EHLANZENI DISTRICT MUNICIPALITY

DRIEKOPPIES REGIONAL WATER SCHEME PHASE

Completion of works for Driekoppies Water Treatment Works Phase 1a, Construction of Driekoppies Water Treatment Works Phase 4, Elevated Steel Tank, Pumpstation and Pipelines Phase 2d.

TENDER NUMBER: EDM/21/2024-25

TENDERER:	

CLOSING DATE: 13 DECEMBER 2024 at 12h00

EMPLOYER:	ENGINEER:
EHLANZENI DISTRICT MUNICIPALITY PO Box 3333 Mbombela 1200 TEL: 013-759 8500 FAX: 013-755 3157	LUBISI-GMH JV 20 Brander Street Mbombela 1200 Tel : 013-752 6416 E-mail : info@lubisi.co.za

Tender Document Book 1 of 2

EHLANZENI DISTRICT MUNICIPALITY

DEPARTMENT NAME: TECHNICAL SERVICES

CONTRACT NO: EDM/21/2024-25

FOR

DRIEKOPPIES REGIONAL WATER SCHEME PHASE

Completion of works for Driekoppies Water Treatment Works Phase 1a, Construction of Driekoppies Water Treatment Works Phase 4, Elevated Steel Tank, Pumpstation and Pipelines Phase 2d.

SUMMARY FOR TENDER OPENING PURPOSES

NAME OF TENDERER : _____

ADDRESS : _____

_____

_____

TELEPHONE NUMBER : _____

FAX NUMBER : _____

E-MAIL ADDRESS : _____

CLOSING DATE : _____

CONTRACT PRICE : R _____

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

Signed by authorised representative of the TENDERER: _____

DATE: _____

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

IMPORTANT INFORMATION

PLEASE READ CAREFULLY BEFORE COMPLETING DOCUMENT.

1. Notice to all tenderers.
2. Standards applied in this document.

1. NOTICE TO ALL TENDERERS

This is an original document:

1. It may not be re-typed or altered in any way.
2. It must be completed in black ink – in an eligible handwriting.
3. It may not be taken apart.
4. It is not available in electronic format except PDF.
5. It is compulsory to attach required documents to the relative page (where requested). Any other form of presentation (loose pages or separate documents) will not be accepted.

2. STANDARDS APPLICABLE TO THIS DOCUMENT

Available from the S.A. Federation of Civil Engineering Contractors, the S.A. Institution of Civil Engineering, and the S.A. Bureau of Standards, as applicable:

1.	CIDB	***CIDB Standard for uniformity in Construction Procurement,*** *10 July 2015, as amended.* *CIDB B.U.I.L.D Standard for Developing Skills through Infrastructure Contracts 31 March 2023*
2.	SANS 10845-1	*Processes, methods and procedures.*
3.	SANS 10845-2	*Formatting and compilation of procurement documentation.*
4.	SANS 10845-3	*Standard conditions of tender.*

6. "General Conditions of Contract for Construction Works, Third Edition (2015) issued by the South African institution of Civil Engineering.
7. SANS 1200 Standardized Specifications for Civil Engineering Construction
8. This Document, as presented.

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THE TENDER

THE CONTRACT

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T1.1: TENDER NOTICE AND INVITATION TO TENDER

EHLANZENI
DISTRICT MUNICIPALITY

TENDER NUMBER: EDM/21/2024-25

T1.1: TENDER NOTICE

DRIEKOPPIES REGIONAL WATER SCHEME: COMPLETION OF WORKS FOR DRIEKOPPIES WATER TREATMENT WORKS PHASE 1A, CONSTRUCTION OF DRIEKOPPIES WATER TREATMENT WORKS PHASE 4, ELEVATED STEEL TANK, PUMP STATION AND PIPELINES PHASE 2D

Ehlanzeni District Municipality hereby invites tenders from capable and experienced service provider for the **DRIEKOPPIES REGIONAL WATER SCHEME: COMPLETION OF WORKS FOR DRIEKOPPIES WATER TREATMENT WORKS PHASE 1A, CONSTRUCTION OF DRIEKOPPIES WATER TREATMENT WORKS PHASE 4, ELEVATED STEEL TANK, PUMP STATION AND PIPELINES PHASE 2D.**

1. Only service providers who have provided the following mandatory information and documents to be used to evaluate the Tenderer's responsiveness will be considered for further evaluation on functionality;

1.1 Only service providers that are registered on the Central Supplier Database will be considered for awarding of this request for quotations and a copy of the CSD report, not older than three months should be attached.
1.2 Price(s) quoted must be firm, VAT and other taxes inclusive and valid for at least thirty (90) days from date of your offer.
1.3 No tenders shall be considered from persons who are in the service of the state.
1.4 Service providers are required to fully complete the attached MBD forms and submit together with their written Tenders.
1.5 Attach a bank account confirmation letter with bank stamp not older than three months accompanied with an affidavit confirming the business bank account details - if the banking details are not verified on the CSD report.
1.6 Attach certified copy of identity documents (ID) of company directors.
1.7 Attach certified copy of the company registration certificate issued by the Companies and Intellectual Property Commission (CIPC).
1.8 Valid SARS pin must be attached.
1.9 Valid proof of COIDA registration from the Department of Employment and Labour.
1.10 Attach an active CIDB grading of **9CE** or **higher**.
1.11 Attach a verifiable copy of municipal accounts for **both the Tenderer and company director(s):**

- if aforementioned account information of the Tenderer is not applicable, the Tenderer must attach an original certified copy of proof of residence (PTO) issued by a relevant traditional authority or copy of a valid lease agreement.

1.12 Joint Venture or Consortium Agreement if applicable
1.13 All Tender documents must be dully signed and submitted on the PDF document that has been issued and reproduced documents will be rejected.
1.14 Tender documents must be completed by hand with a black pen otherwise if completed digitally, documents will be rejected.
1.15 The requirements of the CIDB B.U.I.L. D Programme with respect to Indirect Targeting for Enterprise Development is set at a minimum contribution of **5%** of the project's contract value towards subcontracting. The contractor shall also be required to provide development support to Targeted Enterprises.

1.16 The requirements of the CIDB B.U.I.L.D Programme with respect to Standard for Skills Development is set at a minimum contribution of **0.25%** of the project's contract value

2. This Tender will be evaluated on the 90/10 preference point system in terms of the approved Preferential Procurement Policy of the Ehlanzeni District Municipality. The policy's preference point system will be applied as follows;

2.1 The 90 points will be for price; and
2.2 The 10 points will be allocated for the specified goals on a proportional or pro rata basis as follows:

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS		
HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS	**POINTS ALLOCATION**	**SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS**
100% black person or people owned enterprise	1	A copy of a Full CSD report not older than 3 months.
More than 30% woman or women shareholding or owned enterprise	1	
more than 30% youth shareholding or owned enterprise	1	
More than 30% people living with disability shareholding or owned enterprise	1	A copy of a Medical Certificate to confirm disability or stated on the **CSD report**
POINTS FOR IMPLEMENTING OF RDP PROGRAMMES		
Enterprises regarded as ***EME's located within** the Ehlanzeni District Municipality area of jurisdiction	1	➢ A copy of a Full CSD report not older than 3 months. **NB: Points will only be awarded if the CSD physical address is the same as the address for the proof of residence required in 1.9 above.**
Enterprises who will sub-contract minimum of 30% of the contract value to EME's	1	➢ Commitment letter including sub-contractible item
Corporate social investment (CSI) or Social Labour Plan composition	3	➢ Commitment letter from the service provider including the percentage of the contact value.
B-BBEE level 1 status contribution	1	➢ Certified Valid B-BBEE certificate; or ➢ Certified Valid EME and SME a sworn affidavit; or ➢ Certified Valid CIPC issued certificate confirming annual turnover and level of Black Ownership.
TOTAL PREFERENCE POINTS TO BE CLAIMED	**10**	

**** EME's are Exempted Micro Enterprise with an annual turnover of R10 million or less.***

****All certified documents as stated must not be older than three months.***

Received Tenders will be evaluated for responsiveness based on mandatory requirements. The received tenders will be further evaluated for functionality and tenderers who obtain a **minimum of 70 points** out of possible **100 points** based on the prescribed quality, will be eligible to be evaluated on the Preference Points System.

Tender documents can be viewed and downloaded at no cost on the Document Sharing and Collaboration Platform or Portal (NEPTUNE): http://edmservices.ehlanzeni.gov.za and National Treasury Portal from **Thursday, 14 November 2024**. Further information regarding the downloading and uploading of documents will be explained at the compulsory briefing session.

A compulsory briefing session will be held on **Wednesday, 20 November 2024 at 10h00** at the **Driekoppies Water Treatment Works, Nkomazi Local Municipality (-25.709531,31.537621).**

Where Tenders should be submitted - Completed Tender and other returnable documents must be submitted only in PDF format on the Document Sharing and Collaboration Platform or Portal: http://edmservices.ehlanzeni.gov.za on or before **Friday, 13 December 2024** not later than **12h00.**

Tender Documents received by telegram, fax and post will not be considered. Late Tenders shall not be accepted.

Enquiries: Contact Person - Administration: Mr. S P Khumalo at 013 759 8573 pkhumalo@ehlanzeni.gov.za

Contact Person – Technical: Mr. P du Toit at 013 759 8500 or pdutoit@ehlanzeni.gov.za

Special Conditions:

Ehlanzeni District Municipality reserves the right to appoint for the whole or part of the tender or not to appoint at all and no Tender will be considered from persons who are in the service of the state.

Visit our website at www.ehlanzeni.gov.za

Employer: Municipal Manager: Dr N Mahlalela
Ehlanzeni District Municipality
P. O. Box 3333
MBOMBELA
1200

Tender Notice EDM/21/2024-25

T1.2: TENDER DATA

The conditions of tender are the standard conditions of tender as contained in SANS 10845-3 Construction procurement, Part 3: Standard conditions of tender, that apply specifically to this tender.

The Tender Data shall be read with the Standard Conditions of Tender in order to expand on the Tenderer's obligations and the Employer's undertakings in administering the tender process in respect of the project under construction.

The Tender Data hereafter shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender

Each item of data given below is cross-referenced to the clause in the standard conditions of tender to which it mainly applies.

Clause	Data
	The conditions of tender are those contained in the latest edition of SANS 10845-3, Construction Procurement – Part 3: Standard conditions of tender. SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3. Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.
3.1	The employer is **Ehlanzeni District Municipality**
3.2	The tender documents issued by the employer comprise the following documents: **THE TENDER** **Part T1: Tendering procedures** T1.1 - Tender notice and invitation to tender T1.2 - Tender data **Part T2: Returnable documents** T2.1 - List of returnable documents T2.2 - Returnable schedules **THE CONTRACT** **Part C1: Agreements and Contract data** C1.1 - Form of offer and acceptance C1.2 - Contract data C1.3 - Performance Bond **Part C2: Pricing data** C2.1 - Pricing assumptions C2.2 - Bill of Quantities **Part C3: Scope of work** C3 - Scope of work **Part C4: Site information** C4 - Site information **Part C5: Annexures**
3.4	The employer's agent is Lubisi/GMH Joint Venture 20 Brander street Mbombela, 1200

Tel: 013 752 6416
E-mail: chalmers@lubisi.co.za

3.4 The language for communications is English.

3.6 The competitive negotiation procedure shall not be applied.

4. Special Conditions of Tender

4.1 Only those tenderers who satisfy the following eligibility criteria and who provide the required evidence in their tender submissions are eligible to submit tenders and have their tenders evaluated:

a) CIDB registration

Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **9 CE** class of construction work, are eligible to have their tenders evaluated.

Tenderers registered as potentially emerging enterprises but with a CIDB contractor grading designation lower than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, are not eligible to have their tenders evaluated.

For the sake of clarity and subject to satisfactory proof of a tenderer's ability to perform the work specified at the tendered value, the Employer lists in the table below the margins it considers reasonable. However, in the event that the sum tendered exceeds the margins shown then such tender shall be deemed non-responsive.

Category of tender	Upper limits per CIDB Regulation 17
CE 5	R10m
CE 6	R20m
CE 7	R60m
CE 8	R200m
CE 9	No limit

Joint ventures are eligible to submit tenders provided that:

1. every member of the joint venture is registered with the CIDB;

2. the lead partner has a contractor grading designation in the **9 CE** class of construction work; and

3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **9 CE** of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

b) Key Personnel

In order to be considered for an appointment in terms of this tender, the tenderer must have in its permanent employment key personnel who will be the single point accountability and responsibility for the management of the construction works.

Alternatively, a signed undertaking from an organisation having the required personnel, stating that they will undertake the necessary work on behalf of the tenderer in terms of a sub-contractor agreement, will be acceptable. Such undertaking must be attached to Forms U of the Returnable Schedules.

Individuals must be identified for each of the key personnel listed under Forms U.

Where the key personnel are no longer available to undertake the necessary work after the award of the tender, the contractor shall within a period of 14 working days replace the key personnel listed in Forms U with personnel with equivalent competencies and subject to approval by the Employer. Such approval shall not be unreasonably withheld.

The key person shall be a suitably qualified and experienced contracts manager who will be the single point accountability and responsibility for the management of the construction works, and who is registered with SACPCMP as Pr CM or ECSA as Pr Eng or Pr Tech Eng shall be required as a minimum.

Where the Contracts Manager will not be employed on the Works full time, his powers will be delegated to the approved construction manager.

Failure to comply with the requirements or to complete Form U may render the tender non-responsive.

c) National Treasury Central Supplier Database

Tenderers who are not registered on the National Treasury Central Supplier Database at close of tender, shall submit a copy of their application of registration, with their tender submission. Tenders received from such tenderers who have not submitted proof of their registration within 21 days after the closing date for tender submissions, will not be considered. Registration report or summary report from the National Treasury Central Supplier Database, **must be printed not earlier than 2 weeks prior** to the tender closing date.

If the tenderer fails to comply with the above-mentioned criteria he will be disqualified and will not be evaluated for quality criteria.

(d) Tenders Exceeding R10 million

Where the tendered amount inclusive of VAT exceeds R 10 million:

i) audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing;
ii) a certificate certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
iii) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
iv) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.

4.6 Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender 5.8.

4.7 The arrangements for the compulsory clarification meeting are as stated in the tender notice and invitation to tender.

The onus rests with the tenderer to ensure that the person attending the clarification meeting on its behalf is appropriately qualified to understand all directives and clarifications given at that meeting.

The clarification meeting shall start strictly at the time advertised. Only then will the Employer's Representative circulate the attendance register for completion by those present. During this time latecomers may enter and complete the register. On completion by all present the Employer's Representative will:

(a) read out from the collected lists calling for confirmation that all have signed;
(b) close the door and not allow any latecomers to enter.

The signature on the attendance register and duly completed and signed Form A shall be considered proof that the tenderer attended the whole meeting and was available to hear all directives and clarifications given at the meeting.

Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.

4.8 Request clarifications at least 7 working days before the closing time.

4.10 Tenderers are required to state the rates and currencies in Rand.

4.12 If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employers Agent.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.

The modified Tender Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the employer's costs of confirming the acceptability of the detailed design before it is constructed.

4.13.1 Parts of each tender offer communicated on paper shall be submitted as an original, no copies required.

The signed print-out shall be taken as the valid submission.

4.15

It is in the tenderer's interest to ensure that the delivery of the tender offer is recorded in the Employer's tenders received register.

4.13.4 The tenderer is required to submit all certificates as listed in the Schedule of Tender Compliance (Form W).

4.13.5 A two-envelope procedure will not be followed.

4.13.6 Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

4.15 The closing time for submission of tender offer is as stated in the Tender Notice and Invitation to Tender.

4.16.1 The tender offer validity period is 120 days.

4.16.2 Where a tenderer, at any time after the opening of his tender offer but prior to entering into a contract based on his tender offer:

a) withdraws his tender;
b) gives notice of his inability to execute the contract in terms of his tender; or
c) fails to comply with a request made in terms of 4.17, 4.18 or 5.9,

such tenderer shall be barred from tendering on any of the Employer's future tenders for a period to be determined by the Employer, but not less than six (6) months, from the date of tender closure. The Employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption.

4.18 Any additional information requested under this clause must be provided within 5 (five) working days of date of request.

4.20 The tenderer is required to submit with his tender a **letter of intent** from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.8 of this procurement document.

5.1 The employer shall respond to clarifications received up to 7 working days before tender closing time.

5.2 The employer shall issue addenda until 5 working days before tender closing time. Addendums shall be uploaded onto **ETENDER PUBLICATION PORTAL WEBSITE: WWW.ETENDERS.GOV.ZA**

5.4 Tenders will be opened in public soon after closing time mentioned above and recording of received documents at the Tender office. Tenderers' names and total prices where practical will be read out.

Location: 8 Van Niekerk Street
Ehlanzeni District Municipality offices
Mbombela
1200

5.7 In the event of disqualification, the Employer may, at its sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to CIDB and National Treasury.

5.9 Arithmetical errors, omissions, discrepancies and imbalanced unit rates

Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount appearing in the summary to the Pricing Schedule shall govern.

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

Notify shortlisted tenderers of all errors, omissions or imbalanced rates that are identified in their tender offers.

Where the tenderer elects to confirm the errors, omissions or re-balancing of imbalanced rates the tender offer shall be corrected as follows:

a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the unit rate shall govern and the line item total shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted and the unit rate shall be corrected.
b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.
c) Where the unit rates are imbalanced adjust such rates by increasing or decreasing them and selected others while retaining the total of the prices derived after any other corrections made under (a) and (b) above.

Where there is an omission of a line item, no correction is possible and the offer may be declared non-responsive.

Declare as non-responsive and reject any offer from a tenderer who elects not to accept the corrections proposed and subject the tenderer to the sanction under 4.16.2.

The tenderer is required to submit balanced unit rates for rate only items in the pricing schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.

5.11.1 The procedure for the evaluation of responsive tenders is Method 4.

5.11.5 Method 4 Financial offer, quality and preferences is scored as follows:

a) Score each tender in respect of the financial offer made and preferences claimed, if any.
b) Calculate the total number of tender evaluation points (TEV) in accordance with the following formula: TEV = NFO + NP + NQ
where: NFO is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7.
NP is the number of tender evaluation points awarded for preferences claimed, in accordance with F.3.11.8.
NQ is the number of tender evaluation points awarded for quality claimed in accordance with F.3.11.9.
c) Rank tender offers from the highest number of tender evaluation points to the lowest.
d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated.
f) Compelling and justifiable reasons not to recommend a tenderer are inter alia tenderers who:

- do not meet the minimum requirements listed in Part T2.1, List of Returnable Documents and/or
- failed to complete the tender document comprehensively with all the required information..

5.11.7 The financial offer will be scored using the following formula:

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

Where:

N_{FO} = the number of evaluation points awarded for the financial offer

W_1 = the maximum possible number of bid evaluation points warded for the financial offer and will be:

(i) 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R 50,000,000; or

80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R 50,000,000.

A = the number calculated using Formula 2 (Option 1)

Table 1: Formulae for calculating the value of A_a

Formula	Comparison aimed at achieving	Option 1[a]	Option 2[a]
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P / P_m$
2	Lowest price or percentage commission /fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$

[a] P_m is the comparative offer of the most favourable comparative offer.

P is the comparative offer of the tender offer under consideration.

5.11.8 Scoring preferences.

The total number of tender evaluation points that can be claimed for preferences is indicated in MBD 6.1

5.11.9 The quality criteria and maximum score in respect of each of the criteria are as follows:

Description of quality criteria	Maximum number of points
Company Experience in relation to scope of works (Track Record)	50
Plant & Equipment	10
Financial Resources	10
Managerial capacity, experience and qualifications	20
Method statement for works including program	10
Total evaluation points for quality (M_s)	100

"(d) Tender offers will only be considered responsive if the minimum quality requirement of 70 points is achieved." Tenderers are required to demonstrate their ability to undertake the work and provide proof of previous experience, expertise and financial references to undertake a project of this nature. Tenderers are therefore required to meet a minimum Quality Score of 70% (70 points out of 100) based on the criteria listed below. A score of less than 70 out of 100 points for Quality will render the tender non-

responsive. The onus rests with the Tenderer to supply enough information to allow for evaluation and award of points detailed below. If insufficient is provided, zero points will be awarded for that item.

5.13 **In addition to the requirements of the Condition of Tender, offers will only be accepted if fully completed:**

- the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) unless it is a foreign supplier with no local registered entity
- the tenderer is in good standing with SARS according to the Central Supplier Database on the date of the award. If tenderer is not tax compliant on the date of award, the tenderer will be given seven days to sort the tax matters with SARS. Is after the expiry of the seven days period and the bidder's tax matters are not in order, the second preferred bidder will be considered for appointment in line with the MFMA: Municipal Supply Chain Regulations and EDM SCM Policy.
- the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.8 of this procurement document
- the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
- the tenderer has not:
  i) abused the Employer's Supply Chain Management System; or
  ii) failed to perform on any previous contract and has been given a written notice to this effect;
- the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process;
- the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;
- the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, has the necessary competencies and resources to carry out the work safely.
- the tenderer has completed Form N: Schedule of specialist sub-contractors as per the requirements of sub-clause 4.1 (d) above.
- The bidder must have attended the compulsory briefing session. When bidding as a joint venture, all parties to the joint venture must attend the compulsory briefing session or register as a joint venture on the day of the compulsory briefing session.

5.17 The number of paper copies of the signed contract to be provided by the employer is One.

5.19 All requests shall be in writing.

PART T2: RETURNABLE DOCUMENTS

1. Failure to fully complete the **compulsory** returnable documents shall render such a tender offer unresponsive.
2. Tenderers shall note that their signatures appended to each returnable form **represents a declaration that they vouch for the accuracy and correctness of the information provided**, including the information provided by candidates proposed for the specified key positions.
3. Notwithstanding any check or audit conducted by or on behalf of the Employer, the information provided in the returnable documents is accepted in good faith and as justification for entering into a contract with a tenderer. **If subsequently any information is found to be incorrect such discovery shall be taken as wilful misrepresentation by that tenderer to induce the contract**. In such event the Employer has the discretionary right under contract condition 9.2 to terminate the contract.

This tender applies to both the (a) Skills Development Standard and (b) Indirect Targeting Standard. Although in the case of these two standards there are no returnable documents, tenderers are sensitised that the proforma documents as listed below, shall be completed by the successful contractor after award of the contract within the stipulated period. (The proforma documents are provided in the tender data for information purposes only)

- Forn A 1 List of Recognised Skills Development Agencies
- Form A 2 Baseline Training Plan
- Form A 3 Project Interim Report
- Form A 4 Supervisor Agreement
- Form A 5 Project Completion Report
- Project Interim Report
- Project Completion Report and Declaration

The Tenderer must complete the following returnable Schedules: The tenderer is required to complete each schedule and form listed below to the best of his ability as the evaluation of tenders and the eventual contract will be based on the information provided by the tenderer. Failure of a tenderer to complete the schedules and forms to the satisfaction of the Employer may lead to rejection on the grounds that the tenderer in non-responsive.

Returnable Schedules required for Tender evaluation purposes.

COMPULSORY TENDER DOCUMENTS	
FORM A	CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING
FORM B	RECORD OF ADDENDA TO TENDER DOCUMENTS
FORM C	PROPOSED AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES
FORM D	PREFERENCING SCHEDULE: BROAD BASED BLACK ECONOMIC EMPOWERMENT STATUS
FORM E	DECLARARTION OF INTEREST
FORM G	MUNICIPAL DECLARATION AND RETURNABLE DOCUMENTS
FORM H	CERTIFICATE OF INDEPENDENT TENDER
FORM I	DECLARATION OF GOOD STANDING REGARDING TAX
FORM J	DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES
FORM K	REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIER DATABASE
FORM L	DECLARATION OF TENDERER'S LITIGATION HISTORY
FORM M	AUTHORITY OF SIGNATORY
FORM N	SCHEDULE OF SPECIALIST SUBCONTRACTORS
FORM O	PROOF OF GOOD STANDING WITH COMPENSATION COMMISSIONER
FORM P	SCHEDULE OF CURRENT COMMITMENTS
FORM Q	REGISTRATION WITH CIDB

RETURNABLE FOR QUALITY CRITERIA	
FORM R	COMPANY EXPERIENCE IN RELATION TO SCOPE OF WORKS
FORM S	PLANT & EQUIPMENT
FORM T	FINANCIAL RESOURCES
FORM U	MANAGERIAL CAPACITY, EXPERIENCE AND QUALIFICATIONS
FORM V	EXECUTION PROGRAM
CERTIFICATE FOR TENDER COMPLIANCE	
FORM W	SCHEDULE OF TENDER COMPLIANCE

COMPULSORY TENDER DOCUMENTS

FORM A: CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

Notes to Tenderer:

1. Unless the attendee's name, details and signature also appear on the attendance register this Certificate of Attendance shall not be accepted and the tenderer's offer shall be deemed non-responsive.

This is to certify that I, ...

representative of (tenderer) .....

of (address) .....

.....

.....

telephone number .....

fax number .....

e-mail .....

attended the clarification meeting on (date) .....

Signature of Representative .....

FORM B: RECORD OF ADDENDA TO TENDER DOCUMENTS

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

	Date	**Title or Details**
▪		
▪		
▪		
▪		
▪		
▪		
▪		
▪		
▪		
▪		

Attach additional pages if more space is required.

Signed ..... Date .....

Name ..... Position .....

FORM C: PROPOSED AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

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

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

(a) AMENDMENTS

Page, Clause or Item No	Proposed Amendment

Note: (1) Amendments to the General and Special Conditions of Contract are not acceptable;
(2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

(**This is not an invitation for alternatives** but should the Tenderer desire to make any departures for the provisions of this contract he shall set out his proposals clearly hereunder.

(b) ALTERNATIVES

Proposed Alternative	Description of Alternative

Note: (1) Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here
(2) In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc. and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender
(3) Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.

Signed ---------- Date _____

Name _____ Position ----------

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

MBD 6.1

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

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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**

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

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

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	**100**

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

1.6 Ehlanzeni District Municipality 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 Ehlanzeni District Municipality.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20 **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \quad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

a)

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \text{ or } \quad Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS		
HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS	**POINTS ALLOCATION**	**SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS**
100% black person or people owned enterprise	1	A copy of a ***Full CSD report*** not older than 3 months.
More than 30% woman or women shareholding or owned enterprise	1	
more than 30% youth shareholding or owned enterprise	1	
More than 30% people living with disability shareholding or owned enterprise	1	A copy of a Medical Certificate to confirm disability or stated on CSD report.
POINTS FOR IMPLEMENTING OF RDP PROGRAMMES		
Enterprises regarded as *__EME's located within__ the Ehlanzeni District Municipality area of jurisdiction	1	➢ A copy of a Full CSD report not older than 3 months. **NB: Points will only be awarded if the CSD physical address is the same as the address for the proof of residence required in 1.9 above.**
Enterprises who will sub-contract minimum of 30% of the contract value to EME's	1	➢ Commitment letter including sub-contractible item

Corporate social investment (CSI) or Social Labour Plan composition	3	➢ Commitment letter from the service provider including the percentage of the contact value.
Valid B-BBEE level 1 status contribution	1	➢ Certified Valid B-BBEE certificate; or ➢ Certified Valid EME and SME a sworn affidavit; or ➢ Certified Valid CIPC issued certificate confirming annual turnover and level of Black Ownership.
TOTAL PREFERENCE POINTS TO BE CLAIMED	**10**	

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

5. DECLARATION WITH REGARD TO COMPANY/FIRM

5.1. Name of company/firm…….

5.2. Company registration number: ……...

5.3. 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]

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

i) The information furnished is true and correct;

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

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

…….. **SIGNATURE(S) OF TENDERER(S)** **SURNAME AND NAME**: …… **DATE:** …… **ADDRESS**: …… ……

DECLARATION OF INTEREST

MBD4

1. No bid will be accepted from persons in the service of the state*

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid

3.1. Full Name: .....

3.2. Identity Number: .....

3.3. Company Registration Number: .....

3.4. Tax Reference Number: .....

3.5. VAT Registration Number: .....

NB: Tick (√) what is applicable in the box

3.6. Are you presently in the service of the state*****

3.6.1. If **YES**, furnish particulars

YES		**NO**	

.....

.....

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

YES		**NO**	

.....

.....

3.7.1. If **YES**, furnish particulars.

.....

.....

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

(a) a member of –

(i) any municipal council;

(ii) any provincial legislature; or

(iii) the national Assembly or the national Council of provinces;

(b) a member of the board of directors of any municipal entity;

(c) an official of any municipality or municipal entity;

(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);

(e) a member of the accounting authority of any national or provincial public entity; or

(f) an employee of Parliament or a provincial legislature.

3.8. Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES		NO	

3.8.1. If **YES**, furnish particulars.

.....

.....

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

YES		NO	

3.9.1. If **YES**, furnish particulars.

.....

.....

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

YES		NO	

3.10.1. If **YES**, furnish particulars.

.....

.....

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

YES		NO	

3.11.1. If **YES**, furnish particulars.

.....

.....

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

Full Name	Identity Number	State Employee Number

CERTIFICATION

I, THE UNDERSIGNED (NAME) ……

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

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

…….. ……

Signature **Date**

…….. ……

Position **Name of Bidder**

ATTACH THE FOLLOWING DOCUMENTS TO THIS PAGE

- **For Closed Corporations**

  CK1 or CK2 as applicable (Founding Statement)
  Certified Copies of the ID's of the Directors
  Certified Shareholders Certificate

OR

- **For Companies**

  A copy of the Certificate of Incorporation
  Certified Copies of the ID's of the Directors, and
  Certified shareholders register

OR

- **For Joint Venture Agreements**
- Joint Venture Agreement between all the parties,
- as well as the documents in (1) or (2) of each Joint Venture member.

OR

- **For Partnership**

  1. Certified Copies of the ID's of the partners

OR

- **One person Business / Sole trader**

  2. Certified Copy of ID

FORM G: MUNICIPAL DECLARATION AND RETURNABLE DOCUMENTS

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

a) contractors are required; and

b) goods, services or a combination thereof where the estimated total of the prices exceeds R 10 million including VAT.

In the case of a joint venture, separate municipal declarations and returnable documents shall be submitted in respect of each partner.

Section 1: Enterprise Details

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

Section 2: Declaration for Contractor's services:

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

Name of organ of state	Estimated number of contracts	Nature of service, e,g, quantity surveying	Service similar to required service (yes / no)?

Attach separate page as necessary

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

I / we certify that

1 *(tick one of the boxes):*

□ the enterprise **is not** required by law to prepare annual financial statements for auditing

□ the enterprise **is** required by law to have audited annual financial statements and attached the audited financial statements for the past three financial years, or since the establishment as the enterprise was established within the past three years

2) the enterprise and its directors has / have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days *(i.e.: all municipal accounts are paid up to date)* Attach Municipal Utility Account;

3) source of goods and / or services:

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

□ goods and / or services are sourced only from within the Republic of South Africa

□ [ ] % of the total cost of goods and / or services will be sourced from outside the Republic of South Africa and the percentage of payment from the municipality or municipal entity which is expected to be transferred out of the Republic is [ ] %

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

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

Attach separate page as necessary

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

Signed ---------- Date _____

Name _____ Position ----------

ATTACHED HERETO AN ORIGINAL OR CERTIFIED COPY OF THE MUNICIPAL UTILITY ACCOUNT NOT OLDER THAN 3 MONTHS

FORM H: CERTIFICATE OF INDEPENDENT TENDER (MBD 9)

Notes to tenderer:

a) This certificate conforms to Treasury Regulation 16A9 and the requirement of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, that prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive tendering.
b) Collusive tendering is a conspiracy between businesses that would normally be expected to compete, to agree not to compete, in a tender process.
c) This certificate serves as a declaration by the tenderer that the tender submitted is free from any collusion with a competitor.

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying tender:

_____

(Tender Number and Description)

in response to the invitation for the tender made by:

_____

(Name of Municipality / Municipal Entity)

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

I certify, on behalf of:_____that:

(Name of Tenderer)

i) I have read and I understand the contents of this Certificate;

ii) I understand that the accompanying tender will be disqualified if this Certificate is found not to be true and complete in every respect;

iii) I am authorized by the tenderer to sign this Certificate, and to submit the accompanying tender, on behalf of the tenderer;

iv) Each person whose signature appears on the accompanying tender has been authorized by the tenderer to determine the terms of, and to sign, the tender, on behalf of the tenderer;

v) For the purposes of this Certificate and the accompanying tender, I understand that the word "competitor" shall include any individual or organization, other than the tenderer, whether or not affiliated with the tenderer, who:
   (a) has been requested to submit a tender in response to this tender invitation;
   (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
   (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer

vi) The tenderer has arrived at the accompanying tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.

vii) In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

a) prices;
b) geographical area where product or service will be rendered (market allocation)
c) methods, factors or formulas used to calculate prices;
d) the intention or decision to submit or not to submit, a tender;
e) the submission of a tender which does not meet the specifications and conditions of the tender; or
f) bidding with the intention not to win the tender.

viii) In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.

ix) The terms of the accompanying tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.

x) I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signature	Date
Capacity under which Tender is Signed	Name of Tenderer

FORM I: DECLARATION OF GOOD STANDING REGARDING TAX (MBD 2)

ATTACH VALID TAX COMPLIANCE STATUS (TCS) PIN TO THIS PAGE

The Tax Clearance Certificate and Tax Compliance Status (TCS) PIN must be submitted together with the tender. Failure to submit the above-mentioned documentation will result in the invalidation of the tender.

In tenders where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate, and Tax Compliance Status (TCS) PIN.

FORM J: DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MBD 8)

Notes to tenderer:

1. This tender document must form part of all tenders invited.
2. This form serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The tender of any tenderer may be disregarded if that tenderer or any of its directors have
   a. abused the institution's supply chain management system;
   b. committed fraud or any other improper conduct in relation to such system;
   c. failed to perform on any previous contract.
4. In order to give effect to the above, the following questionnaire must be completed and submitted with this tender.

Item	Question	Yes	No
4.1	**Is the tenderer or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?** (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the *audi alteram partem* rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		
4.2	Is the tenderer or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? **The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
4.2.1	If so, furnish particulars:		
4.3	Was the tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		

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

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) ……

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

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

Signature

Date

Capacity under which Tender is Signed

Name of Tenderer

FORM K: REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIER DATABASE

The tenderer shall provide a printed copy of the Active Supplier Listing on the National Treasury Central Supplier Database. (www.treasury.gov.za). Tenderers who are not registered on the Central Supplier Database should attach proof of their application for registration (refer to Tender Data Clause 4.1). In the case of a Joint Venture, a printed copy of the Active Supplier Listing must be provided for each member of the Joint Venture.

Name of Contractor: .....

Central Supplier Database Supplier Number: .....

Affix Proof of the National Treasury Central Supplier Database to this page

(Registration report or summary report from the National Treasury Central Supplier Database, **printed not earlier than 2 weeks prior** to the tender closing date)

FORM L: DECLARATION OF TENDERER'S LITIGATION HISTORY

Does the tenderer have any litigation with which tenderer (including its directors, shareholders or other senior members in previous companies) have been involved with any organ of state or state department within the last ten years?

If yes, furnish your details in table below.

YES	NO

NB: It is compulsory for all bidders to sign this form

The tenderer shall list below details of any litigation with which the tenderer (including its directors, shareholders or other senior members in previous companies) has been involved with any organ of state or state department within the last ten years. The details must include the year, the litigating parties, the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made.

Client	Other Litigating Party	Dispute	Award Value	Date Resolved

Signature

Date

Capacity under which Tender is Signed

Name of Tenderer

FORM M: AUTHORITY OF SIGNATORY

Details of person responsible for tender process:

Name : _____

Contact number : _____

Office address : _____

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

PRO-FORMA FOR COMPANIES AND CLOSE CORPORATIONS:

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

Mr .....

has been duly authorized to sign all documents in connection with the Tender for Contract Number/Name

……and any Contract which may arise there from on

behalf of ……
(BLOCK CAPITALS)

SIGNED ON BEHALF OF THE COMPANY .....

IN HIS CAPACITY AS .....

DATE .....

FULL NAMES OF SIGNATORY .....

SIGNATURE .....

AS WITNESSES: 1. NAME …… SIGNATURE ……

2. NAME …… SIGNATURE ……

PRO-FORMA FOR JOINT VENTURES:

Certificate of Authority for Joint Ventures

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

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

ATTACHED HERETO THE DULY SIGNED AND DATED ORIGINAL OR CERTIFIED COPY OF AUTHORITY OF SIGNATORY ON COMPANY LETTERHEAD

FORM N: SCHEDULE OF SPECIALIST SUBCONTRACTORS

Notes to tenderer:

1. The tenderer shall list below the specialist items of work on this contract. Alternatives may be mentioned.
2. The tenderer shall state whether he intends to carry out any specialised work himself.

Acceptance of this tender shall not be construed as approval of all or any of the listed specialist subcontractors. Should any or all of the specialist subcontractors not be approved subsequent to the acceptance of the tender, it shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed below being approved by the engineer.

SPECIALISED ITEM	INDICATE IF SUB-CONTRACTED (Tick correct option)	
	YES	NO

Specialised Sub-contractors (Table 1)

In order to complete the Works under this Contract, I/we propose to employ the following sub-contractors to carry out the portion/type of work as detailed. **Affix Original Appointment Letter or Certified proof of 3 previous projects for each sub-contractor not older than 5 years, proof of Central Supplier Database Registration, certified B-BBEE certificate or original/certified copy of sworn affidavit.**

(Note: All proposed sub-contractors must be listed).

Sub-contractor: Name, Address and Telephone No.	**Portion/type of work to be undertaken**	
_____ _____ **(____)_____**	General Building Works 4GB or Higher	**Previous value of work:** **Previous Experience:**
_____	Electrical Engineering Works	**Previous value of work:**

_____ **(____)_____**	4EB/EP or Higher	**Previous Experience:**
_____ _____ **(____)_____**	Mechanical Engineering Works 4ME or Higher	**Previous value of work:** **Previous Experience:**
_____ _____ **(____)_____**		**Previous value of work:** **Previous Experience:**

FORM O: PROOF OF GOOD STANDING WITH COMPENSATION COMMISSIONER

Notes to tenderer:

1. Discovery that the tenderer has failed to make proper disclosure may result in Ehlanzeni District Municipality terminating a contract that flows from this tender on the ground that it has been rendered invalid by the tenderer's misrepresentation.

2. The tenderer shall attach to this Form evidence that he is registered and in good standing with the compensation fund or with a licensed compensation insurer who is approved by Department of Labour in terms of section 80 of the Compensation for Injury and Disease Act 1993 (COID) (Act 130 of 1993).

Affix certified Proof of Good Standing with Compensation Commissioner to this page

FORM P: SCHEDULE OF CURRENT COMMITMENTS

Notes to tenderer:

(a) The tenderer shall list below all contracts currently under construction or awarded and about to commence and tenders for which offers have been submitted but awards not yet made.
(b) In the event of a joint venture enterprise, details of all the members of the joint venture shall similarly be attached to this form.
(c) The lists must be restricted to not more than 5 contracts and 5 tenders. If a tenderer's actual commitments or potential commitments are greater than 5 each, those listed should be in descending order of expected final contract value or sum tendered.

Contracts Awarded				
Employer	Project	Expected Value of contract (Inclusive of VAT)	Durations (Months)	Expected Completion Date

Tenders not Yet Awarded				
Employer	Project	Tendered Amount (Inclusive of VAT)	Tendered Durations (Months)	Expected Commencement Date

Signature

Date

Capacity under which Tender is Signed

Name of Tenderer

FORM Q: REGISTRATION WITH CIDB

The tenderer shall provide a printed copy of the Active Contractor's Listing off the CIDB website. (www.cidb.org.za). Tenderers whose CIDB registration expires within 21 days after close of tender should attach proof of their application for re-registration (refer to Tender Data Clause 4.1). In the case of a Joint Venture, a printed copy of the Active Contractor's Listing must be provided for each member of the Joint Venture.

Name of Contractor: .....

Contractor Grading Designation: .....

CIDB Contractor Registration Number: .....

Expiry Date: .....

RETURNABLES FOR QUALITY CRITERIA

FORM R: COMPANY EXPERIENCE IN RELATION TO SCOPE OF WORKS

The Tenderer will receive a maximum of 50 points based on information provided in this schedule.

The following is a statement of work of similar nature recently successfully executed by myself / ourselves:

1. Points will be given for projects completed of similar nature.
2. The tenderer must list at least three (3) water treatment or wastewater treatment work projects with a minimum capacity of 5ML/day completed in the last 10 years. The tenderer will receive a maximum of **12.5** Quality Points for each project listed (5 points per appointment letter and 7,5 point per completion certificate.
3. The tenderer must list at least one (1) Bulk Pipeline projects completed in the last 5 years. The tenderer will receive a maximum of **12.5** Quality Points for each project listed (5 points per appointment letter and 7,5 points per completion certificate).
4. The maximum Quality points for each criterion are listed below.
5. Positive feedback from the Consulting Engineer from the designated / listed contact person will contribute toward points allocated for the attached certificates of completion.
6. Positive feedback from the Employer from the designated / listed contact person will contribute towards points allocated for the attached certificates of completion.
7. Only projects of similar nature are applicable.
8. Points for completion certificates attached will be given for similar projects. Negative feedback will forfeit all points, meaning zero (0) points will be allocated for the attached certificates of completion.
9. Failure to submit all relevant information per project will result in the forfeiture of all points for that relevant project.
10. The experience of the Tenderer or joint venture partners in a consortium will be evaluated on the basis of experience in similar projects or similar areas and conditions in relation to the scope of work required for this project.
11. **It is mandatory that a tenderer achieves at least 35 of the 50 points awarded for the bidder's experience. Tenderers who do not fulfil this mandatory requirement will be disqualified**

Appointment letter of Relevant Work (Attached Certified Appointment Letter) (max 5 points/project)	**Consulting Engineer: Contact Person and Telephone Number**	**Employer: Contact Person and Telephone Number**	**Value of Work** (inclusive of VAT)	**Date Completed (Attach Certified Completion Certificate or Letter of Reference)** (max 7.5 points/project)	**Points Awarded by the Engineer**

*Attach additional pages if more space is required		Total Points			

SECTION A: Particulars of Employer who commissioned the Works.
Provide the following information on the Employer for whom the contract was performed.

Employer: _____

Employer's contact person: Title: _____ Initials: _____ Surname: _____

Telephone: (_____) _____ Cell: _____

SECTION B: Particulars of Contract Administrator
Person responsible for administering the contract on behalf of the employer, e.g.: Consulting Engineer

Title: _____ Initials: _____ Surname: _____

Organisation: _____

Telephone: (_____) _____ Fax: (_____) _____

Cell: _____ Email: _____

SECTION C: Contract Information

Contract title: _____ Employer's Contract No._____

Description of Contract: _____

Indicate the class of works to which the track record is applicable. Please indicate with an:"X"

☐ General Building ☐ Electrical ☐ Civil Engineering

☐ Mechanical ☐ Specialist works

Specify which class of specialist works: _____

Were you involved as: ☐ Main Contractor ☐ Sub Contractor

Contract award date: _____ Practical completion date: _____

Province: _____ Municipality: _____

FORM S: PLANT & EQUIPMENT

The tenderer will receive a maximum of 10 points based on information provided in this schedule.

1. The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract or will acquire or hire for this contract if my / our tender is accepted.

2. The tenderer will receive Quality points for listing of plant available for this specific contract as follows:
   - Major plant for construction works if well identified and 100% is owned and available at start of contract maximum points will be as stated in allocated points if owned column.
   - Maximum points for hired plant will be as stated in the Allocated points for hired plant column.
   - If Quantity required is two with one owned and one hired the tenderer can only score 50% of the points for owned and hired plant.
   - Plant correctly identified and owned will be calculated according to allocated points.

Description, size, capacity, etc.	Allocate Points if owned	Allocate Points if hired	Quantity Required	Quantity owned	Quantity hired	Points Scored
Motor grader (Cat 14H or Similar)	1.0	0.5	1			
Excavator (20 ton)	2.0	1.0	1			
Water Tanker (8000 Litre)	1.0	0.5	1			
Vibratory Roller (2.5 ton)	1.0	0.5	1			
Vibratory Roller (10 ton or above)	1.0	0.5	1			
Tipper Truck (6 m^3)	1.0	0.5	3			
Tipper Truck (10 m^3 or above)	1.0	0.5	2			
TLB (48 kw Capacity)	1.0	0.5	2			
Mobile Crane	1.0	0.5	1			
Total	10.0	5.0				
Total Points Allocated						

Note: *Proof of ownership - Certified copies of vehicle registration documents), the firm's equipment must be attached. Where plant and equipment are to be hired from a third party, a letter/s from the hiring / leasing company must be attached together with proof of ownership of plant and equipment. Failure to do so will result in forfeiting the plant points.*

FORM T: FINANCIAL RESOURCES
BANKING INFORMATION

The tenderer will receive a maximum of 10 points based on information provided in this schedule.

DETAILS OF TENDERERS BANKING INFORMATION

Notes to tenderer:

- The tenderer shall attach to this form an **Original Letter** from the bank not older than three (3) months confirming the bank account, details and bank rating. No points will allocated for f**ailure to provide the required bank letter with the tender submission.**
- In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.

BANK NAME:		
ACCOUNT NAME: *(e.g. ABC Civil Construction cc)*		
ACCOUNT TYPE: *(e.g. Savings, Cheque etc)*		
ACCOUNT NO:		
CONTACT PERSON:		
TEL. NO OF BANK / CONTACT:		
How long has this account been in existence:	0 – 6 Months ☐ 7 – 12 Months ☐ 13 – 24 Months ☐ More than 24 Months ☐ (Tick which is appropriate)	
BANKING RATING	**MAXIMUM CLAIMABLE POINTS**	**POINTS CLAIMED**
No Bank Rating	0	
E or F	0	
D	0	
C	5	
B	8	
A	10	

MAXIMUM POINTS OBTAINABLE	**10**	

ATTACH HERETO AN ORIGINAL LETTER FROM THE BANK TO THIS PAGE NOT OLDER THAN THREE (3) MONTHS

FORM T: FINANCIAL RESOURCES

DECLARATION OF PROCUREMENT ABOVE R 10 MILLION (MBD5)

For all procurement expected to exceed R10 million (all applicable taxes included), tenderer must complete the following questionnaire:

- Are you by law required to prepare annual financial statements for auditing?

  YES / NO

1.1 If yes, submit audited financial statements for the past three years or since the date of establishment if established during the past three years.

……..

……..

2. Do you have any outstanding undisputed commitments for municipal services towards any municipal for more than three months or any other service provider in respect of which payments is overdue for more than 30 days?

   YES / NO

……

……

2.1 If no, this serves to certify that the tenderer has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for then 30 days?

…..……..……

……..

2.2 If yes, please provide particulars

…….……

……

3.1 Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?

YES / NO

.....

……

a. If yes, furnish particulars

……

……

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

YES / NO

4.1 If yes, furnish particulars

……

……

CERTIFICATION

I, THE UNDERSIGNED (NAME) ……...

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

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

Signature	Date
Capacity under which Tender is Signed	Name of Tenderer

FORM T: FINANCIAL RESOURCES

APPROVED ANNUAL FINANCIAL STATEMENT

Approved Annual Financial statements must comprise:
o Statement of financial position (Balance Sheet)
o Statement of comprehensive income (income statement)
o Statement of changes in Equity
o Statement of cash flows
o Notes to the financial statements
o ITA 34C Income Tax Assessment for companies that have NOT been AUDITED

Attached three sets of current and prior year's Annual Financial Statements

FORM U: MANAGERIAL CAPACITY, EXPERIENCE AND QUALIFICATIONS

The Tenderer will receive a maximum of 20 points based on information provided in this Schedule

Notes to tenderer:

1. The intention of this form is to demonstrate the tenderer's project structure, as well as the lines of responsibility between members of the project team and the overall company structure. Attach own organogram to this form.
2. Joint Venture tenders require each element of the venture to submit separate organograms that show the individual structure of each member company and the lines of responsibility of the proposed personnel involved in the project. In addition, there must also be a combined organogram that indicates how the joint venture itself will function and the proposed share of the work will become a contractual obligation between the members of the joint venture.
3. State the city or town where the company's head office is located. The locality of regional or satellite offices, regardless of degree of autonomy or size is not required. Only submit the number of offices other than the head office. Do not count offices outside RSA.
4. Registered professional engineers, or technologists means those who are involved in the construction of Water treatment works, Pump stations and Pipelines. Registered professionals of other disciplines (e.g. mechanical) are considered as employees only.
5. **It is mandatory that a tenderer achieves at least 16 of the 20 points allocated for the experience and qualifications of the bidder's key personnel. Tenderers who do not fulfil this mandatory requirement will be disqualified.**

Head Office: State City/Town: (See note 3.)	
Other Offices: Only list number: (See note 3.)	
Registered Professionals: ECSA or in terms of ECSA approved International Agreements (PrEng, Pr Tech Eng,) (See note 4.)	
Registered Professionals: SACPCMP (Pr CM) (See note 4)	
Total Employees:	
% share in JV agreement: (State 100% if no JV)	

CONSTRUCTION TEAM KEY PERSONNEL

	TARGETED GOALS (Attach all CV's and Certified Qualifications)	**TENDERED GOAL**	**POINTS CLAIMED BY TENDERER**	**ALLOCATED POINTS**
1.	Safety Officer with First Aid, OHSA (Construction Regulations qualification) (Full Time on site) Registered Professionals: SACPCMP Name: **……**	1.0		
	PLUS			
2.	Site Foreman has NQF 2 qualification (LIC). Name: **……**	2.0		

PLUS

3.	Mechanical/Electrical Manager (Pr Eng or Pr Tech Eng or Pr CM) (Contract's Representative/Site Agent) Name: **……** Qualification: **……**	2.0		
	PLUS			
4	Construction Manager (Pr Eng or Pr Tech Eng or Pr CM) (Contract's Representative/Site Agent) Name: **……** Qualification: **……**	5.0		
5.	Contracts Manager (Pr Eng or Pr Tech Eng or Pr CM) Name: **……** Qualification: **……**	10.0		
SUB-TOTAL: Construction Team Key Personnel		**20.0**		

KEY PERSONNEL EXPERIENCE (CONTRACTS MANAGER)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached to this form.

Name	Position in Team	ECSA Reg. No	Category	SACPCMP Reg. No	Category	No. of Years' Experience
	Contracts Manager					

Technical/Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of works.

Description of Project	Position Held	Project Start Date	Project Completion Date	Contract Value	Client and Contact Person	Contact No.

KEY PERSONNEL EXPERIENCE (CONSTRUCTION MANAGER)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached to this form.

Name	Position in Team	ECSA Reg. No	Category	SACPCMP Reg. No	Category	No. of Years' Experience
	Construction Manager					

Technical/Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of works.

Description of Project	Position Held	Project Start Date	Project Completion Date	Contract Value	Client and Contact Person	Contact No.

KEY PERSONNEL EXPERIENCE (MECHANICAL/ELECTRICAL MANAGER)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached to this form.

Name	Position in Team	ECSA Reg. No	Category	SACPCMP Reg. No	Category	No. of Years' Experience
	Mechanical Manager					
	Electrical Manager					

Technical/Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of works.

Description of Project	Position Held	Project Start Date	Project Completion Date	Contract Value	Client and Contact Person	Contact No.

ATTACH CV'S OF KEY PERSONNEL TO THIS PAGE

Note: Only CV's and Certified Qualification Certificates of Key personnel that were named and shown on the organogram to be attached, and points will be allocated for the CV's and Certified Qualification Certificates.

FORM V: EXECUTION PROGRAMME

The Tenderer will receive a maximum of 10 points based on information provided in this schedule.

METHOD STATEMENT

This contract covers the Civil Engineering and Building Work, Electrical and Mechanical Works to provide the components of the Driekoppies Regional Water Scheme. The works will comprise of the following main categories:

- **Water Treatment works**
  Completion of Driekoppies Phase 1a water treatment works

- **Water Treatment works**
  Construction of Driekoppies water treatment works Phase 4.

- **Elevated Steel Tank**
  Construction of the Schulzendal Elevated Steel Tank

- **Bulk Pipelines**
  Construction of the Middleplaas Pipeline
  Construction of the Schulzendal Pipeline

- **Booster Pumpstation**
  Construction of the Schulzendal booster pumpstation

The Tenderer shall attach a method statement reflecting the execution of the various activities, construction methods and quality control comprising the rehabilitation work for this Contract, including accommodation of traffic during construction. The statement shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of this Tender.

EXECUTION PROGRAMME

The Tenderer will receive a maximum of 10 points based on the executive programme. Priority must be given to the completion of the Driekoppies Water Treatment Works Phase 1a.

The quality criteria will be as follow:

1. Applicable activities/tasks (showing more than 10 (ten) tasks) = 4.0 points
2. Float indicated = 2 point
3. Resources allocation indicated = 2 point
4. Critical path = 2 points

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract. The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of this Tender.

The Execution Programme must be based on the completion time as specified in the Contract Data.

PLEASE NOTE: the cash flow projections from the contractor (to be submitted before commencement of the execution of the contract) must be in accordance with this execution plan in order to ensure proper cash flow management by the employer and to minimise delayed payments.

Programme														
Activity and Resource	**Month**													

* Attach additional pages if more space is required.

Point Award		
Description	Possible Points	Points Awarded
EXECUTION PROGRAMME	10.0	

Signature

Date

Capacity under which Tender is Signed

Name of Tenderer

COMPETENCE ACHIEVEMENT SCHEDULE (QUALITY)

		MAXIMUM POINTS TO BE ALLOCATED	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
Company Experience:	Form R	50		
Plant and Equipment:	Form S	10		
Financial References:	Form T			
• **Bank Information and Rating**		10		
Key Personnel:	Form U	20		
Method Statement and Programme:	Form V	10		
	Sub- Total	100		
	TOTAL	**100**		

Note:

Total allocated for Quality is 100 points. The minimum threshold required to qualify for the next stage of evaluation is 70 points. Only those tenders that achieve the minimum number will proceed to the price and preference evaluation stage.

FORM W: SCHEDULE OF TENDER COMPLIANCE

Note to tenderer:

This Table has been created as an aid to ensure a tenderer's compliance with the completion of the returnable forms and schedules and subsequent placement in the correct envelope.

FORM NO / MBD NO	FORM DESCRIPTION	TICK IF COMPLETED
A	CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING	
B	RECORD OF ADDENDA TO TENDER DOCUMENTS	
C	PROPOSED AMENDMENTS AND QUALIFICATIONS	
D	PREFERENCING SCHEDULE: BROAD BASED BLACK ECONOMIC EMPOWERMENT STATUS	
E	DECLARATION OF INTEREST	
G	MUNICIPAL DECLARATION AND RETURNABLE DOCUMENTS	
H	CERTIFICATE OF INDEPENDENT TENDER	
I	DECLARATION OF GOOD STANDING REGARDING TAX	
J	DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES	
K	REGISTRATION ON NATIONAL TREASURY CENTRAL SUPPLIER DATABASE	
L	DECLARATION OF TENDERER'S LITIGATION HISTORY	
M	AUTHORITY OF SIGNATORY	
N	SCHEDULE OF SPECIALIST SUBCONTRACTORS	
O	PROOF OF GOOD STANDING WITH COMPENSATION COMMISSIONER	
P	SCHEDULE OF CURRENT COMMITMENTS	
Q	REGISTRATION WITH CIDB	
R	COMPANY EXPERIENCE IN RELATION TO SCOPE OF WORKS	
S	PLANT & EQUIPMENT	
T	FINANCIAL RESOURCES	
U	MANAGERIAL CAPACITY, EXPERIENCE AND QUALIFICATIONS	
V	EXECUTION PROGRAM	

PART C1: AGREEMENT and CONTRACT DATA

C 1.1: FORM of OFFER

OFFER

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

Driekoppies Regional Water Scheme, Completion of Works Driekoppies Phase 1a, Driekoppies Water Treatment Works Phase 4, Elevated Steel Tank, Pumpstation and Pipelines Phase 2d

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the tender returnables and, by submitting this offer, has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract, including compliance with all its terms and conditions according to their true intent and meaning, for an amount to be determined in accordance with the conditions of contract identified in the contract data.

The offered total of the prices, inclusive of any value added tax or sales tax which the law requires the employer to pay, is

_____ (in words)

R _____ (in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in terms of the conditions of the contract identified in the contract data.

for the TENDERER

Signature: _____

Name: _____

Capacity: _____

Name and address: _____

_____

_____

_____

Name and _____ Date: _____

signature of witness _____

C1.2: FORM of ACCEPTANCE

ACCEPTANCE

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract, that is the subject of this agreement.

The terms of the contract, are contained in:

Part C 1: Agreements and contract data, (which includes this agreement)
Part C 2: Pricing data
Part C 3: Scope of work.
Part C 4: Site information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C 1 to C4 above.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules, as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt, notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

for the EMPLOYER

Signature: _____

Name: _____

Capacity: _____

Name and address: _____

_____

_____

Name and _____ Date: _____

signature of witness _____

C1.3: SCHEDULE of DEVIATIONS

1 Subject
Details
2 Subject
Details
3 Subject
Details
4 Subject
Details

By the duly authorized representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

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

for the TENDERER

Signature: _____

Name: _____

Capacity: _____

for the EMPLOYER

(Name and address): _____

_____

_____

Name and _____ Date: _____

signature of witness _____

PART 1

GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are the *General Conditions of Contract for Construction Works,* Third Edition (2015) published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institute of Civil Engineering (Tel: 011 805 5947).

It is agreed that the only variations from the GCC 2015 are those set out hereafter under "SPECIAL CONDITIONS OF CONTRACT".

SPECIAL CONDITIONS OF CONTRACT

GENERAL
These Special Conditions of Contract (SCC) form an integral part of the Contract. The Special Conditions of Contract shall amplify, modify or supersede, as the case may be, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions of Contract hereafter are numbered "SCC" followed in each case by the number of the applicable clause or subclause in the GCC 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the GCC 2015, and an appropriate heading.

AMENDMENTS TO THE GCC 2015

SCC.1.1 Definitions

SCC 1.1.1.14: delete "Commencement Date" in the definition and substitute "date of commencement of the Works".

Add the following to the end of Clause 1.1:

"SCC 1.1.1.35 "Construction Manager" means the person approved of in writing by the Employer's Agent, as the Contractor's representative on Site.

SCC 1.1.1.36 "Targeted Enterprise" means an enterprise as defined in the Project specification CIDB Indirect Targeting for Enterprise Development C3.5.9.4

SCC 1.1.1.37 "Targeted Labour" means labour as defined in the Project specification CIDB Contract Skills Development Goal C3.5.9. 4.."

SCC 4.1.1 Extent of Contractor's obligations

Add the following new paragraphs to the end of Clause 4.1.1:

If the Contractor fails to achieve the monetary value of the contract participation goal stated in the Contract Data for contract participation by Targeted Enterprises in the specification, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope of Work as a penalty for such underachievement."

SCC 4.4.2 Subcontractor to be approved

Add the following to Clause 4.4.2:

"The Contractor shall comply with the subcontracting restrictions stated in the Contract Data."

SCC 4.10.1 Engagement of employees

Add the following to Clause 4.10.1:

“The contractor shall pay rates and wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out, as stated in the Contract Data.”

SCC 5.3.1 Commencement of the Works

Delete the first sentence of Clause 5.3.1 and substitute the following:

“The Employer’s Agent shall give the Contractor not less than 7 days’ notice of the date of commencement of the Works on which date the Contractor is instructed to commence carrying out the Works, save as may be otherwise provided in the Contract, or be legally or physically impossible. The date of commencement of the Works shall be within the period after the Commencement Date stated in the Contract Data.”

SCC 5.3.3 **Time to instruct commencement of the Works**

Delete Clause 5.3.3.

SCC 5.14.4 Certification of Completion

Insert the following in the first sentence after the words “has been duly completed,”: “and the Contractor has submitted the information stated in the Contract Data,”.

SCC 6.2.1 Delivery of security

In the last two lines of Clause 6.2.1, delete the words “the type of security for the due performance of the Contract, as selected in the Contract Data” and replace them with the words “a fixed performance guarantee as security for the due performance of the Contract in accordance with the Contract Data Part A: Data Provided by the Employer”. Delete the entirety of Clause 6.2.2 and replace it with the following:

“SCC 6.2.2 Contractor failing to provide security

If the Contractor fails to provide the required fixed performance guarantee within the time period stated in the Contract Data, or if the performance guarantee shall differ substantially from the pro forma, it shall legally be deemed that the Contractor has selected a security of ten per cent retention of the value of the Works without limiting the Employer’s right to terminate the Contract in terms of Clause 9.2.”

SCC 6.2.3 Validity of performance guarantee

Delete the entirety of the first sentence of Clause 6.2.3 and replace it with the following:

“The Contractor shall ensure that the performance guarantee remains valid and enforceable until the Certificate of Completion is issued.”

SCC 6.10.4 Delivery, dissatisfaction with and payment of payment certificate

Delete “within 28 days” in the third sentence and substitute “within 30 days”.

SCC 6.10.8 Contractor’s completion statement

Delete “within 28 days” in the third sentence and substitute “within 30 days”.

SCC 6.10.9 Final Payment Certificate

Delete “within 28 days” in the second sentence and substitute “within 30 days”.

SCC 10.1.5 Employer’s Agent’s ruling on Contractor’s Claim

Delete “within 28 days” in the first sentence and in Clause 10.1.5.1, and substitute “within 56 days”.

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

Clause	Data
1.1.1.13	The Defects Liability Period is **12** months calculated from the date of the Certificate of Completion.
SCC 1.1.1.14	The whole project time for achieving Practical Completion is 24 months and included in the 24 months is the time to reach practical completion for Driekoppies Phase 1a at 8 months from the date of commencement of works, including non-working days and special non-working days. The project duration includes the procurement of all contracts under the Indirect Targeting for Enterprise Development
1.1.1.15	The Name of the Employer is **Ehlanzeni District Municipality** The Employer's address for receipt of communications is: **P O Box 3333** **Mbombela** **1200** Telephone: **013 - 759 8500** E-mail: **PKhumalo@ehlanzeni.gov.za**
1.1.1.16	The name of the Employers Agent is **Lubisi/GMH Joint Venture** The address of the Employers Agent is: **P.O Box 12393** **Mbombela, 1206** Telephone: **013 - 752 6416** Facsimile: **013 - 752 6418**
SCC 4.1.1	The contract participation goal for Targeted Enterprises is **5%.** The successful tenderer must subcontract a minimum of **5%** of the value of the Constructions Works to Targeted Enterprises through Contract Participation Goals (CPG) for a bidder that is BEE Level 1 EME or QSE that is more than 51% owned by black person(s) in terms of the requirements of the cidb B.U.I.L.D Programme with respect to Indirect Targeting for Enterprise Development. The implementation of the Indirect Targeting for Enterprise Development shall be as per Project Specifications in C3.5.9.3 and the Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in the Government Gazette No. 36190 of 29 January 2013, issued in terms of sections 5(2) of the Construction Industry Development Board Act, 2000(Act no. 38 of 2000). The penalty for failing to achieve the monetary value of the above target set by the Employer for contract participation by Targeted Enterprises in terms of Project Specifications C3.5.9.3 is **5%** of the monetary value by which the achieved monetary value falls short of the target monetary value. The Contractor may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor than the Contractor, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract. The Contractor and his subcontractors shall be registered with the Bargaining Council for the Civil Engineering Industry and comply with the wage rates and conditions of labour agreed by the Bargaining Council for the Civil Engineering Industry, except where a specific industry publishes its own wage rates and conditions of labour. The Standard for Skills Development is set at a maximum development support of **0.25** % of the project's contract value as per the cidb B.U.I.L.D Programme. The successful tenderer must employ Learners from TVET colleges and universities by providing them with opportunities for workplace learning through placements, thereby acquiring

	work experience and young professionals seeking candidacy and registration through work placements. The wage rates and the implementation shall be as per the Standard for Developing Skills through Infrastructure Contracts, Published in the Government Gazette No. 43495 of 3 July 2020, issued in terms of sections 5(2) of the Construction Industry Development Board Act, 2000(Act no. 38 of 2000). The penalty for failing to achieve the monetary value of the above target set by the Employer for Skills Development in terms of Contract Skills Development Goals Project Specification C3.5.9.4, is 5% of the monetary value by which the achieved monetary value falls short of the target monetary value.
5.1.1 **5.8.1**	The non-working days are Sundays The special non-working days are: (i) the statutory public holidays in terms of the Public Holidays Act; (ii) the foreseeable election days declared as a statutory public holiday; and (iii) the annual year-end shutdown period as recommended by the Bargaining Council for the Civil Engineering Industry.
5.3.1	The documentation required before commencing with the works are: ✓ Health and Safety Plan ✓ Initial programme ✓ Performance Guarantee ✓ Insurance and if the Employer is required to apply for a construction work permit to perform construction work in terms of regulation 3(1) of the Construction Regulations 2014, the following documentation shall also be submitted: (i) Temporary works designer's appointment duties in terms of Regulation 6(2) as have been agreed upon plus proof of registration with ECSA [CR 3(5)(b)(iii) read with CR 5(1)(e) and CR 6(2)]. (Ii) Evidence that the Principal contractor has made adequate provision for the cost of Health and Safety, i.e., bill of quantities [CR 3(5)(b)(iii) read with CR 5(1)(g)]; and (iI) Evidence that the Principal contractor has the necessary competencies to carry out construction work safely, namely, schedule of activities, relevant appointments and proofs of competency [CR 5(1)(h)].
5.3.2	The time to submit the documentation required before commencement of the Works is **14** days.
5.13.1	The penalty for failing to complete the works is **R10,000.00** per calendar day.
5.16.3	The latent defects period is **10 Years.**
5.14.1	The Contractor shall submit the following: (i) evidence that the local labour has been paid, and that the Targeted Enterprise subcontractors have received all amounts due in terms of their respective subcontract agreements; and (ii) the survey and materials information which the Employer's Agent requires to complete the as-built drawings and records
6.2.3	The Form of Guarantee is to contain the wording of the proforma document included in the General Conditions of Contract (Pro-forma included in section C1.8 to this document).
6.2.3	The liability of the guarantee shall be **10** %.
6.8.2	The value of payment certificates is to be adjusted in accordance with the Contract Price Adjustment Schedule on page 86 of GCC 2015, where. **The value of "x" is 0,10** The values of the co-efficient are: **a = 0,25** **b = 0,15** **c = 0 55** **d = 0,05** The indices for "L", "P", "M" and "F" are the following as published by Statistics South Africa:

	'L" is the "Labour Index" As published in the Statistical News Release P0141: Table A “CPI – all items, according to area” of Statistics South Africa. "P" is the "Contractors Equipment Index" as published in the Statistical News Release PO151.1, Table 4 – “Plant and Equipment” - “Civil Engineering” of Statistics South Africa. "M" is the "Materials Index" published in the Statistical News Release PO151.1, Table 6 - “Civil Engineering Material - Total” – “Civil Engineering” of Statistics South Africa. "F" is the "Fuel Index" as published in Statistical News Release PO142.1, Table 1 of Statistics South Africa. The site is located in the **Ehlanzeni District Municipality.** The base month is **one month prior to the closing date of the tender.**
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is **80**%.
6.10.3	The percentage retention on the amounts due to the Contractor is **10** %.
8.6.1.1.2	The value of the materials supplied by the Employer to be included in the insurance sum is nil.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is nil.
8.6.1.3	The limit of indemnity for liability insurance is **R10,000,000.00**.
10 **10.5.2** **10.5.3** **10.8.1**	CLAIMS AND DISPUTES Disputes shall be referred to ad-hoc adjudication. The number of Adjudication Board members to be appointed shall be one. Unresolved disputes shall be determined by court proceedings.
	The variations to the General Conditions of Contract
2.1.2.5	Replace the term “Safety” with “Occupational Health and Safety”
9.2.1.3.7	Replace sub-clause with The Contractor or anyone on his behalf or in his employ would pay, offer or offer as payment to any person in the employ of the Employer, or in the employ of the Employers Agent, a gratuity or reward or commission.
5.12.2.2	**The additional clauses to the General Conditions of Contract are:** Extensions of time in respect of clause 5.12 in respect of abnormal rainfall shall be calculated using the following formula for each calendar month or part thereof: $V = (Nw - Nn) + \frac{(Rw - Rn)}{X}$ Where: V = Extension of time in calendar days in respect of the calendar month under consideration. Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded. Nn = Average number of days in the relevant calendar month, as derived from existing rainfall records, on which a rainfall of 20mm or more has been recorded for the calendar month. Rw = Actual average rainfall in mm recorded for the calendar month under consideration. Rn = Average rainfall in mm for the calendar month as derived from existing rainfall records as stated in the Site Information.

For purposes of the Contract Nn, Rn, X and Y shall have those values assigned to them in the South African Weather Service's rainfall records of the nearest station to the site.

If V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn.

The total extension of time shall be the algebraic sum of all monthly totals for the period under consideration, but if the total is negative the time for completion shall not be reduced due to subnormal rainfall. Extensions of time for part of a month shall be calculated using pro rata values of Nn and Rn.

This formula does not take account flood damage which could cause further or concurrent delays and will be treated separately as far as extension of time is concerned.

The factor (Nw – Nn) shall be considered to represent a fair allowance for variations from the average in the number of days during which rainfall exceeds 10 mm. The factor (Rw-Rn) shall be considered to represent a fair allowance for variations from the average in the number of days during which the rainfall did not exceed 10 mm but wet conditions prevented or disrupted work. For the purpose of applying the formula, accurate rain gauging shall be taken at a suitable point on the Site and the Contractor shall at his own expense, take all necessary precautions to ensure that rain gauges cannot be interfered with by unauthorised persons.

The rainfall records applicable to this Contract are those as recorded by the South African Weather Atlas. The following values of N_n and R_n shall apply:

Month	**R_n (mm)**	**N_n (days)**
January	114.6	7
February	95.4	6
March	79.4	5
April	42.0	4
May	19.9	2
June	9.6	1
July	8.0	1
August	12.5	1
September	24.8	2
October	51.6	5
November	79.5	6
December	105.2	7
Total	642.4	47

5.12.2.2 A delay caused by inclement weather conditions will be regarded as a delay only if, in the opinion of the Employers Agent, all progress on an item or items of work on the critical path of the working programme of the contractor has been brought to a halt. Delays on working days only (based on a five-day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his programme of work for an expected delay of "n"" working days caused by normal rainy weather, for which he will not receive any extension of time, where "n" equals …… days. Extension of time during working days will be granted to the degree to which actual delays, as defined above, exceed the number of "n" workings days.

--oOo--

PART 2

DATA PROVIDED BY CONTRACTOR

The Contractor is advised to read the *General Conditions of Contract for Construction Works,* Third Edition (2015) published by the South African Institution of Civil Engineering, in order to understand the implications of this Data which is required to be completed.

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

Clause	Data
1.1.1.9 **1.2.1.2**	The **Contractor** is: Name: _____ The Address of the Contractor is: Address (physical): _____ _____ Address (postal): _____ _____ Telephone: _____ Facsimile: _____ E-mail: _____
1.1.1.14	The Works are to be completed within ……..... months.

6.2.1	Type of security (Value Added Tax is excluded from the contract sum and the value of the works for calculating the percentages)	Contractor's choice (Indicate "Yes" or "No")
	Cash deposit of 10% of the Contract Sum	
	Fixed Performance Guarantee of 10% of the Contract Sum	
6.5.1	The percentage allowance to cover overhead charges is …….....……	
6.8.3	The rates for special materials (applicable only to bituminous products), exclusive of Value Added Tax are:	
	(a)	
	(b)	

C 1.5 PRO FORMA: SAFETY AGREEMENT

PRO FORMA

OHS MANDATORY FORM

(TO BE COMPLETED AND SIGNED BY ALL MANDATARIES)

OCCUPATIONAL HEALTH AND SAFETY ACT
NO. 85 OF 1993

Note: Section 1(1)(xxviii) of the Act defines a "Mandatory" as including "an Agent, a Contractor or a Sub-contractor for Work."

The Employer and the Contractor hereby agree, in terms of the provisions of Section 37 (2) of the Occupational Health and Safety Act, Act No. 85 of 1993, hereinafter referred to as "the Act", that the Contractor as an employer in its own right and in its capacity as Contractor for the execution of the works, shall have certain obligations and that the following arrangement shall apply between them to ensure compliance by the Contractor with the provisions of the Act, namely:-

i. The Contractor undertakes to acquaint the appropriate officials and the employees of the Contractor with all relevant provisions of the Act, and the regulations promulgated in terms of the Act, and

ii. The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and regulations will be fully complied with, and

iii. The Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and regulations in respect of the work included in the Contract, and

iv. The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint, or criminal charge which may arise as a consequence of the provisions of the Act and regulations pursuant to work performed on behalf of the Employer, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Signed at _____ on the _____ day of _____ 20 _____

WITNESS:

_____ _____
for and on behalf of **Contractor**

WITNESS:

_____ _____
for and on behalf of the **Municipal Manager**
Ehlanzeni District Municipality

C1.6 PRO FORMA: DECLARATION OF OWNERSHIP OF UNUSED MATERIALS

In

CERTIFICATE OF PAYMENT NO. _____

I/We, the undersigned,_____

_____(Name of Contractor)
hereby declare that the materials for which payment is claimed in terms of Clause 6.10.1.5 of the General Conditions of Contract are:

(a) as described

* (i) on the copy of Invoice No. _____ annexed hereto

*(ii) as set out in detail below

_____

_____

_____

*delete whichever is not applicable.

(b) located at

_____

_____

(c) is totally owned by me/us and that no other party has any claim or right in respect of the above materials and that I am/we are free to pass ownership upon receipt of payment for such materials

(d) intended for incorporation into the permanent works of this Contract.

Signed at _____on this _____

day of _____ 20_____.

Witnesses:

Signature: _____

1. _____ Capacity: _____

2. _____ On behalf of: _____

Address: _____

_____

_____

C1.7 PRO FORMA: MONTHLY LABOUR REPORT

for

CERTIFICATE OF PAYMENT NO: _____

JOBS CREATED

As per Business Plan

A	B	C	D	E	F	G	H	I	J
Category	**Number of persons employed in category**	**Rate (R/d)**	**Local P-days**	**Non-local P-days**	**Total P-days (D +E)**	**Amount expended on labour (C x F)**	**P-days by women**	**P-days by youth**	**P-days by disabled**
Clerical									
Managerial									
Supervisory									
Skilled									
Semi-skilled									
Unskilled									
All occupations									

Actual to date

A	B	C	D	E	F	G	H	I	J
Category	**Number of persons employed in category**	**Rate (R/d)**	**Local P-days**	**Non-local P-days**	**Total P-days (D +E)**	**Amount expended on labour (C x F)**	**P-days by women**	**P-days by youth**	**P-days by disabled**
Clerical									
Managerial									
Supervisory									
Skilled									
Semi-skilled									
Unskilled									
All occupations									

Summary

Planned person-days target (see cell F8 of Business Plan):
Tendered construction period (months):
Overall person-days target per month:
Months represented by this report:
Person-day target for this month:
Achieved person-days to date (see cell F8 of Actual):
Person-days ahead/behind target:

C1.8 PRO FORMA: FORM of GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:.....

Physical address: .....

"Employer" means: .....

"Contractor" means: .....

"Employer's Agent" means: .....

"Works" means: .....

"Site" means:.....

"Contract" means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

"Contract Sum" means: The accepted amount of R..... (inclusive of value added tax)

Amount in words: .....

"Guaranteed Sum" means: The maximum aggregate amount of R .....

Amount in words: .....

Type of Performance Guarantee: *Variable or Fixed*

"Expiry Date" means: .....*insert date* or any other later date set by Contractor and/or Employer provided such instruction is received prior to the Expiry Date as indicated here.

CONTRACT DETAILS

In accordance with the provisions of the Contract, theEmployer's Agent issues monthly payment certificates and a final payment certificate upon Completion of the Works.

1. VARIABLE PERFORMANCE GUARANTEE

1.1 Where a Variable Performance Guarantee has been selected, the Guarantor's liability shall be limited during the following periods to diminishing amounts of the Guaranteed Sum as follows:

1.1.1 From and including the date of signing the Performance Guarantee up to and including the date of the payment certificate certifying, for the first time, more than 50% of the Contract Sum:

R ..... .

(Amount in words .....)

1.1.2 From the day following the date of the said payment certificate up to and including the Expiry Date, or the date of issue by the Employer's Agent of the certificate of Completion, whichever occurs first:

R. ..... .

(Amount in words ....)

1.2 The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum, has been issued and the date on which the Certificate of Completion of the Works has been issued.

2. FIXED PERFORMANCE GUARANTEE

2.1 Where a Fixed Performance Guarantee has been selected, the Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

2.2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Employer's Agent of the certificate of Completion or the date of payment in full of the Guaranteed Sum, whichever occurs first.

2.3. The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the certificate of Completion has been issued.

3. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

3.1. The Guarantor hereby acknowledges that:

3.1.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;

3.1.2 its obligation under this Performance Guarantee is restricted to the payment of money.

3.2. Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:

3.2.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.2;

3.2.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;

3.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.

3.3. Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:

3.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or

3.2.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 3.3; and

3.3.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.

3.4. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1.

3.5. Where the Guarantor has made payment in terms of 3.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

3.6 Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

3.7 Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.

3.8 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

3.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

3.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.

3.11 This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.

3.12 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of Magistrate's Court.

Signed at .....

Date .....

Guarantor's signatory (1) .....

Capacity .....

Guarantor's signatory (2) .....

Capacity .....

Witness signatory (1) .....

Witness signatory (2) .....

C1.9 PRO FORMA: TRANSFER OF RIGHTS

TRANSFER OF RIGHTS AND INDEMNITY
(**To be completed during construction by successful Tenderer only)**

Claim for Plant and materials on site, Payment Certificate No. …… Date: ……..……..

Contract No: ……. For (contract title) ……..…… ……..……..…… I, the undersigned (name of signatory) ……..……..…. in my capacity as ……. of (name of Contractor) …… duly authorised hereto on behalf of the Contractor hereby transfer, cede and assign all the Contractor's rights, title and interest in and to the Plant and materials, for which evidence of bona fide ownership is attached hereto, unto and in favour of (name of Employer) ……..

Insofar as the Contractor retains actual control of the materials and goods, the right of ownership thereof passes to the Employer by constitutum possessorium.
I herewith indemnify the Employer against any claim to and in respect of the said Plant and materials by reason of the Contractor's sequestration or liquidation or of any defect in the Contractor's title to the materials and agree that no payment for materials on site will be made by the Employer until such time as I have submitted documentary proof of bona fide ownership of the said Plant and materials.

This transfer shall become effective upon conclusion of the Contractor receiving payment from the Employer or from any other person on behalf of the Employer for the Plant and materials as Plant and materials on Site, payment of retention money thereon excluded.

I further confirm that I am fully responsible for all Plant and materials listed under this Transfer of Rights and that they have been insured adequately against all risks and will remain insured until they are built into or used in the permanent works and taken over by the Employer.

This certificate of Transfer of Rights applies only to the Plant and materials as listed in the following table.

DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE	AMOUNT	SUPPLIER
TOTAL VALUE OF PLANT AND MATERIALS					

Signed by: ……Date: ……..……..…… for and on behalf of the Contractor.

Witnessed by: …….

NOTE: This form, together with the documentary proof of ownership or proof of payment by the Contractor to the supplier, shall accompany the Contractor's claim for payment for Plant and materials on site in terms of Clause 6.10.1.5 of the General Conditions of Contract 2015.

PART C2: PRICING DATA

C2.1: PRICING INSTRUCTIONS

The measurement and payment clauses of the SANS 1200 Standardized Specifications and the Standard and Particular Specifications shall be deemed to form part of and included in the Pricing Instructions.

PREAMBLE TO BILL OF QUANTITIES

General

1 The Tender Data, the Contract Data, the Scope of the Work and the Site Information are to be read in conjunction with the Bill of Quantities.

a) The Bill of Quantities comprises items covering the Contractor's profit and costs of general liabilities and of construction of temporary and permanent Works.

b) The Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill but his attention is drawn to the fact that the Contractor has the right, under various circumstances, to payment for additional works carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates inserted in the Bill.

c) The measurement and payment clauses of each Specification, read together with the relevant clauses of the Specification Data, set out what ancillary or associated activities are included in the rate for the operations specified.

d) The contractor shall determine the contract skills participation goals, expressed in Rand, which shall not be less than the SUB-TOTAL 1 multiplied by a percentage factor given in Table 2 in the Standard for the applicable class of construction works. For this contract, the percentage shall be 0.25%. This is indicated by the percentage factor in the Final Tender Summary section**. Minimum Contract Skills Development Goal (CSDG) sum = Civil Engineering CE (0.25%) x SUB – TOTAL 1** of the tender amount.

2 The Bill of Quantities has been drawn up generally in accordance with the latest issue of the SANS 1200 Standardized Specifications. Descriptions in the Bill are abbreviated and must be read in conjunction with the measurement and payment clauses of the applicable Specifications.

3 Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

4 Except that they shall not include Value Added Tax (VAT), the prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices to the Employer for the work described under each item. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based. Provision is made in the Summary to the Bill of Quantities for VAT to be added.

5 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to have a price or rate of R0,00.

6 The Tenderer must price and extend each item, total each page and carry the total of each section in the Bill of Quantities to the Summary page.

Construction

7 Attention is drawn to Clause 6.7.1 of the General Conditions of Contract and the Contractor must not order the quantities of materials stated in the Bill of Quantities until he has confirmed from the construction drawings or measurement on Site that such quantities are in fact the correct quantities.

8 Where **Provisional sums** or **Prime Cost sums** are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the General Conditions of Contract 2015. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract. The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted by the Employer in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless so ordered or authorised in writing by the Employer before closure of tenders. Any unauthorised changes made by the Tenderer to provisional items in the Bill of Quantities, or to the provisional percentages and sums in the Summary of the

Bill of Quantities, at the Employer's discretion, may invalidate the Tenderer's offer or may be treated as arithmetical errors and the provisional items and percentages corrected without change to the Contract Sum

9 The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Amount" column. "Rate Only" items have been included where:

(a) an alternative item or material is contemplated.
(b) variations of specified components in the make-up of a pay item may be expected; and
(c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items, no quantities are given in the "Quantity" column, but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall, however, note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as imbalanced**.**

C2.2: BILL of QUANTITIES

SCHEDULE A

SCHEDULE 1: PRELIMINARY AND GENERAL
SCHEDULE 2: COMPLETION DRIEKOPPIES WATER TREATMENT WORKS PHASE 1A
SCHEDULE 3: PUMPSTATION
SCHEDULE 4: CONSTRUCTION OF DRIEKOPPIES WATER TREATMENT WORKS PHASE 4
SCHEDULE 5: MIDDLEPLAAS PIPELINE
SCHEDULE 6: MIDDLEPLAAS PUMPSTATION
SCHEDULE 7: SCHULZENDAL ELEVATED TANK
SCHEDULE 8: FINAL SUMMARY

(ENVIRONMENTAL MANAGEMENT PLAN)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
	SANS 1200A	PRELIMINARY AND GENERAL					
1	8.3	FIXED-CHARGE ITEMS					
1.1	8.3.1	Contractual Requirements	Sum	1			
	8.3.2	Establish Facilities on the Site:					
	8.3.2.1	Facilities for Engineer (SANS 1200 AB)					
1.2	PSAB3.1	Name board (2 No.)	Sum	1			
1.3	PSAB3.2	Engineer's office and facilities	Sum	1			
1.4	PSAB4.1	Telephone	Prov Sum	1	24,000	24,000	00
1.5		Contractor's mark up on item 1.4	%	24,000			
	8.3.2.2	Facilities for Contractor					
1.6		(a) Offices and storage sheds	Sum	1			
1.7		(b) Workshops	Sum	1			
1.8		(e) Ablution and latrine facilities	Sum	1			
1.9		(f) Tools and equipment	Sum	1			
1.10		(g) Water supplies, electric power and communications	Sum	1			
1.11		(h) Dealing with water (Subclause PSA5.5)	Sum	1			
1.12		(i) Access (Subclause 5.8)	Sum	1			
1.13	PSA8.3.3	Other fixed-charge obligations	Sum	1			
1.14	8.3.4	Removal of Site Establishment	Sum	1			
2	8.4	TIME-RELATED ITEMS					
2.1	8.4.1	Contractual Requirements	Sum	1			
	8.4.2	Operation and maintenance of facilities on Site, for duration of construction, except where otherwise stated					
	8.4.2.1	Facilities for Engineer					
2.2		a) Furnished offices	Month	24			
2.3		b) Telephone	Month	24			
2.4		c) Nameboard (2)	Month	24			
2.5	PSAB4.1	Engineer's office and facilities	Month	24			
Total Carried Forward							

PRELIMINIARY & GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	8.4.2.2	Facilities for Contractor					
2.6		(a) Offices and storage sheds	Month	24			
2.7		(b) Workshops	Month	24			
2.8		(e) Ablution and latrine facilities	Month	24			
2.9		(f) Tools and equipment	Month	24			
2.10		(g) Water supplies, electric power and communications	Month	24			
2.11		(h) Dealing with water (Subclause 5.5)	Month	24			
2.12		(i) Access (Subclause 5.8)	Month	24			
2.13	8.4.3	Supervision for duration of Construction	Month	24			
2.14	8.4.4	Company and head office overhead costs	Sum	1			
2.15	8.4.5	Other time-related obligations	Sum	1			
3	8.5	SUMS STATED PROVISIONALLY BY ENGINEER					
	8.5 (b)	(1) For work to be executed by the Employer or nominated sub-contractor					
3.1	PSA8.5	c) Renumeration of CLO	Month	24	7,500	180,000	00
3.2		d) Renumeration of ECO	Month	24	17,500	420,000	00
3.3		e) Relocation of services	Prov Sum	1	150,000	150,000	00
3.4		f) Additional tests required by the Engineer	Prov Sum	1	150,000	150,000	00
3.5		g) Remuneration of Health and Safety representative	Month	24	17,500	420,000	00
3.6		h) Remuneration of Health and Safety Agent	Month	24	55,000	1,320,000	00
3.7		i) Supervision for duration of construction for Engineer	Prov Sum	1	9,315,480	9,315,480	00
3.8		j) Social Facilitator	Prov Sum	1	600,000	600,000	00
3.9		k) Specialised Studies	Prov Sum	1	250,000	250,000	00
3.10		i) Training of operators and staff during implementation of new pumpstation for 6 months	Prov Sum	1	300,000	300,000	00
3.12		n) Additional Survey	Prov Sum	1	100,000	100,000	00
3.13		o) Replace and repair damaged components on existing plant	Prov Sum	1	80,000	80,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
3.14		p) Compilation of Environmental Management Plan	Prov Sum	1	350,000	350,000	00
3.16		q) Evaluation of process on the constructed structures	Prov Sum	1	350,000	350,000	00
3.17		Overheads, charges, and profit on item A 3.1 to A 3.16	%	13,985,480			
4	8.6	PRIME COST ITEMS					
4.1		Acceptance control testing of earthworks and concrete works	PC Sum	1	100,000	100,000	00
4.2		Overheads, charges and profit on Item A4.1	%	100,000			
4.3		Materials for day works	PC Sum	1	400,000	400,000	00
4.4		Overheads, charges and profit on Item A4.3	%	400,000			
4.5		Royalties for borrow materials	PC Sum	1	250,000	250,000	00
4.6		Overhead, charges and profit on Item A4.5	%	250,000			
4.7		Compensation for loss of crop and wayleave costs where pipeline goes through private farmland	PC Sum	1	350,000	350,000	00
4.8		Overhead, charges and profit on Item A4.7	%	350,000			
5	8.8	TEMPORARY WORKS					
5.1	8.8.1	Main access road to works	Sum	1			
5.2	8.8.2	Deal with traffic and maintain road (or accommodation of traffic)	Sum	1			
5.3	8.8.3	Protection of existing structures until construction in vicinity is complete	Sum	1			
	8.8.4	Existing services					
5.4		a) Supply or hire of specialist equipment for the detection of existing services	Sum	1			
5.5		b) The use of equipment referred to in item (a) above	Sum	1			
5.6		c)Excavate by hand in soft material to expose	m³	500			
6	PSA 8.9	OCCUPATIONAL HEALTH AND SAFETY					
6.1	PSA 8.9.1	Cost of health and safety measures required in terms of the Construction Regulations (2003) of the Occupational					
		Health and Safety act	Sum	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6.2	PSA 8.9.2	Compilation and maintenance of a Health and Safety Plan, including Risk Assessments, Safe Work Procedures	Sum	1			
A6.3	PSA 8.9.3	Compilation and maintenance of a Health and Safety File	Sum	1			
7	PSA 8.10	ENVIRONMENTAL MANAGEMENT PLAN					
7.1	PSA 8.10.1	Providing a Method Statement on compliance with client's Environmental Management Plan Specification	Sum	1			
7.2	PSA 8.10.2	Complying with requirements of the Environmental Management Plan	Sum	1			
Total Carried Forward to Summary							

DAYWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
2	SANS 1200A 8.7	SECTION 2: DAYWORKS					
2.1		Labour					
2.1.1		a) Qualified artisan	hour	40			
2.1.2		b) Foreman, leader-hand (.....hour/workday) *	hour	40			
2.1.3		c) Semi skilled labourer (.....hour/workday) *	hour	40			
211.4		d) Labourer (.....hour/workday)*	hour	120			
		* Tenderer to specify number of hours per workday					
2.2		Plant Hire : Work Rates on Site					
		Tipper truck (specify capacity)					
2.2.1		a).....m3 (small)	hour	40			
2.2.2		b).....m3 (medium)	hour	40			
2.2.3		c).....m3 (large)	hour	40			
		Flatbed truck (specify capacity)					
2.2.4		a).....m3 (small)	hour	24			
2.2.5		b).....m3 (medium)	hour	24			
2.2.6		c).....m3 (large)	hour	24			
2.2.7		LVD	km	500			
		Wheel loader (specify type)					
2.2.8		a).....m3 (small)	hour	24			
2.2.9		b).....m3 (medium)	hour	24			
2.2.10		c).....m3 (large)	hour	24			
		Motor grader (specify model/kw)					
2.2.11		a) Model _____/_____kw	hour	24			
		Crawler excavators (specify model/mass/kw)					
2.2.12		a) Model____/_____/kg____kw (small)	hour	24			
2.2.13		b) Model____/_____/kg____kw (medium)	hour	24			
2.2.14		c) Model____/_____/kg____kw (large)	hour	24			
		Tractor loader backhoe(TLB) (specify model)					
2.15		a) Model.....	hour	24			
		Self propelled vibrating rollers (smooth drum) (specify mass)					
Total Carried Forward							

DAYWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
2.2.16		a) Mass_____kg (medium)	hour	24			
2.2.17		b) Mass_____kg (large)	hour	24			
2.2.18		c) Model_____(BW 76) (medium)	hour	24			
2.2.19		d) Model_____(BW 90) (large)	hour	24			
		Water tanker (specify capacity)					
2.2.20		a) Capacity_____litre (small, towable)	hour	24			
2.2.21		b) Capacity_____litre (medium)	hour	24			
2.2.22		c) Capacity_____litre (large)	hour	24			
		Concrete Mixer (specify					
2.2.23		a) Volume_____litre (small, towable)	hour	24			
2.2.24		b) Volume_____litre (medium)	hour	24			
2.2.25		c) Volume_____litre (large)	hour	24			
2.3		Miscellaneous : Work Rates on Site					
		Compressor					
2.3.1		a) Capacity_____cfm (small)	hour	24			
2.3.2		b) Capacity_____cfm (medium)	hour	24			
2.3.3		c) Capacity_____cfm (large)	hour	12			
		Waterpumps					
2.3.4		a) Capacity_____ litre/sec (small)	hour	12			
2.3.5		b) Capacity_____ litre/sec (medium)	hour	12			
2.3.6		c) Capacity_____ litre/sec (large)	hour	24			
		Welding unit (specify ampere)					
2.3.7		a) _____Amp (small)	hour	24			
2.3.8		b) _____Amp (medium])	hour	24			
2.3.9		c) _____Amp (large)	hour	24			
		Mobile generator set (specify KVA)					
2.3.10		a) _____KVA (small)	hour	24			
2.3.11		b) _____KVA (medium])	hour	24			
2.3.12		c) _____KVA (large)	hour	24			
2.4		Plant Hire : Transport Cost to and from Site					
Total Carried Forward							

DAYWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Distance shall be measured one way only. Tendered rates shall include for transport both to and from site.					
		Low bed (suitable for the largest piece of equipment above)	km	100			
		Tipper truck					
2.4.1		a) Small	km	50			
2.4.2		b) Medium	km	50			
2.4.3		c) Large	km	50			
		Flat bed truck					
2.4.4		a) Small	km	50			
2.4.5		b) Medium	km	50			
2.4.6		c) Large	km	50			
2.4.7		LDV	km	50			
2.4.8		Water tanker	km	50			
2.4.9		a) Small towable	km	50			
2.4.10		b) Medium	km	50			
2.4.11		c) Large	km	50			
2.4.12		Concrete Mixer	km	50			
Total Carried Forward to Summary							

CONTRACT PARTICIPATION GOALS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		CONTRACT PARTICIPATION GOALS (CPG)					
		Note to tenderers: As CPGs may not provide any bidder a competitive advantage. Provisional amounts and fixed percentages for profit and attendance have been provided. Only the provisional amount will be adjusted once the awarded tender amount and/or the beneficiaries have been appointed, and the final values have been ascertained.					
3		CONTRACTOR'S CHARGE FOR THE MANAGEMENT AND EXECUTION OF THE TARGETED ENTERPRISE PROCUREMENT PROCESS					
		a) Procurement process for the totality of all tenders concluded for the appointment of CIDB contractor grading designation 1CE Targeted Enterprise subcontractors (3 x individual tenders prescribed, 50 copies of the tender documents required for each individual tender)	No.	3			
		b) Procurement process for the totality of all tenders concluded for the appointment of CIDB contractor grading designation 2CE Targeted Enterprise subcontractors (3 x individual tenders prescribed, 50 copies of the tender documents required for each individual tender)	No.	3			
		c) Procurement process for the totality of all tenders concluded for the appointment of CIDB contractor grading designation 3CE Targeted Enterprise subcontractors (3 x individual tenders prescribed, 50 copies of the tender documents required for each individual tender)	No.	3			
		c) Procurement process for the totality of all tenders concluded for the appointment of CIDB contractor grading designation 4CE Targeted Enterprise subcontractors (2x individual tenders prescribed, 20 copies of the tender documents required for each individual tender)	No.	2			
3.1		CONSTRUCTION WORKS FOR TARGETED ENTERPRISES					
		a) Payment associated with the construction works carried out by Targeted Enterprise subcontractors appointed	Prov Sum	1	12,000,000	12,000,000	00
		b) Handling costs and profit in respect of the item 3.1(a) above	%	12,000,000			
		c) Management of the Targeted Enterprise	Month	24			
3.2		MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		a) Provision is made for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in the project specification. Material to the value of R150,000.00 should be purchased from local manufacturers as defined in the CPG specifications in terms of locality, based on determination by the engineer taking into account specific project variables.	Prov Sum	1.0	150,000	150,000	00
		b) Allowance for monitoring and monthly reporting on material purchased from Local Building Material Manufacturers by main contractor and subcontractors.	%	150,000			
		c)Allowance for profit, all inclusive of associated costs to the contractor for implementation.	%	150,000			
		d)Allowance for attendance all-inclusive of associated costs to the contractor for implementation.	%	150,000			
3.3		MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS					
		a) Provision is made for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in specification. Material to the value of R150,000.00 should be purchased from local suppliers as defined in the CPG specifications in terms of locality, based on determination by engineer taking into account specific project variables.	Prov Sum	1.0	150,000	150,000	00
		b) Allowance for monitoring and monthly reporting on material purchased from Local Building Material Suppliers by main contractor and subcontractors.	%	150,000			
		c)Allowance for profit all-inclusive of associated costs to the contractor for implementation.	%	150,000			
		d)Allowance for attendance all-inclusive of associated costs to the contractor for implementation.	%	150,000			
3.4		MINIMUM TARGETED LOCAL LABOUR SKILLS DEVELOPMENT					
		a) Provision is made for the Minimum Targeted Local Labour Skills Development CPG in the execution of this project as described in the project specification C3.5.9.4. This allowance is for the cost for a suitably qualified and experienced training service provider appointed by the main contractor.	Prov Sum	1.0	500,000	500,000	00
		b) Allowance for monitoring and monthly reporting on training provided by main contractor and subcontractors.	%	500,000			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		c)Allowance for profit all-inclusive of associated costs to the contractor for implementation.	%	500,000			
		c)Allowance for attendance all-inclusive of associated costs to the contractor for implementation.	%	500,000			
3.5		MINIMUM TARGETED ENTERPRISE DEVELOPMENT					
		a) Provision is made for 5% compulsory subcontracting to SMMEs in the execution of this project. The percentage is the contractor's allowance for the P&G's for the 7.5% sub-contractors (SMME's). The engineer is to define the actual P&G items applicable to the SMME's e.g. scaffolding, PPE etc.	Prov Sum	1.0	900,000	900,000	00
		b) A provisional amount has been allowed for in the execution of this project The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises including monitoring and monthly reporting.	Prov Sum	1.0	1,520,000	1,520,000	00
		c)Allowance for monitoring and monthly reporting on SMME subcontracting by main contractor and subcontractors including training provided.	%	2,420,000			
		d)Allowance for profit all-inclusive of associated costs to the contractor for implementation.	%	2,420,000			
		e) Allowance for attendance all-inclusive of associated costs to the contractor for implementation.	%	2,420,000			
		e) Project Completion report per Targeted Enterprise (As determined by the engineer)	%	2,420,000			
Total Carried Forward to Summary							

SCHEDULE 1 PRELIMINARY & GENERAL

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	PRELIMINIARY & GENERAL	
2	DAYWORKS	
3	CONTRACT PARTICIPATION GOALS	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
3.		SECTION 3: EARTHWORKS AND PIPELINES					
3.1	SANS 1200C	SITE CLEARANCE					
	8.2.2	Remove and grub large trees and tree stumps of girth					
3.1.1		a) 'over 1 m and up to 1.5 m	No.	0		Rate Only	
	8.2.8	Demolish and remove structures/buildings and dismantle steelwork					
3.1.2		Filter Gallery floor slab	Prov Sum	1	1,500,000	1,500,000	00
3.1.3	8.2.9	Transport materials and debris to unspecified sites and dump (Provisional)	m³.km	720			
3.2	SANS 1200D	SECTION 3.2 - EARTHWORKS					
3.2.1	8.3.1.2	Remove topsoil to nominal depth of 150mm and stockpile					
		a) Flocc Channels	m²	0		Rate Only	
		b) 'Settling Tanks	m²	0		Rate Only	
		c) Filters	m²	0		Rate Only	
3.2.2	8.3.2	Bulk Excavation					
		a) 'Excavation in all materials and use for backfill in embankment or dispose, as ordered within a free haul distance of 0.5 km					
		Note: Allowance of 500 mm wide working space has been provided for in the bulk earthworks quantities					
		1. Flocc Channels	m³	0		Rate Only	
		2. Settling Tanks	m³	0		Rate Only	
		3. Filters	m³	0		Rate Only	
		4. Terrace excavation between new and future settling tank to suit top of retaining block wall.	m³	0		Rate Only	
		Note: rate to include for 1:2.5 hand raked embankment					
		b) Extra-over 8.3.2 a) for:					
		1. Hard rock excavation					
		a) Settling Tanks	m³	0		Rate Only	
		b) Filters	m³	100			
3.2.3	8.3.3	Restricted excavation					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		a) Excavation for restricted foundations, footings and pipe trenches in all materials and use for backfill, embankment or dispose					
		1 . Flocc Channels	m³	0		Rate Only	
		2. Settling Tanks	m³	0		Rate Only	
		3. Filters	m³	0		Rate Only	
		b) Extra-over 8.3.3 a) for: (Provisional Item)					
		2 . Hard rock excavation					
		a) Settling Tanks	m³	0		Rate Only	
		b) Filters	m³	0		Rate Only	
3.2.4		Over break in rock foundation removal of loose material and building up area with class 15/19 mass concrete up to 200 mm. Deeper 200 mm to be at contractors' cost					
		a) Settling Tanks	m³	0		Rate Only	
		b) Filters	m³	120			
3.2.5	8.3.4	Importing of materials					
		Acquire suitable gravel material for soil raft (G6) from commercial source or borrow pit. The rate to include for acquiring suitable material, excavation handling and 'transportation regardless of distance, placing and compaction to 95% mod. AASHTO density in maximum layers of 150 mm after compaction.					
		The material must conform to the following requirements:					
		- Maximum PI: 10%					
		- Minimum GM: 1.2					
		- Minimum CBR at 93% mod. AASHTO density: 15					
		1. Flocc Channels	m³	0		Rate Only	
3.2.6		Acquire suitable gravel material for soil raft (G6) from excavation on site, stockpile temporarily, place and compact to 95% mod. AASHTO density in maximum layers of 150 mm after compaction	m³	0		Rate Only	
		Note: Material requirements as for item 3.2.5.					
3.2.7		Extra over item for finishing embankments to falls as shown on the drawings and removal of all loose material on the embankments					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		a) Flocc Channels	m³	0		Rate Only	
		b) Settling Tanks	m³	0		Rate Only	
		c) Filters	m³	70			
3.2.8		Soilcrete for backfill of excavation where ordered by Engineer or shown on the drawing with 5% cement (OPC) (Provisional Item)					
		a) Flocc Channels	m³	0		Rate Only	
		b) Settling Tanks	m³	0		Rate Only	
		c) Filters	m³	2			
3.2.9		Class 20/19 mass concrete backfill of structure, footings, foundations pipe encasing all as instructed by Engineer (Provisional Item)					
		a) Flocc Channels	m³	0		Rate Only	
		b) Settling Tanks	m³	0		Rate Only	
		c) Filters	m³	40			
	8.3.8	Existing services					
3.2.10	8.3.8.1	c) Excavate by hand in soft material to expose existing services	m³	30			
3.2.11	8.3.8.2	Dealing with services that are at risk because of the construction of earthworks					
		a) Cables	No.	2			
3.2.12	8.3.10	Top soiling					
		From stock, hauling and spreading over site					
		a) Horizontal areas	m²	1,400			
		b) Sloping areas	m²	110			
		Note: accurate position to be determined on site by Engineer					
3.2.13	8.3.11	Grassing with Kikuyu roots on horizontal or nearly					
		horizontal surfaces					
		1 . Kikuyu	m²	1,510		Rate Only	
3.2.14		Allow for rejuvenation, fertilizer and planting of indigenous drought resistant plants	PC Sum	1	100,000	100,000	00
3.3	SANS 1200DB	SECTION 3.3: EARTHWORKS (Pipe trenches)					
	PSDB						
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
3.3.1	8.3.2	a) Excavate in all material for trenches, backfill, compact and dispose of surplus material					
		Pipe diameter 100 dia up to 500 nom dia with 300 mm side allowance each side including 500 nom diam. 600 nom dia and larger side allowance 500 mm each side					
		a) 0.00 m - 1.00 m depth	m³	33			
		b) 1.01 m - 1.50 m depth	m³	155			
		c) 1.51 m - 2.00 m depth	m³	120			
		d) 2.01 m - 2.50 m depth	m³	110			
		e) 2.51 m - 3.00 m depth	m³	88			
		f) 3.01 m - 3.50 m depth	m³	110			
		g) 3.51 m - 4.00 m depth	m³	200			
		h) 4.01 m - 4.50 m depth	m³	220			
		i) 4.51 m - 5.00 m depth	m³	132			
		Water network for 25 mm dia to 90 mm dia pipes, trench width 0.60 m and max depth 0.8 m					
		j) 0.00 m - 0.80 m depth	m³	88			
		b) Extra-over 8.3.2. a) for:					
		a) Hard rock excavation (Provisional Item)	m³	355			
	8.3.5	Existing services that intersect or adjoin a pipe trench					
3.3.2		a) Services that intersect a trench					
		1. Drainage Pipes					
		a) 450 mm dia RC	No.	2			
		b) 525 mm dia RC	No.	1			
	SANS 1200 DK	GABIONS AND PITCHING					
	8.25	Pitching of surfaces					
3.3.3		Grouted stone pitching between kerbing and existing stormwater drop inlet	m²	4			
		Concrete Retaining Block Wall					
3.3.4		500 mm deep precast concrete block retaining wall, Loffelstein or similar and approved on concrete foundation. Complete with granular filling and geotextile backing Ref. Drg. WDA.14.D004 for details	m²	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
3.4	SANS 1200LB	SECTION 3.4 - BEDDING (Pipes)					
	PSLB						
3.4.1	8.2.1	Provision of bedding from trench excavation for flexible and rigid pipes					
		a) Selected granular material	m³	21			
		b) Selected fill material	m³	200			
3.4.2	8.2.2	Supply of bedding by importation					
	8.2.2.3	From commercial sources					
		a) Selected granular material	m³	22			
		b) Selected fill material	m³	88			
3.4.3	8.2.4	Encasing of pipelines in concrete,					
		Class 20/19					
		a) Pipe Thrust blocks	m³	3			
		b) Encasing of pipes	m³	7			
3.5	SANS 1200L	SECTION 3.5 - MEDIUM - PRESSURE PIPELINE					
	PSL						
	8.2.1	Supply, lay and bed pipes complete with couplings					
		a) 160 mm dia	m	0			
		b) 200 mm dia	m	39			
3.5.2		Type 4 HDPE pipeline, Class 6 for electric cable sleeves, including draw wires.					
		1. 110 mm dia	m	40			
3.5.3		Hot dip galvanized steel pipes					
		1 80 mm dia medium class screwed and socketed steel pipes to SANS 62					
		a) laid below ground level	m	33			
		b) bolted to settling tank wall and walkway.	m	18			
		Note: Rate to include for all pipe clamps bolted to concrete					
3.5.4		Type 4 HDPE pipeline, Class 12 pipes for water reticulation. Rate to include for all bends, cut lengths, couplings, tees reducers, etc.					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		a) 50 mm dia	m	33			
		b) 40 mm dia	m	40			
		c) 25 mm dia	m	88			
3.5.5		Galvanized steel bends					
		a) 80 mm dia x 45	No.	3			
		b) 80 mm dia x 90	No.	5			
3.5.6		Saddles					
		1 75 mm dia with 50 mm drilling on uPVC pipe	No.	2			
3.5.7		Stand pipe with tap garden hose connection clamped to concrete or brick wall or fixed on to MS iron dropper, complete as shown on drg.	No.	6			
3.5.8		Stop cock chamber complete as shown on drawing					
		1. for 50 mm dia Bronze globe valve	No.	2			
3.5.9		Hose reel installation					
		Approved fire hose reel from Centurion or similar and approved. Complete with union, isolating valve with hand wheel, 25 mm diam pipe from Dunlop, length 25 m mounted on panel against steel column, ref drg.					
		1 . RGS Filters	No.	2			
3.5.10		Fire Hydrant Installation					
		1 . Hot dip galvanised fire hydrant with reducer and bayonet type coupling bolted to concrete floor. Complete as shown on drg. WDA.14.X003	No.	2			
3.5.11	8.2.4	Extra over item 8.2.1 for the straight cutting of the pipe preparing ends and repairing of protection and the supplying and fixing of the extra coupling if required					
		a) 160 mm dia	No.	1			
		b) 200 mm dia	No.	3			
		Nominated sub-Contractor to be appointed for the works					
	PSL 8.2.1 (b)	Test and disinfect existing pipeline					
3.6.12		500mm dia, Class 500 PN16 oPVC (SANS 16422) (9000m Long)	Prov Sum	1	175,000	175,000	00
3.6.13		630mm dia, Class 500 PN16 oPVC (SANS 16422) (7000m Long)	Prov Sum	1	150,000	150,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
3.6.14		450mm dia, Class 500 PN12 oPVC (SANS 16422) (6000m Long)	Prov Sum	1	150,000	150,000	00
3.6.15		Allow for repair work on the pipelines and replacement of pipes valves and fittings for the pipelines in items 3.6.12 to 3.6.14 above	Prov Sum	1	1,200,000	1,200,000	00
3.6.16		Overhead, charges and profit on Items 3.6.12 to 3.6.15 above	%	1,675,000			
3.6	SANS 1200LE	SECTION 3.6 - STORMWATER DRAINAGE					
3.6.1	8.2.1	Supply, lay and bed concrete interlocking joint pipes in accordance to SANS 677 (spigot and socket)					
		a) 450 mm dia, Class 50 D	m	50			
		b) 525 mm dia, Class 75 D	m	50			
3.6.2	8.2.4	Extra over item 8.2.1 for cutting the end units for culverts on site					
		a) Straight cut					
		1. 450 mm dia	No.	1			
		2. 525 mm dia	No.	1			
3.7		SECTION 3.7 - SUNDRY ITEMS					
3.7.1		Break up reinforced concrete walls, remove debris and repair watertight after installation of pipe					
		1. 700 mm opening through 250 mm thick wall at inlet structure	No.	0		Rate Only	
3.7.2		Break up 200 mm thick reinforced concrete walls, remove debris and repair watertight at drainage chambers after installation of pipe.					
		a) for 200 mm dia uPVC pipe	No.	0		Rate Only	
		b) for 450 mm dia RC pipe	No.	0		Rate Only	
		c) for 525 mm dia RC pipe	No.	0		Rate Only	
3.7.3		Remove blank flange and prepare for new flange installation					
		a) 250 mm dia steel pipe	No.	0		Rate Only	
		b) 500 mm dia steel pipe	No.	0		Rate Only	
3.7.4		Disconnect 250 mm dia raw water bypass from 600 mm dia pipe at inlet works and render pipe fittings watertight	Sum	0		Rate Only	
3.8	COTO. 22	SECTION 3.8 - PREFABRICATED CULVERTS					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
3.8.1	22.01	Complete portal or rectangular culverts, the works include investigations, survey, design, earthworks, reinforced concrete works and temporary diversion or damming works for the stream	Prov Sum	1	5,200,000	5,200,000	00
3.8.2		Overhead, charges and profit on Items 3.8.1	%	5,200,000			
Total Carried Forward to Summary							

CONCRETE WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
4.	SANS 1200 G	SECTION 4 : CONCRETE WORK					
	PSG	CONCRETE (STRUCTURAL)					
4.1		FLOCCULATION CHANNELS					
		ROUGH FORMWORK					
4.1.1	8.2.1	Rough formwork					
	8.2.1	Plane Vertical					
		a) Sides of floor slabs	m²	0		Rate Only	
		b) Walls	m²	0		Rate Only	
		SMOOTH FORMWORK					
4.1.2	8.2.2	Smooth formwork					
		a) Plane horizontal					
		1. Slabs	m²	0		Rate Only	
	8.2.2	b) Plane vertical					
		1. Walls	m²	0		Rate Only	
		2. Weir and sump	m²	0		Rate Only	
4.1.3	8.2.5	Smooth formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	0		Rate Only	
		b) 100 x 100 mm chamfer	m	0		Rate Only	
		BOXING IN FOR HOLES AND VOIDS					
4.1.4	8.2.6	Box out holes/Form voids					
		a) Small, square, up to 0.1 m² in area with depth up to 0.30 m	No.	0		Rate Only	
		b) Medium, square, up to 0.6 m² in area with depth up to 0.30 m	No.	0		Rate Only	
		c) Large, square, up to 1.0 m² in area with depth up to 0.30 m	No.	0		Rate Only	
		REINFORCEMENT					
4.1.5	8.3.1	Steel bars					
		a) Mild steel					
		1. All sizes	ton	0		Rate Only	
		b) High tensile steel					
		1. All sizes	ton	0		Rate Only	
Total Carried Forward						0	00

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		STRENGTH CONCRETE					
4.1.6	8.4.2	a) Strength concrete 15MPa/19mm					
		1. Blinding layer 50 mm thick	m²	0		Rate Only	
		2. Mass concrete for thrust blocks, etc.	m³	0		Rate Only	
		b) Strength concrete 20MPa/19mm					
4.1.7	8.4.3	b) Steel float benching					
		1. 75 mm thickness	m³	0		Rate Only	
		2. 150 mm thickness	m³	0		Rate Only	
		3. In and outlet sump	m³	0		Rate Only	
4.1.8	8.4.3	c) Strength concrete 35MPa/19mm					
		1. Floor slabs	m³	0		Rate Only	
		2. Walls	m³	0		Rate Only	
		3. Roof Slabs	m³	0		Rate Only	
4.1.9	8.4.3	d) 1:4 Cement river sand screed					
		1. 10 mm thick smooth screed to top of concrete blinding to receive plastic sheeting	m³	0		Rate Only	
4.1.10	8.11.1	POLYETHELENE SHEETING					
		1. 250 micron USB green under floors	m²	0		Rate Only	
		SURFACE FINISHES					
4.1.11		Unformed surface finishes					
	8.4.4	a) Wood floated finish					
		1. Slabs	m²	0		Rate Only	
	8.4.4	b) Steel floated finish					
		1. Top of walls, beams etc.	m²	0		Rate Only	
4.1.12		GROUTING OF PIPES WITH NON-SHRINK GROUT TO					
		FORM A WATERTIGHT JOINT WITH STANDARD					
		BEDDING GROUT					
		a) 200 mm thick concrete wall					
		1. 650 mm x 650 mm opening	No.	0		Rate Only	
		2. 950 mm x 950 mm opening	No.	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
4.2		SECTION 4.2 - SETTLINGS TANKS					
		ROUGH FORMWORK					
4.2.1	8.2.1	Rough formwork					
		a) Plane vertical					
		1. Sides of floor slabs	m²	0		Rate Only	
		2. Sides of channels and ducts	m²	0		Rate Only	
		3. Walls	m²	0		Rate Only	
		4. Chamber walls	m²	120			
4.2.2	8.2.5	Rough formwork to narrow widths					
		a) 'Edges, risers, etc. not exceeding 300 mm wide	m	44			
		SMOOTH FORMWORK					
4.2.3	8.2.2	Smooth formwork					
		a) Plane horizontal					
		1. Slabs and landings	m²	0		Rate Only	
		2. Walkway slabs	m²	22			
		3. Ring beams	m²	0		Rate Only	
		4. Support beams, sludge channel	m²	3			
		5. 150 mm wide for ring beam	m²	60			
		b) Plane vertical					
		1. Side of walls	m²	700			
		2. Side of beams	m²	0		Rate Only	
		3. Wall openings, supports and footings	m²	0		Rate Only	
		4. Chamber walls	m²	83			
		5. Channel walls	m²	365			
		6. Square columns	m²	13			
		c) Plane sloping					
		1. Stairs	m²	4			
		d) Plane sloping					
		1. Internal face of cone shaped walls	m²	0		Rate Only	
		2. External face of cone shaped walls, soffit	m²	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
4.2.4	8.2.5	Smooth formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	70			
		b) Edges of walkways and channels 200 mm wide	m	140			
		c) Raking side of stairs maximum 400 mm wide	m	6			
4.2.5		Smooth formwork to chamfers, grooves, rebates etc. exceeding 20 x 20 mm in size					
		a) 100 x 100 mm	m	3			
		b) 80 mm wide reeding over full length of stair tread	m	20			
4.2.6		BOXING IN FOR HOLES AND VOIDS					
	8.2.6	Box out holes/Form voids					
		a) Small, square, up to 0.2 m² in area with depth up to 250 mm	No.	5			
		b) Medium, square, up to 0.4 m² in area with depth up to 300 mm	No.	15			
		c) Medium, square, up to 0.3m² in area with depth up to 400 mm	No.	0		Rate Only	
		d) Large, square, up to 1.0 m² in area with depth up to 300 mm	No.	3			
		REINFORCEMENT					
4.2.7	8.3.1	Steel bars					
		a) Mild steel					
		1. All sizes	ton	14			
		b) High tensile steel					
		1. All sizes	ton	20			
4.2.8	8.3.2	High tensile welded mesh					
		a) Ref no. 193	m²	11			
		b) Ref. no. 395 (at water tanker with drawel print)	m²	35			
		CONCRETE					
4.2.9	8.4.2	a) Strength concrete 15MPa/19mm					
		1. Blinding layer 50 mm thick	m³	0		Rate Only	
		2. No fines concrete below floor	m³	0		Rate Only	
		3. Mass concrete backfill for over break in rock formation up to 200 mm	m³	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
4.2.10	8.4.3	b) Strength concrete 20Ma/19mm					
		Benching including steel floated surface finish					
		1. Circular benching with fall for drainage channel and chambers	m³	7			
		2. Floor slab and channels with fall as shown on drgs.	m³	0		Rate Only	
4.2.11	8.4.3	c) Strength concrete 35Ma/19mm					
		1. Floor slab	m³	0		Rate Only	
		2. Bases	m³	0		Rate Only	
		3. Floor slabs ducts and channels	m³	0		Rate Only	
		4. Walkway slabs	m³	22			
		5. Walls	m³	80			
		6. Cone shaped walls	m³	0		Rate Only	
		7. Channel walls	m³	0		Rate Only	
		8. Chamber walls	m³	11			
		9. Columns	m³	2			
		10. Stairs, landings, etc.	m³	3			
		11. Beams	m³	9			
		12. Water Tanker Platform	m³	6			
		SURFACE FINISHES					
4.2.12	8.4.4	Unformed surface finishes					
		a) Wood floated finish					
		1. Floor slabs	m²	0		Rate Only	
		2. Stairs, landings etc.	m²	60			
		b)Broomed finish					
		1. Water Tanker Platform	m²	40			
		c) Steel float finish					
		1. Top of walls, beams, etc.	m²	44			
4.2.13		Grouting of pipes with non shrink grout to form a watertight joint with standard bedding grout					
		1. 250 mm thick concrete wall					
		1. 950 x 950 mm opening for 700 mm dia pipe with puddle flange	No.	2			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		2. 300 x 300 mm opening for 200 mm dia pipe	No.	15			
		2. 300 mm thick concrete wall					
		1. 750 x 750 mm opening for 500 mm dia pipe wit puddle flange	No.	4			
		3 300 mm thick sloping concrete wall					
		1. 450 x 450 mm opening for 200 mm dia pipe with puddle flange	No.	16			
4.2.14	8.5	JOINTS					
		a) 20 mm thick Jointex placed vertically between concrete surfaces					
		1. 400 mm thick floor	m²	10			
		2. 300 mm thick floor	m²	4			
		b) Polyurethane joint sealer					
		1. Remove 10 x 20 mm tear of strip, prime with an approved primer and fill joint with suitable polyurethane sealer	m	33			
4.2.15		SUNDRY ITEMS					
		1. 32 mm dia uPVC, Class 9, 200 mm long cast into settled water draw off channel	No.	375			
		2. 200 mm dia uPVC, Class 9, 300 mm long cast into inlet wall	No.	26			
		3. 110 mm dia slotted uPVC sub-surface drain pipe placed into no-fines concrete	m	0			
		4. 110 mm dia uPVC, Class 9 sub-surface drain pipe complete with junctions, bends, etc. discharging into chamber D4.1.1	m	33			
4.2.16		GUNITE SURFACES					
4.2.16.1		80 mm thick Gunite surface finish to sloping earth surface between settling tank concrete and Loffelstein retaining wall, including all reinforcing, etc. and finishes with wood float surface finish	m²	11			
4.3		SECTION 4.3 - FILTERS					
		ROUGH FORMWORK					
4.3.1	8.2.1	Rough Formwork					
		a) Plane vertical					
		1. Sides of floor slabs	m²	68			
		2.Floor duct walls	m²	30			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
4.3.2	8.2.5	Rough formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	20			
4.3.3	8.2.2	Smooth formwork					
		a) Plane horizontal					
		1. Slabs	m²	52			
		2. Walkway slabs	m²	10			
		3.Landings	m²	10			
		4. Ring beams	m²	13			
		5. Slabs	m²	64			
		6. Outlet channels	m²	24			
	8.2.2	b) Plane vertical					
		1. Edge of slabs	m²	35			
		2. Walls	m²	1,320			
		3. Floor duct walls	m²	57			
		4. Chamber walls	m²	55			
		5. Clearwater channel walls	m²	68			
		6. Square or rectangular columns	m²	50			
		7. Ring beams	m²	33			
	8.2.2	c) Plane sloping					
		1. Stairs	m²	6			
4.3.4	8.2.5	Smooth formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	55			
		b) Raking side of stairs maximum 400 mm wide	m	17			
4.3.5		Smooth formwork to chamfers, grooves, rebates, etc. Exceeding 20 x 20 mm in size					
		a) 'Chamfer size 150 x 150 mm	m	7			
		b) Chamfer size 100 x 100 mm	m	4			
		c) Chamfer size 100 x 150 mm	m	38			
		BOXING IN FOR HOLES AND VOIDS					
4.3.6	8.2.6	Box out holes/Form voids					
		a) Small, square, up to 0.1m in area with depth up to 400 mm	No.	4			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		b) Small, square, up to 0.2m in area with depth up to 250 mm	No.	8			
		c) Medium, square, up to 0.5m in area with depth up to 400 mm	No.	4			
		d) Large, square, up to 1.0m in area with depth up to	No.	2			
		REINFORCEMENT					
4.3.7	8.3.1	Steel bars					
		a) Mild steel					
		1. All sizes	ton	4			
		b) High tensile steel					
		1. All sizes	ton	48			
		CONCRETE					
4.3.8	8.4.2	Strength concrete 15MPa/19mm					
		a) Blinding layer 50 mm thick	m²	350			
		b) Class 15/19 No-fines concrete under floor slabs	m³	20			
4.3.9	8.4.3	Strength concrete 35MPa/19mm					
		a) Floor Slabs	m³	220			
		b) Floor duct floor slabs	m³	15			
		c) Slabs (filter gallery)	m³	18			
		d) Chamber slabs	m³	6			
		e) Walkway slabs	m³	4			
		f) Walls	m³	250			
		g) Floor duct walls	m³	13			
		h) Chamber Walls	m³	11			
		i) Columns	m³	5			
		j) Upstands	m³	2			
		k) Stairs & Landings	m³	5			
		l) Ring beams	m³	50			
4.3.10	8.4.3	Strength concrete 30MPa/13mm					
		a) Benching to floors to falls as shown including steel floated surface finish	m³	7			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		b) 200mm thick in fill concrete between filter laterals and nozzle stems	m³	17			
		SURFACE FINISHES					
4.3.11	8.4.4	Unformed surface finishes					
		a) Rough surface finish (strike plate finish)	m²	100			
		b) Wood floated finish					
		1. Slabs	m²	100			
		2. Floor slabs	m²	235			
		3. Top of walls, beams, etc.	m²	53			
		4. Stairs, landings, etc	m²	20			
		5. Ring beams	m²	20			
		c) Steel surface finish					
		1. Top of benching	m²	44			
		d) Rough surface finish (strike plate finish)	m²	110			
		SUNDRIES					
4.3.12		Scabble wall surface to form rough surface for adhesion of new concrete to be cast	m²	20			
4.3.13		110 mm dia uPVC slotted drain pipe below filter floor, 4500 mm long	No.	6			
		Nominated sub-Contractor to be appointed for the works					
4.3.14	PSG8.9	Allow for water tightness test for Shongwe 10 ML reservoir	Prov Sum	1	150,000	150,000	00
4.3.15		Allow for water tightness test for Boschfontein 5ML reservoir	Prov Sum	1	150,000	150,000	00
4.3.16		Allow for Shongwe & Boschfontein reservoir repair work and waterproofing as specified in clause 5.5.11.6 and approved by the engineer	Prov Sum	1	1,550,000	1,550,000	00
		Overhead, charges and profit on Items 4.3.14 to 4.3.16 above	%	1,850,000			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
6.		SECTION 6 : BUILDING WORK					
6.1		SECTION 6.1 - RAPID GRAVITY SAND FILTERS (RGS)					
	SANS 1200HA	STEELWORK MEASURED IN DETAIL					
6.1.1	8.3.1	1. Structural steelwork Ref Drg WFA.16.D001 and E001 (Roof Structure & Cladding) ,Preparation of shop detail drawings and submit for approval	ton	2			
		Truss supports					
6.1.2		a) 150 x 75 x 10 mm angle iron ref. detail A on drg WFA.16.D001	No.	29			
		TRANSPORT TO SITE					
		a) Normal transport					
6.1.3		1. Structural steelwork in item 6.11 and 6.1.2 above	ton	2			
		OFF LOADING, SITE STORAGE AND ERECTION ON SITE					
6.1.4		1. Structural steelwork in item 6.11 and 6.1.2 above	ton	2			
		Erection bolts					
6.1.5		a) Class 4.8 bolts with nuts and washers	ton	0.3			
6.1.6		b) Class 8.8 bolts with nuts and washers	ton	0.3			
		Holding down bolts					
6.1.7		a) 16 mm dia Chemical Anchor (min 70 mm into concrete)	No.	29			
		CLADDING SUPPORT					
		Hot rolled sections					
6.2.1		a) IPE 120	ton	1			
		Cold rolled sections					
6.2.2		b) 150 x 75 x 20 x 3.0 mm Lipped channel sections purlins	ton	2			
		FASTENERS					
		Fasteners					
6.2.3		a) Class 4.8 bolts with nuts and washers	ton	0.3			
6.2.4		b) Class 8.8 bolts with nuts and washers	ton	0.3			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		c) 16 mm dia Chemical Anchor (min 70 mm into concrete)	No.	29			
6.3	SANS 1200HC	CORROSION PROTECTON					
		Extra over items 8.3.1 to 8.3.6 for corrosion protection					
6.3.1	8.2.1	Surface dressing and repairs at Place of Fabrication	ton	2			
6.3.2	8.2.2	Transport	ton	2			
6.3.3	8.2.3	Hot dip galvanizing on site after erection	ton	2			
6.3.4		Damaged areas shall be repaired by the application of a zink-rich epoxy (single pack) to SABS 763 (ZINC GALV1 - Dulux or Poly GALV - Plascon)	Sum	1			
6.4	SANS 1200HB	CLADDING AND SHEETING					
		ROOF SHEETING AND CLADDING					
		Supply, deliver to site and fix cladding and sheeting including all necessary approved fasteners, etc. and cutting and notching complete, and finished with Colorplus or Chromadek finish (colour surf green to suit existing) Drg WFA.16.D001 and E001 Roof sheeting					
	8.2.2	a) 0.55 mm SAFLOK 700 sheeting (or similar and approved) fixed to					
6.4.1		1. Timber purlins	m²	270			
		Vertical cladding					
		a) 0.55 mm SAFLOK 700 sheeting (or similar and approved) fixed to					
6.4.2		2. Steel rails	m²	240			
		GALVANIZED ANCILLARIES					
		Supply, deliver to site and fix all ancillaries including all 'necessary approved fasteners, seals, etc. and cutting and notching complete (colour surf green)					
	8.2.3	a) SAFLOK 700 Ridging					
6.4.3		10.6 mm Ridge capping 450 mm girth 3 times bent along length	m	4			
		b) Galvanized ridge ventilators					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6.4.4		1. VENTCO type with 300 mm throat width, or similar approved	m	13			
		c) Bullnose sheeting					
6.4.5		1. Bullnose with 500 mm radius to 0,55 mm roof sheeting	m	33			
		d) Gable trim					
6.4.6		2. 0.6 mm Gable trim	m	50			
		e) Galvanized closures					
		1. 0.6 mm Serrated eaves closer	m	33			
		ROOF INSTALLATION					
		Supply, deliver to site and fix Alububble roof insulation, with foil backing 4 mm thick, including all galvanized wire support work, cutting and notching complete to					
6.4.7		a) Underside of roof sheeting	m²	270			
6.5	PU	BRICKWORK					
		REINFORCED BRICKWORK					
	8.1.1	Reinforced stock brickwork in 1:3 cement mortar					
6.5.1		a) 230 mm Thick wall	m²	13			
		BRICK REINFORCING					
		Brick reinforcing					
6.5.2		a) 150 mm Wide brick force	m	40			
		LINTOLS					
6.5.3		a) 75 x 110 mm Lintel	m	4			
		HOOP IRON TIES					
		Hoop iron ties between concrete and brickwork					
6.5.4		a) 2 x 30 mm galvanized shop iron ties, 600 mm long with one end shot plugged to concrete and other end built into brickwork	No.	20			
		DAMPPROOFING					
		Brick grip dpc					
6.5.5		a) 375 Micron under walls	m²	2			
	8.1.3	ROOFS MEASURED IN NUMBER					
		SANS graded CCA treated SA Pine					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Prefabricated roof construction erected, including all trusses, braces, purlins, battens, wall plates, etc. Drg WFA.16.D001					
6.5.6		a) Timber roof construction complete Size of building on plan 238m²	Sum	1			
	8.1.3	IRONMONGERY					
		Locksets					
6.5.7		a) Union four lever lockset including satin chrome furniture	No.	3			
		Door stops					
6.5.8		a) 30 mm Diameter rubber door stop	No.	3			
		Barrel bolts					
6.5.9		b) 3 x 25 mm Brass dividing strip fixed in floor screed	No.	3			
	8.1.3	PURPOSE MADE DOORS AND FRAMES					
		Purpose made doors and frames					
6.5.10		a) 900 x 2090 mm high door and door frame with Anodised Aluminium in natural finish including, SABS approved safety glass (D1)	No.	3			
		ONE COAT PLASTER					
		One coat 1:6 cement plaster					
		a) Steel float finish to					
6.5.11	8.1.2	1. Walls	m²	25			
		PAINTING					
		Note: All painting to be Plascon or other approved and applied in accordance with the manufacturer's instruction					
		Undercoat and two coats interior washable acrylic paint to					
6.5.12	8.1.3	a) Plastered walls	m²	13			
		Undercoat and two coats exterior washable acrylic paint to					
		a) Plastered walls	m²	13			
		FILTERED WATER OUTLET CHAMBERS					
6.5.13		a) Paint inner surface with re-coatable polyurethane, colour white	m²	88			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Note: rate to include for preparing concrete surface					
6.5.14		b) Ceramic tiles, white, set-in water-resistant adhesive and watertight grout	m²	88			
6.6		SCHEDULE 6.2: BUILDING REFURBISHMENT					
6.6.1		Repair and refurbish offices and laboratory building, ceilings, plumbing and toilet facilities (Provisional Item)	Prov Sum	1	150,000.00	150,000	00
6.6.2		Repair and refurbish male change room, plumbing and doors (Provisional Item)	Prov Sum	1	80,000.00	80,000	00
6.6.3		Laboratory Equipment (Provisional Item)	Prov Sum	1	300,000.00	300,000	00
6.6.4		Provide access to dosing specials at inlet works	Prov Sum	1	60,000.00	60,000	00
6.6.5		'Re-design and construct chlorine store and dosing room to conform to the requirements of SANS 10298 of 2009	Prov Sum	1	320,000.00	320,000	00
6.6.6		Overhead, charges and profit on Items 6.6.1 to 6.6.5 above	%	910,000			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
7.	SANS 1200 HA	SECTION 7: STEEL AND METALWORK					
		STRUCTURAL STEELWORK (Small Works)					
		Rate to include for supply of material, erection, welding, bolts, nuts, protection, etc.					
7.1	8.3.1	STRUCTURAL STEEL					
		SETTLING TANKS					
7.1.1		698 x 200 x 3 mm 304L stainless steel plate with neoprene packing bolted to concrete wall with SS bolts Ref drg. WDA.14.X002	No.	2			
7.1.2		PC 200 x 75 stairs with knee brace and handrail bolted to concrete wall and on to concrete footing. Ref drg WDA.14.D004	No.	1			
		Note: Rate to include for corrosion protection					
		FILTERS					
7.1.3		Hot dip galvanized working platform complete with C140 x 50 support frame, grating and side mounted handrail, bolted to concrete wall Ref drg. WFA.14.X001 and X003	No.	8			
7.1.4		750 x 250 x 3 mm thick stainless steel (304L) weir plate with neoprene packing bolted to concrete wall complete as shown on drg WFA.14.D004	No.	4			
7.1.5		3 mm thick stainless steel (304L) inlet shaft, sealedwater tight against concrete wall, complete as shown on drg WFA.14.D004	No.	4			
7.1.6		Aluminium frame and hinged lid with polycarbonate glazing bolted to top of filtered water outlet complete as shown on drg WFA.14.X001	No.	8			
7.1.7		12 mm thick polypropylene diffuser plate with openingsbolted to SS angle iron. Complete as shown on drg WFA.14.D004	No.	4			
7.1.8		Hot dip galvanized angle iron MCC support frame with kick plate and RS40 (30 x 4.5) grating bolted to concrete wall. Complete as shown on drg WFA.14.X002	No.	2			
7.1.9		Hot dip galvanized angle iron support with U-bolt and neoprene packing for 250 mm dia pipe bolted to concrete wall. Complete as shown on drg. WFA.14.D002	No.	3			
7.2	8.3.2	HANDRAILS					
7.2.1		Hot dip galvanized standard ball type approved (1000 mm high) handrail, horizontal, side or top mounted					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		a) Settling Tanks	m	165			
		b) Filters	m	120			
7.2.2		Hot dip galvanized standard ball type approved (1000 mm high) handrail, inclined for stairs, side or top mounted					
		a) Settling Tanks	m	5			
		b) Filters	m	7			
7.2.3		Hot dip galvanized standard ball type approved (610 mm high) handrail, horizontal, top mounted					
		a) Settling Tanks	m	3			
7.3	8.3.3	LADDERS (COMPLETE AND INSTALLED					
7.3.1		Hot dip galvanized cat ladder complete as shown on drg. AAA.13.D001					
7.3.1.1		Settling Tanks					
		a) X = 303.20 m					
		Y = 302.00 m	No.	3			
7.3.1.2		Filters					
		b) X = 304.60 m					
		Y = 301.80 m	No.	4			
7.4	8.3.4	FLOORING					
		Complete and installed with angle iron frames cast into concrete and/or MS channel supports bolted to concrete and all required cut outs, all edges banded					
7.4.1		Hot dip galvanized banded RS40 grating with 30 x 4.5 mm bearer bar, minimum of 25 bearer bars per metre for grating details refer to drg. AAA.14.D001					
		Settling tanks					
		a) 1260 mm x 1260 mm (Chambers)	No.	3			
		b) 1060 mm x 1060 mm (Chambers)	No.	2			
		c) 21300 mm x 760 mm	No.	1			
		d) 7300 mm x 560 mm	No.	2			
		e) 1000 mm x 560 mm	No.	2			
		f) 500 mm x 560 mm	No.	2			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
7.4.2		Hot dip galvanized banded RS40 grating with 40 x 6.5 mm bearer bar, minimum of 25 bearer bars per metre, for grating details. Ref drg AAA.14.D001					
		Settling tanks					
		a) 2200 mm x 1370 mm	No.	4			
7.4.3		40 x 40 x 5 mm hot dip galvanized angle iron frame with spliced lugs cast into concrete, complete as shown on detail Drg. AAA.14.D001					
		a) Settling Tanks	m	75			
7.4.4		50 x 50 x 5 mm hot dip galvanized angle iron frame with spliced lugs cast into concrete, complete as shown on detail drg. AAA.14.D001					
		a) Settling Tanks	m	30			
		SUNDRY ITEMS					
7.4.5		CI Square Manhole cover and frame, double seal type cast into concrete slabs. Fig 8, Type 8B in accordance to SABS 558	No.	2			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
8.		SECTION 8 : PIPE FITTINGS AND VALVES					
		PLK, PLKA, PLN, PLQ, PLT, PTV					
8.1	Pipe Item Schedules	The rate for all items to include for the supply, delivery, factory applied corrosion protection and off-loading on site					
8.1.1		Inlet Structures					
		Ref drg WCA.13.M001					
		BA1.1	No.	0		Rate Only	
		BA1.2	No.	0		Rate Only	
		BA4.1	No.	0		Rate Only	
		BA5.1	No.	0		Rate Only	
		BA9.1	No.	0		Rate Only	
8.1.2		Flocculation Channels					
		Ref drg WCA.13.M001					
		CA1.1	No.	0		Rate Only	
		CA1.2	No.	0		Rate Only	
		CA1.3	No.	0		Rate Only	
		CA1.4	No.	0		Rate Only	
		CA2.1	No.	0		Rate Only	
		CA5.1	No.	0		Rate Only	
		CA5.2	No.	0		Rate Only	
		CA7.1	No.	0		Rate Only	
		CA12.1	No.	0		Rate Only	
8.1.3		Settling tanks					
		Ref drg WDA.13.M001 and M002					
		DA1.1	No.	2			
		DA1.2	No.	0		Rate Only	
		DA1.3	No.	0		Rate Only	
		DA1.4	No.	0		Rate Only	
		DA1.5	No.	16		99,840	00
		DA1.6	No.	0		Rate Only	
		DA1.7	No.	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		DA1.8	No.	0		Rate Only	
		DA1.9	No.	0		Rate Only	
		DA1.10	No.	0		Rate Only	
		DA1.11	No.	0		Rate Only	
		DA1.12	No.	0		Rate Only	
		DA1.13	No.	0		Rate Only	
		DA1.14	No.	0		Rate Only	
		DA2.1	No.	0		Rate Only	
		DA2.2	No.	0		Rate Only	
		DA2.3	No.	0		Rate Only	
		DA2.4	No.	0		Rate Only	
		DA2.5	No.	0		Rate Only	
		DA2.6	No.	0		Rate Only	
		DA2.7	No.	0		Rate Only	
		DA2.8	No.	0		Rate Only	
		DA4.1	No.	0		Rate Only	
		DA5.1	No.	0		Rate Only	
		DA5.2	No.	0		Rate Only	
		DA5.3	No.	0		Rate Only	
		DA7.1	No.	0		Rate Only	
		DA9.1	No.	0		Rate Only	
		DA9.2	No.	0		Rate Only	
		DA12.1	No.	0		Rate Only	
8.1.4		Filters					
		Ref drg WFA.13.M001 and M002					
		FA1.1	No.	1			
		FA1.2	No.	1			
		FA1.3	No.	1			
		FA1.4	No.	4			
		FA1.5	No.	4			
		FA1.6	No.	8			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA1.7	No.	2			
		FA1.8	No.	8			
		FA1.9	No.	8			
		FA1.10	No.	1			
		FA1.11	No.	1			
		FA1.12	No.	1			
		FA1.13	No.	1			
		FA1.14	No.	4			
		FA1.15	No.	1			
		FA2.1	No.	0		Rate Only	
		FA2.2	No.	4			
		FA2.3	No.	0		Rate Only	
		FA2.4	No.	0		Rate Only	
		FA2.5	No.	1			
		FA2.6	No.	0		Rate Only	
		FA2.7	No.	1			
		FA3.1	No.	0		Rate Only	
		FA3.2	No.	0		Rate Only	
		FA3.3	No.	0		Rate Only	
		FA3.4	No.	0		Rate Only	
		FA3.5	No.	0		Rate Only	
		FA3.6	No.	4			
		FA3.7	No.	8			
		FA4.1	No.	0		Rate Only	
		FA4.2	No.	0		Rate Only	
		FA5.1	No.	1			
		FA5.2	No.	0		Rate Only	
		FA5.3	No.	0		Rate Only	
		FA5.4	No.	0		Rate Only	
		FA7.1	No.	0		Rate Only	
		FA7.2	No.	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA7.3	No.	0		Rate Only	
		FA9.1a	No.	4			
		FA9.1b	No.	4			
		FA9.2	No.	2			
		FA9.3	No.	8			
		FA9.4a	No.	8			
		FA9.4b	No.	8			
		FA9.5a	No.	4			
		FA9.5b	No.	4			
		FA9.6a	No.	4			
		FA9.6b	No.	4			
		FA9.7	No.	0		Rate Only	
		FA12.1a	No.	4			
		FA12.1b	No.	4			
		FA13.1	No.	0		Rate Only	
8.1.5		Site Pipework					
		Ref drg AAA.13.M001					
		SP1.1	No.	0		Rate Only	
		SP1.2	No.	0		Rate Only	
		SP1.3	No.	0		Rate Only	
		SP1.4	No.	2			
		SP1.5	No.	1			
		SP1.6	No.	1			
		SP1.7	No.	1			
		SP2.1	No.	0		Rate Only	
		SP2.2	No.	1			
		SP5.1	No.	0		Rate Only	
		SP5.2	No.	1			
8.2	Pipe Item	The rate for all items to include for the handling,					
	Schedules	installation, testing, site corrosion protection, painting					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		and building into walls					
8.2.1		Inlet Structures					
		Ref drg WCA.13.M001					
		BA1.1	No.	0		Rate Only	
		BA1.2	No.	0		Rate Only	
		BA4.1	No.	0		Rate Only	
		BA5.1	No.	0		Rate Only	
		BA9.1	No.	0		Rate Only	
8.2.2		Flocculation Channels					
		Ref drg WCA.13.M001					
		CA1.1	No.	1			
		CA1.2	No.	2			
		CA1.3	No.	2			
		CA1.4	No.	1			
		CA2.1	No.	2			
		CA5.1	No.	1			
		CA5.2	No.	6			
		CA7.1	No.	1			
		CA12.1	No.	2			
8.2.3		Settling tanks					
		Ref drg WDA.13.M001 and M002					
		DA1.1	No.	2			
		DA1.2	No.	4			
		DA1.3	No.	4			
		DA1.4	No.	4			
		DA1.5	No.	16			
		DA1.6	No.	8			
		DA1.7	No.	3			
		DA1.8	No.	4			
		DA1.9	No.	2			
		DA1.10	No.	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		DA1.11	No.	1			
		DA1.12	No.	1			
		DA1.13	No.	1			
		DA1.14	No.	4			
		DA2.1	No.	16			
		DA2.2	No.	4			
		DA2.3	No.	4			
		DA2.4	No.	8			
		DA2.5	No.	8			
		DA2.6	No.	1			
		DA2.7	No.	1			
		DA2.8	No.	2			
		DA4.1	No.	8			
		DA5.1	No.	2			
		DA5.2	No.	8			
		DA5.3	No.	9			
		DA7.1	No.	1			
		DA9.1	No.	8			
		DA9.2	No.	8			
		DA12.1	No.	2			
8.2.4		Filters					
		Ref drg WFA.13.M001 and M002					
		FA1.1	No.	1			
		FA1.2	No.	1			
		FA1.3	No.	1			
		FA1.4	No.	4			
		FA1.5	No.	4			
		FA1.6	No.	8			
		FA1.7	No.	2			
		FA1.8	No.	8			
		FA1.9	No.	8			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA1.10	No.	1			
		FA1.11	No.	1			
		FA1.12	No.	1			
		FA1.13	No.	1			
		FA1.14	No.	4			
		FA1.15	No.	1			
		FA2.1	No.	4			
		FA2.2	No.	4			
		FA2.3	No.	1			
		FA2.4	No.	1			
		FA2.5	No.	1			
		FA2.6	No.	2			
		FA2.7	No.	1			
		FA3.1	No.	1			
		FA3.2	No.	1			
		FA3.3	No.	1			
		FA3.4	No.	2			
		FA3.5	No.	2			
		FA3.6	No.	8			
		FA3.7	No.	8			
		FA4.1	No.	9			
		FA4.2	No.	8			
		FA5.1	No.	1			
		FA5.2	No.	1			
		FA5.3	No.	4			
		FA5.4	No.	1			
		FA7.1	No.	1			
		FA7.2	No.	2			
		FA7.3	No.	2			
		FA9.1a	No.	4			
		FA9.1b	No.	4			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA9.2	No.	2			
		FA9.3	No.	8			
		FA9.4a	No.	8			
		FA9.4b	No.	8			
		FA9.5a	No.	4			
		FA9.5b	No.	4			
		FA9.6a	No.	4			
		FA9.6B	No.	4			
		FA9.7	No.	8			
		FA12.1a	No.	4			
		FA12.1b	No.	4			
		FA13.1	No.	1			
8.2.5		Site Pipework					
		Ref drg AAA.13.M001					
		SP1.1	No.	0		Rate Only	
		SP1.2	No.	0		Rate Only	
		SP1.3	No.	0		Rate Only	
		SP1.4	No.	2			
		SP1.5	No.	1			
		SP1.6	No.	1			
		SP1.7	No.	1			
		SP2.1	No.	0		Rate Only	
		SP2.2	No.	1			
		SP5.1	No.	1			
		SP5.2	No.	1			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
9.		SECTION 9 : MECHANICAL EQUIPMENT AND CHEMICAL DOSING					
9.1		MECHANICAL EQUIPMENT					
	PTT	SUPPLY AND DELIVERY TO SITE THE LISTED EQUIPMENT COMPLETE WITH FIXING ITEMS, PACKING AND FIXING MATERIALS					
9.1.1	PTT9.1.1	Rapid Gravity Sand Filters (4 no's, 8 filter bays)					
		Complete rapid gravity sand filter floor system including nozzles fixing and sealing materials. Nozzles to be embedded in concrete Ref drg. WFA.14. D002, X002 and X003	No.	4			
9.1.2	PTT9.1.2	Filter Media					
		Note: Volume will be measured of media in place after one complete backwash cycle					
		a) Sand (700 mm)	m³	80			
		b) Grit (100 mm)	m³	12			
		c) Pebbles (150 mm)	m³	20			
9.2	PTT	INSTALLATION AND COMMISSIONING INCLUDING HANDLING, PAINTING AND TESTING OF THE FOLLOWING:					
	PSPTT						
9.2.1	PTT9.1.1	Rapid Gravity Sand Filters					
		Complete rapid gravity sand filter floor system including nozzles fixing and sealing materials.	No.	4			
9.2.2	PTT9.1.2	Filter Media					
		Note: Volume will be measured of media in place after one complete backwash cycle					
		a) Sand (700 mm)	m³	80			
		b) Grit (100 mm)	m³	12			
		c) Pebbles (150 mm)	m³	20			
9.3	PLC	CHEMICAL DOSING EQUIPMENT					
		Ref drg. WNA.13.D001					
		Supply and deliver to site					
9.3.1	PSPLC	Lime Dosing Equipment					
9.3.1.1		Additional Lime feeder for pre-lime dosing complete with hopper, bag loader and bag filter	No.	1			
9.3.2		Main coagulant dosing					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
9.3.2.1		Poly-electrolyte dosing pump	No.	1			
9.3.2.2		Poly-electrolyte pipework complete including bends, fixing brackets, etc. to connect to existing pipework	Sum	1			
9.3.2.3		Ferric-chloride dosing pump	No.	1		Rate Only	
9.3.2.4		Ferric-chloride pipework complete including bends, fixing brackets, etc. to connect to existing pipework	Sum	1		Rate Only	
		INSTALLATION AND COMMISSIONING, HANDLING, PAINTING AND TESTING OF THE FOLLOWING:					
9.3.3	PSPLC	Lime Dosing Equipment					
9.3.3.1		Lime feeder, hopper, bag loader and bag filler	No.	1			
9.3.4		Main coagulant dosing					
9.3.4.1		Poly-electrolyte dosing pump	No.	1			
9.3.4.2		Poly-electrolyte pipework	Sum	1			
9.3.4.3		Ferric-chloride dosing pump	No.	1		Rate Only	
9.3.4.4		Ferric-chloride pipework	Sum	1		Rate Only	
9.4	PSPTU	CHLORINATION EQUIPMENT					
	PTU	Ref drg WNA.13.D001					
		Upgrading of chlorine installation to 1000 - 6000g/h					
9.4.1	PTU6.1	Supply and delivery, installation and commissioning of chlorine dosing equipment, complete with ejectors, multiple flow meter assemblies and control valves etc. refer to PTU3 for the specification	Sum	1			
9.4.2	PTU6.2	Load cells					
		(Provisional Item)	No.	2			
9.4.3	PTU6.6.2	Chlorine leak detector					
		(Provisional Item)	Sum	1			
9.5		MISCELLANEOUS					
9.5.1		Epoxy coated platform - operated safety shower, with eye wash station to be installed at bulk tanks	No.	1			
		Note: Rate to include for removal of existing installation					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
9.5.2		Poly dosing special bolted to concrete wall. Complete with clearwater feed. Ref drg. WNA.13. D001	No.	1			
9.5.3		Ferric chloride dosing special bolted to concrete wall. Ref. drg. WNA.13. D001	No.	1		Rate Only	
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
10	EMCC	SECTION 10: MOTOR CONTROL CENTRE AND DISTRIBUTION BOARDS					
10.1	EMCC	SECTION 10.1 - DESIGN, DRAWINGS AND GENERAL					
		Nominated sub-Contractor to be appointed for the works					
10.1.1		Site Establishment for all electrical works	PC Sum	1	1,600,000.	1,600,000	00
10.1.2	EMCC 21.1	a) Provide MCC design drawings and wiring diagrams as specified	PC Sum	1	70,000	70,000	00
10.1.3		b) Provide operating and maintenance manuals and "as-built" drawings as specified	PC Sum	1	42,000	42,000	00
10.1.4		Overhead, charges and profit on Items 10.1.1 to 10.1.3 above	%	1,612,000			
10.2		SECTION 10.2 SUPPLY AND DELIVERY TO SITE					
		Nominated sub-Contractor to be appointed for the works					
10.2.1	EMCC 21.2	a) Supply and delivery to site of a complete Filter MCC (refer to project specification PSEMCC.8.A)	Sum	0		Rate Only	
10.2.2		b) Supply and delivery to site of complete Filter Control Panel MCC (refer to project specification PSEMCC.8.B)	No.	0		Rate Only	
10.3		SECTION 10.3 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
10.3.1	EMCC 21.3	a) Installation of complete Filter MCC (refer to project specification PSEMCC.8.A)	PC Sum	1	70,000	70,000	00
10.3.2		b) Installation of complete Filter Control Panel (refer to project specification PSEMCC.8. B)	PC Sum	1	35,000	35,000	00
10.3.3		Overhead, charges and profit on Items 10.3.1 to 10.3.2 above	%	105,000			
10.4		SECTION 10.4 - COMMISSIONING					
		Nominated sub-Contractor to be appointed for the works					
10.4.1	EMCC 21.4	a) Commissioning of complete Filter MCC as (refer to project specification PSEMCC.8.A)	PC Sum	1	25,000	25,000	00
10.4.2		b) Commissioning of complete Filter Control Panel (refer to project specificationPSEMCC.8.B)	PC Sum	1	24,000	24,000	00
10.4.3		Overhead, charges and profit on Items 10.4.1 to 10.4.2 above	%	49,000			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Nominated sub-Contractor to be appointed for the works					
10.5		Refurbishment/Replacement of existing MCC, PLC and HMI system for Filters including SCADA -for raw water pumpstation, dosing system, filter chlorination and clear water pumpstation	PC Sum	1	5,000,000	5,000,000	00
10.5.1		Overhead, charges and profit on Items 10.5 above	%	5,000,000			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
11	EPLC	SECTION 11: PROGRAMMABLE & LOGIC CONTROLLERS					
11.1		SECTION 11.1- DESIGN, DRAWINGS AND GENERAL					
		Nominated sub-Contractor to be appointed for the works					
11.1.1	EPLC 26.1	a) Provide design drawings, documentation and design information as specified	PC Sum	1.0	70,000	70,000	00
11.1.2		b) Provide design drawings, documentation and design information as specified	PC Sum	1.0	50,000	50,000	00
11.1.3		Overhead, charges and profit on Items 11.1.1 to 11.1.2 above	%	120,000			
11.2		SECTION 11.2 - SUPPLY AND DELIVERY TO SITE					
11.2.1	EPLC 26.2	a) Supply and delivery to site of PLC and peripheral equipment installed in RGF Filters Control Panel (refer to project specification PSEPLC-4.A)	No.	0.0		Rate Only	
11.2.2		b) Supply and delivery to site of UPS and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	0.0		Rate Only	
11.2.3		c) Supply and delivery to site of HMI and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	0.0		Rate Only	
11.3		SECTION 11.3 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
11.3.1	EPLC 26.3	a) Installation of PLC and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	PC Sum	1.0	50,000	50,000	00
11.3.2		b) Installation of UPS and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	PC Sum	1.0	10,000	10,000	00
11.3.3		c) Installation of HMI and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	PC Sum	1.0	20,000	20,000	00
11.3.4		d) Site cable connections and programming of all PLC and peripheral equipment (refer to particular specification)	PC Sum	1.0	220,000	220,000	00
11.3.5		Overhead, charges and profit on Items 11.3.1 to 11.3.4 above	%	300,000			
11.4		SECTION11.4 - COMMISSIONING					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						462,000	00
		Nominated sub-Contractor to be appointed for the works					
11.4.1	EPLC 26.4	a) Commissioning of PLC and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	PC Sum	1.0	66,000	66,000	00
11.4.2		b) Commissioning of UPS and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	PC Sum	1.0	5,000	5,000	00
11.4.3		c) Commissioning of HMI and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	PC Sum	1.0	10,000	10,000	00
		Overhead, charges and profit on Items 11.4.1 to 11.4.2 above	%	81,000			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
12	ECIS	SECTION 12: DISTRIBUTION SYSTEM					
12.1		SECTION 12.1 - SUPPLY AND DELIVERY TO SITE					
12.1.1	ECIS 11.1	Supply and delivery to site of level Instrument complete with mounting brackets (refer to project specification PSECIS-4.A)	No.	0		Rate Only	
12.1.2		Supply and delivery to site of emergency stop stations (refer to project specifications PSEG&M-3)	No.	0		Rate Only	
12.1.3		Supply and delivery to site of electrical installation equipment at and in flow meter manholes (refer to project specification PSECIS-3.A)	No.	0		Rate Only	
12.1.4		Supply and delivery to site of all notices and all danger plates (refer to project specification PSEG&M-8)	Sum	0		Rate Only	
12.1.5		Supply and delivery to site turbidity instrument complete as specified (refer to project specification PSECIS-8.A)	No.	0		Rate Only	
12.2		SECTION12.2 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
12.2.1	ECIS 11.2	Installation of level Instrument complete with mounting brackets and surge arrestors (refer to project specification PSECIS-4.A)	PC Sum	1	12,500	12,500	00
12.2.2		Installation of emergency stop stations (refer to project specifications PSEG&M-3)	PC Sum	1	6,500	6,500	00
12.2.3		Installation of electrical installation equipment at and in flow meter manholes (refer to project specification PSECIS-3.A)	PC Sum	1	10,000	10,000	00
12.2.4		Installation of all notices and all danger plates (refer to project specification PSEG&M-8)	PC Sum	1	18,000	18,000	00
12.2.5		Installation of turbidity instrument complete as specified (refer to project specification PSECIS-8.A)	PC Sum	1	10,000	10,000	00
12.2.6		Overhead, charges and profit on Items 12.2.1 to 12.2.5 above	%	57,000			
12.3		SECTION 12.3 - COMMISSIONING					
		Nominated sub-Contractor to be appointed for the works					
12.3.1	ECIS 11.3	Commissioning of level Instrument complete with mounting brackets and surge arrestors (refer to project specification PSECIS-4.A)	PC Sum	1	10,000	10,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
12.3.2		Commissioning of emergency stop stations (refer to project specifications PSEG&M-3)	PC Sum	1	5,000	5,000	00
12.3.3		Commissioning of electrical equipment at and in flowmeter manholes (refer to project specification PSECIS-3.A)	PC Sum	1	5,000	5,000	00
12.3.4		Commissioning of all notices and all danger plates (refer to project specification PSEG&M-8)	PC Sum	1	5,000	5,000	00
12.3.5		Commissioning of turbidity instrument complete as specified (refer to project specification PSECIS-8.A)	PC Sum	1	10,000	10,000	00
12.3.6		Overhead, charges and profit on Items 12.3.1 to 12.3.5 above	%	35,000			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
13	ESPL	SECTION 13: BUILDINGS ELECTRICAL INSTALLATION					
13.1	ESPL	SECTION 13.1 - SUPPLY AND DELIVERY TO SITE					
13.1.1	ESPL 12.2	a) Supply and delivery to site of complete electrical installation equipment for the Settling Tanks (refer to project specification PSESPL-A)	Sum	0.0		Rate Only	
13.1.2		b) Supply and delivery to site of complete electrical installation equipment for the Filter Building (refer to project specification PSESPL-B)	Sum	0.0		Rate Only	
13.2		SECTION 13.2 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
13.2.1	ESPL 12.3	Installation of complete electrical installation Settling Tanks (refer to project specification PSESPL-A)	PC Sum	1.0	55,000	55,000	00
13.2.2		Installation of complete electrical installation Filter Building (refer to project specification PSESPL-B)	PC Sum	1.0	55,000	55,000	00
13.2.3		Overhead, charges and profit on Items 13.2.1 to 13.2.2 above	%	110,000			
13.3	ESPL 12.3	SECTION 13.3 - COMMISSIONING					
		Nominated sub-Contractor to be appointed for the works					
13.3.1		a) Commissioning of complete electrical installation Settling Tanks (refer to project specification PSESPL-A)	PC Sum	1.0	18,000	18,000	00
13.3.2		b) Commissioning of complete electrical installation Filter Building (refer to project specification PSESPL-B)	PC Sum	1.0	18,000	18,000	00
13.3.3		Overhead, charges and profit on Items 13.3.1 to 13.3.2 above	%	36,000			
Total Carried Forward To Summary							

SITE LIGHTING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
14	ESLS	SECTION 14: SITE LIGHTING					
14.1		SECTION 14.1 - SUPPLY AND DELIVERY TO SITE					
		Nominated sub-Contractor to be appointed for the works					
14.1.1	ESLS 5.1	a) Supply and delivery to site of 15m High mast (refer to project specifications PSESLS-2)	PC Sum	1.0	120,000	120,000	00
14.2		SECTION 14.2 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
14.2.1	ESLS 5.2	a) Installation of complete 15m High mast (refer to project specifications PSESLS-2)	PC Sum	1.0	50,000	50,000	00
14.2.2		Overhead, charges and profit on Item 14. 1..1 & 14.2.1 above	%	170,000			
14.3		SECTION 14.3 - COMMISSIONING					
		Nominated sub-Contractor to be appointed for the works					
14.3.1	ESLS 5.3	a) Commissioning of complete 15m High mast (refer to project specifications PSESLS-2)	PC Sum	1.0	10,000	10,000	00
14.3.2		Overhead, charges and profit on Items 14.3.1 above	%	10,000			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
15	EELP	SECTION 15: EARTHING & LIGHTNING PROTECTION					
15.1		SECTION 15.1 - DESIGN, DRAWINGS AND GENERAL					
		Nominated sub-Contractor to be appointed for the works					
15.1.1	EELP 22.1	a) Provide design drawings and design information for Earthing and Lightning Protection System	PC Sum	1.0	20,000	20,000	00
15.1.2		b) Provide operating and maintenance manuals and "as-built" drawings as specified	PC Sum	1.0	7,000	7,000	00
15.1.3		c) Provide risk management calculations and IEC Program calculation results as specified	PC Sum	1.0	7,000	7,000	00
15.1.4		Overhead, charges and profit on Item 15.1.1 to 15.1.3 above	%	34,000			
15.2		SECTION 15.2 - SUPPLY AND DELIVERY TO SITE					
15.2.1	EELP 22.2	a) Supply and delivery to site of lightning protection system complete for Flocculation Channel	Sum	0.0		Rate Only	
15.2.2		b) Supply and delivery suitable earth-termination system, earthing and earth mat for Flocculation Channel	Sum	0.0		Rate Only	
15.2.3		c) Supply and delivery to site of lightning protection system complete for Settling Tank	Sum	0.0		Rate Only	
15.2.4		d) Supply and delivery suitable earth-termination system, earthing and earth mat for Settling Tank	Sum	0.0		Rate Only	
15.2.5		e) Supply and delivery to site of lightning protection system complete for Filter Building	Sum	0.0		Rate Only	
15.2.6		f) Supply and delivery suitable earth-termination system, earthing and earth mat for Filter Building	Sum	0.0		Rate Only	
15.2.7		g) Supply and delivery suitable earth bar as specified	No.	0.0		Rate Only	
15.2.8		h) Supply and delivery all connection points, terminals, interconnections, bonding points and test joints for the entire system including for natural components	Sum	0.0		Rate Only	
15.3		SECTION 15.3 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
15.3.1	EELP 22.3	a) Site installation of lightning protection system complete for Flocculation Channel	PC Sum	1.0	55,000.00	55,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
15.3.2		b) Site installation of suitable earth-termination system (system earth mat) and earth mat for Flocculation Channel	PC Sum	1.0	55,000.00	55,000	00
15.3.3		c) Site installation of lightning protection system complete for Settling Tank	PC Sum	1.0	55,000.00	55,000	00
15.3.4		d) Site installation of suitable earth-termination system (system earth mat) and earth mat for Settling Tank	PC Sum	1.0	55,000.00	55,000	00
15.3.5		e) Site installation of lightning protection system complete for Filter Building	PC Sum	1.0	55,000.00	55,000	00
15.3.6		f) Site installation of suitable earth-termination system (system earth mat) and earth mat for Filter Building	PC Sum	1.0	55,000.00	55,000	00
15.3.7		g) Site installation of suitable earth bar as specified for Filter Building and Settling Tank	PC Sum	1.0	55,000.00	55,000	00
15.3.8		h) Site installation of all connection points, terminals, interconnections, bonding points and test joints for the entire system including for 'natural' components	PC Sum	1.0	100,000.00	100,000	00
15.3.9		i) Earthing resistance survey upon completion of the excavations and test report	PC Sum	1.0	63,000.00	63,000	00
15.3.10		Overhead, charges and profit on Item 15.3.1 to 15.3.9 above	%	548,000.00			
15.4		SECTION 15.4 - COMMISSIONING					
		Nominated sub-Contractor to be appointed for the works					
15.4.1	EELP 22.4	a) Commissioning of lightning protection system complete as specified above	PC Sum	1.0	60,000.00	60,000	00
15.4.2		b) Commissioning of suitable earth-termination system (system earth mat) and earth mat as specified	PC Sum	1.0	60,000.00	60,000	00
15.4.3		c) Certificate of compliance of lightning protection system as specified under SANS 10313	PC Sum	1.0	30,000.00	30,000	00
15.4.4		Overhead, charges and profit on Item 15.4.1 to 15.4.3 above	%	150,000.00	10.00	15,000	00
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
16	EMCA	SECTION 16: MULTICORE CABLES & EARTH WIRES					
		SECTION 16.1 - SUPPLY AND DELIVERY TO SITE					
	EMCA 19	Supply and delivery to site of cables, jointing, terminating materials, all earth wires and cable names tags as per the particular specification					
16.1.1		70mm² 4 core Cu PVC SWA PVC	m	0.0		Rate Only	
16.1.2		35mm² 4 core Cu PVC SWA PVC	m	0.0		Rate Only	
16.1.3		2.5mm² 4 core Cu PVC SWA PVC	m	0.0		Rate Only	
16.1.4		2.5mm² 3 core Cu PVC SWA PVC	m	0.0		Rate Only	
16.1.5		2.5mm² Bare Copper Earth Wire	m	0.0		Rate Only	
16.1.6		10mm² Bare Copper Earth Wire	m	0.0		Rate Only	
16.1.7		16mm² Bare Copper Earth Wire	m	0.0		Rate Only	
16.1.8		25mm² Bare Copper Earth Wire	m	0.0		Rate Only	
16.1.9		35mm² Bare Copper Earth Wire	m	0.0		Rate Only	
16.1.10		25mm² Kwena Bare Copper Earth Cable	m	0.0		Rate Only	
16.1.11		50mm² Kwena Bare Copper Earth Cable	m	0.0		Rate Only	
16.1.12		1mm² x 2pr twisted PVC SWA PVC	m	0.0		Rate Only	
16.1.13		1mm² x 4pr twisted PVC SWA PVC	m	0.0		Rate Only	
16.1.14		1mm² x 8pr twisted PVC SWA PVC	m	0.0		Rate Only	
16.1.15		1mm² x 12pr twisted PVC SWA PVC	m	0.0		Rate Only	
16.1.16		Termination material including glands, neoprene shrouds, lugs, insulating materials, cable ties and corrosion proof bolts, washers, spring washers, nuts, etc to terminate the following 600/1000V PVC SWA PVC electrical cables complete.					
16.1.17		70mm² 4 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.18		35mm² 4 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.19		2.5mm² 4 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.20		2.5mm² 3 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.21		2.5mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.22		10mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.23		16mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.24		25mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
Total Carried Forward							

MULTICORE CABLES & EARTH WIRES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.1.25		35mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.26		25mm² Kwena Bare Copper Earth Cable	No.	0.0		Rate Only	
16.1.27		50mm² Kwena Bare Copper Earth Cable	No.	0.0		Rate Only	
16.1.28		1mm² x 2pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.29		1mm² x 4pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.30		1mm² x 8pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.31		1mm² x 12pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.32		Heat shrinkable cable through joint kit complete with all materials required to joint 600/1000V PVC SWA PVC cable					
16.1.33		70mm² 4 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.34		35mm² 4 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.35		2.5mm² 4 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.36		2.5mm² 3 core Cu PVC SWA PVC	No.	0.0		Rate Only	
16.1.37		2.5mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.38		10mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.39		16mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.40		25mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.41		35mm² Bare Copper Earth Wire	No.	0.0		Rate Only	
16.1.42		25mm² Kwena Bare Copper Earth Cable	No.	0.0		Rate Only	
16.1.43		50mm² Kwena Bare Copper Earth Cable	No.	0.0		Rate Only	
16.1.44		1mm² x 2pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.45		1mm² x 4pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.46		1mm² x 8pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.47		1mm² x 12pr twisted PVC SWA PVC	No.	0.0		Rate Only	
16.1.48		Supply and delivery to site of cable route markers	Each	0.0		Rate Only	
16.1.49		Supply and delivery to site of concrete cable slabs	Each	0.0		Rate Only	
16.1.50		Supply and delivery to site of cable trays, ladders and wire trunking					
16.1.51		3CR12 heavy duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as specified					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.1.52		200mm Wide cable ladder	m	0.0		Rate Only	
16.1.53		200mm wide 90 Horizontal Bend	Each	0.0		Rate Only	
16.1.54		200mm wide 90 Internal elbow (Riser)	Each	0.0		Rate Only	
16.1.55		200mm wide 90 External elbow (Dropper)	Each	0.0		Rate Only	
16.1.56		200mm wide Tee	Each	0.0		Rate Only	
16.1.57		200mm wide 4 Way Cross-over	Each	0.0		Rate Only	
16.1.58		300mm Wide cable ladder	m	0.0		Rate Only	
16.1.59		300mm wide 90 Horizontal Bend	Each	0.0		Rate Only	
16.1.60		300mm wide 90 Internal elbow (Riser)	Each	0.0		Rate Only	
16.1.61		300mm wide 90 External elbow (Dropper)	Each	0.0		Rate Only	
16.1.62		300mm wide Tee	Each	0.0		Rate Only	
16.1.63		300mm wide 4 Way Cross-over	Each	0.0		Rate Only	
16.1.64		600mm Wide cable ladder	m	0.0		Rate Only	
16.1.65		600mm wide 90 Horizontal Bend	Each	0.0		Rate Only	
16.1.66		600mm wide 90 Internal elbow (Riser)	Each	0.0		Rate Only	
16.1.67		600mm wide 90 External elbow (Dropper)	Each	0.0		Rate Only	
16.1.68		600mm wide Tee	Each	0.0		Rate Only	
16.1.69		600mm wide 4 Way Cross-over	Each	0.0		Rate Only	
16.1.70		Supply and delivery to site of cable supports to motors and other electrical equipment	Sum	0.0		Rate Only	
16.1.71		Supply and delivery to site of pump set sensor termination cubicles	Sum	0.0		Rate Only	
16.2		SCHEDULE 16.2 - INSTALLATION					
		Nominated sub-Contractor to be appointed for the works					
16.2.1		Installation of cables, jointing, terminating materials, all earth wires and cable name tags as per the cables schedule supplied electronically. Cables are listed above form item 16.1.1 to 16.1.15	PC Sum	1.0	905,000.00	905,000	00
16.2.2		Overhead, charges and profit on Item 16.2.1 above	%	905,000			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.2.3		Termination material including glands, neoprene shrouds, lugs, insulating materials, cable ties and corrosion proof bolts, washers, spring washers, nuts, etc to terminate the following 600/1000V PVC SWA PVC electrical cables complete. Cables are listed from item 16.1.17 to 16.1.31 above	PC Sum	1.0	25,000	25,000	00
16.2.4		Overhead, charges and profit on Item 16.2.3 above	%	25,000			
16.2.5		Heat shrinkable cable through joint kit complete with all materials required to joint 600/1000V PVC SWA PVC cable. Cables are listed from item 16.1.33 to 16.1.49	PC Sum	1.0	10,000	10,000	00
16.2.6		Overhead, charges and profit on Item 16.2.5 above	%	10,000			
16.2.7		Installation of cable trays, ladders and wire trunking 3CR12 heavy duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as specified. Items 16.1.52 to 16.1.69	PC Sum	1.0	480,000	480,000	00
16.2.8		Overhead, charges and profit on Item 16.2.7 above	%	480,000			
16.2.9		Installation of cable supports to motors and other electrical equipment	PC Sum	1.0	26,000	26,000	00
16.2.10		Installation of pump set sensor termination cubicles	PC Sum	1.0	6,000	6,000	00
16.2.11		Excavating, back filling, consolidation, importation of soil and dumping of all rock and stone removed during excavations including cleaning of cable routes all according to particular specifications (including hand excavations where necessary along existing cable routes)	PC Sum	1.0	130,000	130,000	00
16.2.12		Nett amount for core drilling 100mm diameter holes through 250mm concrete	PC Sum	1.0	26,000	26,000	00
16.2.13		Overhead, charges and profit on Item 16.2.9 to 16.2.12 above	%	188,000			
16.3		SCHEDULE 16.3 - COMMISSIONING					
		Nominated sub-Contractor to be appointed for the works					
16.3.1		Testing and commissioning of cables	PC Sum	1.0	30,000	30,000	00
16.3.2		Updating, verifying and submission of Electronic Cable schedules with Tag numbers and final agreed lengths	PC Sum	1.0	40,000	40,000	00
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.3.3		Drawing up of as-built cable route plans	PC Sum	1.0	15,000	15,000	00
16.3.4		Overhead, charges and profit on Item 16.3.1. to 16.3.3 above	%	85,000			
Total Carried Forward to Summary							

SCHEDULE 2 WATER TREATMENT WORKS PHASE 1A

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
3	EARTHWORKS AND PIPELINES	
4	CONCRETE WORK	
5	ACCESS, PAVING AND DRAINAGE	
6	BUILDING WORK	
7	STEEL AND METALWORK	
8	PIPE FITTINGS AND VALVES	
9	MECHANICAL EQUIPMENT AND CHEMICAL DOSING	
10	MOTOR CONTROL CENTRE AND DISTRIBUTION BOARDS	
11	PROGRAMMABLE & LOGIC CONTROLLERS	
12	DISTRIBUTION SYSTEM	
13	BUILDINGS ELECTRICAL INSTALLATION	
14	SITE LIGHTING	
15	EARTHING & LIGHTNING PROTECTION	
16	MULTICORE CABLES & EARTH WIRES	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		Section 1					
C.1	SANS 1200C	SITE CLEARANCE					
C.1.1	8.2.1	Clear and grub	m²			Rate Only	
	8.2.2	Remove & Grub Large Trees and Tree Stumps of Girth				Rate Only	
C.1.2		a) Over 1 m and up to and including 2 m	No.			Rate Only	
C.1.3		b) Over 2 m and up to and including 3 m	No.			Rate Only	
C.1.4		c) Over 3m	No.			Rate Only	
	8.2.8	Demolish and remove structures/buildings and dismantle steelwork					
C.1.5		Controlled demolition of pumpstation roof, rate to include equipment and site establishment	Prov Sum	1	850,000	850,000	00
C.1.6	8.2.9	Transport materials and debris to unspecified sites and dump (Provisional)	m³.km	720			
Total Carried Forward to Summary							

EARTHWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
D1	SANS 1200 D	EARTHWORKS					
	8.3.3	Restricted Excavation					
	8.3.3(a)	Excavate for foundations and pipe trenches in all materials, backfill behind structures, construct embankments or dispose within the free haul distance of 1.5km					
D1.1		0 m up to 2 m	m³	400			
D1.2		Exceeding 2 m up to 4 m	m³	0		Rate Only	
	8.3.3(b)	Extra-over Items D1.1 to D1.2 for excavation in					
D1.3	(i)	Intermediate excavation	m³	0		Rate Only	
D1.4	(ii)	Hard rock material	m³	0		Rate Only	
D1.5	PSD 8.3.3	Extra over Item D1.1 to D1.2 for 5% soil cement backfilling where					
	(c)	instructed by Engineer	m³	0		Rate Only	
D1.6	PSD 8.3.3	Excavate and dispose of unsuitable material from bottom of					
	(d)	excavations	m³	0		Rate Only	
D1.7	8.3.4(a)	Extra-over for importation of materials from commercial sources (G5 150mm compacted layer thickness) (Compacted to 95% Mod AASHTO Density)	m³	0		Rate Only	
D1.8	PSD 8.3.18	Dewatering of foundation excavations (As per SANS 1200A 5.5)	Sum	1			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
E1	SANS 1200 G	CONCRETE STRUCTURAL					
	8.2.1	Rough Formwork					
E1.1		Soffits of roof slabs	m²	0		Rate Only	
E1.2		Soffits for walkways and cover slabs	m²	0		Rate Only	
		Plane Sloping					
E1.3		Soffit of staircase	m²	18			
		Plane Vertical					
E1.4		Side of floor slabs	m²	0		Rate Only	
E1.5		Sides of drainage sump	m²	0		Rate Only	
E1.6		Sides of cable ducts in false door	m²	0		Rate Only	
E1.7		External faces of walls below ground level	m²	0		Rate Only	
E1.8		Internal faces of parapet wall of roof slab	m²	0		Rate Only	
E1.9		Sides of ramp at entrance	m²	0		Rate Only	
	8.2.2	Smooth Formwork					
E1.10		Sides of roof slab and parapet walls (external)	m²	0		Rate Only	
E1.11		Sides of stairs	m²	0		Rate Only	
E1.12		Risers of stairs	m²	0		Rate Only	
E1.13		Sides of walkways including up stand beam	m²	0		Rate Only	
E1.14		External faces of walls above ground level	m²	0		Rate Only	
E1.15		Sides of plinths	m²	0		Rate Only	
E1.16		Sides of drainage channel	m²	0		Rate Only	
E1.17		Internal faces of drainage sump	m²	5			
E1.18		Internal faces of walls of pump station	m²	0		Rate Only	
E1.19		Faces of walls of sump	m²	0		Rate Only	
E1.20		Sides of column (300 x 300)	m²	72			
E1.21		Sides of beams	m²	84			
	8.2.6	Box out holes / Form voids					
E1.22		Forming 500mm high vertical grooves tapering from 20 to 38mm, 38mm deep to outside of roof slab parapet wall	No.	0		Rate Only	
E1.23		Forming drip groove tapering from 38 to 30mm, 20mm deep below roof slab	m	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
E1.24		a) Small, other than circular area up to and including 0.1m2 up to 0.5m deep	No.	0		Rate Only	
E1.25		b) Large, other than circular of area over 0.1m2 up to and including 0.5m2, up to 0.5m deep	No.	0		Rate Only	
	8.3	Reinforcement					
	8.3.1	High tensile steel bars					
E1.26		Y10 mm	t	3			
E1.27		Y12 mm	t	4			
E1.28		Y16 mm	t	2			
E1.29		Y20 mm	t	2			
E1.30		Y25 mm	t	1			
E1.31		Y32 mm	t	1			
		Mild steel bars					
E1.32		R8 mm	t	2			
E1.33		R10 mm	t	2			
	8.4	Concrete					
	8.4.2	Blinding layer in 20/19 concrete 50 mm thickness					
E1.34		Horizontal	m²	0		Rate Only	
	8.4.3	Strength concrete grade 20/19 in filling of over-break in excavations					
		in rock to form blinding layer					
E1.35		Horizontal	m³	0		Rate Only	
		Strength Concrete: 20/19					
E1.36		Mass concrete filling below structures or were ordered by the Engineer	m³	0		Rate Only	
E1.37		Mass concrete	m³	0		Rate Only	
E1.38		False floor	m³	0		Rate Only	
		Strength Concrete: 20/9.5					
E1.39		Benching in drainage channel	m³	0		Rate Only	
E1.40		Screed to roof	m³	0		Rate Only	
		Strength Concrete: 35/19					
E1.41		Floor slab of pump station, sumps and boxes	m³	0		Rate Only	
E1.42		Walls of pump station, sumps and boxes	m³	0		Rate Only	
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
E1.43		Roof slab of pump station	m³	0		Rate Only	
E1.44		Pump plinths	m³	0		Rate Only	
E1.45		Parapet walls of roof slab	m³	0		Rate Only	
E1.46		Walkways, including up stand beam	m³	0		Rate Only	
E1.47		Staircase, including up stand beam	m³	0		Rate Only	
E1.48		Floor and walls of drainage sump	m³	0		Rate Only	
E1.49		Columns	m³	15			
E1.50		Beams	m³	15			
	8.4.4	Unformed Surface Finish					
		a) Wood Float Finish					
E1.51		Treads of stairs	m²	0		Rate Only	
E1.52		Top of false floor and walkways	m²	0		Rate Only	
E1.53		Upper surfaces of screed on roof slab	m²	0		Rate Only	
		b) Steel Float Finish					
E1.54		Benching in drainage channel	m²	0		Rate Only	
E1.55		Top of pump plinths	m²	0		Rate Only	
E1.56		Top of parapet walls of roof slab	m²	0		Rate Only	
	8.5	Joints					
E1.57		Sika Swellable water stop seal 2010 A or similar approved	m	0		Rate Only	
	PSG 8.7	Grouting in of Equipment Supplied and Installed by Plant Supplier with					
E1.58		Non-shrink grout ("Degussa Masterflow 524" or similar approved)	m³	20			
	PSG 8.9	Testing Structures for Watertightness					
E1.59		Pump station sump	Sum	1			
	PSG 8.10	Building Pipes into Concrete Work and Grouting Pipes Installed by the					
		Mechanical Contractor Pipes Supplied and installed by the Civil					
		Contractor of Diameter and Opening Sizes (Irrespective of Type)					
E1.60		Over 800mm up to and including 900mm diameter, openings up to 900mm square	No.	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Pipes Supplied and Installed by Mechanical Contractor of diameter and opening sizes (Irrespective of Type)					
E1.61		Over 400mm up to and including 500mm diameter, openings up to 600mm square	No.	2			
F1	SANS 1200 HA	STRUCTURAL STEEL WORK (SUNDRY ITEMS)					
	8.3.1	Structural Steel (Roof structure)					
F1.1		Supply and install structural steel as indicated on drawings WTW PS 006 and WTW PS 007	Sum	1			
		Structural Steel (Crawl Beam)					
F1.2		Supply and installation of 203 x203 x46kg/m galvanized I-beam 13000mm long complete with bolts, nuts and end stops as shown on DWG NO WTW PS 001 and WTW PS 002	No.	2			
F1.3	PSHA8.3.2	b) Galvanized handrail assembly complete	m	51			
Total Carried Forward to Summary							

BUILDING WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
G1	PB	BUILDING WORK					
	8.2.1	Brickwork					
G1.1		a) 230mm thick, both faces face brick	m²	150			
G1.2		b) Brick force	m	450			
G1.3		c) 3 layers of Malthoid or similar approved	m	44			
		Concrete Lintels					
G1.4		d) 2.7m x 75mm Precast Concrete Lintels over windows	No.	4			
G1.5		d) 1.2m x 75mm Precast Concrete Lintels over doors	No.	3			
	8.2.3	Door and Window Frames					
G1.6		Supply and install door D3(1500mm wide x 3060mm high) complete with frame and notch for I-beam	No.	2			
G1.7		Supply and install door D2 (800mm wide x 2100mm high)	No.	2			
G1.8		Supply and install standard industrial type window SSF23,					
		2019mm wide x 1434mm high, complete as specified (window W1, refer to drawing WTWPS002	No.	9			
	8.2.4	Damp Proof Courses					
		Waterproofing of Concrete Roofs					
G1.9		Waterproofing of concrete roofs with approved synthetic rubber or plastic sheet covering capable of being fusion welded, resistant to ultra violet rays and heat, of thickness not less than2mm, complete with flashing around edges and covered with approved reflective paint	m²	280			
G1.10		Brick on edge on external side of window including DPC as shown in the drawings	m	23			
G1.11		Quarry tile, 110mm wide, on internal side of window	m	23			
	8.2.7	Rainwater Drainage					
G1.12		Supply and installation of 80mm diameter "Ezee-flo" or similar approved cast iron rainwater outlet in roof slab	No.	4			
G1.13		80mm diameter medium quality galvanized screwed and socked pipes including galvanized holding brackets	m	16			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
G1.14		80mm diameter medium quality galvanized 90 degree bends	No.	4			
	8.5	Painting					
G1.15		Door D3 and frame with Woodoc 50 or approved water repellent wood sealer	No.	2			
G1.16		Door D2 and frame with Woodoc 50 or approved water repellent wood sealer	No.	2			
G1.17		Window W1 with Plascon Velvaglo (or similar approved) paint, colour - Olive branch D22-6	No.	9			
G2		SUNDRY ITEMS					
		Filling Cable Duct					
		Filling of Cable Duct of Sand and Finish With 25mm Thick Screed as Shown on the Detail on Drawing WTWPS002 for Duct of the Following Width					
G2.1		250mm wide cable duct	m	45			
G2.2		Design and construct New Generator Building	Prov Sum	1	500,000	500,000	00
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
H1		MECHANICAL					
H1.1		Deliver (220km) handle and Install Omega 200-520A (GC-STD) 160kw 1490rpm WEG Motor to deliver 172l/s @ 64m operating head (1 Duty and 1 standby) with motors, base plates, holding down bolts, drainage pipes as specified	No.	2			
H1.2		Supply deliver and install Inlet Suction Pipe assembly to Driekoppies Pumpstation. Assembly in Item H1.1 for Two pumps including fixing on supports, elbow's, reducers, flanges, closing gate valve, encasing pipes in concrete and pipe supports. Complete as per drawing WTWPS001	Sum	1			
H1.3		Supply, deliver and install Discharge delivery pipe assembly for Two pumps to Driekoppies Reservoir mounted on Item H1.1 including fixing on supports, elbow's, reducers, collapsible dismantle pipe fittings, gate valves, bermad control valve, air valve, 16 bar pressure transducer, inlet pressure gauge, outlet pressure gauge allowing pump stop and start control and pipe supports. Complete as per drawing WTWPS001	Sum	1			
H1.4		Deliver (220km) handle and Install CURO Model LTS 250/300 Multi stage 500kw 1480rpm to deliver 219l/s @ 136m operating head(1 Duty and 1 standby) with motors, base plates, holding down bolts, drainage pipes as specified	No.	2			
H1.5		Supply deliver and install Inlet Suction Pipe assembly to Driekoppies Pumpstation. Assembly in Item H1.4 for Two pumps including fixing on supports, elbow's, reducers, flanges, closing gate valve, encasing pipes in concrete and pipe supports. Complete as per drawing WTWPS001	Sum	1			
H1.6		Discharge delivery pipe (Pressure rating PN16) assembly for Two pumps to Shongwe Reservoir mounted on Item H1.4 including fixing on supports, elbow's, reducers, collapsible dismantle pipe fittings, gate valves, bermad control valve, air valve, 16 bar pressure transducer, inlet pressure gauge, outlet pressure gauge allowing pump stop and start control and pipe supports. Complete as per drawing WTWPS001	Sum	1			
		Supply, Deliver and Install SAFMAG BETA4 Magnetic flow meter					
H1.7		400mm PN10 SAFMAG with AMR and 10 Bar Pressure Transducer on delivery pipe to Driekoppies Reservoir	No.	1			
H1.8		450mm PN16 SAFMAG with AMR and 16 Bar Pressure Transducer on delivery pipe to Shongwe Reservoir	No.	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
H1.9		Supply, Deliver and Install Precast Concrete Manholes 1.5m diameter and 2m deep with 19mm Crusher stone 250mm deep floor, Cover slab and Lid over pipe for flow meters or valves.	No.	4			
H1.10		ONE drainage pump (gland leakage) with pipe work and level switches complete as specified including PVC 36mm grid cover	No.	1			
H1.11		Lifting rig for the pumpstation including geared traveling trolley (traveling trolley, block and tackle) 3 ton working load complete as specified with lifting chain block	No.	2			
H2	SANS 1200L	MEDIUM-PRESSURE PIPELINES					
	8.2.1	Excavate, Bedding (Class B), Supply, Handle, Lay, Bed, Backfill for Pipes					
H2.1		355mm dia, uPVC, Class 12	m	45			
H2.2		800mm nb Flanged Steel pipe (table 1000/3) to SANS 1123 with specified corrosion protection (Galvanized)	m	110			
	8.2.11 (b)	Anchor or thrust blocks Grade 20/19					
H2.3		Concrete	m^3	3			
H2.4		Formwork	m^3	25			
H2.5		Reinforcement	t	0.3			
H2.6	8.2.12	Encase pipes in concrete Grade 20/19	m^3	3			
H3		ELECTRICAL					
		Nominated sub-Contractor to be appointed for the works					
H3.1		Deliver handle and install cabling for provision of electricity from transformer to Driekoppies Pumpstation complete	PC Sum	1	600,000	600,000	00
		Deliver, handle, install and commission to site the following equipment including storage where applicable and all necessary insurance					
H3.2		MDB complete with equipment	PC Sum	1	20,000	20,000	00
H3.3		MCC complete with equipment (Driekoppies)	PC Sum	1	250,000	250,000	00
		IP54 Modular free standing MCC Complete with:					
		Incomer with metering					
		2 x 160kw @ 380V VSD Starters with pressure control (Duty/Standby)					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
H3.4		MCC complete with equipment (Shongwe)	PC Sum	1	600,000.00	600,000	00
		IP54 Modular free standing MCC Complete with:					
		Incomer with metering					
		2 x 400kw @ 380V VSD Starters with pressure control (Duty/Standby)					
H3.5		Install E-Stop/Start pedestals at motors as specified	PC Sum	1	20,000	20,000	00
		Install the following luminaries:					
H3.6		1.2m Double tube internal light with all wiring, light switch etc, complete	PC Sum	1	68,000	68,000	00
H3.7		Large plain round bulkhead light fitting including all wiring, day/night control switch etc, complete	PC Sum	1	20,000	20,000	00
H3.8		Double wall plug with wiring etc, complete	PC Sum	1	20,000	20,000	00
H3.9		Health and safety equipment including signage, fire extinguishers and standard PPE.	PC Sum	1	35,000	35,000	00
H3.10		Overhead, charges and profit on Item H3.1 to H.3.9 above	%	1,633,000			
H4		Supply, deliver handle and install generator for new plant including integral manually switch over control all cabling and switch gear all complete (1200KVA) CAT or similar approved to operate 1 x 160kw &1 x 400kw pump on skids with rubber chocks. Generator to include 2500? diesel tank with level indicator, diesel meter, decanting manual pump, battery with lockable cage and extractor fan	Sum	1			
Total Carried Forward to Summary							

SCHEDULE 3 PUMPSTATION

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	SITE CLEARANCE	
2	EARTHWORKS	
3	CONCRETE STRUCTURAL	
4	BUILDING WORK	
5	MECHANICAL & ELECTRICAL	
TOTAL CARRIED FORWARD TO SUMMAR OF SCHEDULES		

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
3.		SECTION 3 : EARTHWORKS AND PIPELINES					
3.1	SANS 1200C	SITE CLEARANCE					
3.1.1	8.2.2	Remove and grub large trees and tree stumps of girth					
		a) 'over 1 m and up to 1.5 m	No.	3			
3.2	SANS 1200D	EARTHWORKS					
3.2.1	8.3.1.2	Remove topsoil to nominal depth of 150mm and stockpile					
		a) Flocc Channels	m²	150			
		b) 'Settling Tanks	m²	1,500			
		c) Filters	m²	850			
3.2.2	8.3.2	Bulk Excavation					
		a) 'Excavation in all materials and use for backfill in embankment or dispose, as ordered within a free haul distance of 0.5 km					
		Note: Allowance of 500 mm wide working space has been provided for in the bulk earthworks quantities					
		1. Flocc Channels	m³	850			
		2. Settling Tanks	m³	12,800			
		3. Filters	m³	3,620			
		4. Terrace excavation between new and future settling tank to suit top of retaining block wall.	m³	1,200			
		Note: rate to include for 1:2.5 hand raked embankment					
		b) Extra-over 8.3.2 a) for:					
		2. Hard rock excavation					
		a) Settling Tanks	m³	2,750			
		b) Filters	m³	2,150			
		b) Allow for chemical blasting, rates to include equipment & site establishment	m³	4,150			
		c) Allow for haulage of rocks	m³.km	70,450			
3.2.3	8.3.3	Restricted excavation					
		a) Excavation for restricted foundations, footings and pipe trenches in all materials and use for backfill, embankment or dispose					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		1 . Flocc Channels	m³	32			
		2. Settling Tanks	m³	320			
		3. Filters	m³	280			
		b) Extra-over 8.3.3 a) for: (Provisional Item)					
		2 . Hard rock excavation					
		a) Settling Tanks	m³	150			
		b) Filters	m³	205			
		c) Allow for haulage of rocks	m³.km	25,000			
3.2.4		Over break in rock foundation removal of loose material and building up area with class 15/19 mass concrete up to 200 mm. Deeper 200 mm to be at contractors' cost					
		a) Settling Tanks	m³	1,225			
		b) Filters	m³	1,140			
3.2.5	8.3.4	Importing of materials					
		Acquire suitable gravel material for soil raft (G6) from commercial source or borrow pit. The rate to include for acquiring suitable material, excavation handling and 'transportation regardless of distance, placing and compaction to 95% mod. AASHTO density in maximum layers of 150 mm after compaction.					
		The material must conform to the following requirements:					
		- Maximum PI: 10%					
		- Minimum GM: 1.2					
		- Minimum CBR at 93% mod. AASHTO density: 15					
		1. Flocc Channels	m³	1,300			
3.2.6		Acquire suitable gravel material for soil raft (G6) from excavation on site, stockpile temporarily, place and compact to 95% mod. AASHTO density in maximum layers of 150 mm after compaction	m³	1,500			
		Note: Material requirements as for item 3.2.5.					
3.2.7		Extra over item for finishing embankments to falls as shown on the drawings and removal of all loose material on the embankments					
		a) Flocc Channels	m³	80			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		b) Settling Tanks	m³	110			
		c) Filters	m³	70			
3.2.8		Soilcrete for backfill of excavation where ordered by Engineer or shown on the drawing with 5% cement (OPC) (Provisional Item)					
		a) Flocc Channels	m³	1			
		b) Settling Tanks	m³	5			
		c) Filters	m³	1			
3.2.9		Class 20/19 mass concrete backfill of structure, footings, foundations pipe encasing all as instructed by Engineer (Provisional Item)					
		a) Flocc Channels	m³	4			
		b) Settling Tanks	m³	12			
		c) Filters	m³	45			
	8.3.8	Existing services					
3.2.10	8.3.8.1	c) Excavate by hand in soft material to expose existing services	m³	30			
3.2.11	8.3.8.2	Dealing with services that are at risk because of the construction of earthworks					
		a) Cables	No.	2			
3.2.12	8.3.10	Top soiling					
		From stock, hauling and spreading over site					
		a) Horizontal areas	m²	1,540			
		b) Sloping areas	m²	120			
		Note: accurate position to be determined on site by Engineer					
3.2.13	8.3.11	Grassing with Kikuyu roots on horizontal or nearly					
		horizontal surfaces					
		1 . Kikuyu	m²	1,540			
3.2.14		Allow for rejuvenation, fertilizer and planting of indigenous drought resistant plants	Prov Sum	1	100,000.00	100,000	00
3.3	SANS 1200DB	SECTION 3.1 EARTHWORKS (Pipe trenches)					
	PSDB						
3.3.1	8.3.2	a) Excavate in all material for trenches, backfill, compact and dispose of surplus material					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Pipe diameter 100 dia up to 500 nom dia with 300 mm side allowance each side including 500 nom diam. 600 nom dia and larger side allowance 500 mm each side					
		a) 0.00 m - 1.00 m depth	m³	33			
		b) 1.01 m - 1.50 m depth	m³	155			
		c) 1.51 m - 2.00 m depth	m³	120			
		d) 2.01 m - 2.50 m depth	m³	110			
		e) 2.51 m - 3.00 m depth	m³	90			
		f) 3.01 m - 3.50 m depth	m³	110			
		g) 3.51 m - 4.00 m depth	m³	200			
		h) 4.01 m - 4.50 m depth	m³	220			
		i) 4.51 m - 5.00 m depth	m³	132			
		Water network for 25 mm dia to 90 mm dia pipes, trench width 0.60 m and max depth 0.8 m					
		j) 0.00 m - 0.80 m depth	m³	90			
		b) Extra-over 8.3.2. a) for:					
		a) Hard rock excavation (Provisional Item)	m³	475			
	8.3.5	Existing services that intersect or adjoin a pipe trench					
3.3.2		a) Services that intersect a trench					
		1. Drainage Pipes					
		a) 450 mm dia RC	No.	3			
		b) 525 mm dia RC	No.	3			
	SANS 1200 DK	GABIONS AND PITCHING					
3.3.3	8.2.5	Pitching of Surfaces					
		1. Grouted stone pitching between kerbing and existing storm water drop inlet	m²	4			
		Concrete Retaining Block Wall					
3.3.4		500 mm deep precast concrete block retaining wall, Loffelstein or similar and approved on concrete foundation. Complete with granular filling and geotextile backing Ref. Drg. WDA.14.D004_Ph4 for details	m²	100			
3.4	SANS 1200LB	SECTION 3.2 - BEDDING (Pipes)					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	PSLB						
3.4.1	8.2.1	Provision of bedding from trench excavation for flexible and rigid pipes					
		a) Selected granular material	m³	50			
		b) Selected fill material	m³	200			
3.4.2	8.2.2	Supply of bedding by importation					
	8.2.2.3	From commercial sources					
		a) Selected granular material	m³	20			
		b) Selected fill material	m³	90			
3.4.3	8.2.4	Encasing of pipes in concrete					
		Class 20/19 concrete					
		a) Pipe Thrust blocks	m³	3			
		b) Encasing of pipes	m³	6			
3.5	SANS 1200L	SECTION 3.3 - MEDIUM - PRESSURE PIPELINE					
	PSL						
	8.2.1	Supply, lay and bed pipes complete with couplings					
		a) 160 mm dia	m	6			
		b) 200 mm dia	m	60			
3.5.2		Type 4 HDPE pipeline, Class 6 for electric cable sleeves, including draw wires.					
		1. 110 mm dia	m	40			
3.5.3		Hot dip galvanized steel pipes					
		1 80 mm dia medium class screwed and socketed steel pipes to SANS 62					
		a) laid below ground level	m	30			
		b) bolted to settling tank wall and walkway.	m	16			
		Note: Rate to include for all pipe clamps bolted to concrete					
3.5.4		Type 4 HDPE pipeline, Class 12 pipes for water reticulation. Rate to include for all bends, cut lengths, couplings, tees reducers, etc.					
		a) 50 mm dia	m	30			
		b) 40 mm dia	m	35			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		c) 25 mm dia	m	90			
3.5.5		Galvanized steel bends					
		a) 80 mm dia x 45 deg	No.	3			
		b) 80 mm dia x 90 deg	No.	5			
3.5.6		Saddles					
		75 mm dia with 50 mm drilling on uPVC pipe	No.	2			
3.5.7		Stand pipe with tap garden hose connection clamped to concrete or brick wall or fixed on to MS iron dropper, complete as shown on drg.	No.	6			
3.5.8		Stop cock chamber complete as shown on drawing					
		1. for 50 mm dia Bronze globe valve	No.	2			
3.5.9		Hose reel installation					
		Approved fire hose reel from Centurion or similar and approved. Complete with union, isolating valve with hand wheel, 25 mm diam pipe from Dunlop, length 25 m mounted on panel against steel column, ref drg.					
		1 . RGS Filters	No.	2			
3.5.10		Fire Hydrant Installation					
		1 . Hot dip galvanised fire hydrant with reducer and bayonet type coupling bolted to concrete floor. Complete as shown on drg. WDA.14.X003_Ph4	No.	2			
3.5.11	8.2.4	Extra over item 8.2.1 for the straight cutting of the pipe preparing ends and repairing of protection and the supplying and fixing of the extra coupling if required					
		a) 160 mm dia	No.	1			
		b) 200 mm dia	No.	3			
3.6	SANS 1200LE	SECTION 3.4 - STORMWATER DRAINAGE					
3.6.1	8.2.1	Supply, lay and bed concrete interlocking joint pipes in accordance to SANS 677 (spigot and socket)					
		a) 450 mm dia, Class 50 D	m	30			
		b) 525 mm dia, Class 75 D	m	50			
3.6.2	8.2.4	Extra over item 8.2.1 for cutting the end units for culverts on site					
		a) Straight cut					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		1. 450 mm dia	No.	1			
		2. 525 mm dia	No.	3			
3.7		SECTION 3.5 - SUNDRY ITEMS					
3.7.1		Break up reinforced concrete walls, remove debris and repair watertight after installation of pipe					
		1. 700 mm opening through 250 mm thick wall at inlet structure	No.	1			
3.7.2		Break up 200 mm thick reinforced concrete walls, remove debris and repair watertight at drainage chambers after installation of pipe.					
		a) for 200 mm dia uPVC pipe	No.	1			
		b) for 450 mm dia RC pipe	No.	1			
		c) for 525 mm dia RC pipe	No.	1			
3.7.3		Remove blank flange and prepare for new flange installation					
		a) 250 mm dia steel pipe	No.	1			
		b) 500 mm dia steel pipe	No.	1			
3.7.4		Disconnect 250 mm dia raw water bypass from 600 mm dia pipe at inlet works and render pipe fittings watertight	Sum	1			
3.7.5		Cleaning out sludge dams, cutting of reeds opening up ramps and surroundings at drain chambers and inlet structures, all as specified by Engineer	Prov Sum	1	1,500,000	1,500,000	00
		Nominated sub-Contractor to be appointed for the works					
3.7.6		Design and construct Driekoppies branch pipeline 315 mm dia oPVC class 12 to connect to main pumpstation. Works includes earthworks, supply, handle, bed and laying including associated valves and chambers	Prov Sum	1	3,000,000	3,000,000	00
3.7.7		Overhead, charges and profit on Items 3.7.6 above	%	3,000,000			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
4.	SANS 1200 G	SECTION 4 : CONCRETE WORK					
	PSG	CONCRETE (STRUCTURAL)					
4.1		SECTION 4.1 - FLOCCULATION CHANNELS					
		ROUGH FORMWORK					
4.1.1	8.2.1	Rough formwork					
	8.2.1	Plane Vertical					
		a) Sides of floor slabs	m²	24			
		b) Walls	m²	24			
		SMOOTH FORMWORK					
4.1.2	8.2.2	Smooth formwork					
		a) Plane horizontal					
		1. Slabs	m²	3			
	8.2.2	b) Plane vertical					
		1. Walls	m²	465			
		2. Weir and sump	m²	8			
4.1.3	8.2.5	Smooth formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	50			
		b) 100 x 100 mm chamfer	m	150			
		BOXING IN FOR HOLES AND VOIDS					
4.1.4	8.2.6	Box out holes/Form voids					
		a) Small, square, up to 0.1 m in area with depth up to 0.30 m	No.	2			
		b) Medium, square, up to 0.6 m in area with depth up to 0.30 m	No.	1			
		c) Large, square, up to 1.0 m in area with depth up to 0.30 m	No.	2			
		REINFORCEMENT					
4.1.5	8.3.1	Steel bars					
		a) Mild steel					
		1. All sizes	ton	2			
		b) High tensile steel					
		1. All sizes	ton	12			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		STRENGTH CONCRETE					
4.1.6	8.4.2	a) Strength concrete 15MPa/19mm					
		1. Blinding layer 50 mm thick	m²	126			
		2. Mass concrete for thrust blocks, etc.	m³	3			
		b) Strength concrete 20MPa/19mm					
4.1.7	8.4.3	b) Steel float benching					
		1. 75 mm thickness	m³	3			
		2. 150 mm thickness	m³	5			
		3. In and outlet sump	m³	2			
4.1.8	8.4.3	c) Strength concrete 35MPa/19mm					
		1. Floor slabs	m³	38			
		2. Walls	m³	55			
		3. Roof Slabs	m³	1			
4.1.9	8.4.3	d) 1:4 Cement river sand screed					
		1. 10 mm thick smooth screed to top of concrete blinding to receive plastic sheeting	m³	6			
4.1.10	8.11.1	POLYETHELENE SHEETING					
		1. 250 micron USB green under floors	m²	132			
		SURFACE FINISHES					
4.1.11		Unformed surface finishes					
	8.4.4	a) Wood floated finish					
		1. Slabs	m²	4			
	8.4.4	b) Steel floated finish					
		1. Top of walls, beams etc.	m²	32			
4.1.12		GROUTING OF PIPES WITH NON-SHRINK GROUT TO FORM A WATERTIGHT JOINT WITH STANDARD BEDDING GROUT					
		a) 200 mm thick concrete wall					
		1. 650 mm x 650 mm opening	No.	1			
		2. 950 mm x 950 mm opening	No.	2			
4.2		SECTION 4.2 - SETTLINGS TANKS					
		ROUGH FORMWORK					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
4.2.1	8.2.1	Rough formwork					
		a) Plane vertical					
		1. Sides of floor slabs	m²	40			
		2. Sides of channels and ducts	m²	35			
		3. Walls	m²	400			
		4. Chamber walls	m²	120			
4.2.2	8.2.5	Rough formwork to narrow widths					
		a) 'Edges, risers, etc. nog exceeding 300 mm wide	m	44			
		SMOOTH FORMWORK					
4.2.3	8.2.2	Smooth formwork					
		a) Plane horizontal					
		1. Slabs and landings	m²	46			
		2. Walkway slabs	m²	22			
		3. Ring beams	m²	72			
		4. Support beams, sludge channel	m²	3			
		5. 150 mm wide for ring beam	m²	92			
		b) Plane vertical					
		1. Side of walls	m²	1,400			
		2. Side of beams	m²	8			
		3. Wall openings, supports and footings	m²	58			
		4. Chamber walls	m²	75			
		5. Channel walls	m²	675			
		6. Square columns	m²	12			
		c) Plane sloping					
		1. Stairs	m²	4			
		d) Plane sloping					
		1. Internal face of cone shaped walls	m²	970			
		2. External face of cone shaped walls, soffit	m²	775			
4.2.4	8.2.5	Smooth formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	70			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		b) Edges of walkways and channels 200 mm wide	m	140			
		c) Raking side of stairs maximum 400 mm wide	m	6			
4.2.5		Smooth formwork to chamfers, grooves, rebates etc. exceeding 20 x 20 mm in size					
		a) 100 x 100 mm	m	3			
		b) 80 mm wide reeding over full length of stair tread	m	20			
4.2.6		BOXING IN FOR HOLES AND VOIDS					
	8.2.6	Box out holes/Form voids					
		a) Small, square, up to 0.2 m in area with depth up to 250 mm	No.	20			
		b) Medium, square, up to 0.4 m in area with depth up to 300 mm	No.	20			
		c) Medium, square, up to 0.3m in area with depth up to 400 mm	No.	16			
		d) Large, square, up to 1.0 m in area with depth up to 300 mm	No.	4			
		REINFORCEMENT					
4.2.7	8.3.1	Steel bars					
		a) Mild steel					
		1. All sizes	ton	15			
		b) High tensile steel					
		1. All sizes	ton	155			
4.2.8	8.3.2	High tensile welded mesh					
		a) Ref no. 193	m²	11			
		b) Ref. no. 395 (at water tanker with drawel print)	m²	35			
		CONCRETE					
4.2.9	8.4.2	a) Strength concrete 15MPa/19mm					
		1. Blinding layer 50 mm thick	m²	780			
		2. No fines concrete below floor	m³	60			
		3. Mass concrete backfill for over break in rock formation up to 200 mm	m³	660			
4.2.10	8.4.3	b) Strength concrete 20Ma/19mm					
		Benching including steel floated surface finish					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		1. Circular benching with fall for drainage channel and chambers	m³	6			
		2. Floor slab and channels with fall as shown on drgs.	m³	46			
4.2.11	8.4.3	c) Strength concrete 35Ma/19mm					
		1. Floor slab	m³	260			
		2. Bases	m³	12			
		3. Floor slabs ducts and channels	m³	75			
		4. Walkway slabs	m³	22			
		5. Walls	m³	320			
		6. Cone shaped walls	m³	310			
		7. Channel walls	m³	145			
		8. Chamber walls	m³	12			
		9. Columns	m³	2			
		10. Stairs, landings, etc.	m³	3			
		11. Beams	m³	9			
		12. Water Tanker Platform	m³	6			
		SURFACE FINISHES					
4.2.12	8.4.4	Unformed surface finishes					
		a) Wood floated finish					
		1. Floor slabs	m²	480			
		2. Stairs, landings etc.	m²	60			
		b) Broomed finish					
		1. Water Tanker Platform	m²	36			
		c) Steel float finish					
		1. Top of walls, beams, etc.	m²	48			
4.2.13		Grouting of pipes with non shrink grout to form a watertight joint with standard bedding grout					
		1. 250 mm thick concrete wall					
		1. 950 x 950 mm opening for 700 mm dia pipe with puddle flange	No.	2			
		2. 300 x 300 mm opening for 200 mm dia pipe	No.	15			
		2. 300 mm thick concrete wall					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		1. 750 x 750 mm opening for 500 mm dia pipe wit puddle flange	No.	4			
		3 300 mm thick sloping concrete wall					
		1. 450 x 450 mm opening for 200 mm dia pipe with puddle flange	No.	16			
4.2.14	8.5	JOINTS					
		a) 20 mm thick Jointex placed vertically between concrete surfaces					
		1. 400 mm thick floor	m²	10			
		2. 300 mm thick floor	m²	4			
		b) Polyurethane joint sealer					
		1. Remove 10 x 20 mm tear of strip, prime with an approved primer and fill joint with suitable polyurethane sealer	m	36			
4.2.15		SUNDRY ITEMS					
		1. 32 mm dia uPVC, Class 9, 200 mm long cast into settled water draw off channel	No.	378			
		2. 200 mm dia uPVC, Class 9, 300 mm long cast into inlet wall	No.	26			
		3. 110 mm dia slotted uPVC sub-surface drain pipe placed into no-fines concrete	m	72			
		4. 110 mm dia uPVC, Class 9 sub-surface drain pipe complete with junctions, bends, etc. discharging into chamber D4.1.1	m	34			
4.2.16		GUNITE SURFACES					
4.2.16.1		80 mm thick Gunite surface finish to sloping earth surface between settling tank concrete and Loffelstein retaining wall, including all reinforcing, etc. and finishes with wood float surface finish	m²	10			
4.3		SECTION 4.3 - FILTERS					
		ROUGH FORMWORK					
4.3.1	8.2.1	Rough Formwork					
		a) Plane vertical					
		1. Sides of floor slabs	m²	68			
		2.Floor duct walls	m²	30			
4.3.2	8.2.5	Rough formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	20			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
4.3.3	8.2.2	Smooth formwork					
		a) Plane horizontal					
		1. Slabs	m²	55			
		2. Walkway slabs	m²	10			
		3.Landings	m²	10			
		4. Ring beams	m²	12			
		5. Slabs	m²	64			
		6. Outlet channels	m²	24			
		b) Plane vertical					
		1. Edge of slabs	m²	36			
		2. Walls	m²	1,320			
		3. Floor duct walls	m²	58			
		4. Chamber walls	m²	56			
		5. Clearwater channel walls	m²	68			
		6. Square or rectangular columns	m²	50			
		7. Ring beams	m²	36			
		c) Plane sloping					
		1. Stairs	m²	6			
4.3.4	8.2.5	Smooth formwork to narrow widths					
		a) Edges, risers, etc. not exceeding 300 mm wide	m	56			
		b) Raking side of stairs maximum 400 mm wide	m	20			
4.3.5		Smooth formwork to chamfers, grooves, rebates, etc. exceeding 20 x 20 mm in size					
		a) 'Chamfer size 150 x 150 mm	m	6			
		b) Chamfer size 100 x 100 mm	m	4			
		c) Chamfer size 100 x 150 mm	m	40			
		BOXING IN FOR HOLES AND VOIDS					
4.3.6	8.2.6	Box out holes/Form voids					
		a) Small, square, up to 0.1m in area with depth up to 400 mm	No.	6			
		b) Small, square, up to 0.2m in area with depth up to 250 mm	No.	8			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		c) Medium, square, up to 0.5m in area with depth up to 400 mm	No.	4			
		d) Large, square, up to 1.0m in area with depth up to	No.	2			
		REINFORCEMENT					
4.3.7	8.3.1	Steel bars					
		a) Mild steel					
		1. All sizes	ton	5			
		b) High tensile steel					
		1. All sizes	ton	48			
		CONCRETE					
4.3.8	8.4.2	Strength concrete 15MPa/19mm					
		a) Blinding layer 50 mm thick	m²	350			
		b) Class 15/19 No-fines concrete under floor slabs	m³	20			
4.3.9	8.4.3	Strength concrete 35MPa/19mm					
		a) Floor Slabs	m³	120			
		b) Floor duct floor slabs	m³	15			
		c) Slabs (filter gallery)	m³	18			
		d) Chamber slabs	m³	6			
		e) Walkway slabs	m³	4			
		f) Walls	m³	190			
		g) Floor duct walls	m³	12			
		h) Chamber Walls	m³	10			
		i) Columns	m³	5			
		j) Upstands	m³	2			
		k) Stairs & Landings	m³	5			
		l) Ring beams	m³	10			
4.3.10	8.4.3	Strength concrete 30MPa/13mm					
		a) Benching to floors to falls as shown including steel floated surface finish	m³	6			
		b) 200mm thick in fill concrete between filter laterals and nozzle stems	m³	20			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		SURFACE FINISHES					
4.3.11	8.4.4	Unformed surface finishes					
		a) Rough surface finish (strike plate finish)	m²	100			
		b) Wood floated finish					
		1. Slabs	m²	235			
		2. Floor slabs	m²	53			
		3. Top of walls, beams, etc.	m²	20			
		4. Stairs, landings, etc	m²	20			
		5. Ring beams	m²	20			
		c) Steel surface finish					
		1. Top of benching	m²	44			
		SUNDRIES					
4.3.12		Scabble wall surface to form rough surface for adhesion of new concrete to be cast	m²	20			
4.3.13		110 mm dia uPVC slotted drain pipe below filter floor, 4500 mm long	No.	6			
Total Carried Forward To Summary							

BUILDING WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
6.		SECTION 6 : BUILDING WORK					
6.1		SECTION 6.1 - RAPID GRAVITY SAND FILTERS (RGS)					
	SANS 1200HA	STEELWORK MEASURED IN DETAIL					
6.1.1	8.3.1	1. Structural steelwork Ref Drg WFA.16.D001_Ph4 and E001_Ph4 , Preparation of shop detail drawings and submit for approval	ton	2			
		Truss supports					
6.1.2		a) 150 x 75 x 10 mm angle iron ref. detail A on drg WFA.16.D001_Ph4	No.	30			
		TRANSPORT TO SITE					
		a) Normal transport					
6.1.3		1. Structural steelwork in item 6.1.1 and 61.12	ton	2			
		OFF LOADING, SITE STORAGE AND ERECTION ON SITE					
		a) Structural steelwork					
6.1.4		1. Structural steelwork in item 6.1.1 and 61.12	ton	2			
		Erection bolts					
6.1.5		a) Class 4.8 bolts with nuts and washers	ton	0.3			
6.1.6		b) Class 8.8 bolts with nuts and washers	ton	0.3			
		Holding down bolts					
6.1.7		a) 16 mm dia Chemical Anchor (min 70 mm into concrete)	No.	26			
6.2		CLADDING SUPPORT					
		Hot rolled sections					
6.2.1		a) IPE 120	ton	1			
		Cold rolled sections					
6.2.2		b) 150 x 75 x 20 x 3.0 mm Lipped channel sections purlins	ton	2			
		FASTENERS					
		Fasteners					
6.2.3		a) Class 4.8 bolts with nuts and washers	ton	0.3			
6.2.4		b) Class 8.8 bolts with nuts and washers	ton	0.3			
6.2.5		c) 16 mm dia Chemical Anchor (min 70 mm into concrete)	No.	26			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6.3	SANS 1200HC	CORROSION PROTECTON					
		Extra over items 8.3.1 to 8.3.6 as applicable for corrosion protection					
6.3.1	8.2.1	Surface dressing and repairs at Place of Fabrication	ton	2			
6.3.2	8.2.2	Transport	ton	2			
6.3.3	8.2.3	Hot dip galvanizing on site after erection	ton	2			
6.3.4		Damaged areas shall be repaired by the application of a zink-rich epoxy (single pack) to SABS 763 (ZINC GALV1 - Dulux or Poly GALV - Plascon)	Sum	1			
6.4	SANS 1200HB	CLADDING AND SHEETING					
		ROOF SHEETING AND CLADDING					
		Supply, deliver to site and fix cladding and sheeting including all necessary approved fasteners, etc. and cutting and notching complete, and finished with Colorplus or Chromadek finish (colour surf green to suit existing) Drg WFA.16.D001_Ph4 and E001_Ph4 Roof sheeting					
	8.2.2	a) 0.55 mm SAFLOK 700 sheeting (or similar and approved) fixed to					
6.4.1		1. Timber purlins	m²	270			
		Vertical cladding					
		a) 0.55 mm SAFLOK 700 sheeting (or similar and approved) fixed to					
6.4.2		2. Steel rails	m²	240			
		GALVANIZED ANCILLARIES					
		Supply, deliver to site and fix all ancillaries including all 'necessary approved fasteners, seals, etc. and cutting and notching complete (colour surf green)					
	8.2.3	a) SAFLOK 700 Ridging					
6.4.3		10.6 mm Ridge capping 450 mm girth 3 timesbent along length	m	4			
		b) Galvanized ridge ventilators					
6.4.4		1. VENTCO type with 300 mm throat width, or similar approved	m	13			
		c) Bullnose sheeting					
Total Carried Forward							

BUILDING WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6.4.5		1. Bullnose with 500 mm radius to 0,55 mm roof sheeting	m	33			
		d) Gable trim					
6.4.6		2. 0.6 mm Gable trim	m	50			
		e) Galvanized closures					
		1. 0.6 mm Serrated eaves closer	m	33			
		ROOF INSTALLATION					
		Supply, deliver to site and fix alububble roof insulation, with foil backing 4 mm thick, including all galvanized wire support work, cutting and notching complete to					
6.4.7		a) Underside of roof sheeting	m²	270			
6.5	PU	BRICKWORK					
		REINFORCED BRICKWORK					
	8.1.1	Reinforced stock brickwork in 1:3 cement mortar					
6.5.1		a) 230 mm Thick wall	m²	13			
		BRICK REINFORCING					
		Brick reinforcing					
6.5.2		a) 150 mm Wide brick force	m	40			
		LINTOLS					
6.5.3		a) 75 x 110 mm Lintel	m	4			
		HOOP IRON TIES					
		Hoop iron ties between concrete and brickwork					
6.5.4		a) 2 x 30 mm galvanized shop iron ties, 600 mm long with one end shot plugged to concrete and other end built into brickwork	No.	20			
		DAMPPROOFING					
		Brick grip dpc					
6.5.5		a) 375 Micron under walls	m²	2			
	8.1.3	ROOFS MEASURED IN NUMBER					
		SANS graded CCA treated SA Pine					
		Prefabricated roof construction erected, including all trusses, braces, purlins, battens, wall plates, etc. Drg WFA.16.D001_Ph4					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6.5.6		a) Timber roof construction complete Size of building on plan 238m²	Sum	1			
	8.1.3	IRONMONGERY					
		Locksets					
6.6.7		a) Union four lever lockset including satin chrome furniture	No.	3			
		Door stops					
6.5.8		a) 30 mm Diameter rubber door stop	No.	3			
		Barrelbolts					
6.5.9		b) 3 x 25 mm Brass dividing strip fixed in floor screed	No.	3			
	8.1.3	PURPOSE MADE DOORS AND FRAMES					
		Purpose made doors and frames					
6.5.10		a) 900 x 2090 mm high door and door frame with Anodised Aluminium in natural finish including, SABS approved safety glass (D1)	No.	3			
		ONE COAT PLASTER					
		One coat 1:6 cement plaster					
	8.1.2	a) Steel float finish to					
6.5.11		1. Walls	m²	25			
		PAINTING					
		Note: All painting to be Plascon or other approved and applied in accordance with the manufacturer's instruction					
6.5.12		Undercoat and two coats interior washable acrylic paint to					
6.5.13	8.1.3	a) Plastered walls	m²	13			
		Undercoat and two coats exterior washable acrylic paint to					
6.5.14		a) Plastered walls	m²	13			
		FILTERED WATER OUTLET CHAMBERS					
6.5.15		a) Paint inner surface with re-coatable polyurethane, colour white	m²	88			
		Note: rate to include for preparing concrete surface					
6.5.16		b) Ceramic tiles, white, set-in water-resistant adhesive and watertight grout	m²	88			
Total Carried Forward							

BUILDING WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
6.6		SECTION 6.2: BUILDING REFURBISHMENT					
6.6.3		Laboratory Equipment	Prov Sum	1	250,000	250,000	00
6.6.4		Provide access to dosing specials at inlet works	Prov Sum	1	20,000	20,000	00
6.6.5		Overhead, charges and profit on Items 6.6.3 and 6.6.4 above	%	270,000			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
7.	SANS 1200 HA	SECTION 7 : STEEL AND METALWORK					
	PSHA	STRUCTURAL STEELWORK (Small Works)					
		Rate to include for supply of material, erection, welding, bolts, nuts, protection, etc.					
7.1	8.3.1	STRUCTURAL STEEL					
		SETTLING TANKS					
7.1.1		698 x 200 x 3 mm 304L stainless steel plate with neoprene packing bolted to concrete wall with SS bolts Ref drg. WDA.14.X002_Ph4	No.	2			
7.1.2		PC 200 x 75 stairs with knee brace and handrail bolted to concrete wall and on to concrete footing. Ref drg WDA.14.D004_Ph4	No.	1			
		Note: Rate to include for corrosion protection					
		FILTERS					
7.1.3		Hot dip galvanized working platform complete with C140 x 50 support frame, grating and side mounted handrail, bolted to concrete wall Ref drg. WFA.14.X001_Ph4 and X003_Ph4	No.	8			
7.1.4		750 x 250 x 3 mm thick stainless steel (304L) weir plate with neoprene packing bolted to concrete wall complete as shown on drg WFA.14.D004_Ph4	No.	4			
7.1.5		3 mm thick stainless steel (304L) inlet shaft, sealed water tight against concrete wall, complete as shown on drg WFA.14.D004_Ph4	No.	4			
7.1.6		Aluminium frame and hinged lid with polycarbonate glazing bolted to top of filtered water outlet complete as shown on drg WFA.14.X001_Ph4	No.	8			
7.1.7		12 mm thick polypropylene diffuser plate with openings bolted to SS angle iron. Complete as shown on drg WFA.14.D004_Ph4	No.	4			
7.1.8		Hot dip galvanized angle iron MCC support frame with kick plate and RS40 (30 x 4.5) grating bolted to concrete wall. Complete as shown on drg WFA.14.X002-Ph4	No.	2			
7.1.9		Hot dip galvanized angle iron support with U-bolt and neoprene packing for 250 mm dia pipe bolted to concrete wall. Complete as shown on drg. WFA.14.D002-Ph4	No.	3			
7.2	8.3.2	HANDRAILS					
7.2.1		Hot dip galvanized standard ball type approved (1000 mm high) handrail, horizontal, side or top mounted					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		a) Settling Tanks	m	242			
		b) Filters	m	120			
7.2.2		Hot dip galvanized standard ball type approved (1000 mm high) handrail, inclined for stairs, side or top mounted					
		a) Settling Tanks	m	5			
		b) Filters	m	8			
7.2.3		Hot dip galvanized standard ball type approved (610 mm high) handrail, horizontal, top mounted					
		a) Settling Tanks	m	3			
7.3	8.3.3	LADDERS (COMPLETE AND INSTALLED					
7.3.1		Hot dip galvanized cat ladder complete as shown on drg. AAA.13.D001_Ph4					
7.3.1.1		Settling Tanks					
		a) X = 303.20 m					
		Y = 302.00 m	No.	3			
7.3.1.2		Filters					
		b) X = 304.60 m					
		Y = 301.80 m	No.	4			
7.4	8.3.4	FLOORING					
		Complete and installed with angle iron frames cast into concrete and/or MS channel supports bolted to concrete and all required cut outs, all edges banded					
7.4.1		Hot dip galvanized banded RS40 grating with 30 x 4.5 mm bearer bar, minimum of 25 bearer bars per metre for grating details refer to drg. AAA.14.D001_Ph4					
		Settling tanks					
		a) 1260 mm x 1260 mm (Chambers)	No.	3			
		b) 1060 mm x 1060 mm (Chambers)	No.	2			
		c) 21300 mm x 760 mm	No.	1			
		d) 7300 mm x 560 mm	No.	2			
		e) 1000 mm x 560 mm	No.	2			
		f) 500 mm x 560 mm	No.	2			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
7.4.2		Hot dip galvanized banded RS40 grating with 40 x 6.5 mm bearer bar, minimum of 25 bearer bars per metre, for grating details. Ref drg AAA.14.D001_Ph4					
		Settling tanks					
		a) 2200 mm x 1370 mm	No.	4			
7.4.3		40 x 40 x 5 mm hot dip galvanized angle iron frame with spliced lugs cast into concrete, complete as shown on detail Drg. AAA.14.D001_Ph4					
		a) Settling Tanks	m	75			
7.4.4		50 x 50 x 5 mm hot dip galvanized angle iron frame with spliced lugs cast into concrete, complete as shown on detail drg. AAA.14.D001_Ph4					
		a) Settling Tanks	m	30			
		SUNDRY ITEMS					
7.4.5		CI Square Manhole cover and frame, double seal type cast into concrete slabs. Fig 8, Type 8B in accordance to SABS 558	No.	2			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
8.		SECTION 8 : PIPE FITTINGS AND VALVES					
		PLK, PLKA, PLN, PLQ, PLT, PTV					
8.1	Pipe Item Schedules	The rate for all items to include for the supply, delivery, factory applied corrosion protection and off-loading on site					
8.1.1		Inlet Structures					
		Ref drg WCA.13.M001_Ph4					
		BA1.1	No.	1			
		BA1.2	No.	1			
		BA4.1	No.	1			
		BA5.1	No.	1			
		BA9.1	No.	1			
8.1.2		Flocculation Channels					
		Ref drg WCA.13.M001_Ph4					
		CA1.1	No.	1			
		CA1.2	No.	2			
		CA1.3	No.	2			
		CA1.4	No.	1			
		CA2.1	No.	2			
		CA5.1	No.	1			
		CA5.2	No.	6			
		CA7.1	No.	1			
		CA12.1	No.	2			
8.1.3		Settling tanks					
		Ref drg WDA.13.M001_Ph4 and M002_Ph4					
		DA1.1	No.	2			
		DA1.2	No.	4			
		DA1.3	No.	4			
		DA1.4	No.	4			
		DA1.5	No.	16			
		DA1.6	No.	8			
		DA1.7	No.	3			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		DA1.8	No.	4			
		DA1.9	No.	2			
		DA1.10	No.	1			
		DA1.11	No.	1			
		DA1.12	No.	1			
		DA1.13	No.	1			
		DA1.14	No.	4			
		DA2.1	No.	16			
		DA2.2	No.	4			
		DA2.3	No.	4			
		DA2.4	No.	8			
		DA2.5	No.	8			
		DA2.6	No.	1			
		DA2.7	No.	1			
		DA2.8	No.	2			
		DA4.1	No.	8			
		DA5.1	No.	2			
		DA5.2	No.	8			
		DA5.3	No.	9			
		DA7.1	No.	1			
		DA9.1	No.	8			
		DA9.2	No.	8			
		DA12.1	No.	2			
8.1.4		Filters					
		Ref drg WFA.13.M001_Ph4 and M002_Ph4					
		FA1.1	No.	1			
		FA1.2	No.	1			
		FA1.3	No.	1			
		FA1.4	No.	4			
		FA1.5	No.	4			
		FA1.6	No.	8			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA1.7	No.	2			
		FA1.8	No.	8			
		FA1.9	No.	8			
		FA1.10	No.	1			
		FA1.11	No.	1			
		FA1.12	No.	1			
		FA1.13	No.	1			
		FA1.14	No.	4			
		FA1.15	No.	1			
		FA2.1	No.	4			
		FA2.2	No.	4			
		FA2.3	No.	1			
		FA2.4	No.	1			
		FA2.5	No.	1			
		FA2.6	No.	2			
		FA2.7	No.	1			
		FA3.1	No.	1			
		FA3.2	No.	1			
		FA3.3	No.	1			
		FA3.4	No.	2			
		FA3.5	No.	2			
		FA3.6	No.	8			
		FA3.7	No.	8			
		FA4.1	No.	9			
		FA4.2	No.	8			
		FA5.1	No.	1			
		FA5.2	No.	1			
		FA5.3	No.	4			
		FA5.4	No.	1			
		FA7.1	No.	1			
		FA7.2	No.	2			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA7.3	No.	2			
		FA9.1a	No.	4			
		FA9.1b	No.	4			
		FA9.2	No.	2			
		FA9.3	No.	8			
		FA9.4a	No.	8			
		FA9.4b	No.	8			
		FA9.5a	No.	4			
		FA9.5b	No.	4			
		FA9.6a	No.	4			
		FA9.6b	No.	4			
		FA9.7	No.	8			
		FA12.1a	No.	4			
		FA12.1b	No.	4			
		FA13.1	No.	1			
8.1.5		Site Pipework					
		Ref drg AAA.13.M001_Ph4					
		SP1.1	No.	1			
		SP1.2	No.	1			
		SP1.3	No.	1			
		SP1.4	No.	2			
		SP1.5	No.	1			
		SP1.6	No.	1			
		SP1.7	No.	1			
		SP2.1	No.	2			
		SP2.2	No.	1			
		SP5.1	No.	2			
		SP5.2	No.	1			
8.2	Pipe Item	The rate for all items to include for the handling,					
	Schedules	installation, testing, site corrosion protection, painting					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		and building into walls					
8.2.1		Inlet Structures					
		Ref drg WCA.13.M001_Ph4					
		BA1.1	No.	1			
		BA1.2	No.	1			
		BA4.1	No.	1			
		BA5.1	No.	1			
		BA9.1	No.	1			
8.2.2		Flocculation Channels					
		Ref drg WCA.13.M001_Ph4					
		CA1.1	No.	1			
		CA1.2	No.	2			
		CA1.3	No.	2			
		CA1.4	No.	1			
		CA2.1	No.	2			
		CA5.1	No.	1			
		CA5.2	No.	6			
		CA7.1	No.	1			
		CA12.1	No.	2			
8.2.3		Settling tanks					
		Ref drg WDA.13.M001_Ph4 and M002_Ph4					
		DA1.1	No.	2			
		DA1.2	No.	4			
		DA1.3	No.	4			
		DA1.4	No.	4			
		DA1.5	No.	16			
		DA1.6	No.	8			
		DA1.7	No.	3			
		DA1.8	No.	4			
		DA1.9	No.	2			
		DA1.10	No.	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		DA1.11	No.	1			
		DA1.12	No.	1			
		DA1.13	No.	1			
		DA1.14	No.	4			
		DA2.1	No.	16			
		DA2.2	No.	4			
		DA2.3	No.	4			
		DA2.4	No.	8			
		DA2.5	No.	8			
		DA2.6	No.	1			
		DA2.7	No.	1			
		DA2.8	No.	2			
		DA4.1	No.	8			
		DA5.1	No.	2			
		DA5.2	No.	8			
		DA5.3	No.	9			
		DA7.1	No.	1			
		DA9.1	No.	8			
		DA9.2	No.	8			
		DA12.1	No.	2			
8.2.4		Filters					
		Ref drg WFA.13.M001_Ph4 and M002_Ph4					
		FA1.1	No.	1			
		FA1.2	No.	1			
		FA1.3	No.	1			
		FA1.4	No.	4			
		FA1.5	No.	4			
		FA1.6	No.	8			
		FA1.7	No.	2			
		FA1.8	No.	8			
		FA1.9	No.	8			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA1.10	No.	1			
		FA1.11	No.	1			
		FA1.12	No.	1			
		FA1.13	No.	1			
		FA1.14	No.	4			
		FA1.15	No.	1			
		FA2.1	No.	4			
		FA2.2	No.	4			
		FA2.3	No.	1			
		FA2.4	No.	1			
		FA2.5	No.	1			
		FA2.6	No.	2			
		FA2.7	No.	1			
		FA3.1	No.	1			
		FA3.2	No.	1			
		FA3.3	No.	1			
		FA3.4	No.	2			
		FA3.5	No.	2			
		FA3.6	No.	8			
		FA3.7	No.	8			
		FA4.1	No.	9			
		FA4.2	No.	8			
		FA5.1	No.	1			
		FA5.2	No.	1			
		FA5.3	No.	4			
		FA5.4	No.	1			
		FA7.1	No.	1			
		FA7.2	No.	2			
		FA7.3	No.	2			
		FA9.1a	No.	4			
		FA9.1b	No.	4			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		FA9.2	No.	2			
		FA9.3	No.	8			
		FA9.4a	No.	8			
		FA9.4b	No.	8			
		FA9.5a	No.	4			
		FA9.5b	No.	4			
		FA9.6a	No.	4			
		FA9.6B	No.	4			
		FA9.7	No.	8			
		FA12.1a	No.	4			
		FA12.1b	No.	4			
		FA13.1	No.	1			
8.2.5		Site Pipework					
		Ref drg AAA.13.M001_Ph4					
		SP1.1	No.	1			
		SP1.2	No.	1			
		SP1.3	No.	1			
		SP1.4	No.	2			
		SP1.5	No.	1			
		SP1.6	No.	1			
		SP1.7	No.	1			
		SP2.1	No.	2			
		SP2.2	No.	1			
		SP5.1	No.	2			
		SP5.2	No.	1			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
9.		SECTION 9: MECHANICAL EQUIPMENT AND CHEMICAL DOSING					
9.1		MECHANICAL EQUIPMENT					
	PTT	SUPPLY AND DELIVERY TO SITE THE LISTED EQUIPMENT COMPLETE WITH FIXING ITEMS, PACKING AND FIXING MATERIALS					
9.1.1	PTT9.1.1	Rapid Gravity Sand Filters (4 no's, 8 filter bays)					
		Complete rapid gravity sand filter floor system including nozzles fixing and sealing materials. Nozzles to be embedded in concrete Ref drg. WFA.14.D002_Ph4 , X002_Ph4 and X003_Ph4	No.	4			
9.1.2	PTT9.1.2	Filter Media					
		Note: Volume will be measured of media in place after one complete backwash cycle					
		a) Sand (700 mm)	m³	80			
		b) Grit (100 mm)	m³	12			
		c) Pebbles (150 mm)	m³	20			
9.2	PTT	INSTALLATION AND COMMISSIONING INCLUDING HANDLING, PAINTING AND TESTING OF THE FOLLOWING:					
	PSPTT						
9.2.1	PTT9.1.1	Rapid Gravity Sand Filters					
		Complete rapid gravity sand filter floor system including nozzles fixing and sealing materials.	No.	4			
9.2.2	PTT9.1.2	Filter Media					
		Note: Volume will be measured of media in place after one complete backwash cycle					
		a) Sand (700 mm)	m³	80			
		b) Grit (100 mm)	m³	12			
		c) Pebbles (150 mm)	m³	20			
9.3	PLC	CHEMICAL DOSING EQUIPMENT					
		Ref drg. WNA.13.D001_Ph4					
		Supply and deliver to site					
9.3.1	PSPLC	Lime Dosing Equipment					
9.3.1.1		Additional Lime feeder for pre-lime dosing complete with hopper, bag loader and bag filter	No.	1			
9.3.2		Main coagulant dosing					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
9.3.2.1		Poly-electrolyte dosing pump	No.	1			
9.3.2.2		Poly-electrolyte pipework complete including bends, fixing brackets, etc. to connect to existing pipework	Sum	1			
9.3.2.3		Ferric-chloride dosing pump	No.	1			
9.3.2.4		Ferric-chloride pipework complete including bends, fixing brackets, etc. to connect to existing pipework	Sum	1			
		INSTALLATION AND COMMISSIONING, HANDLING, PAINTING AND TESTING OF THE FOLLOWING:					
9.3.3	PSPLC	Lime Dosing Equipment					
9.3.3.1		Lime feeder, hopper, bag loader and bag filler	No.	1			
9.3.4		Main coagulant dosing					
9.3.4.1		Poly-electrolyte dosing pump	No.	1			
9.3.4.2		Poly-electrolyte pipework	Sum	1			
9.3.4.3		Ferric-chloride dosing pump	No.	1			
9.3.4.4		Ferric-chloride pipework	Sum	1			
9.4	PSPTU	CHLORINATION EQUIPMENT					
	PTU	Ref drg WNA.13.D001_Ph4					
		Upgrading of chlorine installation to 1000 - 6000g/h					
9.4.1	PTU6.1	Supply and delivery, installation and commissioning of chlorine dosing equipment, complete with ejectors, multiple flow meter assemblies and control valves	Sum	1			
9.4.2	PTU6.2	Load cells					
		(Provisional Item)	No.	2			
9.4.3	PTU6.6.2	Chlorine leak detector					
		(Provisional Item)	Sum	1			
9.5		MISCELLANEOUS					
9.5.1		Epoxy coated platform - operated safety shower, with eye wash station to be installed at bulk tanks	No.	1			
		Note: Rate to include for removal of existing installation					
9.5.2		Poly dosing special bolted to concrete wall. Complete with clearwater feed. Ref drg. WNA.13.D001_Ph4	No.	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
9.5.3		Ferric chloride dosing special bolted to concrete wall. Ref. drg. WNA.13.D001_Ph4	No.	1			
Total Carried Forward To Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
10	EMCC	SECTION. 10: MOTOR CONTROL CENTRE AND DISTRIBUTION BOARDS					
10.1		SECTION 10.1 - DESIGN, DRAWINGS AND GENERAL					
10.1.1	EMCC 21.1	a) Provide MCC design drawings and wiring diagrams as specified	Sum	1			
10.1.2		b) Provide operating and maintenance manuals and "as-built" drawings as specified	Sum	1			
10.2		SECTION 10.2 SUPPLY AND DELIVERY TO SITE					
10.2.1	EMCC 21.2	a) Supply and delivery to site of a complete Filter MCC (refer to project specification PSEMCC.8.A)	Sum	1			
10.2.2		b) Supply and delivery to site of complete Filter Control Panel MCC (refer to project specification PSEMCC.8.B)	No.	2			
10.3		SECTION 10.3 - INSTALLATION					
10.3.1	EMCC21.3	a) Installation of complete Filter MCC (refer to project specification PSEMCC.8.A)	Sum	1			
10.3.2		b) Installation of complete Filter Control Panel (refer to project specification PSEMCC.8.B)	No.	2			
10.4		SECTION 10.4 - COMMISSIONING					
10.4.1	EMCC 21.4	a) Commissioning of complete Filter MCCas (refer to project specification PSEMCC.8.A)	Sum	1			
10.4.2		b) Commissioning of complete Filter Control Panel (refer to project specificationPSEMCC.8.B)	No.	2			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
11	EPLC	SECTION 11: PROGRAMMABLE & LOGIC CONTROLLERS					
11.1		SECTION 11.1- DESIGN, DRAWINGS AND GENERAL					
11.1.1	EPLC 26.1	a) Provide design drawings, documentation and design information as specified	Sum	1			
11.1.2		b) Provide operating and maintenance manuals and "as-built" drawings as specified	Sum	1			
11.2		SECTION 11.2 - SUPPLY AND DELIVERY TO SITE					
11.2.1	EPLC 26.2	a) Supply and delivery to site of PLC and peripheral equipment installed in RGF Filters Control Panel (refer to project specification PSEPLC-4.A)	No.	2			
11.2.2		b) Supply and delivery to site of UPS and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	2			
11.2.3		c) Supply and delivery to site of HMI and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	2			
11.3		SECTION 11.3 - INSTALLATION					
11.3.1	EPLC 26.3	a) Installation of PLC and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	2			
11.3.2		b) Installation of UPS and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	2			
11.3.3		c) Installation of HMI and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	No.	2			
11.3.4		d) Site cable connections and programming of all PLC and peripheral equipment (refer to particular specification)	Sum	1			
11.4		SECTION 11.4 - COMMISSIONING					
11.4.1	EPLC 26.4	a) Commissioning of PLC and peripheral equipment installed in RGF Filter Control Oanel (refer to project specification PSEPLC-4.A)	Sum	1			
11.4.2		b) Commissioning of UPS and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	Sum	1			
11.4.3		c) Commissioning of HMI and peripheral equipment installed in RGF Filter Control Panel (refer to project specification PSEPLC-4.A)	Sum	1			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
12	ECIS	SECTION 12: DISTRIBUTION SYSTEM					
12.1	ECIS	SECTION 12.1 - SUPPLY AND DELIVERY TO SITE					
12.1.1	ECIS 11.1	Supply and delivery to site of level Instrument complete with mounting brackets (refer to project specification PSECIS-4.A)	No.	4			
12.1.2		Supply and delivery to site of emergency stop stations (refer to project specifications PSEG&M-3)	No.	2			
12.1.3		Supply and delivery to site of electrical installation equipment at and in flow meter manholes (refer to project specification PSECIS-3.A)	No.	2			
12.1.4		Supply and delivery to site of all notices and all danger plates (refer to project specification PSEG&M-8)	Sum	1			
12.1.5		Supply and delivery to site turbidity instrument complete as specified (refer to project specification PSECIS-8.A)	No.	2			
12.2		SECTION 12.2 - INSTALLATION					
12.2.1	ECIS 11.2	Installation of level Instrument complete with mounting brackets and surge arrestors (refer to project specification PSECIS-4.A)	No.	4			
12.2.2		Installation of emergency stop stations (refer to project specifications PSEG&M-3)	No.	2			
12.2.3		Installation of electrical installation equipment at and in flow meter manholes (refer to project specification PSECIS-3.A)	No.	2			
12.2.4		Installation of all notices and all danger plates (refer to project specification PSEG&M-8)	Sum	1			
12.2.5		Installation of turbidity instrument complete as specified (refer to project specification PSECIS-8.A)	No.	2			
12.3		SECTION 12.3 - COMMISSIONING					
12.3.1	ECIS 11.3	Commissioning of level Instrument complete with mounting brackets and surge arrestors (refer to project specification PSECIS-4.A)	No.	4			
12.3.2		Commissioning of emergency stop stations (refer to project specifications PSEG&M-3)	No.	2			
12.3.3		Commissioning of electrical equipment at and in flowmeter manholes (refer to project specification PSECIS-3.A)	No.	2			
12.3.4		Commissioning of all notices and all danger plates (refer to project specification PSEG&M-8)	Sum	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
12.3.5		Commissioning of turbidity instrument complete as specified (refer to project specification PSECIS-8.A)	No.	2			
Total Carried Forward to Summary							

BUILDINGS ELECTRICAL INSTALLATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
13	ESPL	SECTION 13: BUILDINGS ELECTRICAL INSTALLATION					
13.1		SECTION 13.1 - SUPPLY AND DELIVERY TO SITE					
13.1.1	ESPL 11.2	a) Supply and delivery to site of complete electrical installation equipment for the Settling Tanks (refer to project specification PSESPL-A)	Sum	1			
13.1.2		b) Supply and delivery to site of complete electrical installation equipment for the Filter Building (refer to project specification PSESPL-B)	Sum	1			
13.2		SECTION 13.2 - INSTALLATION					
13.2.1	ESPL 11.3	a) Installation of complete electrical installation Settling Tanks (refer to project specification PSESPL-A)	Sum	1			
13.2.2		a) Installation of complete electrical installation Filter Building (refer to project specification PSESPL-B)	Sum	1			
13.3		SECTION 13.3 - COMMISSIONING					
13.3.1	ESPL 11.4	a) Commissioning of complete electrical installation Settling Tanks (refer to project specification PSESPL-A)	Sum	1			
13.3.2		b) Commissioning of complete electrical installation Filter Building (refer to project specification PSESPL-B)	Sum	1			
Total Carried Forward to Summary							

SITE LIGHTING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
14	ESLS	SECTION 14: SITE LIGHTING					
14.1		SECTION 14.1 - SUPPLY AND DELIVERY TO SITE					
14.1.1	ESLS 5.1	a) Supply and delivery to site of 15m High mast (refer to project specifications PSESLS-2)	No.	2			
14.2		SECTION 14.2 - INSTALLATION					
14.2.1	ESLS 5.2	a) Installation of complete 15m High mast (refer to project specifications PSESLS-2)	No.	2			
14.3		SECTION 14.3 - COMMISSIONING					
14.3.1	ESLS 5.3	a) Commissioning of complete 15m High mast (refer to project specifications PSESLS-2)	No.	2			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
15	EELP	SECTION 15: EARTHING & LIGHTNING PROTECTION					
15.1	EELP	SECTION 15.1 - DESIGN, DRAWINGS AND GENERAL					
15.1.1	EELP 22.1	a) Provide design drawings and design information for Earthing and Lightning Protection System	Sum	1			
15.1.2		b) Provide operating and maintenance manuals and "as-built" drawings as specified	Sum	1			
15.1.3		c) Provide risk management calculations and IEC Program calculation results as specified	Sum	1			
15.2		SECTION 15.2 - SUPPLY AND DELIVERY TO SITE					
15.2.1	EELP 22.2	a) Supply and delivery to site of lightning protection system complete for Flocculation Channel	Sum	1			
15.2.2		b) Supply and delivery suitable earth-termination system, earthing and earth mat for Flocculation Channel	Sum	1			
15.2.3		c) Supply and delivery to site of lightning protection system complete for Settling Tank	Sum	1			
15.2.4		d) Supply and delivery suitable earth-termination system, earthing and earth mat for Settling Tank	Sum	1			
15.2.5		e) Supply and delivery to site of lightning protection system complete for Filter Building	Sum	1			
15.2.6		f) Supply and delivery suitable earth-termination system, earthing and earth mat for Filter Building	Sum	1			
15.2.7		g) Supply and delivery suitable earth bar as specified	No.	4			
15.2.8		h) Supply and delivery all connection points, terminals, interconnections, bonding points and test joints for the entire system including for natural components	Sum	1			
15.3		SECTION 15.3 - INSTALLATION					
15.3.1	EELP 22.3	a) Site installation of lightning protection system complete for Flocculation Channel	Sum	1			
15.3.2		b) Site installation of suitable earth-termination system (system earth mat) and earth mat for Flocculation Channel	Sum	1			
15.3.3		c) Site installation of lightning protection system complete for Settling Tank	Sum	1			
15.3.4		d) Site installation of suitable earth-termination system (system earth mat) and earth mat for Settling Tank	Sum	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
15.3.5		e) Site installation of lightning protection system complete for Filter Building	Sum	1			
15.3.6		f) Site installation of suitable earth-termination system (system earth mat) and earth mat for Filter Building	Sum	1			
15.3.7		g) Site installation of suitable earth bar as specified for Filter Building and Settling Tank	No.	4			
15.3.8		h) Site installation of all connection points, terminals, interconnections, bonding points and test joints for the entire system including for 'natural' components	Sum	1			
15.3.9		i) Earthing resistance survey upon completion of the excavations and test report	Sum	1			
15.4		SECTION 15.4 - COMMISSIONING					
15.4.1	EELP 22.4	a) Commissioning of lightning protection system complete as specified above	Sum	1			
15.4.2		b) Commissioning of suitable earth-termination system (system earth mat) and earth mat as specified	Sum	1			
15.4.3		c)Certificate of compliance of lightning protection system as specified under SANS 10313	No.	3			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
16	EMCA	SECTION 16: MULTICORE CABLES & EARTH WIRES					
16.1		SECTION 16.1 - SUPPLY AND DELIVERY TO SITE					
16.1.1	EMCA 19	Supply and delivery to site of cables, jointing, terminating materials, all earth wires and cable names tags as per the particular specification					
16.1.1.1		70mm² 4 core Cu PVC SWA PVC	m	260			
16.1.1.2		35mm² 4 core Cu PVC SWA PVC	m	110			
16.1.1.3		2.5mm² 4 core Cu PVC SWA PVC	m	1,980			
16.1.1.4		2.5mm² 3 core Cu PVC SWA PVC	m	360			
16.1.1.5		2.5mm² Bare Copper Earth Wire	m	1,980			
16.1.1.6		10mm² Bare Copper Earth Wire	m	550			
16.1.1.7		16mm² Bare Copper Earth Wire	m	110			
16.1.1.8		25mm² Bare Copper Earth Wire	m	88			
16.1.1.9		35mm² Bare Copper Earth Wire	m	260			
16.1.1.10		25mm² Kwena Bare Copper Earth Cable	m	110			
16.1.1.11		50mm² Kwena Bare Copper Earth Cable	m	55			
16.1.1.12		1mm² x 2pr twisted PVC SWA PVC	m	165			
16.1.1.13		1mm² x 4pr twisted PVC SWA PVC	m	1,980			
16.1.1.14		1mm² x 8pr twisted PVC SWA PVC	m	110			
16.1.1.15		1mm² x 12pr twisted PVC SWA PVC	m	440			
16.1.2		Termination material including glands, neoprene shrouds, lugs, insulating materials, cable ties and corrosion proof bolts, washers, spring washers, nuts, etc to terminate the following 600/1000V PVC SWA PVC electrical cables complete.					
16.1.2.1		70mm² 4 core Cu PVC SWA PVC	No.	2			
16.1.2.2		35mm² 4 core Cu PVC SWA PVC	No.	4			
16.1.2.3		2.5mm² 4 core Cu PVC SWA PVC	No.	80			
16.1.2.4		2.5mm² 3 core Cu PVC SWA PVC	No.	16			
16.1.2.5		2.5mm² Bare Copper Earth Wire	No.	12			
16.1.2.6		10mm² Bare Copper Earth Wire	No.	10			
16.1.2.7		16mm² Bare Copper Earth Wire	No.	10			
16.1.2.8		25mm² Bare Copper Earth Wire	No.	4			
Total Carried Forward							

MULTICORE CABLES & EARTH WIRES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.1.2.9		35mm² Bare Copper Earth Wire	No.	2			
16.1.2.10		25mm² Kwena Bare Copper Earth Cable	No.	4			
16.1.2.11		50mm² Kwena Bare Copper Earth Cable	No.	2			
16.1.2.12		1mm² x 2pr twisted PVC SWA PVC	No.	4			
16.1.2.13		1mm² x 4pr twisted PVC SWA PVC	No.	80			
16.1.2.14		1mm² x 8pr twisted PVC SWA PVC	No.	4			
16.1.2.15		1mm² x 12pr twisted PVC SWA PVC	No.	4			
16.1.3		Heat shrinkable cable through joint kit complete with all materials required to joint 600/1000V PVC SWA PVC cable					
16.1.3.1		70mm² 4 core Cu PVC SWA PVC	No.	1			
16.1.3.2		35mm² 4 core Cu PVC SWA PVC	No.	1			
16.1.3.3		2.5mm² 4 core Cu PVC SWA PVC	No.	1			
16.1.3.4		2.5mm² 3 core Cu PVC SWA PVC	No.	1			
16.1.3.5		2.5mm² Bare Copper Earth Wire	No.	1			
16.1.3.6		10mm² Bare Copper Earth Wire	No.	1			
16.1.3.7		16mm² Bare Copper Earth Wire	No.	1			
16.1.3.8		25mm² Bare Copper Earth Wire	No.	1			
16.1.3.9		35mm² Bare Copper Earth Wire	No.	1			
16.1.3.10		25mm² Kwena Bare Copper Earth Cable	No.	1			
16.1.3.11		50mm² Kwena Bare Copper Earth Cable	No.	1			
16.1.3.12		1mm² x 2pr twisted PVC SWA PVC	No.	1			
16.1.3.13		1mm² x 4pr twisted PVC SWA PVC	No.	1			
16.1.3.14		1mm² x 8pr twisted PVC SWA PVC	No.	1			
16.1.3.15		1mm² x 12pr twisted PVC SWA PVC	No.	1			
16.1.4		Supply and delivery to site of cable route markers	Each	10			
16.1.5		Supply and delivery to site of concrete cable slabs	Each	20			
16.1.6		Supply and delivery to site of cable trays, ladders and wire trunking					
16.1.7		3CR12 heavy duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as specified					
Total Carried Forward							

MULTICORE CABLES & EARTH WIRES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.1.7.1		200mm Wide cable ladder	m	200			
16.1.7.2		200mm wide 90 Horizontal Bend	Each	1			
16.1.7.3		200mm wide 90 Internal elbow (Riser)	Each	1			
16.1.7.4		200mm wide 90 External elbow (Dropper)	Each	10			
16.1.7.5		200mm wide Tee	Each	40			
16.1.7.6		200mm wide 4 Way Cross-over	Each	15			
16.1.7.7		300mm Wide cable ladder	m	150			
16.1.7.8		300mm wide 90 Horizontal Bend	Each	1			
16.1.7.9		300mm wide 90 Internal elbow (Riser)	Each	1			
16.1.7.10		300mm wide 90 External elbow (Dropper)	Each	1			
16.1.7.11		300mm wide Tee	Each	10			
16.1.7.12		300mm wide 4 Way Cross-over	Each	2			
16.1.7.13		600mm Wide cable ladder	m	100			
16.1.7.14		600mm wide 90 Horizontal Bend	Each	5			
16.1.7.15		600mm wide 90 Internal elbow (Riser)	Each	2			
16.1.7.16		600mm wide 90 External elbow (Dropper)	Each	2			
16.1.7.17		600mm wide Tee	Each	8			
16.1.7.18		600mm wide 4 Way Cross-over	Each	2			
16.1.8		Supply and delivery to site of cable supports to motors and other electrial equipment	Sum	1			
16.1.9		Suppy and delivery to site of pump set sensor termination cubicles	Sum	1			
16.2		SCHEDULE 16.2 - INSTALLATION					
16.2.1		Installation of cables, jointing, terminating materials, all earth wires and cable name tags as per the cables schedule supplied electronically					
16.2.1.1		70mm² 4 core Cu PVC SWA PVC	m	235			
16.2.1.2		35mm² 4 core Cu PVC SWA PVC	m	100			
16.2.1.3		2.5mm² 4 core Cu PVC SWA PVC	m	1,800			
16.2.1.4		2.5mm ²3 core Cu PVC SWA PVC	m	330			
16.2.1.5		2.5mm² Bare Copper Earth Wire	m	1,800			
16.2.1.6		10mm² Bare Copper Earth Wire	m	500			
16.2.1.7		16mm² Bare Copper Earth Wire	m	100			
Total Carried Forward							

MULTICORE CABLES & EARTH WIRES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.2.1.8		25mm² Bare Copper Earth Wire	m	80			
16.2.1.9		35mm² Bare Copper Earth Wire	m	235			
16.2.1.10		25mm² Kwena Bare Copper Earth Cable	m	100			
16.2.1.11		50mm² Kwena Bare Copper Earth Cable	m	50			
16.2.1.12		1mm² x 2pr twisted PVC SWA PVC	m	150			
16.2.1.13		1mm² x 4pr twisted PVC SWA PVC	m	1,800			
16.2.1.14		1mm² x 8pr twisted PVC SWA PVC	m	100			
16.2.1.15		1mm² x 12pr twisted PVC SWA PVC	m	400			
16.2.2		Termination material including glands, neoprene shrouds, lugs, insulating materials, cable ties and corrosion proof bolts, washers, spring washers, nuts, etc to terminate the following 600/1000V PVC SWA PVC electrical cables complete.					
16.2.2.1		70mm² 4 core Cu PVC SWA PVC	No.	2			
16.2.2.2		35mm² 4 core Cu PVC SWA PVC	No.	4			
16.2.2.3		2.5mm² 4 core Cu PVC SWA PVC	No.	80			
16.2.2.4		2.5mm² 3 core Cu PVC SWA PVC	No.	16			
16.2.2.5		2.5mm² Bare Copper Earth Wire	No.	12			
16.2.2.6		10mm² Bare Copper Earth Wire	No.	10			
16.2.2.7		16mm² Bare Copper Earth Wire	No.	10			
16.2.2.8		25mm² Bare Copper Earth Wire	No.	4			
16.2.2.9		35mm² Bare Copper Earth Wire	No.	2			
16.2.2.10		25mm² Kwena Bare Copper Earth Cable	No.	4			
16.2.2.11		50mm² Kwena Bare Copper Earth Cable	No.	2			
16.2.2.12		1mm² x 2pr twisted PVC SWA PVC	No.	4			
16.2.2.13		1mm² x 4pr twisted PVC SWA PVC	No.	80			
16.2.2.14		1mm² x 8pr twisted PVC SWA PVC	No.	4			
16.2.2.15		1mm² x 12pr twisted PVC SWA PVC	No.	4			
16.2.3		Heat shrinkable cable through joint kit complete with all materials required to joint 600/1000V PVC SWA PVC cable					
16.2.3.1		70mm² 4 core Cu PVC SWA PVC	No.	1			
16.2.3.2		35mm² 4 core Cu PVC SWA PVC	No.	1			
16.2.3.3		2.5mm² 4 core Cu PVC SWA PVC	No.	1			
Total Carried Forward							

MULTICORE CABLES & EARTH WIRES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.2.3.4		2.5mm² 3 core Cu PVC SWA PVC	No.	1			
16.2.3.5		2.5mm² Bare Copper Earth Wire	No.	1			
16.2.3.6		10mm² Bare Copper Earth Wire	No.	1			
16.2.3.7		16mm² Bare Copper Earth Wire	No.	1			
16.2.3.8		25mm² Bare Copper Earth Wire	No.	1			
16.2.3.9		35mm² Bare Copper Earth Wire	No.	1			
16.2.3.10		25mm² Kwena Bare Copper Earth Cable	No.	1			
16.2.3.11		50mm² Kwena Bare Copper Earth Cable	No.	1			
16.2.3.12		1mm² x 2pr twisted PVC SWA PVC	No.	1			
16.2.3.13		1mm² x 4pr twisted PVC SWA PVC	No.	1			
16.2.3.14		1mm² x 8pr twisted PVC SWA PVC	No.	1			
16.2.3.15		1mm² x 12pr twisted PVC SWA PVC	No.	1			
16.2.4		Installation of cable route markers	Each	10			
16.2.5		Installation of concrete cable slabs	Each	20			
16.2.6		Installation of cable trays, ladders and wire trunking					
16.2.7		3CR12 heavy duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as specified					
16.2.7.1		200mm Wide cable ladder	m	200			
16.2.7.2		200mm wide 90 Horizontal Bend	Each	1			
16.2.7.3		200mm wide 90 Internal elbow (Riser)	Each	1			
16.2.7.4		200mm wide 90 External elbow (Dropper)	Each	10			
16.2.7.5		200mm wide Tee	Each	40			
16.2.7.6		200mm wide 4 Way Cross-over	Each	15			
16.2.7.7		300mm Wide cable ladder	m	150			
16.2.7.8		300mm wide 90 Horizontal Bend	Each	1			
16.2.7.9		300mm wide 90 Internal elbow (Riser)	Each	1			
16.2.7.10		300mm wide 90 External elbow (Dropper)	Each	1			
16.2.7.11		300mm wide Tee	Each	10			
16.2.7.12		300mm wide 4 Way Cross-over	Each	2			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
16.2.7.13		600mm Wide cable ladder	m	100			
16.2.7.14		600mm wide 90 Horizontal Bend	Each	5			
16.2.7.15		600mm wide 90 Internal elbow (Riser)	Each	2			
16.2.7.16		600mm wide 90 External elbow (Dropper)	Each	2			
16.2.7.17		600mm wide Tee	Each	8			
16.2.7.18		600mm wide 4 Way Cross-over	Each	2			
16.2.8		Installation of cable supports to motors and other electrical equipment	Sum	1			
16.2.9		Installation of pump set sensor termination cubicles	Sum	1			
16.2.10		Excavating, back filling, consolidation, importation of soil and dumping of all rock and stone removed during excavations including cleaning of cable routes all according to particular specifications (including hand excavations where necessary along existing cable routes)					
16.2.10.1		a) Pickable soil	m^3	288			
16.2.10.2		b) Soft rock	m^3	36			
16.2.10.3		c) Hard rock	m^3	15			
16.2.11		Importation of additional soil for the bedding of cables and the backfilling of trenches complete as per particular specification.	m^3	51			
16.2.12		Dumping and removing of all rock and stone removed during excavations including cleaning of cable routes complete as per particular specification.	m^3	51			
16.2.13		The restoration of road to the original condition complete	m^3	20			
16.2.14		Nett amount for core drilling 100mm diameter holes through 250mm concrete	Each	10			
16.3		SECTION 16.3 - COMMISSIONING					
16.3.1		Testing and commissioning of cables	Sum	1			
16.3.2		Updating, verifying and submission of Electronic Cable schedules with Tag numbers and final agreed lengths	Sum	1			
16.3.3		Drawing up of as-built cable route plans	Each	1			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
		SECTION 17 CLEAR WATER TANK EARTHWORKS AND PIPELINES					
17.1	SANS 1200C	SITE CLEARANCE					
	8.2.2	Remove and grub large trees and tree stumps of girth					
17.1.1		a) over 1 m and up to 1.5 m	No.	3			
17.2	SANS 1200D	EARTHWORKS					
	8.3.1.2	Remove topsoil to nominal depth of 150mm and Stockpile					
17.2.1		b) Clear water tank	m²	1,090			
	8.3.2	Bulk Excavation					
		a) Excavation in all materials and use for backfill in embankment or dispose, as ordered within a free haul distance of 0.5 km					
		Note: Allowance of 500 mm wide working space has been provided for in the bulk earthworks quantities					
172.2		1. Clear water tank	m³	4,640			
		b) Extra-over 8.3.2 a) for:					
		2. Hard rock excavation					
17.2.3		a) Clear water tank	m³	3,350			
17.2.3.1		Allow for chemical blasting	m³	1,600			
	8.3.3	Restricted excavation					
		a) Excavation in all materials and use for backfill, embankment or dispose					
17.2.4		1. Clear water tank	m³	35			
		b) Extra-over 8.3.3 a) for: (Provisional Item)					
		2. Hard rock excavation					
17.2.5		a) Clear water Tank	m³	165			
		Over break in rock foundation removal of loose material up to 200 mm. Deeper 200 mm to be at contractors' cost					
17.2.6		a) Clear water Tank	m³	885			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	8.3.4	Acquire suitable gravel material for soil raft (G6) from commercial source or borrow pit. The rate to include for acquiring suitable material, excavation handling and transportation regardless of distance, placing and compaction to 95% mod. AASHTO density in maximum layers of 150 mm after compaction.					
		The material must conform to the following requirements:					
		- Maximum PI: 10%					
		- Minimum GM: 1.2					
		- Minimum CBR at 93% mod. AASHTO density: 15					
17.2.7		1. Clear water Tank	m³	320			
17.2.8		Acquire suitable gravel material for soil raft (G6) from excavation on site, stockpile temporarily, place and compact to 95% mod. AASHTO density in maximum layers of 150 mm after compaction	m³	320			
		Note: Material requirements as for item 17.2.6					
		Extra over item for finishing embankments to falls as shown on the drawings and removal of all loose material on the embankments					
17.2.9		a) Clear water Tank	m³	220			
		Soilcrete for backfill of excavation where ordered by Engineer or shown on the drawing with 5% cement (OPC) (Provisional Item)					
17.2.10		a) Clear water Tank	m³	2			
		Class 20/19 mass concrete backfill of structure, footings, foundations pipe encasing all as instructed by Engineer (Provisional Item)					
17.2.11		a) Clear water Tank	m³	15			
17.2.12		b) Settling Tanks	m³	11			
	8.3.8	Existing services					
17.2.13	8.3.8.1	c) Excavate by hand in soft material to expose existing services	m³	33			
	8.3.8.2	Dealing with services that are at risk because of the construction of earthworks					
17.2.14		a) Cables	No.	3			
	8.3.10	Top soiling					
		From stock, hauling and spreading over site					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
17.2.15		a) Horizontal areas	m²	1,540			
17.2.15		b) Sloping areas	m²	120			
		Note: accurate position to be determined on site by Engineer					
	8.3.11	Grassing with Kikuyu roots on horizontal or nearly horizontal surfaces					
17.2.16		1. Kikuyu	m²	1,660			
17.2.17		Allow for rejuvenation, fertilizer and planting of indigenous drought resistant plants	Prov Sum	1	50,000	50,000	00
		Concrete Retaining Block Wall					
17.2.18		500 mm deep precast concrete block retaining wall, Loffelstein or similar and approved on concrete foundation. Complete with granular filling and geotextile backing Ref. Drg. WDA.14.D004_Ph4 for details	m²	105			
17.3	SANS 1200 DB	EARTHWORKS (Pipe trenches)					
	PSDB						
	8.3.5	Existing services that intersect or adjoin a pipe trench					
		a) Services that intersect a trench					
		1. Drainage Pipes					
17.3.1		a) 450 mm dia RC	No.	3			
17.3.2		b) 525 mm dia RC	No.	3			
17.4	SANS 1200 DK	GABIONS AND PITCHING					
	8.2.5	Pitching of Surfaces					
17.4.1		1. Grouted stone pitching between kerbing and existing storm water drop inlet	m²	4			
17.5	SANS 1200LB	BEDDING (Pipes)					
	PSLB						
	8.2.1	Provision of bedding from trench excavation for flexible and rigid pipes					
17.5.1		a) Selected granular material	m³	55			
17.5.2		b) Selected fill material	m³	200			
	8.2.2	Supply of bedding by importation					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
17.5.3		a) Selected granular material	m³	22			
17.5.4		b) Selected fill material	m³	88			
	8.2.4	Class 20/19 concrete for pipe thrust blocks					
17.5.5		a) Pipe Thrust blocks	m³	3			
17.5.6		b) Encasing of pipes	m³	7			
17.6	SANS 1200 LE	STORMWATER DRAINAGE					
	8.2.1	Supply, lay and bed concrete interlocking joint pipes in accordance to SANS 677 (spigot and socket)					
17.6.1		a) 450 mm dia, Class 50 D	m	33			
17.6.2		b) 525 mm dia, Class 75 D	m	53			
	8.2.4	Extra over item 8.2.1 for cutting the end units for culverts on site					
		a) Straight cut					
17.6.3		1. 450 mm dia	No.	1			
17.6.4		2. 525 mm dia	No.	3			
		SUNDRY ITEMS					
		Break up reinforced concrete walls, remove debris and repair watertight after installation of pipe					
17.6.5		1. 700 mm opening through 250 mm thick wall at inlet structure	No.	1			
		Break up 200 mm thick reinforced concrete walls, remove debris and repair watertight at drainage chambers after installation of pipe.					
17.6.6		a) for 200 mm dia uPVC pipe	No.	1			
17.6.7		b) for 450 mm dia RC pipe	No.	1			
176.8		c) for 525 mm dia RC pipe	No.	1			
		Remove blank flange and prepare for new flange installation					
17.6.9		a) 250 mm dia steel pipe	No.	1			
Total Carried Forward to Summary							

CLEAR WATERTANK CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
18.1	SANS 1200 G	SECTION 18. CLEAR WATERTANK CONCRETE (STRUCTURAL)					
	PSG						
		CLEAR WATER TANK					
	8.2.1	Rough formwork					
		a) Plane vertical					
18.1.1		1. Sides of floor slabs	m²	80			
18.1.2		2. Walls	m²	400			
	8.2.5	Rough formwork to narrow widths					
18.1.3		a) Edges, risers, etc. nog exceeding 300 mm wide	m	88			
	8.2.2	Smooth formwork					
		a) Plane horizontal					
18.1.4		1. Slab	m²	800			
18.1.5		2. Roof slab	m²	850			
		b) Plane vertical					
18.1.6		1. Side of outer walls	m²	1,200			
18.1.7		2. Side of outer walls	m²	600			
18.1.8		3. Wall openings, supports and footings	m²	80			
18.1.9		4. Chamber walls	m²	160			
	8.2.5	Smooth formwork to narrow widths					
18.1.10		a) Edges, risers, etc. not exceeding 300 mm wide	m	68			
18.1.11		b) Edges of walkways and channels 200 mm wide	m	150			
18.1.12		c) Raking side of stairs maximum 400 mm wide	m	12			
		Smooth formwork to chamfers, grooves, rebates etc. exceeding 20 x 20 mm in size					
18.1.13		a) 100 x 100 mm	m	6			
18.1.14		b) 80 mm wide reeding over full length of stair tread	m	40			
		BOXING IN FOR HOLES AND VOIDS					
	8.2.6	Box out holes/Form voids					
18.1.15		a) Small, square, up to 0.2 m² in area with depth up to 250mm	No.	15			
Total Carried Forward							

CLEAR WATERTANK CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
18.1.16		b) Medium, square, up to 0.4 m² in area with depth up to 300mm	No.	20			
18.1.17		c) Medium, square, up to 0.3m² in area with depth up to 400mm	No.	16			
18.1.18		d) Large, square, up to 1.0 m² in area with depth up to 300mm	No.	4			
	8.3	REINFORCEMENT					
	8.3.1	Steel bars					
		a) Mild steel					
18.1.19		1. All sizes	ton	10			
		b) High tensile steel					
18.1.20		1 All sizes	ton	90			
	8.3.2	High tensile welded mesh					
18.1.21		a) Ref no. 193	m²	22			
18.1.22		b) Ref. no. 395 (at water tanker with drawel print)	m²	70			
	8.4	CONCRETE					
	8.4.2	a) Ref. no. 395 (at water tanker with drawel print)m					
18.1.23		1. Blinding layer 50 mm thick	m³	60			
18.1.24		2. No fines concrete below floor	m³	260			
18.1.25		3. Mass concrete backfill for over break in rock Mass concrete backfill for over break in rock	m³	152			
	8.4.3	c) 1:4 Cement river sand screed					
18.1.26		1. 10 mm thick smooth screed to top of concrete blinding to receive plastic sheeting	m³	20			
	8.9	POLYETHELENE SHEETING					
D1.1.27		1. 250 micron USB green under floors	m²	1,200			
	8.4.3	b) Strength concrete 20Ma/19mm					
		Benching including steel floated surface finish					
18.1.28		1. Benching with fall for emergency drainage channel and sumps	m³	12			
	8.4.3	c) Strength concrete 35Ma/19mm					
18.1.29		1. Floor slab	m³	340			
18.1.30		2. Roof slab	m³	360			
Total Carried Forward							

CLEAR WATERTANK CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
18.1.31		3. Emergency over flow Floor slab inside Clearwater tank	m³	4			
18.1.32		4. Outer Walls	m³	220			
18.1.33		5. Inner Walls	m³	230			
18.1.34		6. Emergency Overflow Chamber Wall	m³	12			
18.1.35		7. Emergency Overflow Chamber slab	m³	2			
18.1.36		8. Drainage chamber slabs (inside Clearwater Tank)	m³	2			
18.1.37		9. Drainage chamber walls (inside Clearwater Tank)	m³	8			
18.1.38		10. Outflow chamber to pstn (inside of Clearwater Tank) slab	m³	4			
18.1.39		11. Outflow chamber to pstn (inside of Clearwater Tank) walls	m³	15			
18.1.40		12. Drainage chamber slab (outside Clearwater tanks)	m³	6			
18.1.41		13. Drainage chamber wall (outside Clearwater tanks)	m³	40			
		SURFACE FINISHES					
	8.4.4	Unformed surface finishes					
		a) Wood floated finish					
18.1.42		1. Floor slabs	m²	500			
		b) Steel float finish					
18.1.43		1. Top of walls, beams, etc.	m²	200			
		d) Broomed Finish					
18.2.44		1. Water Tanker Platform	m²	120			
		Grouting of pipes with non shrink grout to form a watertight joint with standard bedding grout					
		1. 250 mm thick concrete wall					
18.1.45		1. 950 x 950 mm opening for 700 mm dia pipe with puddle flange	No.	2			
18.1.46		2. 300 x 300 mm opening for 200 mm dia pipe	No.	15			
		2. 300 mm thick concrete wall					
18.1.47		1. 750 x 750 mm opening for 500 mm dia pipe wit puddle flange	No.	4			
		3. 300 mm thick sloping concrete wall					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
18.1.48		1. 450 x 450 mm opening for 200 mm dia pipe with puddle flange	No.	16			
18.2	8.5	JOINTS					
		a) 20 mm thick Jointex placed vertically between concrete surfaces					
18.2.1		1. 400 mm thick floor	m²	10			
18.2.2		2. 300 mm thick floor	m²	4			
		b) Polyurethane joint sealer					
18.2.3		1. Remove 10 x 20 mm tear of strip, prime with an approved primer and fill joint with suitable polyurethane sealer	m	33			
18.3		STEELWORK					
18.3.1		1. Drainage chamber galvanised grating (1400 x 1400)	No.	3			
		1. SS ladders inside Clearwater tank	No.	3			
18.3.2		1. Ladder access openings	No.	3			
18.4		PIPEWORK					
		Inlet Pipes to Clearwater Tank					
18.4.1		1. 2 x 600mm 3 segmented bends	No.	2			
18.4.2		2. 50m steel pipes 600mm with straight couplings	m	50			
18.4.3		3. 4 x 600mm straight pipes flanged at bends	No.	4			
18.4.4		4. 1 x 600mm puddle flange to inlet of CWT with SR-C	No.	1			
18.4.5		5. 600mm T-piece to connect Filter to CWT and straight pipe in between	No.	1			
		Outlet Pipes to Clearwater Tank					
18.4.6		1. 700mm Bell mouth with puddle flange SS with SR-C	No.	1			
18.4.7		2. 4 x 90deg 3 segmented bend 700mm with SR-C	No.	3			
18.4.8		3. 120m of 700mm straight pipes with SR-C to pumpstation	m	120			
18.4.9		4. 1 x 700mm straight pipe with puddle flange emergency overflow	No.	1			
		3 x drainage chamber pipe work					
18.4.10		1. 2 x 200mm steep pipes with puddle flange	No.	2			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
18.4.11		2. 200mm pipe with including SR-C	m	10			
18.4.12		3. 2 x 200mm RSV gate with extending spindles	No.	2			
18.4.13		4. 200mm uPVC pipe work between chambers	m	30			
		Emergency overflow chamber pipework to D6					
18.4.14		1. 450mm concrete Pipework from chamber to CWT	m	2			
18.4.15		2.450mm concrete pipework From emergency chamber to D6	m	40			
		Slotted subsoil drains cast inside no-fines concrete					
18.4.16		1. 4 x 20m, 110mm slotted subsoil drains	m	80			
18.4.17		2. Bidum placed around slotted subsoil drains	m²	30			
18.4.18		4. 110 mm dia uPVC, Class 9 sub-surface drain pipe complete with junctions, bends, etc. discharging into chamber D4.1.1+A136:E137	m	12			
18.4.19		4. 160mm PVC pipes to in between inspection chambers to D6	m	50			
		Inspection chambers at Clearwater Tank. Inspection chamber will most probably be precast manhole ring and lid with varying depths.					
18.4.20		Manhole chamber will have 300mm thick concrete base.	No.	4			
18.5		SUNDRY ITEMS					
18.5.1		1. 32 mm dia uPVC, Class 9, 200 mm long cast into settled water draw off channel	No.	375			
18.5.2		2. 200 mm dia uPVC, Class 9, 300 mm long cast into inlet wall	No.	26			
18.5.3		3. 110 mm dia slotted uPVC sub-surface drain pipe placed into no-fines concrete	m	72			
18.5.4		4. 110 mm dia uPVC, Class 9 sub-surface drain pipe complete with junctions, bends, etc. discharging into chamber D4.1.1	m	33			
Total Carried Forward to Summary							

SCHEDULES 4 WATER TREATMENT WORKS PHASE 4

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
3	EARTHWORKS AND PIPELINES	
4	CONCRETE WORK	
6	BUILDING WORK	
7	STEEL AND METALWORK	
8	PIPE FITTINGS AND VALVES	
9	MECHANICAL EQUIPMENT AND CHEMICAL DOSING	
10	MOTOR CONTROL CENTRE AND DISTRIBUTION BOARDS	
11	PROGRAMMABLE & LOGIC CONTROLLERS	
12	DISTRIBUTION SYSTEM	
13	BUILDINGS ELECTRICAL INSTALLATION	
14	SITE LIGHTING	
15	EARTHING & LIGHTNING PROTECTION	
16	MULTICORE CABLES & EARTH WIRES	
17	CLEAR WATER TANK EARTHWORKS AND PIPELINES	
18	CLEAR WATERTANK CONCRETE (STRUCTURAL)	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
C.1	SANS 1200C	SITE CLEARANCE					
C1.1	8.2.1	Clear and grub	ha	3			
	8.2.2	Remove & Grub Large Trees and Tree Stumps of Girth					
C1.2		a) Over 1 m and up to and including 2 m	No.	30			
C1.3		b) Over 2 m and up to and including 3 m	No.	5			
Total Carried Forward to Summary							

EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
D1	SANS 1200DB	EARTHWORKS (PIPE TRENCHES)					
D1.1	8.3.1	c) Remove topsoil to depth of 150mm	m²	3,200			
	8.3.2	a) Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: 315 mm diam. for total trench depth:					
D1.2		Exceeding 0,0m but not exceeding 1,0m	m³	900			
D1.3		Exceeding 1,0m but not exceeding 2,0m	m³	3,500			
D1.4		Exceeding 2,0m but not exceeding 3,0m	m³	950			
D1.5		Exceeding 3,0m	m³	100			
	8.3.2	b) Extra-over items D1.2 to D1.5 above for					
D1.6		Intermediate excavation	m³	2,200			
D1.7		Hard rock excavation	m³	2,100			
D1.8	8.3.2	c) Excavate and dispose of unsuitable material from trench bottom					
		(Provisional)	m³	550			
	8.3.3	Excavation Ancillaries					
	8.3.3.1	Make up deficiency in backfill material (Provisional)					
D1.9	8.3.3.1	a) from other necessary excavations on site	m³	350			
D1.10	8.3.3.1	c) by importation from commercial or off-site sources selected by the Contractor	m³	650			
D1.11	8.3.3.3	Compaction in road reserves	m³	150			
	8.3.4	Particular Items					
D1.12	8.3.4	a) Shore trench opposite structure or services	m	120.0			
		(b) Temporary works : control of water on the works					
D1.13		(1) Provide equipment	Sum	1			
D1.14		(2) Operate and maintain	Days	30			
D1.15		(3) Remove equipment	Sum	1			
	8.3.5	Existing services that intersect or adjoin a pipe trench					
D1.16	8.3.5	a) Services that intersect a trench	No.	23			
D1.17	8.3.5	b) Services that adjoin a trench	m	220			
D.2		ACCESS ROAD					
Total Carried Forward							

EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
D2.1	SANS 1200DM	EARTHWORKS (ROAD SUBGRADE)					
	PSDM						
	8.3.2	Preparation of site					
		a) Preparation and stripping of site/removal of topsoil to 150mm deep, stockpiling and maintaining	m³	4,800			
D2.2	8.3.3	Road bed preparation and compaction of material to a minimum of 93% modified AASHTO maximum density	m³	4,250			
D2.3	8.3.4	Cut to fill, borrow to fill					
		Compact to a minimum of90% modified AASHTO maximum density (Provisional Sum)	m³	4,250			
D2.4	8.3.7	Cut to spoil or stockpile from: (provisional)					
		a) Soft excavation	m³	1,850			
		b) Hard excavation	m³	2,100			
D2.5	8.3.12	Overhaul	m³.km	1,000			
D2.6	8.3.15	Catchwater mounds, channels and mitre banks	m³	2,500			
D.3	SANS 1200ME	SUBBASE					
	PSME	G6 Material					
D.3.1	8.3.3	Construct 150 mm thick base with natural gravel (G6) material from commercial source and compact to 95% modified AASHTO maximum density	m³	2,920			
D.3.2	8.3.9	Overhaul (haul exceeding 2km) Provisional	m³	1,250			
	SANS 1200 MF	BASE					
	PSMF	G6 Material					
D.3.3	8.3.3	Construct 150 mm thick base with natural gravel (G6) material from commercial source and compact to 97% modified AASHTO maximum density	m³	4,100			
Total Carried Forward to Summary							

SCHEDULE 5 MIDDLEPLAAS PIPELINE

MEDIUM-PRESSURE PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
E1	SANS 1200 L	MEDIUM-PRESSURE PIPELINES					
	8.2.1	Supply, handle, bed, lay, joint, test and disinfect					
E1.1		250mm dia, Class 500 PN 12.5 oPVC (SANS 16422) or Similar Approved	m	3,600			
E1.2		250mm nb Flanged Steel pipe (table 1000/3) to SANS 1123 with					
		with specified corrosion protection (Galvanized)	m	100			
	8.2.2	Extra-over 8.2.1 for the supplying, laying and bedding of specials complete with couplings including testing and disinfecting					
		Class 16 uPVC long radius					
E1.3		250mm diam. 45 deg.	No.	4			
E1.4		250mm diam. 90 deg.	No.	2			
E1.5		250mm diam. 22.5 deg.	No.	13			
E1.6		250mm diam. 11,25 deg.	No.	20			
		Steel Tees plain-ended and flanged (table 1000/3) to SANS 1123 complete with Viking Johnson counplings, bolts and gaskets all corrosion protection as detailed					
E1.7		250mm dia equal tee, Barrel 500mm F/F plain ended, branch 300mm C/F flanged	No.	10			
E1.8		250mm x 100mm scour tee, Barrel 500mm F/F plain ended, branch flanged	No.	4			
E1.9		250mm x 80mm dia reducing flange to match E1.7 above and threaded	No.	10			
E1.10		250mm x 80mm dia GMS pipe threaded both ends	No.	10			
E1.11		100mm dia, flanged both ends steel pipe cut size for scour assembly	No.	4			
E1.12		250mm flange adaptor to fit uPVC 250mm pipe	No.	36			
E1.13		250mm dia, steel flexible coupling complete with bolts, nuts and					
		gaskets and rubber rings	No.	6			
E1.14		100mm nb x 45 flanged steel bend 250 c/f	No.	4			
E1.15		1000mm x 100mm dia GMS pipe flanged both ends	No.	4			
E1.16		100mm NB flange adaptor to fit steel pipe	No.	4			
E1.17		250mm dia 1000mm long D/F pipe	No.	36			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
E1.18		250mm dia x 80mm dia flanged and plain ended steel tee barrel 1000mm f/f branch 500mm c/f for isolating/non return valve assembly	No.	3			
E1.19		80mm dia x 90 deg flanged steel bend 800mm c/f and 400mm c/f	No.	3			
E1.20		80mm dia x 90 deg flanged steel bend 400mm c/f and c/f cut to fit bypass valve assembly	No.	3			
E1.21		250mm to 150mm dia, flanged and plain ended reducer	No.	3			
E1.22		150mm dia pipe 1000mm long D/F	No.	3			
	8.2.3	Extra-over 8.2.1 for supplying valves, in valve box and test the following: RSV Gate Valve for waterworks Flanged cap top.					
		Clockwise closing					
		Flanged valves					
E1.23		250mm diam.	No.	3			
E1.24		100mm diam.	No.	4			
E1.25		80mm diam.	No.	13			
E1.26		80mm dia Double Orifice air valve (Ventomat or similar)					
		Flanged/Screwed	No.	10			
E1.27		Non-return valve 250mm diam	No.	3			
	8.2.11	b) Anchor/Thrust blocks and pedestals					
E1.28		Concrete Class (Grade 20/19)	m^3	8			
E1.29		Formwork	m^2	15			
E1.30		Reinforcement 12mm diam.	t	0.50			
E1.31	8.2.12	Encase pipes in concrete Grade 20/19	m^3	20			
	8.2.13	Valve Chambers and Manholes					
E1.32		Air valve chamber as pe drawing	No.	10			
E1.33		Scour valve chamber as per drawing	No.	4			
E1.34		Gate valve chamber non return valve assembly as per drawing	No.	3			
E1.35		Pipeline markers all complete (Concrete Pre-cast)	No.	50			
		Underdrains in trenches, type A complete for					
E1.36		160-315mm ND pipes	m	500			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
E1.37		Reno mattresses 2000 x 2000 x 300mm filled with stone at scour outlets as per drawing	No.	6			
E1.38		250mm Water Meter Flowmetrix BATMAG 3.6V Magnetic flowmeter or similar approved	No.	2			
E1.39		Supply, Deliver and Install Precast Concrete Manholes 1.2m diameter and 1.5m deep with 19mm Crusher stone 250mm deep floor, Cover slab and Lid over pipe for flow meters or valves	No.	2			
Total Carried Forward to Summary							

BEDDING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
F1	SANS 1200 LB	BEDDING					
	PSLB8.2.1	Provision of bedding from trench excavation					
		Available from trench within 2,5km (Subclause 3.4.1)					
F1.1		a) Selected granular material (Screened)	m³	650			
F1.2		b) Selected fill material (Screened)	m³	1,500			
	8.2.2	Supply only of bedding by importation					
	8.2.2.1	From other necessary excavations within 2.5km (Provisional)					
F1.3		a) Selected granular material	m³	220			
F1.4		b) Selected fill material	m³	330			
	8.2.2.3	Commercial sources (Provisional)					
F1.5		a) Selected granular material	m³	242			
F1.6		b) Selected fill material	m³	462			
F1.7	8.2.3	Concrete bedding (Provisional)	m³	10			
	8.2.5	Overhaul of material for bedding (Provisional) where ordered					
		Extra-over items F1.1 to F1.4					
F1.8		a) Selected granular material	m³.km	225			
F1.9		b) Selected fill material	m³.km	350			
Total Carried Forward to Summary							

SCHEDULE 5 MIDDLEPLAAS PIPELINE

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	SITE CLEARANCE	
2	EARTHWORKS (PIPE TRENCHES)	
3	MEDIUM-PRESSURE PIPELINES	
4	BEDDING	
TOTAL CARRIRED FORWARD TO SUMMARY OF SCHEDULES		

SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY		RATE	AMOUNT	
							R	c
C.1	SANS 1200 C	SITE CLEARANCE						
C.1.1	8.2.1	Clear and grub	m²	88				
	8.2.2	Remove & Grub Large Trees and Tree Stumps of Girth						
C.1.2		a) Over 1 m and up to and including 2 m	No.	3				
C.1.3		b) Over 2 m and up to and including 3 m	No.	1				
	Total Carried Forward to Summary							

EARTHWORKS (Roads, Subgrade)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
D.1	SANS 1200 DM	EARTHWORKS (Roads, Subgrade)					
D.1.1	8.3.2	a) Remove topsoil to nominal depth 150mm, stockpile, and maintain	m²	55			
	8.3.3	a) Road-bed Preparation and Compaction of Material					
D.1.2		(2) Compact to 93% Mod. AASHTO maximum density	m³	12			
	PSD8.3.3	Restricted Excavation (As per SANS 1200D)					
D1.3	PSD8.3.3	a) Excavate for foundation in all materials and use for backfill or embankment or dispose within the freehaul distance of 1.5km	m³	40			
	PSD8.3.3	b) Extra-over items D1.3 for excavation in:					
D.1.4		Intermediate material	m³	8			
D.1.5		Hard rock material	m³	50			
	8.3.4	Cut to fill					
D.1.6		Compact to 93% Mod. AASHTO maximum density	m³	18			
	8.3.5	Construct Selected Layer with Material from Commercial Source					
D.1.7		Type G6 material compacted to 95% Mod. AASHTO					
		maximum density	m³	25			
	8.3.6	Extra- over item 8.3.4 and 8.3.5 for excavation in:					
D.1.8		(a) Intermediate material	m³	6			
D.1.9		(b) Hard rock material	m³	4			
	8.3.7	Cut to spoil from					
D.1.10		(a) Soft Excavation	m³	13			
D.1.11		(b) Intermediate material	m³	6			
D.1.12		(c) Hard rock material	m³	2			
	8.3.13	Surface Finishings					
D.1.13		a) Topsoiling	m²	55			
D.1.14		b) Grassing (Kikuyu cuttings including maintaining for duration					
		of contract)	m²	55			
Total Carried Forward to Summary							

CONCRETE BUILDING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
E1	SANS 1200 GB	CONCRETE BUILDING					
	8.2.1	b) Normal formwork					
E1.1		Columns	m²	22			
E1.2		Beams	m²	11			
E1.3		Sides of Plinth	m²	6			
E1.4		Sides of Floor Slab	m²	8			
E1.5		sides of cable ducts in floor	m²	7			
E1.6	8.2.2	Vertical narrow widths (up to 75mm wide)	m	13			
	8.2.3	Box-out holes/form voids:					
E1.7		Small, circular, up to 0,35m diameter, up to 0.5m deep	No.	3			
	8.2.4	Reinforcement					
		(a) High-tensile steel bars of nominal diameter					
E1.8		8mm	t	0.8			
E1.9		10mm	t	1			
E1.10		12mm	t	1			
		(c) High-tensile welded mesh of nominal mass					
E1.11		Ref 245	m²	35			
	8.2.5	Concrete					
	8.2.5.1	(b) Strength Concrete: 20/9.5					
E1.12		Screed to floor slab	m³	3			
	8.2.5.1	(b) Strength concrete, Grade 25/19,0 mm in :					
E1.13		Floor slab	m³	8			
E1.14		Foundation and footing	m³	6			
E1.15		Columns	m³	2			
E1.16		Beams	m³	1			
E1.17		Pump Plinths	m³	2			
E1.18	8.2.5.1	(d) Blinding layer, Grade 20/19,0 mm concrete under floor slab (50mm Thick)	m²	35			
	8.2.6	Unformed surface finishes					
E1.19	8.2.6	a) Wood-float to all floors	m²	35			
Total Carried Forward to Summary							

STRUCTURAL STEELWORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
F.1	SANS1200 HA	STRUCTURAL STEELWORK					
	8.3.1	Structural Steel (Crawl Beam)					
		Supply, fabricate, and deliver structural steelwork for					
F .1.1		a) Supply and installation of 254 X 146 X 37kg/m galvanised I-beam,					
		7.2m long complete with bolts, nuts and end tops etc all complete	No.	1			
F.2	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry Items)					
		Security Fencing					
		Supply all materials necessary, fabricate, deliver to site and erect new 2.1m high steel palisade fence as detailed in drawing FD 001 (2.4mm thick steel fencing)					
		Excavation included in section D item number D1.3					
F2.1	PSHA 8.3.1 (a)	Palisade Fence (2.4mm thick)	m	340			
		Swing Gate					
F2.2	PSHA 8.3.1	6m wide double palisade gate with posts and padlock all					
	(b)	complete as per drawing	No.	1			
F2.3	PSHA 8.3.1	1m wide single palisade gate with posts and padlock all					
	(c)	complete as per drawing	No.	1			
F2.4	PSG 8.4.3	Strength concrete: 25 MPa/19mm (Concrete Footings)	m^3	10			
Total Carried Forward to Summary							

BUILDING WORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
G.1	PART SPEC PB	BUILDING WORK					
	8.2.1	a) Brickwork					
G1.1		230mm thick, both faces face brick	m²	130			
G1.2	8.2.1	b) Brick Force	m	340			
G1.3	8.2.1	c) 3 layers of Malthoid or similar approved	m	11			
	8.2.1	d) Concrete Lintels					
G1.4		i) 1.2m x 75mm Precast Concrete Lintels over louvres and windows	No.	8			
	8.2.3	Door and Window Frames					
G1.5		Supply and install door D3(1500mm wide x 3060mm high) complete					
		with frame and notch for I-beam	No.	1			
G1.6		Supply and install steel louvres 1m x 1m on side walls	No.	4			
G1.7		Supply and install standard industrial type window SS23, 673mm					
		wide x 1445mm high, complete as specified (window W1, refer to					
		SH PS 002	No.	2			
	8.2.4	Damp Proof Courses					
		a) Plastic Sheeting					
G1.8		i) supply and install two layers 500-micron thick plastic sheeting,					
		230mm wide between floor slab and brick wall	m	32			
G1.9		ii) Supply and lay 250-micron waterproof membrane to pump station floor	m²	44			
	8.2.10	Corrugated roof Sheets					
G1.10		Supply deliver and install 0.5mm IBR corrugated roofing sheets					
		including closures, fascia boards downpipes etc.	m²	55			
G1.11	8.3.1	Supply and Install Roof support structure all complete	Sum	1			
G1.12	8.4	Plaster	m²	9			
	8.5	Painting					
G1.13		a) Doors and frames	No.	1			
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						162,427	00
G1.14		b) Louvres and windows with Plascon Velvaglo (or similar approved) paint,					
		colour - Olive branch D22-6	No.	4			
		Sundry Items					
		Filling of Cable Duct with sand and finish with 25mm thick					
		screed including cutting of slab if necessary complete as per					
		drawing SH PS 002					
G1.15		200mm wide cable duct	m	17			
		Softboard					
G1.16		15mm softboard between plinth and concrete slab	m²	9			
Total Carried Forward to Summary							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
H1		MECHANICAL					
		Supply delivery and install to site the following plant complete as specified					
H1.1		Supply deliver and install pump KSB ETA-B 080-065-250 (37kw) or similar approved. 30l/s @ 82m operating head with motor, base plates, holding down bolts as specified	No.	2			
H1.2		Supply deliver and install pump KSB ETA-100-080-250 (55kw) or similar approved. 45l/s @ 72m operating head with motor, base plates, holding down bolts as specified	No.	2			
H1.3		2 x Inlet suction pipe assembly to pumps item H1.1, including fixing on supports, elbows, Reducers, flanges and closing gate valves, 200mm diameter, encasing pipes in concrete and pipe supports					
		(See drawing PS 001A for pipework to pumps)	Sum	1			
H1.4		2 x Discharge delivery pipe assembly mounted on pumps item H1.1, including fixing on supports, elbows, reducers, collapsible dismantle pipe fittings, gate valve, BERMAD control valve, air valve, 16 bar pressure transducer, inlet pressure gauge, outlet pressure gauge allowing pump stop and start control and pipe supports					
		(See drawing PS 001A for pipework to pumps)	Sum	1			
		Supply, Deliver and Install SAFMAG MXI BETA4 Magnetic flow meters					
		with AMR and Pressure transducer 0-12 BAR on delivery pipe to					
		Middleplaas/Shuizendal for following sizes:					
H1.5		200mm PN10 SAFMAG	No.	1			
H1.6		Supply, Deliver and Install Precast Concrete Manholes 1.2m diameter and 1.5m deep with 19mm Crusher stone 250mm deep floor, Cover slab and Lid over pipe for flow meters or valves.	No.	1			
H1.7		ONE drainage pump (gland leakage) with pipe work and level switches complete as specified	No.	1			
H1.8		ONE lifting rig for the booster pumpstation (traveling trolley, block and tackle) 3 ton working load complete as specified	No.	1			
H2	SANS 1200L	MEDIUM-PRESSURE PIPELINES					
	PSL8.2.1	Excavate, Bedding (Class B), Supply, Handle, Lay, Bed, Backfill for Pipes					
		uPVC class 12					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
H2.1		200mm diameter class 12	m	50			
	8.2.11	b) Anchor or thrust blocks Grade 20/19					
H2.2		Concrete	m³	2			
H2.3		Formwork	m²	8			
H2.4		Reinforcement	t	0			
H2.5	8.2.12	Encase pipes in concrete Grade 20/19	m³	1			
H3		ELECTRICAL					
H3.1		Provide electricity from transformer to Shuizendal Pump Station complete	m	80			
		Supply, deliver, handle, install and commission to site the following equipment including storage where applicable and all necessary insurance					
H3.2		MDB complete with equipment	Sum	1			
H3.3		MCC complete with equipment (Schuizendal)	Sum	1			
		IP54 Modular free standing MCC Complete with:					
		Incomer with metering					
		2 x 37kw @ 400V with pressure control (Duty/Standby)					
H3.4		E-Stop/Start pedestals at motors as specified	No.	2			
		The following luminaries:					
H3.5		1.2m Double tube internal light with all wiring, light switch etc, complete	No.	4			
H3.6		Large plain round bulkhead light fitting including all wiring, day/night					
		control switch etc, complete	No.	4			
Total Carried Forward to Summary							

SCHEDULE 6 SCHUIZENDAL PUMPSTATION

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	SITE CLEARANCE	
2	EARTHWORKS (Roads, Subgrade)	
3	CONCRETE BUILDING	
4	STRUCTURAL STEELWORK	
5	BUILDING WORK	
6	MECHANICAL AND ELECTRICAL	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
C1	SANS 1200 C	SITE CLEARANCE					
C1.1	8.2.1	Clear and grub	m²	175			
	8.2.2	Remove & Grub Large Trees and Tree Stumps of Girth					
C1.2		a) Over 1 m and up to and including 2 m	No.	2			
C1.3		b) Over 2 m and up to and including 3 m	No.	1			
C1.4		c) Over 3m	No.	1			
Total Carried Forward to Summary							

EARTHWORKS (Roads, Subgrade)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
D1	SANS 1200 DM	EARTHWORKS (Roads, Subgrade)					
D1.1	8.3.2 (a)	a) Remove topsoil to nominal depth 150mm, stockpile, and maintain	m²	175			
		Road-bed Preparation and Compaction of Material					
D1.2		(2) Compact to 93% Mod. AASHTO maximum density	m³	33			
	8.3.3	Restricted Excavation (As per SANS 1200D)					
D1.3	8.3.3	a) Excavate for foundation in all materials and use for backfill or embankment or dispose within the freehaul distance of 1.5km	m³	178			
	8.3.3	b) Extra-over items D1.3 for excavation in:					
D1.4		Intermediate material	m³	66			
D1.5		Hard rock material	m³	33			
	8.3.4	Cut to fill					
D1.6		a) 150mm compacted to 93% Mod. AASHTO maximum density	m³	88			
	8.3.5	Construct Selected Layer with Material from Commercial Source					
D1.7		Type G6 material 150mm compacted to 95% Mod. AASHTO maximum density	m³	88			
	8.3.6	Extra- over item 8.3.4 and 8.3.5 for excavation in:					
D1.8		(a) Intermediate material	m³	33			
D1.9		(b) Hard rock material	m³	15			
	8.3.7	Cut to spoil from					
D1.10		(a) Soft Excavation	m³	30			
D1.11		(b) Intermediate material	m³	50			
D1.12		(c) Hard rock material	m³	10			
	8.3.13	Surface Finishings					
D1.13		a) Topsoiling	m²	175			
D1.14		b) Grassing (Kikuyu cuttings including maintaining for duration					
		of contract)	m²	175			
D2	SANS 1200 ME	SUBBASE					
Total Carried Forward							

EARTHWORKS (Roads, Subgrade)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
	8.3.3	Construct Subbase with Material from Commercial Source					
D2..1		a) Lower Subbase G5 material stabilized to C4 with 3% Portland Cement and 150mm layer thickness compacted to 95-97% Mod AASHTO maximum density	m³	88			
D2.2		b) Upper subbase G4 material stabilized to C4 with 3% Portland Cement and 150mm layer thickness compacted to 97% Mod AASHTO maximum density	m³	88			
	8.3.5	Process subbase material by the following processes and use as base					
D2.3		(d) Stabilization	m³	88			
	8.3.8	Stabilizing Agent					
D2.4		(b) Portland Cement	t	7			
Total Carried Forward to Summary							

CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
E1	SANS 1200 G	CONCRETE (STRUCTURAL)					
	8.4	Concrete					
	8.4.2	Blinding layer in 15 MPa/19 mm concrete					
E1.1		50 mm minimum thickness	m²	85			
E1.2	PSG 8.4.7	10MPA no-fines concrete layer 75mm topped with plaster	m²	5			
	8.4.3	Strength concrete: 30 MPa/19mm					
E1.3		Base	m³	40			
E1.4		Column	m³	4			
E1.5		Concrete compressive strength tests on 150mm concrete					
		cubes. The rate shall include for storing, packing,					
		dispatching to approved Laboritory and for having the cube					
		tested for compressive strength.	No.	110			
	8.2	Formwork					
	8.2.1	Rough walls below ground					
E1.6		Vertical concrete footings	m²	50			
	8.2.2	Smooth vertical plane to:					
E1.7		Rectangular formwork for columns	m²	33			
	8.3	Reinforcement					
	8.3.1	High-tensile steel bars					
E1.8		a) 25mm	t	0			
E1.9		b) 20 mm	t	2			
E1.10		c) 16 mm	t	2			
E1.11		d) 12 mm	t	1			
E1.12		e) 10 mm	t	1			
	8.3.1	Mild-tensile steel bars					
E1.13		a) 8 mm	t	0			
	8.8	Miscellaneous Metal					
Total Carried Forward							

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward							
		Supply and installation of a 400kl , 9m High Elevated tank (Abeco tanks or similar approved) Carry out the following operation as applicable: Design, prepare drawings, check design calculations, manufacture, supply , deliver , excavate, install construct, backfill, paint, finish items, Commission, test, and attend to defects for the following:					
E1.14		1.22m (Head) Hot dipped galvanised sectional bolted water storage tank including tank stand & mechanical level indicator, excluding pipework, valves, civil works, foundation, holding down bolts (Abeco Tanks or similar approved)	No.	1			
E1.16		Supply and install Base plate 420 x 420 x30	No.	9			
E1.17		Supply and install holding down bolts & nuts (M24) and cast in concrete	No.	36			
E1.18		Pipework including valves for Inlet, outlet, scour and overflow	Sum	1			
E1.19		Test structure fo water tightness; Allow for filling reservoir once with clean water	Sum	1			
E1.20		Disinfect structure; Supply 150g of Calacium Hypochloride per cubic metre of water	Sum	1			
E1.21		100mm Water Meter Doubling Flanged Flowmetrix Magnetic Batmag flowmeter with AMR	No.	1			
E1.22		Supply, Deliver and Install Precast Concrete Manholes 1.2m diameter and 1.5m deep with 19mm Crusher stone 250mm deep floor, Cover slab and Lidover pipe for flow meters or valves.	No.	1			
E1.23		Construct new Guard house complete as per drawing	PC Sum	1	410,000	410,000	00
Total Carried Forward to Summary							

SCHEDULE 7 ELEVATED STEE TANK

ACCESS ROAD SCHUIZENDAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
F1	SANS 1200 C	SITE CLEARANCE					
F 1.1	8.2.1	Clear and grub	ha	0.3			
F2	SANS 1200 DM	EARTHWORKS (Roads, Subgrade)					
F2.1	8.3.2 (a)	Remove topsoil to nominal depth 150mm, stockpile, and maintain, spoil at the designated spoil site	m²	530			
	8.3.3	Treatment of Roadbed					
	8.3.3 (a)	Roadbed preparation and compaction of insitu material to					
F2.2		(1) 150mm compacted to 90% mod AASHTO maximum density	m³	80			
F2.3	8.3.3 (b)	(1) In place treatment of roadbed in intermediate or hard rock material by ripping	m³	22			
F2.4	8.3.5	Selected Layer 150mm G6 compacted to 93% of mod AASHTO maximum density	m³	80			
F3	SANS 1200 MF	BASE					
	8.3.3	Construct base with material from commercial sources					
F3.1		(a) Gravel Material G3 (150mm Layer Thickness)	m³	132			
Total Carried Forward to Summary							

SCHEDULE 7 SCHUIZENDAL ELEVATED STEE TANK

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1	SITE CLEARANCE	
2	EARTHWORKS (Roads, Subgrade)	
3	CONCRETE (STRUCTURAL)	
4	ACCESS ROAD	
TOTAL CARRIRED FORWARD TO SUMMARY OF SCHEDULES		

SUMMARY OF SCHEDULES

SCHEDULE	DESCRIPTION	AMOUNT (RAND)
1	PRELIMINARY & GENERAL	
2	WATER TREATMENT WORKS PHASE 1A	
3	PUMPSTATION	
4	WATER TREATMENT WORKS PHASE 4	
5	MIDDLEPLAAS PIPELINE	
6	MIDDLEPLAAS PUMPSTATION	
7	SCHUIZENDAL ELEVATED STEEL TANK	
	SUBTOTAL A: SUB-TOTAL SCHEDULES	
	CONTRACT SKILL DEVELOPMENT GOAL (CSDG) 0.25% OF SUB-TOTAL A	
	SUBTOTAL B: SCHEDULES AND CSDG	
	PLUS 10% CONTINGENCIES	
	SUBTOTAL C	
	PROVISIONAL ALLOWANCE FOR CONTRACT PRICE ADJUSTMENT (7.5%) OF SUB-TOTAL C	
	SUBTOTAL D	
	ADD 15% VALUE ADDED TAX	
TOTAL CARRIED FORWARD TO FORM OF OFFER		

C2.3: DAYWORK SCHEDULE

The Tenderer must insert in this Day Work Schedule the percentages which he proposes to claim for labour and on the actual nett cost of materials and must state the rates for the use of such Construction Equipment as he proposes to have available upon the Site to use for day work. (See Clause 6.5.1 of the General Conditions of Contract).

The labour and materials percentages, and rates of hire quoted will be held to include for all items as detailed in Civil Engineering Quantities 1990, Chapter 8 Sub-clauses 8.3 and 8.4.

Rates for the use of Construction Equipment must be the overall charge, excluding VAT, to the Employer.

(a) Labour:

Percentage allowance on gross remuneration of workmen actually engaged _____.%

(b) Material:

Percentage allowance on nett cost of materials delivered on Site _____%

(c) Construction Equipment:

Construction Equipment: (insert details)	**Hourly rate** (Excluding VAT) **R**	**C**

Date: _____ Signed on behalf of the Tenderer: _____

NOTES: (i) If the percentage allowances are not stated by the Tenderer in (a) and (b) above, or in the Contract Data, the percentages will be held to be:
15% on the gross remuneration of workmen actually engaged,
15% on the nett cost of materials.

(ii) Payments under Items (a) and (b) above will not be subject to price adjustment, but payments based on the rates under Item (c) will be adjusted in terms of Clause 6.8.2 of the General Conditions of Contract.