



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TENDER NO: H20/026AI

CLOSING DATE: 7 APRIL 2021 @ 11:00

PROCUREMENT DOCUMENTS

**VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER
FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL,
ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36
MONTHS
(APPOINTMENT OF A CONTRACTOR)**

VOLUME 2 of 3 – RETUNABLE DOCUMENTS

March 2021

**ISSUED BY:
NATIONAL DEPARTMENT OF PUBLIC
WORKS, PRETORIA HEAD OFFICE
CGO BUILDING
CNR BOSMAN AND MADIBA STREET,
PRETORIA**

**PROJECT MANAGER:
Dumisani Mabunda**

NAME OF TENDERER: _____.

T2.1

LIST OF RETURNABLE DOCUMENTS

PA-09 (EC): LIST OF RETURNABLE DOCUMENTS

Project title:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)		
Tender / Quote no:	H20/026AI	Reference no:	WCS 055340
Receipt Number:			

1. RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Form of Offer and Acceptance (DPW-07 EC)	4 Pages	Yes
Declaration of Interest and Tenderer's Past Supply Chain Management Practices (PA-11)	4 Pages	Yes
Submission of (PA-29): Certificate of Independent Bid Determination	4 Pages	Yes
Resolution of Board of Directors (PA-15.1) <i>(if applicable)</i>	1 Page	Yes
Resolution of Board of Directors to enter into Consortia or JV's (PA-15.2) <i>(if applicable)</i>	2 Pages	Yes
Special Resolution of Consortia or JV's (PA-15.3) <i>(if applicable)</i>	3 Pages	Yes
Site Inspection Meeting Certificate (DPW-16 EC) <i>(if applicable)</i>	1 Page	Yes
Particulars of Tenderer's Projects (DPW-09 EC)		

2. ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also F.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Any <u>additional</u> information required to complete a risk assessment <i>(if applicable)</i>	-	Yes

3. RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also F.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Record of Addenda to tender documents (DPW-21 EC) <i>(if applicable)</i>	1 Page	Yes
Schedule of proposed sub-contractors (DPW-15 EC) <i>(if applicable)</i>	1 Page	Yes

Particulars of Electrical Contractor (DPW-22 EC) <i>(if applicable)</i>	1 Page	Yes
Mechanical / Electrical / Security Work material and equipment schedules <i>(if applicable)</i>	Pages	Yes
Schedule for Imported Materials and Equipment (DPW-23 EC) <i>(if applicable)</i>	1 Page	Yes

4. OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

(Insert a tick in the "Returnable document" column to indicate which documents must be returned with the tender)

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts)	Pages	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Declaration Certificate for Local Production and Content for Designed sectors (PA 36 including Annexure C)</i>	10 Pages	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<i>Annexure A of plant and equipments</i>	3 Pages	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Pages	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Pages	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

5. ADDITIONAL INFORMATION THAT MAY BE REQUIRED FOR TENDER EVALUATION PURPOSES

Legal Status of Tendering Entity: If the Tendering Entity is:	Documentation to be submitted with the tender, or which may be required during the tender evaluation:
a. A close corporation, incorporated prior to 1 May 2011 under the Close Corporations Act, 1984 (Act 69 of 1984, as amended)	Copies of the Founding Statement – CK1
b. A profit company duly registered as a private company. [including a profit company that meets the criteria for a private company, whose Memorandum of Incorporation states that the company is a personal liability company in terms of Section 8(2)(c) of the Companies Act, 2008 (Act 71 of 2008, as amended)].	Copies of: i. Certificate of Incorporation – CM1; ii. Shareholding Certificates of all Shareholders of the company, plus a signed statement of the company's Auditor, certifying each Shareholder's ownership / shareholding percentage relative to the total; and/or iii. Memorandum of Incorporation in the case of a personal liability company.
c. A profit company duly registered as a private company in which any, or all, shares are held by one or more other close corporation(s) or company(ies) duly registered as profit or non-profit company(ies).	Copies of documents referred to in a. and/or b. above in respect of all such close corporation(s) and/or company(ies).
d. A profit company duly registered as a public company.	Copy of Certificate of Incorporation – CM1, and a signed statement of the company's Secretary or Auditor confirming that the company is a public company.



e. A non-profit company, incorporated in terms of Section 10 and Schedule 1 of the Companies Act, 2008 (Act 71 of 2008, as amended).	Copies of: i the Founding Statement – CK1; and ii the Memorandum of Incorporation setting out the object of the company, indicating the public benefit, cultural or social activity, or communal or group interest.
f. A natural person, sole proprietor or a Partnership	Copy(ies) of the Identity Document(s) of: i. such natural person/ sole proprietor, or each of the Partners to the Partnership.
g. A Trust	Deed of Trust duly indicating names of the Trustee(s) and Beneficiary (ies) as well as the purpose of the Trust and the mandate of the Trustees.

Signed by the Tenderer

Name of representative	Signature	Date

C1.1

FORM OF OFFER

AND

ACCEPTANCE

DPW-07 (EC): FORM OF OFFER AND ACCEPTANCE

Project title:	<i>VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)</i>		
Tender no:	<i>H20/026AI</i>	Reference no:	<i>WCS 055340</i>

OFFER

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

VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)

The Tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, 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 TOTAL OFFER INCLUSIVE OF ALL APPLICABLE TAXES (All applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies) IS :

Rand (in words):	
Rand in figures:	R

The award of the tender may be subjected to further price negotiation with the preferred tenderer(s). The negotiated and agreed price will be considered for acceptance as **a firm and final offer.**

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 the conditions of contract identified in the contract data.

THIS OFFER IS MADE BY THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)

Company or Close Corporation: And: Whose Registration Number is: And: Whose Income Tax Reference Number is: CSD supplier number:.....	OR	Natural Person or Partnership: Whose Identity Number(s) is/are: Whose Income Tax Reference Number is/are: CSD supplier number:.....
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AND WHO IS (if applicable):

Trading under the name and style of:

AND WHO IS:

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

Represented herein, and who is duly authorised to do so, by: Mr/Mrs/Ms: In his/her capacity as:	Note: A Resolution / Power of Attorney, signed by all the Directors / Members / Partners of the Legal Entity must accompany this Offer, authorising the Representative to make this offer.
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Tender no: **H20/026AI**

SIGNED FOR THE TENDERER:

Name of representative	Signature	Date

WITNESSED BY:

Name of witness	Signature	Date

This Offer is in respect of: (Please indicate with an "X" in the appropriate block)

The official documents

The official alternative IN.

Own alternative (only if documentation makes provision therefore) ..

SECURITY OFFERED:

- (a) the Tenderer accepts that in respect of contracts up to R1 million, a payment reduction** of 5% of the contact value (excluding VAT) will be applicable and will be deducted by the Employer in terms of the applicable conditions of contract
- (b) in respect of contracts above R1 million, the Tenderer offers to provide security as indicated below:
 - (1) cash deposit of 10 % of the Contract Sum (excluding VAT) Yes No
 - (2) variable construction guarantee of 10 % of the Contract Sum (excluding VAT) Yes No
DPW-10.3 EC (JBCC)
 - (3) payment reduction of 10% of the value certified in the payment certificate (excluding VAT) Yes No
 - (4) cash deposit of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes No
 - (5) fixed construction guarantee of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes No
select

NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Short-Term Insurance Act, 1998 (Act 35 of 1998) or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

The Tenderer elects as its *domicilium citandi et executandi* in the Republic of South Africa, where any and all legal notices may be served, as (physical address):

.....

Other Contact Details of the Tenderer are:

Telephone No..... Cellular Phone No.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention" Page 2 of 4

Fax No

Postal address

Banker Branch.....

Registration No of Tenderer at Department of Labour

CIDB Registration Number:

Tender no: H20/026AI

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

- Part 3 Scope of work.
- Part 4 Site information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and 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 1 Agreement and contract data, (which includes this agreement)
- Part 2 Pricing data

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 bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect, if delivered by hand on the day of delivery, or if delivered by courier within two working days after submission by the Employer to the courier services for a door-to-door delivery to the Tenderer, provided that the Employer notifies the Tenderer of the tracking number within 24 hours of such submission. Unless the Tenderer (now Contractor) within seven working days of the date of such submission 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:

Name of signatory	Signature	Date

Name of Organisation:	Department of Public Works
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*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention" Page 3 of 4

Address of Organisation:	
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WITNESSED BY:

Name of witness	Signature	Date

Tender no: H20/026A/

Schedule of Deviations

1.1.1. Subject:	
Detail:	
1.1.2. Subject:	
Detail:	
1.1.3. Subject:	
Detail:	
1.1.4. Subject:	
Detail:	
1.1.5. Subject:	
Detail:	
1.1.6. Subject:	
Detail:	

By the duly authorised 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 tender 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.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

T2.2

**RETURNABLE DOCUMENTS REQUIRED
FOR TENDER
EVALUATION PURPOSES**

PA-11: DECLARATION OF INTEREST AND BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

Failure to complete this form in full and signed by the duly authorized person, as indicated on PA-15.1 or PA-15.3, shall render the tender non-responsive and will be removed from any and all further contention.

Project title:	<i>VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)</i>		
Bid no:	<i>H20/026AI</i>	Reference no:	<i>WCS 055340</i>

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

1. CIDB REGISTRATION NUMBER (if applicable)

2. Any legal person, including persons employed by the State¹; or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest, where:

- The bidder is employed by the state; and/or
- The legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

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

- 3.1 Full Name of bidder or his or her representative:
- 3.2 Identity number:.....
- 3.3 Position occupied in the Company (director, trustees, shareholder² ect
- 3.4 Company Registration Number:
- 3.5 Tax Reference umber:.....
- 3.6 VAT Registration Number:

3.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

¹ "State" means –

- (a) 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);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

² "Shareholder" means –

- (a) a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercise control over the enterprise

3.7 Are you or any person connected with the bidder presently employed by the state? YES NO

3.7.1 If so, furnish the following particulars:

Name of person / director / trustees / shareholder / member:

Name of state institution at which you or the person is connected to the bidder is employed

Position occupied in the state institution:

Any other particulars:

.....

3.8 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? YES NO

3.8.1 If so, furnish particulars:

3.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid? YES NO

3.9.1 If so, furnish particulars.

.....

3.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between the bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid? YES NO

3.10.1 If so, furnish particulars.

.....

3.11 Do you or any of the directors /trustees/shareholders/ members of the company have any interest in any other related companies whether or not they are bidding for this contract? YES NO

3.11.1 If so, furnish particulars:

.....

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

Full Name	Identity Number	Personal Tax Reference Number	State Employee Number / Pearsal Number

5. DECLARATION OF TENDERER / BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

5.1	<i>Is the tenderer / bidder or any of its directors listed on the National Treasury's database as companies or persons prohibited from doing business with the public sector?</i> (Companies or persons who are listed on this database were	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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	informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).		
5.2	<i>If so, furnish particulars:</i>		
5.3	<p><i>Is the tenderer / bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</i></p> <p>To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.</p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.4	<i>If so, furnish particulars:</i>		
5.5	<p><i>Was the tenderer / bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?</i></p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.6	<i>If so, furnish particulars:</i>		
5.7	<p><i>Was any contract between the tenderer / bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?</i></p>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.8	<i>If so, furnish particulars:</i>		

6. 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.

Name of Tenderer / bidder	Signature	Date	Position

This form has been aligned with SBD4 and SBD 8

PA- 29: CERTIFICATION OF INDEPENDENT BID DETERMINATION

Project title:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)		
Bid no:	H20/026AI	Reference no:	WCS 055340

INTRODUCTION

1. This PA-29 [Certificate of Independent Bid Determination] must form part of all bids¹ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution’s supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
4. This form (PA-29) serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (PA-29) must be completed and submitted with the bid:

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

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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

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

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate.
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder.
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder.
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

- (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No

89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public

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

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.

Name of Bidder	Signature	Date	Position

PA-15.1: RESOLUTION OF BOARD OF DIRECTORS

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

_____ (legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ (place)

on _____ (date)

RESOLVED that:

- The Enterprise submits a Bid / Tender to the Department of Public Works in respect of the following project:

_____ (project description as per Bid / Tender Document)

Bid / Tender Number: _____ (Bid / Tender Number as per Bid / Tender Document)

- *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

be, and is hereby, authorised to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid / Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

15			
16			
17			
18			
19			
20			

The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed.

Note:

- * Delete which is not applicable.*
- NB:** *This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.*
- In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).*
- Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).*
- Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.*

ENTERPRISE STAMP



PA-15.2: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the Department of Public Works in respect of the following project:

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ *(Bid / Tender Number as per Bid / Tender Document)*

2. *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ *(Position in the Enterprise)*

and who will sign as follows: _____

be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.

4. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

Physical address: _____

_____ (code)



Postal Address: _____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed

Note:

- * Delete which is not applicable.
- NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.
- In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).
- Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
- Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

ENTERPRISE STAMP

PA-15.3: SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly bid for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Consortium/Joint Venture)*

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Held at _____ *(place)*

on _____ *(date)*

RESOLVED that:

RESOLVED that:

- A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the Department of Public Works in respect of the following project:

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ *(Bid / Tender Number as per Bid /Tender Document)*

B. *Mr/Mrs/Ms: _____
in *his/her Capacity as: _____ (Position in the Enterprise)
and who will sign as follows: _____

be, and is hereby, authorised to sign the Bid, and any and all other documents and/or correspondence in connection with and relating to the Bid, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid to the Enterprises in Consortium/Joint Venture mentioned above.

C. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of:

D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.

E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.

F. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address: _____

_____ (code)

Postal Address: _____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. *Delete which is not applicable.
2. **NB:** This resolution must be signed by all the Duly Authorised Representatives of the Legal Entities to the consortium/joint venture submitting this tender, as named in item 2 of Resolution PA-15.2.
3. Should the number of the Duly Authorised Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.
4. Resolution PA-15.2, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture, must be attached to this Special Resolution (PA-15.3).

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

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

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

1. GENERAL CONDITIONS

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

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

1.2.

a) The value of this bid is estimated to **exceed/not exceed** R50 000 000 (all applicable taxes included) and therefore the preference point system shall be applicable; or

b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).

1.3. Points for this bid shall be awarded for:

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

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

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

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

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

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
- | | | |
|----|---|----------------------|
| 1) | certificate issued by an authorized body or person; | B-BBEE Status level |
| 2) | prescribed by the B-BBEE Codes of Good Practice; | A sworn affidavit as |
| 3) | requirement prescribed in terms of the B-BBEE Act; | Any other |
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

3.1. THE 80/20 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	
$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$	or	$P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$	

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{min} = Price of lowest acceptable bid

Any reference to words “Bid” or Bidder” herein and/or in any other documentation shall be construed to have the same meaning as the words “Tender” or “Tenderer”.

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

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

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

5. BID DECLARATION

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

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

1.1. B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

7. SUB-CONTRACTING

1.1. Will any portion of the contract be sub-contracted?

(Tick applicable box)

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

7.1.1 If yes, indicate:

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

(Tick applicable box)

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

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

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

8. DECLARATION WITH REGARD TO COMPANY/FIRM

1.1. Name of company/firm:.....

1.2. VAT registration number:.....

1.3. Company registration number:.....

1.4. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
 - One person business/sole propriety
 - Close corporation
 - Company
 - (Pty) Limited
- [TICK APPLICABLE BOX]

1.5. DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

1.6. COMPANY CLASSIFICATION

- Manufacturer
 - Supplier
 - Professional service provider
 - Other service providers, e.g. transporter, etc.
- [TICK APPLICABLE BOX]

1.7. Total number of years the company/firm has been in business:.....

1.8. I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution.

WITNESSES

.....

DPW-09 (EC): PARTICULARS OF TENDERER'S PROJECTS

Project title:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)		
Tender / quotation no:	H20/026A1	Closing date:	29 March 2021
Advertising date:	05 March 2021	Validity period:	56 days

1. PARTICULARS OF THE TENDERER'S CURRENT AND PREVIOUS COMMITMENTS

1.1. Current projects

Projects currently engaged in	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commencement date	Contractual completion date	Current percentage progress
1						
2						
3						
4						
5						
6						
7						
8						

1.2. Completed projects

Projects completed in the previous 5 (five) years	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commencement date	Contractual completion date	Date of Certificate of Practical Completion
1						
2						
3						
4						
5						
6						
7						
8						
9						

Name of Tenderer	Date
Signature	

T2.2

**RETURNABLE DOCUMENTS
THAT WILL BE INCORPORATED
INTO THE CONTRACT**

DPW-21 (EC): RECORD OF ADDENDA TO TENDER DOCUMENTS

Project title:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)		
Tender no:	H120/026AI	Reference no:	WCS 055340

1. I / We confirm that the following communications received from the Department of Public Works before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer: *(Attach additional pages if more space is required)*

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

Name of Tenderer	Signature	Date

2. I / We confirm that no communications were received from the Department of Public Works before the submission of this tender offer, amending the tender documents.

Name of Tenderer	Signature	Date



ANNEXURE A OF PLANT AND EQUIPMENTS

NOTE 1: FAILURE TO COMPLETE AND SUBMIT THIS FORM WILL RESULT BIDDERS NOT TO BE SCORED FOR FUNCTIONALITY CRITERIA NO. 4

NOTE 2: BIDDERS ARE NOT ALLOWED TO REPLICATE THIS ANNEXURE A

NOTE 3: IF ITEMS MARKED OWNED/RENTED ON ANNEXURE A PROOF MUST BE PROVIDED

Project	<i>Land Ports of entry: Vanrooyenshek: Appointment of a service provider for the maintenance and repairs of building, civil, mechanical, electrical infrastructure and installations for a period of 36 months</i>
----------------	---

INDICATE WHETHER THE PLANT/ EQUIPMENT WILL BE INSOURCED OR OUTSOURCED AND PROVIDE PROOF

DESCRIPTION	QUANTITY	OWNED	RENTED
Instrumentation for testing of drinking water			
Bench top potentiometer, accurate and precise to at least 0,1 pH unit, including reference electrode and glass sensor or combination electrode;	1		
Electrical conducting meter, with error not exceeding 1 % or 0,1 m S/m;	1		
Thermometer covering the range $23\text{ }^{\circ}\text{C} < T < 27\text{ }^{\circ}\text{C}$ accurate and capable of being read to the nearest 0,1 $^{\circ}\text{C}$;	1		
3 x 1 000 millilitre Imhoff cones with wooden rack;	1		

5 x 1 000 millilitre glass bottles with ground stopper;	1		
Turbidity meter	1		
2 x 500 millilitre volumetric flasks	1		
3 x pipettes (glass)	1		
5 x 500ml glass beakers	1		
2 x 1000ml plastic beakers	1		
3 x 1000ml graduated measuring cylinder	1		
Instrumentation for testing of waste water	Quantity	OWNED	RENTED
Bench top potentiometer, accurate and precise to at least 0,1 pH unit, including reference electrode and glass sensor or combination electrode	1		
Electrical conducting meter, with error not exceeding 1 % or 0,1 m S/m	1		
Turbidity meter	1		
Magnetic stirrer with PTFE (Teflon) stirring bars;	1		
Utility Vehicles	Quantity	OWNED	RENTED
TLB's	1		
Trucks	1		
LDV's	2		
Machinery/ Equipment	Quantity	OWNED	RENTED
Excavator	1		
Sludge pump	1		
Apparatus for performing percolation tests	1		
Hand tools	Quantity	OWNED	RENTED
Wheel barrows	4		
Tool boxes with hammers, Pliers, Screwdrivers, spanners etc.	4		
Tools to lower the High Masts for servicing of the light fittings	3		
Step ladders	3		

NAME OF REPRESENTATIVE:	SIGNATURE:	DATE:
---	----------------------------	-----------------------

DPW-15 (EC): SCHEDULE OF PROPOSED SUBCONTRACTORS

Project title:	<i>VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)</i>		
Tender no:	<i>H20/026A1</i>	Reference no:	<i>WCS 055340</i>

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

We confirm that all subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor
1			
2			
3			
4			
5			

Name of representative	Signature	Capacity	Date

Name of organisation:	
------------------------------	--

DPW-22 (EC): PARTICULARS OF ELECTRICAL CONTRACTOR

Project title:	<i>VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)</i>		
Tender no:	H20/026AI	Reference no:	WCS 055340

Name of Electrical Contractor:	
Address:	
Electrical Contractor registration number at the Electrical Contracting Board of S.A.:	

Name of Tenderer	Signature	Date

DPW-23 (EC): SCHEDULE FOR IMPORTED MATERIALS AND EQUIPMENT

Project title:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS (APPOINTMENT OF A CONTRACTOR)		
Tender no:	H20/026A1	Reference no:	WCS 055340

This schedule should be completed by the tenderer. *(Attach additional pages if more space is required)*

Item	Material / Equipment	Rand (R) (Excluding VAT)
1.		R
2.		R
3.		R
4.		R
5.		R
6.		R

The Contractor shall list imported items, materials and/or equipment which shall be excluded from the Contract Price Adjustment Provisions (if applicable) and shall be adjusted in terms of currency fluctuations only. Copies of the supplier's quotations for the items, materials or equipment (provided that such costs shall not be higher than the relevant contract rate as listed above) should be lodged with the Principal Agent / Engineer of the Department of Public Works within 60 (sixty) days from the date of acceptance of the tender. No adjustment of the local VAT amount, nor the contractor's profit, discount, mark-up, handling costs, etc. shall be allowed.

These net amounts will be adjusted as follows:

FORMULA:

The net amount to be added to or deducted from the contract sum:

$$A = V \left(\frac{Z}{Y} - 1 \right)$$

A = the amount (R) of adjustment

V = the net amount (supplier's quotation) (R) of the imported item

Y = exchange rate at the closing date of tender submission

Z = exchange rate on the date of payment.

Name of Tenderer	Signature	Date



**REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF PUBLIC WORKS**

SPECIFICATION

FOR

THE ELECTRICAL INSTALLATION

AT

VAN ROOYENSHEK: APPOINTMENT OF A SERVICE

**PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL,
MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR
A PERIOD OF 36 MONTH (APPOINTMENT OF CONTRACTOR):**

CONSISTING OF:	ELECTRICAL WORK	PG
1:	Electrical Installation	1 to 40

See separate documents for:

**Technical & Particular
specification. BOOK 2 OF 2**

ELECTRICAL ENGINEER

BVi Consulting Engineers
Contact: Johan Boshoff
P.O. Box 12441
BRANDHOF
9324

Tel. No. (051) 447-2137

FEB 2021

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PART B: ELECTRICAL WORK**NOTICE TO TENDERERS**

1. The tenderer for the principal contract shall submit additional information regarding the installer of the Electrical Installation together with the returnables enclosed with the tender enquiry documents
2. The Contractor, on acceptance of his tender for the principal contract shall submit within the period stated, the information indicated on the forms following immediately after the Summary of the Bills of Quantities for this installation.

SPECIFICATION FOR ELECTRICAL WORK

PART 1 - GENERAL

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PART 1 - GENERAL

1 TESTS

After completion of the works and before practical completion is achieved, a full test will be carried out on the installation for a period of sufficient duration to determine the satisfactory working thereof. During this period the installations will be inspected and the Contractor shall make good, to the satisfaction of the Principle Agent/Electrical Engineer or the employer, any defects which may arise.

The Contractor shall provide all instruments and equipment required for testing and any water, power and fuel required for the commissioning and testing of the installations at completion.

2 MAINTENANCE OF INSTALLATIONS

With effect from the date of the Practical completion Certificate the Contractor shall at his own expense undertake the regular servicing of the installation during the maintenance period and shall make all adjustments necessary for the correct operation thereof.

If during the said period the installations is not in working order for any reason for which the Contractor is responsible, or if the installations develops defects, he shall immediately upon being notified thereof take steps to remedy the defects and make any necessary adjustments.

Should such stoppages however be so frequent as to become troublesome, or should the installations otherwise prove unsatisfactory during the said period the Contractor shall, if called upon by the Principle Agent/Electrical Engineer or the Employer, at his own expense replace the whole of the installations or such parts thereof as the Principal Agent/Electrical Engineer or the Employer may deem necessary with apparatus specified by the Principal Agent/Electrical Engineer or the Employer.

3 REGULATIONS

The installation shall be erected and tested in accordance with the Acts and Regulations as indicated in the scope of works

4 NOTICES AND FEES

The Contractor shall give all notices required by and pay all necessary fees, including any inspection fees, which may be due to the local Supply Authority.

On production of the official account, only the net amount of the fee charged by the Supply Authority for connection of the installation to the supply mains, will be refunded to the Contractor by the Employer.

5 SCHEDULE OF FITTINGS

In all instances where schedule of light, socket outlet and power points are attached to or included on the drawings, these schedules are to be regarded as forming part of the specification and **Technical & Particular specification. BOOK 2 OF 2.**

6 QUALITY OF MATERIALS

Only materials of first class quality shall be used and all materials shall be subject to the approval of the Employer. Departmental specifications for various materials to be used on this Contract are attached to and form part of this specification and Technical & Particular specification BOOK 2 OF 2..

Wherever applicable the material is to comply with the relevant South African Bureau of Standards, specifications, or to IEC Specifications, where no SANS Specifications exist.

Materials wherever possible, must be of South African manufacture.

7 CONDUIT AND ACCESSORIES

The type of conduit and accessories required for the service, i.e. whether the conduit and accessories shall be of the screwed type, plain-end type or of the non-metallic type and whether metallic conduit shall be black enamelled or galvanised, is specified in Part 2 of this specification and Technical & Particular specification BOOK 2 OF 2.

Unless other methods of installation are specified for certain circuits, the installation shall be in conduit throughout. No open wiring in roof spaces or elsewhere will be permitted.

The conduit and conduit accessories shall comply fully with the applicable SANS specifications as set out below and the conduit shall bear the mark of approval of the South African Bureau of Standards.

- a) Screwed metallic conduit and accessories: SANS 61386-1 and 21.
- b) Plain-end metallic conduit and accessories: SANS 61386-1 and 21.
- c) Non-metallic conduit and accessories: SANS 61386-1 and 21.

All conduit fittings except couplings, shall be of the inspection type. Where cast metal conduit accessories are used, these shall be of malleable iron. Zinc base fittings will not be allowed.

Bushes used for metallic conduit shall be brass and shall be provided in addition to locknuts at all points where the conduit terminates at switchboards, switch-boxes, draw-boxes, etc.

Draw-boxes are to be provided in accordance with the "Wiring Code" and wherever necessary to facilitate easy wiring.

For light and socket outlet circuits, the conduit used shall have an external diameter of 20mm. In all other instances the sizes of conduit shall be in accordance with the "Wiring Code" for the specified number and size of conductors, unless otherwise directed in part 2 of this specification and Technical & Particular specification BOOK 2 OF 2 or indicated on the drawings.

Only one manufactured type of conduit and conduit accessories will be permitted throughout the installation.

Running joints in screwed conduit are to be avoided as far as possible and all conduit systems shall be set or bent to the required angles. The use of normal bends must be kept to a minimum with exception of larger diameter conduits where the use of such bends is essential.

All metallic conduit shall be manufactured of mild steel with a minimum thickness of 1,2mm for plain-end conduit and 1,6mm in respect of screwed conduit.

Under no circumstances will conduit having a wall thickness of less than 1,6mm be allowed in screed laid on top of concrete slabs.

Bending and setting of conduit must be done with special bending apparatus manufactured for the purpose and which are obtainable from the manufacturers of the conduit systems. Damage to conduit resulting from the use of incorrect bending apparatus or methods applied must on indication by the Department's inspectorate staff, be completely removed and rectified and any wiring already drawn into such damaged conduits must be completely renewed at the Contractor's expense.

Conduit and conduit accessories used for flame-proof or explosion proof installations and for the suspension of luminaires as well as all load bearing conduit shall in all instances be of the metallic screwed type.

All conduit and accessories used in areas within 50 km of the coast shall be galvanised to SANS 32 and SANS 121.

Tenderers must ensure that general approval of the proposed conduit system to be used is obtained from the local electricity supply authority prior to the submission of their tender. Under no circumstances will consideration be given by the Department to any claim submitted by the Contractor, which may result from a lack of knowledge in regard to the supply authority's requirements.

8 CONDUIT IN ROOF SPACES

Conduit in roof spaces shall be installed parallel or at right angles to the roof members and shall be secured at intervals not exceeding 1,5m by means of saddles screwed to the roof timbers.

Nail or crampets will not be allowed. Where non-metallic conduit has been specified for a particular service, the conduit shall be supported and fixed with saddles with a maximum spacing of 450 mm. The Contractor shall supply and install all additional supporting timbers in the roof space as required.

Under flat roofs, in false ceilings or where there is less than 0,9m of clearance, or should the ceilings be insulated with glass wool or other insulating material, the conduit shall be installed in such a manner as to allow for all wiring to be executed from below the ceilings.

Conduit runs from distribution boards shall, where possible terminate in fabricated sheet steel draw-boxes installed directly above or in close proximity to the boards.

9 SURFACE MOUNTED CONDUIT

Wherever possible, the conduit installation is to be concealed in the building work; however, where unavoidable or otherwise specified under Part 2 of the specification and Technical & Particular specification BOOK 2 OF 2, conduit installed on the surface must be plumbed or levelled and only straight lengths shall be used.

The use of inspection bends is to be avoided and instead the conduit shall be set uniformly and inspection coupling used where necessary.

No threads will be permitted to show when the conduit installation is complete, except where running couplings have been employed.

Running couplings are only to be used where unavoidable, and shall be fitted with a sliced couplings as a lock nut.

Conduit is to be run on approved spaced saddles rigidly secured to the walls.

Alternatively, fittings, tees, boxes, couplings etc., are to be cut into the surface to allow the conduit to fit flush against the surface. Conduit is to be bedded into any wall irregularities to avoid gaps between the surface and the conduit.

Crossing of conduits is to be avoided, however, should it be necessary purpose-made metal boxes are to be provided at the junction. The finish of the boxes and positioning shall be in keeping with the general layout.

Where several conduits are installed side by side, they shall be evenly spaced and grouped under one purpose-made saddle.

Distribution boards, draw-boxes, industrial switches and socket outlets etc., shall be neatly recessed into the surface to avoid double sets.

In situations where there are no ceilings the conduits are to be run along the wall plates and the beams.

Painting of surface conduit shall match the colour of the adjacent wall finishes.

Only approved plugging materials such as aluminium inserts, fibre plugs, plastic plugs, etc., and round-head screws shall be used for fixing saddles, switches, socket outlets, etc., to walls, wood plugs and the plugging in joints in brick walls are not acceptable.

10 CONDUIT IN CONCRETE SLABS

In order not to delay building operations the Contractor must ensure that all conduits and other electrical equipment which are to be cast in the concrete columns and slabs are installed in good time.

The Contractor shall have a representative in attendance at all times when the casting of concrete takes place.

Draw-boxes, expansion joint boxes and round conduit boxes are to be provided where necessary. Sharp bends of any nature will not be allowed in concrete slabs.

Draw and/or inspection boxes shall be grouped under one common cover plate, and must preferable be installed in passages or male toilets.

All boxes, etc., are to be securely fixed to the shuttering to prevent displacement when concrete is cast. The conduit shall be supported and secured at regular intervals and installed as close as possible to the neutral axis of concrete slabs and/or beams.

Before any concrete slabs are cast, all conduit droppers to switchboards shall be neatly spaced and rigidly fixed.

11 FLEXIBLE CONNECTIONS FOR CONNECTING UP OF STOVES, MACHINES, ETC.

Flexible tubing connections shall be of galvanised steel construction, and in damp situations of the plastic sheathed galvanised steel type. Other types may only be used subject to the prior approval of the Department's site electrical representative.

Connectors for coupling onto the flexible tubing shall be of the gland or screw-in types, manufactured of either brass or cadmium or zinc plated mild steel, and the connectors after having been fixed onto the tubing, shall be durable and mechanically sound.

Aluminium and zinc alloy connectors will not be acceptable.

12 WIRING:

Except where otherwise specified in Part 2 of this specification and Technical & Particular specification BOOK 2 OF 2, wiring shall be carried out in conduit throughout. Only one circuit per conduit will be permitted.

No wiring shall be drawn into conduit until the conduit installation has been completed and all conduit ends provided with bushes. All conduits to be clear of moisture and debris before wiring is commenced.

Unless otherwise specified in Part 2 of this specification and Technical & Particular specification BOOK 2 OF 2 or indicated on the service drawings, the wiring of the installation shall be carried out in accordance with the "Wiring Code". Further to the requirements concerning the installation of earth conductors to certain light points as set out in the "Wiring Code", it is a specific requirement of this document that where plain-end metallic conduit or non-metallic conduit has been used, earth conductors must be provided and drawn into the conduit with the main conductors to all points, including all luminaires and switches throughout the installation.

Wiring for lighting circuits is to be carried out with 2,5mm² conductors and a 2.5mm²-earth conductor. For socket outlet circuits the wiring shall comprise 4mm² conductors and a 2,5mm²-earth conductor. In certain instances, as will be directed in Part 2 of this specification and Technical & Particular specification BOOK 2 OF 2, the sizes of the aforementioned conductors may be increased for specified circuits. Sizes of conductors to be drawn into conduit in all other instances, such as feeders to distribution boards, power points etc., shall be as specified elsewhere in this specification and Technical & Particular specification BOOK 2 OF 2 or indicated on the drawings. Sizes of conductors not specified must be determined in accordance with the "Wiring Code".

The loop-in system shall be followed throughout, and no joints of any description will be permitted.

The wiring shall be done in PVC insulated 600/1000 V grade cable to SANS 1507.

Where cable ends connect onto switches, luminaires etc., the end strands must be neatly and tightly twisted together and firmly secured. Cutting away of wire strands of any cable will not be allowed.

13 SWITCHES AND SOCKET OUTLETS

All switches and switch-socket outlet combination units shall conform to the Department Quality Specification and Technical & Particular specification BOOK 2 OF 2s, which form part of this specification and Technical & Particular specification BOOK 2 OF 2.

No other than 16 A 3 pin sockets are to be used, unless other special purpose types are distinctly specified or shown on the drawings.

All light switches shall be installed at 1,4m above finished floor level and all socket outlets as directed in the Schedule of Fittings which forms part of this specification and Technical & Particular specification BOOK 2 OF 2 or alternatively the height of socket outlets may be indicated on the drawings.

14 SWITCHGEAR

Switchgear, which includes circuit breakers, iron-clad switches, interlocked switch-socket outlet units,

contactors, time switches, etc., is to be in accordance with the Departmental Quality Specification and Technical & Particular specification BOOK 2 OF 2s which form part of this specification and Technical & Particular specification BOOK 2 OF 2 and shall be equal and similar in quality to such brands as may be specified.

For uniform appearance of switchboards, only one approved make of each of the different classes of switchgear mentioned in the Quality Specification and Technical & Particular specification BOOK 2 OF 2s shall be used throughout the installations.

15 SWITCHBOARDS

All boards shall be in accordance with the types as specified, be constructed according to the detail or type drawings and must be approved by the Employer before installation.

In all instances where provision is to be made on boards for the supply authority's main switch and/or metering equipment the contractor must ensure that all requirements of the authorities concerned in this respect are met.

Any construction or standard type board proposed, as an alternative to that specified must have the prior approval of the Employer.

All busbars, wiring, terminals, etc., are to be adequately insulated and all wiring is to enter the switchgear from the back of the board. The switchgear shall be mounted within the boards to give a flush front panel. Cable and boxes and other ancillary equipment must be provided where required.

Clearly engraved labels are to be mounted on or below every switch. The working of the labels in English, is to be according to the lay-out drawings or as directed by the Electrical Engineer and must be confirmed on site. Flush mounted boards to be installed with the top of the board 2,0m above the finished floor level.

16 WORKMANSHIP AND STAFF

Except in the case of electrical installations supplied by a single-phase electricity supply at the point of supply, an accredited person shall exercise general control over all electrical installation work being carried out.

The workmanship shall be of the highest grade and to the satisfaction of the Employer.

All inferior work shall, on indication by the Employer's inspecting officers, immediately be removed and rectified by and at the expense of the Contractor.

17 VERIFICATION AND CERTIFICATION OF ELECTRICAL INSTALLATION (CERTIFICATE OF COMPLIANCE AND TEST REPORT

On completion of the service, a certificate of compliance must be issued to the Principal Agent/Electrical Engineer or Employer in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in the format as set out in SANS 10142-1 & 2.

18 EARTHING OF INSTALLATION

18.1 MAIN EARTHING

The type of main earthing must be as required by the supply authority if other than the Employer, and in any event as directed by the Principal Agent/Electrical Engineer, who may require additional earthing to meet test standards.

Where required an earth mat shall be provided, the minimum size, unless otherwise specified, being 1,0m x 1,0m and consisting of 4mm diameter hard-drawn bare copper wires at 250mm centres, brazed at all intersections.

Alternatively or additionally earth rods or trench earths may be required as specified or directed by the Electrical Engineer.

Installations shall be effectively earthed in accordance with the "Wiring Code" and to the requirements of the supply authority. All earth conductors shall be stranded copper with or without green PVC installation.

Connection from the main earth bar on the main board must be made to the cold water main, the incoming service earth conductor, if any and the earth mat or other local electrode by means of 12mm x 1,60 mm solid copper strapping or 16 mm² stranded (not solid) bare copper wire or such conductor as the Department's representative may direct. Main earth copper strapping where installed below 3m from ground level, must be run in 20 mm diameter conduit securely fixed to the walls.

All other hot and cold water pipes shall be connected with 12mm x 0,8mm perforated for solid copper strapping (not conductors) to the nearest switchboard. The strapping shall be fixed to the pipework with brass nuts and bolts and against walls with brass screws at 150-mm centres. In all cases where metal water pipes, down pipes, flues, etc., are positioned within 1,6m of switchboards an earth connection consisting of copper strapping shall be installed between the pipework and the board. In vertical building ducts accommodating both metal water pipes and electrical cables, all the pipes shall be earthed at each distribution board.

18.2 ROOFS, GUTTERS AND DOWN PIPES

Where service connections consist of overhead conductors, all metal parts of roofs, gutters and down pipes shall be earthed. One bare 10mm² copper conductor shall be installed over the full length of the ceiling void, fixed to the top purlin and connected to the main earth conductor and each switchboard. The roof and gutters shall be connected at 15m intervals to this conductor by means of 12mm X 0,8mm copper strapping (not conductors) and galvanised bolts and nuts. Self-tapping screws are not acceptable. Where service connections consist of underground supplies, the above requirements are not applicable.

18.3 SUB-DISTRIBUTION BOARDS

A separate earth connection shall be supplied between the earth busbar in each sub-distribution board and the earth busbar in the Main Switchboard. These connections shall consist of a bare or insulated stranded copper conductors installed along the same routes as the supply cables or in the same conduit as the supply conductors. Alternatively armoured cables with earth continuity conductors included in the armouring may be utilised where specified or approved.

18.4 SUB-CIRCUITS

The earth conductors of fall sub-circuits shall be connected to the earth busbar in the supply board in accordance with SANS 10142.

18.5 RING MAINS

Common earth conductors may be used where various circuits are installed in the same wire way in accordance with SANS 10142. In such instances the sizes of earth conductors shall be equivalent to that of the largest current carrying conductor installed in the wire way, alternatively the size of the conductor shall be as directed by the Engineer. Earth conductors for individual circuits branching from the ring main shall be connected to the common earth conductor with T-ferrules or soldered. The common earth shall not be broken.

18.6 NON-METALLIC CONDUIT

Where non-metallic conduit is specified or allowed, the installation shall comply with the Department's standard quality specification and Technical & Particular specification BOOK 2 OF 2 for "conduit and conduit accessories".

Standard copper earth conductors shall be installed in the conduits and fixed securely to all metal appliances and equipment, including metal switch boxes, socket-outlet boxes, draw-boxes, switchboards, luminaires, etc. The securing of earth conductors by means of self-threading screws will not be permitted.

18.7 FLEXIBLE CONDUIT

An earth conductor shall be installed in all non-metal flexible conduit. This earth conductor shall not be installed externally to the flexible conduit but within the conduit with the other conductors. The earth conductor shall be connected to the earth terminals at both ends of the circuit.

18.8 CONNECTION

Under no circumstances shall any connection points, bolts, screws, etc., used for earthing be utilised for any other purpose. It will be the responsibility of the Contractor to supply and fit earth terminals or clamps on equipment and materials that must be earthed where these are not provided.

Unless earth conductors are connected to proper terminals, the end shall be tinned and lugged.

19 MOUNTING AND POSITIONING OF LUMINAIRES

The Contractor is to note that in the case of board and acoustic tile ceilings, i.e. as opposed to concrete slabs, close co-operation with the building contractor is necessary to ensure that as far as possible the luminaires are symmetrically positioned with regard to the ceiling pattern.

The layout of the luminaires as indicated on the drawings must be adhered to as far as possible and must be confirmed with the Department's representative.

LED luminaires installed against concrete ceilings shall be screwed to the outlet boxes and in addition 2 x 6mm expansion or other approved type fixing bolts are to be provided. The bolts are to be $\frac{3}{4}$ of the length of the luminaires apart.

LED luminaires to be mounted on board ceilings shall be secured by means of two 40mm x No. 10 round head screws and washers. The luminaires shall also be bonded to the circuit conduit by means of locknuts and brass bushes. The fixing screws are to be placed $\frac{3}{4}$ of the length of the fitting apart.

Earth conductors must be drawn in with the circuit wiring and connected to the earthing terminal of all LED luminaires as well as other luminaires exposed to the weather in accordance with the "Wiring Code".

LED luminaires are to be screwed directly to outlet boxes in concrete slabs. Against board ceilings the luminaires shall be secured to the bracing or joists by means of two 40mm x No. 8 round head screws.

PART 2: INSTALLATION DETAILS

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PART 2: INSTALLATION DETAILS

1 CABLE SLEEVE PIPES

Where cables cross under roadways, other services and where cables enter buildings, the cables shall be installed in earthenware or high-density polyethylene pipes.

The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.

2 NOTICES

The Contractor shall issue all notices and make the necessary arrangements with Supply Authorities, the Postmaster-General, and S.A. Transport Services, Provincial or National Road Authorities and other authorities as may be required with respect to the installation.

3 ELECTRICAL EQUIPMENT

All equipment and fittings supplied must be in accordance with the attached quality specification and Technical & Particular specification BOOK 2 OF 2 (Part 3 of this document), suitable for the relevant supply voltage, and frequency and must be approved by the Employers Electrical Engineer.

4 DRAWINGS

The drawings generally show the scope and extent of the proposed work and shall not be held as showing every minute detail of the work to be executed.

The position of power points, switches and light points that may be influenced by built-in furniture must be established on site, prior to these items being built in.

5 BALANCING OF LOAD

The Contractor is required to balance the load as equally as possible over the multiphase supply.

6 SERVICE CONDITIONS

All plant shall be designed for the climatic conditions appertaining to the service.

7 SWITCHES AND SOCKET OUTLETS

The installation of switches and socket outlets must conform to clause 13 of Part 1 of this specification and Technical & Particular specification BOOK 2 OF 2.

8 LIGHT FITTINGS AND LAMPS

The installation and mounting of luminaires must conform to of this specification and Technical & Particular specification BOOK 2 OF 2. All fittings to be supplied by the Contractor shall have the approval of the Employer.

9 EARTHING AND BONDING

The Contractor will be responsible for all earthing and bonding of the building and installation. The earthing and bonding is to be carried out strictly as described in clause 18 of Part 1 of this specification and Technical & Particular specification BOOK 2 OF 2 and to the satisfaction of the Employer/s Electrical Engineer.

10 MAINTENANCE OF ELECTRICAL SUPPLY

All interruptions of the electrical supply that may be necessary for the execution of the work, will be subject to prior arrangement between the Contractor and the Client and the Employer's Electrical Engineer.

11 EXTENT OF WORK

The work covered by this contract comprises the complete electrical installation, in working order, as shown on the drawings and as per this specification and Technical & Particular specification BOOK 2 OF 2, including the supply and installation of all fittings and also the installation of such equipment supplied by the Employer.

12 SUPPLY AND CONNECTION

The supply will be 400/230 Volt, 50 Hz.

The Contractor will be responsible for the supply and installation of all cables. The size and length of the cable is listed in the Schedule of Cables and measured in the Bills of Quantities.

13 CONDUIT AND WIRING

Conduit and conduit accessories shall be black enameled/galvanized screwed conduit or black enameled/galvanized plain end conduit in accordance with SANS 61386.

All conduits, regardless of the system employed, shall be installed strictly as described in the applicable paragraphs of clauses 4 to 8 of Part 1 of the specification and Technical & Particular specification BOOK 2 OF 2. Wiring of the installation shall be carried out as directed in clause 9 part 1 of this specification and Technical & Particular specification BOOK 2 OF 2.

Where plain end conduit is offered all switches and light fittings must be supplied with a permanent earth terminal for the connection of the earth wire.

Lugs held by switch fixing screws or self tapping screws will not be acceptable.

13.1 Telephone Installation

The Contractor shall allow for the complete installation of all conduits, outlet boxes, the communication service provider Distribution boards, sleeve pipes, etc., required for the telephone system as shown on the drawings.

The sizes of all telephone conduits are indicated on the drawings and must be installed in the floor slab. Galvanized steel draw-wires shall be installed in all conduits.

End boxes must consist of a 50mm x 100 mm x 100mm outlet box fitted with suitable blank cover plates, flush mounted 0,4m above floor level.

The communication service provider Distribution Board must consist of a 150mm x 600mm x 600mm metal box and hinged door with a 20mm thick wooden backboard. The board must be flush mounted, 1,37m above the floor.

13.2 Intercom Installation

(NOT APPLICABLE)

13.3 Power Trunking

The Contractor shall be responsible for the supply and installation of all power trunking complete with corner pieces, end pieces, junction pieces, supply conduits, cover plates and power outlets as specified and indicated on the drawings.

The power trunking must comply with SANS 61084. The Contractor must ensure that the power trunking is installed to satisfaction of the Employer's Electrical Engineer before commencing with the wiring of the power trunking.

14 POWER POINTS

Allow for the installation of power points and equipment as listed in the schedule, indicated on the drawings and described below:

14.1 Water Heaters

The supply, installation and plumbing work shall be the responsibility of the Mechanical Contractor.

The Electrical Contractor must electrically connect all water heaters as specified and listed in the Schedule of Power Points.

The Electrical Contractor must liaise with the Plumbing Contractor with regard to the method of mounting the water heater, water inlet and outlet, drainage valve as well as the electrical connection.

30Amp. 2-pole isolators, as indicated on drawings and Schedule of Power Points, to be used. The isolator shall be suitable for voltages of up to 250V. Isolators to conform fully to SANS 152 as amended. Microgap switches shall be capable of carrying rated current continuously and making and breaking of rated current. Connection will be by means of 2 x 6mm sq insulated conductors and 4mm sq BCEW from the indicated circuit to a 30Amp 2P Isolator.

30Amp. 3-pole isolators, as indicated on drawings and Schedule of Power Points, to be used. The isolator shall be suitable for voltages of up to 250V. Isolators to conform fully to SANS 152 as amended. Microgap switches shall be capable of carrying rated current continuously and making and breaking of rated current. Connection will be by means of 4 x 6mm sq insulated conductors and 4mm sq BCEW from the indicated circuit to a 30Amp 3P Isolator

60Amp. 3-pole isolators, as indicated on drawings and Schedule of Power Points, to be used. The isolator shall be suitable for voltages of up to 250V. Isolators to conform fully to SANS 152 as amended. Microgap switches shall be capable of carrying rated current continuously and making and breaking of rated current. Connection will be by means of 4 x 10mm sq insulated conductors and 6mm sq BCEW from the indicated circuit to a 60Amp 3P Isolator

14.2 Extractor Fans (Bathrooms)

The fans will be supplied and installed by the Mechanical Contractor. All fans will be connected by the Electrical Contractor. Extraction fan connections will be by means of 20mm conduit from the indicated extractor fan circuit to a 100 x 100mm flush mounted outlet box 300mm under the ceiling or at 2400mm where there is no ceiling.

30Amp. 2-pole isolators, as indicated on drawings and Schedule of Power Points, to be used. The isolator shall be suitable for voltages of up to 250V. Isolators to conform fully to SANS 152 as amended. Microgap switches shall be capable of carrying rated current continuously and making and breaking of rated current

Connection will 3 x 4mm sq insulated conductors to end in a 30Amp, 2-P isolator with red indication light on the switched cover plate. Install a 20mm \varnothing conduit from the isolator to the fan and connect with same wiring as being fed.

14.3 Extractor Fans (Canopy)

The fans will be supplied and installed by the Mechanical Contractor. All fans will be connected by the Electrical Contractor. Extraction fan connections will be by means of 25mm conduit from the indicated extractor fan circuit to a 100 x 100mm flush mounted outlet box at the extractor fan motor.

Extraction fans will be by means of new 25mm conduit from the indicated circuit to a 30Amp 3P Isolator mounted inside a weatherproof 100 x 100mm outlet box within arm's reach of fan and to be connected to a 30A 3P DOL starter at 1400mm AFFL specified and indicated on the drawings.

Extraction fans connection will be by means of new 4 x 6mm sq insulated conductors and 4mm sq BCEW from the indicated circuit to a 30Amp 3P Isolator and to the 30A 3P DOL starter.

14.4 Air Conditioners

The supply, installation and plumbing work shall be the responsibility of the a/c contractor.

The electrical contractor must electrically connect all air conditioners as specified and listed

A 30Amp two-pole isolators, as indicated on the drawings and Schedule of Power Points, to be used. Triple pole isolator shall be rated 660V while two pole shall be suitable for voltages up to 250V. All isolators shall

conform fully to SANS 152 as amended. Microgap switches shall be capable of carrying rated current continuously, making, and breaking of rated current.

Connection will be by means of 2 x 4mm sq insulated conductors and 2.5mm sq BCEW from the indicated circuit to a 30Amp 2P Isolator.

A 30Amp three pole isolators, as indicated on the drawings and Schedule of Power Points, to be used. Triple pole isolator shall be rated 660V while two pole shall be suitable for voltages up to 250V. All isolators shall conform fully to SANS 152 as amended. Microgap switches shall be capable of carrying rated current continuously, making, and breaking of rated current.

Connection will be by means of 4 x 6mm sq insulated conductors and 4mm sq BCEW from the indicated circuit to a 30Amp 3P Isolator.

14.4 Compressor (Comp)

Compressor will be by means of new 25mm conduit from the indicated circuit to a 20Amp 3P Isolator mounted inside a weatherproof 100 x 100mm outlet box within arm's reach of compressor as indicated on the drawings.

Compressor connection will be by means of new 4 x 6mm sq insulated conductors and 4mm sq BCEW from the indicated circuit to a 20Amp 3P Weatherproof Isolator

15 CABLES

The Contractor shall supply and completely install all distribution cables as indicated on the drawings, and listed in the Schedule of Cables.

The storage, transportation, handling and laying of the cables shall be according to first class practice, and the contractor shall have adequate and suitable equipment and labour to ensure that no damage is done to cables during such operations.

The cable-trenches shall be excavated to a depth of 0,9m deep below ground level and shall be 450mm wide for one to three cables, and the width shall be increased where more than three cables are laid together so that the cables may be placed at least two cable diameters apart throughout the run. The bottom of the trench shall be level and clean and the bottom and sites free from rocks or stones liable to cause damage to the cable.

The Contractor must take all necessary precautions to prevent the trenching work being in any way a hazard to the personnel and public and to safeguard all structures, roads, sewage works or other property on the site from any risk of subsidence and damage.

In the trenches the cables shall be laid on a 75mm thick bed of earth and be covered with a 150-mm layer of earth before the trench is filled in.

All joints in underground cables and terminations shall be made either by means of compound filled boxes according to the best established practice by competent cable jointers using first class materials or by means of approved epoxy-resin pressure type jointing kits. Epoxy-resin joints must be made entirely in accordance with the manufacturer's instructions and with materials stipulated in such instructions. Low tension PVCA cables are to be made off with sealing glands and materials designed for this purpose which must be of an approved make. Where cables are cut and not immediately made off, the ends are to be sealed without delay.

The laying of cables shall not be commenced until the trenches have been inspected and approved. The cable shall be removed from the drum in such a way that no twisting, tension or mechanical damage is

caused and must be adequately supported at intervals during the whole operation. Particular care must be exercised where it is necessary to draw cables through pipes and ducts to avoid abrasion, elongation or distortion of any kind. The ends of such pipes and ducts shall be sealed to approval after drawing in of the cables.

Backfilling (after bedding) of the trenches is to be carried out with a proper grading of the material to ensure settling without voids, and the material is to be tamped down after the addition of every 150mm. The surface is to be made good as required.

On each completed section of the laid and jointed cable, the insulation resistance shall be tested to approval with an approved "Megger" type instrument of not less than 500 V for low tension cables.

Earth continuity conductors are to be run with all underground cables constituting part of a low tension distribution system. Such continuity conductors are to be stranded bare copper of a cross-sectional area equal to at least half that of one live conductor of the cable, but shall not be less than 4mm² or more than 70mm². A single earth wire may be used as earth continuity conductor for two or more cables run together, branch earth wires being brazed on where required.

15.1 LAYING, JOINTING AND MAKING OFF OF ELECTRICAL CABLES

[The requirements specified hereafter, are aimed essentially at high tension cable but are also valid for low tension cable, where applicable.]

1. The use of the term "Inspector", includes the engineer or inspector of the Department or an empowered person of the concerned supervising consulting engineer's firm.
2. No cable is to be laid before the cable trench is approved and the soil qualification of the excavation is agreed upon by the Contractor and inspector.
3. After the cable has been laid and before the cable trench is back-filled the inspector must ensure that the cable is properly bedded and that there is no undesirable material included in the bedding layer.
4. All cable jointing and the making off of the cables must only be carried out by qualified experienced cable jointers. Helpers of the jointers may not saw, strip, cut, solder, etc. The cable and other work undertaken by them must be carried out under the strict and constant supervision of the joiner.
5. Before the Contractor allows the joiner to commence with the jointing work or making off of the cable (making off is recognized as half a joint) he must take care and ensure:
 - 5.1 That he has adequate and suitable material available to complete the joint properly and efficiently. Special attention must be given to ensure the cable ferrules and cable lugs are of tinned copper and of sufficient size. The length of the jointing lugs must be at least six times the diameter of the conductor,
 - 5.2 That the joint pit is dry and that all loose stones and material are removed,
 - 5.3 That the walls and banks of the joint pit are reasonable firm and free from loose material which can fall into the pit,
 - 5.4 That the necessary coffer-dams or retaining walls are made to stop the flow of water into the joint pit,
 - 5.5 That the joint pit is provided with suitable groundsheets so that the jointing work is carried out in clean conditions,
 - 5.6 That the necessary tents or sails are installed over the joint pit to effectively avert unexpected rainfall and that sufficient light or lighting is provided,
 - 5.7 That the necessary means are available to efficiently seal the jointing or cable end when an unexpected storm or cloudburst occurs, regardless of how far the work has progressed,

- 5.8 That the cables and other materials are dry, undamaged and in all respects are suitable for the joint work or making off,
- 5.9 That the heating of cable oil, cable compound, plumbers metal and solder is arranged that they are at the correct temperature when required so that the cable is not unnecessarily exposed to the atmosphere and consequently the ingress of moisture (care must be taken of overheating)

Flow temperatures of cable oil and compound must be determined with suitable thermometers. Cable oil and compound must not be heated to exceed the temperatures given on the containers and precaution must be taken to ensure that the tin is not overheated in one position. The whole mass must be evenly and proportionally heated.

(Temperatures of solder and plumbers metal may be tested with brown paper (testing time: 3 seconds). The paper must colour slightly - not black or burnt).

6. Before the paper-insulated cables are joined, they must be tested for the presence of moisture by the cable jointers test. This consists of the insertion of a piece of unhandled insulated impregnated paper tape in warm cable oil heated to a temperature of $130 \pm 5^{\circ}\text{C}$.

Froth on the surface of the oil is an indication that moisture is present in the impregnated insulation and the amount of the froth gives an indication of the moisture present.

7. If the cable contains moisture or is found to be otherwise unsuitable for jointing or making of the inspector is to be notified immediately and he will issue the necessary instruction to cope with the situation.
8. The joint or making off of paper insulated cables must not be commenced during rainy weather.
9. Once a joint is in progress the jointer must proceed with the joint until it is complete and before he leaves the site.
10. The jointer must ensure that the material and his tools are dry at all times, reasonably clean and absolutely free from soil.
11. Relating to the jointing of the cable the following requirements apply:
- 11.1 All jointing must be carried out in accordance with recognized and tried techniques and comply strictly with the instructions given by the supplier of the jointing kit.
- 11.2 The cables must be twisted by hand so that the cores can be joined according to the core numbers. If necessary the cable is to be exposed for a short distance to accomplish this. Under no circumstances may the cores in a joint be crossed so as to enable cores to be joined according to the core numbers. If it is not possible to twist the cables so that the preceding requirements can be met, then cores are to be joined in the normal way without any consideration of the core numbers.
- 11.3 Normally the cables will have profile conductors. The conductors shall be pinched with gas pliers to form a circular section, bound with binding wire so that they do not spread, and then tinned before jointing.
- 11.4 Jointing ferrules, the length of which are at least 6 times the diameter of the conductors, must be slid over the conductor ends to be joined and pinched tightly. Then they are soldered by means of the ladle process whilst being pinched further closed.

Use resin only as a flux. The slot opening in the ferrule must be completely filled, including all depressions.

Remove all superfluous metal with a cloth dipped in tallow. Work during the soldering process must be from top to bottom. Rub the ferrule smooth and clean with aluminium oxide tape after it has cooled down to ensure that there are not any sharp points or edges.

NB: The spaces between the conductor strands must be completely filled by soldering process and must be carried out quick enough to prevent the paper insulation from burning or drying out unnecessarily.

- 11.5 After the ferrules have been rubbed smooth and clean, they and the exposed cores must be treated with hot cable oil (110°C) to remove all dust and moisture. These parts are to be thoroughly basted with the oil.
- 11.6 The joiner must take care that his hands are dry and clean before the joint is insulated. Also the insulating tape which is to be used must first be immersed in warm cable oil (110°C) for a sufficient period to ensure that no moisture is present.
- 11.7 After the individual cores have been installed they must be well basted with hot cable oil and again after the applicable separator and/or belt insulation tape is applied before the lead joint sleeve is placed in position.
- 11.8 The lead joint sleeve must be thoroughly cleaned and prepared before it is placed on the cable and must be kept clean during the whole jointing process. Seal the filling apertures of the sleeve with tape until the sleeve is ready for compound filling.
- 11.9 The plumbing joints employed to solder the joint sleeve to the cable sheath, must be cooled off with tallow and the joint sleeve is to be filled with compound while it is still warm. Top up continuously until the joint is completely filled to compensate for the compound shrinkage.
- 11.10 The outer joint box must be clean and free from corrosion. After it has been placed in position it must be slightly heated before being filled with compound. Top up until completely full.
12. As far as cable end boxes are concerned the requirements as set out above are valid where applicable.

16. DISTRIBUTION BOARDS

In addition to clause 14 and clause 15 of Part 1 of this specification and Technical & Particular specification BOOK 2 OF 2 the following shall also be applicable to switchboards required for this service.

The Contractor shall supply and install the distribution boards as indicated on the drawings and listed in the distribution Board Schedule. All distribution boards shall comply with the quality specification and Technical & Particular specification BOOK 2 OF 2 in Part 3 of this specification and Technical & Particular specification BOOK 2 OF 2, and be approved by the Employer's Electrical Engineer.

THE ELECTRICAL CONTRACTOR MUST ALSO REFER TO THE PHOTO'S OF EACH BUILDINGS

The latest Departmental Quality Specification and Technical & Particular specification BOOK 2 OF 2 Section for Distribution Boards must be adhere to by Part 3 of the specification and Technical & Particular specification BOOK 2 OF 2.

17. SUBSTATION

(NOT APPLICABLE)

18. SCHEDULE OF LIGHT FITTINGS

As per Technical & Particular specification BOOK 2 OF 2 of the project

19. SCHEDULE OF POWER POINTS

As per Technical & Particular specification BOOK 2 OF 2 of the project

20. SCHEDULE OF CABLES, CONDUIT AND WIRING

As per Technical & Particular specification BOOK 2 OF 2 of the project

21. SCHEDULE OF DISTRIBUTION BOARDS

As per Technical & Particular specification BOOK 2 OF 2 of the project.

THE ELECTRICAL CONTRACTOR MUST ALSO REFER TO THE PHOTO'S OF EACH BUILDINGS

22. SWITCHGEAR AND CIRCUITS

As per Technical & Particular specification BOOK 2 OF 2 of the project

23. SCHEDULE OF LIGHTS, SOCKET OUTLETS AND SPECIAL POWER POINTS

As per Technical & Particular specification BOOK 2 OF 2 of the project

24. LIGHTNING PROTECTION

24.1.1 The Electrical Contractor must allow for a qualified and accredited subcontractor, which is a member of the Earthing and Lightning Protection Association (ELPA) to conduct a ground survey test and install a lightning protection system for the building in accordance with the latest revision to the *SANS Code of Practice 03 and 03A* and must comply with performance requirements laid down therein.

24.1.2 The lightning protection system shall consist of earth rods around the building as indicated on the drawings.

24.2 Earth Electrode Rods

24.2.1 Earth electrode rods shall be of the stainless steel type with copper coating (minimum thickness of 0.25mm) with a 16mm diameter. The tops of the rods shall be no less than 600mm below final ground level with the rod installed vertically.

24.3 Inter Connections

24.3.1 The earth electrode rods shall be bonded to the down conductors by means of exothermic welding.

24.4 Down Conductors

24.4.1 Down conductors shall be installed in 20mm surface mounted galvanised conduits at the cable ends of the buildings as shown. Down conductors shall consist of 50mm sq Green PVC insulated copper conductors and 8mm diameter aluminium conductor.

25.4.2 Down conductors shall terminate at test points 1400mm above final ground or paving level at a bolted connection. Conduits shall be fixed to the walls by means of raised galvanised saddles.

24.5 Roof Conductors

24.5.1 A 50mm sq aluminium conductor shall be installed along all ridges of roofs terminating at ends with conductors running downwards over surface of roof and the eaves. Lift shaft to have a conductor installed

in the form of a closed loop upon their upper surface. In all cases where metallic gutters have been installed along eaves of a pitched roof, these must be bonded to the air terminal system.

The roof conductor shall be mounted on raised aluminium saddles. The down conductors shall be bonded to the roof conductor by means of bolted connection.

24.6 Appointment of Specialist Earthing and Lightning Protection Association (ELPA)

24.6.1 The Contractor shall make allowance for earth resistance tests to be carried out by a Specialist Contractor in lightning and earthing protection. The recommended earthing and lightning protection design shall be submitted to the Engineer, complete with all calculations and supportive documentation.

24.6.2 The procedure to be adopted shall be strictly as follows:

24.6.2.1 Carry out on site earth relativity tests as many are required to obtain a representative reading.

24.6.2.2 Present the results of tests together with detailed recommendations on the required system in accordance to SANS 03 to **BVi Electrical Department** for approval. This documentation shall include for detailed drawings, graphs, calculations, system description, lengths of conductors and earth spikes.

24.6.2.3 On approval by **BVi Electrical Department**, installation is to proceed as recommended.

24.6.2.4 All exothermic welds, conductors, etc. shall be inspected by the Engineer prior to any backfilling taking place.

24.6.2.5 The system shall be tested in order to verify that the recommendation and installation are satisfactory.

24.6.2.6 Submission of *SANS Certificate of Completion* on the completion of the installation.

24.6.2.7 PARTICULARS OF EARTHING AND LIGHTNING PROTECTION ASSOCIATION (ELPA) CONTRACTOR

(To be completed by tenderers and submitted together with the tender form).

TENDER NO: _____ REFERENCE: _____

SERVICE: _____

NAME OF ELPA CONTRACTOR: _____

ADDRESS _____

EARTHING AND LIGHTNING PROTECTION ASSOCIATION REGISTRATION NUMBER:

DATE

SIGNATURE OF ELPA TENDERER

**PART 3: QUALITY SPECIFICATION AND TECHNICAL & PARTICULAR SPECIFICATION BOOK 2 OF 2
FOR MATERIALS AND EQUIPMENT OF ELECTRICAL INSTALLATIONS**

THIS ENTIRE SPECIFICATION AND TECHNICAL & PARTICULAR SPECIFICATION BOOK 2 OF 2 AND BILLS OF QUANTITIES SHALL BE READ IN CONJUNCTION WITH THE ELECTRICAL GENERAL TECHNICAL SPECIFICATION AND TECHNICAL & PARTICULAR SPECIFICATION BOOK 2 OF 2 AND QUALITY SPECIFICATION AND TECHNICAL & PARTICULAR SPECIFICATION BOOK 2 OF 2 OF THE DEPARTMENT OF PUBLIC WORKS.

ADDITIONAL REQUIREMENTS OR SPECIFICATION AND TECHNICAL & PARTICULAR SPECIFICATION BOOK 2 OF 2S NOT COVERED IN QUALITY SPECIFICATION AND TECHNICAL & PARTICULAR SPECIFICATION BOOK 2 OF 2S ABOVE

LED LIGHTS

All Light fittings installed for this project is to be of the LED type, unless otherwise stated.

The following international standard specification and Technical & Particular specification BOOK 2 OF 2s and South-African Bureau of Standards shall apply to the LED luminaire specification and Technical & Particular specification BOOK 2 OF 2:

SANS 475	Luminaires for interior lighting, street lighting and floodlighting – Performance and requirements
SANS 10114-1	Interior lighting part 1: Artificial lighting of interiors
SANS 10114-2	Interior lighting part 2: Emergency lighting
SANS 60598-1	Luminaires part 1: General requirements and tests
SANS 60598-2.1	Luminaires part 2: Particular requirements section 1 – Fixed general purpose luminaires.
SANS 60598-2.2	Luminaires part 2: Particular requirements section 2 – Recessed luminaires.
SANS 60598-2.3	Luminaires part 2: Particular requirements section 3 – Luminaires for road and street lighting.
SANS 60598-2.5	Luminaires part 2: Particular requirements section 5 – Flood lighting.
SANS 61347-1 to 13	Lamp control gear
SANS 62031	LED modules for general lighting – Safety specification and
SANS 62384	DC or AC supplied electronic control gear for LED modules – Performance requirements.
SANS 62560	Self-ballasted LED lamps for general lighting services with supply voltages > 50V – Safety specification and
SANS 62612	Self-ballasted LED lamps for general lighting services with supply voltages > 50V – Performance requirements
EN 55015	Limits and methods of measurement of radio disturbance of electrical lighting or equipment.
EN 61000-3.2	Electromagnetic compatibility (EMC) limits for harmonic current emissions.
EN 61000-3.3	Electromagnetic compatibility (EMC) limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems.
EN 61547	Equipment for general lighting purposes: EMC immunity requirements.
IEC-EN 62471	Photo biological safety of lamps and lamp systems for LEDs
IES LM-79-08	Approved method: Electrical and photometric measurement of solid-state lighting products.
IES LM-80	Approved method: Measuring lumen maintenance of LED light sources.

General requirements:

The luminaire shall be suitable for operation with mid-power LEDs. **Note that no LED tubes are allowed to be used.**

The luminaire shall be suitable for operation on a 230V single phase 50Hz mains supply.

Power factor capacitors shall be supplied to correct the power factor to at least 0.95 or higher.

The luminaire shall be marked with identification labels stating the brand name and model and shall bear the SANS approval mark.

The driver shall comply with IEC 61347-1 and IEC 61347-2B as applicable and shall be suitable for operation on 230V $\pm 10\%$, 50Hz single phase system and it must be insured that harmonics filter is provided as per SANS 61000-3-2. The drivers and LED circuitry shall be protected against lighting and power surges. Suitable surge arrestors with a 10kA rating shall be provided for indoor installations and 20kA for outdoor installations.

Colour rendering (Ra) shall be not less than 80 and lumen depreciation of not more than 30% L70 at 50 000 hours @ Tq 25°C. Colour temperature of the LED lamp shall be 4000K, unless otherwise stated.

Thermal requirements:

The luminaire must be able to withstand an ambient temperature of 35°C. Storage temperature of this luminaire should be able to handle $-40^{\circ}\text{C} < T < 60^{\circ}\text{C}$.

To this end internal electrical and mechanical components shall not be allowed to exceed their maximum temperature ratings of 75°C. Test reports from an independent authorised testing facility proving this requirement shall be made available on request.

Noise requirements:

The noise level emitted from the luminaire shall be kept as low as possible. Drivers/electronic components shall therefore fully comply with the latest edition of SANS 55015.

PART 4: BILLS OF QUANTITIES

Refer to Main Bill of Quantities

PART 5: ELECTRICAL WORK MATERIAL SCHEDULE

The Contractor shall complete the following schedules and submit them to the Electrical Engineer within 21 days of the date of the acceptance of the tender.

The schedules will be scrutinised by the Electrical Engineer and should any material offered not comply with the requirements contained in the specification and Technical & Particular specification BOOK 2 OF 2, the Contractor will be required to supply material in accordance with the contract at no additional cost.

NB: Only one manufacturer’s name to be inserted for each item.

Item	Material	Make or trade name	Country of origin
1.	Distribution boards		
2.	Circuit breakers 1P, 2P, 3P		
3.	On load isolators without trips		
4.	Contactors 1P, 2P, 3P		
5.	Earth leakage relays 1 & 3 phase		
6.	Daylight sensitive switch		
7.	Time switch		
8.	Conduit		
9.	Conduit boxes		
10.	Power skirting		
11.	Surface switches		
12.	Watertight switches		
13.	16A flush socket outlets		
14.	16A surface socket outlets		
15.	Luminaries		
16.	Type		
17.	Type		
18.	Type		
19.	Type		
20.	Type		
21.	Type		
22.	Type		
23.	Type		
24.	Type		
25.	Type		
26.	Type		
27.	Type		
28.	Type		
29.	Type		
30.	Type		
31.	Type		
32.	Type		
33.	Type		
34.	Type		
35.	Type		
36.	Type		
37.	Type		
38.	Type		
39.	Type		
40.	Type		
41.	Type		
42.	Type		
43.	Type		
44.	Type		
45.	Type		

PARTICULARS OF ELECTRICAL CONTRACTOR

The electrical contractor to complete the info below and attach the certified documentation (ECB & ECA & DOL) to the electrical tender document. If the info is not complete and certified documentation not attach to the electrical tender, the tenderer to be disqualified and marked as non-responsive to the tender.

TENDER NO: _____ REFERENCE: _____

SERVICE: _____

NAME OF THE ELECTRICAL CONTRACTOR THREE PHASE REGISTER: _____

ADDRESS _____

CONTACT NUMBER: _____

ELECTRICAL CONTRACTOR'S REGISTRATION NUMBER AT THE ELECTRICAL CONTRACTING BOARD OF SOUTH AFRICA.

ECB NUMBER: _____

ELECTRICAL CONTRACTOR'S REGISTRATION NUMBER AT THE ELECTRICAL CONTRACTORS ASSOCIATION OF SOUTH AFRICA

ECA NUMBER: _____

ELECTRICAL CONTRACTOR'S REGISTRATION NUMBER AT THE DEPARTMENT OF LABOUR:

DOL NUMBER _____

THE QUALIFIED THREE PHASE ELECTRICIAN IS REQUIRED TO SUBMIT THE FOLLOWING COMPREHENSIVE INFO:

- Original tax clearance certificate
- VAT registration certificate
- Workmen's Compensation registration certificate (or proof of payment of contribution in terms of the COID Act no. 130 of 1993)
- Company / cc / Trust / Partnership registration certificate
- Certified copy of identity document staff on the project
- Previous project completion certificates.
- CV's of the staff on the project
- Consultants reference letters
- Certified academic and certified electrical certificate of the staff on the project.

Please ensure that DPW -22(EC) Particulars of electrical contractor is inserted and completed in main tender document

DATE

SIGNATURE OF TENDERER

DPW-23 (EC): SCHEDULE FOR IMPORTED MATERIALS AND EQUIPMENT

Project title:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)		
Tender no:	H20/026AI	Reference no:	WCS 055340

This schedule should be completed by the tenderer. (Attach additional pages if more space is required)

Item	Material / Equipment	Rand (R) (Excluding VAT)
1.		R
2.		R
3.		R
4.		R
5.		R
6.		R

The Contractor shall list imported items, materials and/or equipment which shall be excluded from the Contract Price Adjustment Provisions (if applicable) and shall be adjusted in terms of currency fluctuations only. Copies of the supplier's quotations for the items, materials or equipment (provided that such costs shall not be higher than the relevant contract rate as listed above) should be lodged with the Principal Agent / Engineer of the Department of Public Works within 60 (sixty) days from the date of acceptance of the tender. No adjustment of the local VAT amount, nor the contractor's profit, discount, mark-up, handling costs, etc. shall be allowed.

These net amounts will be adjusted as follows:

FORMULA:

The net amount to be added to or deducted from the contract sum:

$$A = V \left(\frac{Z}{Y} - 1 \right)$$

A = the amount (R) of adjustment

V = the net amount (supplier's quotation) (R) of the imported item

Y = exchange rate at the closing date of tender submission

Z = exchange rate on the date of payment.

Name of Tenderer	Signature	Date



PA-36: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

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

Where

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

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

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



- 1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;
- 2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

Description of services, works or goods Stipulated minimum threshold

Electrical:

Electrical Cables	90%
Streetlight Light Steel Poles	100%

- 3. Does any portion of the goods or services offered have any imported content?

(Tick applicable box)

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

- 3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

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

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

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

- 4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

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

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



IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Institution):

NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names), do hereby declare, in my capacity as of(name of bidder entity), the following:

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

Table with 2 columns: Description and Value. Rows include Bid price, excluding VAT (y), Imported content(x), as calculated in terms of SATS 1286:2011, Stipulated minimum threshold for local content (paragraph 3 above), and Local content %, as calculated in terms of SATS 1286:2011.

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

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
(e) I understand that the awarding of the bid is dependent on the accuracy of the

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 3 of 4



information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ **DATE:** _____

WITNESS No. 1 **DATE:** _____

WITNESS No. 2 **DATE:** _____

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1) Tender No. H20/026A1
 (D2) Tender description: VAN ROOVSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL MECHANICAL ELECTRICAL Street Light Street Poles
 (D3) Designated Products: O
 (D4) Tender Authority: Pula
 (D5) Tendering Entity name:
 (D6) Tender Exchange Rate: EU R 9.00 GBP R 12.00

Note: VAT to be excluded from all calculations

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content				Total landed cost excl VAT	Exempted imported value
				Foreign currency value as per Commercial Invoice (D11)	Tender Exchange Rate (D12)	Local value of imports (D13)	Freight costs to port of entry (D14)		
(D7)	(D8)	(D9)	(D10)					(D16)	(D17)
(D18) Total exempted imported value R 0 This total must correspond with Annex C - C 21									

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content				Total landed cost excl VAT	Total Imported value
				Foreign currency value as per Commercial Invoice (D24)	Tender Rate of Exchange (D25)	Local value of imports (D26)	Freight costs to port of entry (D27)		
(D20)	(D21)	(D22)	(D23)					(D29)	(D30)
(D31) Total Imported value by tenderer R 0 This total must correspond with Annex C - C 21									

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content				Total landed cost excl VAT	Quantity Imported
				Foreign currency value as per Commercial Invoice (D37)	Tender Rate of Exchange (D38)	Local value of imports (D39)	Freight costs to port of entry (D40)		
(D33)	(D34)	(D35)	(D36)					(D42)	(D43)
(D44) Total Imported value by 3rd party R 0 This total must correspond with Annex C - C 23									

D. Other foreign currency payments

Type of payment	Local supplier making the payment (D47)	Overseas beneficiary (D48)	Calculation of foreign currency payments		Total Value of payments (D51)
			Foreign currency value paid (D49)	Tender Rate of Exchange (D50)	
(D46)		(D48)	(D49)	(D50)	
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party R 0 (D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above This total must correspond with Annex C - C 23					

Signature of tenderer from Annex B

Date: _____

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	H20/026AI
(E2)	Tender description:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL,
(E3)	Designated products:	Street Light Steel Poles
(E4)	Tender Authority:	0
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
(E9) Total local products (Goods, Services and Works)			R 0

(E10)	Manpower costs (Tenderer's manpower cost)	R 0
(E11)	Factory overheads (Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
(E12)	Administration overheads and mark-up (Marketing, insurance, financing, interest etc.)	R 0
(E13) Total local content		R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1) Tender No. **B20/026A1**
VAN ROOVSHEK PORT OF ENTRY; APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL, INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS (APPOINTMENT OF A CONTRACTOR)
 Designated Products: Electrical Cables
 Tender Authority: 0
 Tendering Entity name: Pula
 Tender Exchange Rate: EU R 9,00 GBP R 12,00

Note: VAT to be excluded from all calculations

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content				Total landed cost excl VAT	Exempted imported value		
				Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of Imports	Freight costs to port of entry			All locally incurred landing costs & duties	
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value R 0											
This total must correspond with Annex C - C.21											

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content				Total landed cost excl VAT	Total Imported value		
				Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of Imports	Freight costs to port of entry			All locally incurred landing costs & duties	
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer R 0											

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content				Total landed cost excl VAT	Quantity Imported	Total Imported value	
				Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of Imports	Freight costs to port of entry				All locally incurred landing costs & duties
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
(D45) Total Imported value by 3rd party R 0											

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments		Summary of payments
			Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	(D51)
(D52) Total of foreign currency payments declared by tenderer and/or 3rd party					(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above
Signature of tenderer from Annex B					(D54) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above
Date:					(D55) This total must correspond with Annex C - C.23

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1) Tender No.	B20/026AI
(E2) Tender description:	VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS (APPOINTMENT OF A CONTRACTOR)
(E3) Designated products:	Electrical Cables
(E4) Tender Authority:	0
(E5) Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
	(E9) Total local products (Goods, Services and Works)		R 0

(E10) Manpower costs (Tenderer's manpower cost) R 0

(E11) Factory overheads (Rental, depreciation & amortisation, utility costs, consumables etc.) R 0

(E12) Administration overheads and mark-up (Marketing, insurance, financing, interest etc.) R 0

(E13) Total local content R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____

PA- 40: DECLARATION OF DESIGNATED GROUPS FOR PREFERENTIAL PROCUREMENT

Name of Tenderer

EME¹ QSE² Non EME/QSE (tick applicable box)

1. LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP AND DESIGNATED GROUPS.

Name and Surname #	Identity/ Passport number and Citizenship##	Percentage owned	Black	Indicate if youth	Indicate if woman	Indicate if person with disability	Indicate if living in Rural (R) / Under Developed Area (UD) / Township (T) / Urban (U).	Indicate if military veteran
1.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
9.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
11.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> R <input type="checkbox"/> UD <input type="checkbox"/> T <input type="checkbox"/> U	<input type="checkbox"/> Yes <input type="checkbox"/> No

Where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number

State date of South African citizenship obtained (not applicable to persons born in South Africa)

¹ EME: Exempted Micro Enterprise

² QSE: Qualifying Small Business Enterprise

PA- 40: DECLARATION OF DESIGNATED GROUPS FOR PREFERENTIAL PROCUREMENT

2. DECLARATION:

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, hereby confirms that:

- 1 The information and particulars contained in this Affidavit are true and correct in all respects;
- 2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), the Preferential Procurement Regulations, 2017, National Small Business Act 102 of 1996 as amended and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents;
- 3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated, or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein;
- 4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein;
- 5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter;

Signed by the Tenderer

Name of representative	Signature	Date

PART 2:

PRICING DATA

C 2.1:

PRICING INSTRUCTIONS

PG-02.1 (EC) PRICING INSTRUCTIONS – (GCC (2010) 2nd EDITION: 2010)

Project title:	<i>VAN ROOYENSHEK PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER FOR THE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS(APPOINTMENT OF A CONTRACTOR)</i>		
Tender no:	<i>H20/026A1</i>	Reference no:	<i>WCS 055340</i>

C2.1 Pricing Instructions

1. GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Standard, Project and Particular Specifications) and the Drawings.

2. DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers.

The short descriptions of the items in the Bill of Quantities are for identification purposes only and the measurement and payment clause of the Standardized Specifications and the Particular Specifications, read together with the relevant clauses of the Project Specification and directives on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

3. QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to remeasuring during the execution of the work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Standard, Project and Particular Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

4. PROVISIONAL SUMS

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 2010. 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 in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Unauthorized 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 will lead to the disqualification of the Tenderer.

5. PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings

as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Tender no: H20/026A1

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Tenderer omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Total" 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 unbalanced.

All rates and amounts quoted in the Bill of Quantities shall be in rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities.

The Tenderer shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as is practicable) as to:

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works,
- (d) the means of access to the Site and the accommodation he may require

and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his Tender.

6. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Tenderer.

7. ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication or addition, will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.

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8. UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Bill of Quantities are as follows:

No.	=	Number
%	=	Percent
Sum	=	Lump sum
PCsum	=	Prime cost sum
Prov sum	=	Provisional sum
m ³ .km	=	Cubic metre - kilometre
Km-pas	=	kilometre - pass
m ² .pass	=	square metre – pass



Tender no: *H20/026A1*

C2.1 Bill of Quantities



VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL
INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
SCHEDULE NO 1: PRELIMINARIES AND GENERAL

REPAIR WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
SABS 1200 A	1,1	<u>GENERAL</u>				
	1.1.1	Scheduled fixed-charge and value-				
PSA 8.3.1		.01 Fixed preliminary and general charges				
		.01 Contractual requirements	sum	1		
		.02 Facilities for the contractor (including removal)	sum	1		
		.03 Metered Water and Electrical connection	sum	1		
		.04 Facilities for the Engineer	sum	1		
PSA 8.3.2		.02 Value-related preliminary and general charges	sum	1		
PSA 8.4.1	1.1.2	Scheduled time-related items:				
		.01 Contractual requirements	Months	36		
		.02 Facilities for the contractor (including removal)	Months	36		
		.03 Metered Water and Electrical connection	Months	36		
		.04 Facilities for the Engineer	Months	36		
PSA 8.6	1.1.3	<u>PRIME COST SUMS:</u>				
		.01 Housing for Engineer's representative	PC sum	1	50 000,00	50 000,00
		.02 Charge required by Contractor on sub item (.01) above	%	50000		
PSA8.8	1.1.4	<u>TEMPORARY WORKS</u>				
PSA8.8.4	1.1.4.1	Location and protection of existing services				
PSA8.8.4.1		Provision of detection devices for:				
		.01 Water and sewer pipes	sum	1		
		.02 Electrical and other cables	sum	1		
PSA8.8.4.2	1.1.4.2	Hand excavation necessary for location and exposing of existing services in all materials	m ³	10		
PSA8.9	1.1.5	<u>ADDITIONAL TESTS:</u>				
		.01 Additional tests required by engineer	PC sum	1	40 000,00	40000
		.02 Attendance and profit	%	40000		
PSA8.12	1.1.6	<u>Call centre:</u>	m	200		
		.01 Call centre for breakdown calls logged	PC sum	1		100 000,00
		.02 Charges required by the Contractor on sub item (.01) above	%	100 000,00		
		.03 Ramp Call Centre	PC sum	1		100 000,00
		.04 Charges required by the Contractor on sub item (.03) above	%	100000		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	1.1.7	BCOCC CONTINGENCY INFRASTRUCTURE				
		.01 Provide BCOCC contingency infrastructure	PC sum	1		300 000,00
		02 Charges required by the Contractor on sub item 01 above	%	300000		
SA.03	1.1.8	Update existing and supply complete key plan				
		01 Operational area	Site	1		
		02 Residential area houses	Site	1		
		03 Single quarters area houses	Site	1		
		04 Residential (3 x Wepener houses)	Site	1		
SA.02	1.1.9	Maintenance Control plan				
		Compile complete maintenance control plan as specified in SA 03 including monthly maintenance control sheets and recording				
		01 Operational area	Site	1		
		02 Residential area houses	Site	1		
		03 Single quarters area houses	Site	1		
		04 Residential (3 x Wepener houses)	Site	1		
SA.07	1.1.9	Site maintenance and record keeping (Monthly maintenance report for all schedules, checklist, reports, etc. as detailed in specification SA 03.10 and maintenance control plan)				
		01 Operational area	Months	36		
		02 Residential area houses	Months	36		
		03 Single quarters area houses	Months	36		
		04 Residential (3 x Wepener houses)	Months	36		
PSA.8.8.4.2	1.1.10	Training of appointed contractor by identified contractor				
		.01 Entire Maseru Ports of Entry	PC sum	1		100 000,00
		.02 Charges required by the Contractor on sub item 01 above	%	100000		
SA.03	1.1.11	Contingency allowance for operational damages at the Port of Entry				
		.01 Entire Maseru Ports of Entry	PC sum	1		300 000,00
		.02 Charges required by the Contractor on sub item 01 above	%	300000		
PSA 8.11	1.1.7.	Occupational Health and Safety				
		Compliance with OHS Act and Construction Regulations 2014	Months	36		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
SH	1.1.8	<p>HIV / AIDS Awareness</p> <p>It is required of the Contractor to thoroughly study the Additional Specification SH: HIV / AIDS Requirements (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under the items hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained. The Contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative/Agent, notwithstanding the provisions of Clause 52 of the General Conditions of Contract for Works of Civil Engineering Construction or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p>				
SH 07		<p>.01 Awareness Champion</p> <p>Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services.</p>	Months	36		
SH 04		<p>.02 Awareness Workshops</p> <p>Selection and appointment of a competent Service Provider approved by the Representative/Agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures.</p>	Months	36		
SH 04.03		<p>.03 Posters, Booklets, Videos, etc.</p> <p>Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period.</p>	Months	36		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		BROUGHT FORWARD				
SH 05		<p>.04 Access to Condoms</p> <p>Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period.</p>	Months	36		
SH 08		<p>.05 Monitoring</p> <p>Monitoring HIV/AIDS awareness of workers, providing the Representative/Agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out.</p>	Months	36		
PSA.8.8.4.2	1.1.10	<p>EPWP Travelling, Training and Monitoring of labour on the EPWP-NYS Infrastructure Projects</p> <p>Tenderers are advised to study the Additional Specification SL: Employment and Training of Labour on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service, as bound elsewhere in the Bills of Quantities, and then price this Bill accordingly.</p> <p>01 Training of youth workers (Target: 30 Youth Workers) for skill development</p> <p>.02 Charges required by the Contractor on sub item 01 above</p>	PC sum	1		80000
			%	80000		
			PC sum	1		450000
			%	450000		
		CARRIED FORWARD TO SUMMARY BILL 1				



VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL
INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALLATION CR1 (OPERATIONAL AREA)

REPAIR WORK

SCHEDULE NO 2.1: CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BA.01	2.1	BUILDING AND STRUCTURAL ELEMENTS CLADDING AND SHEETING				
	2.1.1	Supply, install and removal of damaged sundry items etc:				
BA.03	2.1.1	01 0,8mm Thick galvanised sheet iron flashings with CHROMADEK silicone polyester finish to one side of sundry items to IBR or concealed fixing roof sheeting complete as detailed BA 03.01:				
		.01 Ridge flashing	m	25		
		.02 Side wall flashing	m	35		
BA.06	2.1.2	Removal of existing supply and install rain water goods:				
		0,1 0.8 mm Thick galvanised sheeting with CHROMADEK silicone polyester finish to one side in:				
		.01 75 x 100 mm self-supporting box gutter	m	30		
BA.06	2.1.3	0.2 75 mm Down pipe	m	45		
		Rehabilitation of Roofs:				
		.01 Rehabilitation existing roof sheeting, seal joints and replace loose screws with 90mm Top Speed screws	m ²	150		
		.02 Re-align existing down pipes and gutters including sealing joints	m ²	43		
BA.06	2.1.4	Miscellaneous items:				
		0,01 Items measured by square metre:				
		0.01 Pure acrylic emulsion waterproofing paint with polyester membrane or glass fibre tissue waterproofing sealing system.	m ²	50		
		CARRIED FORWARD				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BB.01	2.1.5	Timber: .01 Wrought SA Pine: Removal of existing and supply and install new for rehabilitation .01 38mm x 38mm Wrought timber branding .02 76mm x 38mm Wrought timber purlins	m m	50 20		
BB.02	2.1.6	Ceilings: .01 gypsum board with H-profile pressed steel type jointing strips, including removal of redundant: .01 6,4mm ceilings .02 Extra over ceiling for 450 x 450 trap door of 38 x 38 wrought wood SAP rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening for new or existing ceilings .02 Gypsum comices: .01 78mm gypsum coved comices including silicone sealant in contact joint with plastered brickwork	m ² number m	42 2 50		
BB.03	2.1.7	Joinery 01 Items measured by linear metre 01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile joiners	m	24		
SANS 1200 G 8.4.3	2.1.8	Strength concrete: .01 Class 20 Mpa up to 75mm thick including breakout of existing and removal thereof .01 Footpaths, aprons etc	m ²	10		
BD.01	2.1.10	Doors and windows: supply, install and removal of existing: 01 Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK" 02 Chromadeck steel roll up door with frame and stocking devices for 2400 mm x 2135 mm high opening in 230 mm walls (similar to existing), Including removal of existing 03 Hollow core door, 40 mm thick x 813 mmwide x 2032 mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK" 04 Aluminium weather strip to 813 to 915mm wide door	number number number number	12 2 10 6		
BD.02	2.1.11	Ironmongery, steelwork, glass, wall finishing,s etc: .01 Supply, install and removal of existing: .01 Standard polished brass casement stay to steel window .02 Anodised aluminiumdoor handles	number number	10 12		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	2.1.11	.03 Four lever mortice lockset including two keys, back plate and striking plate	number	7		
		.04 Double Cylinder lockset, two keys, back plate and striking plate	number	2		
		.05 WC Indicator bolt, equipped with emergency release	number	5		
		.06 Stainless steel toilet paper dispensing units capable of holding two toilet paper rolls (similar to existing)	number	3		
		.07 3mm thick perspex signage for general information	m ²	3		
		.08 150mm x 150mm Aluminium "Women/men/Disabled" sign solid full black engraved fixed to timberdoor or concrete walls	number	5		
		.09 Powder coated key cabinet (480mm x 350mm x 60mm) with 105 key capacity	Number	1		
		.10 Stainless steel sanitizers (Franke or similar approved)	Number	6		
		.11 Stainless steelair freshner (Franke or similar approved)	Number	6		
		.12 Stainless steel she bins (Franke or similar approved)	Number	12		
		.13 Stainless steel soap dispenser (Franke or similar approved)	Number	12		
		.14 Hand dryer unit with blower output of 450 watt @ 20 000rpm	Number	6		
		.02 Service of existing equipment and refix				
		.01 Hand dryer blowing unit	Number	7		
		.02 Stainless steel sanitizers including replacement of catridge and batteries	Number	6		
		.03 Stainless steel air freshner including replacement of catridge and battery	Number	5		
		.04 stainless steel soap dispenser	Number	10		
		.05 Aluminium sliding or pivot shower door	Number	6		
		.06 Service of locking mechanism	Number	15		
		.07 Roll up garage door including servicing opening mechanism locks	Number	8		
		.08 Single Aluminium door and frame	Number	4		
		.09 Single door	Number	15		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
		.03 Supply, fit and remove existing:				
		.01 4mm clear float glass to steel/aluminium frames including putty	m ²	18		
		.02 4mm obscure glass to steel/aluminium frames including putty	m ²	14		
		.04 Clean existing surfaces:				
		.01 Face bricks with calcium build-up and residue	m ²	95		
		.02 Tiles to walls and floors including cleaning and refilling of joints	m ²	350		
BE.01	2.1.12	Tiling and finishes,etc				
BE.02		.01 Remove grime and clean concrete floors, ramps, stairs, tiles,etc with approved solvent cleaner: floors, etc	m ²	36		
BE.02		.02 Clean and remove stains and marks:				
		.01 Carpert floor covering by steam cleaning or dry powder cleaning	m ²	60		
BE.02		.03 Regrout existing ceramic floor tiles with dove grey cement	m ²	35		
BE.04	2.1.13	.01 Ceramic tiles to floors in patches				
		.01 Refix, sand down to smooth and even surface and seal with approved sealer as described in Item BE 03.01.11 of the Project Specification	m ²	25		
		.02 300 mm x 300 mm x 10 mm Ceramic floor tiles as approved by engineer	m ²	15		
		.03 230 mm x 230 mm x 10 mm Ceramic floor wall tiles as approved by engineer	m ²	10		
		.04 Supply and install heavy contract ultra heavy loop, pile carpets, incl foam rubber underlay. Colour to be approved by Engineer	m ²	5		
BE.04	2.1.14	.01 ALTERATION WORK Alterations and repairs to existing structures:				
		.01 Remove Vinyl floor tiles	m ²	15		
		.02 Break out/hack Cement plaster screed on floors	m ²	12		
BE.04	2.1.15	.01 Cleaning and sealing of floor surfaces				
		.01 Vinyl floor tiles as per technical specification BE 06.01.01 for cleaning and sealing of vinyl floor tiles	m ²	25		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR		
BROUGHT FORWARD								
BJ.01	2.1.13	02 Paint to the existing surfaces:						
		.01 Plaster surfaces:						
		.01 Interior quality acrylic emulsion paint with smooth sheen	m ²	110				
		.02 Exterior quality pure acrylic emulsion paint with Teflon	m ²	100				
		.03 Fibre Cement Surfaces						
		.01 Exterior quality super acrylic copolymer PVA paint	m ²	28				
		.02 Interior quality super acrylic copolymer PVA paint	m ²	155				
		.03 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint	m ²	65				
		.04 Steel surfaces						
		.01 Super universal high gloss enamel paint	m ²	88				
		.05 Wood surfaces						
		.01 Super universal high gloss enamel paint	m ²	24				
		.02 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint	m ²	15				
		.03 Water resistant polyurethane clear matt varnish	m ²	45				
.04 Ultra violet light resistant exterior solvent based varnish	m ²	74						
BH.01 BH.02	2.1.14	FITTINGS						
		Steelwork and joinery:						
		.01 Items measured by number:						
		01 Wall unit size 1 500 mm x 300 mm x 580 mm high with three doors and one shelf	number	2				
		02 Wall unit size 1 800 mm x 300 mm x 580 mm high with four doors and one shelf	number	1				
		03 Base unit size 1 500 mm x 533 mm x 865 mm high with three doors, three drawers and one shelf	number	1				
		.02 Items measured by linear metre:						
		.01 32 mm chipboard with "Formica" laminated finish on one side and profiled edges where so described .	m	5				
		.01 Work top 600 mm wide with profiled front edge and fitted on top of kitchen cupboard floor unit	m	5				
		.02 32 mm x 1,2 mm "Formica" veneered edge strips	m	5				
		.03 32 mm Meranti counter and profiled edges where so described:						
		.01 Work top 600 mm wide with profiled front edge	m	5				
		CARRIED FORWARD TO SUMMARY SECTION NO. 2.1						



**VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL
INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR1 (RESIDENTIAL AREA HOUSES)**

REPAIR WORK

SCHEDULE NO 2.2: CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>BUILDING AND STRUCTURAL ELEMENTS</u>				
	2,2	CLADDING AND SHEETING				
BA.03	2.2.1	Removal of existing supply and install rainwater goods:				
	0,1	0.8 mm Thick galvanised sheeting with CHROMADEK silicone polyester finish to one side in:				
	.01	75 x 100 mm self-supporting box gutter	m	15		
	0.2	75 mm Down pipe	m	15		
BA.06	2.2.2	Rehabilitation of Roofs:				
	.01	Rehabilitation existing roof sheeting, seal joints and replace loose screws with 90mm Top Speed screws	m ²	170		
	.02	Re-align existing down pipes and gutters including sealing joints	m ²	35		
	2.2.3	Miscellaneous items:				
	01	Items measured by square metre:				
	01	Pure acrylic emulsion waterproofing paint with polyester membrane or glass fibre tissue waterproofing sealing system.	m ²	85		
BA.09	2.2.4	Timber:				
	.01	Wrought SA Pine: Removal of existing and supply and install new for rehabilitation				
	.01	38mm x 38mm Wrought timber branding	m	30		
	.02	76mm x 38mm Wrought timber purlins	m	15		
	2.2.5	Ceilings:				
BB.02	.01	gypsum board with H-profile pressed steel type jointing strips, including removal of redundant:				
	.01	6,4mm ceilings	m ²	98		
		CARRIED FORWARD				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BB.03		.02 Extra over ceiling for 450 x 450 trap door of 38 x 38 wrought wood SAP rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening for new or existing ceilings	number	5		
		.02 Gypsum comices:				
		.01 78mm gypsum covered comices including silicone sealant in contact joint with plastered brickwork	m	30		
SANS 1200 G 8.4.3	2.2.6	Joinery				
		01 Items measured by linear metre				
		01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile joiners	m	34		
	2.2.7	Strength concrete:				
		.01 Class 20 Mpa up to 75mm thick including breakout of existing removal and replacement thereof				
		.01 Footpaths, aprons etc	m ²	30		
		02 Concrete stand for water harvesting tanks	m ²	18		
BD.01	2.2.8	Doors and windows: supply, install and removal of existing:				
		01 Internal Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	16		
		02 External Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	5		
BD.02	2.2.9	Ironmongery, steelwork, glass, wall finishing,s etc:				
		.01 Supply, install and removal of existing:				
		01 Anodised aluminium door handles	number	20		
		02 Four lever mortice lockset including two keys, back plate and striking plate	number	15		
		03 Stainless steel toilet paper dispensing units capable of holding two toilet paper rolls (similar to existing)	number	8		
		04 Plastic coated washing line	m	25		
		05 Automatic air freshner dispenser (similar approved)	Number	8		
		06 Stainless steel she bins (Franke or similar approved)	Number	8		
		07 Commercial plastic soap dispenser (or similar approved)	Number	8		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	2.2.10	08 100mm brass window handles	Number	12		
		09 "B1651" Brass sliding Stay	Number	12		
		.02 Service of existing equipment and refix				
		.01 Aluminium sliding or pivot shower door	Number	6		
		.02 Service of locking mechanism	Number	8		
		.03 Supply, fit and remove existing:				
		.01 4mm clear float glass to steel/aluminium frames including putty	m ²	7		
		.02 4mm obscure glass to steel/aluminium frames including putty	m ²	7		
		.04 Clean existing surfaces:				
		.01 Tiles to walls and floors including cleaning and refilling of joints	m ²	12		
		05 Plastering				
		.01 Internal surfaces of walls	m ²	18		
		0 External surfaces of walls	m ²	39		
		06 Repair hairline cracks in plaster				
	.01 Internal surfaces of walls	m ²	30			
	02 External surfaces of walls	m ²	30			
BE.01	2.2.11	Tiling and finishes, etc				
BE.02		.01 Remove grime and clean concrete floors, ramps, stairs, tiles, etc with approved solvent cleaner: floors, etc	m ²	80		
BE.02	2.2.11	.02 Clean and remove stains and marks:				
		.01 Carpet floor covering by steam cleaning or dry powder cleaning	m ²	20		
BE.04	2.2.12	Ceramic tiles to floors in patches				
		.01 Refix, sand down to smooth and even surface and seal with approved sealer as described in Item BE 03.01.11 of the Project Specification	m ²	95		
		.02 300 mm x 300 mm x 10 mm Ceramic floor tiles as approved by engineer	m ²	20		
		.03 230 mm x 230 mm x 10 mm Ceramic floor wall tiles as approved by engineer	m ²	16		
		.04 Supply and install heavy contract ultra heavy loop, pile carpets, incl foam rubber underlay. Colour to be approved by Engineer	m ²	16		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BJ.01		02 Paint to the existing surfaces:				
		.01 Plaster surfaces:				
		.01 Interior quality acrylic emulsion paint with smooth sheen appeal	m ²	400		
		.02 Exterior quality pure acrylic emulsion paint with Teflon	m ²	350		
		03 Steel surfaces				
		.01 Super universal high gloss enamel paint	m ²	62		
BE.04	2.1.14	.01 ALTERATION WORK Alterations and repairs to existing structures:				
		.01 Remove Vinyl floor tiles	m ²	10		
		.02 Break out/hack Cement plaster screed on floors	m ²	10		
BE.04	2.1.15	.01 Cleaning and sealing of floor surfaces				
		.01 Vinyl floor tiles as per technical specification BE 06.01.01 for cleaning and sealing of vinyl floor tiles	m ²	15		
		FITTINGS				
BH.01 BH.02	2.2.13	Steelwork and joinery:				
		.01 Items measured by number:				
		.01 Standard approved hardwood veneered particle board kitchen cupboard doors, drawers and ironmongery and fixing to existing kitchen cupboards				
		.01 Kitchen cupboard door	number	5		
		.02 Kitchen cupboard drawer	number	5		
		.02 Cupboard ironmongery 0.8mm thick steel baked enamel with 32mm Formica tops	number	5		
		.01 Hinge for kitchen cupboard door	number	10		
		.02 Kitchen cupboard pull handles	number	10		
		.03 Wall unit size 1 500 mm x 300 mm x 580 mm high with three doors and one shelf	number	3		
		.04 Wall unit size 1 800 mm x 300 mm x 580 mm high with four doors and one shelf	number	3		
		.05 Base unit size 1 500 mm x 533 mm x 865 mm high with three doors, three drawers and one shelf	number	2		
		06 Base double bowl sink unit size 1500 mm x 533 mm x 865 mm high with three doors, and one shelf	Number	1		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
BH.01	2.2.14	02 Items measured by linear metre:				
		.01 32 mm chipboard with "Formica" laminated finish on one side and profiled edges where so described .	m	4		
		.01 Work top 600 mm wide with profiled front edge and fitted on top of kitchen cupboard floor unit	m	4		
		.02 32 mm x 1,2 mm "Formica" veneered edge strips	m	4		
CARRIED FORWARD TO SUMMARY SECTION NO. 2.2						



**VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL
INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR1 (SIGNLE QUARTERS AREA HOUSES)**

REPAIR WORK

SCHEDULE NO 2.3: CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>BUILDING AND STRUCTURAL ELEMENTS</u>				
	2,3	CLADDING AND SHEETING				
BA.03	2.3.1	Removal of existing supply and install rainwater goods:				
	0,1	0.8 mm Thick galvanised sheeting with CHROMADEK silicone polyester finish to one side in:				
	.01	75 mm Dia. self-supporting box gutter	m	15		
	0.2	75 mm Down pipe	m	15		
BA.06	2.3.2	Rehabilitation of Roofs:				
	.01	Rehabilitation existing roof sheeting, seal joints and replace loose screws with 90mm Top Speed screws	m ²	80		
	.02	Re-align existing down pipes and gutters including sealing joints	m ²	22		
	2.3.3	Miscellaneous items:				
	01	Items measured by square metre:				
	01	Pure acrylic emulsion waterproofing paint with polyester membrane or glass fibre tissue waterproofing sealing system.	m ²	75		
BA.09	2.3.4	Timber:				
	.01	Wrought SA Pine: Removal of existing and supply and install new for rehabilitation				
	.01	38mm x 38mm Wrought timber branding	m	12		
	.02	76mm x 38mm Wrought timber purlins	m	12		
	2.3.5	Ceilings:				
BB.02	.01	gypsum board with H-profile pressed steel type jointing strips, including removal of redundant:				
	.01	6,4mm ceilings	m ²	55		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BB.03		.02 Extra over ceiling for 450 x 450 trap door of 38 x 38 wrought wood SAP rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening for new or existing ceilings	number	4		
		.02 Gypsum comices:				
		.01 78mm gypsum covered comices including silicone sealant in contact joint with plastered brickwork	m	45		
SANS 1200 G 8.4.3	2.3.6	Joinery				
		01 Items measured by linear metre				
		01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile joiners	m	25		
	2.3.7	Strength concrete:				
		.01 Class 20 Mpa up to 75mm thick including breakout of existing removal and replacement thereof				
		.01 Footpaths, aprons etc	m ²	30		
		02 Concrete stand for water harvesting tanks	m ²	11		
BD.01	2.3.8	Doors and windows: supply, install and removal of existing:				
		01 Internal Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	6		
		02 External Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	9		
BD.02	2.3.9	Ironmongery, steelwork, glass, wall finishing,s etc:				
		.01 Supply, install and removal of existing:				
		01 Anodised aluminium door handles	number	10		
		02 Four lever mortice lockset including two keys, back plate and striking plate	number	10		
		03 Stainless steel toilet paper dispensing units capable of holding two toilet paper rolls (similar to existing)	number	10		
		04 Plastic coated washing line	m	10		
		05 Automatic air freshner dispenser (similar approved)	Number	10		
		06 Stainless steel she bins (Franke or similar approved)	Number	10		
		07 Commercial plastic soap dispenser (or similar approved)	Number	10		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	2.3.10	08 100mm brass window handles	Number	16		
		09 "B1651" Brass sliding Stay	Number	16		
		.02 Service of existing equipment and refix				
		.01 Aluminium sliding or pivot shower door	Number	10		
		.02 Service of locking mechanism	Number	10		
		.03 Supply, fit and remove existing:				
		.01 4mm clear float glass to steel/aluminium frames including putty	m ²	12		
		.02 4mm obscure glass to steel/aluminium frames including putty	m ²	12		
		.04 Clean existing surfaces:				
		.01 Tiles to walls and floors including cleaning and refilling of joints	m ²	42		
		05 Plastering				
		.01 Internal surfaces of walls	m ²	15		
		0 External surfaces of walls	m ²	22		
		06 Repair hairline cracks in plaster				
		.01 Internal surfaces of walls	m ²	12		
		02 External surfaces of walls	m ²	12		
		.05 Repair Steel Carports				
		.01 Fix and paint 76mm x 76mm x 2m square tubing for post incl 75mm x 50 x 20 purlings and 150mm x 50 x 20 lip channels	Number	10		
BE.01	2.3.11	Tiling and finishes,etc				
BE.02		.01 Remove grime and clean concrete floors, ramps, stairs, tiles,etc with approved solvent cleaner: floors, etc	m ²	15		
BE.02		.02 Clean and remove stains and marks:				
		.01 Carpert floor covering by steam cleaning or dry powder cleaning	m ²	10		
BE.04	2.3.12	.01 Ceramic tiles to floors in patches				
		.01 Refix, sand down to smooth and even surface and seal with approved sealer as described in Item BE 03.01.11 of the Project Specification	m ²	44		
		.02 300 mm x 300 mm x 10 mm Ceramic floor tiles as approved by engineer	m ²	16		
		.03 230 mm x 230 mm x 10 mm Ceramic floor wall tiles as approved by engineer	m ²	16		
		.04 Supply and install heavy contract ultra heavy loop, pile carpets, incl foam rubber underlay. Colour to be approved by Engineer	m ²	12		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BJ.01		02 Paint to the existing surfaces:				
		.01 Plaster surfaces:				
		.01 Interior quality acrylic emulsion paint with smooth sheen appeal	m ²	44		
		.02 Exterior quality pure acrylic emulsion paint with Teflon	m ²	56		
		03 Steel surfaces				
		.01 Super universal high gloss enamel paint	m ²	10		
BE.04	2.1.14	.01 ALTERATION WORK Alterations and repairs to existing structures:				
		.01 Remove Vinyl floor tiles	m ²	4		
		.02 Break out/hack Cement plaster screed on floors	m ²	4		
BE.04	2.1.15	.01 Cleaning and sealing of floor surfaces				
		.01 Vinyl floor tiles as per technical specification BE 06.01.01 for cleaning and sealing of vinyl floor tiles	m ²	8		
		FITTINGS				
BH.01 BH.02	2.3.13	Steelwork and joinery:				
		.01 Items measured by number:				
		.01 Standard approved hardwood veneered particle board kitchen cupboard doors, drawers and ironmongery and fixing to existing kitchen cupboards				
		.01 Kitchen cupboard door	number	2		
		.02 Kitchen cupboard drawer	number	4		
		.02 Cupboard ironmongery 0.8mm thick steel baked enamel with 32mm Formica tops	number	2		
		.01 Hinge for kitchen cupboard door	number	8		
		.02 Kitchen cupboard pull handles	number	10		
		.03 Wall unit size 1 500 mm x 300 mm x 580 mm high with three doors and one shelf	number	1		
		.04 Wall unit size 1 800 mm x 300 mm x 580 mm high with four doors and one shelf	number	1		
		.05 Base unit size 1 500 mm x 533 mm x 865 mm high with three doors, three drawers and one shelf	number	1		
		.06 Base double bowl sink unit size 1500 mm x 533 mm x 865 mm high with three doors, and one shelf	Number	2		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
BH.01	2.3.14	02 Items measured by linear metre:				
		.01 32 mm chipboard with "Formica" laminated finish on one side and profiled edges where so described .	m	4		
		.01 Work top 600 mm wide with profiled front edge and fitted on top of kitchen cupboard floor unit	m	4		
		.02 32 mm x 1,2 mm "Formica" veneered edge strips	m	4		
CARRIED FORWARD TO SUMMARY SECTION NO. 2.3						



VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUTRE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

INSTALATION CR1 (Residential (3 x Wepener houses))

REPAIR WORK

SCHEDULE NO 2.3: CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>BUILDING AND STRUCTURAL ELEMENTS</u>				
	2,3	CLADDING AND SHEETING				
BA.03	2.3.1	Removal of existing supply and install rainwater goods:				
	.01	0.8 mm Thick galvanised sheeting with CHROMADEK silicone polyester finish to one side in:				
	.01	75 mm Dia. self-supporting box gutter	m	4		
	.02	75 mm Down pipe	m	4		
BA.06	2.3.2	Rehabilitation of Roofs:				
	.01	Rehabilitation existing roof sheeting, seal joints and replace loose screws with 90mm Top Speed screws	m ²	10		
	.02	Re-align existing down pipes and gutters including sealing joints	m ²	10		
	2.3.3	Miscellaneous items:				
	01	Items measured by square metre:				
	01	Pure acrylic emulsion waterproofing paint with polyester membrane or glass fibre tissue waterproofing sealing system.	m ²	15		
BA.09	2.3.4	Timber:				
	.01	Wrought SA Pine: Removal of existing and supply and install new for rehabilitation				
	.01	38mm x 38mm Wrought timber branding	m	5		
	.02	76mm x 38mm Wrought timber purlins	m	5		
	2.3.5	Ceilings:				
BB.02	.01	gypsum board with H-profile pressed steel type jointing strips, including removal of redundant:				
	.01	6,4mm ceilings	m ²	18		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BB.03		.02 Extra over ceiling for 450 x 450 trap door of 38 x 38 wrought wood SAP rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening for new or existing ceilings	number	2		
		.02 Gypsum comices:				
		.01 78mm gypsum covered comices including silicone sealant in contact joint with plastered brickwork	m	18		
	2.3.6	Joinery				
		01 Items measured by linear metre				
		01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile joiners	m	10		
SANS 1200 G 8.4.3	2.3.7	Strength concrete:				
		.01 Class 20 Mpa up to 75mm thick including breakout of existing removal and replacement thereof				
		.01 Footpaths, aprons etc	m ²	8		
		02 Concrete stand for water harvesting tanks	m ²	7		
BD.01	2.3.8	Doors and windows: supply, install and removal of existing:				
		01 Internal Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	4		
		02 External Solid hardwood core flush panel door, 40mm thick x 813mm wide x 2032mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	3		
BD.02	2.3.9	Ironmongery, steelwork, glass, wall finishing,s etc:				
		.01 Supply, install and removal of existing:				
		01 Anodised aluminium door handles	number	6		
		02 Four lever mortice lockset including two keys, back plate and striking plate	number	6		
		03 Stainless steel toilet paper dispensing units capable of holding two toilet paper rolls (similar to existing)	number	3		
		04 Plastic coated washing line	m	3		
		05 Automatic air freshner dispenser (similar approved)	Number	3		
		06 Stainless steel she bins (Franke or similar approved)	Number	3		
		07 Commercial plastic soap dispenser (or similar approved)	Number	3		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	2.3.10	08 100mm brass window handles	Number	6		
		09 "B1651" Brass sliding Stay	Number	6		
		.02 Service of existing equipment and refix				
		.01 Aluminium sliding or pivot shower door	Number	3		
		.02 Service of locking mechanism	Number	3		
		.03 Supply, fit and remove existing:				
		.01 4mm clear float glass to steel/aluminium frames including putty	m ²	5		
		.02 4mm obscure glass to steel/aluminium frames including putty	m ²	5		
		.04 Clean existing surfaces:				
		.01 Tiles to walls and floors including cleaning and refilling of joints	m ²	10		
		05 Plastering				
		.01 Internal surfaces of walls	m ²	4		
		0 External surfaces of walls	m ²	4		
		06 Repair hairline cracks in plaster				
		.01 Internal surfaces of walls	m ²	4		
		02 External surfaces of walls	m ²	4		
		.05 Repair Steel Carports				
		.01 Fix and paint 76mm x 76mm x 2m square tubing for post incl 75mm x 50 x 20 purlings and 150mm x 50 x 20 lip channels	Number	3		
BE.01	2.3.11	Tiling and finishes,etc				
BE.02		.01 Remove grime and clean concrete floors, ramps, stairs, tiles,etc with approved solvent cleaner: floors, etc	m ²	8		
BE.02		.02 Clean and remove stains and marks:				
		.01 Carpert floor covering by steam cleaning or dry powder cleaning	m ²	8		
BE.04	2.3.12	.01 Ceramic tiles to floors in patches				
		.01 Refix, sand down to smooth and even surface and seal with approved sealer as described in Item BE 03.01.11 of the Project Specification	m ²	5		
		.02 300 mm x 300 mm x 10 mm Ceramic floor tiles as approved by engineer	m ²	5		
		.03 230 mm x 230 mm x 10 mm Ceramic floor wall tiles as approved by engineer	m ²	5		
		.04 Supply and install heavy contract ultra heavy loop, pile carpets, incl foam rubber underlay. Colour to be approved by Engineer	m ²	8		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
BJ.01		02 Paint to the existing surfaces:				
		.01 Plaster surfaces:				
		.01 Interior quality acrylic emulsion paint with smooth sheen appeal	m ²	8		
		.02 Exterior quality pure acrylic emulsion paint with Teflon	m ²	8		
		03 Steel surfaces				
		.01 Super universal high gloss enamel paint	m ²	5		
BE.04	2.1.14	.01 ALTERATION WORK Alterations and repairs to existing structures:				
		.01 Remove Vinyl floor tiles	m ²	4		
		.02 Break out/hack Cement plaster screed on floors	m ²	4		
BE.04	2.1.15	.01 Cleaning and sealing of floor surfaces				
		.01 Vinyl floor tiles as per technical specification BE 06.01.01 for cleaning and sealing of vinyl floor tiles	m ²	4		
		FITTINGS				
BH.01 BH.02	2.3.13	Steelwork and joinery:				
		.01 Items measured by number:				
		.01 Standard approved hardwood veneered particle board kitchen cupboard doors, drawers and ironmongery and fixing to existing kitchen cupboards				
		.01 Kitchen cupboard door	number	2		
		.02 Kitchen cupboard drawer	number	4		
		.02 Cupboard ironmongery 0.8mm thick steel baked enamel with 32mm Formica tops	number	2		
		.01 Hinge for kitchen cupboard door	number	1		
		.02 Kitchen cupboard pull handles	number	1		
		.03 Wall unit size 1 500 mm x 300 mm x 580 mm high with three doors and one shelf	number	1		
		.04 Wall unit size 1 800 mm x 300 mm x 580 mm high with four doors and one shelf	number	1		
		.05 Base unit size 1 500 mm x 533 mm x 865 mm high with three doors, three drawers and one shelf	number	1		
		.06 Base double bowl sink unit size 1500 mm x 533 mm x 865 mm high with three doors, and one shelf	Number	1		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
BH.01	2.3.14	02 Items measured by linear metre:				
		.01 32 mm chipboard with "Formica" laminated finish on one side and profiled edges where so described .	m	2		
		.01 Work top 600 mm wide with profiled front edge and fitted on top of kitchen cupboard floor unit	m	2		
		.02 32 mm x 1,2 mm "Formica" veneered edge strips	m	2		
CARRIED FORWARD TO SUMMARY SECTION NO. 2.3						



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INSTALATION CR2 (OPERATIONAL AREA, RESIDENTIAL AREA HOUSES ETC.)
SCHEDULE NO 3: PLUMBING AND DRAINAGE RELATED CORRECTIVE WORK**

REPAIR WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>Plumbing and Drainage</u>				
	3,1	<u>General</u>				
AA11.01	3.1.1	<u>Inspection and report on existing installation</u>				
		.01 Sanitary and brassware	Item	1		
		.02 Sanitary and drainage installation	Item	1		
		.03 Domestic water installation	Item	1		
		.04 Domestic geyser installation	Item	1		
		.05 Fire water system	Item	1		
AA11.02	3.1.2	<u>As-built information</u>				
		.01 Obtaining all available information, compiling, reproducing and finalising three sets of as-built drawings as specified in AA03 and handing over to the Engineer	set	3		
AA11.02	3.1.3	<u>Logging and recording of operating conditions, maintenance visits, samples, inspections, surveys, tests etc.</u>				
		.01 Plumbing and drainage installation	item	1		
	3,2	<u>DETAIL WORK</u>				
AA11.03	3.2.1	<u>Isolation, stripping, dismantling and removal of existing brassware, sanitary ware and piping</u>				
		.01 <u>Water closets</u>				
		.01 Vitreous china WC cistern	No.	5		
		.02 Toilet seat & cover	No.	5		
		.03 Bend pan collar access heel 90°	No.	6		
	CARRIED FORWARD					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		BROUGHT FORWARD				
		.02 <u>Urinals</u>				
		.01 Destaining of urinals	No	6		
		.02 Service flush valve	No	6		
		.03 <u>Water Closets</u>				
		.01 Destaining of WC pan	No	35		
		.02 Service WC cistern flushing mechanism with repair kit	No	35		
		.04 <u>Wash hand basins and sinks</u>				
		.01 Destaining of basins	No	29		
		05 <u>Baths and Showers</u>				
		.01 Destaining and clean shower traps and grating	No	28		
	3.2.2	Water meter stations serviced including strainer and two shut-off valves:				
		.01 20mm Ø water meter	number	25		
		.02 32mm Ø water meter	number	5		
		.03 15mm Ø CP ball-o-stop valve with CP flexi tail pipe	number	30		
	3.2.3	Servicing, overhauling and cleaning of brassware				
		.01 Replace washers on brasswares with washer kits:				
		.01 15mm Ø CP pillar taps	Number	15		
		.02 200mm Ø CP pillar taps	Number	2		
		.03 15mm Ø CP wall-mounted taps	Number	55		
		.04 20mm Ø CP wall-mounted taps	Number	35		
		.05 20mm Ø brass hose bib taps	Number	35		
		.06 15mm CP sink mixers	Number	12		
		.07 15mm under wall tap	Number	28		
		.08 20mm Ø shut-off gate valve	Number	20		
		.09 32mm Ø shut-off gate valve	Number	15		
		.10 40mm Ø shut-off gate valve	Number	1		
		.11 50mm Ø shut-off gate valve	Number	1		
		CARRIED FORWARD				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	3.2.4	<u>Servicing of water, drainage and pipe installations</u>				
		.01 Servicing of brassware, including gaskets, gland packings, seals and handles:				
		.01 20mm Ø stop cocks	Number	29		
	3.2.5	.02 Servicing and cleaning of drainage installations				
		.01 Unblock and clean pipe work including fittings, 50mm a pipe	m	30		
		.02 Unblock and clean pipe work including fittings, 110mm a pipe	m	150		
		.03 Unblock and clean P-& bottle-traps	Number	85		
		.04 Unblock and clean gullies	Number	35		
		.05 Replace damaged gully with pre-cast concrete gully	Number	5		
		.06 Replace missing or broken gully grating	Number	5		
		.07 Replace missing or broken cleaning eye cover, ABC cast iron cleaning eye	Number	4		
		.08 Replace missing or broken vent valve for air vent	Number	2		
		.09 Replace missing or broken inspection eye covers	Number	2		
	3.2.6	Servicing and cleaning of domestic geysers				
		.01 150 litre electric geyser	Number	18		
	3.2.7	Servicing pipework components and supplying sanitary equipment				
		.01 Repair toilet tissue holders	Number	20		
		.02 Supply SHE bins in female toilets	Number	10		
		.03 Repair broken manhole 600mm diameter concrete lids	Number	4		
		.04 Repair broken manhole 600 x 600 cast iron lids	Number	2		
		.05 Replace missing or broken vent valve for toilet air vent	Number	8		
		.06 Replace old damaged gulley traps with 100mm uPVC gulley traps	Number	5		
		.07 Replace broken concrete gulley top with pre cast concrete gulley top	Number	5		
		.08 Replace old damaged gulley head and grit with uPVC gulley head and grit	Number	5		
		.09 Replace rusted galvanized stub stack and air vents with uPVC/soil pipe fittings	Number	5		
		.09 Replace existing problematic 110mm Dia. Soil pipe with 160mm uPVC/34 soil pipe	m	25		
	CARRIED FORWARD TO SUMMARY SECTION NO. 3					



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INSTALATION CR3 (OPERATIONAL AREA, RESIDENTIAL AREA HOUSES ETC.)**

REPAIR WORK

SCHEDULE NO 4: FENCING, CLEANING AND SITE KEEPING RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>FENCING, REFUGE REMOVAL AND PEST CONTROL</u>				
CC.01	3,10	Cleaning of growth along fence route	m	2000		
	3,1	Redress, service, tensioning and tightning of fence				
		01 Dimond mesh or Welded mesh and Clear view				
	.01	1.2m diamond mesh or welded mesh	m	975		
	.02	1.8m diamond mesh or welded mesh	m	592		
	.03	3m diamond mesh or welded mesh	m	932		
CC.02	3,3	Supply and erect fencing material to replace damaged sections				
		01. Dimond mesh or Welded mesh and Clear view				
	.01	1.8m high Clearview fence	m	15		
	03	Replace 5m long section of 3m diamond mesh or welded mesh	m	10		
CC.03	3,4	02. Replace rusted Posts (capped and founded in concrete) for:				
	.01	1.2m fence: Galvanised tubular posts	No	12		
	.03	3m fence: Galvanised tubular posts	No	5		
CARRIED FORWARD						

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
CC.03	3,5	Pest control plan for the following areas:				
		01 Operational area	No.	1		
		02 Residential area houses	No.	1		
		03 Single quarters area houses	No.	1		
		04 Residential (3 x Wepener houses)	No.	1		
CC.04	3,6	Termite and rodent control for the following areas (Internal):				
		01 Operational area	No.	1		
		02 Residential area houses	No.	1		
		03 Single quarters area houses	No.	1		
		04 Residential (3 x Wepener houses)	No.	1		
CC.05	3,7	Termite control for the following areas (External):				
		01 Operational area	No.	1		
		02 Residential area houses	No.	1		
		03 Single quarters area houses	No.	1		
		04 Residential (3 x Wepener houses)	No.	1		
CC.05	3,8	Rodent control stations including poison				
		01 Operational area	No.	25		
		02 Residential area houses	No.	20		
		03 Single quarters area houses	No.	20		
		04 Residential (3 x Wepener houses)	No.	6		
	3,9	Services of a paramedic two man team and ambulance to cater for the well being of the public during the Festive Seasons and Easter Weekends periods	Days	135		
SB	3,10	Compile maintenance and operation manuals	No.	1		
CARRIED FORWARD TO SUMMARY SECTION NO. 4						



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INSTALATION CR4 (OPERATIONAL AREA, RESIDENTIAL AREA HOUSES ETC.)
SCHEDULE NO 5: WATER TREATMENT WORKS, BULK WATER SUPPLY SYSTEMS**

REPAIR WORK

AND EXTERNAL WATER NERTWORKS RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>WATER DISTRIBUTION NETWORKS</u>				
	5,00	Water distribution pipelines				
CE.01	5,1	Bulk water meter 65mm Ø size	No	1		
CE.02	5,2	Replacement of damaged manhole covers:				
		.01 CI manhole covers: Covers and grids				
		01 Dimension: 600mm to 900m	No	2		
		02 Maximum dimension: over 900m	No	2		
CE.03	5,3	Cleaning of pipelines				
		.01 Scouring of external water network	m	240		
CE.04	5,4	Servicing of valves (Bulk water)	No	4		
CE.05	5,5	Recordconditioning of Valves installation and recommission	No	4		
CE.06	5,6	Cleaning of manholes, chambers and other related structures	No	12		
CE.07	5,7	Cleaning and sterilization of reservoir				
		.01 Sterilization of bulk water storage tanks	No	1		
		.02 Clean area around storage tanks (30m x30m) of vegetation and growth	No	1		
		.03 Re-paint existing tanks and associated gavanised pipes	No	1		
EA.02	5,8	Borehole, piping and pumps				
		.01 Clean area around boreholes and river sump (10m x 10m) of vegetation and growth	No	3		
	5,9	Testing of Boreholes				
EA.02		.01 Pump testing of boreholes	No	3		
EA.02(a)		.02 Ground water sampling	No	3		
EA.02(b)		.03 Compilation of borehole report	No	3		
		.04 Removal of existing equipment	No	3		
		.05 Re-installation of pumping equipment	No	3		
		CARRIED FORWARD				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
EA.03.01	5,10	Decommissioning and removal, servicing and reconditioning of submersible pumping equipment				
		.01 Boreholes submersible pumps	No	3		
	5,11	Water audit management system				
		.01 Compilation of Data base	Site	1		
		.02 Meter management system	Site	1		
		.03 Provision of software	Site	1		
		.04 Supply, delivery and installation of Sigle Channel Data loggers	Site	1		
		.05 Charge required by Contractor on sub item (.04) above	%			
CF.01	5,12	Prepare and operationalize a water safety plan in terms of SANS 214-1	PC sum	1	10000	10000
	5,14	Registration of Water use				
		.01 Water works	No	1		
SB	5,15	Water treatment plant				
		.01 Operation and maintenance manuals and installation in plant room	No	1		
		.02 Clean Raw water holding reservoir and inspect for leaks	No	1		
		.03 Cage for protection of clear water treatment infrastructure (Including concrete flooring and plinths for pumps)	No	1		
		.04 Service chemical dosing pumps	No	4		
		.05 Supply, install and commission chlorine contact tank	No	1		
		.06 Chlorination pump (Similar to existing type)	No	2		
	CARRIED FORWARD TO SUMMARY SECTION NO. 4					



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INSTALLATION CR5 (OPERATIONAL AREA, RESIDENTIAL AREA HOUSES ETC.)**

REPAIR WORK

SCHEDULE NO 6: WASTEWATER TREATMENT WORKS, SEWER NETWORKS RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR	
EA02.01	1,8	SEWER RETICULATION NETWORK					
	1.8.1	Sewer pipelines					
	1.8.1.1	01 Mechanical cleaning of sewer pipes and structures					
		01 Operational area	m	95			
		02 Residential area houses	m	150			
		03 Single quarters area houses	m	150			
		04 Residential (3 x Wepener houses)	m	25			
	1.8.1.2	Replacement of damaged manhole covers:					
		.01 CI manhole covers: Covers and grids					
		01 Dimension: 600mm to 900m	No	2			
		02 Maximum dimension: over 900m	No	2			
		.02 Concrete around CI manhole covers					
		01 Dimension: 600mm to 900m	m3	2			
		02 Maximum dimension: over 900m	m3	2			
		.03 12mm Plaster inside CI manhole covers					
		01 Dimension: 600mm to 900m	m3	2			
		02 Maximum dimension: over 900m	m3	2			
		.03 Replace broken brick work 220mm wall					
		01 Dimension: 600mm to 900m	m2	2			
		02 Maximum dimension: over 900m	m2	2			
	B9	1.8.1.3	Rodding eyes				
			For the construction of drop inlets at manhole, include for extra excavations, concrete, shuttering, pipe specials, coupling, etc.				
			Difference in invert levels				
		Over and Upto					
		.01 0.00m 1.00m	No.	4			
		.02 1.00m 1.50m	No.	1			
		.03 1.50m 2.00m	No.	1			
CARRIED FORWARD							

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
EB.01	1.8.2	Sewer treatment works and associated pumps				
	1.8.2.1	01 Decommissioning and removal, servicing, testing and commissioning of sewer pumps, mixers and aerator				
		01 Robot Model 1876	No.	2		
EB.01	1.8.2.2	01 Servicing of Motor control centres	No.	1		
	1.8.2.3	02 SEPTIC TANK				
		01 Lockable manhole chamber frame and lid (900mm x 600mm)	No.	1		
	CARRIED FORWARD TO SUMMARY SECTION NO. 5					



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INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR6 (OPERATIONAL AREA)**

REPAIR WORK

SCHEDULE NO 7.1: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>ROADS</u>				
CA.05.01	7.1.1	Repair of segmented paving				
	7.1.2	.01 Remove and discard damaged concrete block paving (80 mm interlocking paving blocks)	m ²	300		
CA.05.01		.02 Excavation for repair of segmented paving (max. 300 mm depth)	m ³	88		
CA.05.03		.01 Stockpile and re-use paving blocks				
		.03 Cast insitu concrete and formwork in edge beams, intermediate beams and kerbing:				
		.01 Class 30 concrete	m ³	50		
CA.05.07		.04 Concrete block paving:				
		.01 Class, type and thickness similar to existing pavement for areas carrying mainly vehicular traffic (80 mm interlocking paving blocks (grey) on 20 mm bedding sand)	m ²	300		
		.05 Replacement of jointing sand	m ²	300		
CA.02	7.1.3	Surface repairs of concrete pavements				
		.01 Preparation and sealing or resealing of old joints and cracks in existing concrete pavements				
		.01 Expansion joints > 5 mm wide	m	5		
		.02 Construction joints and weakened plane joints > 5 mm wide	m	5		
		.03 Cracks > 5 mm	m	5		
		.02 Patching of concrete:				
		.01 150mm thickness	m ³	5		
		.03 Y12 high tensile steel reinforcing bars in concrete	t	1		
		.04 Excavation and disposal of concrete pavement:				
		.01 Reinforced concrete (150 mm thickness)	m ³	3		
		CARRIED FORWARD				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
CA.06	7.1.4	Repair of kerbing:				
		.01 Patching of kerbs	m	22		
		.02 Replacing of kerbs				
		.01 Barrier kerbs similar to existing undamaged barrier kerbs	m	32		
		.02 Semi-mountable kerbs (SANS Fig. 7)	m	25		
		.03 Removal of kerbs	m	15		
CA.07	7.1.5	Erection and repair of road traffic signs.				
		.01 Erection or reinstatement of road sign boards				
		.01 Area not exceeding 2 m2	m ²	2		
		.02 Area exceeding 2 m2	m ²	25		
		.02 Road sign supports (overhead road sign structures excluded)				
		.01 Steel tubing of 76 mm diameter and 3 mm wall thickness	m	6		
		.03 Excavation and backfilling for road sign supports	m3	2		
		.04 Extra over item 700.04.03 for cement treated soil backfill	m3	2		
		.05 Hazard plates (600 x 150 mm)	number	4		
		.06 Repair of road sign faces	m ²	5		
	7.1.6	Road marking paint: (broken or unbroken)				
		.01 100 mm up to 200mm wide white lines	m	50		
		.02 100 mm up to 200mm wide yellow lines	m	350		
		.03 White lettering and symbols	m ²	6		
		.04 Yellow lettering and symbols	m ²	6		
	7.1.7	Other special tests requested by engineer:				
		.01 Cost of testing	PC Sum	1	5 000,00	5 000,00
		.02 Charge on Prime Cost Sum	%	5000		
CARRIED FORWARD						

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
CB.08.01	7.1.8	<u>STORMWATER</u>				
CA.06	7.1.9	Chemical control of vegetation				
		.01 500mm wide strip	km	1		
		02 Area covered by interlocking paving blocks	m ²	550		
CB.01.01	7.1.10	Cleaning of prefabricated culverts and inlet structures				
		.01 Prefabricated concrete pipes and portal culverts				
		.01 Up to and including 500mm	m	10		
		02 Cleaning of drainage channels				
		.01 Cleaning of concrete channels and side drains	m	12		
		03 Cast insitu concrete				
		.01 Concrete lined open drains for widths ranging from 1000mm up to 1500mm	m ³	12		
		04 Stone pitching:Medium	m ²	5		
CA.08	7.1.11	Supply and installation of speed humps				
		.01 50mm high thermoplastic speed humps (500mm long x 420mm wide). Ramps supplier in pairs (one black and yellow) including ramp end caps- 320mm long x 420mm wide.	m	22		
CARRIED FORWARD TO SUMMARY SECTION NO. 7.1						



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INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR6 (RESIDENTIAL AREA HOUSES)

REPAIR WORK

SCHEDULE NO 7.2: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
CB.08.01	7,3	STORMWATER				
CA.06	7.3.1	Chemical control of vergetation				
		.01 500mm wide strip	km	0,50	5 000,00	
		02 Area covered by interlocking paving blocks	m ²	350	15,00	
SABS 1200 MJ	7.3.2	SEGMENTED PAVING				
		Repair concrete interlocking block paving complete including amongst others sand as specified at lower residential houses carports				
		01 Type S-A, 60mm thick, Grey in colour 01. Class 35	m ²	350	250,00	
		02 Pre-cast concrete edge restraint and intermediate beams 30MPa	m ³	15	550,00	
		Provision of approved herbicide and ant poison:				
		01. (a) Provision of materials	m ²	350		
		02. (b) Contractor's charges and profit added to the prime cost sum	%			
CARRIED FORWARD TO SUMMARY SECTION NO. 7.2						



VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL
INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR6 (SIGNLE QUARTERS AREA HOUSES)

REPAIR WORK

SCHEDULE NO 7.3: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
CB.08.01	7,3	STORMWATER				
CA.06	7.3.1	Chemical control of vergetation				
		.01 500mm wide strip	km	0,50		
		02 Area covered by interlocking paving blocks	m ²	330		
SABS 1200 MJ	7.3.2	SEGMENTED PAVING				
		Repair concrete interlocking block paving complete including amongst others sand as specified at lower residential houses carports				
		01 Type S-A, 60mm thick, Grey in colour				
		01. Class 35	m ²	330		
		02 Pre-cast concrete edge restraint and intermediate beams 30MPa	m ³	32		
		Provision of approved herbicide and ant poison:				
		01. (a) Provision of materials	m ²	330		
		02. (b) Contractor's charges and profit added to the prime cost sum	%			
		.01 Concrete lined open drains for widths ranging from 1000mm up to 1500mm	m ³	22		
CARRIED FORWARD TO SUMMARY SECTION NO. 7.3						



**VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL
INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR6 (Residential (3 x Wepener houses))**

REPAIR WORK

SCHEDULE NO 7.3: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
CB.08.01	7,3	STORMWATER				
CA.06	7.3.1	Chemical control of vergetation				
		.01 500mm wide strip	km	0,20		
		02 Area covered by interlocking paving blocks	m ²	80		
SABS 1200 MJ	7.3.2	SEGMENTED PAVING				
		Repair concrete interlocking block paving complete including amongst others sand as specified at lower residential houses carports				
		01 Type S-A, 60mm thick, Grey in colour				
		01. Class 35	m ²	80		
		02 Pre-cast concrete edge restraint and intermediate beams 30MPa	m ³	12		
		Provision of approved herbicide and ant poison:				
		01. (a) Provision of materials	m ²	75		
		02. (b) Contractor's charges and profit added to the prime cost sum	%			
		.01 Concrete lined open drains for widths ranging from 1000mm up to 1500mm	m ³	10		
		CARRIED FORWARD TO SUMMARY SECTION NO. 7.3				R

CIVIL INSTALLATIONS_REPAIR WORK Summary

DEPARTMENT OF PUBLIC WORKS

VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND
SUMMARY OF SCHEDULE OF QUANTITIES: CIVIL INSTALLATIONS REPAIR WORK

		<i>ESTIMATE</i>
SCHEDULE 2.1:	INSTALLATION CR1- CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK (OPERATIONAL AREA)	
SCHEDULE 2.2:	INSTALLATION CR1- CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK (RESIDENTIAL AREA HOUSES)	
SCHEDULE 2.3:	INSTALLATION CR1- CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK (SIGNLE QUARTERS AREA HOUSES)	
SCHEDULE 2.4:	INSTALLATION CR1- CIVIL, STRUCTURAL AND BUILDING RELATED CORRECTIVE WORK (Residential (3 x Wepener houses))	
SCHEDULE 3:	INSTALLATION CR2- PLUMBING AND DRAINAGE RELATED CORRECTIVE WORK	
SCHEDULE 4:	INSTALLATION CR3: FENCING, CLEANING AND SITE KEEPING RELATED CORRECTIVE MAINTENANCE WORK	
SCHEDULE 5:	INSTALLATION CR4: WATER TREATMENT WORKS, BULK WATER SUPPLY SYSTEMS AND EXTERNAL WATER NERTWORKS RELATED CORRECTIVE MAINTENANCE WORK	
SCHEDULE 6:	INSTALLATION CR5: WASTEWATER TREATMENT WORKS AND SEWER NERTWORKS RELATED CORRECTIVE MAINTENANCE WORK	
SCHEDULE 7.1:	INSTALLATION CR6: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK (OPERATIONAL AREA)	
SCHEDULE 7.2:	INSTALLATION CR6: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK (RESIDENTIAL AREA HOUSES)	
SCHEDULE 7.3:	INSTALLATION CR6: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK (SIGNLE QUARTERS AREA HOUSES)	
SCHEDULE 7.4:	INSTALLATION CR6: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK (Residential (3 x Wepener houses))	
	SUMMARY INSTALLATIONS: DAILY CIVIL RELATED REPAIR WORK	

SIGNED ON BEHALF OF TENDERER



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

WCS: 055340

VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS **REPAIR WORK**
INSTALATION CR7 (Residential (3 x Wepener houses))

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
		<u>BUILDING INSTALLATION ELECTRICAL WORK</u>				
	200,00	DISTRIBUTION BOARDS				
AB.01.01	200,01	Service distribution boards				
		Building 2: House B1	No	1		
		Building 4: House B2	No	1		
		Building 6: House B3	No	1		
		Building 8: House B4	No	1		
		Building 10: House B5	No	1		
		Building1 2: House B6	No	1		
		Building1 4: House B7	No	1		
		Building 15: SARS Kitchen Parkhome	No	1		
		Building 16: SARS Export Office	No	1		
		Building 17: SARS Import Office	No	1		
		Building 18: BCOCC Offices	No	1		
		Building 19: Scanner Room	No	1		
		Building 20: Pedestrian Canopy	No	1		
		Building 21: Administration Block	No	1		
		Building 23: Data Server Container	No	1		
		Building 28: Store Room	No	1		
		Building 29: Generator Room	No	1		
		Building 30: Cell Block Offices	No	1		
		Building 32: Arrival Public Ablution	No	1		
		Building 33: Departure Ablution	No	1		
		Building 34: House A1 Garage	No	1		
		Building 35: House A1	No	1		
		CARRIED FORWARD				

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
		Building 36: House A2 Garage	No	1		
		Building 37: House A2	No	1		
		Building 38: House A3 Garage	No	1		
		Building 39: House A3	No	1		
		Building 40: House A4 Garage	No	1		
		Building 41: House A4	No	1		
		Building 42: House A5 Garage	No	1		
		Building 43: House A5	No	1		
		Building 44: House A6 Garage	No	1		
		Building 45: House A6	No	1		
		Building 46: Fire Booster Pumps	No	1		
		Building 47: High Level Water Tank	No	1		
		Building 48: Borehole 1	No	1		
		Building 49: Borehole Building 2	No	1		
		Building 50: Tennis Court Building	No	1		
		Building 51: Bore Hole Building	No	1		
		Building 52: Fire Hydrant Water Tank	No	1		
		Building 54: Sewer Pump Station	No	1		
		Wepener House : House 86A	No	1		
		Wepener House : House 86A Garage	No	1		
		Wepener House : House 86B	No	1		
		Wepener House : House 86B Garage	No	1		
		Wepener House : House 86C	No	1		
		Wepener House : House 86C	No	1		
		Site Layout: Distribution Kiosk: DK HOUSES	No	1		
		Site Layout: Distribution Kiosk: DK AREA LIGHTS	No	1		
		Site Layout: Distribution Kiosk: DK ABLUTION AREA	No	1		
CARRIED FORWARD						

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.01.02	200,02	Replace distribution boards Building 53: Lapa Recreation Building DB 8 complete	No	1		
AB.01.13	200,03	Supply and install of circuit breakers (CBI only) (SANS approved) 01: 10-40A 6kA Single pole 02: 40-60A 6kA Single pole 03: 10-40A 6kA Double pole 04: 10-40A 6kA Triple pole 05: 40-80A 6kA Triple pole 06: 10-80A 15kA Triple pole 07: 80-100A 15kA Triple pole 08: 100-160A 15kA Triple pole 09: 160-250A 15kA Triple pole	No No No No No No No No No	54 24 10 14 9 7 1 4 4		
AB.01.14	200,04	Supply and install of isolators (CBI only) (SANS approved) 01: 20-40A 6kA double pole 02: 60A 6kA Single pole 03: 60A 6kA Double pole 04: 60A 6kA Triple pole 05: 100A 6kA single pole 06: 100A 6kA double pole 07: 100A 6kA triple pole	No No No No No No No	1 2 6 1 0 1 3		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
AB.01.15	200,05	Supply and install of contactors (CBI only) (SANS approved) 01: 10A single pole 02: 20A single pole 03: 30A single pole 04: 10A three pole 05: 20A three pole 06: 30A-60A three pole	No	1		
			No	1		
			No	1		
			No	1		
			No	1		
			No	3		
AB.01.16	200,06	Supply and install of switching timers (SANS approved) 01: Clip in Timer	No	4		
AB.01.17	200,07	Supply and install of earth leakage units (CBI only) (SANS approved) 01: 60A, 5kA 1P&N pole no-overload 02: 60A, 5kA 3P&N pole no-overload 03: 100A, 5kA 3P&N pole no-overload 04: 60A, 5kA 1P&N pole overload type 05: 60A, 5kA 3P&N pole overload type 06: 100A, 5kA 3P&N pole overload type	No	1		
			No	1		
			No	1		
			No	12		
			No	1		
			No	1		
AB.01.18	200,08	Supply and install of kWh meters (CBI only) (SANS approved) 01: kWh meters	No	9		
AB.01.19	200,09	Supply and install of surge arrestors (SANS approved) 01: "Surge Tech" with indication light or flag 1 Pole	No	16		
AB.01.20	200,10	Supply and install circuit labeling kit (SANS approved) 01: Circuit Labeling kit	No	60		
CARRIED FORWARD						

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.01.03	200,11	<u>LOW VOLTAGE CABLE INSTALLATIONS</u>				
	200,12	Replace cabling				
		01: 300mm sq x 4 core PVCISWA	m	1		
		02: 240mm sq x 4 core PVCISWA	m	1		
		03: 185mm sq x 4 core PVCISWA	m	1		
		04: 150mm sq x 4 core PVCISWA	m	1		
		05: 120mm sq x 4 core PVCISWA	m	1		
		06: 95mm sq x 4 core PVCISWA	m	1		
		07: 70mm sq x 4 core PVCISWA	m	1		
		08: 50mm sq x 4 core PVCISWA	m	1		
		09: 35mm sq x 4 core PVCISWA	m	1		
		10: 25mm sq x 4 core PVCISWA	m	1		
		11: 16mm sq x 4 core PVCISWA	m	1		
		12: 16mm sq x 3 core PVCISWA	m	1		
		13: 10mm sq x 4 core PVCISWA	m	1		
		14: 10mm sq x 3 core PVCISWA	m	1		
		15: 6mm sq x 4 core PVCISWA	m	1		
		16: 6mm sq x 3 core PVCISWA	m	1		
		17: 4mm sq x 4 core PVCISWA	m	1		
		18: 4mm sq x 3 core PVCISWA	m	1		
		19: 2.5mm sq x 4 core PVCISWA	m	1		
		20: 2.5mm sq x 3 core PVCISWA	m	1		
	21: 1.5mm sq x 4 core PVCISWA	m	1			
	22: 1.5mm sq x 3 core PVCISWA	m	1			
AB.01.05	200,13	Jointing and termination of cables				
		01: 300mm sq x 4 core PVCISWA	m	1		
		02: 240mm sq x 4 core PVCISWA	m	1		
		03: 185mm sq x 4 core PVCISWA	m	1		
		04: 150mm sq x 4 core PVCISWA	m	1		
		05: 120mm sq x 4 core PVCISWA	m	1		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
		06: 95mm sq x 4 core PVCISWA	m	1		
		07: 70mm sq x 4 core PVCISWA	m	1		
		08: 50mm sq x 4 core PVCISWA	m	1		
		09: 35mm sq x 4 core PVCISWA	m	1		
		10: 25mm sq x 4 core PVCISWA	m	1		
		11: 16mm sq x 4 core PVCISWA	m	1		
		12: 16mm sq x 3 core PVCISWA	m	1		
		13: 10mm sq x 4 core PVCISWA	m	1		
		14: 10mm sq x 3 core PVCISWA	m	1		
		15: 6mm sq x 4 core PVCISWA	m	1		
		16: 6mm sq x 3 core PVCISWA	m	1		
		17: 4mm sq x 4 core PVCISWA	m	1		
		18: 4mm sq x 3 core PVCISWA	m	1		
		19: 2.5mm sq x 4 core PVCISWA	m	1		
		20: 2.5mm sq x 3 core PVCISWA	m	1		
		21: 1.5mm sq x 4 core PVCISWA	m	1		
		22: 1.5mm sq x 3 core PVCISWA	m	1		
AB.01.06	200,14	Supply and instal padlocks				
		01: 75mm Locally manufactured padlocks	m	59		
AB.01.07	200,15	Excavate in all materials for trenches, backfill, compact and dispose of surplus material				
		Cable or sleeve trenches not exceeding 1 metre deep.	m3	1		
		Select from excavation materials and install a sandbedding in trench 200mm deep and 400mm wide (100mm above and 100mm below the cable)	m3	1		
		Backfilling of trenches with excavated soil after cables have been laid and tested complete with compacting of backfilling, levelling-off of trenches and removing and dumping of surplus excavated material	m3	1		
		Allow for removing of road tar and making good when finish	m2	1		
		Allow for removing of paving and making good when finish	m2	1		
		Allow for removing of concrete and making good when finish	m2	1		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
AB.01.08	200,16	Supply and install cable sleeves & slow bends				
		01: 110mm diameter HDPE	m	1		
		02: 75mm diameter HDPE	m	0		
		03: 50mm diameter HDPE	m	1		
AB.01.09	200,17	Supply and install plastic warning tape				
		01: Lowvoltage danger tape	m	1		
AB.01.10	200,18	Termination of low voltage cable				
		01: 300mm sq x 4 core PVCISWA	No	1		
		02: 240mm sq x 4 core PVCISWA	No	1		
		03: 185mm sq x 4 core PVCISWA	No	1		
		04: 150mm sq x 4 core PVCISWA	No	1		
		05: 120mm sq x 4 core PVCISWA	No	1		
		06: 95mm sq x 4 core PVCISWA	No	1		
		07: 70mm sq x 4 core PVCISWA	No	1		
		08: 50mm sq x 4 core PVCISWA	No	1		
		09: 35mm sq x 4 core PVCISWA	No	1		
		10: 25mm sq x 4 core PVCISWA	No	1		
		11: 16mm sq x 4 core PVCISWA	No	1		
		12: 16mm sq x 3 core PVCISWA	No	1		
		13: 10mm sq x 4 core PVCISWA	No	1		
		14: 10mm sq x 3 core PVCISWA	No	1		
		15: 6mm sq x 4 core PVCISWA	No	1		
		16: 6mm sq x 3 core PVCISWA	No	1		
		17: 4mm sq x 4 core PVCISWA	No	1		
		18: 4mm sq x 3 core PVCISWA	No	1		
		19: 2.5mm sq x 4 core PVCISWA	No	1		
		20: 2.5mm sq x 3 core PVCISWA	No	1		
		21: 1.5mm sq x 4 core PVCISWA	No	1		
		22: 1.5mm sq x 3 core PVCISWA	No	1		
CARRIED FORWARD						

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.01.11	200,19	Supply and install earth continuity conductor				
		01: 300mm sq BCEW	m	1		
		02: 240mm sq BCEW	m	1		
		03: 185mm sq BCEW	m	1		
		04: 150mm sq BCEW	m	1		
		05: 120mm sq BCEW	m	1		
		06: 95mm sq BCEW	m	1		
		07: 70mm sq BCEW	m	1		
		08: 50mm sq BCEW	m	1		
		09: 35mm sq BCEW	m	1		
		10: 25mm sq BCEW	m	1		
		11: 16mm sq BCEW	m	1		
		12: 10mm sq BCEW	m	1		
		13: 6mm sq BCEW	m	1		
		14: 4mm sq BCEW	m	1		
		15: 2.5mm sq BCEW	m	1		
		16: 1.5mm sq BCEW	m	1		
AB.01.12	200,20	Termination of earth continuity conductor				
		01: 300mm sq BCEW	No	1		
		02: 240mm sq BCEW	No	1		
		03: 185mm sq BCEW	No	1		
		04: 150mm sq BCEW	No	1		
		05: 120mm sq BCEW	No	1		
		06: 95mm sq BCEW	No	1		
		07: 70mm sq BCEW	No	1		
		08: 50mm sq BCEW	No	1		
		09: 35mm sq BCEW	No	1		
		10: 25mm sq BCEW	No	1		
		11: 16mm sq BCEW	No	1		
		12: 10mm sq BCEW	No	1		
	BROUGHT FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.01.04		12: 10mm sq BCEW	No	1		
		13: 6mm sq BCEW	No	1		
		14: 4mm sq BCEW	No	1		
		15: 2.5mm sq BCEW	No	1		
		16: 1.5mm sq BCEW	No	1		
		200,21 <u>WIRING</u>				
		200,22 <u>Replace wiring</u>				
		01: 1.5mm sq PVC insulated	m	0		
		02: 2.5mm sq PVC insulated	m	2090		
		03: 4.0mm sq PVC insulated	m	2075		
		04: 6.0mm sq PVC insulated	m	4150		
		05: 10mm sq PVC insulated	m	0		
		06: 16mm sq PVC insulated	m	0		
AB.02.01		07: 1.5mm sq BCEW	m	2090		
		08: 2.5mm sq BCEW	m	2075		
		09: 4.0mm sq BCEW	m	4150		
		10: 6.0mm sq BCEW	m	0		
		11: 10mm sq BCEW	m	0		
		12: 16mm sq BCEW	m	0		
		200,23 <u>LIGHTING INSTALLATION</u>				
		200,24 <u>Re-lamp Luminaires</u>				
		01: 58W Flourescent	No	495		
		02: 36W Flourescent	No	125		
		03: 18W Flourescent	No	52		
		05: 1000W MH	No	21		
		06: 400W HPS	No	15		
	07: 400W MV	No	16			
	08: 400W MH	No	21			
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
		09: 250W HPS	No	10		
		10: 250W MV	No	12		
		11: 250W MH	No	1		
		12: 150W HPS	No	1		
		13: 125W MV	No	2		
		14: 150W MH	No	1		
		15: 70W HPS	No	1		
		16: 80W MV	No	20		
		17: 100W MH	No	1		
		18: PL9 Watt	No	350		
		19: PL18 Watt	No	450		
		20: PL26 Watt	No	100		
		21: 11W Energy Saver	No	38		
		22: 15W Energy Saver	No	23		
		23: 20W Energy Saver	No	0		
		24: 50W 12V	No	0		
		25: 50W 220V	No	0		
		26: 16W 2D	No	0		
AB.02.02	200,25	Service Luminaires				
		01: Type A	No	16		
		02: Type B	No	18		
		03: Type C	No	0		
		04: Type D	No	36		
		05: Type E	No	224		
		06: Type F	No	3		
		07: Type G	No	20		
		08: Type H	No	161		
		09: Type I	No	4		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
		10: Type J	No	29		
		11: Type K	No	0		
		12: Type L	No	1		
		13: Type M	No	14		
		14: Type N	No	24		
		15: Type O	No	0		
		16: Type P	No	44		
		17: Type Q	No	0		
		18: Type R	No	0		
		19: Type S	No	0		
		20: Type T1	No	0		
		21: Type T2	No	0		
		22: Type U1	No	0		
		23: Type U2	No	0		
		24: Type U3	No	0		
		25: Type U4	No	0		
		26: Type U5	No	0		
		27: Type V	No	0		
		28: Type W1	No	0		
		29: Type W2	No	0		
		30: Type	No	0		
		31: Type	No	0		
		32: Type	No	0		
		33: Type	No	0		
		34: Type	No	0		
		35: Type	No	0		
		36: Type	No	0		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.02.03	200,26	Replace Luminaires				
		01: Type XA	No	5		
		02: Type XB	No	5		
		03: Type XC	No	5		
		04: Type XD	No	12		
		05: Type XE	No	8		
		06: Type XF	No	2		
		07: Type XG	No	4		
		08: Type XH	No	4		
		09: Type XI	No	1		
		10: Type XJ	No	4		
		11: Type XK	No	2		
		12: Type XL	No	1		
		13: Type XM	No	1		
		14: Type XN	No	4		
		15: Type XO	No	5		
		16: Type XP	No	5		
		17: Type XQ	No	5		
		18: Type XR	No	5		
		19: Type XS	No	0		
		20: Type XT1	No	0		
		21: Type XT2	No	0		
		22: Type XU1	No	0		
		23: Type XU2	No	0		
		24: Type XU3	No	0		
		25: Type XU4	No	0		
		26: Type XU5	No	0		
		27: Type XV	No	0		
		28: Type XW1	No	0		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
		29: Type XW2	No	0		
		30: Type	No	0		
		31: Type	No	0		
		32: Type	No	0		
		33: Type	No	0		
		34: Type	No	0		
		35: Type	No	0		
		36: Type	No	0		
AB.02.06	200,27	Replace Luminaires diffuser or lens				
		01: Type A	No	8		
		02: Type B	No	16		
		03: Type C	No	0		
		04: Type D	No	16		
		05: Type E	No	1		
		06: Type F	No	1		
		07: Type G	No	0		
		08: Type H	No	42		
		09: Type I	No	0		
		10: Type J	No	2		
		11: Type K	No	0		
		12: Type L	No	0		
		13: Type M	No	6		
		14: Type N	No	0		
		15: Type O	No	0		
		16: Type P	No	0		
		17: Type Q	No	40		
		18: Type R	No	0		
		19: Type S	No	0		
		20: Type T1	No	0		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
		21: Type T2	No	0		
		22: Type U1	No	0		
		23: Type U2	No	0		
		24: Type U3	No	0		
		25: Type U4	No	0		
		26: Type U5	No	0		
		27: Type V	No	0		
		28: Type W1	No	0		
		29: Type W2	No	0		
		30: Type	No	0		
		31: Type	No	0		
		32: Type	No	0		
		33: Type	No	0		
		34: Type	No	0		
		35: Type	No	0		
AB.03.16	200,28	Supply and installation of internal luminaire components				
		01: Choke for 36W fluorescent	No	17		
		02: Choke for 58W fluorescent	No	37		
		03: Fluorescent starters	No	34		
		04: Electronic Starter for 36W fluorescent	No	6		
		05: Electronic Starter for 58W fluorescent	No	16		
AB.02.07	200,29	Ceiling replacement:				
		01: Luminaire removal and reinstallation	No	15		
AB.02.08	200,30	Service light switch:				
		01: 16A All Type of light switches	No	159		
AB.02.08	200.30a	Boomgate:				
		01: Heavy Duty boom gate with ground floor spike complete with pushbutton for open/closing as per project spesification	No	2		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.02.04	200,31	Replace light switch				
		01: 16A, One Lever, One Way	No	23		
		02: 16A, Two Lever, One Way	No	10		
		03: 16A, Three Lever, One Way	No	10		
		04: 16A, Four Lever, One Way	No	1		
		05: 16A, One Lever, Two Way	No	4		
		06: 16A, Water tight, robust	No	2		
		07: 16A, Dimmers	No	0		
AB.02.05	200,32	Replace Photo electric switch				
		01: National or equal 16A unit bracket mounted inside a semi-recessed york fitting	No	21		
	200,33	<u>POWER OUTLETS</u>				
AB.03.07	200,34	Service socket outlet				
		01: 16A, single wall plug	No	15		
		02: 16A, double wall plug	No	6		
		03: 16A, single dedicated plug	No	23		
		04: 16A, double dedicated plug	No	5		
		05: 16A, single power skirting plug	No	102		
		06: 16A, single dedicated power skirting plug	No	102		
AB.03.01	200,35	Replace socket outlet				
		01: 16A, single wall plug	No	13		
		02: 16A, double wall plug	No	35		
		03: 16A, single dedicated plug	No	30		
		04: 16A, double dedicated plug	No	4		
		05: 16A, single power skirting plug	No	38		
		06: 16A, single dedicated power skirting plug	No	12		
		07: 16A 2P+E Wall plug & socket	No	0		
		08: 32A 2P+E Wall plug & socket	No	0		
		09: 16A 3P+E Wall plug & socket	No	0		
		10: 32A 3P+E Wall plug & socket	No	0		
		11: 60A 3P+E Wall plug & socket	No	0		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.03.08	200,36	Service isolators				
		01: 30A, 2P+E	No	111		
		02: 60A, 2P+E	No	2		
		03: 30A, 3P+E	No	1		
		04: 60A, 3P+E	No	5		
		05: 100A, 3P+E	No	1		
AB.03.02	200,37	Replace isolators				
		01: 30A, 2P+E	No	17		
		02: 30A, 2P+E with cord grip	No	7		
		03: 30A, 2P in York box	No	0		
		04: 30A, 3P+E	No	1		
		05: 60A, 3P+E	No	5		
		06: 100A, 3P+E	No	1		
AB.03.03	200,38	Replace plug tops				
		01: 16A 3-pin	No	19		
		02: 16A square	No	0		
		03: 30A, 2P in York box	No	0		
		04: 30A, 3P+E	No	2		
		05: 60A, 3P+E	No	2		
		06: 100A, 3P+E	No	2		
	200,39	<u>FIXED APPLIANCE AND COMPONENTS</u>				
AB.03.07	200,40	Replace connection from isolator to fixed appliance, with flexible copex (spraque) conduit and conductors eg stove or geyser				
		01: Stove 2x6mm sq PVC and 4mm sq BCEW conductors	m	8		
		02: Stove 3x6mm sq PVC and 4mm sq BCEW conductors	m	0		
		03: Geyser 2x6mm sq PVC and 4mm sq BCEW conductors	m	18		
		04: Geyser 3x6mm sq PVC and 4mm sq BCEW conductors	m	0		
		05: Service extractor fans	No	14		
		06: Service ceiling fans	No	6		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
	200,41	<u>WIRE WAYS AND ACCESSORIES</u>				
AB.03.04	200,42	Replace conduit:				
		01: 20mm dia Galvinased Steel	m	30		
		02: 25mm dia Galvinased Steel	m	5		
		03: 32mm dia Galvinased Steel	m	5		
		04: 20mm dia Black Enammeld (bosal)	m	100		
		05: 25mm dia Black Enammeld (bosal)	m	150		
		06: 32mm dia Black Enammeld (bosal)	m	0		
		07: 50mm PVC Sleeves	m	0		
		08: 75mm PVC Sleeves	m	0		
		09: 110mm HDPE Sleeves	m	0		
		10: 160mm HDPE Sleeves	m	0		
		11: Pedestal 200x200x900mm 1.6mm steel (ref to dwg)	No	0		
AB.03.10	200,43	Supply and Install outlet boxes:				
		01: 50 x 100mm Galvinased Steel	No	1		
		02: 100 x 100mm dia Galvinased Steel	No	1		
		03: 50 x 100mm white enamel extension box	No	1		
		04: 100 x 100mm white enamel extension box	No	1		
		05: 60mm round 1 to 4 way Galv. outlet box	No	20		
AB.03.11	200,44	Supply and Install draw box cover plates:				
		01: to fit 50 x 100mm	No	1		
		02: to fit 100 x 100mm	No	1		
		03: to fit 60mm round 1 to 4 way Galv. outlet box	No	5		
AB.03.06	200,45	Replace power skirting				
		01: 2 channel 3 compartment galv steel	m	26		
AB.03.05	200,46	Replace wiring channels				
		01: P2000 complete	m	0		
		02: P4000 complete	m	0		
		03: P8000 complete	m	0		
		04: P9000 complete	m	0		
	CARRIED FORWARD					

ELECTRICAL BUILDING WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
	BROUGHT FORWARD					
AB.03.08	200,47	Replace geyser components 01: 2 kW Electrical Element 02: 3 kW Electrical Element	No No	41 41		
AB.03.12	200,48	Test and service ceiling mounted fan 01: Fan	No	4		
AB.03.13	200,49	Replace ceiling mounted fan 01: Fan	No	4		
AB.03.14	200,50	Service ceiling mounted fan control switch 01: Fan control	No	0		
AB.03.15	200,51	Repalce ceiling mounted fan control switch 01: Fan control	No	4		
AB.04	200,52	<u>EARTHING AND BONDING</u>				
AB.04.01	200,53	Provide earthing and bonding in all buildings 01: Earth and bond for all distribution boards 02: Earth and bond for all geysers 03: Earth and bond for all water pipes 04: Earth and bond for all gutters and roof	No No No No	30 16 31 31		
	200,54	<u>LIGHTING PROTECTION</u>				
AB.04.03	200,55	Supply and install lighting protection system for all building (Earthing and Lighting Protection Installer (ELPA) Accredited installer only 01: Down conductor points complete with test joints, earth spike, etc 02: Aluminium Roof conductors	No m	107 10		
AB.04.02	200,56	Testing of lighting earthing by a specialist contractor for all buildings 01: Provide Certificate of Compliance for each and all buildings	No No	40 40		
AB.05	200,57	<u>TESTING OF THE INSTALLATION</u>				
AB.05.01		01: Testing of the installation and issuing a "Certificate of Compliance" by and Accredited person for each distribution board	No	37		
	CARRIED FORWARD TO SUMMARY OF 200-AB BUILDING ELECTRICAL INSTALLATION					



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**VAN ROOYENSHEK PORT OF ENTRY:: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALATION CR7 (Residential (3 x Wepener houses))**

SCHEDULE NO AB3 : BUILDING INSTALLATION

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
		<u>BUILDING INSTALLATION ELECTRICAL WORK</u>				
AB 06.03		<u>TOOLS & SPARES</u>				
AB 06.03	200,01	TOOLS & SPARES THAT SHALL BE SUPPLIED				
		01: 58W Flourescent	No	200		
		02: 36W Flourescent	No	20		
		03: 18W Flourescent	No	10		
		05: 1000W MH	No	15		
		06: 400W HPS	No	10		
		07: 400W MV	No	10		
		08: 400W MH	No	10		
		09: 250W HPS	No	10		
		10: 250W MV	No	10		
		11: 250W MH	No	10		
		12: 150W HPS	No	10		
		13: 125W MV	No	10		
		14: 150W MH	No	10		
		15: 70W HPS	No	10		
		16: 80W MV	No	10		
		17: 100W MH	No	10		
		18: PL9 Watt	No	240		
		19: PL18 Watt	No	150		
		20: PL26 Watt	No	74		
		21: 11W Energy Saver	No	165		
		22: 15W Energy Saver	No	86		
		23: 20W Energy Saver	No	45		
		24: 50W 12V	No	-		
		25: 50W 220V	No	-		
		26: 16W 2D	No	-		
		27.DB Panel key-sqaure key	No	8		
		28.DB Panel key-triangular key	No	6		
		29.Special spawlers for cell tamperproof luminaires made from hardened steel	No	5		
		CARRIED FORWARD				

TOOLS AND SPARES

	BROUGHT FORWARD				
SB 05/AB03	<u>OPERATING AND MAINTENANCE MANUALS</u>				
AB 03.01	200,01	A COMPLETE SET OF OPERATING AND MAINTENACE MANUALS SHALL BE ISSUED			
		Distribution boards and cabling	SET	3	
		Lighting system	SET	3	
		Small power and fixed appliances	SET	3	
		Earthing and lightning protection	SET	3	
		Complete "As-builts" drawings	SET	3	
		Complete "As-Builts" dwg. for all cables	SET	3	
	CARRIED FORWARD TO SUMMARY OF 200-AB BUILDING ELECTRICAL INSTALLATION				



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SCHEDULE OF QUANTITIES: REPAIR AND MAINTENANCE WORK

INSTALLATION CR7.2

SCHEDULE NO 401: REPAIR OF STANDBY POWER SYSTEMS

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	401,00	<u>STANDBY POWER SYSTEMS</u>				
HB.03	401,01	Operating and maintenance manuals				
HA 03.01		.01 The contractor shall be responsible for the compilation of a complete set of Operating and Maintenance manuals.	No	2		
		Over and above item .01				
HB 03.02.01 a)		.02 Complete system description of each standby power source.	No	2		
HB 03.02.01 b)		.03 Service records.	No	2		
HB 03.02.02 a)		.04 Commissioning data	No	2		
HB 03.02.03	401,02	Operating data				
HB 03.02.03 a)		.01 Safety precautions to be implemented	item	2		
HB 03.02.03 b)		.02 Operation	item	2		
HB 03.02.03 b)		.03 Starting	item	2		
HB.03.02.04	401,03	Maintenance instructions				
a)		.01 Recommended service intervals with service description	No	2		
b)i		.02 Projected service life of - diesel engine to next overhaul	No	2		
b)ii		.03 Projected service life of - diesel engine starter batteries	No	2		
c)		.04 Trouble shooting diagrams	No	2		
d)		.05 Schedule of consumable spares	No	2		
		CARRIED FORWARD				

STANDBY POWER

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HB.04	401,04	Test and inspections				
HB 04.01		It is the responsibility of the contractor to provide all labour, accessories and properly calibrated and certified measuring instruments necessary to record the following parameters:				
HB 04.01.01		.01 Output phase voltages	item	2		
HB 04.01.02		.02 Output current per phase	item	2		
HB 04.01.03		.03 Insulation testing at 500V	item	2		
HB 04.01.04		.04 System earthing resistance testing	item	2		
HB 04.01.05		.05 Load testing, utilising dummy loads	item	2		
HB.05	401,05	Logging and recording procedures				
HA 05.01		.01 Implement the logbook system complete as per specification	item	2		
HB.06	401,06	Maintenance tools and spares				
HB 06.03		.01 Complete tools and spares as required per specification for each generator and generator room.	item	2		
HB.08	401,07	Re-commissioning of installation				
HB 08		.01 On practical completeion of the repair work,battery replacement and services the installations shall be put into operation	item	2		
HB.10.02	401,08	Repair work : generators				
		This section contains the specifications for the initial repair procedures that will be completed as part of the contract.The contractor should note that the tendered rate for each procedure shall include both the supply and delivery,installation,testing and commissioning of equipment and material, and the labour and other costs associated with the completion of the procedure.				
CARRIED FORWARD						

STANDBY POWER

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	BROUGHT FORWARD					
HB 10.02.01		.01 Clean plant room, clean and re-lamp luminaires. Seal all sleeves with chicken wire and builders foam. Put rodent poison inside cable trenches (2x 500g per generator room)	sum	2		
HB 10.02.01		.02 Paint floor with epoxy paint	sum	2		
HB 10.02.01		.03 Service diesel and steam clean engine, alternator as well as day tank.	item	6		
HB 10.02.01		.04 Inspect all rubber houses and wiring; replace if required	item	6		
HB 10.02.01		.05 Service existing battery	item	6		
HB 10.02.01		.06 Do cold starting volt drop test on prime mover starter battery; replace starter battery if required.	item	6		
HB 10.02.01		.07 Clean sliprings and inspect bushgear. Open alternator terminal box, clean and tighten terminations. Check and record earthing value.	item	2		
HB 10.02.01		.08 Service alarm panel and clean internally and externally. Simulate and verify all alarm and shutdown conditions. Replace all inoperative lamps, sirens and meters.	item	2		
HB 10.02.01		.09 Repair lagging on exhaust system and reseal room exit port.	item	2		
HB.10.03	401,09	Repair work : generators				
HB 10.03.01		.01 Repair plant room.	item	2		
HB 10.03.02		.02 Service genset.	item	2		
HB 10.03.03		.03 Diesel engine service.	item	2		
HB 10.03.04		.04 Replace starter battery.	item	2		
HB 10.03.05		.05 Dummy load test.	item	2		
HB 10.03.06		.06 Change over switchgear service.	item	2		
HB 10.03.07		.07 Fit new padlocks on plant room.	item	2		
	CARRIED FORWARD					

STANDBY POWER

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HB 10.03.08		.08 Supply of fuel.	litres	28 800		
HB 10.03.09		.09 Supply of tools and spares.	sum	4		
		The following items must be taken into consideration when prizing for the maintenance of all UPS systems: Please note - this is only a guideline to determine the maintenance measured elsewhere as described in Section HB12.06.				
HB.12.06	401,15	UPS Maintenance The following activities shall be executed during each two monthly inspections :UPS units 18 times in 3 years				
HB.12.06.01a)		.01 Record mains input voltage	No	3		
HB.12.06.01a)		.02 Record unregulated DC voltage	No	3		
HB.12.06.01a)		.03 Record battery voltage	No	3		
HB.12.06.01a)		.04 Visually check appearance of DC capacitors	No	3		
HB.12.06.01a)		.05 Visually inspect soft-start relays and resistors	No	3		
HB.12.06.01a)		.06 Record power supply output voltage on 5V and 12V maximum	No	3		
HB.12.06.01a)		.07 Measure free running frequency	No	3		
HB.12.06.01a)		.08 Check phase-lock loop	No	3		
HB.12.06.01a)		.09 Measure inverter output voltage and verify wave shape	No	3		
HB.12.06.01a)		.10 Check fan operation	No	3		
HB.12.06.01a)		.11 Check and record phase error voltage	No	3		
HB.12.06.01b)		The following activities shall be measured and recorded during each two monthly inspections .12 Output voltage	No	3		
CARRIED FORWARD						

STANDBY POWER

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HB.12.06.01b)		.13 Load current	No	3		
HB.12.06.01b)		.14 Verify correct fuse ratings	No	3		
HB.12.06.01c)		.15 Clean cabinets externally and internally	No	3		
HB.11.03	401,16	Repair work : UPS units				
HB 11.03.01		.01 Service UPS electronic and battery cabinet	No	3		
HB 11.03.02		.02 Dummy Load test	No	3		
HB 11.03.03		.03 Replace UPS batteries	No	3		
CARRIED FORWARD TO MAIN SUMMARY OF ALL SCHEDULES						

EXTERIOR LIGHTING SYSTEM



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SCHEDULE OF QUANTITIES: REPAIR AND MAINTENANCE WORK

INSTALLATION CR7.3

SCHEDULE NO 403:REPAIR OF EXTERIOR LIGHTING SYSTEMS

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	403,00	EXTERIOR LIGHTING SYSTEMS				
HE.03	403,01	Operating and maintenance manuals				
HE 03.01		.01 Contractor to compile a complete set of operating and maintenance manuals	item	1		
HE.03.02	403,02	Operating and maintenance manuals				
HE 03.02.01		.01 Description of installation	item	1		
HE 03.02.02		.02 Commisioning data	item	1		
HE 03.02.03		.03 Operating data	item	1		
HE 03.02.04		.04 Maintenance instructions	item	1		
HE.04	403,03	Test and inspections prior to practical completion				
HE 04.01		.01 Provide all labour,accessories and calibrated and certified measuring instruments to record the following:	item	1		
HE 04.01.01		.02 Phase voltages	item	1		
HE 04.01.02		.03 Current per phase	item	1		
HE 04.01.03		.04 Illumination levels in lux	item	1		
HE 04.01.04		.05 Insulation testing at 500V	item	1		
HE 04.01.05		.06 Earth resistance testing by means of Wheatstone bridge instrument	item	1		
	CARRIED FORWARD					

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HE.05	403,04	Logging and recording procedure				
		The contractor must compile a complete logbook system with at least the following data:				
HE 05.02.01		.01 Monthly lamp inspection and maintenace actions	No	36		
HE 05.02.02		.02 Bi-annual inspection and testing of lighting systems	No	6		
HE 05.02.03		.03 Annual earthing test report	No	3		
HE 05.02.04		.04 Breakdown / call out reports	No	72		
HE.05	403,05	Maintenance tools and spares				
		The tools and spares described hereafter will by commencement of the contract be handed to the maintenance team and will be the property of The Department of Public Works. Monthly inspection will determine the amounts to be replaced by the contractor :				
HE 06.03		.01 125W MV lamps	No	10		
HE 06.03		.02 250W MV lamps	No	10		
HE 06.03		.03 400W HPS lamps	No	10		
HE 06.03		.04 26W PL lamps	No	5		
HE 06.03		.05 1000W MH lamps	No	5		
HE 06.03		.06 Distribution kiosk - special key	No	3		
HE 06.03		.07 Light pole cover triangular key	No	3		
HE 06.03		.08 DB Key	No	3		
CARRIED FORWARD						

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	BROUGHT FORWARD					
HE 06.03		.09 DB Faceplate square key	No	3		
HE 06.03		.10 Lighting mast cover square key	No	1		
HE 06.03		.11 Lighting mast rope set	No	1		
HE 06.03		.12 Safety harness for masts	No	1		
HE.07	403,06	Quality assurance system				
HE 07.01		.01 Implement the QA system	item	1		
HE 07.02		.02 Records of the QA system	item	1		
HE.08	403,07	Re-commissioning of installation				
HE.08.01		.01 On completion of repair re-commission the works	No	9		
HE.09	403,08	Repair work to external lighting installations The contractor must adhere to standard specifications item HE 09.01 to HE 09.06 and the following repair work must be done :				
HE 09.06 a)		.01 Excavate in all materials for trenches,backfill,compact and dispose of all surplus material	m ³	12		
HE 09.06 b)		.02 Extra over item HE 09.06 a) for excavation in hard material	m ³	12		
HE 09.06 c)		.03 Extra over item HE 09.06 a) for excavation by hand in all material	m ³	12		
HE 09.06 d)		.04 Extra over item HE 09.06 a) for using backfill material obtained from sources provided by the contractor	m ³	12		
HE 09.06 e)		Supply and install cable sleeves				
HE 09.06 e)		.05 110mm PVC	m	5		
HE 09.06 e)		.06 75mm PVC	m	5		
HE 09.06 e)		.07 50mm PVC	m	5		
	CARRIED FORWARD					

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	BROUGHT FORWARD					
HE 09.06 f)		.08 Supply and install plastic cable warning tape	m	50		
HE 09.06 g)		Supply and delivery of low voltage cable				
HE 09.06 g)		.09 1,5mm ² x 3 Core PVCISWA	m	40		
HE 09.06 g)		.10 1,5mm ² x 4 Core PVCISWA	m	25		
HE 09.06 g)		.11 2,5mm ² x 4 Core PVCISWA	m	15		
HE 09.06 g)		.12 4mm ² x 4 Core PVCISWA	m	30		
HE 09.06 g)		.13 6mm ² x 4 Core PVCISWA	m	25		
HE 09.06 g)		.14 10mm ² x 4 Core PVCISWA	m	15		
HE 09.06 h)		Install low voltage cable				
HE 09.06 h)		.15 1,5mm ² x 3 Core PVCISWA	m	40		
HE 09.06 h)		.16 1,5mm ² x 4 Core PVCISWA	m	25		
HE 09.06 h)		.17 2,5mm ² x 4 Core PVCISWA	m	15		
HE 09.06 h)		.18 4mm ² x 4 Core PVCISWA	m	30		
HE 09.06 h)		.19 6mm ² x 4 Core PVCISWA	m	25		
HE 09.06 h)		.20 10mm ² x 4 Core PVCISWA	m	15		
HE 09.06 i)		Supply and install low voltage cable terminations				
HE 09.06 i)		.21 1,5mm ² x 3 Core PVCISWA	No	9		
HE 09.06 i)		.22 1,5mm ² x 4 Core PVCISWA	No	6		
HE 09.06 i)		.23 2,5mm ² x 4 Core PVCISWA	No	11		
HE 09.06 i)		.24 4mm ² x 4 Core PVCISWA	No	3		
HE 09.06 i)		.25 6mm ² x 4 Core PVCISWA	No	3		
HE 09.06 i)		.26 10mm ² x 4 Core PVCISWA	No	2		
	CARRIED FORWARD					

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
	BROUGHT FORWARD					
HE 09.06 j)		Supply bare copper earth conductor				
HE 09.06 j)		.27 1,5mm ² BCEW	m	120		
HE 09.06 j)		.28 2,5mm ² BCEW	m	60		
HE 09.06 j)		.29 4mm ² BCEW	m	50		
HE 09.06 j)		.30 6mm ² BCEW	m	30		
HE 09.06 j)		.31 10mm ² BCEW	m	-		
HE 09.06 k)		Install bare copper earth conductor				
HE 09.06 k)		.32 1,5mm ² BCEW	m	120		
HE 09.06 k)		.33 2,5mm ² BCEW	m	60		
HE 09.06 k)		.34 4mm ² BCEW	m	50		
HE 09.06 k)		.35 6mm ² BCEW	m	30		
HE 09.06 k)		.36 10mm ² BCEW	m	4		
HE 09.06 l)		Terminate and connect bare copper earth conductor				
HE 09.06 l)		.37 1,5mm ² BCEW	No	18		
HE 09.06 l)		.38 2,5mm ² BCEW	No	12		
HE 09.06 l)		.39 4mm ² BCEW	No	22		
HE 09.06 l)		.40 6mm ² BCEW	No	6		
HE 09.06 l)		.41 10mm ² BCEW	No	4		
HE 09.06 m)		Jointing of low voltage cable				
HE 09.06 m)		.42 1,5mm ² x 3 Core PVCISWA	No	5		
HE 09.06 m)		.43 1,5mm ² x 4 Core PVCISWA	No	5		
HE 09.06 m)		.44 2,5mm ² x 4 Core PVCISWA	No	5		
HE 09.06 m)		.45 4mm ² x 4 Core PVCISWA	No	5		
HE 09.06 m)		.46 6mm ² x 4 Core PVCISWA	No	5		
HE 09.06 m)		.47 10mm ² x 4 Core PVCISWA	No	5		
	CARRIED FORWARD					

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HE 09.06 n) HE 10.03.a)		.48 Re-lamp Post top luminaire complete with control gear and 1 x 1000W HPS lamp - similar to post top photo specification HE.10	No	20		
HE 10.03.b)		.49 Service Post top luminaire - similar to post top photo specification HE.10	No	20		
HE 10.03.c)		.50 Service light distribution kiosk or DB.	No	20		
HE 10.03.d)		.51 Supply and install padlocks to light distribution kiosk or DB.	No	20		
HE 10.03.e)		.52 Service area light pole (incl wood sealer)	No	20		
HE 10.03.f)		.53 Replace post top luminaire: Type XU5	No	5		
HE 09.06 n) HE 10.03.a)		.54 Re-lamp Post top luminaire complete with control gear and 1 x 250W HPS lamp - similar to post top photo specification HE.10	No	8		
HE 10.03.b)		.55 Service Post top luminaire - similar to post top photo specification HE.10	No	8		
HE 10.03.c)		.56 Service light distribution kiosk or DB.	No	8		
HE 10.03.d)		.57 Supply and install padlocks to light distribution kiosk or DB.	No	8		
HE 10.03.e)		.58 Service area light pole	No	8		
HE 10.03.f)		.59 Replace post top luminaire: Type XU5	No	2		
HE 09.06 n)		.60 Re-lamp Area light luminaire on 4m steel pole complete with control gear and 1 x 125W HPS lamp - similar to photo specification HE.10	No	2		
HE 10.03.b)		.61 Service area light luminaire - similar to photo specification HE.10	No	2		
HE 10.03.c)		.62 Service light distribution kiosk or DB.	No	2		
CARRIED FORWARD						

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HE 10.03.d)		.63 Supply and install padlocks to light distribution kiosk or DB.	No	2		
HE 10.03.e)		.64 Service area light pole	No	2		
HE 10.03.f)		.65 Replace floodlight luminaire:Type XT2	No	2		
HE 09.06 n)		.66 Re-lamp Area light luminaire on 4m frp pole complete with control gear and 1 x 70W HPS lamp - similar to photo specification HE.10	No	5		
HE 10.03.b)		.67 Service area light luminaire - similar to photo specification HE.10	No	5		
HE 10.03.c)		.68 Service light distribution kiosk or DB.	No	5		
HE 10.03.d)		.69 Supply and install padlocks to light distribution kiosk or DB.	No	5		
HE 10.03.e)		.70 Service area light pole	No	5		
HE 10.03.f)		.71 Replace floodlight luminaire: Type XW2	No	5		
HE 09.06 n)		.72 Re-lamp Area light luminaire wall mounted complete with control gear and 1 x 400W HPS lamp - similar to photo specification HE.10	No	8		
HE 10.03.b)		.73 Service area light luminaire - similar to photo specification HE.10	No	8		
HE 10.03.d)		.75 Supply and install padlocks to light distribution kiosk or DB.	No	8		
HE 10.03.e)		.76 Service area light pole	No	8		
HE 10.03.f)		.77 Replace floodlight luminaire: XT2	No	8		
HE 09.06 n)		.78 Re-lamp Area light luminaire wall mounted complete with control gear and 1 x 250W MV lamp - similar to photo specification HE.10	No	5		
CARRIED FORWARD						

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HE 10.03.b)		.79 Service area light luminaire - similar to photo specification HE.10	No	5		
HE 10.03.c)		.80 Service light distribution kiosk or DB.	No	5		
HE 10.03.d)		.81 Supply and install padlocks to light distribution kiosk or DB.	No	5		
HE 10.03.e)		.82 Service area light pole	No	5		
HE 10.03.f)		.83 Replace floodlight luminaire: XT2	No	6		
HE 09.06 n) HE 11.03b)		.84 Re-lamp Security light luminaire pole mounted complete with control gear and 1 x 125W MV lamp - similar to photo specification HE.11	No	6		
HE 11.03.c)		.85 Service security light luminaire - similar to photo specification HE.11	No	6		
HE 11.03.c)		.86 Service light distribution kiosk or DB.	No	3		
HE 11.03.c)		.87 Supply and install padlocks to light distribution kiosk or DB.	No	3		
HE 11.03.a)		.88 Service security light pole	No	6		
HE 11.03.d)		.89 Replace floodlight luminaire: Type XT2	No	3		
HE 09.06 n) HE 12.03b)		.90 Re-lamp Sportsfield light luminaire high mast mounted complete with control gear and 1 x 1000W MV lamp - similar to photo specification HE.12	No	0		
HE 12.03a)		.91 Service sportsfield mast - similar to photo specification HE.12	No	0		
HE 12.03.c)		.92 Service light distribution kiosk or DB.	No	0		
HE 12.03.d)		.93 Service sportsfield light pole	No	0		
HE 12.03.e)		.94 Replace floodlight luminaire	No	0		
CARRIED FORWARD						

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HE 09.06 n) HE 12.03b)		.95 Re-lamp Sportsfield light luminaire pole mounted complete with control gear and 1 x 1000W MV lamp - similar to photo specification HE.12	No	0		
HE 12.03a)		.96 Service sportsfield mast - similar to photo specification HE.12	No	0		
HE 12.03.c)		.97 Service light distribution kiosk or DB.	No	0		
HE 12.03.d)		.98 Service sportsfield light pole	No	0		
HE 12.03.e)		.99 Replace floodlight luminaire	No	0		
HE 09.06 n) HE 12.03b)		.105 Streetlight luminaire pole mounted complete with control gear and 1 x 55 LED lamp - similar to photo specification HE.13	No	5		
HE 12.03a)		.106 Service streetlight pole - similar to photo specification HE.13	No	5		
HE 12.03.c)		.102 Service light distribution kiosk or DB.	No	5		
HE 12.03.d)		.103 Service streetlight pole	No	5		
HE 12.03.e)		.104 Replace streetlight luminaire XU4	No	2		
HE 09.06 n) HE 13.03b)		.105 Re-lamp Streetlight luminaire pole mounted complete with control gear and 1 x 125W MV lamp - similar to photo specification HE.13	No	10		
HE 13.03a)		.106 Service streetlight pole - similar to photo specification HE.13	No	10		
HE 13.03.c)		.107 Service streetlight distribution kiosk or DB.	No	10		
HE 13.03.d)		.108 Service streetlight luminaire	No	10		
HE 13.03.e)		.109 Replace streetlight luminaire XV	No	5		
CARRIED FORWARD						

EXTERIOR LIGHTING SYSTEM

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
BROUGHT FORWARD						
HE 14.04.03a)		Monthly maintenance .14 Verify operation of switching element	sum	1		
HE 14.04.03a)		.15 Check lamps	sum	1		
HE 14.04.03a)		.16 Check that all pole covers are secure	sum	1		
HE 14.04.03a)		.17 Visually check distribution kiosk	sum	1		
HE 14.04.03b)		Annually maintenance .18 Service all luminaires, measure phase voltages and line currents in distribution kiosk or DB. .Record values in record book. Do vermin protection.	sum	1		
HE 14.04.04a)		Street lighting Monthly maintenance .19 Verify operation of switching element	sum	1		
HE 14.04.04a)		.20 Check lamps	sum	1		
HE 14.04.04a)		.21 Check that all pole covers are secure	sum	1		
HE 14.04.04a)		.22 Visually check distribution kiosk	sum	1		
HE 14.04.04b)		Annually maintenance .23 Service all luminaires, measure phase voltages and line currents in distribution kiosk or DB. .Record values in record book. Do vermin protection.	sum	1		
CARRIED FORWARD TO MAIN SUMMARY OF ALL SCHEDULES						

ELECTRICAL INSTALLATIONS_REPAIR WORK Summary

DEPARTMENT OF PUBLIC WORKS

VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

SUMMARY OF SCHEDULE OF QUANTITIES: ELECTRICAL INSTALLATIONS REPAIR WORK

		<i>ESTIMATE</i>
SCHEDULE AB1:	INSTALLATION R7.1: BUILDING INSTALLATION ELECTRICAL WORK RELATED CORRECTIVE MAINTENANCE WORK (OPERATIONAL AREA & RESIDENTIAL AREA)	
SCHEDULE AB3:	INSTALLATION R7.1: BUILDING INSTALLATION ELECTRICAL WORK RELATED CORRECTIVE MAINTENANCE WORK (ELECTRICAL TOOLS AND SPARES)	
SCHEDULE 401:	INSTALLATION R7.2: STANDBY POWER SYSTEMS	
SCHEDULE 403:	INSTALLATION R7.3: EXTERIOR LIGHT SYSTEM	
	SUMMARY INSTALLATIONS: DAILY ELECTRICAL RELATED REPAIR WORK	

SIGNED ON BEHALF OF TENDERER



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

WCS: 055340

**VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS
INSTALLATION CR8
SCHEDULE NO AB_BUILDING INSTALLATION**

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTIT Y	RATE	AMOUNT
PFD 02.02.01	301,01	Air-conditioning units				
		(a) Clean air intake screen	number	46		
		(b) Replace filters	set	46		
		(c) De-rust neutralize and touch up paintwork	number	46		
		(d) Replace canvas collar	number	46		
		(e) Clean housing, ensure that all panels are properly secured and door panels close properly. Replace panel seals.	number	46		
		(f) Check setting and operation of all pressure switches; reset if required	number	46		
		(g) Check setting and operation of all safety switches, i.e.. LP&HP switches, oil pressure switch	number	46		
		(h) Check setting and operation of thermostat	number	46		
		(i) Check timers and reset if required	number	46		
		(j) Check operation of seven day timer	number	46		
		(k) Check running current of fans and compressor and setting and operation of overloads	number	46		
		(l) Check tightness of all electrical terminals	number	46		
		(m) Ensure operation of local and remote isolators	number	46		
		(n) Check condition of all cables, check whether cables are neatly stapped and reposition and strap if required.	number	46		
(o) Ensure operation of emergency stop	number	46				
(p) Carry out leak test on all refrigeration piping and components inclusive of evaporator and condenser	number	46				
	CARRIED FORWARD					

PRELIMINARIES AND GENERAL

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTIT Y	RATE	AMOUNT		
BROUGHT FORWARD								
JC 06.05	301,02	(q) All leaks shall be repaired. Should a leak on a component be of such a nature that it cannot be repaired, the component shall be replaced. The procedure to follow is set out in FG 03.02.03.	number	46				
		(r) Check the superheat setting of the thermostatic expansion valve and adjust if required (setting approximately 8°C)	number	46				
		(s) replace the filter dryer	number	46				
		(t) Check compressor vibration mounts	set	46				
		(u) Test oil acidity	number	46				
		(v) Check refrigerant charge sight glass being clear or flashing	number	46				
		(w) Check moisture indication being dry	number	46				
		(x) Clean condensate tray and test drainage operation	number	46				
		(y) Clean evaporator and condenser fan blades and check unbalance	number	46				
		(z) Replace suction line insulation.	meter	46				
		(aa) Check all service valves for full operation, replace caps if missing	set	46				
		Fire extinguishers						
		(a) Replace wall mounting boards and brackets where damaged or missing	number	68				
		(b) Dry chemical powder fire extinguishers						
.(i) Replace discharge hose and nozzle where damaged or missing	number	68						
.(ii) Replace gauge on bottle where reading is incorrect, damaged or missing	number	68						
.(iii) Check, service and repair activation mechanism	number	68						
.(iv) Replace dry chemical powder	number	68						
.(v) Recharge discharge cylinder to required capacity	number	68						
.(vi) Reseal discharge mechanism	number	68						
CARRIED FORWARD								

PRELIMINARIES AND GENERAL

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTIT Y	RATE	AMOUNT
BROUGHT FORWARD						
PFC 05.01.01	301,03	(vii) Replace instructions on extinguishers where necessary (viii) Extinguishers shall be labelled with identifying tags and details recorded, including service record Hot water generation (a) Check electric geyser including lagging and cladding (b) check domestic water piped installation, including fittings, valves, strainers, lagging and cladding, non return valves, safty valves, etc; (c) Check bracketing system (d) Check heating control equipment and instrumentation (e) Check hot-water circulating pump sets if any (f) Check electrical wiring	number	68		
PFD 02.02.03	301,04	Ventilation system (a) Inspect and clean all duct work and canopy (b) De-rust neutralize and touch up paintwork of duct work and canopy (c) Check tightness of all securing bolts (d) Replace of all canvas collars with new (e) replace all filters (f) Check bearings of fan motors and lubricate (g) Check whether all duct supports are still in position and replace missing supports (h) Check ductwork for leaks and repair defects (i) Replace all joint seal and gaskets with new (j) Check for operation and reset all fire dampers (k) Clean fan blades and check for unbalance (l) Check fans, speed control and fan motor (m) Check running amps of fan (n) Reseal penetrations through roof	number	68		
CARRIED FORWARD						

PRELIMINARIES AND GENERAL

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTIT Y	RATE	AMOUNT
BROUGHT FORWARD						
PFG 06.01.01	301,05	<p>Refrigeration installation</p> <p>(a) Mechanical components</p> <p>.(i) Visually inspect refrigerant piping and components that form part of the refrigerant system, check for any pending faults and report to the Engineer</p> <p>.(ii) Do a thorough leak test on all the piping and all components. All evaporators and blower units shall be defrosted and dried on the outside for doing this test</p> <p>.(iii) Repair all minor leaks and top up with refrigerant. Major leaks and faults shall be reported to the Engineer for further instructions</p> <p>.(iv) Check refrigerant sight glass for any contamination of the refrigerant system and report to the Engineer</p> <p>.(v) Check and report on oil levels of compressors</p> <p>.(vi) Check and replace compressor mountings where necessary</p> <p>.(vii) Any damaged panel, foot piece, fan shroud, etc, shall be repaired</p> <p>.(viii) Check all service valves for full operation, check seals, check shaft ends and provide caps where caps are missing</p> <p>.(ix) Check and repair mechanical operation of fans and pumps</p> <p>.(x) Check and readjust the superheat setting of thermostatic expansion valves unit</p> <p>.(xi) Check the condition of the filter driers</p> <p>.(xii) Check seals on the compressors</p> <p>.(xiii) Check the condition of all pipe hangers, fixing of the pipes and condition of pipe lagging, and repair where necessary</p> <p>(b) Control system</p> <p>.(i) Check and reset all pressure switches</p> <p>.(ii) Check and reset all pressure safety switches</p> <p>.(iii) Check and reset thermostats</p> <p>.(iv) Check and readjust timer controller on freezer system</p>	number	0		
CARRIED FORWARD						

PRELIMINARIES AND GENERAL

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTIT Y	RATE	AMOUNT
BROUGHT FORWARD						
		(d) Replace gland packing and gaskets to hose reel shut-off valve	number	4		
		(e) Replace missing hose reel shut-off valve wheel handles	item	4		
		(f) Number and catalogue hose reel	number	4		
		(g) Where hose reels shut-off valves are damaged beyond repair, these shall be replaced with new	number	4		
		(h) all hose reel mountings shall be checked and where loose or damaged, replaced with new	number	4		
		(i) Where paintwork of equipment has deteriorated, such equipment items shall be replaced and repainted in accordance with the manufacturer's specification	number	4		
		(j) Hose reels shall be labeled with identifying tags and details recorded, including service record	number	4		
PFD 02.02.01	301,07	Air-conditioning units replace				
		(a) 12000 BTU complete	number	12		
		(b) 18000 BTU complete	number	12		
		(c) 24000 BTU complete	number	12		
PFC 05.01.01	301,08	Hot water generation				
		(a) Check electric geyser including lagging and cladding	number	20		
		(b) check domestic water piped installation, including fittings, valves, strainers, lagging and cladding, non return valves, safety valves, etc;	number	20		
		(c) Check bracketing system	number	20		
		(d) Check heating control equipment and instrumentation	number	20		
		(e) Check hot-water circulating pump sets if any	number	20		
		(f) Check electrical wiring	number	20		
		(g) Replace electrical geyser beyond repair	number	20		
CARRIED FORWARD TO SUMMARY-INSTALLATION						

ELECTRICAL INSTALLATIONS_REPAIR WORK Summary

DEPARTMENT OF PUBLIC WORKS

**VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND
SUMMARY OF SCHEDULE OF QUANTITIES: ELECTRICAL INSTALLATIONS REPAIR WORK**

ESTIMATE

SCHEDULE AB:	INSTALLATION R8: BUILDING MECHANICAL INSTALATION WORK RELATED CORRECTIVE MAINTENANCE WORK	
	SUMMARY INSTALLATIONS: DAILY ELECTRICAL RELATED REPAIR WORK	

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VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND
INSTALATION CM1-6

REPAIR WORK

SCHEDULE NO 7.3: ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
SA.01	5.1	MANDATORY PERIODICAL SERVICING- Maseru				
		.01 Logging and recording of all water meter readings on a monthly basis	month	36		
		.02 Logging and recording of all electricity meter readings on a monthly basis	month	36		
		.03 Potable water quality tests to be performed by a SANAS accredited laboratory (approved authorized person) on a monthly basis	month	36		
		.04 Waste water effluent quality tests to be carried out by an approved authorized person (SANAS accreditation required)	month	36		
		.05 Annual servicing of all fire hydrants	No	2		
		.06 Rodents termites and pest control (internal)	No	8		
		.07 Rodents termites and pest control (External)	No	8		
		.08 Testing equipment for domestic/drinking water	set	1		
		.09 Testing equipment for wastewater treatment plant	set	1		
		.10 Cleaning and sterilization of all storage tanks (frequency)	No	8		
		.11 Operation of installations				
		.01 Chlorination of domestic water	month	36		
		.02 Chemical for wastewater treatment works/disinfection of overflows	month	36		
		.03 Cleaning of all septic tanks	No	8		
		.04 Operation of waste water treatment plant	month	36		
		.05 Operation of borehole pumpstations	month	36		
		.12 Cleaning and Site Keeping as per specification SA.07.05	point	360		
		.13 Water Works Ozone Plant	point	360		
		.14 Logging and recording of all water meter readings on a monthly basis	month	36		
		.15 Logging and recording of all electricity meter readings on a monthly basis	month	36		
		.16 Servicing of ozone generator plant	number	8		
CARRIED FORWARD						

ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
CG.01		.17 Emptying of waste skip at VAN ROOYENSHEK PORT OF ENTRY on a weekly basis Measured monthly as per CG.01	month	36		
CK.03		.18 Monitoring of storage tank levels on site at VAN ROOYENSHEK	month	36		
		.21 Payment reduction				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days		rate only	
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days		rate only	
SA.07		.22 Call-out for repair of Emergency Breakdown (24 hours) response.	No	5		
	5.2	MAINTENANCE OF PLUMBING, DRAINAGE AND WET SERVICES				
SA.01	5.2.1	Maintenance of completed installation:				
		.01 Plumbing, drainage and wet services installation	point	360		
		The maintenance scope is described in technical specifications: AA, PAA, CF, EG, KA				
	5.2.2	Payment reduction				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days		rate only	
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
SA.07	5.2.3	Call-out for repair of Emergency Breakdown (24 hours) response.	No	1		
CARRIED FORWARD						

ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
SA.01	5.3	MAINTENANCE OF FENCING AND GATES				
	5.3.1	Maintenance of a completed installation: .01 Fencing and Gates The maintenance scope is described in technical specification: CC	points	360		
	5.3.2	MAINTENANCE OF SITE KEEPING INSTALLATION				
SA.01	5.3.2.1	Maintenance of a completed installation: .01 Cleaning of site, removal of waste and cutting grass The maintenance scope is described in technical specifications: CG, CJ	points	360		
	5.3.3	MAINTENANCE OF CLEANING OF BUILDINGS				
SA.01	5.3.3.1	Maintenance of a completed installation: .01 Cleaning of Buildings The maintenance scope is described in technical specifications: CJ	points	360		
	5.3.4	Payment reduction:				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days		rate only	
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
SA.01	5.4.1	Maintenance of completed installation: .01 Bulk water and External water The maintenance scope is described in technical specifications: CE,CI,DA,DL, DN,EK, FN KA	point	360		
	5.4.2	Payment reduction				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days		rate only	
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
		.03 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
SA.07	5.4.3	Call-out for repair of Emergency Breakdown (24 hours) response.	No	3		
CARRIED FORWARD						

ROADS AND STORM WATER RELATED CORRECTIVE MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QTY	RATE ZAR	AMOUNT ZAR
BROUGHT FORWARD						
	5.5	MAINTENANCE OF ROADS AND STORMWATER DRAINAGE				
SA.01	5.5.1	Maintenance of completed installation:				
	.01	Roads and stormwater	point	360		
		The maintenance scope is described in technical specifications: CA, CB				
	5.5.2	Payment reduction				
SA.04	.01	Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days		rate only	
SA.05	.02	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
	.03	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
	5.6	WWTP AND SEWER RETICULATION				
SA.01	5.6.1	Maintenance of completed installation:				
	.01	WWTP and Sewer Reticulation	point	360		
		The maintenance scope is described in technical specifications: CE,CI,DA,DL, DN,EK, FN KA				
	5.6.2	Payment reduction				
SA.04	.01	Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days		rate only	
SA.05	.02	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
	.03	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days		rate only	
SA.07	5.4.3	Call-out for repair of Emergency Breakdown (24 hours) response.	No	3		
CARRIED FORWARD TO SUMMARY CIVIL MAINTENANCE						



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VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

SCHEDULE OF QUANTITIES:

MAINTENANCE OF INSTALLATION

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
SABS 1200 A	201,00	<u>MAINTENANCE</u>				
SA.06		MAINTENANCE OF INSTALLATION: SCHEDULE NO AB_200 : BUILDING INSTALLATION				
SA 06.01	201,01	Maintenance of completed installation: Building installation	point	360		
SA 06.02	201,02	Maintenance to practical completion: Building installation	point	360		
SA 06.04	201,03	Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	hour	-		rate only
SA 06.05	201,04	Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	day	-		rate only
SA 06.06	201,05	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	day	-		rate only
SA 06.07	201,06	Payment reduction due to exceeding of maximum allowable down-time during operational damage repair	day	-		rate only
		<i>Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly maintenance payments for the various installations.</i>				
		CARRIED FORWARD TO SUMMARY OF 200-AB BUILDING ELECTRICAL INSTALLATION				



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SCHEDULE OF QUANTITIES:

SCHEDULE NO 401: MAINTENANCE OF STANDBY POWER SYSTEMS

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
SABS 1200 A	321,00	<u>MAINTENANCE</u>				
SA.06		MAINTENANCE OF STANDBY POWER SYSTEMS				
SA 06.01	0,01	Maintenance of completed standby power systems	point	360		
SA 06.02	0,02	Maintenance of standby power systems prior to practical completion	point	360		
SA 06.04	0,03	Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	hour	-		rate only
SA 06.05	0,04	Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	day	-		rate only
SA 06.06	0,05	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	day	-		rate only
SA 06.07	0,06	Payment reduction due to exceeding of maximum allowable down-time during operational damage repair	day	-		rate only
		<i>Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly maintenance payments for the various installations.</i>				
		CARRIED FORWARD TO MAIN SUMMARY OF ALL SCHEDULES				



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SCHEDULE OF QUANTITIES:

SCHEDULE NO 403: MAINTENANCE OF EXTERIOR LIGHTING SYSTEMS

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
SABS 1200 A	403,00	<u>MAINTENANCE</u>				
SA.06		MAINTENANCE OF INSTALLATION:				
SA 06.01	0,01	Maintenance of completed exterior lighting system installation	point	360		
SA 06.02	0,02	Maintenance exterior lighting system installation prior to practical completion	point	360		
SA 06.04	0,03	Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	hour	-		rate only
SA 06.05	0,04	Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	day	-		rate only
SA 06.06	0,05	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	day	-		rate only
SA 06.07	0,06	Payment reduction due to exceeding of maximum allowable down-time during operational damage repair	day	-		rate only
		<i>Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly maintenance payments for the various installations.</i>				
CARRIED FORWARD TO MAIN SUMMARY OF ALL SCHEDULES						



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VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

MAINTENANCE OF GENERAL

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN-TITY	RATE	AMOUNT
SABS 1200 A	301-307	<u>MAINTENANCE</u>				
SA.06		MAINTENANCE OF GENERAL SITE WORKS-MECHANICAL EQUIPMENT AND SYSTEMS				
SA 06.01	0,01	Maintenance of completed general site works	point	360		
SA 06.02	0,02	Maintenance of general site works prior to practical completion	point	360		
SA 06.04	0,03	Payment reduction due to exceeding of maximum allowable down-time during fatal breakdown	hour	-		rate only
SA 06.05	0,04	Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	day	-		rate only
SA 06.06	0,05	Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	day	-		rate only
SA 06.07	0,06	Payment reduction due to exceeding of maximum allowable down-time during operational damage repair	day	-		rate only
		<i>Remuneration for all value-related as well as all time-related preliminary and general charges shall be deemed included in the monthly maintenance payments for the various installations.</i>				
		CARRIED TO SUMMARY-300 MECHANICAL EQUIPMENT AND SYSTEMS				

SUMMARY



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VAN ROOYENSHEK PORT OF ENTRY: REPAIRS AND MAINTENANCE OF BUILDING, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

SUMMARY: BUILDING INSTALLATION; INSTALLATION 1-8:

SUMMARY OF REPAIR SCHEDULES

AMOUNT

1. PRELIMINARIES AND GENERAL	R	-
2. SUMMARY INSTALLATIONS: DAILY CIVIL RELATED REPAIR/CORRECTIVE WORK	R	-
3. CIVIL AND STRUCTURAL MAINTENANCE/PREVENTATIVE WORK	R	-
CIVIL AND STRUCTURAL TOTAL	R	-
4. SUMMARY INSTALLATIONS: DAILY ELECTRICAL RELATED REPAIR/CORRECTIVE WORK	R	-
5.1 ELECTRICAL MAINTENANCE/PREVENTATIVE WORK 200	R	-
5.2 ELECTRICAL MAINTENANCE/PREVENTATIVE WORK 401	R	-
5.3 ELECTRICAL MAINTENANCE/PREVENTATIVE WORK 403	R	-
ELECTRICAL TOTAL	R	-
6. SUMMARY INSTALLATIONS: DAILY MECHANICAL RELATED REPAIR/CORRECTIVE WORK	R	-
7. MECHENICAL MAINTENANCE/PREVENTATIVE WORK	R	-
MECHANICAL TOTAL	R	-
SUBTOTAL(excl VAT) CORRECTIVE AND PREVENTATIVE OF BUILDING INSTALLATIONS	R	-
ADD CONTINGENCIES @ 10%	R	-
Corrective and Preventative subtotal 2 (excl VAT) for Installation 1-8 :	R	-
ADD VAT @ 15%	R	-
TOTAL CIVIL, ELECTRICAL & MECHANICAL PROJECT COST ESTIMATE (Incl. VAT):	R	-