client considers that the Consultant is without good reason not discharging his obligations he can inform the Consultant by notice stating the grounds for the notice. If a satisfactory reply is not received within 14 days the Client may by a further notice terminate the Agreement provided that such further notice is given within 35 days of the Client's former notice.

4.6.3 After giving at least 14 days notice to the Client, the Consultant may by a further notice of at least 42 days terminate the Agreement, or at his discretion without prejudice to the right to terminate, may suspend or continue suspension of performance of the whole or part of the Services:-

- (a) when 28 days after the due date for payment of an invoice he has not received payment of that part of it which has not by that time been contested in writing, or
- (b) when Services have been suspended under either Sub-Clause 4.5 [*Changed Circumstances*] or Sub-Clause 4.6.1 and the period of suspension has exceeded 182 days.

### 4.7 Exceptional Services

4.7.1 Upon the occurrence of circumstances described in Sub-Clause 4.5 [*Changed Circumstances*] or abandonment or suspension or resumption of Services or upon termination of the Agreement otherwise than under the provisions of Sub-Clause 4.6.2 any necessary work or expense by the Consultant extra to the Normal and Additional Services shall be regarded as Exceptional Services.

4.7.2 The performance of Exceptional Services shall entitle the Consultant to extra time necessary for their performance and to payment for performing them.

### 4.8 Rights and Liabilities of Parties

4.8.1 Termination of the Agreement shall not prejudice or affect the accrued rights or claims and liabilities of the Parties.

4.8.2 After termination of the Agreement the provisions of Sub-Clause 6.4 [*Limit of Compensation*] shall remain in force.

## 5. PAYMENT

### 5.1 Payment to the Consultant

5.1.1 The Client shall pay the Consultant for Normal Services in accordance with the Conditions and with the details stated in Annexure 1 [*Remuneration and Payment*], and shall pay for any Additional Services at rates and prices which are given in or based on those in Annexure 1 [*Remuneration and Payment*] so far as they are applicable but otherwise as are agreed in accordance with Sub-Clause 4.3 [*Variations*].

5.1.2 Unless otherwise agreed in writing the Client shall pay the Consultant in respect of Exceptional Services:

- (a) as for Additional Services for extra time spent by the Consultant's personnel in the performance of the Services, and
- (b) the net cost of all other extra expense incurred by the Consultant.

5.1.3 Where the Client has required the Consultant to appoint selected consultants as the Consultant's sub-consultants, fees owed to those sub-consultants shall be due to the Consultant in addition to the Consultant's own fees.

## 5.2 Time for Payment

5.2.1 The Consultant shall submit monthly statements/invoices complete with all supporting documentation thereto to the Client by the 25<sup>th</sup> day of the month following the month in which the Services were rendered.

In the event that the Consultant fails to submit a statement by the 25<sup>th</sup> day of the month any late submission will only be evaluated in the next month.

Payment will be effected 30 days from date of statement.

5.2.2 If the Consultant does not receive payment by the due date in terms of Sub-Clause 5.2.1 he shall be paid Agreed Compensation at the rate defined in the Particular Conditions on the sum overdue reckoned from the due date for payment of the invoice until the actual date on which payment is received. Such Agreed Compensation shall not affect the rights of the Consultant stated in Sub-Clause 4.6.3.

## 5.3 Currencies of Payment

The currencies applicable to the Agreement are those stated in Annexure 1 [*Remuneration and Payment Schedule*]

## 5.4 Disputed Invoices

If any item or part of an item in an invoice submitted by the Consultant is contested by the Client, the Client shall give notice with reasons of his intention to withhold payment and shall not delay payment on the remainder of the invoice. Sub-Clause 5.2.2 shall apply to all contested amounts which are finally determined to have been payable to the Consultant.

## 5.5 Independent Audit

5.5.1 The Consultant shall maintain up-to-date records which clearly identify relevant time and expense and shall make these available to the Client on reasonable request.

5.5.2 Except where the Agreement provides for lump sum payments, not later than twelve months after the completion or termination of the Services, the Client can at notice of not less than 7 days require that a reputable firm of accountants nominated by him audit any amount claimed by the Consultant by attending during normal working hours at the office where the records are maintained.

## 6. LIABILITIES

### 6.1 Liability of the Parties

6.1.1 Neither Party shall be liable to the other for loss of profit or other special damages unless such loss of profit or other special damages was expressly contemplated at the time of entering into the Agreement.

6.1.2 In the event of the Client having a claim against the Consultant, the Client shall be entitled to set off such claim against any amounts due to the Consultant, or to deduct same from any security held by the Client, notwithstanding that such claim may be unliquidated.

### 6.2 Compensation

If it is considered that either party is liable to the other, compensation shall be payable only on the following terms:

- (a) Such compensation shall be limited to the amount of reasonably foreseeable loss and damage suffered as a result of such breach, but not otherwise;

In any event, the amount of such compensation will be limited to the amount specified in Sub-Clause 6.4 [*Limit of Compensation*].

### 6.3 Duration of Liability

Neither the Client nor the Consultant shall be considered liable for any loss or damage resulting from any occurrence unless a claim is formally made on him before the expiry of the relevant period stated in the Particular Conditions, or such earlier date as may be prescribed by law.

### 6.4 Limit of Compensation

6.4.1 The maximum amount of compensation payable by either party to the other in respect of liability under this Agreement is limited to the amount stated in the Particular Conditions. This limit is without prejudice to any Agreed Compensation specified under Sub-Clause 5.2.2 or otherwise imposed by the Agreement.

6.4.2 Each Party agrees to waive all claims against the other in so far as the aggregate of compensation which might otherwise be payable exceeds the maximum amount payable.

6.4.3 If either Party makes a claim for compensation against the other Party and this is not established the claimant shall entirely reimburse the other for his costs incurred as a result of the claim.

### 6.5 Indemnity

So far as the law governing this Agreement permits, the Client shall indemnify the Consultant against the adverse effects of all claims including such claims by third parties which arise out of or in connection with the Agreement including any made after the expiry of the period of liability referred to in Sub-Clause 6.3 [*Duration of Liability*], except insofar as they are covered by the insurances arranged under the terms of Clause 7 [*INSURANCE*].

### 6.6 Exceptions

Sub-Clauses 6.4 [*Limit of Compensation*] and 6.5 [*Indemnity*] do not apply to claims arising:

- (a) from deliberate default or reckless misconduct, or
- (b) otherwise than in connection with the performance of obligations under the Agreement.

## 7. INSURANCE

### 7.1 Professional Indemnity

The Consultant agrees to arrange and keep in force professional indemnity insurance cover in respect of the Services provided under this Agreement to the extent of the liability under Sub-Clause 6.4 [*Limit of Compensation*] until the time at which that liability shall cease in terms of Sub-Clause 6.3 [*Duration of Liability*]. The insurance cover may alternatively be provided by means of an equivalent performance bond.

### 7.2 Additional Insurances

The Consultant agrees to arrange and maintain at its own cost until the time at which liability shall cease in terms of Sub-Clause 6.3 [*Duration of Liability*], the following additional insurances:-

- (a) Third Party Liability Insurance;
- (b) Comprehensive Motor Vehicle Insurance;
- (c) Fidelity Guarantee;
- (d) Workers Compensation;
- (e) Group Personal Accident;
- (f) Group Life Assurance;

Southern Africa. The cost of the mediation shall be born equally between the Parties.

**8.3 Arbitration**

8.3.1 If either Party were unwilling to agree to mediation or be dissatisfied with the opinion expressed by the mediator or should the mediation fail then such Party may refer the dispute to arbitration by a single arbitrator to be mutually agreed upon or, failing agreement, to be nominated by the Chairman of the Association of Arbitrators (Southern Africa). The Arbitration shall be in terms of the Rules for the Conduct of Arbitrations as published by the said Association of Arbitrators. Referral to arbitration under this Sub-Clause shall take place within three months of the date of notice from either party declaring that the settlement negotiations under Sub-Clause 8.1 [*Amicable Dispute Resolution*] have failed, or, if mediation is agreed on, within three months of the date of the mediator's opinion or the date upon which the mediator declares that the mediation has failed, Claims not bought within the time periods set out herein will be deemed to be waived.

8.3.2 The said Rules shall be those Rules current at the date of declaration of the dispute.

8.3.3 The Arbitration shall be held in Johannesburg in the language of the Agreement.

**8. SETTLEMENT OF DISPUTES**

**8.1 Amicable Dispute Resolution**

The Parties shall seek to resolve in good faith any dispute or difference arising between them in respect of any matter connected with this Agreement, including the validity of the Agreement, and may not initiate any further proceedings until either Party has, by written notice to the other, declared that such negotiations have failed.

**8.2 Mediation**

Any such dispute or claim, which cannot be settled between the Parties, may be referred by the Parties, without legal representation, to mediation by a single mediator. The mediator shall be selected by agreement between the Parties and, failing such agreement, shall be nominated by the Chairman of the Association of Arbitrators of

CLAUSE	CLAUSE HEADING	CONDITION
5	<b>PAYMENT</b> <b>5.2 Time for Payment</b>	<b>Agreed compensation for overdue payment</b>  .....% per annum
6	<b>LIABILITIES</b>  <b>6.3 Duration of Liability</b>	Duration of liability is 5 years calculated from the commencement date.
	<b>6.4 Limit of Compensation</b>	Insert Rand Value

## PART C2: PRICING DATA

### C2.1. PRICING ASSUMPTIONS

1. These Bills of Quantities (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 Bills of Quantities 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 Bills of Quantities 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 Bills of Quantities 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.

### C2.2. PRICING SCHEDULES / BILLS OF QUANTITIES (BoQ)

The Bidder must refer to **Annexure C2.2: Pricing Schedule / Bill of Quantities (BoQ)** provided with this bid document.

**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 01 January 2025 access to undertake work will only become available after the issue of the Site Access Certificate.
2. All equipment, plant, design documentation shall be handed over by 31 August 2028 and the Bidder's programme shall comply with this requirement by the Employer.
3. The contract shall end upon the exhaustion of funds on the purchase order or after 5 years whichever occurs earlier (**Unless an EOT is granted by Delegated Authority**).

### C3.2. SCOPE OF WORK

Due to water scarcity in South Africa, Rand Water has developed a strategy that maximizes the utilization of available surface water and groundwater resources. As part of maximizing the available surface water within the distribution network, Rand Water took a decision to reclaim and treat the effluent produced in wastewater works that are within its area of water supply and therefore, the scope of works for this tender is to design and develop the Water Reclamation within the Rand Water's area of supply.

The bidder should also make provision for a process of comparing and evaluating the performance, practices and strategies of water purification installations in other countries to identify best practices, areas of improvement and opportunities for growth (i.e. benchmarking). This, among others, shall include arrangements to physically visit similar installations and/or OEM facilities to gain insight on selected technologies.

As a minimum, the following performance indicators shall be considered for benchmarking:

- Contaminant removal efficiencies
- Water quality standards compliance
- Energy consumption
- Maintenance requirements
- Flexibility

This list is not exhaustive.

The bidder is therefore expected to provide a detail quotation on the following;

1. Conduct a feasibility study for each water reclamation plant. The Consultant shall refer to Section C7 in this document for the guideline on requirement(s) for feasibility study of an industrial effluent water treatment plant to potable water standards

2. It is expected of the Consultant to do all the groundwork pertaining to pre-investigation studies and provide a detailed report for perusal and acceptance.
3. Investigate and acquire the land where the plant will be constructed. Subsequently, conduct Geotech and geohydrological studies.
4. Fully costed detail designs of the Water Reclamation plants (Northern Works and Olifantsfontein). Provide a). the detail design with costs of Water Reclamation Plant producing both the industrial grade water and the potable water. The designs must include the reticulation network costs to the nearest off taker (for industrial grade water) or Rand Water nearest infrastructure.

<b>Name of the Water Reclamation Plant</b>	<b>Confirmed Allocation / Expected Design capacity (MI/day)</b>
<b>Northern Works WRP</b>	50 MI/day
<b>Olifantsfontein WRP</b>	70 MI/day

\*WRP = Water Reclamation Plant

All work must be done in accordance with relevant legislation at a minimum, the latest revision of the act shall apply.

- Engineering Professions Act of 2000 (Act 46 of 2000)
  - Occupational Health and Safety Act (Act 85 of 1993) and its regulations, such as Pressure Equipment Regulations, Major Hazard Installation Regulations, Hazardous Chemical Substances Regulations and any other relevant regulations
  - National Water Act (Act 36 of 1998) Inclusive of the Dam Safety Regulation
  - National Environmental Management Act (107 of 1998)
  - National Environmental Waste Management Act (59 of 2008)
  - Critical Infrastructure Protection Act (8 of 2019)
- a) The consultant shall submit the proposal indicating the following
- The project team to be used in line with the tender requirements.
  - The hourly rate per individual in line with the tender rates
  - The CV of each team member supported by the required professional registration in the correct registered category, qualifications, and experience.
  - The method statement for the proposed work.
  - The duration of the tasks
  - The total sum hours for the proposal
  - Program for the duration of the designs
  - The professional indemnity covering the works in the relevant category. The Consultant shall ensure that Professional Indemnity cover is adequate to cover the value of the complete design/works.

- b) The Rand Water shall conduct internal checks and balances. Once this is complete the consultant and Rand Water shall agree to the proposal, and both shall sign at the bottom of the proposal.
- c) During the implementation phase interim progress meetings shall be held with the Rand Water Representative these shall be minuted and recorded.
- d) Once the deliverable has been accepted the consultant may proceed to submit the invoice for payment. The invoices shall be accompanied by the deliverables (upfront design studies e.g., geotechnical report, surge studies, inception report, preliminary designs, detailed designs, drawings, specifications, engineering evaluation reports, financial evaluation of assets etc)
- e) The preliminary and detailed design submission shall include but not limited to the detailed design deliverables listed in Annexure C6
- f) The Consultant shall ensure that the design ensures the quality of industrial grade water produced in the reclamation meets and/or exceeds the requirements of the industries that will be supplied with industrial grade water.
- g) The consultant shall engage with industries (off takers) that will be supplied with industrial grade water to ensure that their industrial grade water requirements are satisfied.
- h) It shall be incumbent upon the Consultant to engage with individual plant operations to ascertain the quality of the water at the abstraction point (i.e. each plant's battery limit) so as to influence the basis of design for the treatment plant for potable water production.
- i) The reclaimed water pipeline routes shall be determined during inception and preliminary design phase. This shall include buffer storage receptacles/ reservoirs at both source and off takers.
- j) The consultant shall proceed to the next stage of the works once the previous stage has been completed and accepted.
- k) As part of deliverables, the Consultant shall develop a detailed construction programme, which shall be level 3 and resource loaded.
- l) Each invoice shall be accompanied with a statement of purchase order indicating the order value and balance of funds available. Should the consultant overrun the purchase order value this shall be to their own account.

### **C3.2.1. 2. BASIS OF PROFESSIONAL FEES CALCULATION**

#### **C3.2.1.2.1. Basis of calculation of professional fees**

(a) The basis of calculation for professional fees shall be time based due to the nature project. Time based fees shall be all-inclusive fees, including allowances for overhead charges incurred by the consultant as part of normal business operations, including the cost of management, as well as payments to administrative, clerical and secretarial staff used to support professional and technical staff in general and not on a specific project only.

b) Time based fees are calculated by multiplying the hourly rate contemplated which is applicable to the consultant or any other technical staff employed by the consultant, with the actual time spent by such technical staff in rendering the services required by the client. Technical staff include all staff performing work directly related to the execution of the services the consultant is engaged for by the client and excludes all administrative, clerical and secretarial staff used to support professional and technical staff in general and not on a specific project only, but includes the typing of letters, minutes, reports and documents for projects.

c) The consultant hourly rates shall be deemed to include provision for the following expenses in his professional fee calculations to cater for all or any of the following items: no claims shall be entertained.

- i. All expenses actually incurred by the consultant and members of the consultant's staff in rendering their services.
- ii. Travelling expenses for the conveyance of the consultant or a member of the consultant's staff by means of private motor transport, including any parking charges, toll fees and related expenses; a scheduled airline or a train, bus, taxi or hired car; or non-scheduled or privately owned air transport.
- iii. Travelling time for all time spent in travelling by the consultant or members of his staff.
- iv. Costs of typing, production, copying and binding of contract documents, pre-qualification documents, feasibility reports, preliminary design reports, final reports and manuals, excluding general correspondence, minor reports, contractual reports, progress reports, etc.
- v. Expenses on special reproductions, copying, printing, artwork, binding and photography, etc. requested by the client.
- vi. In conducting all the specialist / investigation studies, the rate must be all inclusive of all costs required to produce the specialist study reports deliverables as per tender specification).

#### **C3.2.1.2.2. Categories of personnel**

To determine the time-based fee rates the persons concerned are divided into four categories: -

(a) **Category A**, in respect of a private consulting practice in engineering, shall mean a top practitioner whose expertise and relevant experience is nationally or internationally recognized and who provides advice at a level of specialization where such advice is recognized as that of an expert.

(b) **Category B**, in respect of a private consulting practice in engineering, shall mean a partner, a sole proprietor, a director, or a member who, jointly or severally with other partners, co-directors or co-members, bears the risks of the business, takes full responsibility for the liabilities of such practice, where level of expertise and relevant experience is commensurate with the position performs work of a conceptual nature in engineering design and development, provides strategic guidance in planning and executing a project and/or carries responsibility for quality management pertaining to a project.

(c) **Category C**, in respect of a private consulting practice in engineering, shall mean all salaried professional staff with adequate expertise and relevant experience performing work of an engineering nature and who carry the direct technical responsibility for one or more specific activities related to a project. A person referred to in Category B may also fall in this category if such person performs work of an engineering nature at this level.

(d) **Category D**, in respect of a private consulting practice in engineering, shall mean all other salaried technical staff with adequate expertise and relevant experience performing work of an engineering nature with direction and control provided by any person contemplated in categories A, B or C. The maximum time base fee rates shall be based on clause 4.5 Indicative Time-Based Fee rates as periodically published by and updated by Engineering Council of South Africa.

**C3.2.2.1. FEE PAYMENT SCHEDULE**

The following table indicates how the fee shall be apportioned over the various stages of the project. The fee shall become due upon presentation of the deliverables per stage as indicated in Appendix 1 Section 1 Scope of Works in the Technical Document. These deliverables shall be approved by the project manager, design engineer or the Design Review Committee whichever is applicable for the project.

1a) All Engineering Projects:

Stage of Services	Percentage payable points for each stage
1. Inception-	5%
2. Concept and Viability	25%
3. Design Development	25%
4. Documentation and Procurement	15%
5. Contract Administration and Inspection	20%
6. Close-Out	5%
7. Retention captured payable after construction of works (where applicable)	5%

## **C. GENERAL CIVIL, ELECTRICAL, AUTOMATION, PROCESS, MECHANICAL, ARCHITECTURAL, GEOTECHNICAL ENGINEERING SERVICES**

### **1 STRUCTURAL DRAUGHTSPERSON**

#### **1.1 REQUIREMENTS FOR CIVIL AND/OR STRUCTURAL DRAUGHTSPERSON**

##### **1.1.1 REQUIREMENTS**

- i. Technical knowledge and experience in detailing of reinforced concrete, structural steel, earthworks, roads, drains and pipelines.
- ii. Extensive AutoCAD skills.
- iii. Minimum 5 years relevant draughting experience
- iv. Additional knowledge of Revit Structures and/or Civil 3D and/or the Techno CAD suite of programs, Structural steel detailing, civil detailing (roads, pipe specials, storm water drainage and sewers) will be advantageous.

##### **1.2 DUTIES**

- I. AutoCAD 2014 or later
- II. Able to produce advanced concrete reinforcement detail drawings and bending schedules given design (area of steel) – All detailing to be done in accordance with SANS 10144 or able to produce structural steel detail drawings.
- III. Able to use either Autopadds or Rebarmate.
- IV. Must be able to produce working drawings with minimal supervision.

### **2 CIVIL PIPELINE DESIGN ENGINEERS**

#### **1. REQUIREMENTS FOR CIVIL PIPELINE DESIGN ENGINEERS**

##### **1.1. REQUIREMENTS**

- i. Formal Civil Engineering B Eng. Degree or Equivalent,
- ii. Professional Registration with the Engineering Council of South Africa
- iii. 6-10 years applicable post graduate experience with a minimum of four experience in the design of large diameter steel bulk water pipelines and related structures, three years construction experience
- iv. Liaison and effective communication with other departments and stakeholders in the industry

## 1.2. DUTIES

- i. Develop planning briefs or pre-project investigation reports into project scope of work.
- ii. In conjunction with the survey, GIS section assist in the route section of the pipelines
- iii. Undertake hydraulic design for pumping and gravity pipelines including suction and delivery headers.
- iv. Detailed longitudinal section drawings
- v. Perform the pipeline selection of materials for the steel grade, lining and coating system, the cathodic protection system and the backfilling material.
- vi. Structural pipeline design: - analyse the pipe to soil system: design loads, deflections, pipe buckling.
- vii. Design of all pipe specials (bends, mitres, t pieces, wrapper plates)
- viii. Design of pipeline structures: valve chambers (air, isolating, reflux, scour),
- ix. Compilation of contract document made up design criteria, design reports, specifications,
- x. bills of quantities, drawings, and relevant standards
- xi. Direct, manage and develop junior engineers within the Pipeline Engineering Design Team in the Design Office, including the reviewing of team outputs for technical accuracy, adequacy, and compliance with set pipeline or civil design standards and organizational procedures.
- xii. Manage the interface with other engineering design disciplines (mechanical, civil, electrical, process, architectural and automation), consultants, asset engineers/managers, project teams, and contractors to accomplish completely integrated pipeline designs.
- xiii. Conduct/participate in scoping meetings, detailed design reviews, hazard and operability studies and present scopes / designs to the Design Review Committee / site personnel.
- xiv. Review and improve pipeline design standards and procedures conjunction with the Pipeline Asset Management Section
- xv. Pipeline engineering
- xvi. Knowledge of the applicable design standards e.g., BS 1295, EN13445, PD 5000
- xvii. Ability to interpret geotechnical recommendations into designs.
- xviii. Design of pipeline structures such as air valve chambers, etc

## 3. ELECTRICAL DESIGN ENGINEERS

### 3.1. REQUIREMENTS FOR ELECTRICAL DESIGN ENGINEERS

#### 3.1.1. REQUIREMENTS

- i. B Sc (Eng) or B Eng degree in Electrical Engineering.

- ii. Already registered as a Professional Engineer with ECSA. Pr Tech Eng registration is not acceptable. Two years post ECSA Pr Eng registration experience required.
- iii. Ten years' relevant post qualification experience in industrial electrical plant comprising MV and LV switchgear, LV and MV motor drives, transformers, cable installations, MV and LV reticulation systems and control systems interfacing to PLC/SCADA systems. Experience in MV and LV reticulation alone is not acceptable. Experience in the design of appropriate electrical control, interlocking and protection systems, including feeder, motor and cable differential protection. Experience in the integration of components into a functional electrical and instrumentation system. Exposure to a c variable speed drives and small scale generation plant will be an advantage.
- iv. A minimum of two years' relevant experience in the installation and site commissioning of industrial electrical plant including MV and LV switchgear, LV and MV motor drives and MV and LV cabling and instrumentation.
- v. Three years relevant design experience comprising sizing of electrical equipment, drawings including single line diagrams, general arrangements and schematic diagrams, specifications of equipment and Bills of Quantities. The ability to generate solutions to complex problems with lateral thinking.
- vi. Experience in engineering contract management and administration, including schedule, quality and financial management of contracts and the application of international conditions of contract such as FIDIC or NEC.
- vii. Knowledge of the OHS Act, the Electrical Installation Regulations and the Construction Regulations and contractual safety requirements.
- viii. Exposure to production and maintenance management and management of shutdowns and outages of production plant for brownfields projects within operational plants.
- ix. Exposure to negotiations with Eskom and municipalities for MV supplies for new or upgraded pumping installations.
- x. Experience in the execution of projects and project management.
- xi. Experience in complex multi-disciplinary industrial projects involving rotating plant, and understanding of the mechanical, process, architectural, structural and automation interfaces to the electrical infrastructure.
- xii. Good working knowledge of national and international electrical engineering standards for e g LV and MV switchgear, miniature substations, LV and MV motors, variable speed drives and cables.
- xiii. The ability to work within the confines of sound engineering practice and Rand Water standards.

### 3.1.2. DUTIES

- i. Perform a full range of varied and responsible Electrical Engineering design work in LV and

MV switchgear and reticulation, large MV motor drives, variable speed drives, transformers, cable installations, control systems, protection systems and interface to PLC/SCADA systems independently requiring a high level of judgment and independent evaluation, selection, and adaptation of standard techniques, and where required, devising new improved approaches to meet unique situations.

- ii. Involvement in work where no clear precedents exist, and which requires going beyond existing parameters and adaptation of plans to fit the situation, always bearing in mind the initial specifications, and the underlying reason for them.
- iii. Give input into pre-project recommendations prepared by the Assets section into project scopes of work.
- iv. Functional and detailed designs (including calculations, drawings, technical specifications, and tender document input).
- v. Integration of a proposed engineering solution into an operating plant with minimal effect to such plant.
- vi. Assist with the direction of the Electrical Engineering Design Team, including the assignment and co-ordination of work and reviewing of team outputs for technical accuracy, adequacy, and compliance with national and international electrical engineering standards and organizational procedures.
- vii. Assist in the development of staff within the Design Office.
- viii. Manage the interface with other engineering design disciplines (mechanical, civil, pipelines, process, architectural and automation), consultants, asset engineers/managers, project teams, and contractor's designers to accomplish completely integrated electrical designs.
- ix. Build and manage the working relationship with project managers, site operations and the Assets Sections.
- x. Participate and give input in scoping meetings, functional and detailed design reviews, hazard and operability studies and present scopes / designs to Asset Managers/site personnel.
- xi. Assist with the review and improvement to electrical design standards and procedures in conjunction with the Electrical Asset Management Section.
- xii. Give input into increased electrical supply capacity requirements from Eskom and municipalities at operational sites.
- xiii. May be required to provide technical advice/reports to management as well as operating, scientific and asset management areas of the business, on which Rand Water may base significant decisions.
- xiv. Liaises with other specialists such as quality assurance specialists and financial specialists.

## 4. AUTOMATION (CONTROL & INSTRUMENTATION) DESIGN ENGINEERS

### 4.1. REQUIREMENTS FOR AUTOMATION (C&I) DESIGN ENGINEERS

#### 4.1.1. REQUIREMENTS

- i. Formal Electrical (Light Current) Engineering qualification (BSc Eng / B Eng degree/ B. Tech / BEng Tech or Equivalent)
- ii. Professional Registration with the Engineering Council of South Africa
- iii. 6-10 years applicable post graduate experience in Industrial automation (measurement, control and instrumentation) engineering

#### 4.1.2 DUTIES

- iv. Designing and developing new automation systems
- v. Design and development Profibus, Modbus, Ethernet and Hardwired network design (PLC Architecture (Profibus and Ethernet)
- vi. Development Profibus, Modbus equipment general arrangement drawing
- vii. Design and development I/O listing and tag name database
- viii. Design and development Loop diagrams
- ix. Design and development Ethernet Network Architecture for SCADA
- x. Development HMI Layout
- xi. Development of SCADA mimics
- xii. Development of Instruments List
- xiii. Development of Instruments power load list
- xiv. Development of Instrument Datasheets
- xv. Design and development of Overall Control System Architecture Drawing

## 5. PROCESS DESIGN ENGINEERS

### 5.1. REQUIREMENTS FOR PROCESS DESIGN ENGINEERS

#### 5.1.1. REQUIREMENTS

- xvi. Formal Chemical/Process Engineering qualification (BSc Eng / B Eng degree/ B. Tech / BEng Tech or Equivalent)
- xvii. Professional Registration with the Engineering Council of South Africa
- xviii. 6-10 years applicable post graduate experience in process design
- xix. Water industry experience

### 5.1.2 DUTIES

- xx. Development of design basis, process flow diagrams, mass & energy balances, utility balances
- xxi. Development of piping and instrument diagrams, mechanical flow diagrams, and utility flow diagrams
- xxii. Development of process equipment / instrument data sheets, process philosophies, equipment/ line/ tie-in/ fluid/ utility consumption/ waste & emission lists.
- xxiii. Development process philosophies, operating, safety and commissioning manuals
- xxiv. Relief valve calculations and relief load summary and other safety related calculations
- xxv. Provide process inputs to material selection table and hazardous area classification.
- xxvi. Perform unit operation sizing
- xxvii. Perform simple and complex calculations
- xxviii. Computer process simulations
- xxix. Hydraulic sizing of piping, pumps and control valves
- xxx. Plant layout studies
- xxxi. Provide inter-discipline support.
- xxxii. Display knowledge of the appropriate design codes with respect to process applications

## 6. MECHANICAL DESIGN ENGINEERS

### 6.1. REQUIREMENTS FOR MECHANICAL DESIGN ENGINEERS

#### 6.1.1. REQUIREMENTS

- i. Formal Mechanical Engineering qualification (BSc Eng / B Eng degree/ B. Tech / BEng Tech or Equivalent)
- ii. Professional Registration with the Engineering Council of South Africa
- iii. 6-10 years applicable post graduate experience in mechanical design

#### 6.1.2. DUTIES

- iv. Developing and implementing mechanical engineering plans
- v. Development of mechanical detailed design
- vi. Design, development and specifications of pumps, cranes, valves etc.
- vii. Surge analysis
- viii. Review and approve the quality control plan (QCP's) and/ Inspection and test plans (ITP's)

- ix. Interpret or evaluate test results in accordance with applicable codes, standards, specifications, or procedures. Interpret the results of all methods of non-destructive testing (NDT), such as acoustic emission, electromagnetic, leak, liquid penetrant, magnetic particle, neutron radiographic, radiographic, thermal or infrared, ultrasonic, vibration analysis, and visual testing
- x. Display knowledge of the appropriate design codes with respect to mechanical engineering applications

## 7. PROFESSIONAL GEOTECHNICAL ENGINEER

### 7.1. REQUIREMENTS FOR PROFESSIONAL GEOTECHNICAL DESIGN ENGINEERS

#### 7.1.1. REQUIREMENTS

- i. Minimum qualification of internationally recognized Bachelor of Science in Engineering or Bachelor of Engineering degree in Civil Engineering.
- ii. Registration with ECSA as a Professional Engineer.
- iii. At least 20 years specialist experience in geotechnical investigations and foundation design of water retaining structures; in a position of direct responsibility and decision making. Knowledge of local soil and geological conditions as well construction practices of water retaining structures.
- iv. CESA Membership as a Firm and/or Registered Principal.

#### 7.1.2 DUTIES

Conduct geotechnical evaluation and recommendations for existing assets and construction of new assets in the water treatment industry, these include but are not limited to process plants, reservoirs, sedimentation tanks, pipelines, valve chambers etc.,

- Determine design criteria and site conditions (in-situ soil classification, hydraulic conductivity, potential expansiveness, groundwater, active and passive soil pressure, total and differential settlement, design bearing capacity. A technical specification will be provided to the consultants.
- Compile a geotechnical data report (to summarise geotechnical information accumulated in the field reconnaissance, data review, field explorations, field resistivity, and laboratory testing).
- Compile a geotechnical recommendations report (to include recommendations for the Design Engineer for foundation types and materials, shoring methods for the safety of the workers, with a cost and feasibility analysis of each proposed foundation type)
  - i. Conduct geotechnical evaluation and design the foundation requirements for the construction of all structures including pipelines. In conducting the geotechnical

evaluation, the consultant must cater for all equipment, and lab test required to produce the geotechnical deliverables.

- ii. Determine design criteria and site conditions (in-situ soil classification, hydraulic conductivity, potential expansiveness, groundwater, active and passive soil pressure, total and differential settlement, design bearing capacity etc.)
- iii. Compile a geotechnical data report (to summarise geotechnical information accumulated in the field reconnaissance, data review, field explorations, field resistivity, and laboratory testing)
- iv. Compile a geotechnical recommendations report (to include the Design Engineer for foundation types and materials, with a cost and feasibility analysis of each proposed foundation type)

## 8. ARCHITECT

### 8.1. REQUIREMENTS FOR ARCHITECTURAL DESIGN ENGINEERS

#### 8.1.1. REQUIREMENTS

- i. Formal Bachelor of Architectural Studies qualification (BAS, BAS Hons, BArch, Bsc Arch, MArch or Equivalent)
- ii. Pr. Arch. registration with SACAP
- iii. 6-10 years applicable post graduate experience in architectural design

#### DUTIES

- iv. Combining architectural design principles with engineering technology to develop building plans and systems
- v. Preparing detailed architectural drawings, plans, and specifications
- vi. Using Computer-Aided Design (CAD) software to create 3D models and simulations
- vii. Applying engineering principles to design safe and functional building structures
- viii. deep understanding of building codes and regulations. They ensure that their designs and construction processes adhere to the applicable codes and standards, ensuring the safety and well-being of occupants.
- ix. integrating various building systems such as mechanical, electrical, plumbing, and HVAC (heating, ventilation, and air conditioning).
- x. select appropriate materials for construction, considering factors like durability, cost-effectiveness, environmental impact, and aesthetic appeal
- xi. Display knowledge of the appropriate design codes with respect to mechanical engineering applications.

Resource Title	CATEGORY A			CATEGORY B			CATEGORY C			CATEGORY D		
	Qualifications	Years of Experience (Post PR)	Hourly Rate per person	Qualifications	Years of Experience	Hourly Rate per person	Qualifications	Years of Experience ( Post PR)	Hourly Rate per person	Qualifications	Years of Experience (Post PR)	Hourly Rate per person
Engineers Design and Asset Management (All Disciplines)	Deg. + Prof Registration	>12		Deg. + Prof Registration	8 to 12		Deg. + Prof Registration	5 to 8		Deg. + Prof Registration	2 to 4	
Geotechnical Engineer	Deg. + Prof Registration	>12		Deg. + Prof Registration	8 to 12		Deg. + Prof Registration	5 to 8		Deg. + Prof Registration	3 to 4	
Geohydrologist / Hydrologist Scientists	Deg. + Prof Registration	>12		Deg. + Prof Registration	8 to 12		Deg. + Prof Registration	5 to 8		Deg. + Prof Registration	3 to 4	
Design- Draughts person	Draughting Diploma	>12		Draughting Diploma	8 to 12		Draughting Diploma	5 to 8		Draughting Diploma	3 to 4	
Corrosion Engineer/D design- Cathodic Protection systems	Deg. +NACE Prof Registration	>12		Deg. + NACE Prof Registration	8 to 12		Deg. + NACE Prof Registration	5 to 8		Deg.	3 to 4	

**NB\* In conducting the all specialist / investigation studies, the rate must be all inclusive of all costs required to produce all relevant deliverables as per tender requirements)**

PART C4: SITE INFORMATION

## C4. SITE INFORMATION

Rand Water Head Office. 522 Impala Road, Glenvista 2058.