

**BID NUMBER: 20/FY/23** 

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

Closing Date& Time	:	14 February 2023 @ 11:00 am					
A Tender for Category	:	5GB CIDB Registered Contractors ONLY					
Compulsory Briefing	:	Date: 25 January 2023 @ 12h00 noon					
Venue	:	Double Drift Office, Great Fish River Nature Reserve (Alice Entrance)					
GPS Co-ordinates	:	Latitude 32°59' 32.19"S Longitude 26°50'17.78" E					
Name of Tenderer	:						
Total Bid Price	:		-				
CSD Number	:		-				
CIDB CRS Number	:		-				
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Contractor	14/1	Witness 2	Employer	10/24	Witness 2
Contractor	Witness 1	vvitness 2	Employer	Witness 1	vvitness 2

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# **TENDER SUMMARY PAGE**

NAME OF TENDERER	
DETAILS OF CONTACT PERSON:	
NAME	
TELEPHONE NUMBER	
FAX NUMBER	
E-MAIL ADDRESS  ADDRESS OF TENDERER	
ADDRESS OF TENDERER	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
VAT REGISTRATION NO.	
PREFERENCE POINTS CLAIMED	(Max.20points)
CONSTRUCTION PERIOD OFFERED *(Measured from date of official Site Hand-Over	(Max. 8 MONTHS) er)
DATE OF TENDER	
TENDERER 'S SIGNATURE	
(Person authorized to sign the TENDER )	

		_		_			_	
Contractor	Witness 1	•	Witness 2	•	Employer	Witness 1	•	Witness 2

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1: TENDER

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

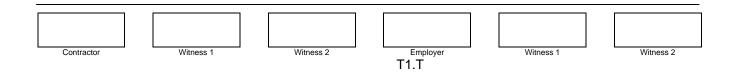
# PART T1: TENDERING PROCEDURES

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 T1.0

## **PART T1: TENDERING PROCEDURES**

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T1.3	STANDARD CONDITIONS OF TENDER	T1.3.1
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T1.1 TENDER NOTICE AND INVITATION TO TENDER

CONTRACT NO.: 20/FY/23

REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE

RESERVE

Tenderers should have a CIDB contractor grading designation 5GB ONLY. Bidders with

designated grading higher or lower than 5GB will not be considered.

Tenderers will be evaluated on four stages. In Stage 1 bids will be evaluated on compliance with bid

requirements, Stage 2 Local Content, Stage 3 (Price and B-BBEE) 80/20 Preference Point System

will be applied in Stage 3. In Stage 4 bids will be assessed for risk.

The Tender documents will only be obtainable as from the 13 January 2023 and should downloaded

or

www.visiteasterncape.co.za/procurement/tenders; from the following websites:

www.ectreasury.gov.za;

A COMPULSORY TENDER CLARIFICATION MEETING will be held on the 25th of January 2023 @

12h00 noon at Double Drift Office, Great Fish River Nature Reserve- co-ordinates Latitude

32°59'32.19"S Longitude 26°50'17.78" E. Tenderers should already be in possession of the

tender document and be familiar with the contents thereof.

The lowest or any tender will not necessarily be accepted, and the agency reserves the right to

accept the Tender as a whole or in part. Bids must remain valid for a period of 150 days after the

closing date for the submission of bids, during which period a tender may not be amended or

withdrawn and may be accepted at any time by the entity.

The closing date and time for receipt of bids is 14 February 2023 at 11:00am. Bids must be enclosed

in a sealed envelope bearing the name of the Tenderer as well as the applicable tender heading,

reference number, closing time and due date and must be addressed to, The Chief Executive

Officer, and must be submitted in the tender box located at, 17-25 Oxford Street, Corner Oxford and

Fleet Street East London, before the closing time and date.

**TECHNICAL ENQUIRIES** 

1. Ms M. Lawana, Project Manager: Tel: 043 705 4400, Fax: 043 742 5566, E-mail:

Mandilakhe.Lawana@ecpta.co.za

Mr. M Sandi, Supply Chain Management: Tel: 043 705 4400, Fax 086 206 0595, E-mail:

Mcebisi.Sandi@ecpta.co.za

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			T1 1 1		

### T1.2 TENDER DATA

The conditions of bid are the Standard Conditions of Bid as contained in Annex F of Board Notice 136 of 2015 in Government Gazette No. 30960 of 10 July 2015, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement as is available from the CIDB website (see <a href="https://www.cidb.co.za">www.cidb.co.za</a>

The Standard Conditions of Tender makes several references to the Tender Data. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender to which it mainly applies.

### F.1.1 Actions

The Employer for this Contract will be the instance named in the Contract Data.

### F.1.2 Tender Documents

(a) The Tender Document issued by the Employer comprises of the following:

THE TENDER		
Part T1	:	Tender Procedures
T1.1	:	Tender Notice and Invitation to Tender
T1.2	:	Tender Data
Appendix	:	Standard Conditions to Tender
Part T2		Returnable Documents
T2.1		Forms, Certificates and Schedules required for Evaluation of Tender Responsiveness
T2.2		Other Forms, Certificates and Schedules that will be Incorporated into the Contract
T2.3		Documentation, Forms and Schedules Required for Tender Evaluation Purposes
T2.4		Other Documentation, Forms and Schedules required for Tender Evaluation Purposes

Employer	Witness 1	Witness 2
T1 2 1		
	Employer	

THE CONTRACT (P	art3 <u>)</u>
Part C1	Agreements and Contract Data
C1.1	Form of Offer and Acceptance
C1.2	Contract Data
Part C2	Pricing Data
C2.1	Pricing Instructions
C2.2	Provisional Bills of Quantities
C2.3	Amendments, Qualifications and Alternatives by Tenderer
Part C3	Scope of Work
C3.1	Standard Specifications
C3.2	Project Specifications
C3.3	Particular Specifications
C.4	Drawings
Part C4	Site Information
C4.1	Geotechnical Information of Site

The Tender Document and the drawings shall be obtained from the Employer or his authorised representative at the physical address stated in the Tender Notice, upon payment of the amount stated in the Tender Notice.

The following documents are relevant to this Tender and Tenderers are advised to obtain their own copies thereof:

- (a) "JBCC Series 2000 Principal Building Agreement (Edition 6.2 of May 2018)" issued by the Joint Building Contracts Committee Inc. (including amendments).
- (b) "Standardized Specifications for Civil Engineering Construction" SANS 1200.
- (c) "Code of Practice for the application of the National Building Regulations "SABS 0400-1990
- (d) The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations 2003 (Government Gazette

### No 25207 of 18 July 2003, Notice No R1010).

- (e) In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies and participation of targeted enterprise and labour.
  - The Construction Industry Development Board Act No 38 of 2000 and the Regulations in terms of the CIDB Act 38/2000, Government Gazette Notice No 33239 of 28 May 2010,
  - (ii) SANS 1921:2004 Construction and Management

Part 1: General Engineering and Construction Works;

Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor Part 3: Structural Steelwork

Part 5: Earthworks Activities which are to be performed by hand

(iii) Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000) and its Regulations as published in the Government Gazette No. 34350 of 8 June 2011

### F.1.4 Communication and Employer's Agent

The Employer's agent is : Mr Gwarega Dambudzo

Address : No 8 Tyrell Road, Berea

East London, 5241

Contact Number : (043) 726 8975

### F.2.1 Eligibility

A Tenderer will not be eligible to submit a Tender if:

- the Contractor submitting the Tender is under restrictions or has principals who are under restriction to participate in the Employer's procurement due to corrupt of fraudulent practices;
- (b) the Tenderer does not have the legal capacity to enter into the contract;
- (c) the Contractor submitting the Tender is insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of the foregoing;
- (d) The Tenderer does not comply with the legal requirements stated in the

			_		_		_	
Contractor	Witness 1	Witness 2		Employer		Witness 1		Witness 2

Employer's procurement policy;

- (e) The Tenderer cannot demonstrate that he possesses the necessary professional and technical qualifications and competent, financial resources, equipment and other physical facilities, managerial capability, personnel, experience and reputation to perform the contract.
- (f) The Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract.

The following Tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their Bids evaluated:

Joint ventures are eligible to submit Bids provided that:

(a) every member of the joint venture is registered with the CIDB

### F.2.7 Site visit and clarification meeting

The arrangements for the clarification meeting and site inspection, which is **compulsory** for this contract, are as follows:

Compulsory Meeting - Location/venue/platform: Great Fish Nature Reserve - Double Drift Office

Date: 25 January 2023 @ 12h00 noon

GPS Co- ordinates: Latitude 32°59' 32.19"S Longitude 26°50'17.78"E

### **Alternative Tender offers**

No alternative offers will be considered, but the original tender document needs to be completed and submitted as well.

### F.2.12 Submitting a Tender Offer

Tender offers shall be submitted as an original only. All three volumes of the tender document must be printed and neatly ring bound. All three documents must be submitted on the tender closing date with all the relevant information completed and pages signed. All the required information and documentation required for the evaluation of the tender must be bound into the document. The Provisional Bills of Quantities must be completed by hand.

### F.2.13.1 <u>Delivery of Tender</u>

The Employer's address for delivery of Tender offers and identification details to be shown on each Tender offer package are:

Location of Tender boxes:

At Reception in the offices of Eastern Cape Parks & Tourism, East

London

Physical address:

(1) 17-25 Oxford Street, Corner Oxford and Fleet, East London

Identification Details: REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

### F.2.15 Closing time

The closing time for submission of Tender Offers is 11:00am .

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2				
T1.2.4									

Telephonic, telegraphic, telex, facsimile, electronic or e-mailed Bids will not be accepted.

### F.2.16 Tender offer validity

The Tender offer validity period is 150 days from the closing time for submission of Bids.

### F.2.17 Clarification of Tender Offer after submission

For this contract the employer may, after clarification with the Tenderer, agree to amend the total of the prices stated by the Tenderer in his Tender offer.

### F.2.19 Inspections, tests and analyses

Access shall be provided for inspections and testing by personnel acting on behalf of the Employer.

### F.2.22 Return of Tender Documents

Where a Tenderer who received a Tender document does not submit a Tender, the Tender documents issued to him must be returned to the Employer within 14 days after the closing date for submission of Bids.

### F2.23 Certificates

The following documentation must be provided with the Tender:

- 1. A Copy of the Central Supplier Database (CSD) FULL Report for the month of February 2023
- 2. Proof of Contractor Registration with the CIDB (CRS number to be provided).
- A Valid Certified copy of the B-BBEE certificate as issued by a SANAS accredited verification agency, should the Tenderer wish to claim points for B-BBEE status or a certified Sworn Affidavit
- 4. A Valid Copy of the Tenderer's Workmen's Compensation Certificate, Act 4 of 2002.
- 5. A Valid Copy of the Tenderer's Unemployment Insurance Certificate, Act 4 of 2002.
- 6. A signed Joint Venture Agreement (if Tenderer is a Joint Venture)
- A Valid Certified Copy of the consolidated B-BBEE Status Level Certificate in a case of Joint Ventures

### F.3.4 Opening of Tender Submissions

Bids will be opened in public at the date and time stipulated in the tender advert.

### F.3.5 One -envelope system

The one envelope system will be followed for this Tender.

### F.3.9 Arithmetical Errors, omissions and discrepancies

### Add to clause F.3.9.1 the following:

"If it is found obvious that a bona-fide mistake was made in writing out the Tender amount, or if the total Tender amount is corrected according to the prescripts of **F.3.9.2 to F3.9.4** below, the amount in words shall be amended".

### • Replace clauses F.3.9.2, F3.9.3 and F3.9.4 with the following:

"Check responsive Tender offers for arithmetical errors, correcting them in the following manner:

(a) If a Bills of Quantities (or schedule of quantities or schedule of rates) applies

				_		_		_	
Contractor	Witness 1	•	Witness 2	•	Employer	•	Witness 1	•	Witness 2

and there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the **unit rate as quoted shall govern** and the **line item total shall be corrected.** 

However, in exceptional cases where, in the opinion of the Employer, there is an obviously gross misplacement of the decimal point in either the unit rate or line total, or where the error was obviously not a result of incorrect arithmetic but rather the result of a writing error, the Employer reserves the right to correct either the Tendered rate or the line total as the case may be, subject to clarification in terms of Clause F.2.17.

(b) Where there is an error in the total of the prices, either as a result of corrections required by this checking process or in the Tenderer's addition of prices, the total of the prices shall be adjusted to obtain the correct Tender value."

### F.3.11 Evaluation of Tender Offers

Before evaluating Tender offers, the Bids will be in accordance with Method **2** of the CIDB Standard Tender Evaluation in four stages, namely:

- Stage 1: Compliance with bid requirements
- Stage 2: Local Content Declaration for designated items
- Stage 3: Financial Offer and Preference Evaluation
- Stage 4: Risk Assessment

### Stage 1: Compliance with bid requirements

Bidders must comply with the set of compliance requirements listed below. The compliance requirements stated below are project specific and disparate from the pre-qualification requirements enshrined in the Preferential Procurement Policy Regulations of 2017.

- (i) **Compulsory Briefing:** Bidders must attend the compulsory briefing meeting on site.
- (ii) CIDB: Bidders must be registered with CIDB with a contractor grading designation equal to 5GB Only. Contractors with a designation higher or lower than 5GB will not be considered.
- (iii) Company Experience: Bidders MUST provide evidence of completion of at least two (2) General Building projects (GB). Proof will be accepted in the form of Practical Completion certificates and or completion certificate ONLY. Only projects with a rand value of <u>R2,500,000.00</u> and above each project will be considered for evaluation.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			T1.2.6		

### (iv) Methodology

The bidder shall submit a project proposal highlighting the methodology to be used in the project. The proposal submitted must demonstrate the bidder's level of understanding of the project scope and should include the following sections;

- Preliminary program
- · Methodology and approach
- Project Organogram
- Quality Plan and approach
- Occupational Health and Safety Plan for the project
- Environmental Management Plan for the project
- Cash-flow projections
- Project organogram

Bidders must take note of the following factors which will be used in evaluating responsiveness of submissions:

- a. The Preliminary Programme submitted must include the full scope of work as described in the work specification and schedule of quantities. It should highlight all the planned activities, the sequence of executing the works and the completion timeframes of the activities. The logic of the sequencing of construction activities and correlation with the cash flow shall be considered together with practicality of the completion timeframes provided for the respective activities.
- b. The Methodology submitted must demonstrate the approach to be used in carrying out construction activities and must be inclusive of the methodology for thatch grass roof removal and disposal.
- c. The Occupational Health & Safety Plan and Environmental Management Plan submitted must be project specific and should highlight the bidder's awareness and commitment to compliance with all relevant regulations i.e. (Construction Regulations, 2014; OHS ACT 1993; National Environmental Management Act, 1998; Environmental Conservation Act, 1989 etc.).

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			T1.2.7		

### (v) Team Capability:

### Bidders must submit:

- a) CV's and submit copies of qualifications (where applicable) for the team members listed below, or
- b) Complete schedule T2.3.2 in detail and submit copies of qualifications (where applicable) for the team members listed below.

Failure to provide CV's and certificates or failure to complete schedule **T2.3.2** with copies of certificates will lead to immediate rejection of the bid

Resources	Qualifications	No of years' Experience		
Site Agent	National Diploma or higher in Civil/Building 5 or Higher			
Electrician	Trade test/ Wireman's Licence 5 or Higher with Department of labour			
Solar Energy Technician	Relevant certificate/ Qualification plus Green Card Certification	3 or Higher		
Plumber	Trade test with Department of labour	5 or higher		
Foreman	N/A	5 or Higher		
Occupational Health and Safety Officer	SACPCMP registration, NOSA Certification or any other relevant qualification on OHS	1 or Higher		
Environmental Control Representative/ Officer	Relevant Certification/Qualification	1 or higher		

Based on the nature of works, it is the responsibility of the Bidder to identify any other critical professional/ specialists required for the completion of the project. Such professionals must be linked to the scope of work and proposed methodology and organogram submitted and be accounted for in the activity and pricing schedule. ECPTA will not be responsible for payment of fees for any additional professionals/ specialists not costed & listed in the pricing schedule. For all additional professionals/specialists identified, the bidder must submit CVs of the resources, copies of

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2				
T1.2.8									

qualifications where applicable. All professionals/specialists proposed must have a minimum of 3 years' experience.

### (vi) PLANT AND EQUIPMENT

At minimal level the following plants and equipment has been identified as critical to have or hire for execution of the project. Bidders must submit evidence of availability of plant as per the schedule below:

Equipment	Evidence required
4 Tonne truck	Proof of ownership, or
	Proof of purchase, or
	Lease agreement with the owner
Tipper truck	Proof of ownership, or
	Proof of purchase, or
	Lease agreement with the owner
TLB/ Excavator	Proof of ownership, or
	Proof of purchase, or
	Lease agreement with the owner
Plate compactor	Proof of ownership, or
·	Proof of purchase, or
	Lease agreement with the owner
	2 Louis agreement with the owner
Jack Hammer	Proof of purchase, or
	Pictures, or
	Lease agreement with the owner

NB: Bidders must comply with all the above requirements and evidence required. Failure to comply with any of the above requirements will lead to immediate rejection of the bid.

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

T1.2.9

### Stage 2: Local Production and Content Declaration for designated items

Only locally produced or locally manufactured products and components for construction will be considered based on the prescribed threshold for each component as listed on SBD 6.2 and Annexure C. Bidders must complete and submit SBD 6.2 and all its associated Annexures in order to be considered. Failure to complete the SBD 6.2 and or its Annexures or failure to obtain the minimum threshold for local content will result in immediate rejection of the bid.

Description of services, works or goods	Stipulated minimum threshold
Doors & frames in all facilities	100%
Alluminium Windows in all facilities	100%
3. Steel Windows	100%
Roof coverings in all facilities	100%
5. Solar PV Components	See
<ul> <li>Laminated PV Modules 15%</li> </ul>	individual
Module Frame 65%	threshold
<ul> <li>DC Combiner boxes 65%</li> </ul>	
Mounting Structure 90%	
• Inverter 40%	
6. Water piping and Fittings in all facilities	100%
7. Water pumps and motors in all facilities	100%
8. Cement	100%
9. PVC pipes	100%
10. Electrical cables	100%
11. Steel components	100%
12. Nails, Bolts and Nuts	100%
13. Wire products	100%
14. Electrical cables	90%
15. Prepaid electricity meters	70%
16. Post paid electricity meters	70%
17. SMART Meters	50%

### Stage 3: Price and B-BBEE

CRITERIA FOR FUNCTIONALITY	POINTS
Price	80
B-BBEE Status	20
Total	100

NB: Certified copy or original B-BBEE Status Level Verification Certificate/ Affidavit must be submitted to substantiate B-BBEE Status claimed. When such certificate is not provided as proof the company will automatically score zero.

Contractor		Witness 1		Witness 2		Employer		Witness 1		Witness 2
T4 0 40										
	11.2.10									

### Stage 4: Risk Analysis

In addition to the evaluation of Responsiveness, a risk analysis will be performed on the Tenderers having the highest ranking / number of points to ascertain if any of the following, as relevant, present an unacceptable commercial risk to the employer in terms of:

- a) Clause F.3.13 of the Standard Conditions of Tender
- b) Unduly high or unduly low Tendered rates or amounts in the Tender offer. In this regard, a financial risk analysis will be performed to verify that the rates entered in the Bill of Quantities are reasonable and balanced. Bids may be disqualified if Tendered rates are found to be distorted. Such evaluation will include "Rate Only" items.
- c) Contract data provided by the contractor; and
- d) The contents of the Tender Returnable which are to be included in the contract

### BIDDERS SHALL TAKE NOTE OF THE FOLLOWING BID CONDITIONS:

- i) The ECPTA reserves the right to negotiate market related rates with any bidder that has a potential of being awarded the bid.
- ii) The Eastern Cape Parks & Tourism Agency Supply Chain Management Policy will apply.
- iii) Bidders must be registered with the National Treasury Central Supplier Database (CSD)
- iv) Eastern Cape Parks & Tourism Agency does not bind itself to accept the highest bid or any other bid and reserves the right to accept the whole or part of the bid.
- v) Bids which are late, incomplete, unsigned, or submitted by facsimile or electronically, will not be accepted.
- vi) Bids submitted are to hold good for a period of 150 days
- vii) An edition 6.2 JBCC agreement shall be signed with the successful service provider.
- viii) ECPTA reserves the right to terminate the contract if not satisfied with the work produced by the service provider. Only bidders that have met the requirements of the proposal / specification shall be considered during the adjudication process.
- ix) Companies that bid as joint venture must submit an official signed business agreement by both parties. If the service provider does not meet this requirement, it will be automatically disqualified.
- x) The ECPTA Bid Committee and the Supply Chain Management Unit may, before a bid is adjudicated or at any time during the bidding process, oblige a bidder to substantiate any claims it may have made in its bid documents.

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Contractor	Witness 1		Witness 2	_	Employer	Witness 1	_	Witness 2
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### Cancellation and re-invitation of Bids

The employer may, prior to the award of a Tender, cancel the Tender if –

- (a) due to changed circumstances, there is no longer a need for the goods or services specified in the invitation
- (b) funds are no longer available to cover the total envisaged expenditure;
- (c) no acceptable Bids are received; or
- (d) there is material irregularity in the tender process

If the Tender is cancelled, it shall be published in the Government Tender Bulletin or the media in which the original Tender invitation was advertised, and all invited tenderers will be informed.

### The following conditions shall apply:

- (i) Any discounts offered unconditionally shall be taken into account when calculating comparative prices.
- (ii) Although discounts offered conditionally shall not be taken into account for evaluation purposes, such discounts shall be implemented when payment is affected (should the Tender prove to be successful).
- (iii) Points scored shall be rounded off to the nearest 2 decimal places.
- (iv) In the event that two or more Bids score equal total points, the successful Tender must be the one scoring the highest number of preference points for B- BBEE. However, when functionality is part of the valuation process and two or more Bids have scored equal points including equal preference points for B- BBEE, the successful Tender must be the one scoring the highest score for functionality. Should two or more Bids be equal in all respects, the award shall be decided by the drawing of lots.
- (v) A trust, consortium or joint venture will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their consolidated B-BBEE status level certificate.
- (vi) A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate Tender.
- (vii) A person must not be awarded points for B-BBEE status level if it is indicated in the Tender documents that such a Tenderer intends sub-contracting more than 25% of the value of the contract to any other enterprise that

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			T1 2 12		

- does not quality for at least the points that such a Tenderer qualifies for, unless the intended sub-contractor is an exempted micro enterprise that has the capability and ability to execute the sub-contract.
- (viii) A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B- BBEE status level than the person concerned, unless the contract is sub- contracted to an exempted micro enterprise that has the capability and ability to execute the sub-contract.

### **Declarations**

A Tender must, in the manner stipulated in the Tender document, declare that:

- (a) the information provided is true and correct;
- (b) the signatory to the Tender document is duly authorized; and
- (c) documentary proof regarding any Tendering issue will, when required, be submitted to the satisfaction of the relevant organ of state.

If it is detected that -

- (a) B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis; or
- (b) any of the conditions of the contract have not been fulfilled.

The employer shall act against the Tenderer or person guilty of such misconduct.

In addition to any other remedy the employer may have against such person(s), the employer may also:

- (a) disqualify the person from the Tendering process;
- (b) recover all 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 favorable arrangements due to such cancellation;
- (d) restrict the Tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution.

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Contractor	Witness 1	Witness 2	='	Employer	Witness 1	='	Witness 2
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### **Tax Clearance**

- a) It essential to ensure that persons conducting business with the State are tax compliant at the awarding of bids as no bid may be awarded to persons who are not tax compliant
- b) In order to comply with the provisions of tax, bidders must utilize the Standard Bidding Document (SBD1) issued with this bid
- c) Bidders must submit their tax compliance status PIN together with the bid
- d) The Central Supplier Database and tax compliance PIN are the approved methods that will be utilized to verify tax compliance as the South African Revenue Services does not issue Tax Clearance Certificates but has made an online provision available, via e-Filling, for bidders to print their own Tax Clearance Certificates which they can submit with their bids

### F.3.13.1 Acceptance of Tender Offer

Tender offers will only be accepted if:

- (a) the Tenderer has submitted with his Offer all relevant documentation as stated in F2.23
- (b) the Tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- (c) the Tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; and
- (d) the Tenderer has not:
  - (i) abused the Employer's Supply Chain Management System or
  - (ii) failed to perform on any previous contract.
- (e) the Tenderer has achieved the minimum score for quality as stated in F.3.11.

### F3.17 Copies of contract

The number of paper copies of the signed contract to be provided by the Employer is **ONE.** 

The Standard Conditions of Tender to follow is obtained from Annexure F of CIDB Standard for Uniformity in Construction Procurement (28 May 2010), which contains references to the Tender Data for details that apply specifically to the Tender

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			T1.2.14		
			11.4.17		

### **T1.3 STANDARD CONDITIONS OF TENDER**

### F.1 General

### F.1.1 Actions

- **F1.1.1** The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.
- **F.1.1.2** The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:

- A conflict of interest may arise due to a conflict of roles which might provide an
  incentive for improper acts in some circumstances. A conflict of interest can
  create an appearance of impropriety that can undermine confidence in the ability
  of that person to act properly in his or her position even if no improper acts result.
- 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.
- **F.1.1.3** The employer shall not seek, and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

### **F.1.2 Tender Documents**

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

### F.1.3 Interpretation

- **F.1.3.1** The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.
- **F.1.3.2** These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.
- **F.1.3.3** For the purposes of these conditions of tender, the following definitions apply:
- (a) **conflict of interest** means any situation in which:
  - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially:
  - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
  - iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.

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Contractor	Witness 1	Witness 2	Employer	Witness 1		Witness 2

- (b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- (c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
- (d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- (e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- (f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs

### F.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be read, copied and recorded. Writing shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

### F.1.5 The employer's right to accept or reject any tender offer

- **F.1.5.1** The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection but will give reasons for such action upon written request to do so.
- **F.1.5.2** The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

### **F.1.6 Procurement procedures**

### F.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for bids.

### F.1.6.2 Competitive negotiation procedure

- **F.1.6.2.1** Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.
- **F.1.6.2.2** All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that bids be clarified, specified and fine-tuned in order

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Contractor	Witness 1		Witness 2		Employer	Witness 1		Witness 2
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to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

- **F.1.6.2.3** At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.
- **F.1.6.2.4** The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and final offer.

Contractor	Witness 1	Witness 2	Employer T1.3.3	Witness 1	Witness 2

### F.1.6.3 Proposal procedure using the two stage-system

### F.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

### F.1.6.3.2 Option 2

- **F.1.6.3.2.1** Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.
- **F.1.6.3.2.2** The employer shall evaluate bids received during the second stage in terms of the method of evaluation stated in the tender data and award the contract in terms of these conditions of tender.

### F.2 TENDERER'S OBLIGATIONS

### F.2.1 Eligibility

- **F.2.1.1** Submit a tender offer only if the tenderer complies with the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.
- **F.2.1.2** Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for bids.

### F.2.2 Cost of tendering

Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

### F.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

### F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

### F.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

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Contractor	Witness 1	Witness 2		Employer	Witness 1		Witness 2
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Acknowledge receipt of addenda to the tender documents, which the employer may issue, necessary apply for an extension to the closing time stated in the tender data, in order to tal addenda into account.	F.2.6	Acknowledge addenda
	necessary	apply for an extension to the closing time stated in the tender data, in order to take t
Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 T1.3.5	ontractor	Witness 1 Witness 2 Employer Witness 1 Witness 2

### F.2.7 Site visit and clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

### F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

### F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) may not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

### F.2.10 Pricing the tender offer

- **F.2.10.1** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.
- **F2.10.2** Show VAT payable by the employer separately as an addition to the tendered total of the prices.
- **F.2.10.3** Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.
- **F.2.10.4** State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

### F.2.11 Alterations to documents

Not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

### F.2.12 Alternative tender offers

- **F.2.12.1** Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.
- **F.2.12.2** Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

### F.2.13 Submitting a tender offer

**F.2.13.1** Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

Contractor	Witness 1	Witness 2		Employer	Witness 1	Witness 2
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- **F.2.13.2** Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.
- **F.2.13.3** Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- **F.2.13.4** Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- **F.2.13.5** Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- **F.2.13.6** Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- **F.2.13.7** Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- **F.2.13.8** Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- **F.2.13.9** Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

### F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

### F.2.15 Closing time

- **F.2.15.1** Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept the proof of posting shall not be accepted as proof of delivery.
- **F.2.15.2** Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

### F.2.16 Tender offer validity

- **F.2.16.1** Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- **F.2.16.2** If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

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			11.3. <i>1</i>		

- **F.2.16.3** Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for bids that a tender is to be withdrawn or substituted.
- **F.2.16.4** Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

### F.2.15 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

### F.2.18 Provide other material

- **F.2.18.1** Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.
- **F.2.18.2** Dispose of samples of materials provided for evaluation by the employer, where required.

### F.2.16 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

### F.2.20 Submit securities, bonds, policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

### F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

### F.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

### F.2.23 Certificates



Include in the tender submission or provide the employer with any certificates as stated in the tender data.

### F.3 THE EMPLOYER'S UNDERTAKINGS

### F.3.1 Respond to requests from the tenderer

- **F.3.1.1** Unless otherwise stated in the Tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.
- **F.3.1.2** Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:
- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

### F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date of the Tender Notice until seven days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, will then notify it to all tenderers who drew documents.

### F.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

### F.3.4 Opening of tender submissions

- **F.3.4.1** Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.
- **F.3.4.2** Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened, and where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.
- **F.3.4.3** Make available the record outlined in F.3.4.2 to all interested persons upon request.

### F.3.5 Two-envelope system

**F.3.5.1** Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid bids in the presence of tenderers' agents who choose to attend at the time

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

**F.3.5.2** Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation above the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

### F.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer

### F.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

### F.3.8 Test for responsiveness

- **F.3.8.1** Determine, after opening and before detailed evaluation, whether each tender offer properly received:
- a) complies with the requirements of these Conditions of Tender.
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.
- **F.3.8.2** A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:
- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work.
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive bids, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

### F.3.9 Arithmetical errors, omissions and discrepancies

**F.3.9.1** Check responsive bids for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in **words** shall govern.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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			11.3.10		

**F.3.9.2** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
  - i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  - ii) the summation of the prices.
- **F.3.9.3** Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.
- **F.3.9.4** Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:
- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern, and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

### F.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

### F.3.11 Evaluation of tender offers

### F3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate it using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the Tender Data.

### F.3.11.2 Method 1: Financial offer

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

### F.3.11.3 Method 2: Financial offer and preference

	_							_	
Contractor	L	Witness 1	Į.	Witness 2			Witness 1		Witness 2
Contractor		withess i		withess 2		Employer	withess		withess 2
					T1	2 1 1			
						.3.11			

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (T EV ) in accordance with the following formula:

 $T_{EV} = N_{FO} + N_{P}$ 

where: N<sub>FO</sub> is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7:

 $N_P$  is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

### F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T EV) in accordance with the following formula:

 $T_{EV} = N_{FO} + N_{O}$ 

where: N<sub>FO</sub> is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

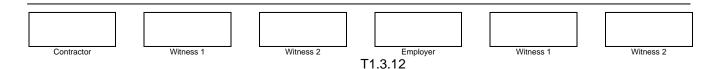
 $N_Q$  is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so. Rescore and rerank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

### F.3.11.5 Method 4: Financial offer, quality and preferences

In the case of a financial offer, quality and preferences:

a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.



b) Calculate the total number of tender evaluation points (T<sub>EV</sub>) in accordance with the following formula, unless otherwise stated in the Tender Data:

$$T_{EV} = N_{FO} + N_P + N_Q$$

where: N<sub>FO</sub> is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

 $N_{\text{P}}$  is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

 $N_Q$  is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

### F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

### F.3.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

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

where:  $N_{\text{FO}}$  is the number of tender evaluation points awarded for the financial offer.

 $W_1$  is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the Tender Data.

A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

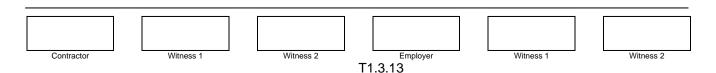
Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 <sup>a</sup>	Option 2 <sup>a</sup>			
1	Highest price or discount	$A = (1 + (\underline{P - P_m}))$ $P_m$	$A = P / P_m$			
2	Lowest price or percentage commission / fee	$A = (1 - (\underline{P - P_m}))$ $P_m$	$A = P_m / P$			
	<ul> <li>P<sub>m</sub> is the comparative offer of the most favourable comparative offer.</li> <li>P is the comparative offer of the tender offer under consideration.</li> </ul>					

### F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

### F.3.11.9 Scoring quality



Score each of the criteria and sub-criteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

 $N_Q = W_2 \times S_0/M_s$ 

where: S<sub>o</sub> is the score for quality allocated to the submission under consideration; M<sub>s</sub> is the maximum possible score for quality in respect of a submission; and W<sub>2</sub> is the maximum possible number of tender evaluation points awarded for the quality as stated in the Tender data.

### F.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

### F.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:

- b) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- c) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- d) has the legal capacity to enter into the contract,
- e) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- f) complies with the legal requirements, if any, stated in the tender data, and
- g) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

### F.3.14 Prepare contract documents

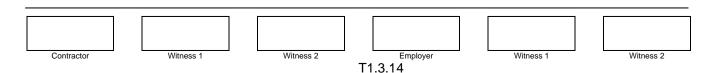
**F.3.14.1** If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

**F.3.14.2** Complete the schedule of deviations attached to the form of offer and acceptance, if any.

### F.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.



#### F.3.16 Notice to unsuccessful tenderers

- **F.3.16.1** Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data or agreed additional period.
- **F.3.16.2** After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

### F.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

### F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

					L		 14.0
Contractor	Witness 1	Witne	ess 2	Employer		Witness 1	Witness 2

T1.3.15

### **EASTERN CAPE PARKS & TOURISM AGENCY**

**BID NUMBER: 20/FY/23** 

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

PART T2: RETURNABLE DOCUMENTS

1					
1					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			T1 3 16		
Contractor	Witness 1	Witness 2	Employer T1.3.16	Witness 1	Witness 2

### RETURNABLE DOCUMENT CHECKLIST

Tenderers to complete this checklist to ensure that all information in the Tender Document is completed included and read by the Tenderer.

Domo	Def	Description	Completed
Page	Ref	Description	Included/
		All pages requiring signatures signed by the Tenderer (Authorized Person)	
1		Correct Tender Offer Amount on BoQs carried forward to Tender Summary (Page iv) and Form of Offer (Page C1.3)	
T2.3	T2.1	Forms, Certificates and Schedules required for evaluation of Tender responsiveness	
T2.1.1	T2.1.1	Tender Briefing / Site Inspection Certificate	
T2.1.2- T2.1.6	T2.1.2	Certificate of Authority for Signatory	
T2.1.7	T2.1.3	Registration Certificates / Agreements / Identity Documents	
T2.1.8- 2.1.17	T2.1.4	Joint Venture / Consortium Disclosure Form	
T2.1.18	T2.1.5	Central Supplier Database / Compliance PIN	
T2.1.19	T2.1.6	Proof of Registration with CIDB	
T2.1.20	T2.1.7	Proof of Workmen's Compensation Registration	
T2.1.21- T2.1.22	T2.1.8	Bidder's/Tender's Reference Evaluation Form 1	
T2.1.23- T2.1.24	T2.1.9	Bidder's/Tender's Reference Evaluation Form 2	
T2.1.27	T2.1.10	Tenderer's Team Capability	
T2.21	T2.2	Other Forms, Certificates and Schedules that will be incorporated into the contract	
T2.2.1	T2.2.1	Record of Addenda to Tender Documents	
T2.2.2	T2.2.2	Local Employment Generation	
T2.2.3	T2.2.3	Unemployment Insurance Fund (UIF) – Registration Certificate (Act 4 of 2002)	
T2.2.4-	T2.2.4	Form Concerning Fulfilment of the Construction Regulations, 2003	
T2.2.6	T2.2.5	Form of Required Information	

T2.	2.3	T2.2.3	nemployment Insurance Fund (UIF) – Registration ertificate (Act 4 of 2002)			
T2.	2.4- 2.5	T2.2.4	orm Concerning Fulfilment of the Construction egulations, 2003			
T2.	2.6	T2.2.5	rm of Required Information			
Contractor		Witness 1	Witness 2 Employer Witness T2.xvii	1 Witness 2		

T2.2.7- T2.2.10	T2.2.6	Bidders Disclosure (SBD 4)	
T2.2.18- T2.2.22	T2.2.7	Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2017 (SBD 66.1)	
T2.2.18- T2.2.21	T2.2.8	Local Content Declaration (SBD 6.2)	

T2.37	T2.3	Documentation, Forms and Schedules required for Tender evaluation purposes	
T2.3.1- T2.3.2	T2.3.1	Related Experience of Tenderer	
T2.3.2- T2.3.5	T2.3.2	List of Key Personnel	
T2.3.6- T2.3.7	T2.3.3	Schedule of Plant and Equipment	
T2.3.8- T2.3.9	T2.3.4	Schedule of Proposed Sub-Contractors	
T2.3.10	T2.3.5	Provisional Programme and Method Statement	
T1.2.6	F.3.11	Compliance requirements	
		<ul> <li>Proof of CIDB contractor grading designation equal to 5GB Only</li> <li>Evidence of execution or completion of at least two (2) General Building projects (GB)</li> <li>Methodology</li> <li>Team Capability</li> <li>Plant and Equipment</li> </ul>	
T2.60	T2.4	Other Documentation, Forms and Schedules required for Tender evaluation purposes	
T2.62	T2.4.2	Broad-based Black Economic Empowerment Status Level Certificate / Sworn Affidavit	
C1.18	C1.2.2	Part 2 : Data Provided by the Contractor (Contract Specific Data)	
C2.5	C2.2	Pricing Data (Provisional Bill of Quantities)	
BOQ's	C2.2	Sign and date Final Summary	
BOQ's	C2.2	Completed in <b>BLACK INK</b> only and corrections crossed out and initialed	
C2.6	C2.3	Amendments, Qualifications and Alternatives by Tenderer	

Contractor	Witness 1	Witness 2	ļ	Employer	Witness 1	Witness 2
Contractor	VVIII 1000 1	vviu1633 Z		Employer T2.xviii	VVIII 1000 I	VVIII 1633 Z
				I∠.XVIII		

### PART T2: RETURNABLE DOCUMENTS

### Notes:

The Tender Document must be submitted as a whole. All forms must be properly completed as required and the document shall not be taken apart or altered in any way whatsoever.

All forms must be duly completed in **black ink** as required.

The list of returnable documents, which consists of forms and schedules to be completed and company specific certificates and information pages to be attached, comprise the following:

TABLE OF C	ONTENTS	Page
T2.1	Forms, Certificates and Schedules required for evaluation of Tender responsiveness	T2.1.1-T2.1.20
T2.2	Other forms, certificates and schedules that will be incorporated into the contract	T2.2.1-T2.2.21
T2.3	Documentation, forms and schedules required for Tender evaluation purposes	T2.3.1-T2.3.11
T2.4	Other documentation, forms and schedules required for Tender evaluation purposes	T2.4.1-T2.4.2

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

Employer Witness 1 Witness 2

### FORMS, CERTIFICATES AND SCHEDULES REQUIRED FOR EVALUATION OF

### T2.1 TENDER

		Page No.
T2.1.1	Tender Briefing / Site Inspection Attendance Certificate	T2.1
T2.1.2	Certificate of Authority for Signatory	T2.1.2-T2.1.6
T2.1.3	Registration Certificates/Agreements/Identity Documents	T2.1.7
T2.1.4	Joint Venture/Consortium Disclosure Form	T2.1.8-T2.1.17
T2.1.5	Central Supplier Database	T2.1.18
T2.1.6	Proof of Registration with CIDB	T2.1.19
T2.1.7	Proof of Workmen's Compensation Registration	T2.1.20

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

T2.1.i

#### TENDER BRIEFING / SITE INSPECTION ATTENDANCE CERTIFICATE T2.1.1

This is to certify that (Tenderer)	
,	of
Address	
Telephone number	Fax
number	E-mail
address	
Was represented by the person(s) named below at the as per the Tender Data (T1.2 – F.2.7)	
I/We hereby acknowledge that I/We visited the site a likely to influence the work and all aspects that could in the services prior to determining our rates and prices.	
I/We further certify that I/we are satisfied with the descripmeeting and that I/We understand perfectly the work documentation and information provided.	·
TENDERER'S REPRESENTATIVE(S):	
Name :	Signature
Capacity:	
Name :	Signature
Capacity:	
EMPLOYER'S REPRESENTATIVE:	
Name :	Signature
	Signature  Date
Name :  Capacity :	
Capacity:	

#### **CERTIFICATE OF AUTHORITY FOR SIGNATORY** T2.1.2

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

• •	PARTNERSHIP	JOINT	(V) SOLE PROPRIETOR

Signatories for Companies, Close Corporations, Partnerships, Joint Ventures or Sole Proprietors must establish their authority thereto by attaching a copy of the relevant resolution of their Board of Directors, Members or Partners duly signed and dated. Examples are shown below.

<b>(I)</b>	CERTIFICATE FOR CO	<u>MPANY</u>	
			. chairperson of the Board of Directors of nereby confirm that by resolution of the Board (copy
attached) capacity of connection	taken onof	20	, Mr/Ms, acting in the, was authorized to sign all documents in FY/23 and any contract resulting from it, or
Chairman:			
Chairman	:		
	As Witness:	1.	
		2.	
Date:			

ΤO					
1 4.					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

T2.1.2

	(II)	CERTIFICATE	FOR CLOSE	CORPORATION		
We	,				,	•
					<b>20/FY/23</b> and an	•
	NAME		ADDRESS		SIGNATURE	DATE

NAME	ADDRESS	SIGNATURE	DATE

Note: this certificate is to be completed and signed by all of the key members upon whom rests the directions of the affairs of the Close Corporation as a whole.

T 2.	Witness 1	Witness 2	Employer .3	Witness 1	Witness 2

		undersigned	_							_	a Mr/N
							.acting	ir	n the	capaci	ty
		 20/FY/23							ection w	ith the	tend
	-		G. 1 G. G. 1 J				.,				
	NAI	ME		ADDR	ESS		SIGNATU	RE	DA <sup>-</sup>	TE	
L	ead pa	rtner _									
							_				
							_				
alf.							_				
te : 7		rtificate is to	-			-		key me	embers	upon	who
te : 7		rtificate is to	-			-		key me	embers	s upon	who
te : 7			-			-		key me	embers	upon	who
te : 7			-			-		key me	embers	upon	who
te : T			-			-		key me	embers	upon	who
te : 7			-			-		key me	embers	upon	who
te : 7			-			-		key me	embers	upon	who
te : 7			-			-		key me	embers	upon	who
te : 7			-			-		key me	embers	upon	who
te : 7			-			-		key me	embers	upon	who
			-			-		key me	embers	upon	who
te : T			-			-		key me	embers	s upon	who

T 2.

Witness 1

Contractor

Witness 2 Employer Witness 1 Witness 2 T2.1.4

### (IV) <u>CERTIFICATE JOINT VENTURE</u>

Signature  Name  Designation
Name
Designation
Signature
Name
Designation
Signature
Name
Designation
 d and signed by a

(V)	CERTIFICATE FOR SOLE PROPRIETOR
I,	hereby confirm that I am the sole owner
of the	business trading as
Signa	ature of Sole Owner:
As Wi	itnesses:
1.	
2.	
Date:	

T2.1.6

# T2.1.3 <u>REGISTRATION CERTIFICATES/AGREEMENTS / IDENTITY</u> <u>DOCUMENTS</u>

Attach hereto certified copies of Registration Certificates for Companies and Closed Corporations and certified copies of Identity Documents for Partnerships and Sole proprietors as well as signed Agreements and Powers of Attorney for Joint Venture / Consortium if applicable.

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

T2.1.7

### T2.1.4 JOINT VENTURE/CONSORTIUM DISCLOSURE FORM

## TO BE COMPLETED ONLY IF TENDER IS SUBMITTED IN A JOINT VENTURE OR CONSORTIUM

### **GENERAL**

a)

Contractor

- i) All the information requested must be filled in the spaces provided. If additional space is required, additional sheets may be used and attached to the original documents.
- ii) A copy of the joint venture agreement must be attached to this form, in order to demonstrate the Affirmable, Joint Venture Partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details relating to:
  - a) the contributions of capital and equipment
  - b) work items to be performed by the Affirmable Joint Venture Partner's own forces
  - c) work items to be performed under the supervision of the Affirmable Joint Venture Partner.
- iii) Copies of all written agreements between partners concerning the contract must be attached to this form including those, which relate to ownership options and to restrictions/limits regarding ownership and control.
- iv) ABE partners must complete ABE Declaration Affidavits.
- v) The joint venture must be formalized. All pages of the joint venture agreement must be signed by all the parties concerned. A letter/ notice of intention to formalize a joint venture once the contract has been awarded will not be considered.
- vi) Should any of the above not be complied with, the joint venture will be deemed null and void and will be considered non-responsive.

### 1. JOINT VENTURE PARTICULARS

b)	Postal address	 		
		 c)	Physical	address
d)	Telephone	 		
	Г2.			

Employer

T2.1.8

Witness 1

Witness 2

Witness 1

Witness 2

e)	Fax	
2.	IDENTITY OF EACH	NON-AFFIRMABLE JOINT VENTURE PARTNER
<b>2.1(a)</b> Nan	ne of Firm	
Postal Add	ress	
Physical Ad	ddress	
Telephone		
Fax		
Contact pe	rson for matters pertai	ning to Joint Venture Participation Goal requirements
<b>2.2(a)</b> Nan	ne of Firm	
Postal Add	ress	
Physical Ad	ddress	
Telephone		
Fax		
Contact pe	rson for matters pertain	ning to Joint Venture Participation Goal requirements
(Continue a	as required for further i	non-Affirmable Joint Venture Partners)
3.	IDENTITY OF EACH	AFFIRMABLE JOINT VENTURE PARTNER
<b>3.1(a)</b> Nan	ne of Firm	
Postal Add	ress	
Physical Ad	ddress	
Telephone		
Fax		
Contact pe	rson for matters pertai	ning to Joint Venture Participation Goal requirements
3.2(a) Nan	ne of Firm	
Postal Add	ress	
Physical Ad	ddress	
Telephone		
T	2.	
Contracto	or Witness 1	Witness 2 Employer Witness 1 Witness 2
		T2.1.9

<sup>-</sup> ах	
ertaining	to Joint Venture Participation Goal requirements
3.3(a) Na	ı <b>me</b> of Firm
Postal Ad	ldress
Physical <i>i</i>	Address Telephone
ax	
	person for matters pertaining to Joint Venture Participation Goal requirements
	e as required for further Affirmable Joint Venture Partners)
4.	BRIEF DESCRIPTION OF THE ROLES OF THE AFFIRMABLE JOINT VENTURE PARTNERS IN THE JOINT VENTURE
5.	OWNERSHIP OF THE JOINT VENTURE
a)	Affirmable Joint Venture Partner ownership percentage(s)%
b)	Non-Affirmable Joint Venture Partner ownership percentage(s) %
c)	Affirmable Joint Venture Partner percentages in respect of: *
i)	Profit and loss sharing
ii) 	Initial capital contribution in Rands
*Brief de	scriptions and further particulars should be provided to clarify percentages).
	(iii) Anticipated on-going capital contributions in Rands

	NON-AFFIRMABLE JOINT VENTU PARTNERS	PARTNER NAME
a)		
၁)		
c)		
d)		
e)		
	PARTNERS	
a)		
0)		
a) o) c) d)		

T2.1.11

(a)	Joint Venture cheque signing	
(b)	Authority to enter into contracts on behalf of the Joint Venture	
(c)	Signing, co-signing and/or collateralizing of loans	
(d)	Acquisition of lines of credit	
(e)	Acquisition of performance bonds	
(f)	Negotiating and signing labour agreements	
8. I in the (a)	MANAGEMENT OF CONTRACT PERFORMANCE  name and firm of the responsible person).  Supervision of field operations	
Contrac	T 2.  Indictor Witness 1 Witness 2 Employer Witness 2 T2.1.12	ess 1 Witness

(b)	Major purchasing							
(c)	Estimating					••		
(d)	Technical manager							
9.	MANAGEMENT AN	D CONTR	OL OF JO	INT V	ENTURE			
(a)	Identify the "ma	naging pa	ertner", if a	iny, 				
(b)	•	tions, ins	surance co	ompai	nies, suppli	ers, sub	gate the other to contractors and/or d works?	
(c)	Describe the ma contract	nagemen	t structur	e for	the Joint	Venture's	s work under the	
	MANAGEME DESIGNATION		NCTION	1	NAME		PARTNER*	
* Fill in "e>	x Affirmable Joint Venti	ure Partne	r" or "ex no	n-Affir	mable Joint \	Venture P	artner".	
Contra	Γ2. Witness 1		Witness 2		Employer	Witnes	s 1 Witness 2	_
			T2.	1.13				

### 10. PERSONNEL

(a) State the approximate number of operative personnel (by trade/function/discipline) needed to perform the Joint Venture work under the Contract.

TRADE/FUNCTION/ DISCIPLINE	AFFIRMABLE JOINT	NUMBER EX NON- AFFIRMABLE JOINT VENTURE PARTNERS

(Fill in "ex Affirmable Joint Venture Partner" or "ex non-Affirmable Joint Venture Partner").

(b)	Number of operative personnel to be employed on the Contract who are currently in the employ of partners.
(i)	Number currently employed by Affirmable Joint Venture Partners
 (ii)	Number currently employed by the Joint Venture
 (c)	Number of operative personnel who are not currently in the employ of the respective partner and will be engaged on the project by the Joint Venture
(d)	Name of individual(s) who will be responsible for hiring Joint Venture employees

Т 2					
1 2.					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

(e)	Name of partner who will be responsible for the preparation of Joint Venture payrolls
11.	CONTROL AND STRUCTURE OF THE JOINT VENTURE
•	scribe the manner in which the Joint Venture is structured and controlled.
and affirm	rsigned warrants that he/she is duly authorised to sign this Joint Venture Disclosure Form is that the foregoing statements are true and correct and include all material information to identify and explain the terms and operations of the Joint Venture and the intended on of each partner in the undertaking.
accurate proposed examinati	ersigned further covenants and agrees to provide the Employer with complete and information regarding actual Joint Venture work and the payment therefore, and any changes in any provisions of the Joint Venture agreement, and to permit the audit and on of the books, records and files of the Joint Venture, or those of each partner of the Joint Venture, by duly authorised representatives of the Employer.
Signature	
Duly auth	orised to sign on behalf of
Name	
Address	
Telephone	e
Date	
Signature	
Duly auth	orised to sign on behalf ofName
-	T 2.
Contra	ctor Witness 1 Witness 2 Employer Witness 1 Witness 2

T2.1.15

Address	
Telephone	
Date	
Signature	
Duly authorised	to sign on behalf of Name
Address	
Telephone	
Date	
Signature	
Duly authorised	to sign on behalf of
Address	
Telephone	
Date	
Signature	
Duly authorised	to sign on behalf of
Address	
Address Telephone	

Signature	
Duly authorised to	sign on behalf of Name
Address	
Telephone	
Date	

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

### T2.1.5 CENTRAL SUPPLIER DATABASE/ TAX COMPLIANCE PIN

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

Tenderers' Full CSD report for the month of February 2023 / Tax compliance PIN must be attached hereto.

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

T2.2.ii

### T2.1.6 <u>CIDB CERTIFICATE</u>

The Tenderer shall attach hereto the Contractors proof of valid registration certificate with CIDB. CRS number(s) also to be provided.

In the case of Consortium/Joint Venture Bids, a consolidated CIDB Grading must be utilized through a CIDB Joint Venture Calculator. Each partner shall also provide their own valid CIDB registration certificate.

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

T2.2.iii

### T2.1.7 PROOF OF WORKMEN'S COMPENSATION REGISTRATION

The Tenderer shall payment of contribution No. 4 of 2002					
T 2.	Witness 1	Witness 2	Employer	Witness 1	Witness 2

T2.2.iv

### T2.1.8 BIDDER'S/TENDERER'S REFERENCE EVALUATION FORM 1

Tenderer shall complete the tender reference evaluation form below. Failure to complete the form will result in the disqualification of the tender application.

Name of Client/Department	
Tender Number	
Tender Description	
Name of Bidder (tenderer)	
Value of project	R
Commencement Date	
Contractual Completion Date	
Bidder's Completion Date	

### 1.2 Please score the performance of the above-mentioned company by ticking the relevant box

Performance Rating	Comments (Attach additional sheets if necessary)		
Work performed in compliance	Excellent	5	
with contract terms.	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Materials, supplies and equipment	Excellent	5	
provided as required?	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Have timelines been met?	Excellent	5	
	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Financial Capacity	Excellent	5	
	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Quality of work	Excellent	5	
	Good	4	
	Fair	3	
	Poor	2	

T 2.					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
		T2	2.v		

Γ	1				T	
		y Poc		1		
Communication and accessibility	Excellent		τ	5		
	Fair	Good		4		
				3		
	Poo			2		
	Ver	y Poc	or	1		
Would you recommend using this service provider in future?		Yes		If no, provide reason		S:
OVERALL PERFORMANCE Excellent Good		Faiı	r		Poor	Very Poor
CLIENT / DEPARTMENT:  Name of Evaluator/ Project Manager Designation:						
Signature:						
Date:						
NB: This form must be duly complete unsigned or forms not stamped will i		an au	ıthorize			with the bid. Incomplete
T 2.  Contractor Witness 1		Witness	2		Employer Witnes	ss 1 Witness 2

T2.2.vi

### T2.1.9 BIDDER'S/TENDERER'S REFERENCE EVALUATION FORM 2

Tenderer shall complete the tender reference evaluation form below. Failure to complete the form will result in the disqualification of the tender application.

Name of Client/Department	
Tender Number	
Tender Description	
Name of Bidder (tenderer)	
Value of project	R
Commencement Date	
Contractual Completion Date	
Bidder's Completion Date	

### 1.2 Please score the performance of the above-mentioned company by ticking the relevant box

Performance Rating	Comments (Attach additional sheets if necessary)		
Work performed in compliance	Excellent	5	
with contract terms.	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Materials, supplies and equipment	Excellent	5	
provided as required?	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Have timelines been met?	Excellent	5	
	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Financial Capacity	Excellent	5	
	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	
Quality of work	Excellent	5	
	Good	4	
	Fair	3	
	Poor	2	
	Very Poor	1	

T 2					
1 2.					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

T2.2.vii

Communication and accessibility					Excellent Good Fair Poor			-				
			/ Pod	or	2							
Would you reco service provider	nis	Yes		No		If n	o, provide	reasons:				
OVERALL PERF	ORM	ANCE	l									
Excellent		Good	_		Fai	r			Poor		Very Poor	
CLIENT / DEPA												
Manager Designation:												
Signature:												
Date:												
NB: This form Incomplete, uns	must   signed	be duly co	omp	oletec star	d by	an at	uthori:	zed : cor	person a	nd be su or evalua	ibmitted with thation of the bid.	ne bid
T 2.		Witness 1			Witness	2 T2 C		Emplo	oyer	Witness	1 Witne	ss 2

T2.2.viii

### T2.1.10 TENDERER'S TEAM CAPABILITY

Bidders must submit:

- a) CV's and submit copies of qualifications (where applicable) for the team members listed below, or
- b) Complete schedule T2.3.2 in detail and submit copies of qualifications (where applicable) for the team members listed below.

Failure to provide CV's and certificates or failure to complete schedule **T2.3.2** with copies of certificates will lead to immediate rejection of the bid

Resources	Qualifications	No of years' Experience
Site Agent	National Diploma or higher in Civil/Building	5 or Higher
Electrician	Trade test/ Wireman's Licence with Department of labour	5 or Higher
Solar Energy Technician	Relevant certificate/ Qualification plus Green Card Certification	3 or Higher
Plumber	Trade test with Department of labour	5 or higher
Foreman	N/A	5 or Higher
Occupational Health and Safety Officer	SACPCMP registration, NOSA Certification or any other relevant qualification on OHS	1 or Higher
Environmental Control Representative/ Officer	Relevant Certification/Qualification	1 or higher

Based on the nature of works, it is the responsibility of the Bidder to identify any other critical professional/ specialists required for the completion of the project. Such professionals must be linked to the scope of work and proposed methodology and organogram submitted and be accounted for in the activity and pricing schedule. ECPTA will not be responsible for payment of fees for any additional professionals/ specialists not costed & listed in the pricing schedule. For all additional professionals/specialists identified, the bidder must submit CVs of the resources, copies of qualifications where applicable. All professionals/specialists proposed must have a minimum of 3 years' experience.

T 2							
1 2.							
Contractor	Witness 1	.1	Witness 2	•	Employer	Witness 1	Witness 2

T2.2.ix

# T2.2 OTHER FORMS, CERTIFICATES AND SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT

	Page No.
T2.2.1 Record of Addenda to Tender documents	T2.2.1
T2.2.2 Local Employment Generation	T2.2.2
T2.2.3 Unemployment Insurance Fund (UIF) – Registration Certificate (Act 4 of 2002)	T2.2.3
T2.2.4 Form Concerning Fulfilment of the Construction Regulations, 2003	T2.2.4-T2.2.5
T2.2.5 Form of Required Information	T2.2.6
T2.2.6 Bidders Disclosure (SBD 4)	T2.2.7-T2.2.10
T2.2.9 Preference Points Clam Form in Terms of the Preferential Procurement	t T2.2.18-T2.2.22
Regulations 2017 (SBD 6.1)	
T2.2. Local Content Declaration (SBD 6.2)	T2.2.23-T2.2.30

T 2.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

Employer Witness 1 Witness 2

T2.2.x

### T2.2.1 RECORD OF ADDENDA TO TENDER DOCUMENTS

I/We confirm that the following communications amending the Tender documents, received from the Employer or his representative before the closing date of submission of this Tender offer, have been taken into account in this Tender offer.

ADD NO.	DATE	TITLE OR DETAILS
1.		
2.		
3.		
4.		
5.		

SIGNATURE: DATE: (of Authorised Person)

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

T2.2.1

### **T2.2.2** LOCAL EMPLOYMENT GENERATION

The Contractor must submit with his Tender, on the table below, his anticipated component of local personnel that will be employed on the Contract both in terms of number of persons and total person days for each category provided. The number of local personnel should include the local personnel employed by sub-contractors.

The contractor will not be allowed to import skilled personnel if the required skills exist within the local community. The contractor will however be allowed to make use of his own permanently employed machine operators and drivers.

Current policy requires that the female and youth labour components be maximized and that females should take up not less than 5% of the employment generated.

The specific employment goals, which are to be met for this project, are as follows:

- a) A minimum of 20 local labour employment (residing in the area of the Great Fish River Nature Reserve.)
- b) A minimum of 5% of the local labour employed on the project is required to be females.
- c) A minimum of 20% of the local labour employed on the project is required to be youth (18 35) years of age); and
- d) A minimum of 1% of the local labour employed on the project is required to be disabled persons.
- e) Non-compliance with the above requirements could be grounds for disqualifying the Tender.

Number of persons planned to be employed															
Occupational	Total		Adult				Youth				Disabled				
Category			Female	Female		Male		Female		Male		Female		Male	
	Persons	Person Days	Persons	Person Days	Persons	Person Days									
Clerical		İ								İ		İ			
Labourer															
Managerial	İ	İ	İ		İ				ĺ	İ	İ	İ	İ		
Semi skilled	j	İ	İ	İ	j	İ	ĺ	İ	ĺ	İ	j	İ	İ		
Skilled	İ	İ	İ	İ				İ		İ	İ	İ			
Supervisor		İ	İ							İ		İ	İ	İ	
Total															
Please note: - The definition of youth is any person under the age of 35 years. (18-35 Years)  Each person may only be counted once. If a person falls into more than one category, disabled persons take preference, then youth, then adults.  Must include all occupational categories (Clerical, Labourer, Managerial, Semi skilled, Skilled and Supervisor).															

SIGNATURE: (Authorised Pers	on)				
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

## T2.2.3 UNEMPLOYMENT INSURANCE FUND (UIF) REGISTRATION CERTIFICATE (ACT 4 OF 2002)

A valid Tenderer's Unemployment Insurance Fund (UIF) Registration Certificate to be inserted here.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 T2.2.3

### **FORM CONCERNING FULFILMENT OF THE** T2.2.4 **CONSTRUCTION REGULATIONS, 2003**

In terms of regulation 4(3) of the Construction Regulations, 2003 (hereinafter referred to as the Regulations), promulgated on 18 July 2003 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her Tei

1.	I confirm that I am fully conversant with the Regulations and that will acquire/procure) the necessary competencies and resources to requirements of the Regulations timeously, safely, and successful	comply wi	•
		YES NO	
2.	Proposed approach to achieve compliance with the Regulations		(Tick)
Own re	esources, competent in terms of the Regulations (refer to 3 below)		
Own re	esources, still to be hired and/or trained (until competency is achieved)		
Specia	llist sub-contract resources (competent) - specify:		
3.	Provide details of proposed key persons, competent in terms of will form part of the Contract team as specified in the Regulations (	•	
Potential I	key risks identified and measures for addressing risks:		

T2.2.4

Contractor

Witness 1

Witness 2

Employer

Witness 1

I have fully included in my Tendered rates and packed of Quantities) for all resources, actions, of the Regulations for the duration of the construction (Tick)	training and any other costs req	ent items provided in the uired for the due fulfilment
		YES
		NO
SIGNATURE OF PERSON(S) AUTHORISED TO	O SIGN THIS TENDER:	
1	Date	
2	Date	

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 T2.2.5

# **FORM OF REQUIRED INFORMATION**

THE FOLLOWING PARTICULARS MUST BE FURNISHED

(FAILURE TO DO SO MAY RESULT IN YOUR TENDER BEING DISQUALIFIED)

NAME OF TENDERER POSTAL ADDRESS			
STREET			ADDRESS
			TELEPHONE
NUMBER CODE			
FACSIMILE NUMBER	CODE		NUMBER
	VAT		REGISTRATION
NUMBER			
HAS AN ORIGINAL AND VALID	TAX CLEARANC	E CERTIFICATE	
BEEN ATTACHED? (MBD 2)			YES/NO
HAS A B-BBEE STATUS LEVEL SUBMITTED? (MBD 6.1)	VERIFICATION (	CERTIFICATE BEE	YES/NO
IF YES, WHO WAS THE CERTIF	ICATE ISSUED E	BY?	
AN ACCOUNTING OFFICER AS			
A VERIFICATION AGENCY ACACCREDITATION SYSTEM (SAN		THE SOUITH AF	RICAN NATIONAL
A REGISTERED AUDITOR			†
(Tick applicable box)			
(A B-BBEE STATUS LEVEL VEI QUALIFY FOR PREFERENCE P			BE SUBMITTED IN ORDER TO
ARE YOU THE ACCREDITED RE	EPRESENTATIV	E IN SOUTH AFRIC	A FOR
THE GOODS/SERVICES/WORK (IF YES ENCLOSE PROOF)	SOFFERED?		YES/NO
SIGNATURE OF TENDERER:			
Contractor Witness 1 T2.2.6	Witness 2	Employer	Witness 1 Witness 2

DATE:				
CAPACITY IN WHICH THIS TENDER	R IS SIGNED: .			
Contractor Witness 1	Witness 2	Employer	Witness 1	Witness 2

# T2.2.6 BIDDER'S DISCLOSURE (SBD 4)

### 1. PURPOSE OF THE FORM

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

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

#### 2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise, employed by the state?

YES/NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2			onnected with the institution? <b>YES/</b>		relationship with a	any person who is
2.2.1	If so, furni	sh particulars:				
Cont 72.2.8	ractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

2.3	Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?  YES/NO
2.3.1	If so, furnish particulars:
3 D	ECLARATION
	I, the undersigned, (name)
3.1 3.2	I have read and I understand the contents of this disclosure; I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
3.3	The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium1 will not be construed as collusive bidding.
3.4	In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
3.4	The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
3.5	There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
3.6	I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
	I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
	I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.
	venture or Consortium means an association of persons for the purpose of combining their expertise, rty, capital, efforts, skill and knowledge in an activity for the execution of a contract.
Contraction T2.2.9	ractor Witness 1 Witness 2 Employer Witness 1 Witness 2

Signature	Date
Position	Name of bidder

Contractor T2.2.10 Witness 1 Witness 2

# **T2.2.7** PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (SBD 6.1)

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

1.2

- a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the ....80/20... preference point system shall be applicable; or
- b) The 80/20 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	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

### 2. **DEFINITIONS**

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

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
	WILLIOSS	VVIII 1033 Z	Litiployei	WILLIOSS I	WILLIOSS Z
T2.2.11					

- 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) B-BBEE Status level certificate issued by an authorized body or person.
  - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice.
  - 3) Any other requirement prescribed in terms of the B-BBEE Act.
  - (i) "QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) "Rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

### 3. POINTS AWARDED FOR PRICE

### 3.1 THE 80/20 PREFERENCE POINT SYSTEMS

Points for Price will be calculated based on the following formula in accordance with PPPFA Circular 01 of 2021/22

$$PS = 80(1 + \frac{Pt - Pmax}{Pmax})$$

Where

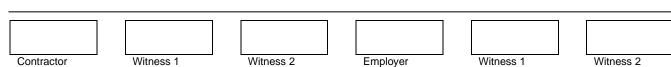
Ps = Points scored for price of tender under consideration.

Pt = Price of tender under consideration; and

Pmax = Price of highest acceptable tender.

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

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



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

	contributor
5.	BID DECLARATION
5.1	Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:
6.	B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1
6.1	B-BBEE Status Level of Contributor: . = (maximum of 20 points)
	(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.
7.	SUB-CONTRACTING
7.1	Will any portion of the contract be sub-contracted?
	(Tick applicable box)
	YES NO
7.1.1	If yes, indicate:
	i) What percentage of the contract will be subcontracted%
	ii) The name of the sub-contractoriii) The B-BBEE status level of the sub-contractor
	iv) Whether the sub-contractor is an EME or QSE
	(Tick applicable box)
	YES NO
	v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:
Desi	ignated Group: An EME or QSE which is at last 51% owned EME QSE
Black	<b>by:</b> $\sqrt{}$ people
Black	people who are youth
ыаск	people who are women
Contra	actor Witness 1 Witness 2 Employer Witness 1 Witness 2

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

Contractor

T2.2.14

Witness 1

Witness 2

Employer

Witness 1

8.	DECLARATION WITH REGARD TO COMPANY/FIRM
8.1	Name of company/firm:
8.2	VAT registration number:
8.3	Company registration number:
8.4	TYPE OF COMPANY/ FIRM
	<ul> <li>□ Partnership/Joint Venture / Consortium</li> <li>□ One person business/sole propriety</li> <li>□ Close corporation</li> <li>□ Company</li> <li>Υ (Pty) Limited</li> <li>[TICK APPLICABLE BOX]</li> </ul>
8.5	DESCRIBE PRINCIPAL BUSINESS ACTIVITIES
8.6	COMPANY CLASSIFICATION
	<ul> <li>Manufacturer</li> <li>Supplier</li> <li>Professional service provider</li> <li>Other service providers, e.g., transporter, etc.</li> <li>[TICK APPLICABLE BOX]</li> </ul>
8.7	Total number of years the company/firm has been in business:
8.8	I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificates, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:
	i) The information furnished is true and correct.
	<ul> <li>The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.</li> </ul>
	<ul><li>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.</li></ul>
	<ul> <li>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</li> </ul>

### any other remedy it may have -

- (a) disqualify the person from the bidding process.
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
- (d) recommend that the bidder or contractor, its shareholders, and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution.

WITNESSES 1	SIGNATURE(S) OF BIDDERS(S)
2	DATE: ADDRESS

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

# **T2.2.8 LOCAL CONTENT DECLARATION (SBD 6.2)**

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 at no cost.

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

		1		1	
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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
Doors & frames in all facilities	100%
2. Alluminium Windows in all facilities	100%
3. Steel Windows	100%
4. Roof coverings in all facilities	100%
5. Solar PV Components	See
<ul> <li>Laminated PV Modules 15%</li> </ul>	individual
Module Frame 65%	threshold
<ul> <li>DC Combiner boxes 65%</li> </ul>	
<ul> <li>Mounting Structure 90%</li> </ul>	
• Inverter 40%	
6. Water piping and Fittings in all facilities	100%
7. Water pumps and motors in all facilities	100%
8. Cement	100%
9. PVC pipes	100%
10. Electrical cables	100%
11. Steel components	100%
12. Nails, Bolts and Nuts	100%
13. Wire products	100%
14. Electrical cables	90%
15. Prepaid electricity meters	70%
16. Post paid electricity meters	70%
17. SMART Meters	50%

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

YES	NO	X

T2.2.17

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	

		l <u>L</u>			
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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)

RES SEN	CAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY SPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR NIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE RPORATION, PARTNERSHIP OR INDIVIDUAL)
IN F	RESPECT OF BID NO.
	UED 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 <a href="http://www.thdti.gov.za/industrial_development/ip.jsp">http://www.thdti.gov.za/industrial_development/ip.jsp</a> . 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.
do h of	e undersigned,
(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:

Witness 1

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

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE:	DATE:
WITNESS No. 1	DATE:
WITNESS No. 2	DATE:

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

REFURBISHI  ECPTA  Pula  9%  List of items  and window frames inium windows windows coverings ated PV Modules le Frame mbiner Boxes		EU	ASTRUCTURE AND I RESERVE  Bid value- net of exempted imported content	GBP		ER NATURE  Local content %	d summa	TY	Note: VAT to be exc calculations	luded from all
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inium windows windows coverings ated PV Modules le Frame						(per item)	Bid Qty	Total Bid value	Total exempted imported content	Total Imported content
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coverings ated PV Modules le Frame			1							1
ated PV Modules le Frame										
ated PV Modules le Frame										
le Frame	ı									 I
								1	-	i
mbiner Boxes							-			
										1
ting structure										<del> </del>
er										<u> </u>
Bolts & Nuts										<u>L</u>
pumps and finishes										<del> </del>
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ical cables										1
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# T2.3 <u>DOCUMENTATION, FORMS AND SCHEDULES REQUIRED</u> <u>FOR TENDER EVALUATION PURPOSES</u>

	Page No.
T2.3.1 Related Experience of Tenderer	T2.3.1-T2.3.2
T2.3.2 List of Key Personnel	T2.3.3 -T2.3.5
T2.3.3 Schedule of Plant and Equipment	T2.3.6 -T2.3.7
T2.3.4 Schedule of Proposed Sub-Contractors	T2.3.8 -T2.3.9
T2.3.5 Construction Programme	T2.3.10T2.3.11
Refer Section F 3.11 – Stage 1: Compliance Requirements	T1.2.6

T2.3.i

### T2.3.1 RELATED EXPERIENCE OF TENDERER

The Tenderer shall list below or in a separate schedule a statement of those works/services of similar nature which they have satisfactorily completed in the past five years. Information must be provided in the format provided below. It is essential that telephone contact details of references be supplied. Present commitments and their due dates for completion shall also be listed. Where applicable, the project value can be adjusted to reflect the impact of inflation, using the Consumer Price Index (CPI) with the completion date being taken as the base date for the calculation (Refer Section F.3.11 – Stage 1: Compliance requirements.

### 1. PREVIOUS PROJECTS UNDERTAKEN:

EMPLO	YER	DESCRIPTION AND	VALUE	DATE
EMPLOYER/ CONTACT PERSON/TEL. NO.	CONSULTING ENGINEER/ CONTACT PERSON/ TEL. NO.	NATURE OF WORKS/ SERVICES	OF WORK (INCL. VAT)	COMPLE- TED

			-		-		_	
Contractor	Witness 1	Witness 2		Employer		Witness 1		Witness 2

# 2. CURRENT PROJECTS UNDERTAKEN:

EMPLOYER/ CONTACT PERSON/TEL. NO.	LOYER  CONSULTING ENGINEER/ CONTACT PERSON/ TEL. NO.	DESCRIPTION AND NATURE OF WORKS/ SERVICES	VALUE OF WORK (INCL. VAT)	DATE COMPLE- TED

				(Authoris	sed Person)
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
Contractor	williess i	T2.3	Employer	vviuteSS 1	vviiness 2

DATE:\_\_\_\_\_SIGNATURE OF TENDERER: \_\_\_\_\_

# T2.3.2 LIST OF KEY PERSONNEL

Bidders must submit:

- a) CV's and submit copies of qualifications (where applicable) for the team members listed below, or
- b) Complete schedule T2.3.2 in detail and submit copies of qualifications (where applicable) for the team members listed below.

Failure to provide CV's and certificates or failure to complete schedule **T2.3.2** with copies of certificates will lead to immediate rejection of the bid

NAME	RESPONSIBILITIES AND AVAILABILITY TO PROJECT	QUALIFICATIONS (ATTACHED COPY)	EXPERIENCE
	Site Agent		
	Electrician		
	Plumber		
	Solar Energy Technician		
	Foreman		
	Occupational Health and Safety Representative		
	Environmental Control Officer		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Based on the nature of works, it is the responsibility of the Bidder to identify any other critical professional/ specialists required for the completion of the project. Such professionals must be linked to the scope of work and proposed methodology and organogram submitted and be accounted for in the activity and pricing schedule. ECPTA will not be responsible for payment of fees for any additional professionals/ specialists not costed & listed in the pricing schedule. For all additional professionals/specialists identified, the bidder must submit CVs of the resources, copies of qualifications where applicable. All professionals/specialists proposed must have a minimum of 3 years' experience.

# **CURRICULUM VITAE OF KEY PERSONNEL**

# NB: BIDDERS MUST SUBMIT CV's OF KEY PERSONNEL

This form should be completed for each key person listed in the table in section T 2.3.2.

Responsibility or role on the project (as per	Site Agent
table T2.3.2)	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Name of employer (firm):	
Current position:	No. of Years' experience:
Employment record: (List of chronological experience)	order starting with earliest work
Experience records portingut to required consider	
Experience records pertinent to required service:	
Certification:	
I, the undersigned, certify that to the best of my kn describes me, my qualifications, and my experi execute the work for which I have been nominated	ience and that I will be available to
(Signature of Person named in schedule)	Date
Attach additional pages if more space is required	

Contractor	Witness 1	Witness 2	Employer 3.4	Witness 1	Witness 2

Responsibility or role on the project (as per	Electrician
able T2.3.2)	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Name of employer (firm):	
Current position:	No. of Years' experience:
Employment record: (List of chronological ordersperience)	er starting with earliest work
Experience records pertinent to required service:	
Certification:	
, the undersigned, certify that to the best of my knowledescribes me, my qualifications, and my experience execute the work for which I have been nominated.	
Signature of Person named in schedule)	Date

Responsibility or role on the project (as per	Plumber
table T2.3.2)	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Name of employer (firm):	
Current position:	No. of Years' experience:
·	er starting with earliest work
Experience records pertinent to required service:	
Certification:	
I, the undersigned, certify that to the best of my know describes me, my qualifications, and my experience execute the work for which I have been nominated.	
(Signature of Person named in schedule)	Date

Responsibility or role on the project (as per	Solar Energy Technician
able T2.3.2)	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
lame of employer (firm):	
Current position:	No. of Years' experience:
Employment record: (List of chronological oexperience)	rder starting with earliest work
experience records pertinent to required service:	
Certification:	
the undersigned, certify that to the best of my knowlescribes me, my qualifications, and my experience the work for which I have been nominated.	ence and that I will be available to
	Date
Signature of Person named in schedule)	Date

Responsibility or role on the project (as per	Foreman
table T2.3.2)	
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Name of employer (firm):	
Current position:	No. of Years' experience:
Employment record: (List of chronological of experience)	order starting with earliest work
Experience records pertinent to required service:	
Certification:	
Sertification.	
, the undersigned, certify that to the best of my kno describes me, my qualifications, and my experience execute the work for which I have been nominated.	ence and that I will be available to
	-
Signature of Person named in schedule)	Date

Responsibility or role on the project (as per	Occupational Health and Safety
table T2.3.2)	Representative
Name:	Date of hinth.
	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Name of employer (firm):	
Current position:	No. of Years' experience:
Employment record: (List of chronological experience)	order starting with earliest work
Experience records pertinent to required service	:
Certification:	
I, the undersigned, certify that to the best of my k describes me, my qualifications, and my expe execute the work for which I have been nominate	rience and that I will be available to
(O) (D)	D. C.
(Signature of Person named in schedule)	Date

Responsibility or role on the project (as per	Environmental Control Officer
table T2.3.2)	Officer
Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Name of employer (firm):	
Current position:	No. of Years' experience:
Employment record: (List of chronological experience)	order starting with earliest work
Experience records pertinent to required service:	
Certification:  I, the undersigned, certify that to the best of my kingle describes me, my qualifications, and my expense execute the work for which I have been nominated.	rience and that I will be available to
(Signature of Person named in schedule)	Date
SUPPLEMENTARY INFORMATION	
Please attach copies of qualifications/ certificates qualifications/ certificates will lead to immediate r	

# **T2.3.3 SCHEDULE OF PLANT AND EQUIPMENT**

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

(a) Details of major equipment that is owned and immediately available for this contract.

DESCRIPTION (type, size, capacity etc)	K HILVELLI A	YEAR OF MANUFACTURE

Attach additional pages if more space is required

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			3.11		

Details of major equipment that will be hired or acquired for this contract if Tender is accepted. Contact details of plant hire company to be provided. HOW ACQUIRED DESCRIPTION (type, size, capacity, etc.) QUANTITY HIRE/ SOURCE BUY Attach additional pages if more space is required The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract NB: Bidders must submit proof of availability of plant in the form of proof of purchase, proof of ownership or agreement with the owner. Failure to submit proof of availability of plant will lead to immediate rejection of the bid SIGNATURE \_\_\_\_ DATE: \_\_\_\_\_ (Authorised Person)

(b)

period.

T2.3.12

Employer

Witness 2

Witness 1

Witness 1

Witness 2

# T2.3.3 SCHEDULE OF PROPOSED SUB-CONTRACTORS

In terms of Clause 4.4 of the Conditions of Contract for Construction, the Tenderer shall enter below the names of sub-contractors he intends to employ for work on this contract, as well as the portion and value of the work to be executed by such sub-contractors.

Based on the definition of SMME provided below the Tenderer should indicate in which category, i.e. Medium, Small, Very Small or Micro, the intended sub-contractor is categorized if applicable.

DESCRIPTION OF PORTION OF WORK	APPROX. VALUE (EXCL. VAT)	AND TELEPHONE	SMME (YES / NO)	SMME CATEGOR Y MEDIUM/ SMALL/ VERY SMALL/ MICRO	% HDI OWNERSHIP OF SUB- CONTRAC- TOR

<sup>\*</sup> According to the national Small Business Amendment Act, 2003 (Act No. 26 of 2003) small business (i.e., SMME) is defined as follows:

A separate and distinct business entity, including co-operative enterprises and non-governmental organizations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy as mentioned in column 1 of the Schedule and which can be classified as a micro, a very small, a small or a medium enterprise by satisfying the criteria mentioned in columns 3, 4 and 5 of the Schedule opposite the smallest relevant size or class as mentioned in column 2 of the Schedule.

(Schedule for Construction Sector given on the following page).

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

### SCHEDULE (ONLY CONSTRUCTION SECTOR SHOWN)

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Sector or Sub- sectors in accordance with the Standard Industrial Classification	Size or Class	Total full-time equivalent of paid employees: Less than:	Total annual turnover: Less than:	Total gross asset value (fixed property excluded): Less than:
	Medium 200 R		R 26 million	R 5 million
Construction	Small Very	50	R 6 million	R 1 million R0,50
Construction	Small Micro	20	R 3 million	million R0,10
		5	R0,20 million	million

It is to be noted that an entity awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher BBB-EE status level than the entity concerned, unless the contract is sub-contracted to an exempted micro enterprise that has the capability and ability to execute the sub-contract.

DATE:	SIGNATURE OF TENDERER:	
	(Authorised Person)	

## T2.3.4 CONSTRUCTION METHODOLOGY AND PROGRAMME

Eligibility criteria: The respondent should be able to demonstrate its capability to bring a contract to a satisfactory conclusion by describing the methodology of approach and programme to accomplish the project's required outcomes.

The respondent must explain its understanding of the requirements for successful planning and implementation of an accelerated infrastructure development programme.

The approach paper should explain the methodologies which are to be adopted under these conditions and demonstrate the compatibility.

The approach should further include a top quality project plan which outlines processes, procedures and associated resources, applied by whom and when with relevant reporting systems, indicate how risks will be managed, what quality assurance measures are to be put in place. Special emphasis should be placed on key performance indicators as well as innovative procedures to be used.

The successful Tenderer shall submit a detailed programme within 14 days after the commencement date. The Tenderer need to submit a high-level programme in the table provided below to illustrate a comprehensive understanding of the work required as well as a pragmatic approach in performing the work required:

The bidder shall submit a project proposal highlighting the methodology to be used in the project. The proposal submitted must demonstrate the bidder's level of understanding of the project scope and should include the following sections;

- Preliminary program
- Methodology and approach
- Project Organogram
- Quality Plan and approach
- Occupational Health and Safety Plan for the project
- Environmental Management Plan for the project
- Cash-flow projections
- Project organogram

Bidders must take note of the following factors which will be used in evaluating responsiveness of submissions;

			_		-		
Contractor	Witness 1	Witness 2		Employer		Witness 1	Witness 2

- b. The Preliminary Programme submitted must include the full scope of work as described in the work specification and schedule of quantities. It should highlight all the planned activities, the sequence of executing the works and the completion timeframes of the activities. The logic of the sequencing of construction activities and correlation with the cash flow shall be considered together with practicality of the completion timeframes provided for the respective activities.
- c. The Methodology submitted must demonstrate the approach to be used in carrying out construction activities and must be inclusive of the methodology for thatch grass roof removal and disposal.
- d. The Occupational Health & Safety Plan and Environmental Management Plan submitted must be project specific and should highlight the bidder's awareness and commitment to compliance with all relevant regulations i.e. (Construction Regulations, 2014; OHS ACT 1993; National Environmental Management Act, 1998; Environmental Conservation Act, 1989 etc.).

DESCRIPTION OF PHASE AND SECTION OF THE WORKS			FINISHING WEEK NO.
Site handover	1	1	1
Site establishment			

DESCRIPTION OF PHASE SECTION OF THE WORKS		ENVISAGED DURATION (WEEKS)	STARTING WEEK NO.*	FINISHING WEEK NO.
* The execution of the Wor	ks should star	rt within 14 days fro	om the Site Hando	over Date.
DATE:	_SIGNATUR	E OF TENDERER		

(Authorised Person)

# T2.4 OTHER DOCUMENTATION, FORMS AND SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

Page No.

T2.4.1 Broad Based Black Empowerment Status Level Certificate

T2.41

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

# T2.4.1 BROAD-BASED BLACK ECONOMIC EMPOWERMENT STATUS LEVEL CERTIFICATE

Tenderer to attach hereto the Broad-Based Black Economic Empowerment Status Level Certificate of the Tendering Company and/or Joint Venture Partners.

Only B-BBEE status level certificates issued by the following are valid:

- Verification Agencies accredited by the South African National Accreditation System (SANAS); or
- Registered Auditors approved by the Independent Regulatory Board of Auditors (IRBA) in accordance with the approval granted by the Department of Trade and Industry.

#### **GENERAL**

The following is an abstract from the Preferential Procurement Regulations 2011 promulgated with the Preferential Policy Framework Act No 5 of 2000:

- "10 (1) Tenderers with annual total revenue of R5 million or less qualify as Exempted Micro Enterprises (EMEs) in terms of the Broad-Based Black Economic Empowerment Act and must submit a certificate issued by a registered auditor, accounting officer (as contemplated in section 60(4) of the Close Corporation Act, 1984 (Act No. 9 of 1984)) or an accredited verification agency.
  - (1) Tenderers other than Exempted Micro-Enterprises (EMEs) must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating.
  - (2) The submission of such certificates must comply with the requirements of instructions and guidelines issued by the National Treasury and be in accordance with notices published by the Department of Trade and Industry in the Government Gazette.
  - (3) The B-BBEE status level attained by the Tenderer must be used to determine the number of points contemplated in regulations 5 (2) and 6 (2)."

Notes: Exempted Micro-Enterprises are deemed to have B-BBEE Status of "Level Four Contributor" having a B-BBEE procurement recognition of 100%.

Exempted Micro-Enterprise qualifies for a promotion to a B-BBEE Status of "Level Three Contributor" having a B-BBEE procurement recognition of 110%.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
		C1i			

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

THE TENDERER MUST SUBMIT THE FOLLOWING DOCUMENTS WITH THIS TENDER. IF THE DOCUMENTS ARE NOT INCLUDED IN THE DOCUMENT, THE DEPARTMENT WILL NOT CONSIDER THIS TENDER. (MANDATORY REQUIREMENTS)

Clause referred to in	Document				
Standard Conditions of					
Tender					
2.1	Tenderers should provide their CRS Number of registered Contractor as well as JV Partner*. CRS Number of Tenderers or JV Partners needs to be filled in below:  Tenderer/Leading JV Partner				
	CRS Number:				
	Name of				
	Company:				
	JV Partner				
	CRS Number:				
	Name of				
	Company:				
	JV Partner				
	CRS Number:				
	Name of Company:				
	*NB: Recent printout from CIDB website indicating the CRS number will also be accepted.				
2.13.4	Letter of authorization to sign the Form of Offer and where required in tender document. (See Item T2.2.9 Form I page T2.2.15)				
2.25	An Original, Valid Tax Clearance Certificate. See Item T2.2.20 Form T page T2.2.33)				
	In Bids where Consortia/Joint Venture/Sub-contractors are involved each party must submit a separate and Original Valid Tax Clearance Certificate.				
2.7	Attendance of the Compulsory Tender Clarification meeting as stipulated.				

		in Bids where Co each party <b>mus</b> Clearance Certif	st submit a se			
		Attendance of the stipulated.	he Compulsory	Tender Clar	ification me	eting as
		]				
Contractor	Witness 1	Witness 2	Employer	Witr	ness 1	Witness 2

F.2.11	Tampering with or taking the documents apart is strictly prohibited, this will lead to the tender being considered as non-responsive. All documentation must be stapled into the tender document or attached in a separate file.

# **EASTERN CAPE PARKS & TOURISM AGENCY**

**BID NUMBER: 20/FY/23** 

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

**PORTION 2: CONTRACT** 

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 C1i

# **EASTERN CAPE PARKS & TOURISM AGENCY**

**BID NUMBER: 20/FY/23** 

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

PART C1: THE CONTRACT

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 C1i

# PART C1: THE CONTRACT

# **Notes:**

The Tender Document must be submitted as a whole. All forms must be properly completed as required and the document shall not be taken apart or altered in any way whatsoever.

All forms must be duly completed in **black ink** as required.

The list of returnable documents, which consists of forms and schedules to be completed and company specific certificates and information pages to be attached, comprise the following:

TABLE OF CO	ONTENTS	Page
C1:	AGREEMENT AND CONTRACT DATA	C1.1
C1.1	FORM OF OFFER AND ACCEPTANCE	C1.1-C1.8
C1.2.1:	CONDITIONS OF CONTRACT	C1.9-C1.14
C1.2.2 :	CONTRACT SPECIFIC DATA	C1.15-C1.18
C1.2.3:	PRO-FORMA PERFORMANCE GUARANTEE	C1.19-C1.22
C1.2.4:	ADJUDICATOR APPOINTMENT	C1.23-C1.25
C2 :	PRICING DATA	C2.1
C2.1:	PRICING INSTRUCTIONS	C2.1-C2.2
C2.2:	PROVISIONAL BILLS OF QUANTITIES	C2.3
C3:	SCOPE OF WORK	C3.1
C3.1:	PROJECT SPECIFICATIONS	C3.1-C3.11
C3.2:	PARTICULAR SPECIFICATIONS	C3.12-C3.58
C3.3:	TENDER DRAWINGS	C3.59
C3.4	CONTRACT BOARD LAYOUT DETAIL	C3.60
C4 :	SITE INFORMATION	C4.1
C4.1 :	GEOTECHNICAL INFORMATION OF SITE	C4.1
C5:	ANNEXURES	C5.1

C1ii

#### C1. AGREEMENT AND CONTRACT DATA

#### C1.1 **FORM OF OFFER AND ACCEPTANCE**

#### A. **OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

TENDER No. 20/FY/23 - REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND **FACILITIES AT GREAT FISH RIVER NATURE RESERVE** 

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda hereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing of this part of this Form of Offer and Acceptance, the Tenderer offers to perform all 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.

(: n , , , o , , d o )

The offered total of the prices inclusive of Value Added Tax is:

R			(in words)		
and Acceptance period of validity	e accepted by the and returning one stated in the Tend the Conditions of 0	e copy of this do er Data, whereu	ocument to the T pon the Tenderer	enderer before the becomes the par	e end of the
Signature: (of pe	erson authorized to	sign the Tender	):		
Name: (of signat	ory in capitals:				
Capacity: (of Sig	gnatory):				
Name of Tender	er: (organization):				
Contractor	Witness1	Witness2	Employer	Witness1	Witness2

Address:		
Telephone number:	Fax number:	
Witness:		
Signature:		
Name:		
(in capitals :		
Date:		
(Failure of a Tenderer to sign this form will	invalidate the Tender)	
Contractor Witness 1 Witness	s 2 Employer W C1.2	/itness 1 Witness 2

#### A. ACCEPTANCE

By signing this part of the 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 Condition of Contract as set out in the general and Special Conditions of Contract and identified in the Contract Data. Acceptance of the Tenderer upon the terms and conditions and 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 include this Agreement) Part 2

Pricing Data, including the bill of Quantities

Part 3 Scope of Work Part 4

Site Information

and the schedules, forms, drawing and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto 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, which must be duly signed by the authorized representatives of both parties.

The Tenderer shall deliver the security in terms of Clause 11 of the JBCC 2018 within the period stated in the contract Data, and he shall, immediately after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contract the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data, within 14 days of the date on which this Agreement comes into effect. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five days of the date of such receipt notified the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract within parties.

Sig	nature:					
 Nan	ne: (in capitals	5)				
Сар	acity:					
	Contractor	Witness1	Witness2	Employer	Witness1	Witness2

Name of Employer: (organization)		
Address:		
Witness:		
Signature:	Name:	
Date:		

Employer

Witness2

Witness1

Contractor

Witness1

Witness2

#### C. SCHEDULE OF DEVIATIONS

The extent of deviations from the Tender documents issued by the Employer prior to the Tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer's covering letter will not necessarily be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid becomes the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the Tender documents and which it is agreed by the Parties becomes and obligation of the contract shall also be recorded here.

Any change or addition to the Tender documents arising from the above agreements and recorded here shall also be incorporated into the final draft of the Contract.

1.	Subject: Details:					
2.	Subject: Details:					
3.	Subject: Details:					
4.	Subject: Details:					
5.	Subject: Details:					
6.	Subject: Details:					
Cont	ractor	Witness1	Witness2	Employer	Witness1	Witness2

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from the amendments to the documents listed in the Tender Data and addend thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

# **FOR THE TENDERER:** Signature: Capacity: \_\_\_\_\_ Tenderer (Name and address of organization): Witness: Signature: \_\_\_\_\_ Name: \_\_\_\_\_ **FOR THE TENDERER:** Signature: Name:\_\_\_ Capacity:\_\_\_\_\_

Employer

Witness1

Witness2

Witness2

Contractor

Witness1

Witness:		
Signature:		
Name:		
Date:		

C1.

Employer

Witness1

Witness2

Witness2

Contractor

Witness1

# C1.2 CONTRACT DATA - CONDITIONS OF CONTRACT

Part 1:		General Conditions of Contract	C1.9
Part 2:		Special Conditions of Contract	C1.9
	1.	General	C1.9
	2.	Amendments to the General Conditions of Contract	C1.9

C1.

#### PART 1: GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are clauses 1 to 41 of the **JBCC Series 2000 Principal Building Agreement (Edition 6.2 of May 2018)** published by the Joint Building Contracts Committee.

Copies of these conditions of contract may be obtained from the Association of South African Quantity Surveyors (011-3154140), Master Builders Association (011-205-9000; 041- 365 1835) South African Association of Consulting Engineers (011-4632022) or South African Institute of Architects (051-4474909; 011-4860684; 053-8312003; 041- 585 8037)

The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the JBCC Principal Building Agreement.

Each item of data given below is cross-referenced to the clause in the JBCC Principal Building Agreement to which it mainly applies.

The Conditions of Contract make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Specific Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Conditions of Contract or the Special Conditions of Contract.

The Contract Specific Data, General and Special Conditions of Contract shall have precedence over the Drawings, Scope of Work and Standardized Specifications in the interpretation of any ambiguity or inconsistency.

#### PART 2: SPECIAL CONDITIONS OF CONTRACT

#### 1. GENERAL

These Special Conditions of Contract (SCC) form an integral part of the Contract. The Special Conditions of Contract shall amplify, modify, or supersede, as the case may be, the JBCC 2018 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions hereafter are numbered "SCC" followed in each case by the number of the applicable clause or sub clause in the JBCC 2018, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the Conditions, and an appropriate heading.

The Forms included in the JBCC 2018, are replaced with the Forms included in this Project Document.

\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
_	Witness1 Witness2

#### 2. AMENDMENTS TO THE JBCC 2018 CONDITIONS OF CONTRACT

SCC 1.1 Definitions

SCC 1.1 "Bills of Quantities"

#### Add the following:

"For this Contract "Schedule of Quantities" will have the same meaning as "Bills of Quantities" and will form part of the Pricing Data as defined in the General Conditions of Contract."

**SCC 1.1** "**Drawings**" means all drawings, calculations and technical information forming part of the Contract Documents and any modifications thereof or additions thereto from time to time approved in writing by the Engineer or delivered to the Contractor by the Engineer.

**SCC 1.1 "Letter of Notification**" means the letters of formal notification, signed by the Employer, of the decision of the Supply Chain Management Tender Adjudication Committee sent to all Tenderers. The notification of the decision does not form part of the Employer's Acceptance of the successful Tenderer's Offer and no rights shall accrue."

#### SCC 1.9 Add the following new Clause:

"SCC 1.9 The copyright in all documents, drawing and records (prepared by the Engineer) related in any manner to the Works shall vest in the Employer or the Engineer or both (according to the details of the Contract that has been entered into by the Engineer and the Employer for the Works), and the Contractor shall not furnish any information in connection with the Works to any person or organization without the prior approval of the Employer to this effect."

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

#### SCC 2 Law, Regulations and Notices

#### Add the following:

"2.5 The Occupational Health and Safety Act No. 85 and Amendment Act No. 181 of 1993 and the Construction Regulations 2003 will in all respects be applicable to this contract."

#### 2.5.1 Contractor's liability as mandatory

"Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2003, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37 (2) of the Act."

#### **Contractor to notify Employer**

"The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations."

#### **Contractor's Designer**

"The Contractor and his designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2003 for the design of the Temporary Works and those parts of the Permanent Works which the Contractor is responsible to design in terms of the Contract."

#### SCC 4 Add sub-clause 4.4

"The contractor may not subcontract the whole of the work without the written instruction or approval of the employer and principal agent. In such event the employer may require the contractor to cede the contract to the subcontractor."

#### SCC 15 Replace sub-clause 15.1.2 to 15.1.4 and 15.2 to 15.6 with the following:

"The contractor and principal agent shall appoint a selected subcontractor in accordance with the provisions of the Scope of Work."

Contractor Witness1 Witness2 Employer Witness1 Witness2

**SCC 30.0(41)** Delete in the Substitute Provisions (30.0 State Clauses) clause 30.1, 30.2 and 30.3/4/5 and replace with the following:

30.1#Should any dispute between the employer, his agents or principal agent on the one hand and the contractor on the other arise out of this agreement, such dispute shall be referred to adjudication.

30.2# Adjudication shall be conducted in accordance with the edition of the JBCC Rules for Adjudication current at the time when the dispute is declared. The party, which raises the dispute, shall select three adjudicators from the panel of adjudicators published by the South African Institution of Civil Engineering or Association of Arbitrators (Southern Africa), determine their hourly fees and confirm that these adjudicators are available to adjudicate the dispute in question. The other party shall then select within 7 days one of the three nominated adjudicators, failing which the chairman for the time being of the Association of Arbitrators (Southern Africa) shall nominate an adjudicator. The adjudicator shall be appointed in terms of the Adjudicators Agreement set out in C1.4.

30.3#If provided in the schedule, a dispute shall be finally settled by a single arbitrator to be agreed on between the parties or, failing such agreement within 28 days after referring the dispute to Arbitration, an Arbitrator nominated by the chairman for the time being of the Association of Arbitrators (Southern Africa). Any such reference shall be deemed to be a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act No 42 of 1965, as amended), or any legislation passed in substitution, therefore. In the absence of any other agreed procedure, the arbitration shall take place in accordance with the Rules for the Conduct of Arbitrations issued by the Association of Arbitrators (Southern Africa) which are current at the time of the referral to arbitration. The Arbitrator shall, in his award, set out the facts and the provisions of the contract on which his award is based.

40.4# If the schedule provides for court proceedings to finally resolve disputes, disputes shall be determined by court proceedings.

Contractor Witness1 Witness2 Employer Witness1 Witness2

## C1.2.2 CONTRACT SPECIFIC DATA

#### A. DATA TO BE PROVIDED BY THE EMPLOYER

#### PART 1: DATA PROVIDED BY THE EMPLOYER

1.1 The Employer is the Eastern Cape Parks & Tourism Agency

The address of the Employer is: 17-25 Oxford Street, East London

Telephone: (043) 705 4400

Facsimile: (043) 742 5566

Address (postal): P.O. Box 11234, Southernwood, East London, 5213

1.2 The Principal Agent is **Deedscon Consult (Pty) Ltd** 

Telephone: (043) 726 8975

Address (physical): 8 Tyrell Road, Berea, East London 5241

# 1.3 REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

#### 1. Mvubu Complex Facilities

- i) Refurbishment of 3 Chalets Units
- ii) Reconstruction of 1 Chalet Unit that was burnt.
- iii) Change thatch roofs to suitable roof cover that is maintenance free.
- iv) Refurbishment of Dinning Area
- v) Refurbishment of Kitchen
- vi) Refurbishment of Manager's House
- vii) Refurbishment of Boarding House
- viii) Refurbishment of Braai Area and Roundavele
- ix) Refurbishment of existing Swimming Pool.

#### 2. New Double Drift Campsite

- i) Upgrading of Two Camp Sites (benches, chairs, braai stands)
- ii) Construction of a new Ablution Block

Contractor	\//itness1	Witness2	Employer	Witness1	Witness2

#### 3. **Grassland Researchers' Accommodation**

- i) Construction of new Ablution Block
- ii) Upgrading of existing water system

#### 4. **Double Drift Office**

- i) Decommission of the existing generators
- ii) Upgrade of the existing solar system.
- iii) Installation of new generator to act as a standby.

<b>10.1.1</b> The Works or installations to be undertaken by o	direct contractors of	comprises
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Not Applicable

C1.16

#### **42.2.3** The Employer is an organ of State

- The interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999) will apply.
- Lateral support insurance is to be affected by the contractor
- Payment will be made for materials and goods
- Extended defects liability period will apply to the following elements:

Not applicable

- 12.1.5 Possession of the site is to be given within seven days of the contractor providing the employer with construction guarantees in accordance with the provisions of 14.0 and the Contract has been signed by both parties.
- **42.2.5** The period for the commencement of the works after the contractor takes possession of the site is 7 working days.

Completion:

For the works as a whole:

The date for practical completion is ...... (Contractor to complete)

The penalty per calendar day is R 3000 up to a maximum of 10% of the contract value there after the employer shall have a right during the identified delay period to step- in and accelerate the work or appoint a third party to assist or complete the works to reach practical completion at the planned period. The appointed third-party work shall be at the cost of the contractor.

- 2.1 The law applicable to the agreement shall be that of the Republic of South Africa.
- Contract works insurance (construction guarantee) is to be affected by the contractor for a sum not less than the contract sum plus 10%.

The supplementary insurance is required. Such insurance shall comprise a Coupon Policy for Special Risks issued by the South African Special Risk

Insurance Association. (SASRIA)

42.3.3	Public liability insurance to be effected by the contractor for the sum of R 10 000 000.00 with a deductible in an amount that the contractor deems appropriate.							
42.3.4	Support insurance: Deemed Not Applicable							
42.4.1	A waiver of the contractor's lien or right of continuing possession is required.							
42.4.2	Three copies of the construction document are to be supplied to the contractor free of charge.							
42.4.5	JBCC and Engineering General Conditions are not to be included in the contract document.							
42.4.6	CPAP shall only be applicable to works that progress to later than twelve (12) months from commencement date. Where the period is prolonged beyond the first twelve months due to the delay or non- performance by the employer, the CPAP shall be applicable; however, where the period is extended due contractor's failure to perform or delay caused by the contractor CPAP shall not be applicable. CPAP is not applicable to this Project.							
	The value of the certificates issued shall be adjusted in accordance with the JBCC Contract Price Adjustment Schedules.							
25.3	The issue of an interim payment certificates shall be done no later than the 25 <sup>th</sup> of each month.							
11.5	The employer will not provide advanced payments against an advanced payment guarantee							
Contractor	Witness1 Witness2 Employer Witness1 Witness2 C1.18							

30.0		dispute shall be		a dispute is unr by an arbitrator to	
PART 2: DAT	A PROVIDED BY T	HE CONTRACTO	<u>DR</u>		
Clause 42.5.1:					
The name of th	e Contractor is				
The legal name	e of the Contractor.				
Clause 42.5.1	[1.2]:				
The address of	the Contractor is				
	address, postal a receive notices.	address, e-mail	address and/or	fax number where	e the
Contractor	Witness1	Witness2	Employer	Witness1	Witness2

C1.19

The construction guarantee is to be a fixed guarantee in accordance with the

11.2 and

JBCC.

14.4

# C1.2.3 CONSTRUCTION GUARANTEE

## **GUARANTOR DETAILS AND DEFINITIONS**

Guarantor mea	ans				
 Physical addre	98				
					1
 Guarantor's siç	gnatory 1		Capaci	ty	
Guarantor's siç	gnatory 1		Capaci	ty	
 Employer mea Contractor mea		pe Parks and Touris	-		
Agent means					
Contract Sum i		ies 2000 Principal B es in the Form of Offe	• •		Γ Amount in figures
Amount in work (Rand)	ds				
_		ximum aggregate ar			Amount in
1	The Guarantor's lifollows:	iability shall be limit	ed to the amount	of the Guarante	ed Sum as
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

GUARANTOR'S LIABILITY	PERIOD OF LIABILITY
Maximum Guaranteed Sum (not exceeding 10 % of the contract sum) in the amount of:	From and including the date of issue of this Construction Guarantee and up to and
	including the date of the only practical completion certificate or
	the last practical completion certificate where there are

- 2 The Guarantor hereby acknowledges that:
- 2.1 Any reference in this Guarantee to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.
- 2.2 Its obligation under this Guarantee is restricted to the payment of money.
- 3 Subject to the Guarantor's maximum liability referred to in clauses 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in sub-clauses 3.1 to 3.3:
- A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Principal Agent in an interim or final payment certificate has not been made in terms of the Agreement and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of sub-clause 3.2
- 3.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) calendar days has elapsed since the first written demand in terms of sub-clause 4.1 and that the sum certified has still not been paid therefore the Employer calls up this Guarantee and demands payment of the sum certified from the Guarantor.
- 3.3 A copy of the said payment certificate which entitles the Employer to receive payment in terms of the Agreement of the sum certified in clause 3.
- Subject to the Guarantor's maximum liability referred to in clause 1, the Guarantor undertakes to pay the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Guarantee stating that:
- 4.1 The Agreement has been cancelled due to the Contractor's default and that the Guarantee is called up in terms of clause 4. The demand shall enclose a copy of the notice of cancellation; or
- 4.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Guarantee is called up in terms of clause 4. The demand shall enclose a copy of the court order

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C1.21

- It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of clauses 3 and 4 shall not exceed the Guarantor's maximum liability in terms of clause 1.
- Where the Guarantor is a registered insurer and has made payment in terms of clause 4, the Employer shall upon the date of issue of the final payment certificate submit an expense account to the Guarantor showing how all monies received in terms of the Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 7 Payment by the Guarantor in terms of clause 3 or 4 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim his release from this Guarantee on account of any conduct alleged to be prejudicial to the Guarantor
- **9** The Guarantor chooses the physical address as stated above for all purposes in connection herewith.
- This Guarantee is neither negotiable nor transferable and shall expire in terms of clause 1, or payment in full of the Guaranteed Sum or on the Guarantee expiry date, whichever is the earlier, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired
- This Guarantee, with the required demand notices in terms of clauses 3 or 4, shall be regarded as a liquid document for the purpose of obtaining a court order.
- Where this Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Data

Signed at		D	al <del>e</del>			
Guarantor's			Guarantor'	s		
Signatory 1			Signatory 2	Signatory 2		
Witness 1			Witness 2			
Guarantor's seal o	or stamp					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2	

Cianad of

# C1.2.4 ADJUDICATOR APPOINTMENT

This agreen	ement is made on the	day of	between:
			ganization)
of			/o.d.dro.co\
and			_(address)
		(Name of company / or	ganization)
of			
/The Partie	as) and		_(address)
(The Partie	es) and		
			(name)
of			
/Tla a A alia sal	المحدد ما		_(address)
(The Adjud	aicator).		
•	•	petween the Parties under a Contract dated as	
the JBCC S		been* referred to adjudication in accordance inafter called "the Procedure") and the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in accordance in a control of the Adjudication in	
* Delete as ne	•		
IT IS NOW	/ AGREED as follows:		
1	The rights and obligations of the the JBCC Series 2000 Adjudication	Adjudicator and the Parties shall be as se on Rules.	et out in
2		s the appointment and agrees to conde e JBCC Series 2000 Adjudication Rules.	uct the
3	The Parties bind themselves joint expenses as set out in the Contract	tly and severally to pay the Adjudicator's fect Data.	ees and

Employer

Witness 1

Witness 2

Witness 2

Contractor

Witness 1

- The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavor to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by:  Name:	SIGNED by:  Name:	SIGNED by:  Name:
duly authorised to sign for and	who warrants that he / she is duly authorised to sign for and behalf of the second Party in the presence of	the presence of
Witness	Witness:	Witness:
Name:	Name	Name:
Address:	Address:	Address:
Date:	Date:	Date:
Contractor Witness1	Witness2 Employ	ver Witness1 Witness2

#### **Contract Data**

	1	The Adjudicator shall be paid at the hourly rate of R in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.	ne
	2	The Adjudicator shall be reimbursed in respect of all disbursements properly madincluding, but not restricted to:	de
		(a) Printing, reproduction and purchase of documents, drawings, maps, recoland photographs.	rds
	(b)	Telegrams, telex, faxes, and telephone calls.	
	(c)	Postage and similar delivery charges.	
	(d)	Travelling, hotel expenses and other similar disbursements.	
	(e)	Room charges.	
	(f)	Charges for legal or technical advice obtained in accordance with the Procedure.	
3	beco the A the f 2 of	Adjudicator shall be paid an appointment fee of R This fee shall ome payable in equal amounts by each Party within 14 days of the appointment of Adjudicator, subject to an Invoice being provided. This fee will be deducted from inal statement of any sums which shall become payable under item 1 and/or item the Contract Data. If the final statement is less than the appointment fee the note shall be refunded to the Parties.	
1	The	Adjudicator is/is not* currently registered for VAT.	
5		re the Adjudicator is registered for VAT it shall be charged additionally in rdance with the rates current at the date of invoice.	
6	rece	ayments, other than the appointment fee (item 3) shall become due 7 days after ipt of invoice, thereafter interest shall be payable at 5% per annum above the erve Bank base rate for every day the amount remains outstanding.	
		Delete as necessary	

# C.2 PRICING DATA

### C.2.1 PRICING INSTRUCTIONS

- The Provisional Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work (as amended) published and issued by the Association of South African Quantity Surveyors (Seven Edition), 2015. Where applicable the:
  - civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardized Specifications for Civil Engineering Works.
  - b) electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- The agreement is based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, March 2005. The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Provisional Bills of Quantities are recited.
- Preliminary and general requirements are based on the various parts of SANS 1921, Construction and management requirements for works contracts. The additions, deletions and alterations to the various parts of SANS 1921 as well as the contract specific variables are as stated in the Specification Data in the Scope of Work. Only the headings and clause numbers for which allowance must be made in the Provisional Bills of Quantities are recited.
- It will be assumed that prices included in the Provisional Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for bids. (Refer to <a href="https://www.stanza.org.za">www.stanza.org.za</a> or <a href="https://www.stanza.org.za">www.iso.org</a> for information on standards).
- The drawings listed in the Scope of Works used for the setting up of these Provisional Bills of Quantities are kept by the Principal Agent or Engineer and can be viewed at any time during office hours up until the completion of the works.
- Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")

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1					
1					
Cambrastan	\\ <i>\\\</i> :+1	\\/:t====0	Flevier	\\/:t1	\\/:t====0
Contractor	Witness1	Witness2	Employer	Witness1	Witness2

- 8 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Provisional Bills of Quantities
- 9 The Provisional Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Provisional Bills of Quantities, is at the Contractor's risk.
- The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract.
- Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 10 but taking into account the revised period for completing the works.
- The amount or items of the Preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
  - a) an amount which is not to be varied, namely Fixed (F)
  - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
  - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
- Where no provision is made in the Bills of Quantities to indicate which of the three categories in 12 apply or where no selection is made, the adjustments shall be based on the following breakdown:
  - a) 10 percent is Fixed;
  - b) 15 percent is Value Related
  - c) 75 percent is Time Related.
- The adjustment of the Preliminaries shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminaries shall exclude any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

#### C2.2

#### **BILLS OF QUANTITIES**

- 1. The priced Provisional Bill of Quantities (BoQs), following hereafter will form an integral part of the "Contract" between the successful appointed Contractor and the Employer. The Contractor is to note the separate Bills of Quantities for printing, completion and attachment hereto for submission of the bid.
- 2. The Contractor is to note the separate Electrical Bills of Quantities for printing, completion and attachment hereto after the builder's work Bill of Quantities (listed as No. 1 above) for submission of the bid. These are accompanied by Electrical Specifications which the bidder is to familiarise himself/herself with.
- 3. Coupled to item No. 2 above, the Electrical Sub-contractor which may the Main Contractor proposes to use is to attach the following documentation as called for in the Electrical Specification:
  - · Certified Copy of the CK Document
  - Certified Copy of the Identity Documents of Members
  - Tax Confirmation Certificate
  - Certified Copy of the Wireman's License
  - Certified Copy of the BBBEE certificate
  - Proof of Registration with the Electrical/Mechanical Contracting Board of South Africa
  - Letter of Good Standing with the Compensation Commission

Proof of Registration with CIDB



**CONTRACT NO.: 20/FY/23** 

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

PART A: BILLS OF QUANTITIES (Separate Document to be inserted here)

PART B: ELECTRICAL AND MECHANICAL WORKS (Separate Document to be inserted immediately after Part A)

					-			_	
Contractor	<u> </u>	Witness 1	l.	Witness 2	,	Employer	Witness 1	1	Witness 2

C2.3

# **PART A**

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

C2.4

# **PART B**

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

C2.5

# **SUMMARY OF SCHEDULES**

TOTAL A (Incl. Vat)	
· ,	
TOTAL B (Incl. Vat)	
GRAND TOTAL (A+B)*	
Note:  *Total to be carried forward to the "Form of Offer"	"
DAYWORK RATES	
The following rates are for work not covered by rates in the Schedule of Qu	nantities. All rates are to be
exclusive of VAT.	
LABOUR RATES, NORMAL TIME, PER HOUR	
Installation Electrician and Labourer	R
Artisan Electrician and Labourer	R
Labourer	R
LABOUR RATES, NORMAL OVERTIME, PER HOUR	
Installation Electrician and Labourer	R
Artisan Electrician and Labourer	R
Labourer	R
LABOUR RATES, SUNDAYS AND PUBLIC HOLIDAYS, PER HOUR	
Installation Electrician and Labourer	R
Artisan Electrician and Labourer	R
Labourer	R
MATERIALS	
Percentage mark up on net cost of materials	%
TRANSPORT	
Private car or light delivery vehicle	cents/km
3 tonne truck	cents/km
5 tonne truck	cents/km
10 tonne truck	cents/km
Contractor Witness 1 Witness 2 Employer	Witness 1 Witness 2

DATE:	SIGNATURE:			
		(For the Tenderer		
THIS WHOLE DOCU	MENT SHOULD BE	RETURNED WITH T	HE TENDER	
EASTERN C	APE PAR	(S &TOURI	SM AGENC	Y
GREAT FIS	H RIVER	NATURF F	RESERVE	
GREAT FIS		NATURE F	RESERVE	
GREAT FIS		NATURE F	RESERVE	
	N FOR THE		RESERVE	
SPECIFICATIO	N FOR THE		RESERVE	
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SPECIFICATION ELECTRICAL I	N FOR THE  NSTALLATIO		RESERVE	
SPECIFICATIO  ELECTRICAL I  CONSULTING ENGINE	N FOR THE  NSTALLATIO		RESERVE	
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SPECIFICATION ELECTRICAL I  CONSULTING ENGINE  DEEDSCON CONSULT  No 8 Tyrell Road  Berea, East London 5241	N FOR THE  NSTALLATIO		RESERVE	
SPECIFICATION ELECTRICAL I  CONSULTING ENGINE  DEEDSCON CONSULT  No 8 Tyrell Road  Berea, East London 5241	N FOR THE  NSTALLATIO  ERS:  LT			tness 2

#### ELECTRICAL INSTALLATION TO GREAT FISH RIVER NATURAL RESERVE



Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2		
C2 0							
		•	JZ.0				

# **SCOPE OF WORKS**

TAB	SLE OF CONTENTS
1. 2.	Project Specification General Technical Specification Of Material And Workmanship For The Electrical Installation

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

#### 1. PROJECT SPECIFICATION

#### 1.1 PROJECT DESCRIPTION

The project involves the supply, delivery, installation, testing, commissioning, handing over in proper working order of the complete Electrical Installation and upholding during the defect's notification period of the electrical installation at the Great Fish River Nature Reserve.

The project also involves new installations and refurbishment of existing buildings.

#### 1.2 SITE DESCRIPTION

The nature reserve is situated in the rural areas of the Eastern Cape, Ngqushwa Local Municipality within 70km of the towns of Alice and Fort Beaufort and Peddie.

The nature reserve has some buildings that would be demolished and some relocated. The layout of the Site can be seen in the accompanying drawings.

#### 1.3 SCHEDULE OF DRAWINGS

The following drawings form part of the Tender Documentation:

DRAWING No.	TITLE
GD E 01	Grassland Lighting and Small Power
MV E 06	Mvubu Single Line Diagram
GD E 02	Grassland Single Line Diagram
MV E 06	Mvubu Single Line Diagram
MV E 02	Mvubu Chalet Unit 01 Single Line Diagram
MV E 03	Mvubu Chalets 02&03 Floor Plans Lighting and Small
1017 2 00	Power
MV E 06	Mvubu Chalets 02&03 Floor Plans Single Line Diagram
MV E 04	Mvubu Lodge Single Line Diagram
MV E 08	Mvubu Staff Housing Single Line Diagram
PS E 02	New Double Drift Campsite Ablution Single Line Diagram

#### 1.4 POWER SUPPLY AUTHORITIES

The Supply Authority to the nature reserve are:

- i) Eskom- for the Staff Accommodation only.
- ii) Solar- for the detached buildings throughout the nature reserve.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			
	C2 10							
		U	Z. IU					

#### 1.5 PROJECT SCOPE

#### 1.5.1 **ELECTRICAL INSTALLATION**

The electrical installation includes but not limited to the following:

- 1.5.1.1 Disconnect, remove and handover to the client all the electrical cables, switches, plugs, light fittings, distribution boards and any other electrical equipment and accessories in buildings that are to be demolished.
- 1.5.1.2 Replace all malfunctioning or very old light fittings, mulfunctioning fluorescent tubes, bulbs, switches, socket outlets with new ones. The contractor shall identify all the light fittings and plugs to be replaced and Engineer shall approve the removal of the identified light fittings and plugs in writing.
- 1.5.1.3 Supply and installation of solar panels and related fixing equipment.
- 1.5.1.4 Supply and install complete systems of dc to ac inverters and associated rechargeable batteries and safety equipment.
- 1.5.1.5 Rechecking the existing installation, tracing and labelling circuits.
- 1.5.1.6 Install Main Distribution board as indicated on the drawings.
- 1.5.1.7 Identify, join and terminate in the Main Distribution Board, all power cables for the existing installation.
- 1.5.1.8 The supply, delivery and installation of all light fittings, socket outlets, fans and air conditioning units as specified in this document and on the drawings.
- 1.5.1.9 All trenching, sleeves, manholes and LV cabling.
- 1.5.1.10 The complete connecting of all equipment as specified in this document and on the drawings.
- 1.5.1.11 The complete lightning protection installation of the respective building/structures, etc.
- 1.5.1.12 Testing and commissioning of the entire installation.
- 1.5.1.13 Prepare the "As-Built" Drawings

#### 1.5.2 **NOTES**

- 1.5.2.1 The above is a brief description of the electrical installation. For a more detailed description of the contract refer to all parts of the specification and drawings, which form part of this specification.
- 1.5.2.2 The electrical contractor shall, during progress of the building programme, work in coordination with all other trades.
- 1.5.2.3 Tenderers shall allow in their quotation prices for all material, equipment, machinery, instruments, labour supervision, transport and all other items which are or may be necessary to complete the contract in its entirety as specified or implied herein.

Witness 1	Witness 2	Employer	Witness 1	Witness 2
	Witness 1		Witness 1 Witness 2 Employer	

1.5.2.4 The specification and drawings for the main items and materials are included herewith. Tenders shall also give full details of materials not specified in this document but considered necessary to complete the document.

#### PROJECT SCHEDULE OF LUMINAIRES

1.6

Item No.	Туре	Description
1.0	B1	5W LED downlighter light fitting.
2.0	B2	5W LED bulkhead light fitting.
3.0	C1	22W LED channel light fitting.

# 2.0 GENERAL TECHNICAL SPECIFICATION OF MATERIAL AND WORKMANSHIP FOR THE ELECTRICAL INSTALLATION

- 2.1 This General Technical Specification specifies the standard of workmanship and quality of material for the installation that is specified in detail in the Project Specification and Drawings and as listed in the Bills of Quantities and Schedules.
- 2.2 The Project Specification shall take preference over the General Technical Specification where any conflict exists.
- 2.3 The Tenderer shall be deemed to have examined carefully the General Conditions, Specification, Schedules and Drawings accompanying these documents. If any doubt exists as to the meaning of any portion of these documents, he shall submit such doubts to the Engineer in writing, in order that they may be resolved before the Tender Document is completed. No claims traceable to non-compliance with this condition will be considered.
- 2.4 Upon receiving a set of documents, Tenderers must make sure that all the pages are included, in the correct numerical order, and that all the drawings are attached. Should this not be the case it should immediately be brought to the attention of the Engineer.
- 2.5 Hereinafter where the term "Main Contractor", "Building Contractor" or "Builder" is used, it shall mean the Principal Contractor and where the term "Electrical Contractor" is used, it shall mean the Contractor appointed in terms of this document.
- 2.6 Tenderers are advised that prices for articles and equipment described by trade names or catalogue references must refer to the type and manufacture specified. If it is desired to use substitutes, the onus will be on the Electrical Contractor to prove that such substitutes are similar and equivalent to the article specified and meet with the approval of the Engineer.
- 2.7 The decision whether the specified articles are to be used and installed or whether alternatives offered are acceptable shall rest solely with the Engineer and this decision shall be final.
- 2.8 The Engineer may order the Electrical Contractor to install the exact articles specified and no alteration in Tender Price shall then be permissible.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			
C2.12								
			.12					

2.9	Tenderers shall note that when installation commences, with the appropriate approvals, of any type and make of article or equivalent, then the same type and make of article or equivalent shall be used throughout the project for that specific application, unless otherwise specified.
2.10	Hereinafter the following terminology will be used for different voltages:
2.10.1	LOW VOLTAGE : AC effective voltages and DC voltages up to 660 V.
2.10.2	HIGH VOLTAGE: All voltages, AC and DC higher that those mentioned in item above.
3.	SCOPE OF CONTRACT
3.1	This Contract covers the supply, delivery, installation, testing, commissioning and handing over in proper working order of the complete Electrical Installation as specified in detail in all the constituent parts of this set of documents.
4.	COMPLIANCE WITH REGULATIONS
4.1	The entire installation shall be carried out in accordance with the latest revision and amendments of the following:
4.2.1	The Standard Regulations for the Wiring of Premises as issued by the South African National Standards SANS 10142 – latest issue .
4.2.2	The Occupational Health and Safety Act No 85 of 1994.
4.2.3	The Basic Conditions of Employment Act No 75 of 1997.
4.2.4	The Municipal By-laws and any special requirements of the Supply Authorities of the area and district concerned.
4.2.5	The Local Fire Office Regulations.
4.2.6	Telkom Regulations.
4.2.7	The applicable SANS Specifications or the BS Specifications where no SANS Specifications exist.
4.3	No claims for extras in respect of failure by the Electrical Contractor to comply with any of the above regulations will be considered.
4.4	Where conflict exists between any of the above regulations and the specifications, the said conflict must be referred to the Engineer in writing for his ruling.
5.	<u>DRAWINGS</u>
Contracto	r Witness 1 Witness 2 Employer Witness 1 Witness 2 C2.13

5.1	The Engineer's drawings covering the various sections of the installation are as stipulated in the schedule of drawings herein. The working drawings of the Contract shall, however, consist of:
5.2.1	The Engineer's drawings.
5.2.2	The Architect's drawings.
5.2.3	The Reinforced Concrete drawings.
5.2.4	The Air-conditioning drawings.
5.2.5	The Plumbing, Sprinklers and other Services drawings.
5.3	Unless otherwise specified, three sets of the Engineer's drawings will be issued to the Electrical Contractor for installation purposes. Any further copies shall be purchased from the Engineer.
5.4	Four copies of shop drawings shall be submitted to the Engineer for approval and to demonstrate compliance with Contract Documents. Shop drawings are drawings, diagrams, illustration, schedules, performance charts, brochures and other data which are prepared by the electrical contractor, manufacturer, supplier or distributor and which illustrate some portion of the work.
5.5	The Engineer's approval of shop drawings or samples shall not relieve the Electrical Contractor of responsibility for any deviation from the requirements of this Contract unless the Electrical Contractor has informed the Engineer in writing of such deviation at the time of submission of shop drawings or samples and the Engineer has given written approval for the specific deviation, nor shall the Engineer's approval relieve the Electrical Contractor of responsibility for errors or omissions in the shop drawings or samples.
5.6	A complete set of the Engineer's drawings shall be issued to the Electrical Contractor after installation to be marked up by the Electrical Contractor to indicate the "As-Built" installation as a prerequisite to completion.
6.	NOTICES
6.1	The successful Tenderer for this Contract shall, immediately after he has been officially notified that his tender has been accepted, and at any time thereafter as may be necessary, notify all the relevant authorities, pay fees and take any other steps which may be required or prescribed to execute the installation as specified.
7.	MATERIALS
7.1	Materials and equipment used in this Contract must, where possible, be of South African manufacture and shall comply with this specification and relevant SABS or BS Specifications and shall be approved and installed to the satisfaction of the Engineer.
7.2	The Electrical Contractor shall submit samples of all materials or equipment for approval by the Engineer before installation, unless prior approval to the contrary has been obtained in writing
Contracto	or Witness 1 Witness 2 Employer Witness 1 Witness 2 C2.14

from the Engineer. Such samples will be held for purposes of comparison with equipment and materials installed and will be released on satisfactory completion of the Contract.

- All apparatus, components, fittings and materials supplied and/or installed, whether expressly specified herein or not, shall conform in respect of quality, manufacture, tests and performance, with the requirements of the South African Bureau of Standards and/or the appropriate current British Standard Specifications and Addenda thereto, excepting where otherwise specified or permitted by the Engineer in writing.
- 7.4 Where a certain manufacturer's material or apparatus is mentioned in the drawings or specifications, such materials or apparatus shall be provided as specified, excepting where an alternative to this condition is allowed in the specifications. Where a detailed specification for material or apparatus is not provided, it shall be understood that all normal requirements for the use of such materials or equipment shall apply.
- 7.5 Where certain products of a specified manufacturer are unobtainable, substitutes may be offered, but shall only be supplied after written consent by the Engineer.
- 7.6 The Engineer may instruct the Electrical Contractor to supply and/or deliver and/or install any other make or manufacture of article(s) than that/those specified and will issue Variation Orders where such change has cost implications.

#### 8. <u>BUILDER'S WORK</u>

- 8.1 All chasing for conduit, switch, plug and other outlet boxes, shall be the responsibility of the Electrical Contractor.
- The Electrical Contractor shall be held responsible for any damage caused by him to buildings and other services.
- 8.3 Chasing may only be done in exceptional cases where it is impossible to build in conduits and outlet boxes. The normal procedure to be followed is for the Electrical Contractor under this Contract to place in position all conduits and outlet boxes for the Building Contractor to build in, cast in or fix by any other acceptable means into the building structure. The responsibility for correct execution will, however, remain with the Electrical Contractor.
- 8.4 No chasing on finished surfaces or face brick shall be allowed.
- 8.5 No cutting of structural concrete shall be permitted.
- The Building Contractor will be responsible for the making good of all chases and openings in building work.
- 8.7 Immediately after acceptance of the tender the Electrical Contractor shall inform the Builder of the requirements for all chases and openings in the building work and also at regular intervals thereafter to enable the Builder to be well informed in advance of all structural electrical requirements.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			
C2.15								

#### 9. ELECTRICITY/ENERGY SUPPLY

- 9.1 Electricity supply will be made available under this contract, and the Electrical Contractor shall ensure that the installation is delivered in such a manner that it complies with the SANS requirements regarding voltage, current and frequency and with any other requirements which may be imposed by the equipment suppliers.
  - Eskom supply
  - Solar systems
  - Household Gas
  - Diesel Generators

#### 10. <u>EARTHING</u>

- The entire installation shall be properly and effectively earthed as prescribed in the Standard Regulations for the Wiring of Premises. The entire installation shall be bonded to the main earth bar by means of separate earth conductors.
- The earthing electrodes shall be manufactured of a steel core with a copper covering, thoroughly molten-welded thereto so that an interlocking crystalline union exists between the two metals. The conductivity of the electrode shall not be less than 40% of that of pure copper.
- 10.2.2 The earthing electrode when broken by successive bends shall show no seams, pits, slivers or separation of copper from steel.
- 10.2.3 The electrodes shall have rolled and not machine-cut threads on both ends.
- 10.2.4 The tensile strength of the earthing electrodes shall not be less than 400 MPa.
- 10.2.5 Connecting of the Earthing electrodes shall be done with external sleeve type threaded couplings made of non-zinc bronze.
- 10.2.6 High tensile steel driving bolts.
- 10.2.7 Phosphor bronze stirrup type termination clamp with 10 mm set screw.
- 10.3 Earthing electrodes shall be driven into soft ground. Hard ground and rock shall be pre-drilled with 50 mm dia holes and the holes shall be filled with mud slurry.
- The resistance between the main earth system and the earth mass shall be measured by the Electrical Contractor in the presence of the Engineer.
- Test results must be submitted to the Engineer in writing for written approval before the system is permanently covered.
- The municipal water main shall be connected to the main earth system by means of 70 mm stranded copper conductor. Where non-metallic pipes are used for municipal water supply, the water meter shall be connected to the main earth system.

Contractor	Witness 1	J	Witness 2	J	Employer	J	Witness 1	1	Witness 2

10.7 All power supply, stove, heater and machine circuits shall be provided with an uninterrupted earth continuity conductor, which shall consist of bare copper stranded wire. 10.8 All metal lighting fittings shall be earthed. 10.9 All metal cold and warm water pipes, drain pipes and ventilation pipes and ducts are to be effectively bonded by means of 12 mm x 0,8 mm solid or perforated copper tape (not wire) clamped by means of brass screws at intervals not exceeding 150 mm. 10.10 Metal roofs, gutters and down pipes are all to be bonded in the above way, and galvanised bolts and nuts must be used. 10.11 Self-tapping screws are not acceptable. 10.12 Any copper tapes or conductors used for earthing installed outside the building in accessible positions are to be run in galvanised conduits or water pipes from 2 000mm above ground level down to approximately 300 mm below ground level. These conduits or water pipes are to be securely fixed to the walls. 10.13 All earthing work to be executed <u>before</u> any painting commences. 10.14 An earth bar is to be provided in each substation and/or main LT switch room to which shall be connected the main earth system and the main earth terminals from all the equipment in the switch room. 10.15 Unless otherwise specified the earth bar shall be mounted in a visible position against the wall adjacent to the cable trench. It shall consist of 50 mm x 6,3 mm copper section, mounted on spacers away from the wall and pre-drilled to accept bolts for connections. Cadmium-plated steel bolts shall be used for connections, and all connections shall be made by means of properly soldered or crimped lugs. 11. LOW VOLTAGE DISTRIBUTION BOARDS 11.1 General 11.2.1 Distribution boards shall be provided and installed as indicated on the drawings and in the schedules. 11.2.2 The Electrical Contractor shall note the dimensions of the room or openings in which the panels will be mounted and also the dimensions of the access routes and doors. Panels shall be so constructed that they may be taken through the doors after doors have been placed in position. 11.2.3 Distribution panels offered by the Electrical Contractor must comply with the requirements as indicated on the drawings and schedules and shall be standard units of established manufacturers. The Engineer will use his right as described elsewhere in these documents to prescribe to the successful Tenderer what the requirements are in connection with each

distribution board. These requirements shall be complied with. As it is not intended to penalise

a Tenderer on account of distribution boards offered, it is <u>essential</u> that the costs of all distribution boards be indicated in the tender in order to facilitate determination of costs of alternatives.

- All distribution boards shall be installed at a convenient height, with the top edge of the tray not exceeding 2 200 mm above finished floor level.
- 11.2.5 Apparatus and requirements of the Supply Authority are not indicated on the diagrams and it is expected of the Electrical Contractor to install any such apparatus, accessories and systems as may be required by the Supply Authority as part of his electrical contract price.
- All wiring, connections, instruments and other equipment, shall be mounted inside the board and not on the outside, unless otherwise specified. Wood or artificial wood products shall not be used inside switchboards as mountings for terminals or partitions. Sindanyo or Delaron not less than 6 mm thick, or other materials as prescribed and approved by the Engineer, shall be used.
- 11.2.7 The Electrical Contractor will be required to balance the load as equally as possible across multiphase supplies. Balancing of loads across the three phases must be finally approved by the Engineer after commissioning.
- 11.2.8 Space for 30% future expansion on MCCB's and CFS units and 50% future expansion on contactors, time switches and isolators shall be allowed on all boards unless otherwise specified.
- 11.2.9 The Electrical Contractor shall level, fix and grout all distribution boards to the satisfaction of the Engineer.
- 11.2.10. The Electrical Contractor shall note sizes and positions of cable trenches and vertical shafts and shall include in his tender all supporting steel work to straddle trenches and vertical shafts to support distribution boards securely.
- 11.3 Painting
- 11.3.1 The interior of all switchboard cases shall be painted with two coats of best quality white "arc-free" paint and the outside shall be painted with two coats of approved colour enamel paint before delivery to site.
- All metal parts to be degreased, rinsed, pickled, rinsed, phosphated, neutralised and then be thoroughly dried. This process shall be followed up within 48 hours by application of one layer of a high quality zinc chromate primer of minimum thickness 0,04 mm.
- 11.3.3 The abovementioned primer to be followed by:
- 11.3.3.1 Two coats of a good quality alkyd based baked enamel of approved colour. The minimum film thickness of the paint after baking to be not less than 0,06 mm. Care to be taken that all edges are properly covered.
- 11.3.3.2 Paint used on boards to have an impact resistance of 0,23 mm/kg on 0,9 mm mild steel plate and scratch resistance to withstand 2 kg.
- 11.3.4 Boards to be used in corrosive atmosphere shall be treated as follows:

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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11.3.4.1	Metal surfaces shall be cleaned by means of shot blasting followed by the cleaning process described above with the exception that a "Coast Cote" primer shall be applied within one hour.
11.3.4.2	Subsequent to this the material shall be treated with high quality zinc chromate primer as described above, followed by a "flow coat" of minimum thickness 0,04mm.
11.3.5	All distribution board finishes shall be made good to the satisfaction of the Engineer before final hand over.
11.4	Labelling
11.4.1	All safety warning notices shall be in both the official languages.
11.4.2	All distribution boards shall be labelled in the sequence shown on the drawings and as specified. The Electrical Contractor shall obtain final information before labelling any board.
11.4.3	All grouped single-pole circuit breakers on distribution boards shall be properly labelled, indicating number of circuits controlled.
11.4	<u>Doors</u>
11.5.1	Doors shall be provided for all Distribution boards and they shall be manufactured of the same gauge material as the remainder of the panels.
11.5.2	Doors shall be suitably braced to ensure stiffness and shall have a smooth, flat finish.
11.5.3	Door hinges shall be heavy-duty and shall be constructed to permit easy removal of doors.
11.5.4	Doors for the Main DB shall be fitted with locks. ied. Locks shall be Union, Yale or Solid. Four master keys shall be provided.
11.6	Removable Panels
11.6.1	Panels of sheet metal, finished in a colour to be specified shall be suitably stiffened, with machine-punched slots to allow for flush mounting of equipment.
11.7	Busbars
11.7.1	Busbars are to be installed in all distribution boards and may be installed either horizontally or vertically.
11.8	Wiring
Contracto	or Witness 1 Witness 2 Employer Witness 1 Witness 2 C2.19

11.8.1	All internal wiring of the board shall be carried out in PVC insulated conductors of adequate size.
11.8.2	No joints will be allowed in internal wiring.
11.8.3	All wiring is to kept free and away from any exposed terminals or other uninsulated current carrying parts.
11.9	Clearances
11.9.1	Sufficient space shall be left inside panels for incoming and outgoing cable connections and for interconnections and control wiring, taking into account the sizes and quantities of cables and wires involved.
11.9.2.1	Clearance of not less than 75 mm between sides, top and bottom of architrave and any equipment mounted on the chassis.
11.9.2.2	Clearance of not less than 75 mm between rows of equipment (measured between terminals).
11.10	Vermin Proof and Ventilation
11.10.1	All distribution boards shall be completely vermin-proof.
11.10.2	Boards fitted with heat generating equipment shall be arranged to prevent heat building up to a temperature which could damage any of the equipment or cable on the board.
11.11	<u>Access</u>
11.12.1	Sufficient removable panels shall be provided to afford access to all equipment for maintenance purposes.
11.12.2	Main LV boards shall be arranged for back access as well as front access, and shall be installed with a minimum of 1 000 mm clear access space behind. The back panels shall be of similar construction to the front panels.
11.12	Standby Section
11.12.1	This is not applicable in this contract.
11.13	Free-standing Distribution Boards
11.13.1	Free-standing boards shall be of the free-standing pedestal type with or without doors as specified and shall be so designed as to enable the board to be extended without undue difficulty.
11.14	Flush and Surface-mounted Distribution Boards
Contrac	tor Witness 1 Witness 2 Employer Witness 1 Witness 2 C2.20

- 11.14.1 Both flush and surface-mounted distribution boards shall consist of an architrave frame which shall carry the chassis for equipment, panel and door and a bonding tray onto which the architrave frame shall be secured.
- 11.14.2 Bonding trays for flush-mounted boards shall be designed to be built into the wall and shall have expanded metal spot-welded to the rear and sufficient metal straps on the sides.

#### 11.15 Equipment

#### 11.15.1 <u>Lightning Arresters</u>

- 11.15.1.1 Lightning arresters shall be provided for each phase in all Main Boards, i.e. boards supplied directly from transformers or from the Supply Authority, and all main distribution boards situated in remote buildings.
- 11.15.1.2 Lightning arresters shall conform to SABS 171, shall bear the SABS mark, and shall be solidly earthed directly onto the main earth bar by means of a copper strap.
- 11.15.2 Moulded Case Circuit-breakers (mccb's)
- 11.15.2.1 All moulded case circuit-breakers shall comply with SABS 156. All mccb's shall be of flush panel mounting type with inverse current time delay overload characteristics.
- 11.15.2.2 Mechanically coupled single-pole circuit breakers used as double or triple-pole circuit-breakers are not acceptable unless overload releases are internal coupled.
- 11.15.2.3 No mccb of fault current interrupting rating of less than 5kA shall be installed.
- 11.15.2.4 Neutral bars associated with each bank of mccb's shall be positioned below each bank and shall be wired in the same sequence as the mccb's above.

#### 11.15.3 Ammeters

- 11.15.3.1 The ammeters shall be of the flush-mounted type.
- 11.15.3.2 All instruments shall comply with the requirements of BS 89 for instruments of industrial grade accuracy. The ammeters shall be 5 ampere instruments of 96 mm square format or otherwise as approved by the Engineer.
- 11.15.3.3 Unless otherwise specified, all ammeters shall be combined maximum demand registering and instantaneous indicating type.
- 11.15.3.4 Ammeters shall be of the MISC movement, with both instantaneous and thermal demand indication, having an integrating lag of 15 minutes.

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Contractor	Witness 1	Witness 2 C2.2	Employer	Witness 1	Witness 2

- 11.15.3.5 The ammeter scales shall be direct reading with a full-scale deflection corresponding to approximately 120% of the rated circuit current. Full load ratings shall be indicated with a red line on the ammeter.
- 11.15.3.6 Each ammeter shall be marked with the appropriate phase to which it is connected and ammeters shall be mounted in groups of three in a horizontal line, clearly marked to indicate to which feeder they are connected. The ratio of the current transformer associated with the ammeter shall be clearly indicated on the ammeter scale.
- 11.15.3.7 All ammeters shall be fitted with zero-adjustment screws.

#### 11.15.4 <u>Current Transformers</u>

- 11.15.4.1 Current transformers for the LV switchgear shall be of the ring type, complying with the requirements of BS 3938.
- 11.15.4.2 Current transformers for indication circuits shall be Class 5 rated in accordance with BS 3938 dependent upon primary current. For metering applications up to 200 ampere use Class 1, 250 600 ampere use Class 0,5 and 800 ampere and above use Class 0,2 in accordance with BS 3938.
- 11.15.4.3 All current transformers shall be earthed through a removable earth link.

#### 11.15.5 Voltmeters

- 11.15.5.1 Voltmeters shall be of the flush panel mounting, 400 volt moving iron, suppressed zero type, scaled from 0-500 volt. The 400 volt mark shall be clearly indicated by a red line on the scale.
- 11.15.5.2 The voltmeter shall be of the 96 mm square format or otherwise as approved by the Engineer and shall match the ammeters previously specified; it shall also comply with the requirements laid down in BS 89 for indicator instruments of industrial grade accuracy.
- 11.15.5.3 All voltmeters shall be fitted with zero adjustment screws.
- 11.15.6 <u>kW.h; kW Maximum Demand; kVA Maximum Demand; kW.h/kVA Maximum Demand and KW.h/kW Maximum Demand Meters</u>
- 11.15.6.1 All the above meters, three and single-phase, up to 100 amperes shall be directly-operated types and those above 100 ampere shall be operated through current transformers.

#### 11.16 Working Drawings for Approval

11.16.1 Four copies of working drawings of wiring diagrams, schematic diagrams, general arrangements and construction details of <u>all distribution boards</u> shall be submitted to the Engineer for approval prior to manufacture. These drawings shall indicate all electrical and mechanical information as well as make and type of equipment, dimensions, ratings and other relevant technical information.

1	1	.1	7	Inspection

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 Contractor	Witness 1	•	Witness 2	•	Employer	Witness 1	Witness 2
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All distribution boards, upon completion, shall be inspected by the Engineer at the manufacturer's premises prior to them being delivered to site. Fourteen (14) days' notice must be given to the Engineer before the date of such inspection is required. All test facilities and necessary equipment shall be supplied by the manufacturer. No distribution boards will be ACCEPTED ON SITE without approval in writing by the Engineer. Any costs involved due to failure of this requirement will be the Contractor's liability.

#### 12 <u>CABLES</u>

#### 12.1 Cables - General

- 12.1.1 Cables shall always be laid in a workmanlike fashion according to generally accepted standards and shall always be supported and fixed as prescribed in the Standard Regulations for the Wiring of Premises.
- 12.1.2 Two or more cables in one trench or duct or on a cable tray shall be laid parallel and not less than 40 mm apart, except where otherwise approved. Cable routes shall be planned by the Electrical Contractor to produce the minimum of cross-overs.
- 12.1.3 Cables shall be fixed and supported by means of approved clamping devices, which shall not damage the cable during installation or over a period of time during usage of the cable.
- All ends of cables are to be made off with a suitable end box (for paper cables) or gland (for PVC insulated cables) which shall be effectively earthed and bolted to equipment or switchboards. PVC cable glands shall be complete with neoprene shroud.
- 12.1.5 No joints in cable runs will be allowed.
- 12.1.6 Cables shall always be solidly supported and shall never be allowed to span any distance unsupported.
- 12.1.7 Cables shall never to be laid over any sharp edges without suitable protection against damage.

#### 12.2 Underground Cables

- 12.2.1 LV cables shall be laid 600 mm and HV cables 1 000 mm below general ground level. All cables in soil trenches shall be bedded in river sand or sifted ground (no clay) 75 mm below and 75 mm over the cables before backfilling of excavations.
- The Electrical Contractor shall install cable markers on cable runs, on all bends and at 50 m spacing on straight runs. Positions of cable markers must be confirmed on the site.
- 12.2.3 Cable markers shall consist of 150 mm x 150 mm x 300 mm high concrete blocks with aluminium or other rust-free metal plates marked "HV Cable or "LV Cable" or as otherwise specified and applicable.
- Where cables are laid in cable ducts or trenches, then such ducts or trenches may only be filled or closed up after having been inspected and approved by the Engineer.

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Contractor	Witness 1	Witness 2	Employer	withess i	withess 2

12.2.5 All trenching and excavation shall be reinstated to the original condition by mechanically compaction in 150 mm layers and the Electrical Contractor shall be responsible for the making good of any settlement. The Electrical Contractor shall be responsible for the making good of bitumen and other surfaces. 12.2.6 Yellow or orange PVC marking tape, 150 mm wide, with the wording "Buried Electric Cable Below - Caution" and "Elektriese Kabel Hieronder - Gevaar" shall be laid approximately 300 mm below ground level above each high voltage cable. 12.3 Cables in Ducts 12.3.1 Cables in specially made concrete or other ducts or trenches shall be laid to the same standards and requirements as specified in "Cables - General" above. 12.3.2 Cables in ducts shall be firmly fixed to the bottom or sides of the duct, to ensure that the cables will remain straight and parallel as installed. Cables shall not lie on top of one another. 12.4 Cables on Cable Trays 12.4.1 Cables on cable racks or cable trays shall be laid to the same standards and requirements as specified in "Cables - General", above. 12.4.2 Cables shall be fixed to racks by means of suitable clamps to ensure that cables remain in the positions as installed. 12.5 Cables in Vertical Riser Ducts 12.5.1 Cables in vertical riser ducts shall be secured with proper cable clamps or cleats and pressure shoes at intervals as specified in the Standard Regulations for the Wiring of Premises. 12.6 Cable Clamps 12.6.1 All cable clamps used for securing of cables shall be subject to the approval of the Engineer. 12.7 Polyvinyl-Chloride Insulated Cables 12.7.1 All polyvinyl chloride insulated cables (PVC/PVC/SWA/PVC and other) shall be single steel wire armoured and shall be served overall with a final layer of polyvinyl chloride or shall be aluminium strip armoured served overall with a final layer of polyvinyl chloride. 12.7.2 Cables shall be round with the number of cores specified and suitable for general service as prescribed in SABS 150. Cores shall be stranded copper or shaped aluminium. All cables shall bear the SABS mark.

Employer

Witness 1

Witness 2

Witness 2

Witness 1

Contractor

- 12.7.3 Cable ends shall be made off in glands as prescribed by the manufacturers of correct size and complete with neoprene shrouds. The armouring shall be clamped between substantial tapered bushes secured by lock nuts and properly earthed.
- Where cables are subject to mechanical damage, they shall be run in galvanised conduit. Where more than one cable is laid in a trench, not less than 40 mm space shall be left between them.

#### 13. CABLE TRAYS/LADDERS

- This Contract shall include all cable trays where specified, including all clamps, fixing materials, deviations, bends, angles, tees, reducers and other components required, to make the cable trays complete and ready for the laying of cables.
- All material associated with the cable trays shall be hot-dip galvanised to SABS 763 or shall be thoroughly cleaned and painted with a zinc chromate primer coat, and two finishing coats of an approved good quality paint shall be applied, or epoxy powder painted as specified.
- 13.3 Cable trays shall be manufactured of perforated sheet steel of minimum thickness of 1,6 mm or as otherwise specified.
- 13.4 Minimum shoulder height shall be 25 mm for trays up to 300 mm wide and 37 mm for wider trays.

#### 14. WIRE TRUNKING

- 14.1 Wire trunking shall be of an approved manufacture and shall be complete with end clamps, internal splice plates, corner pieces and tees, snap-in covers, internal partitions, z-clips, knock-outs and all other accessories needed to complete the installation.
- Wire trunking shall be manufactured of steel plate of minimum thickness of 1,2 mm, shall be galvanised or properly cleaned, a lead oxide or other suitable undercoat shall be applied and thereafter two coats of good quality paint.
- All wire trunking shall be fitted with cover plates. Cover plates on channels up to 125 mm width shall be of the snap-in type. Cover plates on larger trays shall be fixed by means of screws which shall be permanently tapped to the cover plates and spaced at intervals suitable to prevent any warping of the plate under any circumstances. Knock-outs for conduits shall be provided in the sides of all trunking as indicated on the drawing or as required to complete the installation.
- Wire trunking shall be partitioned, if required, to keep different sections of wiring apart, as indicated on drawings. Partitions shall be of perforated steel and shall be installed to the dimensions indicated.
- The Electrical Contractor shall allow for the necessary brackets, clamps, bolts and nuts, hanger supports and materials to secure the trunking to the structure.
- 14.6 Wire trunking supports shall be spaced to avoid sagging between supports.
- 14.7 PVC trunking will be accepted where specified or approved by the Engineer.

Contractor	 Witness 1	Witness 2	ļ	Employer	Witness 1	ļi	Witness 2

#### 15. <u>POWER SKIRTING</u>

- 15.1 Power skirting shall be installed as specified with a number of compartments as required.
- Power services shall be completely wired and sufficient loops shall be provided to enable outlets to be positioned in other positions than those indicated.

#### 16.1 CONDUCTORS FOR WIRING OF CIRCUITS

- Unless otherwise specified, all conductors shall be PVC insulated. Other conductors may only be used where specified. Conductors shall comply with the following requirements:
- 16.1.2.1 PVC insulated conductors shall be of 660-volt rating for general service. All conductors shall be of approved manufacture. Conductors shall comply with the requirements of SABS 150, as amended. All cable shall bear the SABS mark.
- 16.1.2.2 Extreme care must be taken not to apply excessive mechanical tension to PVC insulated conductors when drawing in and care must also be taken not to draw PVC insulated conductors around sharp corners or protruding surfaces in conduits.
- 16.1.2.3 PVC insulated conductors must be lubricated with high quality French chalk before they are drawn into conduit. The use of lubricating oil for drawing in PVC insulated conductors is not permitted.
- PVC insulated conductors may only be used in conditions where the ambient temperature never exceeds 50 degrees C. PVC conductors shall not be permitted to be brought directly onto the terminals of appliances such as stoves, geysers, inert electric fires, electric sauna units, or any other electrical appliance or apparatus (including light fittings) which operate at temperatures in excess of 50 degrees C. Where this temperature is likely to be exceeded, flexible asbestos insulated conductors shall be used.

#### 17. WIRING OF CIRCUITS

- 17.1 Wiring shall be carried out strictly in accordance with the Standard Regulations for the Wiring of Premises.
- 17.2 Minimum wiring sizes for lighting circuits shall be 1,5 mm<sup>2</sup> copper conductors in 20 mm dia conduit, unless otherwise specified.
- Wiring installed in wiring channels shall be installed in the correct compartment to prevent any cross-overs and shall be bound together in groups not exceeding ten conductors by means of "HELVIN" straps or equivalent at spacings not exceeding 1000 mm. No joints will be permitted in wiring.

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2				
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- 17.4 Wiring in conduit shall only be carried out after the conduit installation and plaster work has been completed, but before paint work has commenced. No cables shall be drawn in before the conduits have been thoroughly cleaned and dried out. Except where otherwise specified, wiring shall be drawn into screwed conduits, as specified.
- 17.5 Not more than two circuits of a similar type will be allowed in any one conduit unless otherwise specified. Circuit wiring shall be of the loop-in system, and not more than four conductor ends will be allowed at any one termination point. Cutting away of wire strands of any cable will not be allowed and no jointing of conductors in draw boxes or the cutting away of insulation is permissible. Where joints are used, they shall be in heavy brass terminals with porcelain insulators.
- 17.6 Circuits for different services, e.g. lighting circuits, power circuits, intercommunication circuits and telephone circuits shall all be taken in separate conduit runs.

#### **CONDUIT** 18.

- 18.1 All conduits for normal use shall be for heavy duty application of the black enamel solid drawn or welded type. Conduit shall comply with the requirements of SABS 162 and shall bear the SABS mark. No conduit shall be smaller than 20 mm dia. PVC conduit shall comply with SABS 950 and shall only be used where specified.
- 18.2 Hot galvanised rust free conduits and accessories shall be used where:
- 18.2.1 Conduits are exposed to the atmosphere;
- 18.2.2 Conduits are cast into concrete slabs in contact with the soil;
- 18.2.5 Conduits are installed in any other damp situations.
- 18.3 All conduit accessories shall be malleable iron or pressed steel and, except in the case of brass bushes, shall be hot galvanised or black enamelled as may be applicable to conditions of use.
- 18.4 Draw-in boxes with metal covers shall be provided in such positions as to enable cables to be easily drawn in after the conduit system has been completed. Draw boxes shall be provided to avoid the necessity of drawing cables round more than two 90□ bends. The position of all draw boxes shall be approved by the Engineer and Architect.
- 18.5 Straight runs must also be provided with draw boxes as required by the Standard Regulations for the Wiring of Premises.
- 18.6 All conduits must be concealed and cast into concrete slabs, or built in, as may be applicable and specified. Conduits may be taken through concrete beams only at positions indicated on conduit layout drawings or where expressly permitted by the Engineer in writing.
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18.19	Care shall be taken to exclude the ingress of dirt or moisture into partially completed runs and all open ends must be plugged temporarily while work is not in progress.											
18.18	Where conduit is buried in concrete, it shall be efficiently swabbed out to remove all traces of condensation before the cables are drawn in and suitable provision for future drainage must be made.											
	20 mm Conduit - 80mm. 25 mm Conduit - 100 mm 32 mm Conduit - 130 mm 40 mm Conduit - 160 mm 50 mm Conduit - 200 mm.											
18.17	Where possible, conduit shall be run in straight symmetrical lines with easy curves and bends and shall be drained. Internally screwed bends shall be avoided if possible and the minimum radius of a bend shall not be less than is stated in the following table:											
18.16	All conduit and accessories including the metal surround of electrical control apparatus shall be mechanically and electrically continuous.											
18.15	The resistance between any two points of the conduit system shall not exceed one Ohm although conduit shall NOT be relied upon for earth continuity.											
18.14	All running joints shall be provided with lock nuts to ensure that all connections in the installations are secure.											
18.13	Any conduit which is damaged or from which the galvanising has been removed shall be covered with two layers of anti-rust paint after erection.											
18.12	Care must be taken that the interior surface of conduits have no sharp protrusions of metal which may damage the cables, and all open circuit ends shall be provided with brass bushes. Only brass bushes will be permitted.											
18.11	Where conduits are run adjacent to gas or hot water piping, they shall under all conditions be prevented by spacers or other means from coming into contact with these other services. Conduits must be kept at least 160 mm clear off and preferably below steam or hot water pipes.											
18.10	Where conduits are run on surface, they shall be fixed with saddles, the maximum distance between the saddles not exceeding 2 000 mm. Where an outlet box with a switch or other accessory is mounted independently, saddles shall be installed within 100 mm of each side of the outlet box.											
18.9	Larger draw boxes, as applicable, shall be used in positions where more than one conduit joint. A number of single draw boxes shall not be used in such positions, except where approved by the Engineer.											
18.8	Cables may not be drawn into conduits before the conduiting has been completed and has been inspected and approved by the Engineer.											

Conduits are to be fixed to switch and plug boxes and bonding trays by means of two lock nuts and brass bush or one lock nut and brass bush nut. All conduits terminating in switch and plug boxes and bonding trays shall be fitted with brass bushes. Conduit to fluorescent light fittings shall be solidly bonded to fittings by means of lock nuts and brass bushes.

#### 19. CONDUIT FOR TELEPHONE AND OTHER SERVICES

- 19.1 The Electrical Contractor must allow for the installation of conduits for telephone and other services as indicated on the various drawings and also for conduiting for future extensions. Draw boxes and other conduit accessories shall be provided as for an electrical wiring installation.
- 19.2 Rust free wires shall be left in all such conduit. Conduit used for telephone distribution shall be of 25 mm minimum diameter, unless otherwise specified.
- 19.3 Where conduits protrude outside the building for future extension or during construction, a coupling shall be left at the end and sealed with a screw cap. Such conduits, where exposed to the weather, shall be painted with bitumen paint.

#### 20. OUTLET BOXES, DRAW BOXES AND COVER PLATES

- All outlet boxes, draw boxes and inspection boxes shall comply with the requirements of SABS 162 and shall be provided with metal covers and metal screws, unless otherwise specified.
- Outlet boxes for plug points, switch points and other outlets shall be of welded or pressed galvanised steel and fitted with strong mounting lugs and adequate conduit knockouts.
- Where draw boxes are required, they shall be located and installed in such a manner as to avoid spoiling the appearance of the building. Where several conduits run close to each other, common draw boxes shall be used which can accommodate all conduit and wiring.
- Draw boxes shall be provided with neat cover plates. Ceiling mounted cover plates shall be installed before ceilings are painted by others. Cover plates over wall outlet points and draw boxes shall be metal with a finish as specified.
- All unused switch and socket outlet boxes and draw boxes are to be fitted with blank cover plates.

  Unused light outlet boxes are to be fitted with round metal covers which shall fit flat on the finished ceiling.
- Where plug or switch boxes have been installed with fixing lugs below the finished wall surface, only coiled steel wire or piping of suitable size shall be allowed for spacers.
- 20.7 Cover plates for switches and plug outlets (blanks included) shall be of the rust-proofed type, not less than 1,2 mm thick and of a finish as specified.

#### 21. EXPANSION JOINTS

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2				
C2.29									

- 21.1 Where possible, the positions of expansion joints are indicated on the drawings. The Electrical Contractor shall, however, install expansion joints wherever conduit runs cross structural expansion joints.
- 21.2 Where conduits cross a structural expansion joint, these shall be arranged as indicated on Page 4(a)/37 of this specification.
- 21.3 Where several conduits cross one structural expansion joint, only one expansion joint draw box shall be used, large enough to accommodate all wiring and conduit. Separate expansion joint boxes shall, however, be used for services other than power.
- 21.4 Draw boxes shall be fitted with neat cover plates.

#### 22. WALL SWITCHES

#### 22.1 General

- 22.2.1 Wall switches shall comply with the requirements of SABS 163, shall bear the SABS mark and samples shall be submitted for approval. Wall switches shall be suitable for 250 volt, 10 ampere, or as specified, and shall be installed 1 400 mm above finished floor level, measured from the centre of the draw box. The Electrical Contractor shall be responsible for the correct positioning of boxes.
- 22.2 <u>Domestic Type Wall Switches</u>
- Where conduit has been built into walls, switches shall be of the flush type, built into 100 mm x 50 mm x 50 mm outlet boxes. Multiple switches in the same box shall only be allowed if the switches are all on the same circuit. Switches operating separate circuits shall be built into separate 50 mm x 100 mm outlet boxes.
- 22.2.2 The colour of switch toggles shall be ivory, unless otherwise specified.
- 22.2.3 Where indicating lights are specified, these shall be incorporated as an integral part of the switch and shall be of the neon type.
- 22.3 Industrial Type Surface Switches
- 22.3.1 These shall consist of a single switch, mounted in a pressed steel box, or maximum of three switches operating on the same circuit mounted in one common box. Rocker or toggle action must be vertical.
- 22.3.2 The box and cover must be heavy gauge approved metal with all corners and sides rounded and shall be dust proof. The box and cover shall be finished in Hammertone baked enamel. The cover shall fit neatly over the box and shall be fixed by means of two chromium-plated countersunk screws. The switch toggle or rocker must be shrouded where it protrudes through the cover.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

22.3.3	Unless otherwise specified, switches shall be rated at 10 ampere/250 volt, AC, and shall bear the SABS mark.						
22.4	Watertight Switches						
22.4.1	Watertight switches shall be quick make and break type with porcelain bases in robust brass or galvanised cast iron cases with watertight machined joints.						
23.	SWITCH SOCKET OUTLETS						
23.1	<u>General</u>						
23.2.1	Switch socket outlets shall comply with SABS 164, shall bear the SABS mark and shall be submitted to the Engineer for approval.						
23.2.2	Switch socket outlets shall be installed at 1 400 mm above finished floor level in lift motor rooms, transformer chambers, pump rooms, factories and workshops and shall be installed 1 200 mm above finished floor level in all GFRchens, tea GFRchens and staff rooms. All other switch socket outlets shall be installed at 300 mm above finished floor level. Dimensions are to be taken from the centre of boxes.						
23.2.3	Where indicating lights are specified, these shall be incorporated as an integral part of the socket outlet and shall be of the neon type.						
23.2.4	All socket outlets shall be provided with safety shutters.						
23.3	Domestic Type Switch Socket Outlets						
23.3.1	The switch and socket shall be suitable for 250-volt, 15 ampere. The unit shall consist of a three-pin socket outlet and switch mounted in one 100 mm x 100 mm x 50 mm outlet box or two three-pin socket outlets and two switches in one 100 mm x 100 mm x 50 mm outlet box if so specified.						
23.3.2	Two-pin socket outlets will only be permitted where specified.						
23.3.3	The colour of switch toggles shall be ivory, unless otherwise specified.						
23.4	Industrial Type Surface Mounted Switch Socket Outlets						
23.4.1	These shall consist of a combined switch and 15 ampere, 3-pin socket outlet mounted in a pressed steel box suitable for surface mounting.						
23.4.2	The box and the cover must be heavy gauge pressed steel, with all corners and sides rounded. The box and cover shall be finished in Hammertone baked enamel.						
23.4.3	The cover must fit neatly over the box and is to be fitted by means of two chromium-plated countersunk screws. The switch toggle must be shrouded where it protrudes through the cover. The unit shall comply with SABS 164.						
Contrac	etor Witness 1 Witness 2 Employer Witness 1 Witness 2 C2.31						

23.5	Watertight Switch Socket Outlets
23.5.1	The socket outlet shall be provided with a spring-loaded cover which is retained in position when the plug is removed and the lid shall be fitted with a rubber gasket to cover the socket outlet, rendering it watertight when the plug is removed. The unit shall have a standard three-pin 15 ampere socket outlet with shutters.
23.5.2	The box and cover must be heavy gauge pressed steel or cast aluminium with all corners and sides rounded. In the case of steel, the box and cover shall be finished in Hammerstone baked enamel. The cover must fit neatly over the box and must be provided with a gasket and shall be fitted with four chromium-plated countersunk screws. The switch toggle must be shrouded where it protrudes through the cover.
23.6	Three-phase Switched Socket Outlets
23.6.1	All three-phase socket outlets shall have 5 pins, one for each phase, one for neutral and one for earth.
23.6.2	All units shall have a switch or spring-loaded plug releasing mechanism and shall be supplied complete with plug.
23.6.3	Live terminals shall be shrouded or interlocked and the socket shall be completely safe when the plug is removed.
23.6.4	All three-phase switched socket outlets shall be equipped with earth leakage protection.
23.6.5	Samples shall be submitted for approval.
23.7	Moulded Case Circuit Breaker Socket Outlets
23.7.1	These shall consist of a combined 10 ampere miniature moulded case circuit breaker and 15 ampere, 3-pin standard plug base flush-mounted in a <u>standard</u> 100 mm x 100 mm x 50 mm galvanised sheet steel box. The miniature circuit breakers shall be similar and equivalent to HEINEMANN AMI-ZI. The complete unit shall be HAIN Catalogue No SGNY-10 or similar and equivalent.
23.7.2	Where indicating lights are specified, these shall be incorporated as an integral part of the unit and shall be of the neon type.
24.	MACHINE AND MOTOR OUTLET POINTS
24.1	The supply of machines or motors shall not form part of this Contract, unless otherwise specified, however, the termination onto machines or motors shall form part of this Contract as indicated on the drawings.

- 24.2 Machines are to be connected by means of cables or wiring in conduit as specified. Tenderers shall allow for the connections from the respective distribution boards to the switches and to the machine terminals.
- Where a machine is mounted on slide rails or on a spring foundation, solid conduit shall be interrupted by a flexible cable to facilitate adjustments of driving belts or to prevent the transmission of noise. Flexible conduit shall not be used unless approved by the Engineer.
- 24.4 The Electrical Contractor shall provide switches as prescribed in the schedules. Unless otherwise specified, no provision shall be made for any starters, pressure switches or other control equipment.
- 24.5 The Electrical Contractor shall satisfy himself that motors are sufficiently protected and shall check the setting of all overload relays in starters before any motor is switched on.

#### 25. OUTLETS RELATED TO ARCHITECTURAL FEATURES

- Where outlet boxes, draw boxes, lighting and other fittings are to be mounted in position on wall or ceiling panels, tiled surfaces, panelling or other finished surfaces, the Electrical Contractor shall take care that such outlets are mounted symmetrically on these surfaces. It will not be sufficient to scale the positions of any outlets directly off the drawings. No extra payment will be allowed where points are not mounted symmetrically and have to be changed.
- 25.2 Where several outlets are in close proximity, they shall be evenly spaced and lined up.
- The electrical installation is not shown on the Building Contractor's drawings. The Electrical Contractor shall be responsible to ensure that provision is made as required in concrete work for holes, pipes, flush lighting fittings and other equipment and shall warn the Main Contractor well in advance of any requirements.

#### 26. FIXING OF MATERIALS

- The Electrical Contractor shall fix fluorescent fittings, incandescent fittings, metal draw boxes on surface, industrial surface-mounted switches and plugs, metal channels, wiring troughs or trays, cable trays, saddles, conduit accessories, brackets, braces, "Unistrut" and all other metal and non-metal surface-mounted material and equipment only as described hereunder:
- 26.2.1 Into concrete expanding rawl bolts, bolts cast in or gunbolted with sizes and lengths as approved by the Engineer or as specified.
- Into precast concrete services shall not be fixed to precast concrete structures unless otherwise specified or approved by the Engineer in writing.
- 26.2.3 Into brickwork expanding rawl bolts or built-in metal fixings of sizes approved by the Engineer or as specified.

Contractor	Witness 1	Witness 2 C2.3	Employer 33	Witness 1	Witness 2

26.2.4 Onto steelwork - drilled, gun-bolted, tapped and screwed with specified or approved sizes of screws or steel gunbolt nails or by means of welding where so permitted by the Engineer. 26.2.5 Onto woodwork - fixed by means of wood screws of quantity and sizes as specified or approved by the Engineer. Nails shall not be used. 26.2.6 Into hollow tiles - spring toggles of not less than 6 mm dia. and then only upon specification or approval of the Engineer. 26.2.7 In areas exposed to weather - solid brass bolts, screws and nuts shall be used. 26.3 Where any equipment or material is to be mounted on surface of ceilings, false ceilings, dry wall partitions, gasbeton and other specialised surfaces, such equipment or material shall only be mounted as specified by the Engineer or as permitted by the Engineer in writing. 26.4 Gun-bolting into concrete will only be allowed into cast concrete and then only after permission has been obtained from the Engineer. 26.5 No gun-bolting shall be undertaken into ash bricks, brickwork, gasbeton or precast concrete, except where permission has been granted by the Engineer. The Electrical Contractor will be held responsible for any damage to builder's work due to 26.6 unauthorised inadmissible gun-bolting. NOTE: The use of plastic plugs, wooden plugs or any other soft substance type plugs are strictly 26.7 prohibited and the use of these materials will not be approved by the Engineer. 27. **LIGHTING FITTINGS** 27.1 General 27.2.1 Tenderers shall allow for all lighting fittings as specified in the Detail Specification and drawings. 27.2.2 Where the term "similar approved" is used in the description of lighting fittings, Tenderers may offer alternative makes and describe these by means of code numbers. The decision whether or not these lighting fittings are, in fact, similar and equivalent to the specified equipment, shall rest solely with the Engineer and this decision shall be final. The Engineer may order the Electrical Contractor to install the exact specified lighting equipment and no alteration in tender price shall then be permissible. When the term "similar approved" is not used in the specification, Tenderers shall have no choice 27.2.3 but shall install the specific lighting fittings as specified. 27.2.4 When a PC amount is allowed for the purchase of specific lighting fittings, the following shall apply: 27.2.4.1 The PC amount shall allow for the supplier's price, including for delivery to site and off-loading. Witness 1 Witness 2 Witness 1 Contractor Employer Witness 2 C2.34

- 27.2.4.2 Any profit required in such a PC amount shall be entered in the tender form in the space provided as a percentage and a calculated total sum. Such profit shall include for storage of light fittings. 27.2.5 All light fitting shall be complete with fluorescent tubes, lamps, indicator lamps, ballasts, chokes and all other accessories required to make the fittings fully operative. 27.2.6 All light fittings shall be equipped with an earth terminal and shall be properly earthed. 27.2.7 The Electrical Contractor shall be responsible for the purchasing, taking delivery, storing, installation, testing and commissioning of all lighting fittings as specified. 27.3 **Mounting of Lighting Fittings** 27.3.1 Where fittings are mounted on ceilings consisting of panels, care has to be taken that the work is performed symmetrically. Conduit work for lighting fittings above false ceilings shall be fully co-ordinated with the Ceiling Subcontractor, the Air-conditioning Subcontractor and any other Subcontractor installing services in the false ceilings. 27.3.2 Fixing of all light fittings shall be as specified elsewhere in this General Technical Specification under "Fixing of Materials". 27.3.3 Fittings narrower than 225 mm shall be fixed at the outlet point and at two further positions. Fittings wider than 225 mm shall have four fixings exclusive of the outlet point. 27.3.4 Where fittings butt they shall be fixed together with brass bushes and lock nuts. 27.3.5 Conduits shall be screwed directly into all watertight fittings and other outside lights. No draw boxes are permitted. The conduit shall be installed in such a way that it falls from the wall to the lighting fittings at an angle. 27.3.6 All light fittings shall be installed after the first coat of paint has been applied. The light fittings shall then be left until the painting has been finished, after which the Electrical Contractor shall complete the installing and adjusting of the light fittings. 27.3.7 All light fittings shall be fixed and suspended in accordance with the manufacturer's requirements and as specified. 27.4 Fluorescent Fittings 27.4.1 Unless otherwise specified, the following shall apply to all fluorescent fittings: 27.4.2.1 Fluorescent fittings shall be manufactured from cold rolled rust-proofed sheet steel not less than 0,7 mm thick, suitably reinforced and braced to ensure rigidity. Two 20 mm dia knockout shall
- 0,7 mm thick, suitably reinforced and braced to ensure rigidity. Two 20 mm dia knockout shall be provided in the back and one in the centre of each end of the wiring channel. The back-plate shall cover the entire length of the fitting and shall be suitable for fixing to a standard round conduit box. The back-plate shall be so arranged that the fitting can be turned through an angle of 90degrees.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- 27.4.2.2 All surfaces are to be degreased, de-rusted and then phosphated with a light-weight hot phosphating solution in accordance with Section 2.4 of SABS 064/1960.
- 27.4.2.3 All metal work shall be painted, after the treatment specified above, with two or more coats of white enamel and then baked to comply with the provisions of SABS 663/1959, Type 2.
- 27.4.2.4 The finish of the paint shall be smooth, glossy and free from surface imperfections.
- 27.4.2.5 Internal wiring shall consist of heat resisting, non-deteriorating flexible stranded conductors and shall terminate in a terminal block. The insulation of the wiring shall be suitable for all normal operating conditions.
- 27.4.2.6 An earthing terminal, welded to the fixing plate, shall be provided. To ensure good earth continuity, care must be taken during manufacture that this terminal is not spray-painted. The earth lead shall be connected to this terminal by means of a suitable lug, either crimped or soldered onto the lead.
- 27.4.2.7 Lamp holders shall be reinforced by means of a steel back-plate.
- 27.4.2.8 Ballasts shall fully comply with SABS 890/1967 as amended.
- 27.4.2.9 Where there is any doubt as to the quality and performance of fittings, the Engineer reserves the right to remove any fluorescent light fitting from the site for laboratory testing purposes. Costs incurred with such tests will be borne by the Electrical Contractor.
- 27.4.2.10 Lamps shall be suitable for the ballasts as specified. The average life of lamps shall be 7 500 hours minimum when lamps are turned off and restarted no more often than once in every three hours.

The light output specified in the Detail Specification is the light output required per bare lamp after 100 hours of operation. The light output at 40% of the average rated life shall not be less than 85% of the output after 100 hours of operation. Tenderers must state the lumens per watt both after 100 hours and at 40% of the rated life for the type of lamp offered by them and including ballasts losses, if requested to do so. The total fitting wattage shall also be stated. No visible flicker of the light shall be apparent under normal operating conditions.

- 27.4.2.11 Channel fittings shall consist of a rectangular wiring channel with one or two lamps as required. Fittings shall be so constructed that it is possible to reach the control gear without disconnecting any wiring or removing the fitting from the ceiling.
- 27.4.2.12 Plastic shields, louvers and other parts shall be sufficiently rigid so as not to distort under normal working conditions and temperatures.
- 27.4.2.13 The voltage rating shall be clearly and indelibly marked on the fitting. Ballasts are to be silent in operation and shall be power factor corrected to0,9 lagging. No external capacitors for power factor correction will be accepted, unless otherwise approved.

  Multi-lamp fittings shall be stroboscopically corrected. Operation shall not cause interference with radio reception. Efficiency of ballasts shall be not less than 80%.

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Contractor	Witness 1	J	Witness 2	Employer	J	Witness 1	1	Witness 2

27.5.1 Unless otherwise specified, all incandescent fittings shall comply with the following: 27.5.2.1 Batten holders shall be heavy brass type. All holders above 150 watts shall be E. S type. The complete E.S. thread in the lamp holder shall form the one terminal. 27.5.2.2 All internal wiring shall consist of heat resisting non-deteriorating insulated flexible stranded conductors and shall terminate in a suitably marked terminal block. 27.5.2.3 The maximum permissible wattage of lamps that may be used in the fittings shall be clearly inscribed on the base of the fittings, close to the lamp holder. All incandescent fittings shall be designed to maintain temperature rises within the limits where 27.5.2.4 lamp life would not be adversely affected, and no damage will be caused to connections, holders and wiring. 27.6 Gaseous Discharge Fittings 27.6.1 Unless otherwise specified all gaseous discharge fittings shall comply with the following: 27.6.2.1 All internal wiring shall consist of heat resisting non-deteriorating, insulated, flexible stranded conductors, and shall terminate in a suitably marked terminal block. 27.6.2.2 The maximum permissible wattage of lamps that may be used in the fittings shall be clearly inscribed on the base of the fitting close to the lamp holder. 27.6.2.3 Control gear shall be cast in epoxy resin and the container shall be provided with adequate cooling fins to prevent excessive temperature rises that could adversely affect the life of the lamps, control gear, terminals or gaskets. 27.6.2.4 The voltage rating, lamp wattage and control gear losses shall be clearly and indelibly marked on the fitting. Control gear shall be silent in operation and shall be power factor corrected to 0,85 lagging. No 27.6.2.5 external capacitors shall be allowed. 27.6.2.6 Operation shall not cause any interference with radio reception. 27.7 **Exterior Light Fittings** 27.7.1 Floodlight design shall be such that overheating of terminals, wiring, gaskets, or any other components that can be adversely affected through excessive temperature, is prevented. All exterior light fittings shall be of robust construction, dust and weatherproof. 27.7.2 Witness 1 Witness 2 Witness 1 Contractor Employer Witness 2

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27.5

Incandescent Fittings

- 27.7.3 Floodlight projectors shall be provided with both azimuth and downward vertical angle scales and the Electrical Contractor shall allow for the final adjustment of floodlight projectors at night time in the presence of the Engineer.
- 27.7.4 Unless otherwise specified, housing material shall be of any of the following approved materials:
  - Aluminium sheet:
  - cast aluminium;
  - steel, cadmium-plated;
  - steel, galvanised.
- 27.7.5 Heat-resisting glass and neoprene or equal sealing gaskets shall be used.
- 27.7.6 Poles, brackets and other mounting accessories as required shall be included, as well as all trenching, bases, base plates and backfilling.
- 27.7.7 Where required, standards shall be provided with a 250 mm x 100 mm access door approximately 400 mm above ground level with one mccb, one 4-way stud type terminal block, one earth terminal stud welded to the pole and a gland plate to accommodate at least two 25 mm², 4-core PVC/PVC/SWA/PVC cables.
- 27.7.8 The entire installation, including the standard, shall be securely earthed to the main earth system.
- 27.7.9 Poles, brackets and other mounting accessories shall be corrosion-treated and painted with two coats of paint for exterior use, to an approved colour. If so specified, these fittings shall be hot-dipped galvanised.

#### 28. LIGHTNING PROTECTION

The supply and installation of the lightning protection system shall form part of this Contract and is to be installed as specified in the accompanying drawings and Project Specification.

#### 29. <u>SPECIALISED SERVICES</u>

- 29.1 The following specialised services do not form part of the Electrical Contract, unless otherwise specified, but the facilities for these services shall be provided by the Electrical Contractor as specified:
  - Heating Installation.
  - Smoke and Fire Detection.
  - Radio and Television Installations.
  - Intercommunication Installations.
  - Music Installations.
  - Bells and Alarms Installations.
  - Electric Clocks.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
CO 20					
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Computer Installations.

#### 30. TESTS

- The Electrical Contractor shall be responsible for all the tests as specified in terms of the OSHACT, at the appropriate time.
- The entire installation shall also be tested after completion in accordance with the Standard Regulations for the Wiring of Premises and any applicable by-laws of Local Authorities.
- The Electrical Contractor shall supply tools and correct instruments for testing purposes where required under the by-laws.
- The Engineer reserves the right to be present at any tests and the Electrical Contractor shall advise the Engineer of all tests in good time to enable him to be present if he so desires.
- 30.5 The Engineer may perform similar tests at any time and the Electrical Contractor shall render all assistance and shall provide all tools and correct instruments which may be required for such tests.
- The Electrical Contractor shall replace any portion of the installation if it does not meet with the requirements of the Regulations or this Specification, as may be found by test or inspection. Such replacement shall be done at his own cost.

#### 31. CLEARANCE CERTIFICATE

The work specified in this document shall not be considered to have been completed until a clearance certificate for the electrical installation has been issued by an accredited Electrician of the contractor and an acceptance certificate has been issued by the Engineer. Final payment will be withheld until such certificate is produced by the Electrical Contractor.

#### 32. SOLAR SYSTEM INSTALLATION

The work specified in this document shall not be considered to have been completed until a clearance certificate for the solar system installation has been issued by an accredited Green Card holder of the contractor and an acceptance certificate has been issued by the Engineer. Final payment will be withheld until such certificate is produced by the Electrical Contractor.

The complete system shall be sized and installed as per manufacturer's design and recommendations.

The contractor must quote for a fully functional system including all accessories.

#### **ENERGY STORAGE DATASHEET**

Nominal Voltage		48VDC			
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Voltage Range	44VDC-54VDC				
Capacity	6700Wh				
Maximum Charge Rate (0%-100% SOC)	200A				
Maximum Discharge (100%-0% SOC)	200A				
Maximum Charging Voltage	54VDC				
Internal Resistance	≤2Mω				
Supercap cell DC to DC(@200A) 200A Roundtrip efficiency	99.1%				
Supercap cell Operating Temperature	-30°C to 85°C				
Galvanic Isolation	1500V				
Projected Cycle Life	1 000 000				
Projected Calendar Life	45years				
Shelf Life	10years				
Warehousing	Can be stored at any SOC without affecting cycle life				
Communication Port	TCP/IP RJ45 Ethernet				
Monitoring Data	Temperature, Voltage, Current, Energy, Supercap Balancing				
Remote Control Input	Battery Self-Check				
Safety	Shutdown on - Over-Charge, Over-Discharge, Over-Current, Over-Temperature, Reverse Polarity, Cell Imbalance				
Anti-theft	Password Protected				
Terminal Type	F12				
Module Casing Material	Aluminium				
Supercap Cell Discharge	2% Per Month				
CE Certification	EN55032:2015,EN55024:2010, EN61000-4- 2:2009, EN61000-4- 3:2006+A1:2008+A2:2010				
Safety: Individual Cell	Monitoring of voltage				
Safety: Module	Monitoring of current, max. & min. voltage, temperature, DOD, SOC, rate of charge, rate of discharge, time to discharge, balance energy, total energy delivered over lifetime, graphs				
Safety: System	Monitoring of all modules connected together				
Saisty: System	monitoring of all modulos conficultia together				

INVERTER, SOLAR CHARGER AND AC CHARGER

Battery voltage	48VDC
RATED POWER	3000VA/ 3000W
Parallel Capability	Yes
AC Voltage Regulation(Battery Mode)	230VAC ± 5
Waveform	Pure Sine Wave
SOLAR CHARGER	

Contractor	Witness 1	Witness 2	J	Employer	J	Witness 1	J	Witness 2

Maximum PV Array Power	4800
MPPT Range @ Operating Voltage	60VDC ~ 115VDC
Standby Power Consumption	145VDC
Maximum PV Array Open Circuit Voltage	80A
Maximum Solar Charge Current	2W
AC CHARGER	
Charge Current	40A
AC Input Voltage	230 VAC
Selectable Voltage Range	
Frequency Range	
60A	
120 VAC	

### **SOLAR PANELS**

Rating	As Specified				
Number of Cells	****				
DC/Charger Volt Compatible	24V/48V				
Rated Power Output	****				
Cell Type	Monocrystalline				
DC/Charger Volt Compatible	48v				

## **EASTERN CAPE PARKS & TOURISM AGENCY**

**CONTRACT NO.: 20/FY/23** 

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

PART C3: SCOPE OF THE WORKS

Contractor	Witness 1	-	Witness 2	=	Employer	Witness 1	Witness 2

# C.3 SCOPE OF WORK

# REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

The Works comprise of the refurbishment and upgrading of the following facilities at Great Fish River Nature Reserve:

- i) Myubu Facilities
- ii) New Double Drift Campsite
- iii) Grassland Researchers' Accommodation
- iv) Double Drift JOC Office

#### C.3.1 PROJECT SPECIFICATIONS

# 1 DESCRIPTION OF THE WORKS

# 1.1 Employer's objectives

The employer's objective is to refurbish and upgrade facilities at the Great Fish River Nature Reserve

#### 1.2 Overview of the works

The works comprise of:

# 1. Mvubu Complex Facilities

The scope of work comprises of the following:

- i) Refurbishment of Chalets (Unit 01, 03, 04)
- ii) Construction of a 1x burnt chalets
- iii) Refurbishment of Lodges (Unit 01,02,03,04)
- iv) Change thatch roofs (chalets and lodges) to suitable roof cover that is to be approved by ECPTA.
- v) Refurbishment of Dinning Area for the chalets
- vi) Refurbishment of Kitchen for the chalets
- vii) Refurbishment of Manager's House
- viii) Refurbishment of Boarding House
- ix) Refurbishment of Braai Area and Rondavel for staff accommodation
- x) Refurbishment of the existing Swimming Pool for the lodge
- xi) Upgrading of the existing water system for all facilities above

# 2. New Double Drift Campsite

The scope of work comprises of the following

- i) Construction of new ablution block outside along the existing Inspector's building (Existing)
- ii) Painting of the main building
- iii) Installation of facilities (braai facilities, camp chairs, tables) at Campsite

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

#### 3. Grassland Researchers" Accommodation

- i) Construction of new ablution block at end of the main building
- ii) Painting inside and outside of the main building
- Upgrading of the existing water system iii)

# 4. Double Drift JOC Office

- Decommission the existing generators i)
- Upgrade of the existing solar system as provided in the report ii)
- Installation of new generator to act as a standby. iii)

# 1.3 Location of the works

;<u>;</u>

The proposed project sites are located at the following co-ordinates reference points within the Great Fish River Nature Reserve:

ITEM	PROJECT AREA	COORDINATES
1	Mvubu Complex Facilities	S 33.02593; E26.79566
2	Grassland Researchers' Accommodation	S 33.13614; E26.721450
3	New Double Drift Campsite	S 33.089173: E26.780692
		S 33.088589; E26.782103
4	Double Drift JOC Office	S 32.9923, E26.8383

Witness 2

C2.44

Employer

Witness 1

Witness 2

Witness 1

Contractor

# 1.4 Temporary works

Not applicable

#### 1.5 Occupational Health And Safety

The contractor needs to study the following documents:

- i) Occupational Health and Safety Act, 199
- ii) Construction Regulations,2003
- iii) SITE OHS Doc

#### 2 DRAWINGS

The drawings used for setting up the Provisional Bills of Quantities are as follows:

As per Engineers' and Architects' Drawing Schedules

#### 3 PROCUREMENT

#### 3.1 Preferential procurement procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the preferencing schedule.

# 3.2 Scope of mandatory subcontract work

Competitive bids shall be invited in respect of each of the above portions of the works in accordance with the relevant provisions of the latest edition of the CIDB Standard for Uniformity in Construction Procurement. The Contract Data in the associated procurement documents shall be based on the use of BIFSA Non- Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement / CIDB Standard subcontract (labour only) / JBCC Series 2000 Nominated / Selected Subcontract Agreement / SAFCEC General conditions of subcontract (2003 edition) (select appropriate option) / NEC Engineering and Construction Subcontract / NEC Engineering and Construction Short Subcontract with minimal project specific variations and amendments that do not change their intended usage.

The Employer together with the Contractor shall evaluate the bids received in accordance with the provisions of the Standard Conditions of Tender contained in Annex F of Standard for Uniformity in Construction Procurement. The evaluation panel shall comprise equal representatives from the Employer and from the Contractor.

Contractor	Witness 1	Witness 2	J	Employer	J	Witness 1	J	Witness 2

C2.45

The Contractor shall without delay enter into contract with the successful tendering subcontractor based on their accepted tender submission. The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.

The Contractor shall indicate within the list of proposed sub-contractors the names and copies of the registration documents of the proposed sub-contractor registered with the necessary council to be an approved asbestos removal specialist

# 4 CONSTRUCTION

# 4.1 Applicable SANS 2001 standards for construction works

The following parts of SANS 2001 Construction works standards and associated specification data are applicable to the works:

- 1) SANS 2001BE1
- 2) SANS 2001BS1
- 3) SANS 2001CC2
- 4) SANS 2001CG1
- 5) SANS 2001CM1
- 6) SANS 2001CS1
- 7) SANS 2001CT2
- 8) SANS 2001DP1
- 9) SANS 2001DP2
- 10) SANS 2001DP3
- 11) SANS 2001DP4
- 12) SANS 2001DP5
- 13) SANS 2001DP6

14) SANS 2001EM1

15) SANS 10082

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

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The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.

Each item of Specification Data given below is cross-referenced to the clause in the standard to which it mainly applies.

# 4.2 Applicable national and international standards

- Standardized Specifications for Civil Engineering Construction SANS 1200
- The National Building Regulations SABS0400
- Construction and Management Requirements for Works Contracts SANS1921-1
- Targeted Construction Procurement SANS1914-4

#### 4.3 General Clause

- 4.3.1. The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers (local) is in the following proportions:
  - i) 10 % women;
  - ii) 50% youth who are between the ages of 18 and 25; and
  - iii) 1% on persons with disabilities.

# 4.4. Certification by recognized bodies

Not Applicable

# 4.6. Plant and materials provided by the employer

Not Applicable

# 4.7. Services and facilities provided by the employer

Not Applicable

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Contractor	Witness 1	•	Witness 2		Employer	•	Witness 1	•	Witness 2

C2.4

# 4.8. Plant and equipment

The plant and equipment used on the site shall no of Plant and Equipment.	t be inferior to that	described in the S	chedule				
Contractor Witness 1 Witness 2	Employer	Witness 1	Witness 2				

C2.5

# 5 Management

# 5.1 SANS 1921 standards

The SANS 1921 Construction works standards and associated specification data are applicable to the works:

The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.

Each item of Specification Data given below is cross-referenced to the clause in the standard to which it mainly applies.

The associated Specification Data is as follows:

SANS 1921-1, Construction and management requirements for works contracts –							
Part 1: General engineering and construction works							
Clause	Specification data						
Essential da	ta						
4.1.7	There are no requirements for drawings, information and calculations for which the contractor is responsible						
4.2.1	The responsibility strategy assigned to the contractor for the works is A.						
4.2.2	The structural engineer is Sky High Consulting Engineers						
4.3.1	The planning, programme and method statements are to comply with the following:						
	1) Program to be submitted in Microsoft Project format						
	2) Gantt chart to indicate critical path and progress						
	3) Gantt chart to be updated before monthly site meeting						

4.3.3	The notice period for inspection is 2 Days
4.9.3	The trees and shrubs which are not to be disturbed are to be
	identified on site. Where possible, the disturbance of trees
	should be avoided.

4.14.3	The office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are:
	1) <b>Site office</b> which shall be used for site meetings and for the contractor's use. Such an office shall comprise a minimum of 20m2 in area and 3m high, be ventilated, have good lamination, must be reasonably sound proof, and have a hard floor construction. It shall be furnished with a desk on which drawings can be rolled open and on which there is sufficient writing space and sufficient temporary chairs or benches to accommodate all persons present at site meetings. (Minimum 15 seater)
	<ul> <li>2) The following facilities will be supplied to the employers representatives:</li> <li>15 Hardhats for employers representatives visiting the site</li> <li>15 Safety (High visibility) jackets for employer representatives visiting the site</li> </ul>
4.14.5	The Contractor is required to provide latrine and ablution facilities for the exclusive use of the professional team and client
4.14.6	The requirements for the provision and erection of separate sign boards for consultants and subcontractors are:  1) The boards must comply with the official standard type signboard of the Employer and be at least 2750 x 1800 mm high.
	2) The boards must be constructed with a firm flat exposed face using suitable material of firm construction, painted and lettered according to the standard drawings available from the Employer on request and mounted on sturdy pipe-standards at a height of 1800 mm above natural

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Contractor	Witness 1	Witness 2		Employer	Witness 1		Witness 2
Contractor	***************************************	WILLIESS Z		Linployer	WILLIESS		**III 1000 Z

	ground level.
4.17.1	The requirements for the termination, diversion or maintenance of existing services are:  1) none
4.17.3	Services which are known to exist on the site are:
	1) Water network.
	2) Electricity reticulation
	3) Sewer Lines to septic tank

C2.9

# Additional clauses

#### 1 Site meetings and procedures

The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings.

The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contracts working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

#### 2 Water and electricity

The Employer does not warrant that any water supply or electricity supply that may exist is adequate for the proper execution of the works. The responsibility strategies in terms of the tabulation below that will apply to the contract is:

a) water : A

b) electricity: A

Service	Option							
	Α	В	С					
	Contractor responsibility	Employer responsibility						
Water	The Contractor is to provide, and remove and make good upon completion, all the necessary temporary plumbing connections and purchase water from the local authority for the works at his own cost.	The Contractor shall make, and upon completion remove, all the necessary connections to the Employer's water supply at designated points and make use of water free of charge for construction purposes only.	The Contractor shall make, and upon completion remove, all the necessary connections and water meters to the Employer's water supply at designated points and be responsible for costs associated with all water consumed.					

Contractor	Witness 1	Witness 2	-	Employer	Witness 1	-	Witness 2

C2.10

The following temporary services is the responsibility and will be supplied by the Contractor:

- Security
- Sewer services in the form of temporary toilets
- Waste disposal facility

Clause	Specification Data
Essential Data	
5.1	The depth of trenches which are to be excavated by hand is
	1,5 metres.
Additional clau	ises:
1	Stone pitching and rubble concrete masonry
	All stone required for stone pitching and rubble concrete
	masonry, whether grouted or dry, shall be collected, loaded,
	off loaded and placed by hand.
	Sand and stone shall be hauled to its point of placement
	by means of wheelbarrows where the haul distance is not
	greater than 150m.
	Grout shall be mixed and placed by hand.
2	Manufactured Elements
	Elements manufactured or designed by the Contractor, such
	as manhole rings and cover slabs, precast concrete planks
	and pipes, masonry units and edge beams shall not
	individually, have a mass of more than 320kg. In addition the
	items shall be large enough so that four workers can
	conveniently and simultaneously acquire a proper hand hold
	on them.
SANS 1921-6, (	Construction and management requirements for works contracts –
Part 6: HIV/AID	S awareness.
4.2.1(a)	A qualified service provider is a service provider that is one
	that is accredited or provisionally accredited training service
	provider in the HIV/AIDS field.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2						
ΟZ.1Z	Contractor	Witness 1	Ca	12	Witness 1	Witness 2

	A list of accredited service providers can be obtained from the Construction SETA (CETA) (tel 011-265 5900), Health and Welfare SETA (HWSETA) (011-622
	6852) or on the Health and Welfare SETA website:  www.hwseta.org.za.
4.2.1(a)	The HIV/AIDS awareness programme is to be repeated at four month intervals throughout the duration of the contract. (Four times in total, including the initial one at the start of the contract.)
Additional claus	ses
	The duration of each workshop is not to be less than 2½ hours.

# 5.2 Recording of weather

The Contractor shall erect an effective rainfall gauge on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 1 day after rain that is considered to justify an extension of time occurs.

# 5.3 Unauthorised persons

The Contractor shall keep unauthorized persons from the works at all times. Under no circumstances may any person except guards be allowed to sleep on the building site.

# 5.4 Management meetings

A schedule of meetings will be agreed with the contractor.

# 5.5 Daily records

The Contractor is instructed to keep a set of signed off daily diaries with specific detail relating to EPWP requirements.

# 5.6 Payment certificates

Monthly valuations of completed work, including materials on site is to be completed and presented by to the client representative by no later than the 15th of each month to be assessed for payments. The payment certificate will be issued no later than the 25th of each

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Contractor	Witness 1	Witness 2	='	Employer	Witness 1	='	Witness 2
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# **C3.2 PARTICULAR SPECIFICATIONS**

In addition to the Standardized and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

PARTICULAR SPECIFICATION PAGE NO.					
PARC:	ARCHITECTURAL SPECIFICATIONS	C3.1.12			
POHS:	HEALTH AND SAFETY SPECIFICATIONS	С			

Contractor Witness 1 Witness 2 Employer

C2.12

Witness 1

Witness 2

#### PART C - ARCHITECTURAL SPECIFICATIONS

#### **FINISHES SCHEDULE**

#### **GENERAL NOTES:**

- The Schedule contains pages 01 to 07 numbered consecutively. The Contractor is required to check that none of the pages are missing or duplicated. If any part of this schedule is indistinct or contains any obvious errors, he must make written application to the Architect to have such errors rectified.
- 2. Where specific manufacturer's instructions and recommendations contradicts that of the NBR or SABS, then the Architect is to immediately be notified prior to commencement with the affected trade/installation.
- 3. Any discrepancy or contradiction to immediately be reported to the architect in writing.
- 4. All dimensions and materials to be checked on site prior to ordering of manufacturing.
- 5. Applications to be in strict conformance to the manufacturer's instructions and by manufacturer's approved and accredited applicators.

REVISION No.	DATE	DESCRIPTION

#### **INTERNAL FINISHES**

# **GENERAL**

- i) All surface beds suspended slabs, beams, etc. to Engineers detail and design.
- ii) All finished floor levels for all floor materials are to be level unless otherwise indicated on drawings.
- iii) At all transitions between one finish and another and at all external thresholds finished and to be laid against stainless strip.

Contractor	Witness 1	Witness 2 C2.13	Employer	Witness 1	Witness 2

FLOORS		

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2 C2.14

#### **MVUBU NEW CHALETS:**

#### **FLOORS: GROUND FLOORS**

Floor finish as indicated on Floor Plans on min. 25mm thick sand/cement screed on 100mm thick concrete surface bed on 250 micron USB green dpm on 50mm sandbed on compacted fill in 150mm layers from natural ground up. External floor finishes on min. 25mm sloping screed away from door thresholds with surface bed level 85mm below internal floor level.

#### FLOORS: FIRST FLOOR

22x102mm t&g boarding on floor joists at max. 450mm centres as designed by Engineer

#### FLOORS: TIMBER DECK

Remove existing 22x102mm t&g boarding and joists structure and construct new 22x102mm reeded Balau timber decking on S5 structural H3 treated SA Pine joists at max. 450mm cc fixed on 228 X 76mm bearers fixed to poles as designed by Engineer.

#### Paint specification:

Meranti balustrade to NBR. All joints to be mortice and tenon. Balustrade to be finished with No. 3 x coats Plascon wood preservative, light sanding between coats. All applied by specialist strictly in accordance with manufacturers recommendations and specifications. All to owner's approval.

#### FLOORS: BATHROOMS

All existing screeded floors of entire building to be inspected and cracks made good to prepare floor for new non-slip ceramic floor tiles, Tiling to extend 150mm up the side walls. Colour of tiles by Architect to client approval. All installation, maintenance and preparation strictly in accordance to manufacturers specifications and recommendations by approved applicator.

#### **MVUBU EXISTING CHALETS:**

# FLOORS:

All existing floors of entire building to be inspected and cracks made good, Clean and seal existing sealers as per manufactures specifications. All existing floor finishes to remain. Contractor to take and protect finishes during construction, photos of before and after to be taken prior and after construction has been done.

#### FLOORS: TIMBER DECK

Remove existing 22x102mm t&g boarding and joists structure and construct new 22x102mm reeded Balau timber decking on S5 structural H3 treated SA Pine joists at max. 450mm fixed to existing bearers all as designed by Engineer.

#### Paint specification:

Meranti balustrade to NBR. All joints to be mortice and tenon. balustrade to be finished with No. 3 x coats Plascon wood preservative, light sanding between coats. All applied by specialist strictly in accordance with manufacturers recommendations and specifications. All to owner's approval.

#### **MVUBU LODGE:**

#### FLOORS:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
		C2.15			

All existing floors of entire building to be inspected and cracks made good, Clean and seal existing sealers as per manufactures specifications. All existing floor finishes to remain. Contractor to take and protect finishes during construction, photos of before and after to be taken prior and after construction has been done. Contractor to take and protect finishes during construction, photos of before and after to be taken prior and after construction has been done.

# **MVUBU STAFF HOUSING:**

#### FLOORS:

All existing screeded floors of entire building to be inspected and cracks made good to prepare floor for new 2,5mm 300x300mm Marley 'Marleyflex' Thru Flash Semi-Flexible floor tiles manufactured to SABS specification 581-1992, laid in Marley No. 60 Acrylic adhesive, spread with a notched trowel having 1,5mm x 1,5mm x 1,5mm triangular notches at 4mm centres at the rate of between 5,5m and 6,5m per litre on smooth, level, hard, dry and clean sub-floor by builder including all cutting and waste. Material to be rolled in both directions during course of installation with an articulated 68kg three sectional metal floor roller. Colour of tiles by Architect to client approval. All installation, maintenance and preparation strictly in accordance with manufacturers specifications and recommendations by approved applicator.

#### FLOORS: TOILET

All existing screeded floors of entire building to be inspected and cracks made good to prepare floor for new non-slip ceramic floor tiles, Tiling to extend 150mm up the side walls. Colour of tiles by Architect to client approval. All installation, maintenance and preparation strictly in accordance with manufacturers specifications and recommendations by approved applicator.

# **GRASSLAND NEW ABLUTION BLOCK:**

#### FLOORS: GROUND FLOORS

Floor finish as indicated on Floor Plans on min. 25mm thick sand/cement screed on 100mm thick concrete surface bed on 250-micron USB green dpm on 50mm sandbed on compacted fill in 150mm layers from natural ground up. External floor finishes on min. 25mm sloping screed away from door thresholds with surface bed level 85mm below internal floor level.

#### FLOORS: BATHROOMS

New non-slip ceramic floor tiles, Tiling to extend 150mm up the side walls. Colour of tiles by Architect to client approval. All installation, maintenance and preparation strictly in accordance with manufacturers specifications and recommendations by approved applicator.

# **DOUBLE DRIFT CAMPSITE:**

#### FLOORS:

New Floor finish as indicated on Floor Plans on min. 25mm thick sand/cement screed on 100mm thick concrete surface bed on 250-micron USB green dpm on 50mm sandbed on compacted fill in 150mm layers from natural ground up. External floor finishes on min. 25mm sloping screed away from door thresholds with surface bed level 85mm below internal floor level.

Finishing specification:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
		C2.16			

Fit new non-slip ceramic floor tiles. Colour of tiles by Architect to client approval. All installation, maintenance and preparation strictly in accordance to manufacturers specifications and recommendations by approved applicator.

VALLS			

# **MVUBU BURNT CHALETS:**

#### **WALLS:**

Wall thicknesses as per floor plans with 15mm smooth plaster and paint internally and externally as indicated with FACE BRICK for plinth. ALL PLUMBING AND ELECTRICAL CHASING TO BE COMPLETED BEFORE ANY PLASTER WORK IS COMMENCED. 2x coats ABE 'brikseal' on cement/sand slurry applied between skins to outside face of internal skin all as per manufacturer's specs. strictly to cover entire surface. Brick skins to be built up separately (internal skin first). Brickgrip strip dpc laid at level of top of surface bed, with brickforce every fourth course. Plastered walls to be filled and prepared for painting. All by specialist strictly in accordance with manufacturer's recommendations and specifications.

# Painting:

Paint to be as specified or to be equal and approved by Architectural Technologist/Client. All walls to be moisture tested before any painting commences. One full wall to be fully primed and painted as a sample for approval, internally and externally before remainder of painting commences.

# **Paint And Tiling Finishes:**

All Surfaces To Be Clean And Dry, Free Of Flaking or oily deposits prior to painting commencing as per manufacturers recommendations. all plastered walls internally and externally to be filled and sanded after undercoat where plaster deficiencies occur.

#### **External walls:**

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All'

#### **Internal walls: Generally**

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter, 2x coats Plascon 'Wall and All'

#### **Kitchen Walls:**

Ceramic wall tiles from floor level to u/s high cupboards (approx. 1350mm). Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All' to u/s ceiling. All to owner's approval.

#### **Bathroom Walls:**

Ceramic wall tiles from floor level to 1350mm generally and to 2100mm in shower. Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All' to u/s ceiling. All to Owner's approval.

# **MVUBU EXISTING CHALETS:**

#### **WALLS: EXISTING**

All existing plastered walls of entire building to be inspected and cracks, blemishes, openings made good and all painted as per <u>Plascon</u> paints recommended systems of preparation and painting for existing walls. STRUCTURAL PROBLEMS TO BE ADVISED BY STRUCTURAL ENGINEER.

ALL PLUMBING AND ELECTRICAL CHASING TO BE COMPLETED BEFORE ANY PLASTER WORK IS COMMENCED.

Paint specification:

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All'

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
		C2.19			

#### **MVUBU LODGE:**

# **WALLS: EXISTING**

All existing plastered walls of entire building to be inspected and cracks, blemishes, openings made good and all painted as per <u>Plascon</u> paints recommended systems of preparation and painting for existing walls. STRUCTURAL PROBLEMS TO BE ADVISED BY STRUCTURAL ENGINEER.

ALL PLUMBING AND ELECTRICAL CHASING TO BE COMPLETED BEFORE ANY PLASTER WORK IS COMMENCED.

Paint specification:

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All'

# **MVUBU STAFF HOUSING:**

#### **WALLS: EXISTING**

All existing plastered walls of entire building to be inspected and cracks, blemishes, openings made good and all painted as per <u>Plascon</u> paints recommended systems of preparation and painting for existing walls. STRUCTURAL PROBLEMS TO BE ADVISED BY STRUCTURAL ENGINEER.

ALL PLUMBING AND ELECTRICAL CHASING TO BE COMPLETED BEFORE ANY PLASTER WORK IS COMMENCED.

Paint specification:

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All'

# **KITCHEN WALLS:**

Ceramic wall tiles from floor level to u/s high cupboards (approx. 1350mm). Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All' to u/s ceiling. All to owner's approval.

#### **BATHROOM WALLS:**

Ceramic wall tiles from floor level to 1350mm generally and to 2100mm in shower. Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All' to u/s ceiling. All to Owner's approval.

#### **GRASSLAND MAIN HOUSE:**

# **WALLS: EXISTING**

All existing plastered walls of entire building to be inspected and cracks, blemishes, openings made good and all painted as per <u>Plascon</u> paints recommended systems of preparation and painting for existing walls. STRUCTURAL PROBLEMS TO BE ADVISED BY STRUCTURAL ENGINEER.

ALL PLUMBING AND ELECTRICAL CHASING TO BE COMPLETED BEFORE ANY PLASTER WORK IS COMMENCED.

Paint specification:

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All'

#### **GRASSLAND ABLUTION BLOCK:**

#### WALLS:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
		C2.20			

Wall thicknesses as per floor plans with 15mm smooth plaster and paint internally and externally as indicated with FACE BRICK for plinth. ALL PLUMBING AND ELECTRICAL CHASING TO BE COMPLETED BEFORE ANY PLASTER WORK IS COMMENCED. 2x coats ABE 'brikseal' on cement/sand slurry applied between skins to outside face of internal skin all as per manufacturer's specs. strictly to cover entire surface. Brick skins to be built up separately (internal skin first). Brickgrip strip dpc laid at level of top of surface bed, with brickforce every fourth course. Plastered walls to be filled and prepared for painting. All by specialist strictly in accordance with manufacturer's recommendations and specifications.

#### **BATHROOM WALLS:**

Ceramic wall tiles from floor level to 1350mm generally and to 2100mm in shower. Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All' to u/s ceiling. All to Owner's approval.

#### **Paint And Tiling Finishes:**

All surfaces to be clean and dry, free of flaking or oily deposits prior to painting commencing as per manufacturers recommendations. all plastered walls internally and externally to be filled and sanded after undercoat where plaster deficiencies occur.

#### **External walls:**

Undercoat and wall preparation all as per manufacturer's specifications. Thereafter 2x coats Plascon 'Wall and All'

# **DOUBLE DRIFT CAMPSITE:**

#### **WALLS: BETWEEN CUBICLES**

Wall thicknesses as per floor plans with new 0.6mm Chromadeck Corrugated profile longspan side cladding sheeting laid vertically fixed to Galv mild steel 50X50mm thick H-frame (H-frame to have 100mm gap at bottom) with end supporting x2 legs on each end. H-frame to be bolted onto 150mm Ø gumpoles fixed on concrete bases. Corrugated walls to be prepared for painting. Gumpole to be stained. All by specialist strictly in accordance with manufacturer's recommendations and specifications.

# **WALLS: ABLUTION EXTERIOR WALLS**

Wall thicknesses as per floor plans with new 0.6mm Chromadeck Corrugated profile longspan side cladding sheeting laid vertically fixed to 150mm Ø gumpoles fixed on concrete bases. Corrugated walls to be prepared for painting. Gumpole to be stained. All by specialist strictly in accordance with manufacturer's recommendations and specifications.

#### **SKIRTINGS**

# **MVUBU NEW CHALETS:**

#### **SKIRTINGS:**

70 x 16mm hollow backed standard meranti skirting with arris rounded top edge, selected for matching colour, fixed to MASONARY wall with steel nails. Sand down, apply 3 coats Plascon sealer, lightly sanded between coats.

#### **CILLS**

# **MVUBU NEW CHALETS:**

# **CILLS: PRESSED FIBRE CEMENT**

Pressed fibre cement window external sloping sill and internal sill, size 150mm x 15mm thick, installed below window with window seal lug screwed to underside of sill and bedded in mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.

# **WINDOW FINISHES**

# **MVUBU NEW CHALETS:**

#### **ALLUMINIUM WINDOWS:**

Powder coated Aluminium WINDOW frames installed by specialist to manufacturers specifications with silicone sealant all round. All openings to be measured on site prior to manufacture and installation. Specialist manufacturer to advise on type of frame section to be used. Window supplied with protective plastic covering only to be removed once all painting and plastering is complete. Silicone bead applied after plastic protective coating has been removed. Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminium work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

#### **MVUBU EXISTING CHALETS:**

#### **WINDOWS:**

Remove existing timber windows completely and fit new powder coated aluminium WINDOW frames installed by specialist to manufacturers specifications with silicone sealant all round. All openings to be measured on site prior to manufacture and installation. Specialist manufacturer to advise on type of frame section to be used. Window supplied with protective plastic covering only to be removed once all painting and plastering is complete. Silicone bead applied after plastic protective coating has been removed. Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminum work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

# **MVUBU LODGE:**

#### **WINDOWS:**

Existing windows to be checked, checked, sand down and service all catches and mechanisms prior to painting. Brocken glass to be replaced where necessary (Allow 1/4 of the existing glazing to be replaced). Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminium work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

Paint specification:

Inspect surfaces thoroughly, strip cracked or flaking varnish to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon

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			1 [		
Contractor	Witness1	Witness2	Employer	Witness1	Witness2

Interior/Exterior Timber varnish to bare substrate, two coats Plascon Interior/Exterior Timber varnish to existing interior wood surfaces.

# **MVUBU STAFF HOUSING:**

#### MANAGERS HOUSE, BOARDING HOUSE, TOILETS AND STORE

#### **WINDOWS:**

Existing windows to be sand down and service all catches and mechanisms. Treat rusted areas and prime for no2 coats Plascon Velvaglo, Colour to approval. Window glass panes to receive new putty. Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminium work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

# **MVUBU STAFF HOUSING: RONDAVEL**

#### WINDOWS:

Remove existing steel windows completely and fit new powder coated steel windows and frame to match existing with drip bead, hung on brass hinges and fitted with solid brass handles and stays, fixed to walls with attached building lugs by specialist to manufacturers specifications. All openings to be measured on site prior to manufacture and installation. Specialist manufacturer to advise on type of frame section to be used. Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminium work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

# **GRASSLAND ABLUTION BLOCK:**

#### STANDARD MILD STEEL WINDOWS:

Refer to drawing no WG600

# **NEW DOUBLE DRIFT CAMPSITE:**

#### WINDOWS:

Standard galvanized mild steel residential top-hung open out window and frame to match existing with drip bead, hung on brass hinges and fitted with solid brass handles and stays, fixed to gumpoles by specialist to manufacturers specifications complete with burglar-proofing out of 10mmØ solid round bars. All openings to be measured on site prior to manufacture and installation. Specialist manufacturer to advise on type of frame section to be used. Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminium work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

#### **DOOR FINISHES**

#### **MVUBU NEW CHALETS:**

#### **DOORS: GENERALLY**

All doors to fit OPENINGS as indicated on plan and elevation. Doors manufactured and installed by specialist with clear glazing to NBR as required.

#### **ALUMINIUM DOORS:**

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

Powder coated aluminium DOOR frames installed by specialist to manufacturers specifications with silicone sealant all round. All openings to be measured on site prior to manufacture and installation. Specialist manufacturer to advise on type of frame section to be used. Door supplied with protective plastic covering only to be removed once all painting and plastering is complete. Silicone bead applied after plastic protective coating has been removed. Supplied glazed to NBR and complying with SANS 10400 Part N effective 1 March 2006. Manufacturing of aluminium work to be as per AAMSA specifications. Manufacturer to be a member of AAMSA.

#### **DOORS: INTERNAL DOORS**

Painted 44x813x2032mm 'ELEGANCE' SEMI-SOLID pressed masonite veneered doors or equal and approved with hardwood edges in 32mm thick meranti door liners with skirting architrave surround. Prior to door being hung, apply 1x coat pink wood primer and 1x coat White Plascon Velvaglo Matt Enamel to all surfaces, edges and ends. Apply second coat White Plascon Velvaglo Matt Enamel once door is hung. Remove all ironmongery during painting. Union 2 lever solid brass lockset. Handles to owner's approval.

#### **DOORS: SITTING AREA**

44x813x2032mm F.L.B.B. with weatherboard door in 69x44mm meranti hardwood frame. Door and frame to be sanded down and prepared for painting. Prior to frame and door being built in, apply 1x coat pink wood primer(only when being painted) and 1x coat Plascon Velvaglo Matt Enamel to all surfaces, edges and ends. Apply 2nd coat Plascon Velvaglo Matt Enamel once door is hung. 1x pair 100mm solid brass butt hinges. Union 3 lever solid brass lockset. Handle to owners approval.

#### **MVUBU EXISTING CHALETS:**

#### **EXISTING DOORS:**

Paint specification: Inspect surfaces thoroughly, strip cracked or flaking varnish to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon Interior/Exterior Timbavarnish stained high gloss varnish to bare substrate, two coats Plascon Interior/Exterior Timbavarnish stained high gloss varnish to existing interior wood varnished surfaces.

Handle to owners approval with 3 lever upright lock external and 2 lever upright lock internal. Contractor to fit similar to existing deco handles

#### **MVUBU LODGE:**

#### **EXISTING DOORS:**

Paint specification: Inspect surfaces thoroughly, strip cracked or flaking varnish to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon Interior/Exterior Timbavarnish stained high gloss varnish to bare substrate, two coats Plascon Interior/Exterior Timbavarnish stained high gloss varnish to existing interior wood varnished surfaces.

Handle to owners approval with 3 lever upright lock external and 2 lever upright lock internal. Contractor to fit similar to existing deco handles

# **MVUBU STAFF HOUSING: MANAGERS HOUSE**

#### **EXISTING DOORS:**

Paint specification: Inspect surfaces thoroughly, strip cracked or flaking varnish to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon Interior/Exterior Timbavarnish stained high gloss varnish to bare

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Contractor	Witness1	Witness2	Employer		Witness1		Witness2

substrate, two coats Plascon Interior/Exterior Timbavarnish stained high gloss varnish to existing interior wood varnished surfaces.

Handle to owners approval. UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC. NOTE:

All doors to receive timber weatherboards at the bottom.

#### **MVUBU STAFF HOUSING: ROUNDAVELE**

#### DOOR:

Remove existing timber door and fit new painted 44x813x2032mm standard meranti H.W. stable door with weatherboard door in 69x44mm meranti hardwood frame. Door and frame to be sanded down and prepared for painting. Prior to frame and door being built in, apply 1x coat pink wood primer and 1x coat Plascon Velvaglo Matt Enamel to all surfaces, edges and ends. Apply 2nd coat Plascon Velvaglo Matt Enamel once door is hung. 2x pair 100mm solid brass butt hinges.

Handle to owners approval. UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC

# **MVUBU STAFF HOUSING: BOARDING HOUSE**

#### **EXISTING DOORS:**

Paint specification: Inspect surfaces thoroughly, strip cracked or flaking varnish to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon Interior/Exterior Timbavarnish stained high gloss varnish to bare substrate, two coats Plascon Interior/Exterior Timbavarnish stained high gloss varnish to existing interior wood varnished surfaces.

Handle to owners approval. UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC.

#### NOTE

All doors to receive timber weatherboards at the bottom.

#### **DOORS: TOILETS**

Remove existing timber doors and fit new painted 44x813x2032mm F.L,B,B door with weatherboard door in 69x44mm meranti hardwood frame. Door and frame to be sanded down and prepared for painting. Prior to frame and door being built in, apply 1x coat pink wood primer and 1x coat Plascon Velvaglo Matt Enamel to all surfaces, edges and ends. Apply 2nd coat Plascon Velvaglo Matt Enamel once door is hung. 2x pair 100mm solid brass butt hinges.

Handle to owners approval. UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC.

# **MVUBU STAFF HOUSING: TOILETS AND STORE**

#### **EXISTING DOORS:**

Paint specification: Inspect surfaces thoroughly, strip cracked or flaking paint to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply

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Contractor	Witness1	Witness2		Employer		Witness1		Witness2

one coat Plascon IVelvaglo Matt Enamel to bare substrate, two coats Plascon IVelvaglo Matt Enamel to existing interior wood surfaces.

Handle to owners approval. UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC.

#### NOTE:

All doors to receive timber weatherboards at the bottom.

#### **GRASSLAND MAIN HOUSE:**

#### **EXISTING DOORS:**

Paint specification: Inspect surfaces thoroughly, strip cracked or flaking varnish to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon Interior/Exterior Timbavarnish stained high gloss varnish to bare substrate, two coats Plascon Interior/Exterior Timbavarnish stained high gloss varnish to existing interior wood varnished surfaces.

Handle to owners approval with 3 lever upright lock external and 2 lever upright lock internal. Contractor to fit similar to existing deco handles

# **GRASSLAND ABLUTION BLOCK:**

DOORS:

Refer to drawing no WG600

#### **NEW DOUBLE DRIFT CAMPSITE:**

DOORS:

Refer to drawing no WG900

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Contractor	Witness1	Witness?	Employer	Witness1	Witness?

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CEILINGS			

Contractor Witness1 Witness2 Employer Witness1 Witness2 C3.27

# **MVUBU NEW CHALETS:**

#### **CEILING:**

9,5mm rhinoboard with tapered joints fixed to u/s of 38x38mm sap roof tile battens above PURPOSE MADE exposed trusses. Ceiling to have taped and 'rhinolite' skimmed joints and to be seamless throughout. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners approval. Ceiling level to be as indicated on SECTIONS. All by specialist to manufacturers specifications.

#### **MVUBU EXISTING CHALETS:**

#### **CEILING:**

9,5mm rhinoboard with tapered joints fixed to u/s of 38x38mm sap roof tile battens above PURPOSE MADE exposed trusses. Ceiling to have taped and 'rhinolite' skimmed joints and to be seamless throughout. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners approval. Ceiling level to be as indicated on SECTIONS. All by specialist to manufacturers specifications.

# **MVUBU LODGE:**

#### **CEILING:**

9,5mm rhinoboard with tapered joints fixed to u/s of 38x38mm sap roof tile battens above PURPOSE MADE exposed trusses. Ceiling to have taped and 'rhinolite' skimmed joints and to be seamless throughout. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners approval. Ceiling level to be as indicated on SECTIONS. All by specialist to manufacturers specifications

# **MVUBU STAFF HOUSING: MANAGERS HOUSE**

#### **CEILING:**

All existing ceilings of entire building to be inspected and flaking paint, cracks etc. All damaged ceilings to be replaced with new 9,5mm rhinoboard with tapered joints on existing brandering laid one way at 400mm cc fixed on droppers to underside of rafters as required. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners approval. Ceiling level to be as indicated on plan.

Existing ceilings to be cleaned down with approved chemicals then painted. All by specialist to manufacturers specifications.

Paint specification:

Undercoat and preparation to manufacturer's specifications and recommendations. Thereafter 2x coats Plascon Polvin Acrylic PVA

#### **MVUBU STAFF HOUSING: ROUNDAVELE**

#### **CEILING:**

Remove existing ceiling and prepare to fit new 9,5mm rhinoboard with tapered joints on existing brandering laid one way at 400mm cc fixed on droppers to underside of rafters as required. "ISOTHERM" 100 insulation to be laid between brandering. Ceiling to have taped and 'rhinolite' skimmed joints and to be seamless throughout. Shadow line cornice to owners approval. Ceiling level to be as indicated on plan. All by specialist to manufacturers specifications.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

#### **MVUBU STAFF HOUSING: BOARDING HOUSE**

#### **CEILING:**

All existing ceilings of entire building to be inspected and flaking paint, cracks etc. All damaged ceilings to be replaced with new 9,5mm rhinoboard with tapered joints on existing brandering laid one way at 400mm cc fixed on droppers to underside of rafters as required. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners approval. Ceiling level to be as indicated on plan.

Existing ceilings to be cleaned down with approved chemicals then painted. All by specialist to manufacturers specifications.

Paint specification:

Undercoat and preparation to manufacturer's specifications and recommendations. Thereafter 2x coats Plascon Polvin Acrylic PVA

#### **MVUBU STAFF HOUSING:** TOILETS AND STORE

#### **CEILING:**

Existing corrugated roof sheeting to be taken down and replaced with new 9,5mm rhinoboard with tapered joints on existing brandering laid one way at 400mm cc fixed on droppers to underside of rafters as required. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners approval.

Ceiling level to be as indicated on plan.

Paint specification:

Undercoat and preparation to manufacturer's specifications and recommendations. Thereafter 2x coats Plascon Polvin Acrylic PVA

# **GRASSLAND ABLUTION BLOCK:**

#### **CEILING:**

4mm cladit nailed to 38x38mm sap brandering laid one way at 400mm cc fixed to u/s of trusses. Standard white aluminium "H" profile joint strip over all joints and surround all to manufacturers specifications. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners

approval. Ceiling level to be as indicated on SECTIONS. All by specialist to manufacturers specifications.

#### **EXTERNAL FINISHES-WALLS GENERALLY**

### **DAMP PROOF COURSING:**

To be Gunplas Black Brickgrip or equal approved 375 micronDPC, lapped a minimum of 150mm at all joints, and similarly lapped over gundle USB Green under -floor damp proof membrane where applicable.

# **UNDER CILL DPC (IN CAVITY CONSTRUCTION):**

Minimum 150mm wide, to be tucked into side of window and door frames and sandwiched in mortar between outer skin and cavity closer and to overlap lintel and cill DPC's.

#### **DPC's AT LINTEL:**

To be inserted above all windows, stepped up one course and build into inner skin coursing with mortar fill under all as detailed.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

# **BEAM FILLING:**

Beam filling shall be half brick thick, built up in mortar as used in the walls below, cut in between roof timbers and carried hard up to underside of roof covering and flushed up with mortar.

**ROOF COVER** 

Contractor	Witness1	Witness2	Employer	Witness1	Witness2		
C3.30							
20.00							

#### **MVUBU NEW CHALETS:**

#### **ROOF: SLATE**

Fit new Metrotile Woodshake profile pressed Aluzinc steel roofing on pitch to match existing surrounding building structures, with galvanised and coated nails to meet AS 3566 Class 3 to 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6 Roofing underlay shall be a self supporting breather type securely fixed as per manufactures specifications on roof rafters as per manufactures specifications tied down to wall all as per manufacturers specifications. Roof pitch and overhang as per existing other structures. All materials erected/applied strictly in accordance with manufacturers specifications and recommendations.

#### **FASCIA:**

Fit new E2/AS1 8.3.8 Side flashings, barge or apron flashings are to be installed from factory made products supplied by Metrotile Roofing Systems

#### FLASHING:

A.B.E. Superlaycryl bandage flashing colour to match roof slates/paint etc by specialist as per manufacturers specifications and recommendations.

#### **BARGE BOARD:**

Nutec barge boards, size 225 x 10mm thick, fixed to  $38 \times 38$ mm trimmer batten twice screwed with  $12 \times 40$ mm countersunk brass screws with PVC H-profile fascia joiner between boards and at roof apex.

# **RAINWATER GOODS:**

125mm 'Watertite' ogee profile seamless white epoxy powder coated aluminium gutters with standard aluminium rainwater downpipes to suit gutter. Rainwater goods supplied with all accessories and installed by approved specialist to manufacturers specification. White epoxy powder coated aluminium rainwater heads with overflow slot and downpipes by specialist to balcony. 160mm Ø vertical dome full-flow outlet installed to manufacturer's specifications and recommendations to first floor balcony.

#### **MVUBU EXISTING CHALETS:**

#### ROOF:

All existing Thatch roof of entire building to remain, to be inspected for leaks and structural integrity prior to fixing new roof finish. Fit new Metrotile Woodshake profile pressed Aluzinc steel roofing on existing pitch, with galvanised and coated nails to meet AS 3566 Class 3 to 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6 Roofing underlay shall be a self supporting breather type securely fixed as per manufactures specifications on roof rafters as per manufactures specifications on existing thatch tied down all as per manufacturers specifications. Roof pitch and overhang as per existing. All materials erected/applied strictly in accordance with manufacturers specifications and recommendations.

#### **FASCIA:**

Fit new E2/AS1 8.3.8 Side flashings, barge or apron flashings are to be installed from factory made products supplied by Metrotile Roofing Systems.

# **FLASHING:**

A.B.E. Superlaycryl bandage flashing colour to match roof slates/paint etc. by specialist as per manufacturers specifications and recommendations.

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Contractor	Witness1	Witness2	Employer	Witness1	Witness2

#### BARGE BOARD:

Nutec barge boards, size 225 x 10mm thick, fixed to 38 x 38mm trimmer batten twice screwed with 12 x 40mm countersunk brass screws with PVC H-profile fascia joiner between boards and at roof apex.

#### **FASCIA:**

Remove existing timber fascia boards and fit new 225mm wide uPvc fascia fixed with stainless steel screws to existing rafter ends all to manufacturers specifications.

#### **RAINWATER GOODS:**

125mm 'Watertite' ogee profile seamless white epoxy powder coated aluminium gutters with standard aluminium rainwater downpipes to suit gutter. Rainwater goods supplied with all accessories and installed by approved specialist to manufacturers specification. White epoxy powder coated aluminium rainwater heads with overflow slot and downpipes by specialist to balcony. 160mm Ø vertical dome full-flow outlet installed to manufacturer's specifications and recommendations to first floor balcony.

# **MVUBU LODGE:**

#### ROOF:

All existing Thatch roof of entire building to remain, to be inspected for leaks and structural integrity prior to fixing new roof finish. Fit new Metrotile Woodshake profile pressed Aluzinc steel roofing on existing pitch, with galvanised and coated nails to meet AS 3566 Class 3 to 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6 Roofing underlay shall be a self supporting breather type securely fixed as per manufactures specifications on roof rafters as per manufactures specifications on existing thatch tied down all as per manufacturers specifications. Roof pitch and overhang as per existing. All materials erected/applied strictly in accordance with manufacturers specifications and recommendations.

#### **FASCIA:**

Fit new E2/AS1 8.3.8 Side flashings, barge or apron flashings are to be installed from factory made products supplied by Metrotile Roofing Systems.

#### **FASCIA:**

Fit new 225mm wide uPvc fascia fixed with stainless steel screws to existing rafter ends all to manufacturers specifications.

#### **RAINWATER GOODS:**

125mm 'Watertite' ogee profile seamless white epoxy powder coated aluminium gutters with standard aluminium rainwater downpipes to suit gutter. Rainwater goods supplied with all accessories and installed by approved specialist to manufacturers specification. White epoxy powder coated aluminium rainwater heads with overflow slot and downpipes by specialist to balcony.

#### **MVUBU STAFF HOUSING:**

MANAGERS HOUSE, BOARDING HOUSE, TOILETS AND STORE

#### ROOF:

All existing corrugated roof sheeting of entire building to be inspected and leaks, rust. All damaged sheeting and replaced with new 0.6mm Chromadeck corrugated profile longspan roof sheeting (Allow 1/4 of the existing roof sheeting to be repaired) fitted with end flashing

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

and "SONDOR' polyclosure on existing sap purlins at centres as specified by roof sheeting manufacturer.

#### NOTE:

Existing roof structure to be checked for structural integrity prior to installation of new roof sheeting.

Paint specification:

Inspect surfaces thoroughly, degrease, strip flaking paint to suitable surface, stop, sand down, clean with approved detergent, rinse. Apply one coat Plascon Nuroof paint to bare substrate, two coats Plascon Nuroof to existing roof sheeting.

#### FLASHING:

A.B.E. Superlaycryl bandage flashing colour to match roof paint etc. by specialist as per manufacturers specifications and recommendations.

#### **BARGE BOARD:**

Existing timber barge boards to be checked and to be structurally sound prior to painting. Paint specification:

Inspect surfaces thoroughly, strip cracked or flaking paint to bare wood, stop, sand down, clean with mineral turpentine to remove any wax, oil or silicone polish, and rinse. Apply one coat Plascon Velvaglo Matt Enamel to bare substrate, two coats Plascon Velvaglo Matt Enamel to existing interior wood surfaces.

#### **FASCIA:**

Remove existing timber fascia boards and fit new 225mm wide pvc fascia fixed with stainless steel screws to existing rafter ends all to manufacturers specifications.

#### **RAINWATER GOODS:**

Remove existing aluminium gutters completely and fit new 125mm 'Watertite' ogee profile seamless epoxy powder coated aluminium gutters with standard aluminium rainwater downpipes to suit gutter. Colour to architect/owner approval. Rainwater goods supplied with all accessories and installed by approved specialist to manufacturers specification.

# **MVUBU STAFF HOUSING: ROUNDAVELE**

#### ROOF:

All existing Thatch roof of entire building to remain, to be inspected for leaks and structural integrity prior to fixing new roof finish. Fit new Metrotile Woodshake profile pressed Aluzinc steel roofing on existing pitch, with galvanised and coated nails to meet AS 3566 Class 3 to 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6 Roofing underlay shall be a self supporting breather type securely fixed as per manufactures specifications on roof rafters as per manufactures specifications on existing thatch tied down all as per manufacturers specifications. Roof pitch and overhang as per existing. All materials erected/applied strictly in accordance with manufacturers specifications and recommendations.

#### **FASCIA:**

Fit new E2/AS1 8.3.8 Side flashings, barge or apron flashings are to be installed from factory made products supplied by Metrotile Roofing Systems.

# FASCIA:

Remove existing timber fascia boards and fit new 225mm wide pvc fascia fixed with stainless steel screws to existing rafter ends with new painted 4mm cladit horizontal eaves

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	Contractor	Witness1	Witness2	Employer	_	Witness1		Witness2	

closer on timber frame with drilled vent holes and half round cover strips over all joints and hardwood quadrant surround all to manufacturers specifications.

#### **RAINWATER GOODS:**

Fit new 125mm 'Watertite' ogee profile seamless epoxy powder coated aluminium gutters with standard aluminium rainwater downpipes to suit gutter. Colour to architect/owner approval. Rainwater goods supplied with all accessories and installed by approved specialist to manufacturers specification.

# **GRASSLAND ABLUTION BLOCK:**

#### ROOF:

0.6mm Chromadeck Corrugated profile longspan roof sheeting fitted with end flashing and "SONDOR' polyclosure on 75X50mm sap purlins at maximum 900mm centres fixed to 150x38mm sap rafters at max. 900mm cts, built into brickwork to slope as indicated on sections no less than minimum specified by roof sheeting manufacturer. Rafters to be tied down with 2mm galvanised wire built into brickwork 7 courses deep all as per Engineer/manufacturers specifications.

# **BARGE BOARD:**

Nutec barge boards, size 225 x 10mm thick, fixed to 38 x 38mm trimmer batten twice screwed with 12 x 40mm countersunk stainless steel screws with PVC H-profile fascia joiner between boards and at roof apex.

#### **RAINWATER GOODS:**

125mm 'Watertite' ogee profile seamless white epoxy powder coated aluminium gutters with standard aluminium rainwater downpipes to suit gutter. Rainwater goods supplied with all accessories and installed by approved specialist to manufacturers specification. White epoxy powder coated aluminium rainwater heads with overflow slot and downpipes by specialist to balcony. 160mm Ø vertical dome full-flow outlet installed to manufacturer's specifications and recommendations to first floor balcony.

#### CEILING:

4mm cladit nailed to 38x38mm sap brandering laid one way at 400mm cc fixed to u/s of trusses. Standard white aluminium "H" profile joint strip over all joints and surround all to manufacturers specifications. 'RhinoArt' Decor Polystyrene Mouldings cornice to owners

approval. Ceiling level to be as indicated on SECTIONS. All by specialist to manufacturers specifications.

#### **DOUBLE DRIFT CAMPSITE:**

# ROOF:

Existing corrugated roof sheeting to be propped up inspected and leaks, rust. All damaged sheeting and replaced with new 0.6mm Chromadeck corrugated profile longspan roof sheeting (Allow 1/4 of the existing roof sheeting to be repaired) on existing sap purlins on new SISALATION 405 INSULATION securely fixed on treated sap existing roof rafters supported on existing timber beam as specified by roof sheeting manufacturer.

# NOTE:

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

Existing roof structure to be checked for structural integrity prior to installation of roof sheeting. Paint specification: Inspect surfaces thoroughly, degrease, strip flaking paint to suitable surface, stop, sand down, clean with approved detergent, rinse. Apply one coat Plascon Nuroof paint to bare substrate, two coats Plascon Nuroof to existing roof sheeting.

ABLUTION FIXTURES

Contractor Witness1 Witness2 Employer Witness1 Witness2

C3.36

## **GRASSLAND ABLUTION BLOCK:**

#### WC:

Vaal Hibiscus Elite cc or equally approved vitreous china suite - pan & front flush cistern close coupled 90° outlet open rim front single flush suite complete with top dual flush suite.

Code: 032057 Accessories:

Wirquin SSO15WH Sonata Thermodur or equally approved toilet seat with SS hinge.

Code: 028920

Note: Complete all plumbing connections, test flush, ensure that correct water level has been set and that operating overflow tube height conforms and operates according to local by-laws and sabs specifications.

#### WHB:

Lecico Sanaa or equally approved wall-hung cloakroom basin with 2 Tap-hole and overflow. 458mm x 302mm x 207mm white with GHOHE Eurosmart basin taps with popout waste (code:831880110 with GHOHE plug & chain (code:2894000) with angle rectangular & 32mm bottle trap (code:28920000).

#### UR:

Durafit Katya consealed inlet (code:0832320000), complete with water inlet mechanism (code:695800000), and consealed urinal trap (code:005120000), & fixing set for urinal (code:0067131000) with GHOHE nova cosmopolitan wall plate (code:38804000) including GHOHE Papido U Housing (code:37338000)

#### SH:

Single-function wall mounted standard fixed showerhead with Katalyst spray polished crome and standard crome shewer trap cover, client to finalize on site.

All materials to be applied to manufacturers specifications and recommendations. ALL COLOURS TO OWNERS APPROVAL

#### NOTE:

- 1. New Solar System by others to specialist detail. Consultant to advise on type and present to client prior to installation.
- 2. Upgrade water supply system by others to specialist detail. Consultant to advise on type and present to client prior to installation.
- 3. New electrical fitting by others to specialist detail. Consultant to advise on type and present to client prior to installation.

#### **NEW DOUBLE DRIFT CAMPSITE:**

#### WC:

Vaal Hibiscus Elite cc or equally approved vitreous china suite - pan & front flush cistern close coupled 90° outlet open rim front single flush suite complete with top dual flush suite.

Code: 032057 Accessories:

Wirquin SSO15WH Sonata Thermodur or equally approved toilet seat with SS hinge.

Code: 028920

Note: Complete all plumbing connections, test flush, ensure that correct water level has been set and that operating overflow tube height conforms and operates according to local by-laws and sabs specifications.

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Contractor	Witness1	Witness2	Employer	Witness1	Witness2

#### WHB:

Lecico Sanaa or equally approved wall-hung cloakroom basin with 2 Tap-hole and over flow.

458mm x 302mm x 207mm white with GHOHE Eurosmart basin taps with popout waste (code:831880110 with GHOHE plug & chain (code:2894000) with angle rectangular & 32mm bottle trap (code:28920000).

#### UR:

Durafit Katya consealed inlet (code:0832320000), complete with water inlet mechanism (code:695800000), and consealed urinal trap (code:005120000), & fixing set for urinal (code:0067131000) with GHOHE nova cosmopolitan wall plate (code:38804000) including GHOHE Papido U Housing (code:37338000)

#### SH:

Single-function wall mounted standard fixed showerhead with Katalyst spray polished crome and standard crome shewer trap cover, client to finalize on site.

All materials to be applied to manufacturers specifications and recommendations. ALL COLOURS TO OWNERS APPROVAL

#### NOTE:

- 1. New Solar System by others to specialist detail. Consultant to advise on type and present to client prior to installation.
- 2. Upgrade water supply system by others to specialist detail. Consultant to advise on type and present to client prior to installation.
- 3. New electrical fitting by others to specialist detail. Consultant to advise on type and present to client prior to installation.

# **GENERAL NOTES:**

- 1. The Schedule contains pages 1 to 03 numbered consecutively. The Contractor is required to check that none of the pages are missing or duplicated. If any part of this schedule is indistinct or contains any obvious errors, he must make written application to the Architect to have such errors rectified.
- 2. Compliance with OW371 ("Specification of materials and methods to be used") as published by the Department of Public Works, is applicable to this project), NBR and SABS specifications is compulsory.
- Where specific manufacturer's instructions and recommendations contradicts that of the OW 371, NBR or SABS, then the Architect is to immediately be notified prior to commencement with the affected trade/installation.
- 4. Any discrepancy or contradiction to be immediately reported to the architect in writing.
- 5. All dimensions and materials to be checked on site prior to ordering of manufacturing.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

6.	The Contractor to prepare a sample room for approval of the quality standard of finishes to be achieved.	9
7.	Water Supply to be as per – SANS 10252-1 (Part 1)	
8.	Drainage Installations to be as per – SANS 10252-2 (Part 2)	
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	Contractor Witness1 Witness2 Employer Witness1 Witness2 C3.39	

# **Occupational Health and Safety Specification**

For

REFURBISHMENT AND UPGRADE OF INFRASTRUCTURE AND FACILITIES AT GREAT FISH RIVER NATURE RESERVE

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

C3.40

#### 1 SCOPE

#### 1.1 Preamble

Without derogating from the Occupational Health and Safety Act 85 of 1993 and the Regulations, the tenderer shall take into consideration the following in preparation of the Health and Safety Plan for this project.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on this Health and Safety Specification. Prior to drafting the Health and Safety Plan, and in consideration of the information contained herein, the contractor shall set up a Risk Assessment Program to identify and determine the scope and details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. This Risk Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan.

The Health and Safety Plan shall include documented 'Methods of Statement' (see definitions under Construction Regulations) detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

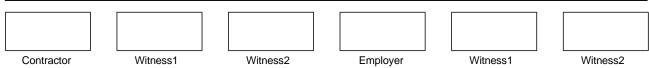
Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Principal Contractor from his responsibilities and accountability in respect of the project to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies must immediately be brought to the attention of the Agent and/or Client.

# 1.2 Scope of Health and Safety Specification Document

The Health and Safety Specifications pertaining to the project is intended to outline any special requirements pertaining to the health and safety matters (including the environment) applicable to the project in question. These Specifications should be read in conjunction with the Act, the Construction Regulations and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

# 1.3 Purpose

The Client/ Agent is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications.



The purpose of this specification document is to provide the relevant Principal Contractor (and his/her subcontractor) with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of infrastructure; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work for the Chris Hani District Municipality. The Principal Contractor (and his/her subcontractor) is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) safety considerations affecting the site of the project and its environment;
- b) safety considerations affecting the persons occupying the site;
- c) health and safety aspects of the associated structures and equipment;
- d) submissions on health and safety matters required from the Principal Contractor (and his /her contractor); and
- e) the Principal Contractor's (and his/her contractor) health & safety plan.

#### 2 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

#### 2.1 Structure and Organisation of OH&S Responsibilities

# 2.1.1. Overall Supervision and Responsibility for OH&S

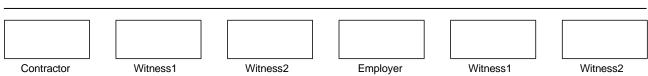
The Chris Hani District Municipality and/or its Agent on its behalf to ensure that the Principal Contractor, appointed in terms of Construction Regulation 5(1)(h), implements and maintains the agreed and approved H&S Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any one or more of his/her duties under the Act and Regulations.

The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act to ensure that the Employer (as defined in the Act) complies with the Act.

All OH&S Act (85/1993), Section 16 (2) appointee/s as detailed in his/her/their respective appointment forms to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).

The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 8 to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).

All Safety officers must be appointed in writing with competence and experience in construction site as per Construction Regulations 2014.



All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act.

# 2.1.2 Further (Specific) Supervision Responsibilities for OH&S

Several appointments or designations of responsible and /or competent people in specific areas of construction work are required by the Act and Regulations.

#### 2.1.3 Communication & Liaison

OH&S Liaison between the Employer, the Principal Contractor, the other Contractors, the Designer and other concerned parties shall be through the Principal Agent.

In addition to the above, communication may be directly to the Client or his appointed Agent, verbally but followed up in writing, as and when the need arises.

The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and/or its Agent on its behalf and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

#### 3 RESPONSIBILITIES

#### 3.1 Client

- a) The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations and determined by the Bills of Quantities.
- b) The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of both Principal Contractor and Contractor for approval.
- c) The Client or his appointed Agent on his behalf, will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month.
- d) The Client or his appointed Agent on his behalf, will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:
  - have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;
  - have failed to implement or maintain their health and safety plan; o o have executed construction work which is not in accordance with their health and safety plan; or

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

o act in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

# 3.2 Principal Contractor

a) The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction work in terms of Regulation 4 of the Construction Regulations.

Annexure 2 of this Specification contains a "Notification of Construction Work" form. The Principal Contractor shall submit the notification in writing prior to commencement of work and inform the Client or his Agent accordingly.

- b) The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation. This Specification is not intended to supersede the Act nor the Construction Regulations or any part of either. Those sections of the Act and the Construction Regulations which apply to the scope of work to be performed by the Principal Contractor in terms of this contract (entirely or in part) will continue to be legally required of the Principal Contractor to comply with. The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract.
- c) The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.
- d) The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.
- e) The Potential Principal Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and Construction Regulations. (Note: This shall have to be contained in the conditions of tender upon which a tenderer's offer is based.)
- f) The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.
- g) The Principal Contractor shall ensure that a copy of his health and safety plan is available on site and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

- h) The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.
- i) The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.
- j) The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

#### 4 GENERAL REQUIREMENTS OF HEALTH AND SAFETY PLAN

# 4.1 General

It will be expected from the Contractor to include in his safety plan method statements on how to accomplish the requirements relating to the Construction Regulations, 2014 and related incorporated standards and regulations.

Contractors should describe how their safety management systems will work and what control procedures they plan on using to ensure safety on the construction site

The following aspects should be covered in their safety plan

- i) What administrative procedures the Contractor envisages to use in the implementation and maintenance of the safety plan with reference to the construction site
- ii) How continuous assessment of the safety plan will be assessed and implemented with respect to construction site
- iii) What control systems the Contractor envisages to implement on site to support his safety program
- iv) How the Contractor will ensure that he adheres to the construction regulations in respect of competent persons

Depending upon the acceptance of the Contractor's Health and Safety Management Plan by the Employer. The Contractor's Health and Safety Plan should include, but not be limited to, those sections indicated in Section 3.2 of this specification.

- 4.2 Outline of Health and Safety Plan The Contractor's Health and Safety Plan prepared in accordance with this specification shall consist of at least the following sections and subsections:
  - 1. Aim and Scope of Plan,
  - 2. Risk Assessment,
    - Alternative Forms of Risk Assessment,

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

- b. Methodology of Risk Assessment,
- c. Elements of Risk Assessment,

Scope of assessment, Risks Identified, Risk Analysis, Risk Evaluation, Risk Treatment, Monitoring and reviewing,

#### 3. Resources,

Health and Safety Staffing Organogram, Supervisors, Inspectors and Issuers, Employees, Subcontractors inclusive of their scope of work and their core resources, Training, Plant, Vehicles, Equipment

# 4. Materials,

Temporary Materials, Permanent Materials

- 5. Categories of Work
- 6. Implementation of Health and Safety Plan,

Administrative systems, Training, Reporting, Monitoring, Inspections

# 7. Auditing,

Internal audits of subcontractors and follow-up audits

- 8. Emergency procedures and response
- 9. Trainings

HIV/Aids, Induction of employees and Visitors

#### 5 RISK ASSESSMENT

#### 5.1 General

This section of the specification provides guidelines for the Contractor in preparation of risk assessments in order to ensure compliance with Regulation 9 of the Construction Regulations, 2014. This section highlights the principles related to the preparation of suitable and sufficient risk assessments. Contractor Staff intending to prepare risk assessments should be trained and suitably experienced in the application envisaged. The Contractor is to take into consideration the scope of works when compiling the risk assessment.

#### 5.2 Updating of Risk Assessment

The Contractor is to update his risk assessment in accordance with any design changes and/or when he becomes aware of any issues that will affect the health and safety of his employees and others.

#### 6 RESOURCES

# 6.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its Regulations and related incorporated standards with regards to the resources and facilities intended for use on the temporary and permanent Works.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

#### 6.2 Legal appointments

# 6.2.1 Inspectors, supervisors and Issuers

The Contractor shall provide in his Health and Safety Plan his intended Staffing Organogram for the Works. The organogram should include those inspectors, supervisors and issuers as envisaged in the Construction Regulations, 2014 required for the Works and any additional supervisory staff members as the Contractor (having taken the scope of the Works into account) considers necessary.

Copies of the supervisory staffs' curriculum vitae or portfolio of evidence and their appointment letters should be appended to the Contractor's Health and Safety Plan.

The Contractor's Health and Safety Plan should in addition cover at least the following aspects:

- a) The number of unskilled, semi-skilled and skilled (including Foreman, Charge hands, Artisans, Operators, Drivers, Clerks, Store man and Team Leaders) employees he intends employing on the Works,
- b) The health and safety training to be provided to the Contractor's employees,
- c) The programme of the health and safety training,
- d) Systems for the review of the effectiveness of the training provided, and
- e) Systems to determine further training requirements throughout the construction period.

The Contractor shall ensure that he includes in his Health and Safety Plan the appointment letters for all his inspectors, supervisors and issuers appointed for the Works.

#### 6.2.2 Subcontractors

The Contractor shall with reference to the use of subcontractors on the Works and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- a) The steps intended to ensure that his Subcontractors prepare, implement and maintain Health and Safety Plans,
- b) How health and safety information will be made available to his Subcontractors when changes are brought about to the design,
- c) How he intends determining that his Subcontractors are registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works.
- d) How he intends determining if his Subcontractors have made provision in their tenders for the cost of health and safety measures during the construction of the Works,
- e) How he intends satisfying himself on the competencies and resources of Subcontractors he intends appointing, and
- f) How he intends ensuring that his Subcontractors perform risk assessments prior to commencing their respective portions of the Works.

#### 6.2.3 Competencies

The Contractor shall establish if a person is competent to perform a certain duty or be appointed in a certain capacity by requesting all candidates to supply the required certificates

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Contractor	Witness1	Witness2	Employer	Witness1	Witness2

of competency. Where certificates of competencies cannot be delivered, the Contractor shall request a portfolio of evidence from the respective candidates.

Contractors should do enquiries at the South African Qualifications Authority (SAQA) relating to the qualifications required for appointment of competent persons.

## 6.3 Plant, Vehicles and Equipment

The following plant, vehicles and equipment is relevant:

 i) Construction vehicles and mobile plant and Machinery on construction sites, Ladders, Personal Safety Equipment and Facilities, First Aid, Emergency Equipment and Procedures

The Contractor shall cover at least the following matters in his Health and Safety Plan:

ii) How he intends complying, o What systems he intends using to ensure the safety, o What tests will be performed to establish the safety, o How he intends maintaining plant, vehicles and equipment, and o How he will document compliance.

#### 7 MATERIALS

#### 7.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the design, supply, storage and erection of materials used for the temporary and permanent Works.

The following shall be discussed in detailed:

i) Use and temporary storage of flammable liquids on construction sites Stacking and storage

#### 8 CATEGORIES OF WORK

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the execution of the following categories of work.

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### 8.1 Construction welfare facilities

Contractors will be required to adhere to Regulation 28: Construction Welfare Facilities.

This regulation must be read in conjunction with the provisions of the Facilities Regulations, 1990 (as amended) and SANS 0400.

The Contractor must discuss the following in detail in his safety plan:

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Contractor	Witness1	Witness2	Employer	Witness1	Witness2
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- i) How will the Contractor establish the number of facilities required for employees to shower, change, eat and attend to sanitary needs
- ii) What measures will the employer take to house employees on site who lives far from their residences or for the provision of transport

# 8.2 Environmental regulations for workplaces

The Contractor shall comply with the Environmental Regulations for Workplaces, 1987, and shall address the following aspects as described in the regulations in his Health and Safety plan:

i) Thermal requirements, Lighting, Windows, Ventilation, Housekeeping, Noise and hearing conservation and Fire precautions and means of egress.

## 8.3 Housekeeping on construction sites

Contractors will be required to adhere to Construction Regulation 27: Housekeeping on construction sites.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

- o How will contractors ensure the neatness of construction sites?
- What measures does the Contractor envisage to Store and/or stack materials, remove debris from site, prevent unauthorized entrance to the site, protect employees or passers-by from falling objects

# 8.4 Fire precaution on construction sites

Contractors will be required to adhere to Construction Regulation 29: Fire precautions on construction sites.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

- How the Contractor will minimize the risk of fire on the site o How the Contractor will identify potential fire hazards
- What prohibitions the Contractor will implement to manage risk areas o How many employees the Contractor will train in fire fighting o What organization the Contractor envisage to combat fires on sites
- What precautions and procedures will be followed to evacuate employees in the case of a fire

# 8.5 Watching, barricading and lighting

The Contractor must discuss the following in detail in his safety plan in respect of any excavation or other dangerous activity adjacent to public roads and thoroughfares:

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Contractor	Witness1	V	Vitness2		Employer		Witness1		Witness2

o High visibility snow netting shall be used at all times, o Type and spacing of warning lights and warning signs, flagmen and o Control systems and personnel, he intends employing to ensure that the above items are maintained.

#### 9 IMPLEMENTATION OF CONTRACTOR'S HEALTH AND SAFETY PLAN

#### 9.1 General

The Contractor shall describe in his Health and Safety Plan how he intends implementing his plan.

The Contractor shall indicate the methods he intends using to ensure accurate record keeping of all critical elements identified in his risk assessment and covered in his Health and Safety Plan.

The Contractor shall indicate how internal audits will be carried out, how shortcomings will be addressed, how he intends to review the safety plans, how he would train staff and how he would implement the findings and recommendations of internal audits or inputs of employees.

#### 9.2 Administrative Systems

The Contractor shall comply with Section 9 of the General Administrative Regulations, 1996. The Contractor's administrative system shall without limiting his obligations, cover the following:

- i) Upkeep of a safety file on site,
- ii) Maintenance of his Health and Safety plan,
- iii) Procedures to follow for the appointment of competent persons,
- iv) Application for notification,
- v) Procedures to follow for notifications,
- vi) Injury on duty [IOD] administration,
- vii) Recording of minutes of safety meetings,
- viii) Recording of checklists,
- ix) Safe keeping of checklists, and
- x) Internal audits.

The Contractor shall in particular ensure that at least one copy of the Occupational Health and Safety Act, 1993.

#### 9.3 Reporting Systems

The Contractor shall comply with Section 9 of the General Administrative Regulations, 1996 and shall in particular (in accordance with section 12) furnish an inspector with information relating to health and safety on the construction site, when requested to do so.

The Contractor shall notify the Employer of any investigations, complaint or criminal charge which may arise as a consequence of the provision of the Occupational Health

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Contractor	Witness1	Witness2	Employer	Witness1	Witness2			

and Safety Act, 1993 and its Regulations, pursuant to work performed in terms of this Contract.

# 9.4 Training

The Contractor shall train all his employees in accordance with the requirements of section 13 of the Occupational Health and Safety Act, 1993. The Contractor shall ensure that every employee is informed of the following:

- The hazards of any work he has to perform or plant machinery or equipment he is permitted to use,
- ii) Training (toolbox talks) shall be conducted weekly, and/or HIV/Training shall be conducted
- iii) The precautionary measures which should be taken regarding the above.

The Contractor shall, without limiting his obligations, indicate in his Health and Safety Plan how he intends: o Identifying the training needs of the personnel he intends employing, and o Implementing the training identified.

# 9.5 Inspections and Monitoring

The Contractor shall be required to inspect each workplace prior to works commencing to ensure that all protective equipment is in place and that by entering the workplace no person will be exposed to any hazard which could affect his health or safety. The Contractor shall without limiting his obligations, indicate the following in his Health and Safety Plan:

- i) The inspection and monitoring procedures he intends employing to determine the safety of workplaces, and
- ii) Who will be responsible for the checking of each workplace at the commencement of each shift?

The Contractor shall include in his Health and safety Plan all the checklists he intends using during the inspection and monitoring of the implementation of his Health and Safety Plan.

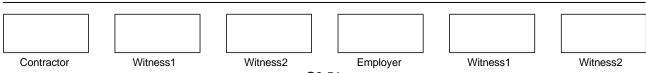
The Contractor can expect inspections of the works by any of the following parties: o The Employer or his Safety Agent, or o The designated officer serving in the Department of Labour and appointed by the Minister as chief inspector or his representative.

In addition to site inspections performed by the Employer or his safety agent they shall also do audits and asses the safety situation at the works and investigate incidents. Follow-up inspections will be performed to ensure compliance to recommendations done.

#### 10 AUDITING

#### 10.1 Internal Audits

The audits contemplated in regulation 5(1)(d) of the Construction Regulations,2014 will be carried out by the Employer or his appointed Safety Agent.



The intervals for the audits shall be agreed between the Contractor and the Employer or his Safety Agent during the preparation of the Contractor's Health and Safety Plan, but shall be carried out at least once every month or at such shorter interval that an inspector may require. The Employer or his Safety Agent shall provide at least 24 hours notice prior to the conducting of an audit.

The findings of each audit will be made known to the Contractor and the Employer in a report prepared by the Employer or his Safety Agent and will be submitted to all parties within seven working days of the respective audit being completed. Any shortfalls identified will be documented in the audit report together with the Contractor's proposals to rectify the same. All audit reports will be filed in the Health and Safety File.

A date for a follow up audit will be negotiated with the Contractor to verify the implementation of all actions to rectify shortfalls as identified in the audit report.

The Principal Contractor will ensure that the same arrangement detailed above be implemented with his Contractors to ensure his compliance with the Construction Regulations.

# 10.2 Audits by Employer or Safety Agent

The Employer or Safety Agent will be entitled to carry out additional audits or follow-up audits, as the case may be, at any time during the construction period provided that: o The audit or follow-up audit are carried out during ordinary working hours, and o The Employer or Safety Agent gives the Contractor at least 24 hours' notice of his intention to carry out such audits.

The Principal Contractor's employees indicated in Section 9.1 will be present during any audit carried out by the Employer or his Safety Agent.

#### 11 MEASUREMENT AND PAYMENT

# 11.1 Measurement and Payment

The scheduled items for health and safety will be included in the preliminary and general section of the schedule of quantities.

The Principal Contractor shall price all items scheduled in this section of the schedule of quantities to enable the Employer to comply with Construction Regulations, 2014. Failure by the Contractor to price these items will force the Employer to reject the Contractor's tender in term of the Construction Regulations, 2014.

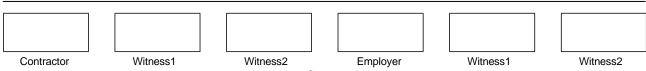
Payment for the scheduled items will be in terms of clause 8.2 of SABS 1200 A.

#### 11.2 Scheduled Items

#### 11.2.1 General

The maintenance of safe work practice at all times and in all sections of the execution of the works is embedded in the day to day site activities of all the Contractor's management, staff and workforce on the contract.

However, the introduction of the Construction Regulations in 2014 requires from the Employer to ensure that the Principal Contractor has made adequate provision for the



execution of the works within the specifications of said regulations. The following minimum pricing is taken into consideration:

i) It must be noted that the lists below are not exhaustive and that many items have been traditionally priced by the Contractor as an integral part of his Preliminary and General items or as part of the overhead costs of other items. The tender document, although not detailed with regards the Construction Regulations, requires that the Contractor ensures adherence to the Occupational Health and Safety Act (Act 85 of 1993) the Construction Regulations, 2014.

# 11.2.2 Fixed-Charge Items

	a)	Compliance with the Occupational Health and Safety Act (Act 85 of 1993) and its
		regulations and with the Employer's Health and Safety Specification
		Allowance for Contractor's initial obligations in respect of the OHS Act and Construction Regulations
		Allowance for Compilation and Submission of the Health and Safety File
		Personal protective clothing and equipment
		Fences, signs and barricades Sum
		Medical Certification of Employees  Item
11.2.3	Time	e-related Items
	a)	Compliance with the Occupational Health and Safety Act (Act 85 of 1993) and its
		regulations and with the Employer's Health and Safety Specification
		Allowance for Contractor's time related obligations in respect of the OHS Act and Construction Regulations
		Allowance for provision of full time Construction Safety Officer
		Allowance for provision of a Level 2 First Aider per construction site
Contr	ractor	Witness1 Witness2 Employer Witness1 Witness2

Allowance Sum	for the upkeep of the Health and Safety File
Health and Sum	Safety training as required
The time re	elated item shall include but shall not be limited to the following:  The employment cost of all health and safety personnel including consultants, health and safety officers, inspectors, supervisors and issuers required in terms of the Contractor's Health and

- Safety Plan,
  ii) Updating the Health and Safety Plan as needed,
- iii) Carrying out of periodic own audits and follow-up audits,
- iv) Compiling ongoing risk assessments and risk assessment reports as required by the Works,
- v) Convening of regular safety meetings with the Safety Representatives,
- vi) Accompanying and supporting the Employer or his Safety Agent during ad hoc audits,
- vii) Compilation of monthly safety reports and statistics for the Employer or his Safety Agent,
- viii) Implementation and maintenance of Training
- ix) Maintenance of personal protective clothing and equipment
- x) Maintenance of fences, signs and barricades
- xi) Implementation and maintenance of safety administration
- xii) Other Health and Safety Time-related Obligations

# ANNEXURE A1: IDENTIFIED HEALTH AND SAFETY HAZARDS

In terms of Regulation 5 of the Construction Regulations 2014 the hazards with the scope of work must be identified.

# NOTE:

It remains the responsibility of the Contractor to identify all possible hazards with regards to his scope of work and to put measures in place to mitigate, reduce or control these hazards. The table below shall be used:

ACTIVITY/TASK	POTENTIAL HAZARD
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Contractor	Witness1		Witness2		Employer		Witness1		Witness2

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# **ANNEXURE A2: NON-CONFORMANCES AND PENALTIES**

Should, at any time, the works, or part of the works, be stopped due to unsafe acts or noncompliance with the Clients specifications or PCs H&S Plan; neither the Principal Contractor nor any other Contractor shall have a claim for extension of time or any other compensation.

The following constitute the types of non-conformances that will attract penalties:

Minor: Fine: R100/count	Medium: Fine: R500/count and a nonconformance	Severe Fine: R5000/count, a nonconformance and/or activity stoppage
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non-completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	accommodation

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	]						
Contractor		Witness1	Witness2	Employer	Witness1	Witness2	

No monthly OHS report at site	Fall protection harness not		
meeting to report on	tied off/ not worn		
No certificates of fitness for	Any breach of legal		
workers as required	requirements		
Working without approved			
method statements			
Item not attended to as	Item not attended to as		
identified in audit report – first	identified in the audit report -		
transgression	second transgression		

Failure or refusal on the part of the contractor to take the necessary steps to ensure the safety of workers and other person involved in accordance with these specifications, the OHS Act and the regulations shall be sufficient cause to apply the above penalties.

Contractor	Witness1	Witness2	Employer	Witness1	Witness2

# **BASELINE HAZARD IDENTIFICATION AND RISK ASSESSMENT**

Perfomed		Approved by	3.GRASSLAND RESEARCHERS'     ACCOMMODATION     4. DOUBLE DRIFT JOC OFFICE			
Project / Construction Site & Exact Location of the Work	REFURBISHMENT OF INFRASTRUCTURE AT GREAT FISH RIVER NAT	FURBISHMENT OF INFRASTRUCTURE AT GREAT FISH RIVER NATURE RESERVE				

Use the Standard Risk Matrix to determine the Raw and Residual Risk Ratings.

S/N	Work Activity	Hazard	Consequential Risk/Possible Accident/ill health to persons,for fire or property loss	Existing Risk Control	Severity	Likehood	RPN
1	Gaining access to site	Restricted access to site Parking and or delivery areas	Damages to private vehicles , Construction vehicles and or mobile plant ,delivery vehicles	Proper layout of site by Construction Manager,taking into consideration all transport plant and material movements and storage on site.Construction Manager to check layout Drawing to compare with the requirements of the OHS Act and other relevant regulations.	3	1	3
2	Builk diesel storage	Lack of or failure to implement fire prevention measures.Uninforme d workers and visitors	Risk of fire, explosions resulting to burns to the body or even multiple fatalities. Fire spreading to adjacent structures. Serious damages to property	Diesel tanks to be a distance of 10 meters away from any structure and parking areas. A slab with a bund wall capable of carrying 110% of the tank capacities must be constructed for the tanks to stand in. Induction of workers an visitors HCS superviisor / Controller to be designated in writing	5	2	10
3	Storage of flammable	Unsafe storage of flammables	Risk of fire, explosions resulting to burns to the body or even multiple fatalities. Fire spreading to adjacent structures.	Flammable store to be well ventilated and fitted with a roof to protect from direct exposure to sunlight HCS Supervisor / controller to be designated in	5	2	10

			Serious damages to property	writing. Induction of workers and visitors			
4	Temporary electrical installations	Incompetent / unregisterd electricians. Incorrect / unsafe installations. Damaged cables.Exposed wires	Electrocution, fires serious damages to property. Serious injuries, possible fatalities	Installation to be done by a compentent registered electrician or electrical contractor. Electrical installation inspector to be designated in writing.	4	2	8
5	Site security and security fencing	Lack or absence of access control. Inadequate security fence.	Uncontrolled access to construction site.Injury to persons,theft / property loss.	Security guards to be appointed to keep watch. Security fencing to be a minimum height of 1.8 meter around site area together with two double gates.  Symbolic safety signage.	3	4	12
6	Availability of basic facilities and emergency services / equipment .	Not having the essential services at hand.	Worsening of first aid injuries.Detreatment health to employees spread of fires.	Services to be available during site establishment. Fire extinguisher equipment First aid boxes Drinking water Tolilets	4	3	12
7	Public Safety	Not informing employees and public what the site rules are.	Injuries to persons and / the public liability / court claims	Induction of workers and visitors	4	4	18
8	Designation of laydown areas	With inadequate space various materials will be stacked on top of each other causing unstable stacks	Unstable stacks of materials msy fall onto persons resulting in serious injuries / even fatality	Laydown areas to be sufficient in size. Timber poles and / other suitable base material to be available to stack materials on. Laydown areas to be firm level ground.	5	3	15
9	Condition of ablution facilities	Unclean ablution facilities.Non – ventilated ablution facilities	Possible health problems due to propagation of germs	Tolilets are to be well ventilated and kept clean at all times. Water for washing of hands to be readily available	3	3	9
10	Emergency procedures	Not having or knowing what the emergency procedures are.	Not adhering to written procedures may result in worsing of injuries or even death.Delayed arrival of amblunce on site could cause injuries to die.	Construction Supervisor are to be aware of emergency procedures to be followed,if and when requred.	5	3	15
11	Personal Protective Equipment	Tools and flying foreign	Injury to hands, feet and other parts of the body.	Always use the correct personal protective equipment suitable	3	4	12

		objects,Employees not wearing suitable PPE.		for the type of tool being used or job being done.Construction Manager and Safety Officer to ensure contiuned availabilty of PPE.			
12	Use of Hand Tools	Incorrect use of hand tool	Injuries to hands,feet and other parts of the body.	Always use the right tool for the job.All employees are to be properly trained on safe use of hand tools.	3	2	6
13	Use of Hand Tools	Working in close proximity to each other.	Workers hiting each other with tools resulting in serious injuries.	Induct all employees to take care of their health and safety and others working in the areas.All employees are to be properly trained on safe use of hand tools.	3	2	6
14	Condition of hand tools	Substandard tolols mushroom heads (chisel) Broken handles,blunt ends,etc	Injury to hands,feet and other parts of the body	Tools must be maintained on a regular basis, Supervisor must ensure all tools are kept safe. Hand tools inspector to be designated in writing	3	4	12
15	Care and storage of hand tools	Incorrect storage of hand tools not being cleaned.	Excessive dirt on tools may cause damage to property. Tools lying around causing tripping hazards resulting in injuries to hands and other part of the body	Always keep tools clean and store safely afteruse .Employees to be inducted regarding care and safe storage of hand tools	2	3	6
16	Using a pick and a shovel to excavate	Unsafe use of pick or a shovel	Injury to employees.	Induct employees on a safe working procedures. Supervisor and charge hand to control . Toolbox talks	2	3	6
17	Using a pick and a shovel to excavate	Defective tools	Injury to employees.	All tools to be inspected before use and defective tools are to be quarantined or discarded.Hand tool inspector to be designated in writing	2	3	6
18	Using a pick and a shovel to excavate	Excessive dust	Prolong exposure may cause chest irritation and / lung disease	Implementation of dust control measures such as water spraying area. Employees to wear suitable PPE including dust mask.	3	2	6
19	Using a pick and a shovel to excavate	Unstable/ loose material may cause unsafe condition	Injury to employees and damages to excavation	Check sides of excavation Supervisor to inspect sides on regular basis. Supervisor and	2	1	2

				charge hand to control and monitor			
20	Using pick and a shovel to excavate	Materials placed on sides of excavations	Material falling onto employees when working inside the excavation causing serious injuries	Excavated material to be placed away from sides of excavation. Employees to be instructed not to place loose soil on edge of the excavation. Supervisor and charge hand to control and monitor	3	2	6
21	Using a pick and a shovel to excavate	Not proving a ladder or access ramp for easy access and / or egree	Employees not able to enter or exit the excavation safely resulting muscle strais. Employees not able to exit the excavation in case of emergency resulting into serious injuries or even fatality	All excavations deeper than 1.5m must have an access ladder or access ramp available for employees to get into and out of the excavation safely.supervisors to ensure employees are given safe and convenient means of access to excavatiion.Toolbox talks to be conducted	4	1	4
22	Using a pick and a shovel to excavate	No shoring of excavatios.Unprotect ed excavation	Sides collapsing and causing serious injuries or even fatality. Persons falling into unprotected excavations resulting into serious injuries.	Sides of excavation to be shored and barricaded immediately.Put adequate shoring and strong physical barricades in place immediately ,if needed	5	2	10
23	Safeguarding ofn open trenches 0-1.0 m Depth	Unprotected open excavations	Pedestrians falling into excavations may cause serious injuries	In open areas of low pedestrian traffic, wire/ fence with hazard tape to be used for barricading. Supervisor to monitor daily	3	2	6
24		Unprotected open excavations	Vehicles driving into excavatiions resulting in damagie to property and or seriious injuries	In open areas of low vehicle traffic wire/fence with hazard tape to be used for barricading.Supervisor to monitor daily.	3	2	6
25		Unprotected open excavations	Livestock falling in and or getting stuck causing serious injuries to livestock	In open areas of low pedestrian / animal traffic, wire/ fence with hazard tape to be used for barricading. Supervisor to monitor daily	3	2	6
26	Operation of bulk mixing plant	Operator not wearing suitable PPE	Injury to employee	Batch plant operator to use suitable personal protective equipment.	2	3	6

27		Excessive noise defective silencer	Prolonged exposure to noise exceeding 85dBA for an 8 hour long shift may cause damage to ears or impaired hearing.	Check licencers.Barrier walls to be created where deemed necessary.Noise survey to be conducted and noise zones established	4	3	12
28		Not able to stop production process in time during an emergency	Injury to workers	Batch plant operator to be in charge at all times and should keep an eye on his whole team. Advise all concerned when going to start or stop production.	3	3	9
29		Not inspecting bulk mixing plant before use.	Failure of machine parts causing delay in production process.Damages to the property	Daily checklist must be used to conduct inspection before commencing with production everyday. Operator to be trained how to do inspection of the plant from a mechanical and health & safety point of view.Checklist to be counter signed daily by the construction Supervisor.	2	3	6
30		Starting of the machine while being cleaned .	Moving parts of machine can cause injury to hands or arms.Injury to workers,possible fatality	Put system in place to prevent starting machine while being cleaned. Operator to clear around machine area before starting the ingine	5	2	10
31		Exposed moving parts of machinery	Serious injuries to parts of the body and / amputations.	Safeguarding of machinery	3	2	6
32	Mixing of concrete by hand	Unsafe use of hand tools	Injury to employees	Training on safe use of hand tools to be provided to team.Supervisor to monitor and control.Employees to use suitable PPE.	2	2	4
33		Defective Tools	Injury to employees	All tools to be inspected before use and defective tools are to be quarantined or disarded. Hand tool inspector to be designated in writing.	2	3	6
34		Coming into contact with cement /wet concrete	Skin irritation	Use of suitable PPE e.i Safety gloves,overalls.	2	2	4

35		Excessive dust	Prolonged exposure may cause chest irritation and / lung diseases	Implementation of dust control measures such as water spraying the area.Employees to wear suitable PPE including dust mask.	3	2	6
36	Placing concrete from bucket hoisted by crane	Conrete bucket hitting the employee	Injry to employee resulting in lost time injury or even fatality	Only the bankman or spotter to direct crane at loading and discharge. Workers to be adviced to stand clear of the path of the bucket.	5	3	15
37	Handling of concrete bucket	Unsafe handling of concrete bucket	Opening and closing of concrete bucket causing spillages of concrete.injury to hands and the body	Use safety gloves,Ensure the bucket is properly closed after each placing.	4	3	12
38	Vibrating concrete	Concrete splash from vibrating, operating the poker	Eye injuries,hand injuries.	Safety goggles ,safety gloves,Operator self check for PPE.	3	2	6
39	Casting concrete for the walls	Workers faalling due to insufficient scaffold planks,workers recieving concrete whilst standing on rebar.	Injury to body, disabling and even fatal	Use correct scaffolding ,provide planks and handrails on rebar.	5	3	15
40	Casting concrete for the floors	Concrete coming in contact with the skin	Injury to the feet and legs	Wear long ruber boots and safety gloves .Operator self check , supervisor to control	2	3	6
41	Mixing of building mortar	Faulty hand tools	Injuries to parts of the body	Use of correct PPE .Inspection of hand tools	2	4	8
42	Stacking or placing bricks at works site	Unsafe stacks of bricks	Stacks may fall over resulting into serious injuries and damage to property	Stacking of bricks must be supervised by a competent person	3	3	9
43	Positioning profile fishline	Incorrect levels	Poor quality of work	Straight profiles and strong tight fishlines	3	3	9
44	Supply mortar to bricklayers	Faulty hand tools	Injuries to parts of the body	Use of correct PPE,inspection of hand tools	2	4	8
45	Laying of bricks to wall	Faulty hand tool,poor standard of scaffolding or trestless.not using correct PPE	Poor quality of work.Scaffold colapse resulting into serious injuries .Falling of bricks	Use of correct PPE.Good standard of scaffolding trestles,tools in good condition	4	3	12

46	Cleaning up of work area (house keeping)	Rubble ,bricks and tools lying around site working areas	People could trip and fall resulting into bruises ,cuts scratches and fractures when falling over object	Working areas to be cleaned at all times	3	4	12
47	Erecting scaffolding	Unsafe handling of scaffolding components	Falling scaffold boards,ledger,standards, etc may cause serious injuries to persons	See RA for scaffolding	3	4	12
48	Working at heights	Working unsafely at heights	Falling objects may cause serious injuries to workers below,workers may also fall from heights resulting into serious injuries or even death	Training of employees regarding safe work procedure for working at heights adequate supervision	5	3	15
49	Wild animals	Wild animals roamimg about	Employees may encounter wild animals moving around	Induction on how to behave around animals,daily riek assessment trainings,emergency procedures training on how to handle and working cautiouslyaround the areas.Signage of all animals that are in the nature reserve,also to be pasted in the construction vehicles on site.First aid box and traing on how to render first aid.	5	4	12
50	Snakes	Snakes may be prevalent as the area is a nature reserve	Employees may be at risk of being bitten by snakes which sometimes may be venomous.	Workers to be inducted regarding snake bites.Sgnage in construction vehicles.First aid kit and a qualified first aider on site for emergencies.	5	3	15
51	Bees	Bees are common encounter in a nature reserve	Workers may be allergic to bee stings	Information must be obtained from workers regarding allergies. First aider should be available on site at all time for emergencies. First aid kit should be on site always.	5	4	12

COMPILED BY	APPROVED BY	AUTHORISED BY (Client Agent)
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Name:Mantombi Mneno	Name:	Name:
Signature	Signature	Signature
Date	Date	Date

# **C3.4.1 LOCALITY PLAN**

The Great Fish River Nature Reserve is located 141 kilometres (87.5 miles) from East London and just over 200 kilometres (124 miles) from Port Elizabeth along the N2 in the Eastern Cape. The reserve is approximately midway between Grahamstown and King Williams Town. The locality map of project sites and coordinates Great Fish Nature Reserve (GFRNR) is shown in Figure 1 & Table 1 below respectively:

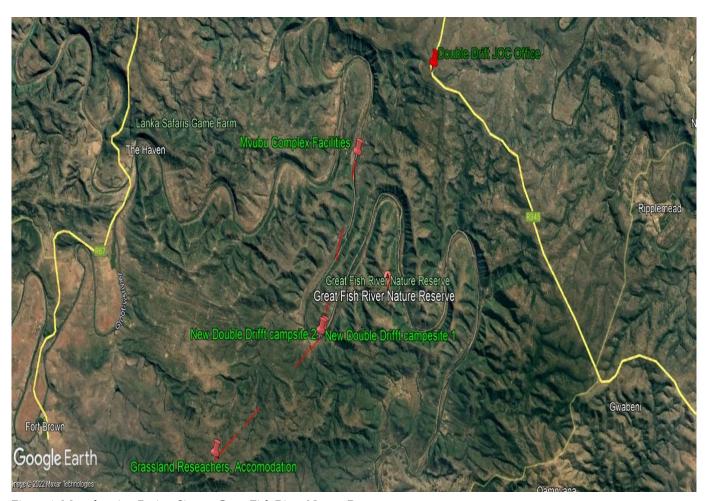


Figure 1: Map showing Project Sites at Great Fish River Nature Reserve

Table 1: Coordinates of Project Sites at Great Fish River Nature Reserve

ITEM	PROJECT AREA	COORDINATES
1	Mvubu Complex Facilities	S 33.02593; E26.79566
2	New Double Drift Campsite 1 & 2	S 33.089173: E26.780692
		S 33.088589; E26.782103
3	Grassland Researcher's Accommodation	S 33.13614; E26.721450
4	Double Drift JOC Office	S 32.9923, E26.8383

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Contractor	Witness 1	Witn	ess 2	Employer	Witness 1	Witness 2

# C3.4.2 TENDER DRAWINGS

See attached



Witness 2

# C3.4.3 **CONTRACT BOARD LAYOUT DETAIL** Contract Board layout details to be provided after award of contract.

Contractor Witness 1 Witness 2 Employer Witness 1

Witness 2

# C4 SITE INFORMATION

# C4.1 GEOTECHNICAL INFORMATION OF SITE

The scope of work comprises the refurbishment of existing facilities where no Geotechnical assessment is required. It should be that, the construction of new ablution blocks at New Double Drift Campsite and Grassland will be constructed adjacent to the existing building at each location. Due to the fact that the existing buildings have shown no sign of structural defects, the foundation depth of the proposed ablution blocks will be the same as the existing ones.

Contractor Witness 1 Witness 2 Employer Witness 1

Item No		Quantity	Rate	Amount
	SECTION 1 PRELIMINARIES			
	BILL NO. 1 PRELIMINARIES			
	SECTION A : PREAMBLES FOR TRADES			
	The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	SECTION B : JBCC SERIES 2000 PRINCIPAL BUILDING AGREEMENT			
	The JBCC Principal Building Agreement, inclusive of Contract Data, Edition 6.2 May 2018 prepared by the Joint Building Contract Committee shall be the applicable building agreement, amended as hereinafter described			
	The JBCC General Preliminaries shall be deemed to be incorporated in these bills of quantities			
	Contractors are referred to the abovementioned documents for the full intent and meaning of each clause thereof			
	These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this agreement such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the abovementioned documents			
	Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"			
	Carried to Collection SECTION NO. 1		R	
	BILL NO. 1 PRELININARIES			

	Pricing of Preliminaries			
	Should the Contractor select Option A in terms of sub- clause D 4.0 (26.9.4) in the Contract Data for the purpose of adjustment of these preliminaries, the amount entered into the column in these preliminaries is to be divided into one or more of the three categories provided namely Fixed (F), Value Related (V) and Time Related (T)			
	JBCC PRINCIPAL BUILDING AGREEMENT			
	INTERPRETATION			
1	Clause 1.0 - Definitions and Interpretation			
	F: V: T:	Item		
2	Clause 2.0 - Law, Regulations and Notices			
	F: V: T:	Item		
3	Clause 3.0 - Offer and Acceptance			
	F: V: T:	Item		
4	Clause 4.0 - Cession and Assignment			
	F: V: T:	Item		
5	Clause 5.0 - Documents			
	F: V: T:	Item		
6	Clause 6.0 - Employer's Agents			
	F: V: T:	Item		
7	Clause 7.0 - Design Responsibility			
	F: V: T:	Item		
	INSURANCE AND SECURITY			
8	Clause 8.0 - Works Risk			
	F: V: T:	Item		
	Carried to Collection		R	
	SECTION NO. 1 BILL NO. 1 PRELININARIES			

,	Clause 0.0 Indomnities			l
1	Clause 9.0 - Indemnities	lt a ma		
	F: V: T:	Item		
2	Clause 10.0 - Insurances			
	F: V: T:	Item		
3	Clause 11.0 - Securities			
	F: V: T:	Item		
	Clause 11.1.1 shall be deleted			
	The security to be provided shall be a fixed construction guarantee and payment reduction per Clause 11.1.2			
	EXECUTION			
4	Clause 12.0 - Obligations of the Parties			
	F: V: T:	Item		
5	Clause 13.0 - Setting out			
	F: V: T:	Item		
6	Clause 14.0 - Nominated Subcontractors			
	F: V: T:	Item		
7	Clause 15.0 - Selected Subcontractors			
	F: V: T:	Item		
8	Clause 16.0 - Direct Contractors			
	F: V: T:	Item		
9	Clause 17.0 - Contract Instructions			
	F: V: T:	Item		
	Carried to Collection		R	
	SECTION NO. 1 BILL NO. 1 PRELININARIES			

	COMPLETION			
1	Clause 18.0 - Interim Completion			
	F: V: T:	Item		
2	Clause 19.0 - Practical Completion			
	F: V: T:	Item		
3	Clause 20.0 - Completion in Sections			
	F: V: T:	Item		
4	Clause 21.0 - Defects Liability Period and Final Completion			
	F: V: T:	Item		
5	Clause 22.0 - Latent Defects Liabilty Period			
	F: V: T:	Item		
6	Clause 23.0 - Revision of Date for Practical Completion			
	The removal and replacement of materials and/or workmanship which do not conform to specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value			
	F: V: T:	Item		
7	Clause 24.0 - Penalty for Late or Non-Completion			
	F: V: T:	Item		
	Carried to Collection		R	
	SECTION NO. 1 BILL NO. 1			
	PRELININARIES			

	PAYMENT				
1	Clause 25.0 - Payment				
	Clause 25.3.4 shall be qualified as follows:				
	All fluctuations in costs with the exception of fluctuations in the rate of Value Added Tax shall be for the account of the Contractor				
	Sub clause 25.10 shall be amended as follows :				
	The Employer shall pay to the Contractor the amount certified in an issued payment certificate within thirty (30) calendar days of the date of issue of the invoice. Payment shall be subject to the Contractor giving the Employer a tax invoice for the amount due.				
	F: V: T:	Item			
	Clause 26.0 - Adjustment to the Contract Value and Final Account				
	Where prices are submitted by the contractor or n/s subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of practical completion, it shall be in writing.				
	Clause 26.9.5 shall be amended as follows				
	All fluctuations in costs with the exception of fluctuations in the rate of Value Added Tax shall be for the account of the Contractor.				
	F: V: T:				
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	BILL NO. 1 PRELININARIES				
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1	Sub clause 26.10 shall be amended as follows :			
	The Contractor shall cooperate and assist the Principal Agent in the preparation of the final account by timeously providing all relevant documents on request. The Principal Agent shall issue the final account to the Contractor within ninety (90) working dates of the date of practical completion.			
	F: V: T:	Item		
2	Clause 27.0 - Recovery of Expense and/or Loss			
	F: V: T:	Item		
	SUSPENSION AND TERMINATION			
3	Clause 28.0 - Suspension by the Contractor			
	F: V: T:	Item		
4	Clause 29.0 - Termination			
	F: V: T:	Item		
	DISPUTE RESOLUTION			
5	Clause 30.0 - Dispute resolution			
	F: V: T:	Item		
	SECTION C : CONTRACT DATA			
	INFORMATION NECESSARY FOR COMPLETION OF CLAUSES CONTAINED IN THE SCHEDULE WHICH ARE NECESSARY FOR TENDER PURPOSES IS GIVEN HEREUNDER			
	Carried to Collection		R	
	SECTION NO. 1 BILL NO. 1 PRELININARIES			

A: PROJECT INFORMATION		
Clause A1 - Works:		
Project Name:		
Refurbishment and Upgrde of Infrastructure and Facilities at Great Fish River Nature Reserve		
Works description:		
The project comprises of refubishment and upgrading of Four Facilities at Great Fish River Nature Reserve. The works comprise of:  1. Mvubu Complex Facilities (i) Refurbishment of 3 No's. Chalets Units (ii) Reconstruction of 1 No Chalet Unit that was burnt (iii) Change thatch roofs to suitable roof cover that is maintenance free (iv) Refurbishment of Dinning Area (v) Refurbishment of Kitchen (vi) Refurbishment of Manager's House (vii) Refurbishment of Boarding House (viii) Refurbishment of Braai Area and Roundavele		
2. New Double Drift Campsite (i) Upgrading of Two Camp Sites (ii) Construction of new Ablution Block		
3. Grassland Researchers' Accommodation (i) Construction of new Ablution Block (ii) Upgrading of existing water system		
4. Double Drift Office (i) Decommission the existing generators (ii) Upgrade of the existing solar system (iii) Installation of new generator set to act as a standby		
Clause A2 - Site:		
Great Fish River Nature Reserve		
Mvubu Facilities Complex, New Double Drift Camp Site, Grassland Researchers' Accommodation and Double Drift JOC Office		
Local Authority: NDlambe Local Municipality		
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SECTION NO. 1 BILL NO. 1 PRELININARIES		

Clause A3 - Employer		
Name: Eastern Cape Park & Tourim Agency		
Country: South Africa		
Postal Address: 5231, 17-25 Oxford Street East London, 5200		
Contact person: Ms M. Lawana (Project Manager)		
Telephone number: 043 705 4400		
Fax: 043 742 5566		
E-mail: Mandilakhe.Lawana@ecpta.co.za:		
Clause A4 - Principal AgentClause		
Name: Deedscon Consult.		
Country: South Africa		
Postal Address: No 8 Tyrell Road, Berea, East London,5211		
Contact Person: Ali Said		
Tel: 043 726 8975, 061 580 2657		
Email: alis@deedscon.co.za		
Clause A5 - Agent		
Discipline: Civil Engineer		
Name: Deedscon Consult.		
Country: South Africa		
Postal Address: No 8 Tyrell Road, Berea, East London,5211		
Contact Person: Ali Said		
Tel: 043 726 8975, 061 580 2657		
Email: alis@deedscon.co.za		
Carried to Collection SECTION NO. 1 BILL NO. 1	R	
PRELININARIES		

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Clause A6 - Agent				
Discipline: Structural Engineer				
Name: Deedscon Consult.				
Country: South Africa				
Postal Address: No 8 Tyrell Road, Berea, East London,5211				
Contact Person: Ali Said				
Tel: 043 726 8975, 061 580 2657				
Email: alis@deedscon.co.za				
Clause A7 - Agent				
Discipline: Architect				
Name: Masha Design Architects				
Country: South Africa				
Postal address: 136 Goodall Road Amalinda, East London				
Contact Person: Sithembile Maselwa,				
Tel: 043 555 0225				
Cell: 083 8104845				
Email: maselwasithembele@gmail.com				
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	Clause A8 - Agent			
	Discipline: Electrical Engineer			
	Name: Mauthanlogistcs & Projects			
	Country: South Africa			
	Postal address: 15 Swadini, 341 Glenhood Road,Faerie Glen 0043			
	Contact Person: Allister Tsaura			
	Cell: 083 291 9698			
	Email: tsauraa@yahoo.com			
	Clause A9 - Agent			
	Discipline: Health & Safety			
	Name: C.H.N.K TRADING			
	Country: South Africa			
	Postal address: 91 18th Avenue Gonubie 5256			
	Contact Person: Mantombi Mneno			
	Cell: 083 774 1964			
	Email: mantombimnn185@gmail.com			
	B: CONTRACT INFORMATION			
	Clause B1.0 - Definitions			
	Bills of Quantities: System/Method of measurement:			
	Standard System of Measuring Building Works (6th Edition)			
	Clause B2.0 - Law, Regulations and Notices			
	The law applicable to the works:			
	Republic of South Africa			
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Clause B3.0 - Offer and Acceptance		
Currency applicable to this agreement:		
South African Rand		
Clause B4.0 - Documents		
The original signed agreement is to be held by:		
Principal Agent		
Number of copies of construction information issued to the contractor at no cost:		
No of 3 (Three)		
Documents comprising the agreement:		
The JBCC Principal Building Agreement, Edition 6.2 May 2018.		
The JBCC Principal Building Agreement - Contract Data, Edition 6.2 May 2018.		
The JBCC General Preliminaries for use with the JBCC Principal Building Agreement, Edition 6.2 May 2018.		
Contract drawings - description:		
Refer to drawing schedule		
Clause B5.0 - Employer's Agents		
Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works:		
Principal Agent		
Principal Agent's and Agents' interest or involvement in the works other than a professional interest:		
Not applicable		
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SECTION NO. 1 BILL NO. 1 PRELININARIES		

Clause B6.0 - Insurances		
Insurances by Employer		
Contract Works Insurance: Amount including tax: Contract sum plus 20% Deductible amount including tax: R 35,000.00		
Supplementary Insurance (SASRIA): Amount including tax: Contract sum plus 20% Deductible amount including tax: N/A		
Public liability Insurance: Amount including tax: N/A Deductible amount including tax: N/A		
Removal of Lateral Support Insurance: Amount including tax: N/A Deductible amount including tax: N/A		
Other Insurances: Amount including tax: N/A Deductible amount including tax: N/A		
AND/OR		
Insurances by Contractor		
Contract Works Insurance: Amount including tax: N/A Deductible amount including tax: N/A		
Supplementary Insurance: Amount including tax: N/A Deductible amount including tax: N/A		
Public liability Insurance: Amount including tax: R 10,000,000.00 Deductible amount including tax: N/A		
Removal of Lateral Support Insurance: Amount including tax: N/A Deductible amount including tax: N/A		
Other Insurances: Amount including tax: N/A Deductible amount including tax: N/A		
Clause B7.0 - Obligations of the employer		
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BILL NO. 1 PRELININARIES		

Existing premises wil	I be in use and occupied: YES	I	
	vised that the existing premises will ed during the course of this		
	iaise timeously with the Employer ed to the existing premises.		
adjacent to the Working gained to these areas Contractor is to make	to trespass into other areas s. Should access need to be s for whatever reason, the e prior arrangements with the fore accessing these areas.		
manner as will, in the the Employer, least in the occupants of the	execute the works in such a e opinion of the Principal Agent and nterfere with the general routine of premises and shall minimise any noise or other causes.		
Restriction of working	g hours: NO		
Natural features and the contractor: NO	known services to be preserved by		
Restrictions to the sit	e or areas that the contractor may		
be contained within the construction area. The activities do not affect	take note that their operation is to the site boundary and allocated the Contractor is to ensure that his to any of the Client processes when sting premises and external areas.		
for any access requir Contractor is not to tr the Works. Should ac areas for whatever re	iaise timeously with the Employer ed to the existing premises. The respass into other areas adjacent to cook need to be gained to these eason, the Contractor is to make with the parties concerned before as.		
	ensure that he complies with all nts, provincial road ordinances and		
Supply of free issue:	NO		
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BILL NO. 1 PRELININARIES			

**CONTRACT NUMBER: 20/FY/23** 

Clause B8.0 - Nominated Subcontractors		
Extent of work: N/A		
Clause B9.0 - Direct Contractors		
Extent of work: N/A		
Clause B10.0 - Description of Sections		
Not applicable		
Clause B11.0 - Possession of Site, Practical Completion and Penalties		
Please refer to contract data, principal agent or client		
Clause B12.0 - Payments		
Please refer to contract data, principal agent or client		
Clause B13.0 - Dispute resolution		
Adjudication  Name of nominated body: Association of Arbitrators  Applicable rules for adjudication: To be agreed		
Arbitration Name of nominated body: Association of Arbitrators Applicable rules for arbitration: To be agreed		
Clause B14.0 - JBCC General Preliminaries: Selections		
Provisional Bills of Quantities:		
YES		
Availability of construction information:		
NO		
<u>Previous work - dimensional accuracy - details of previous contract(s):</u>		
N/A		
		— 
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Previous work - defects - details of previous contract(s):		
N/A		
Inspection of adjoining properties - details:		
Existing buildings in the area of the works are to be inspected for any visible defects.		
Handover of site in stages - specific requirements:		
N/A		
Enclosure of the works - specific requirements:		
The area of the works shall be closed off from public access by means of temporary fencing, barriers or hoardings to be erected and relocated from time to time as directed by the Principal Agent (items measured and included in Bills of Quantities).		
Suitable warning signs shall be erected to warn the public not to enter the site.		
Geotechnical and other investigations - specific requirements:		
N/A		
Existing premises occupied - details:		
The Contractor is advised that the existing premises will be in use and occupied during the course of this Contract.		
The Contractor is to liaise timeously with the Employer for any access required to the existing premises. The Contractor is not to trespass into other areas adjacent to the Works. Should access need to be gained to these areas for whatever reason, the Contractor is to make prior arrangements with the parties concerned before accessing these areas.		
The Contractor shall execute the works in such a manner as will, in the opinion of the Principal Agent and the Employer, least interfere with the general routine of the occupants of the premises and shall minimise any nuisance from dust, noise or other causes.		
Services - known - specific requirements:		
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	The Contractor is to note that existing services are located in the area of construction and the Contractor is to allow for protection of all pipework and services during construction.			
	Water:			
	By Contractor: NO By Employer: NO By Employer - metered free of charge: YES			
	Electricity:			
	By Contractor: NO By Employer: NO By Employer - metered free of charge: YES			
	Ablutions and welfare facilities:			
	By Contractor: YES By Employer: NO			
	Communication facilities - specific requirements:			
	Telephone: YES E-mail: YES			
	Protection of the works - specific requirements:			
	NIL			
	Protection/Isolation of existing works and works occupied in sections - specific requirements:			
	The Contractor is to note that existing services are located in the area of construction and the Contractor is to allow for protection of all pipework and services during construction.			
	<u>Disturbances - specific requirements:</u>			
	The Contractor is advised that the existing premises will be in use and occupied during the course of this Contract.			
	The Contractor is to liaise timeously with the Employer for any access required to the existing premises. The Contractor is not to trespass into other areas adjacent to the Works. Should access need to be gained to these			
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	areas for whatever reason, the Contractor is to make prior arrangements with the parties concerned before accessing these areas.				
	The Contractor shall execute the works in such a manner as will, in the opinion of the Principal Agent and the Employer, least interfere with the general routine of the occupants of the premises and shall minimise any nuisance from dust, noise or other causes.				
	Environmental disturbances - specific requirements:				
	NIL	Item			
	Clause B15.0 - Changes made to JBCC documentation				
	Clause 11 - Security				
	Clause 11.1.1 shall be deleted				
	The security to be provided shall be a fixed construction guarantee and payment reduction per Clause 11.1.2				
	Clause 25 - Payment				
	Sub Clause 25.3.4 shall be qualified as follows:				
	All fluctuations in costs with the exception of fluctuations in the rate of Value Added Tax shall be for the account of the Contractor				
	Sub clause 25.10 shall be amended as follows :				
	The Employer shall pay to the Contractor the amount certified in an issued payment certificate within thirty (30) calendar days of the date of issue of the invoice. Payment shall be subject to the Contractor giving the Employer a tax invoice for the amount due.				
	Clause 26.0 - Adjustment to the Contract Value				
	Where prices are submitted by the contractor or n/s subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of				
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practical completion, it shall be in writing.		
Clause 26.9.5 shall be amended as follows:		
All fluctuations in costs with the exception of fluctuations in the rate of Value Added Tax shall be for the account of the Contractor.		
Sub clause 26.10 shall be amended as follows:		
The Contractor shall cooperate and assist the Principal Agent in the preparation of the final account by timeously providing all relevant documents on request. The Principal Agent shall issue the final account to the Contractor within ninety (90) working days of the date of practical completion.		
C: TENDER CLOSING		
Please refer to contract data, principal agent or client		
D: TENDERER'S SELECTIONS		
Clause D1.0 - Securities		
Guarantee for construction: Select Option B		
Option A: Guarantee for construction (variable) by contractor		
Option B: Guarantee for construction (fixed) by contractor		
Guarantee for payment by employer: N/A		
Amount: N/A		
Advance payment, subject to a guarantee for advance payment: N/A		
Amount: N/A		
Clause D2.0 - Contractor's annual holiday periods during the construction period		
Year 1 Contractor's annual holiday period:		
16 December 2022 - 15 January 2023		
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	Clause D3.0 - Payment of preliminaries			
	Select Option B			
	Where the Contractor does not select an option, Option A shall apply			
	Clause D4.0 - Adjustment of preliminaries			
	Select Option A			
	Where the Contractor does not select an option, Option A shall apply			
	SECTION D: SPECIFIC PRELIMINARIES			
	Site and Site Access			
1	Access for the contractor to the building site shall be via a controlled access point. The Contractor is to take all necessary care to ensure that existing surfaces and buildings are not damaged during construction, and on completion of the contract shall hand the areas back to the Employer in a similar condition to that at the commencement of the contract			
	F:T:	Item		
	Enclosure of the Works			]
2	The area of the works shall be closed off from public access by means of temporary fencing, barriers or hoardings to be erected and relocated from time to time as directed by the Principal Agent (items measured and included in Bills of Quantities).  Suitable warning signs shall be erected to warn the			
	public not to enter the site.	14		
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	Statutory Notices			
	Statutory and/or other notices to be complied with by the contractor before possession of site can be given:			
	Notification to Department of Labour of intention to start work on site			
	F: T:			
	Contractor Staff Facilities			
1	The Contractor shall maintain any facilities provided in a sound and good condition for the duration of the contract and shall remove such facilities on completion of the contract and hand the site back to the Employer in a similar condition to that at the commencement of the contract.			
	F: T:	Item		
	Main Notice Board			
2	A main notice board shall be provided and shall be in compliance with the Standard Institute of Architects details			
	F: T:	Item		
	Subcontractors Notice Board			
3	Subcontractors notice boards are <u>NOT</u> required nor permitted			
	F: T:	Item		
	<u>Overtime</u>			
4	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the Contractor unless the Principal Agent has specifically authorised in writing, prior to the execution thereof, that costs of such overtime are to be borne by the Employer. Working hours are to be approved by the Employer.			
	F: V: T:	Item		
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	Site Instructions			
1	Site instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the Contractor.			
	It shall be the Main Contractor's responsibility to ensure that any verbal instructions given on the site are recorded in the site instruction book and signed by the Principle Agent.			
	F: V: T:	Item		
	Site Diary			
2	The Contractor shall keep a daily site diary recording of inclement weather/concrete test cubes/compaction test/etc. as required by the Principal Agent.			
	F: V: T:	Item		
	Non Cession of Monies			
3	The contractor shall not cede nor assign his rights or claims to any monies due or to become due under this contract.			
	F: T:	Item		
	Warranties for material and workmanship			
4	Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the final completion of the contract. The warranty shall state that workmanship, materials and installation are warranteed for a specified period from the date of final completion and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice to do so. The warranty will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor			
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	Occupational Health and Safety Act, 1993			
1	Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measured during the execution of the works. The contractor shall price opposite the item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specifications.			
	F: T:	Item		
	Health and Safety Officer			
2	The Contractor shall ensure that a Health and Safety Officer is employed full time for the duration of the project			
	F: T:	Item		
	Community liason representative			
3	Due consideration should be given to the utilisation of a community liaison representative.	Item		-
	COVID-19 Pandemic			
4	The Contractor is to ensure that they, and their domestic, selected and/or nominated sub-contractors, comply with all Government regulations, legislation and stipulations, as well as any World Health Organisation guidelines regarding the COVID-19 pandemic and that all operations are conducted accordingly. Aspects to be considered would include, but are not limited to, the following:			
	<ul> <li>Risk assessment on the current situation and virus impact on the construction company</li> <li>Risk assessment training with all employees</li> <li>Toolbox talks or awareness talks with all employees about personal hygiene and the new methods that will be introduced with the virus awareness</li> </ul>			
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<ul> <li>Adequate and compliant PPE specifically related to COVID-19 to be provided (in accordance with guidelines)</li> <li>Masks (could be cloth and does not have to be surgical) to be provided</li> <li>Temperature screening to be enforced</li> <li>Social distancing in execution of the works to be enforced (in accordance with guidelines)</li> <li>Sanitizers must be readily available, preferably controlled by specific people who can spray the employee's hands as they enter site, at lunch times and as they leave site</li> <li>Soap and paper towels for drying hands</li> <li>No shaking of hands on site</li> <li>No sharing of PPE and tools on site</li> <li>No sharing of food or drinks</li> <li>Breathalysers not to be used unless the mouth piece is changed for every employee</li> <li>Consider staggering employee starting and departing times, along with lunch and break periods, to minimize overcrowding in break rooms, etc.</li> <li>Where practical and affordable, consider transporting employees who usually use public transport to and from work</li> <li>Explain the reporting procedure to all employees if they are not feeling well or have come into contact with someone showing symptoms</li> <li>Posters to be displayed in eating areas and other gathering areas of the virus and the precautions to be taken</li> <li>All common surfaces are to be regularly and thoroughly cleaned</li> <li>Any shared equipment to be thoroughly cleaned after use</li> <li>It is a mandatory requirement that the Contractor immediately reports to ECPTA if they become aware of any person or employee who has come on to the site, or with whom they have been in contact with in any form whatsoever, and who has tested positive for COVID-19.</li> </ul>			
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Item No		Quantity	Rate	Amount
	SECTION NO. 2 MVUBU CHALET: UNIT 01			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG100/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection SECTION NO. 2		R	
	BILL NO. 1 ALTERATIONS			

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.		
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.		
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.		
All materials in this section are measured as new except where old material is specifically mentioned as being reused.		
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.		
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.		
When pricing, Tenderers are to allow as follows:		
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be				1
	built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified,				1
	cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to				
	be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the				1
	prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with				
	230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild				1
	steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at				1
	ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly				1
	reinforced but with 20mm diameter mild steel rods.				]
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for				1
	and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size				]
	108 x 75mm deep for each half brick thickness of wall.  The term "take out" includes all work taken out, taken				]
	up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off,				]
	etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				1
	The term "make good" is to include all labour and				Ī
	material required to match existing work.				]
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use				1
	and later refix window in new position", etc are to include all materials connected with such door or				]
	window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.				]
	dowers, etc.				1
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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
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Item No			Quantity	Rate	Amount
	BILL NO. 2 MASONRY AND PLASTERING				
	MASONRY				
	BRICKWORK				
	NOTE:				
	a) All cavity walls shall be tied together with 5 Butterfly type wire ties per square metre.				
	b) Bricks used in loadbearing walls shall have a minimum compression strength of 10MPa and shall comply with				
	SANS.				
	c) Mortar shall have a minimum compression strength of 10MPa.				
	Brickwork In Clay Bricks In Cement Mortar In				
1	Chimney breasts.	m3	1		
2	Chimney stacks.	m3	3		
3	Half brick wall.	m2	19		
4	One brick wall in beam filling, each brick skin built up separately with internal skin built first.	m2	7		
5	One brick wall, each brick skin built up separately with internal skin built first.	m2	85		
6	Half brick wall in shower kerb to 85mm high.	m	1		
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	SECTION NO. 2 BILL NO. 2 MASONRY AND PLASTERING				

	<u>Sundries</u>					
1	Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry.	m2	92			
	Reinforcement					
2	Brick reinforcement 80mm wide.	m	55			
3	Brick reinforcement 160mm wide.	m	271			
	Precast Prestressed Vibrated Cement Concrete (30Mpa) Lintols Including Moulds, Reinforcement, Propping, Etc.					
4	Lintol 110mm wide x 75mm deep in lengths not exceeding 3000mm.	m	18			
	DAMP PROOFING TO WALLS					
	One Layer Of 375 Micron Thick Black Embossed Polyethylene Damp Proof Course					
5	On walls.	m2	27			
	PLASTERING					
	SCREED					
	3.1 Cement Screed On Concrete					
6	25mm Thick on floors to receive porcelain or ceramic tiling.	m2	26			
7	65mm Thick (average) on shower floors graded to falls and currents.	m2	2			
	EXTERNAL PLASTER					
	Cement Plaster On Brickwork On					
8	Walls.	m2	99			
9	Narrow widths.	m2	4			
	INTERNAL PLASTER					
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	Cement Plaster On Brickwork On				
1	Walls.	m	139		
2	Narrow widths.	m:	2	1	
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	MASONRY AND PLASTERING				

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Item No		Quantity	Rate	Amount
	BILL NO. 3 ROOFS AND RAINWATER GOODS			
	ROOF CONSTRUCTION			
	PREFABRICATED TRUSSES			
	<u>Note</u>			
	Prices are to include for the design and supply of the trusses complete including bolts, connectors, connections, temporary and permanent bracing, sprockets, rafter extensions, etc. The truss manufacturer will be responsible for providing a written guarantee, to be issued by a registered Structural Engineer on completion, confirming that the design, manufacture, fixing, bracing and installation complies with the relevant National Building regulations and SANS standards.  Prices are to include for trusses to either side of fire walls.  Battens have been measured elsewhere as 38 x 38mm battens at 250mm centres. The truss design shall comply accordingly with a maximum spacing for roof slates.  Tenderers are referred to the roof plans and typical sections issued with these Bills of Quantities for pricing. The hoisting and fixing of the trusses have been measured separately.  These truss spans have generally been measured horizontally between the outer faces of the wall plates.			
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	SECTION NO. 2 BILL NO. 3 ROOFS AND RAINWATER GOODS			

1	Double Pitch Prefabricated Connector Plate Roof Trusses For Roof Slate Centres With A Pitch Of 45 Degrees And Suitable For Metal Roof Sheeting With 38 x 38mm Battens At 250mm Centres And Rhinoboard Ceilings  Roof construction to suit T-shaped free standing building size 12480mm long x 8955mm wide overall, complete with two valleys, temporary and permanent bracing.  Allow For Taking Delivery, Storing, Protecting From Damage, Hoisting, Placing, Assembling And Fixing In Position Approximately 3020mm Above Ground Level, The Following Roof Trusses, Etc, Including Supplying, Fixing And Later Removing Temporary Braces, Etc.	No	1		
2	Roof construction to suit T-shaped free standing building size 12480mm long x 8955mm wide overall, complete with two valleys, temporary and permanent bracing.	No	1		
3	Temporary and permanent bracing to suit roof truss design.		Item		
	ROOF BEAMS				
	Stocklam Laminated Timber For External Exposure				
4	75 x 300mm Beam in lengths not exceeding 2400mm.	m	1		
5	75 x 300mm Beam in lengths exceeding 2400mm and not exceeding 3900mm.	m	9		
6	75 x 300mm Beam in lengths exceeding 3900mm and not exceeding 6600mm.	m	3		
	ROOF COVERINGS				
	METAL ROOF SHEETING  Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
7	Roof covering with pitch at 45 degrees.	m2	83		
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1	Standard ridge slates.	m	10		
2	Standard chimney flashing slates.	m	3		
3	Intersection slate of ridge with two valleys.	No	1		
4	38 x 38mm Cross batten at valleys.	m	13		
5	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	13		
	FLASHING				
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
6	Bandage flashing not exceeding 300mm wide.	m	13		
	0,8mm Z450 Galvanised Sheet Iron With 75mm Wide Laps				
7	Standard headwall flashing.	m	2		
8	Standard sidewall flashing.	m	2		
9	Standard counter flashing, including cutting sawcut groove in face of wall and sealing with approved silicone sealant.	m	2		
10	Standard sidewall cover flashing, including sawcut groove in face of wall and sealing with approved silicone sealant.	m	2		
	SHEET METAL FLASHINGS, LININGS, COPINGS, ETC.				
	0,5mm Colomet Valley Lining With 75mm Wide Laps				
11	Standard valley lining with riveted and soldered joints.	m	7		
	INSULATION				
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	BILL NO. 3 ROOFS AND RAINWATER GOODS				

1	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires  Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	83		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
2	225 x 3mm Fascia.	m	13		
	Everite Nutec Pressed Fibre Reinforced Cement Bargeboards Cut To Lengths, Jointed With PVC H- Profile Joiner And Fixed With 12 x 40mm Countersunk Brass Screws				
3	10 x 225mm Bargeboard.	m	10		
	Sawn Pine				
4	38 x 114mm Wall plate.	m	13		
5	38 x 38mm Trimmer batten in short lenghts at barge board.	m	10		
	Ties, Cramps, Etc.				
6	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	16		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
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	BILL NO. 3 ROOFS AND RAINWATER GOODS				

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	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The					
	Manufacturers Instructions					
1	125 x 85mm Ogee profile eaves gutters with beaded front edge.					
		m	13			
2	Extra over 125 x 85mm Ogee or other approved eaves gutter for internal angle.	No	1			
3	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	3			
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	3			
	<u>DOWNPIPES</u>					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions					
5	100 x 75mm Rectangular downpipes fixed to brick wall.	m	4			
6	100 x 75mm Rectangular downpipes fixed to timber gumpole.	m	8			
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 1035mm projection formed of and including two bends and approximately 1035mm length of pipe.	No	2			
8	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 385mm projection formed of and including two bends and approximately 385mm length of pipe.	No	2			
9	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	4			
						+
	Carried to Collection			R		
	SECTION NO. 2 BILL NO. 3					
	ROOFS AND RAINWATER GOODS					

SECTION NO. 2				
BILL NO. 3				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	35			
	36			
	37			
	38			
	39			
Carried Forward to Summary of Section No. 2		R		
SECTION NO. 2 BILL NO. 3 ROOFS AND RAINWATER GOODS				

Item No			Quantity	Rate	Amount
	BILL NO. 4 INTERNAL FINISHES				
	FLOORS, STAIRS, BALUSTRADING AND SKIRTINGS				
	WATERPROOFING TO SHOWERS				
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc				
1	Shower floors.	m2	2		
	SUSPENDED TIMBER FLOOR				
	Reeded Balau Timber Decking				
2	22 x 102mm Timber flooring closely cramped up and secret nailed.	m2	23		
	S5 Structural H3 Treated SA Pine				
3	50 x 152mm Joist in lengths not exceeding 2400mm.	m	27		
4	76 x 228mm Bearer in lengths exceeding 3900 not exceeding 6600mm.	m	28		
	<u>Sundries</u>				
5	Teco galvanised timber shoe hanger fixed to wall with approved fasteners, shoe hanger suitable for 76mm thick timbers.				
		No	24		
6	Teco galvanised hurricane clip fixed with approved fasteners, used at junction of joists and bearers.	No	60		
	Carried to Collection			R	
	SECTION NO. 2 BILL NO. 4 INTERNAL FINISHES				

	TIMBER STAIRS				
	<u>NOTE</u>				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
1	Provide the sum of R10 000.00 (Ten Thousand Rand) for Timber Stairs supplied and fixed complete.		Item		10 000,00
2	Allow for general attendance on ditto.		Item		
3	Allow for profit if required.		Item		
	BALUSTRADING				
	<u>NOTE</u>				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
4	Provide the sum of R10 000.00 (Ten Thousand Rand) for Balustrading supplied and fixed complete.		Item		10 000,00
5	Allow for general attendance on ditto.		Item		
6	Allow for profit if required.		Item		
	FLOOR TILES				
	Supply Only Non Slip Porcelain Floor Tiles PC R200.00 (Two Hundred Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)				
7	On floors.	m2	37		
	Carried to Collection			R	
	SECTION NO. 2 BILL NO. 4 INTERNAL FINISHES				

ı		1	ı	II	ı
	Take Delivery, Store Until Required And Fix 300 x				
	300mm Porcelain Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise				
	<b>Described With Cement Based Powder Adhesive</b>				
	And Flush Point In Tinted Tile Grout				
1	On floors.	m2	37		
	Supply Only Mosaic Floor Tiles PC R300.00 (Thre Hundred Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Nett Area Of Tiling)				
2	On shower floors.	m2	2		
	Take Delivery, Store Until Required And Fix 50 x 50mm Mosaic Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout				
3	On shower floors.	m2	2		
	SKIRTINGS				
	Wrot Meranti				
4	16 x 69mm Arris rounded skirting.	m	37		
	WALL FINISHES				
	WATERPROOFING TO SHOWERS				
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc				
5	Shower walls.	m2	11		
	WALL TILING				
	Carried to Collection			R	
	SECTION NO. 2				
	BILL NO. 4 INTERNAL FINISHES				
	INTERNAL FINIOTIES				

		1	1		I	1
	Supply Only Ceramic Wall Tiles PC R250.00 (Two					
	Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For					
	Waste) (Area Measured Is Net Area Of Tiling)					
1	On walls.	m2	29			
2	On narrow widths.	m2	1			
	Take Delivery, Store Until Required And Fix 300 x 300mm Ceramic Wall Tiles (Supply Of Tiles Elsewhere Measured) To Existing Plastered Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout					
3	On walls.	m2	29			
4	On narrow widths.	m2	1			
	SUNDRIES					
	Corner Protectors, Expansion Joint Edging, Etc					
5	M-trim natural anodised aluminium straight edge trim to external corner.	m	26			
	CEILINGS AND CORNICES					
	NAILED UP CEILINGS					
	9,5mm Rhino Gypsum Plasterboard Sheets With 63mm Wide Strips Of Wire Scrim Nailed Over Joints, Surface Of Ceiling Finished With 6mm Thick Rhinolite Plaster To A Smooth Even Surface					
6	Horizontal ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	m2	23			
7	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	m2	38			
	CORNICES					
						_
	Carried to Collection			R		
	SECTION NO. 2					+
	BILL NO. 4					
	INTERNAL FINISHES					

	Polystyrene Cornice				
1	RhinoArt decor polystyrene mouldings cornice plugged to walls.	m	70		
	Carried to Collection SECTION NO. 2 BILL NO. 4 INTERNAL FINISHES			R	
					l

SECTION NO. 2				
BILL NO. 4				
INTERNAL FINISHES				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	41			
	42			
	43			
	44			
	45			
Carried Forward to Summary of Section No. 2		R		_
SECTION NO. 2 BILL NO. 4 INTERNAL FINISHES				_

Item No		Quantity	Rate	Amount
	BILL NO. 5 EXTERNAL FINISHES			
	FLOORS, STEPS AND BALUSTRADING			
	SUSPENDED TIMBER FLOOR			
	Reeded Balau Timber Decking			
1	22 x 102mm Timber flooring closely cramped up and secret nailed. m2	28		
	S5 Structural H3 Treated SA Pine			
2	50 x 152mm Joist in lengths not exceeding 2400mm.	34		
3	76 x 228mm Bearer in lengths exceeding 3900 not exceeding 6600mm.	47		
	<u>Sundries</u>			
4	Teco galvanised timber shoe hanger fixed to wall with approved fasteners, shoe hanger suitable for 76mm thick timbers.			
	No	81		
5	Teco galvanised hurricane clip fixed with approved fasteners, used at junction of joists and bearers.	32		
	TIMBER STEPS			
	<u>NOTE</u>			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	The following Provisional Sums are net and do not include any discount for the Main Contractor			
	Carried to Collection		R	
	SECTION NO. 2 BILL NO. 5 EXTERNAL FINISHES			

1	Provide the sum of R10 000.00 (Ten Thousand Rand) for Timber Steps supplied and fixed complete.		Item		10 000,0	0
2	Allow for general attendance on ditto.		Item			
3	Allow for profit if required.		Item			
	BALUSTRADING					
	<u>NOTE</u>					
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.					
	The following Provisional Sums are net and do not include any discount for the Main Contractor					
4	Provide the sum of R10 000.00 (Ten Thousand Rand) for Balustrading supplied and fixed complete.		Item		10 000,0	0
5	Allow for general attendance on ditto.		Item			
6	Allow for profit if required.		Item			
	WALL FINISHES					
	CILLS					
	Fibre Reinforced Cement Cill					
7	15mm Thick x 150mm wide cill set flat and slightly projecting.	m	10			
	GUMPOLES					
	Treated Timber Gumpoles For External Exposure					
8	200mm Diameter gumpoles in lengths exceeding 3900mm and not exceeding 6600mm with portion cast in concrete.	m	17			
	TIMBER PATIO SCREEN					
	Corried to Collection			D		_
	Carried to Collection SECTION NO. 2			R		_
	BILL NO. 5 EXTERNAL FINISHES					

	Sawn Pine					
1	38 x 38mm Batten frame in short lenghts to form 450 x 450mm grid.	m	26			
	Wrot Meranti Boarding Screen					
2	22 x 102mm Toughed and grooved screen boarding, secret nailed.					
		m2	5			
	CEILINGS AND CORNICES					
	NAILED UP CEILINGS					
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails					
3	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.	m2	18			
	CORNICES					
	Wrot Meranti					
4	22 x 44mm Twice rebated cornice, plugged on.	m	22			
	Carried to Collection			R		
	SECTION NO. 2 BILL NO. 5					$\vdash$
	EXTERNAL FINISHES					

SECTION NO. 2			
BILL NO. 5			
EXTERNAL FINISHES			
COLLECTION			
	Page No		Amount
Total Brought Forward from Page No.	47		
	48		
	49		
Carried Forward to Summary of Section No. 2		R	
SECTION NO. 2 BILL NO. 5 EXTERNAL FINISHES			
			II I

Item No		Quantity	Rate	Amount
	BILL NO. 6 DOORS AND WINDOWS			
	DOORS, FRAMES AND IRONMONGERY			
	BRICKWORK			
	Ties, Cramps, Etc.			
1	2 x 30mm Galvanised hoop iron cramp 450mm long with one end twice screwed to timber frame and other end built into brickwork and turned up into joint.	24		
	DOORS, ETC.			
	Framed And Ledged Braced Battened Selected Wrot Meranti Exterior Doors			
2	44mm Framed, ledged and braced vertical battened infill door, (Hung) size 813 x 2032mm.	2		
	FLUSH DOORS			
	Semi-Solid Core Flush Doors Finished On Both Faces With Commercial Veneer			
3	40mm Door, (Hung) size 813 x 2032mm. No	2		
	DOOR FRAMES			
	Wrot Meranti			
4	44 x 69mm Door frame with cill for door size 813 x 2032mm. No	2		
	MOULDINGS AND SUNDRIES			
	Wrot Meranti			
5	16 x 69mm Arris rounded architrave.	10		
	Carried to Collection		R	
	SECTION NO. 2 BILL NO. 6 DOORS AND WINDOWS			

1	32 x 110mm Rebated jamb lining.	m	19			
	IRONMONGERY					
2	Budgetary allowance of R6 000.00 (Six Thousand Rand) net for the supply and delivery to site of Ironmongery by a Selected Supplier		Item			
	Take Delivery, Sore Until Required And Fix The Following Ironmongery To Doors					
3	Hinges.	No	12			
4	Locks.	No	4			
5	Handle set.	No	4			
6	Door stops.	No	4			
	ALUMINIUM SLIDING DOORS					
	<u>NOTE</u>					
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.					
	The following Provisional Sums are net and do not include any discount for the Main Contractor					
7	Provide the sum of R10 000.00 (TenThousand Rand) for Aluminium Sliding Doors supplied and fixed complete.		Item		10 000,	00
8	Allow for general attendance on ditto.		Item			
9	Allow for profit if required.		Item			
	SHOWER DOORS					
	<u>NOTE</u>					
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.					
	Carried to Collection			R		
	SECTION NO. 2 BILL NO. 6 DOORS AND WINDOWS					

	The following Provisional Sums are net and do not include any discount for the Main Contractor			
1	Provide the sum of R6 000.00 (Six Thousand Rand) for Shower Doors supplied and fixed complete.	Item		6 000,00
2	Allow for general attendance on ditto.	Item		
3	Allow for profit if required.	Item		
	<u>WINDOWS</u>			
	ALUMINIUM WINDOWS			
	<u>NOTE</u>			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	The following Provisional Sums are net and do not include any discount for the Main Contractor			
4	Provide the sum of R10 000.00 (Ten Thousand Rand) for Aluminium Windows supplied and fixed complete.	Item		10 000,00
5	Allow for general attendance on ditto.	Item		
6	Allow for profit if required.	Item		
	Carried to Collection		R	
	SECTION NO. 2			
	BILL NO. 6 DOORS AND WINDOWS			
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SECTION NO. 2				
BILL NO. 6				
DOORS AND WINDOWS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	51			
	52			· <b></b>
	53			
Counted Formwood to Commonwork Continue No. Co.				
Carried Forward to Summary of Section No. 2 SECTION NO. 2		R		
BILL NO. 6 DOORS AND WINDOWS				

tem No		Quantity	Rate	Amount
	BILL NO. 7 PLUMBING AND DRAINAGE			
	SUPPLEMENTARY PREAMBLES			
	'Polycop' polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.			
	Pipes shall be firmly fixed to walls etc with coloured nylon			
	snap-in pipe clips with provision for accommodating thermal			
	movement and jointed and fixed strictly in accordance with the manufacturer's instructions.			
	All pipe diameters are nominal external.			
	'Polylink' polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.			
	Fusion welded bends and tees shall include jointing to pipes			
	with PVC rubber ring double X joint couplers.			
	Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.			
	Reducers shall include jointing to pipes with PVC rubber ring			
	double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.			
	All pipes shall be jointed and fixed strictly in accordance			
	Carried to Collection		R	
	SECTION NO. 2			
	BILL NO. 7			
	PLUMBING & DRAINAGE			

with the manufacturer's instructions.		
All pipe diameters are nominal external.		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.		
Vitrified clay pipes etc:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.		
uPVC pipes and fittings:		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.		
Soil, waste and vent pipes and fittings shall be solvent weld jointed.		
	1	
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-	R	
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall	R	

only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.		
Fixing of pipes:		
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.		
Lead pipes and traps:		
All soldered joints shall be wiped and brass unions shall		
be used for jointing lead to steel.		
Reducing fittings:		
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.		
Wire gratings:		
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.		
Septic tanks:		
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.		
Exposed concrete surfaces:		
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye		
Carried to Collection SECTION NO. 2	R	
BILL NO. 7 PLUMBING & DRAINAGE		

tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.		
Excavations:		
No claim for rock excavation will be entertained unless		
the Contractor has timeously notified the quantity surveyor		
thereof prior to backfilling.  'Soft rock' and 'hard rock' shall be as defined in		
'Earthworks'.		
Laying, backfilling, bedding, etc of pipes:		
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.		
Where no manufacturers' instructions exist pipes shall		
be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe		
trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS.		
Flush pans:		
Flush pans shall have straight or side outlets and 'P' or		
'S' traps as necessary.		
Stainless steel basins, sinks, wash troughs, urinals, etc:		
Units shall have standard aprons on all exposed edges and		
tiling keys against walls where applicable.		
Waste unions:		
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.		
Steel sectional water tanks:		
Tanks shall comply with SANS CKS 114.		
<u>'Densyl' petrolatum anti-corrosion tape as</u> manufactured		
by Denso SA (Pty) Ltd:		
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Carried to Collection SECTION NO. 2	R	_
BILL NO. 7 PLUMBING & DRAINAGE		

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ı	Pipes to be taped shall be coated with the appropriate	I	1		1
	primer and the tape shall be applied with minimum 15mm lap				
	per spiral unless otherwise described.				]
	Couplings and fittings to pipes shall be taped in strict				]
	accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of same, etc.				]
	Prices for wrapping of pipes shall include for all work as				]
	described to couplings in the length.				
	User note: Dependent on soil or environmental conditions laps may require to be increased to a maximum of 55% (which results in a double layer).				
	SANITARY FITTINGS				
	Note:				
	All fittings butting up against wall, floor, cupboard finishes are to be sealed with an approved silicone sealer to the Representative/ Agent's satisfaction.				
					]
	Vitreous China Wash Hand Basins With Accessories				1
	Lecico Sanaa wall-hung cloakroom basin size 458 x 302 x 207mm deep with two tap-hole for and including two Ghohe Eurosmart basin taps with popout waste (code: 831880110), Ghohe plug and chain (code: 2894000) and 32mm bottle trap (code: 28920000).				
	No	2			]
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	Carried to Collection SECTION NO. 2		R		
	BILL NO. 7 PLUMBING & DRAINAGE				1
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	Vitreous China WC Suites With Accessories				
1	Vaal Hibiscus Elite vitreous china suite, pan and front flush cistern close coupled 90° outlet open rim front single flush suite complete with top dual flush suite (code: 032057) with and including Wirquin SSO15WH Sonata Thermodur toilet seat with stainless steel hinge (code: 028920).				
		No	2		
	Shower With Accessories				
2	Single-function wall mounted standard fixed showerhead with Katalyst spray polished crome and standard crome shower trap cover, complete.	No	2		
	Prep Bowl With Accessories				
3	Budgetary allowance of R5 000.00 (Five Thousand Rand) net for the supply and delivery to site of Prep Bowl With Tap by a Selected Supplier		ltem		
	Take Delivery, Store Until Required And Fix The Following Sanitary Fittings				
4	Prep bowl, including taps, etc.	No	2		
	TAPS, VALVES, ETC.				
	<u>Brass</u>				
5	15mm Brass stop valve.	No	10		
6	22mm Ditto.	No	2		
	SANITARY PLUMBING				
	Rigid PVC Soil And Waste Pipes Complying With SABS 967				
7	110mm Pipe fixed to walls.	m	2		
	Carried to Collection			R	
	SECTION NO. 2 BILL NO. 7				
	PLUMBING & DRAINAGE				

		ı			II	1
1	32mm Pipe chased in walls.	m	6			
2	40mm Ditto.	m	4			
	Extra Over PVC Pipes For					
3	32mm Bend.	No	12			
4	40mm Ditto.	No	4			
5	110mm Ditto.	No	2			
6	40mm Junction.	No	2			
7	110mm End cap.	No	2			
8	110mm Ditto.	No	2			
9	40mm Access Bend.	No	4			
10	40mm Access junction.	No	3			
11	110mm Ditto.	No	2			
12	110 x 50mm Double inspection eye reducing junction.	No	2			
13	110mm Pan connector and neoprene joint to outlet of pan.	No	2			
	WATER SUPPLIES					
	Class 2 Copper Pipes					
14	15mm Pipe fixed to walls.	m	20			
15	22mm Ditto.	m	8			
16	15mm Pipe chased into walls.	m	28			
17	22mm Ditto.	m	6			
18	15mm Pipe chased into concrete.	m	6			
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	Carried to Collection	1		R		
	SECTION NO. 2 BILL NO. 7					
	PLUMBING & DRAINAGE					

	Extra Over Class 2 Copper Pipes For Capillary Fittings				
1	15mm Fittings.	No	34		
2	22mm Fittings.	No	16		
	Flexible Hose Fittings				
3	15mm Reinforced flexible hose pipe 300mm girth.	No	10		
	TESTING				
	Testing Of Plumbing And Drainage				
4	Allow for testing water supplies, sanitary plumbing and fittings.		Item		
	HOT WATER CYLINDER				
	<u>Geysers</u>				
5	150 Litre Kwikot or other approved horizontal type ceiling mounted water heater with 22mm connections and fitted with 2KW nickel plated copper electric element, pressure gauge, 400 kpa safety valve, 400 kpa pressure relief valve, 20mm air relief valve/vacuum breaker, including all joints to copper pipes and hoisting into position in roof space and placing on platform (elsewhere measured) and connect up.	No	2		
	<u>Sundries</u>				
6	Plastic driptray with 100mm high upstand all round to suit 150 litre horizontal geyser including connecting to 50mm diameter overflow pipe, (overflow pipe elsewhere measured) in roof space.	No	2		
7	50mm PVC overflow and fixing to falls.	m	4		
8	Extra for 50mm bend.	No	4		
9	38mm Sawn Pine boarding for geyser platform formed of 38 x 228mm boards butt-jointed and nailed to bearers.	m2	4		
10	38 x 114mm Sawn Pine bearers.	m	6		
	Carried to Collection SECTION NO. 2 BILL NO. 7 PLUMBING & DRAINAGE			R	

SECTION NO. 2				Į Į
BILL NO. 7				
PLUMBING & DRAINAGE				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	55			ļ
	56			ļ
	57			ļ 
	58			ļ
	59			ļ 
	60			ļ
	61			ļ
	62			L
Carried Forward to Summary of Section No. 2 SECTION NO. 2		R		
BILL NO. 7 PLUMBING & DRAINAGE				
FLUIVIDIING & DRAINAGE				

Item No			Quantity	Rate	Amount
	BILL NO. 8 PAINTWORK				
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.				
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint				
1	On internal gypsum plaster board ceilings and cornices (White colour group).	m2	61		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
2	On external plastered walls (White colour group).	m2	105		
3	On internal plastered walls (White colour group).	m2	109		
4	On fascias and barge boards (White colour group).	m2	9		
5	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	m2	28		
6	On cills not exceeding 300mm girth (White colour group).	m	10		
	PAINT ON WOOD				
	Prime Or Oil				
7	Backs of frames not exceeding 300mm girth.	m	94		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Velvaglo Matt Enamel Paint				
8	On doors (White colour group).	m2	7		
9	On frames and linings (White colour group).	m2	2		
	Carried to Collection			R	
	SECTION NO. 2 BILL NO. 8 PAINTWORK				

	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On battened doors (White colour group).	m2	7		
2	On frames and linings (White colour group).	m2	2		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
3	On exposed timbers at eaves and verges (White colour group).	m2	50		
	Prepare, Three Coats Plascon Sealer Paint				
4	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	40		
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Wood Preservative Paint				
5	On timber decking (Deep colour group).	m2	61		
6	On timber screen (Deep colour group).	m2	11		
7	On balustrading (measured on flat over both sides) (Deep colour group).	m2	80		
	Carried to Collection SECTION NO. 2 BILL NO. 8 PAINTWORK			R	

SECTION NO. 2				
BILL NO. 8				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	64			
	65			
Carried Forward to Summary of Section No. 2		R		_
SECTION NO. 2 BILL NO. 8				_
PAINTWORK				
	1	1		

Item No			Quantity	Rate	Amount
	BILL NO. 9 SUNDRIES				
	JOINERY FITTINGS				
	<u>NOTE</u>				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
1	Provide the sum of R20 000.00 (Twenty Thousand Rand) for Joinery Fittings supplied and fixed complete.		Item		20 000,00
2	Allow for general attendance on ditto.		Item		
3	Allow for profit if required.		Item		
	SANITARY IRONMONGERY				
4	Budgetary allowance of R5 000.00 (Five Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier		Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls				
5	Toilet roll holder.	No	2		
6	Shower caddy.	No	2		
7	Soap dish holder.	No	4		
8	Towel rail.	No	4		
	MIRRORS				
	SECTION NO. 2 BILL NO. 9 SUNDRIES			R	

	6mm SmartGlass Images Silver Backed Mirror With Palladium Backing And Sloped And Polished Edges All Around			
1	Mirror size 450 x 600mm four times holed for and screwed with chromium plated brass two piece cover headed screws fitted with 8mm thick neoprene gaskets	No 2		
	Carried to Collection SECTION NO. 2 BILL NO. 9 SUNDRIES		R	

SECTION NO. 2				
BILL NO. 9				
SUNDRIES				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	67			
	68			 
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Carried Forward to Summary of Section No. 2		R		L
SECTION NO. 2 BILL NO. 9				_ <b>_</b>
SUNDRIES				

Bill No	SECTION SUMMARY - SECTION 2 : MVUBU CHALETS : UNIT 01	Page No		Amount	
1	ALTERATIONS	30			
2	MASONRY AND PLASTERING	34			
3	ROOFS AND RAINWATER GOODS	40			
4	INTERNAL FINISHES	46			
5	EXTERNAL FINISHES	50			
6	DOORS AND WINDOWS	54			   
7	PLUMBING & DRAINAGE	63			
8	PAINTWORK	66			
9	SUNDRIES	69			
	Carried to Final Summary		R		
	SECTION NO. 2				

Item No		Quantity	Rate	Amount
	SECTION NO. 3 MVUBU CHALET : UNIT 02 & 03			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG200/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection  SECTION NO. 3  BILL NO. 1  ALTERATIONS		R	

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
SECTION NO. 3 BILL NO. 1	R		
ALTERATIONS			
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock			
	built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and			
	pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to			
	be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.			
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for			
	and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and			
	reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and			
	including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols.  Lintols exceeding 1370mm span to be similarly			
	reinforced but with 20mm diameter mild steel rods.			
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for			
	and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.			
	The term "take out" includes all work taken out, taken			
	up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off,			
	hacked up, hacked down, etc.			
	The term "make good" is to include all labour and material required to match existing work.			
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use			
	and later refix window in new position", etc are to include all materials connected with such door or			
	window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.			
	Carried to Collection		R	
	SECTION NO. 3 BILL NO. 1			
	ALTERATIONS			

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection  SECTION NO. 3  BILL NO. 1  ALTERATIONS	R	
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SECTION NO. 3				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	71			
	72			· <b></b>
	73			
	74			
Carried Forward to Summary of Section No. 3		R		
SECTION NO. 3				_
BILL NO. 1 ALTERATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	METAL ROOF SHEETING				
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
1	Roof covering with pitch at 45 degrees.	m2	83		
2	Standard ridge slates.	m	10		
3	Standard chimney flashing slates.	m	3		
4	Intersection slate of ridge with two valleys.	No	1		
5	38 x 38mm Cross batten at valleys.	m	13		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	13		
	FLASHING				
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
7	Bandage flashing not exceeding 300mm wide.	m	13		
	0,8mm Z450 Galvanised Sheet Iron With 75mm Wide Laps				
8	Standard headwall flashing.	m	2		
9	Standard sidewall flashing.	m	2		
	SECTION NO. 3 BILL NO. 2 ROOFS AND RAINWATER GOODS			R	

1	Standard counter flashing, including cutting sawcut groove in face of wall and sealing with approved silicone sealant.	m	2		
2	Standard sidewall cover flashing, including sawcut groove in face of wall and sealing with approved silicone sealant.	m	2		
	SHEET METAL FLASHINGS, LININGS, COPINGS, ETC.				
	0,5mm Colomet Valley Lining With 75mm Wide Laps				
3	Standard valley lining with riveted and soldered joints.	m	7		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
4	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	83		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
5	225 x 3mm Fascia.	m	13		
	Everite Nutec Pressed Fibre Reinforced Cement Bargeboards Cut To Lengths, Jointed With PVC H- Profile Joiner And Fixed With 12 x 40mm Countersunk Brass Screws				
6	10 x 225mm Bargeboard.	m	10		
	Sawn Pine				
7	38 x 114mm Wall plate.	m	13		
8	38 x 38mm Trimmer batten in short lenghts at barge board.	m	10		
	Carried to Collection			R	
	SECTION NO. 3 BILL NO. 2				
	ROOFS AND RAINWATER GOODS				

	<u>Ties, Cramps, Etc.</u>				
1	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	16		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
2	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	13		
3	Extra over 125 x 85mm Ogee or other approved eaves gutter for internal angle.	No	1		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	3		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	3		
	<u>DOWNPIPES</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	4		
7	100 x 75mm Rectangular downpipes fixed to timber gumpole.	m	8		
8	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 1035mm projection formed of and including two bends and approximately 1035mm length of pipe.	No	2		
	Carried to Collection			R	
	SECTION NO. 3 BILL NO. 2 BOOKS AND DANNINATED COORS				
	ROOFS AND RAINWATER GOODS				

1	Extra over 100 x 75mm rainwater polinth offset 385mm projection form two bends and approximately 385r	oipe for eaves or ned of and including nm length of pipe.	No	2		
2	Extra over 100 x 75mm rainwater pand including bend.	pipe for shoe, with	No	4		
		Carried to Collection	ı		R	
	SECTION NO. 3 BILL NO. 2 ROOFS AND RAINWATER GOODS					

SECTION NO. 3				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page		Amount	
Total Brought Forward from Page No.	<b>No</b> 76			
	77			
	78			
	79			
Carried Forward to Summary of Section No. 3 SECTION NO. 3		R		_
BILL NO. 2 ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 3 DOORS AND WINDOWS			
	DOORS, FRAMES AND IRONMONGERY			
	BRICKWORK			
	Ties, Cramps, Etc.			
1	2 x 30mm Galvanised hoop iron cramp 450mm long with one end twice screwed to timber frame and other end built into brickwork and turned up into joint.	48		
	DOORS, ETC.			
	Framed And Ledged Braced Battened Selected Wrot Meranti Exterior Doors			
2	44mm Framed, ledged and braced vertical battened infill door, (Hung) size 813 x 2032mm.	4		
	FLUSH DOORS			
	Semi-Solid Core Flush Doors Finished On Both Faces With Commercial Veneer			
3	40mm Door, (Hung) size 813 x 2032mm. No	4		
	DOOR FRAMES			
	Wrot Meranti			
4	44 x 69mm Door frame with cill for door size 813 x 2032mm. No	4		
	MOULDINGS AND SUNDRIES			
	Wrot Meranti			
5	16 x 69mm Arris rounded architrave.	20		
	Carried to Collection		R	
	SECTION NO. 3 BILL NO. 3			
	DOORS AND WINDOWS			

1	32 x 110mm Rebated jamb lining.	m	38			
	IRONMONGERY					
2	Budgetary allowance of R12 000.00 (Twelve Thousand Rand) net for the supply and delivery to site of Ironmongery by a Selected Supplier		Ha na			
			Item			
	Take Delivery, Sore Until Required And Fix The Following Ironmongery To Doors					
3	Hinges.	No	24			
4	Locks.	No	8			
5	Handle set.	No	8			
6	Door stops.	No	8			
	SHOWER DOORS					
	<u>NOTE</u>					
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.					
	The following Provisional Sums are net and do not include any discount for the Main Contractor					
7	Provide the sum of R12 000.00 (Twelve Thousand Rand) for Shower Doors supplied and fixed complete.		Item		12 000,	00
8	Allow for general attendance on ditto.		Item			
9	Allow for profit if required.		Item			
	Carried to Collection	n		R		
	SECTION NO. 3 BILL NO. 3 DOORS AND WINDOWS					
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SECTION NO. 3				
BILL NO. 3				
DOORS AND WINDOWS				
COLLECTION				
	Page		Amount	
Total Brought Forward from Page No.	<b>No</b> 81			
	82			
Carried Forward to Summary of Section No. 3 SECTION NO. 3		R		
BILL NO. 3 DOORS AND WINDOWS				

Item No		Quantity	Rate	Amount
	BILL NO. 4 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
1	On fascias and barge boards (White colour group).	18		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	155		
3	On internal plastered walls (White colour group).	203		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint			
4	On internal gypsum plaster board ceilings and cornices (White colour group).	91		
	PAINT ON WOOD			
	Prime Or Oil			
5	Backs of frames not exceeding 300mm girth.	94		
	Carried to Collection		R	
	SECTION NO. 3 BILL NO. 4 PAINTWORK			
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	<u>Prepare, One Coat Universal Undercoat Or Primer</u> <u>And Two Coats Plascon Velvaglo Matt Enamel Paint</u>					
1	On doors (White colour group).	m2	14			
2	On frames and linings (White colour group).	m2	4			
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint					
3	On battened doors (White colour group).	m2	14			
4	On frames and linings (White colour group).	m2	4			
	REDECORATION OF PREVIOUSLY PAINTED WOOD					
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint					
5	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	93			
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Wood Preservative Paint					
6	On timber decking (Deep colour group).	m2	122			
7	On timber screen (Deep colour group).	m2	22			
8	On balustrading (measured on flat over both sides) (Deep colour group).	m2	160			
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	Carried to Collection SECTION NO. 3			R		+
	BILL NO. 4 PAINTWORK					

SECTION NO. 3				
BILL NO. 4				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	84			
	85			
Carried Forward to Summary of Section No. 3		R		
SECTION NO. 3 BILL NO. 4				_
PAINTWORK				

Item No			Quantity	Rate	Amount
	BILL NO. 5 SUNDRIES				
	SANITARY IRONMONGERY				
1	Budgetary allowance of R10 000.00 (Ten Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier		Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls				
2	Toilet roll holder.	No	4		
3	Shower caddy.	No	4		
4	Soap dish holder.	No	8		
5	Towel rail.	No	8		
6	Carried Forward to Summary of Section No. 3 SECTION NO. 3	No	4	R	
	SECTION NO. 3 BILL NO. 5 SUNDRIES				

	SECTION SUMMARY - SECTION 3 : MVUBU CHALETS : UNITS 3			
Bill No		Page No		Amount
1	ALTERATIONS	75		
2	ROOFS AND RAINWATER GOODS	80		
3	DOORS AND WINDOWS	83		
4	PAINTWORK	86		
5	SUNDRIES	87		
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	Carried to Final Summary SECTION NO. 3		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 4 MVUBU LODGE : DINING AREA			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be			
	done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection		R	
	SECTION NO. 4 BILL NO. 1 ALTERATIONS			

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	Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.				
	Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.				
	Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.				
	All materials in this section are measured as new except where old material is specifically mentioned as being reused.				
	Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.				
	Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.				
	When pricing, Tenderers are to allow as follows:				
	Carried to Collection		ь		
	SECTION NO. 4		R		
	BILL NO. 1 ALTERATIONS				
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified,				
	cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to				
	be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild				
	steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly				
	reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken				
	up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to				
	include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps,				
	dowels, etc.				
	Carried to Collection		R		
	SECTION NO. 4				_
	BILL NO. 1 ALTERATIONS				
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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting		
back and stopping off of supply and waste pipes.		
Carried to Collection SECTION NO. 4	R	
BILL NO. 1 ALTERATIONS		

SECTION NO. 4				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	89			
	90			
	91			
	92			
Carried Forward to Summary of Section No. 4		R		
SECTION NO. 4 BILL NO. 1 ALTERATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	METAL ROOF SHEETING				
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
1	Roof covering with pitch at 45 degrees.	m2	64		
2	Standard ridge slates.	m	5		
3	Standard hip slates.	m	17		
4	Intersection slate of ridge with four hips.	No	1		
5	38 x 38mm Cross batten at hips.	m	17		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	20		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
7	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	64		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
8	225 x 3mm Fascia.	m	20		
	Carried to Collection			R	
	SECTION NO. 4 BILL NO. 2 ROOFS AND RAINWATER GOODS				
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	Sawn Pine				
1	38 x 114mm Wall plate.	m	20		
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2	<u>Ties, Cramps, Etc.</u> 2 x 30mm Galvanised hoop iron tie 750mm long with				
_	one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	40		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	20		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6		
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 600mm projection formed of and including two bends and approximately 600mm length of pipe.	No	2		
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2		
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	Carried to Collection			R	_
	SECTION NO. 4 BILL NO. 2				
	ROOFS AND RAINWATER GOODS				

SECTION NO. 4				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	94			
	95			
Carried Forward to Summary of Section No. 4		R		
SECTION NO. 4 BILL NO. 2				
ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 3 EXTERNAL FINISHES			
	FLOORS, STEPS AND BALUSTRADING			
	SUSPENDED TIMBER FLOOR			
	Reeded Balau Timber Decking			
1	22 x 102mm Timber flooring closely cramped up and secret nailed.	29		
	S5 Structural H3 Treated SA Pine			
2	50 x 152mm Joist in lengths not exceeding 2400mm.	50		
3	76 x 228mm Bearer in lengths exceeding 6600mm.	44		
	<u>Sundries</u>			
4	Teco galvanised timber shoe hanger fixed to wall with approved fasteners, shoe hanger suitable for 76mm thick timbers.			
	No	10		
5	Teco galvanised hurricane clip fixed with approved fasteners, used at junction of joists and bearers.	90		
	BALUSTRADING			
	<u>NOTE</u>			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	The following Provisional Sums are net and do not include any discount for the Main Contractor			
	Carried to Collection SECTION NO. 4		R	
	BILL NO. 3 EXTERNAL FINISHES			

1	Provide the sum of R10 000.00 (Ten Thousand Rand) for Balustrading supplied and fixed complete.		Item		10 000,0	0
2	Allow for general attendance on ditto.		Item			
3	Allow for profit if required.		Item			
	WALL FINISHES					
	CILLS					
	Fibre Reinforced Cement Cill					
4	15mm Thick x 150mm wide cill set flat and slightly projecting.	m	23			
	CEILINGS AND CORNICES					
	NAILED UP CEILINGS					
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails					
5	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.	m2	18			
	CORNICES					
	Wrot Meranti					
6	22 x 44mm Twice rebated cornice, plugged on.	m	40			
						_
	Carried to Collection	ı		R		_
	SECTION NO. 4 BILL NO. 3 EXTERNAL FINISHES					_

SECTION NO. 4				
BILL NO. 3				
EXTERNAL FINISHES				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	97			
	98			
Carried Forward to Summary of Section No. 4		R		
SECTION NO. 4 BILL NO. 3				
EXTERNAL FINISHES				

Item No			Quantity	Rate	Amount
	BILL NO. 4 PAINTWORK				
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.				
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
1	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	n2	18		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC				
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint				
2	On external plastered walls (White colour group).	n2	69		
3	On internal plastered walls (White colour group).	n2	69		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint				
4	On internal gypsum plaster board ceilings and cornices (White colour group).	n2	46		
	PAINT ON WOOD				
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Wood Preservative Paint				
5	On timber decking (Deep colour group).	n2	29		
6	On balustrading (measured on flat over both sides) (Deep colour group).	n2	34		
	Carried to Collection			R	
	SECTION NO. 4 BILL NO. 4 PAINTWORK				

	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On battened doors (White colour group).	m2	7		
2	On frames and linings (White colour group).	m2	2		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint				
3	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	34		
	Comical to Callantia			5	$\vdash$
	SECTION NO. 4	n		R	$\vdash$
	BILL NO. 4 PAINTWORK				

SECTION NO. 4				1
BILL NO. 4				Ì
PAINTWORK				Ì
COLLECTION				Ì
	Page No		Amount	Ì
Total Brought Forward from Page No.	100			
	101			·
Carried Forward to Summary of Section No. 4		R		
SECTION NO. 4 BILL NO. 4				
PAINTWORK				

Bill No	SECTION SUMMARY - SECTION 4 : MVUBU LODGE : DINING AR	<u>EA</u> Page No		Amount	
1	ALTERATIONS	93			
2	ROOFS AND RAINWATER GOODS	96			-
3	EXTERNAL FINISHES	99			-
4	PAINTWORK	102			_
					-
					_
	Carried to Final Summary		R		_
	SECTION NO. 4				
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Item No		Quantity	Rate	Amount
	SECTION NO. 5 MVUBU LODGE : UNIT 01			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tanderers are advised to visit the site and to inspect the			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be			
	done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection		R	
	SECTION NO. 5 BILL NO. 1 ALTERATIONS			
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	Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury,				
	made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense.				
	Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.				
	Old materials, which are to become the property of the				
	Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.				
	Allow for giving notice to local or other authorities for				
	disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.				
	All materials in this section are measured as new except where old material is specifically mentioned as being reused.				
	Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and				
	hardcore.				
	Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.				
	When pricing, Tenderers are to allow as follows:				
	Carried to Collection		R		
	SECTION NO. 5				_
	BILL NO. 1				
	ALTERATIONS				
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and				
	pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and				
	including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironnongery, glass, architraves, beads, fillets, cramps,				
	dowels, etc.				
	Carried to Collection		R		
	SECTION NO. 5				_
	BILL NO. 1 ALTERATIONS				
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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 5 BILL NO. 1 ALTERATIONS		

SECTION NO. 5				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	104			
	105			L
	106			ļ
	107			ļ
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Carried Forward to Summary of Section No. 5		R		
SECTION NO. 5 BILL NO. 1 ALTERATIONS				
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Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	METAL ROOF SHEETING				
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
1	Roof covering with pitch at 45 degrees.	n2	42		
2	Standard ridge slates.	m	1		
3	Standard hip slates.	m	20		
4	Intersection slate of ridge with two hips.	No	2		
5	38 x 38mm Cross batten at hips.	m	40		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	22		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
7	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	n2	42		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
8	225 x 3mm Fascia.	m	22		
	Carried to Collection			R	
	SECTION NO. 5 BILL NO. 2 ROOFS AND RAINWATER GOODS				

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	Sawn Pine				
1	38 x 114mm Wall plate.	m	22		
	Ties, Cramps, Etc.				
2	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	44		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
	none sage.	m	22		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6		
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 100mm projection formed of and including two bends and approximately 100mm length of pipe.	No	2		
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2		
	Carried to Collection			R	
	SECTION NO. 5				
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	NOOFS AND MAINWATER GOODS				
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SECTION NO. 5				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
Total Brought Forward from Page No.	<b>Page No</b> 109 110		Amount	
Carried Forward to Summary of Section No. 5		R		
SECTION NO. 5 BILL NO. 2 ROOFS AND RAINWATER GOODS				

	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
1	On exposed timbers at eaves and verges (White colour group).	m2	5		
	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint				
2	On battened doors (White colour group).	m2	4		
3	On frames and linings (White colour group).	m2	2		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint				
4	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	29		
	Carried to Collection			R	
	SECTION NO. 5 BILL NO. 3				
	PAINTWORK				

SECTION NO. 5				
BILL NO. 3				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	112			
	113			
Carried Forward to Summary of Section No. 5		R		
SECTION NO. 5 BILL NO. 3				
PAINTWORK				

Item No			Quantity	Rate	Amount
	BILL NO. 4 SUNDRIES				
	SANITARY IRONMONGERY				
1	Budgetary allowance of R2 000.00 (Two Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier		Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls				
2	Toilet roll holder.	lo	1		
3	Shower caddy. N	lo	1		
4	Soap dish holder. N	lo	1		
5	Towel rail.	lo	2		
6	6mm SmartGlass Images Silver Backed Mirror With Palladium Backing And Sloped And Polished Edges All Around  Mirror size 450 x 600mm four times holed for and screwed with chromium plated brass two piece cover headed screws fitted with 8mm thick neoprene gaskets to and including wall plugs.  No. 1	ło	1	R	
	SECTION NO. 5 BILL NO. 4 SUNDRIES			ĸ	

Bill No	SECTION SUMMARY - SECTION 5 : MVUBU LODGE : UNIT 01	Page No		Amount
1	ALTERATIONS	108		
2	ROOFS AND RAINWATER GOODS	111		
3	PAINTWORK	114		
4	SUNDRIES	115		
	Carried to Final Summary SECTION NO. 5		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 6 MVUBU LODGE : UNIT 02			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection		R	
	SECTION NO. 6 BILL NO. 1 ALTERATIONS			

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
Carried to Collection	R		
SECTION NO. 6 BILL NO. 1 ALTERATIONS			
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be				
	built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified,				
	cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard				
	materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to				
	be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for				
	and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and				
	reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and				
	including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols.				
	Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the				
	prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete				
	(30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up"				
	includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off,				
	hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and				
	remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to				
	include all materials connected with such door or window such as doors, windows, fanlights, frames,				
	ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.				
	Carried to Collection		R		
	SECTION NO. 6				_
	BILL NO. 1 ALTERATIONS				

The terms "lake out and remove sink unit", "lake out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. sulte in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, trushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.  Carried to Collection R  Exertion No. 6	
Carried to Collection R	
SECTION NO. 6	
BILL NO. 1 ALTERATIONS	

SECTION NO. 6				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	117			
	118			
	119			[
	120			
Carried Forward to Summary of Section No. 6 SECTION NO. 6		R		
BILL NO. 1 ALTERATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	METAL ROOF SHEETING				
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
1	Roof covering with pitch at 45 degrees.	n2	42		
2	Standard ridge slates.	m	1		
3	Standard hip slates.	m	20		
4	Intersection slate of ridge with two hips.	No	2		
5	38 x 38mm Cross batten at hips.	m	40		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	22		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
7	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	n2	42		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
8	225 x 3mm Fascia.	m	22		
	Carried to Collection			R	
	SECTION NO. 6 BILL NO. 2 ROOFS AND RAINWATER GOODS			· · ·	

			1		1
	Sawn Pine				
1	38 x 114mm Wall plate.	m	22		
	Ties, Cramps, Etc.				
2	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	44		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	22		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	<u>DOWNPIPES</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6		
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 100mm projection formed of and including two bends and approximately 100mm length of pipe.	No	2		
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2		
	Carried to Collection			R	
	SECTION NO. 6				
	BILL NO. 2				
	ROOFS AND RAINWATER GOODS				

SECTION NO. 6				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	122			
	123			
				<u> </u>
Carried Forward to Summary of Section No. 6		R		<u>_</u>
SECTION NO. 6 BILL NO. 2 BOOKS AND BAINWATER COORS				
ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 3 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
1	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	6		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	40		
3	On internal plastered walls (White colour group).	40		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint			
4	On internal gypsum plaster board ceilings and cornices (White colour group).	36		
	PAINT ON WOOD			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
5	On exposed timbers at eaves and verges (White colour group).	5		
	Carried to Collection		R	
	SECTION NO. 6 BILL NO. 3 PAINTWORK			

	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On battened doors (White colour group).	m2	4		
2	On frames and linings (White colour group).	m2	2		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint				
3	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	29		
	Carried to Collection	1		R	
	SECTION NO. 6 BILL NO. 3 PAINTWORK				

SECTION NO. 6				
BILL NO. 3				]
PAINTWORK				]
COLLECTION				Ī
	Page No		Amount	Ī
Total Brought Forward from Page No.	125			
	126			
Carried Forward to Summary of Section No. 6		R		
SECTION NO. 6 BILL NO. 3				
PAINTWORK				

Item No		Quantity	Rate	Amount
	BILL NO. 4 SUNDRIES			
1	SANITARY IRONMONGERY  Budgetary allowance of R2 000.00 (Two Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier  Take Delivery, Store Until Required And Fix The	ltem		
	Following Sanitary IronmongeryTo Walls			
2	Toilet roll holder.	1		
3	Shower caddy. No	1		
4	Soap dish holder.	1		
5	Towel rail.	2		
6	MIRRORS  6mm SmartGlass Images Silver Backed Mirror With Palladium Backing And Sloped And Polished Edges All Around  Mirror size 450 x 600mm four times holed for and screwed with chromium plated brass two piece cover headed screws fitted with 8mm thick neoprene gaskets to and including wall plugs.  No.	1		
	Carried Forward to Summary of Section No. 6 SECTION NO. 6 BILL NO. 4 SUNDRIES		R	

Bill No	SECTION SUMMARY - SECTION 6 : MVUBU LODGE : UNIT 02	Page No		Amount	
1	ALTERATIONS	121			
2	ROOFS AND RAINWATER GOODS	124			
3	PAINTWORK	127			
4	SUNDRIES	128			
7	CONDINIES	120			
					—
	Carried to Final Summary		R		_
	SECTION NO. 6				

Item No		Quantity	Rate	Amount
	SECTION NO. 7 MVUBU LODGE : UNIT 03			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be			
	done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection		R	
	SECTION NO. 7 BILL NO. 1 ALTERATIONS			

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
Carried to Collection SECTION NO. 7	R		
BILL NO. 1 ALTERATIONS			
	I	11	l

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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock				
	bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and				
	pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to				
	be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for				
	and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and				
	reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at				
	ends and embedded 25mm up from bottom of lintols.  Lintols exceeding 1370mm span to be similarly				
	reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete				
	(30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken				
	up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off,				
	hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use				
	and later refix window in new position", etc are to include all materials connected with such door or				
	window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.				
	Carried to Collection		R		
	SECTION NO. 7 BILL NO. 1				
	ALTERATIONS				

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 7 BILL NO. 1 ALTERATIONS		

SECTION NO. 7				j
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	130			
	131			
	132			
	133			
Carried Forward to Summary of Section No. 7		R		
SECTION NO. 7 BILL NO. 1		K		<b>—</b>
ALTERATIONS				

Item No		Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS			
	ROOF COVERINGS			
	METAL ROOF SHEETING			
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6			
1	Roof covering with pitch at 45 degrees.	2 42		
2	Standard ridge slates.	n 1		
3	Standard hip slates.	m 20		
4	Intersection slate of ridge with two hips.	o 2		
5	38 x 38mm Cross batten at hips.	n 40		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	n 22		
	INSULATION			
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires			
7	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	2 42		
	EAVES AND VERGES			
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions			
8	225 x 3mm Fascia.	m 22		
	Carried to Collection		R	
	SECTION NO. 7 BILL NO. 2 ROOFS AND RAINWATER GOODS			

	Sawn Pine	1	1		
4			20		
1	38 x 114mm Wall plate.	m	22		
	<u>Ties, Cramps, Etc.</u>				
2	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	44		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	22		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6		
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 100mm projection formed of and including two bends and approximately 100mm length of pipe.	No	2		
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2		
	Carried to Collection SECTION NO. 7 BILL NO. 2 ROOFS AND RAINWATER GOODS			R	_

SECTION NO. 7				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	135			
	136			
				L
Carried Forward to Summary of Section No. 7		R		
SECTION NO. 7 BILL NO. 2 BOOES AND BAINWATER COORS				
ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 3 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
1	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	6		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	40		
3	On internal plastered walls (White colour group).	40		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint			
4	On internal gypsum plaster board ceilings and cornices (White colour group).	36		
	PAINT ON WOOD			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
5	On exposed timbers at eaves and verges (White colour group).	5		
	Carried to Collection		R	
	SECTION NO. 7 BILL NO. 3 PAINTWORK			

	REDECORATION OF PREVIOUSLY PAINTED WOOD					
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint					
1	On battened doors (White colour group).	m2	4			
2	On frames and linings (White colour group).	m2	2			
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint					
3	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	29			
	Carried to Collection	,		R		_
	SECTION NO. 7 BILL NO. 3 PAINTWORK			,		
					il	

SECTION NO. 7				
BILL NO. 3				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	138			
	139			
Carried Forward to Summary of Section No. 7		R		
SECTION NO. 7 BILL NO. 3 PAINTWORK				
				1

Item No			Quantity	Rate	Amount
	BILL NO. 4 SUNDRIES				
	SANITARY IRONMONGERY				
1	Budgetary allowance of R2 000.00 (Two Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier		ltem		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls				
2	Toilet roll holder.	10	1		
3	Shower caddy. N	10	1		
4	Soap dish holder.	10	1		
5	Towel rail.	10	2		
6	Carried Forward to Summary of Section No. 7	140	1	R	
	SECTION NO. 7 BILL NO. 4 SUNDRIES				

Bill No	SECTION SUMMARY - SECTION 7 : MVUBU LODGE : UNIT 03	Page No		Amount
1	ALTERATIONS	134		
2	ROOFS AND RAINWATER GOODS	137		
3	PAINTWORK	140		
4	SUNDRIES	141		
	Carried to Final Summary		R	
	SECTION NO. 7			
	Carried to Final Summary SECTION NO. 7		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 8 MVUBU LODGE : UNIT 04			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection SECTION NO. 8		R	
	BILL NO. 1 ALTERATIONS			

- 1		1	1	II .	1
	Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.				
	Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.				
	Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.				
	All materials in this section are measured as new except where old material is specifically mentioned as being reused.				
	Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.				
	Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.				
	When pricing, Tenderers are to allow as follows:				
	Carried to Collection		R		
	SECTION NO. 8				
	BILL NO. 1 ALTERATIONS				
					1

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.  Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at		
ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.		
Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.		
The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.		
The term "make good" is to include all labour and material required to match existing work.		
The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.		
Carried to Collection	R	
SECTION NO. 8 BILL NO. 1 ALTERATIONS		

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 8 BILL NO. 1 ALTERATIONS		

SECTION NO. 8				Ì
BILL NO. 1				Ì
ALTERATIONS				Ì
COLLECTION				Ì
	Page No		Amount	Ì
Total Brought Forward from Page No.	143			
	144			
	145			
	146			
Carried Forward to Summary of Section No. 8		R		
SECTION NO. 8 BILL NO. 1				
ALTERATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	METAL ROOF SHEETING				
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
1	Roof covering with pitch at 45 degrees.	m2	42		
2	Standard ridge slates.	m	1		
3	Standard hip slates.	m	20		
4	Intersection slate of ridge with two hips.	No	2		
5	38 x 38mm Cross batten at hips.	m	40		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	22		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
7	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	42		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
8	225 x 3mm Fascia.	m	22		
	Carried to Collection			R	
	SECTION NO. 8 BILL NO. 2				
	ROOFS AND RAINWATER GOODS				
					l I

				II.	
	Sawn Pine				
1	38 x 114mm Wall plate.	m	22		
	Ties, Cramps, Etc.				
2	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	44		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	22		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6		
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 100mm projection formed of and including two bends and approximately 100mm length of pipe.	No	2		
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2		
	Carried to Collection			R	
	SECTION NO. 8				
	BILL NO. 2				
	ROOFS AND RAINWATER GOODS				
					1

SECTION NO. 8				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	148			
	149			
Carried Forward to Summary of Section No. 8		R		_
SECTION NO. 8 BILL NO. 2 ROOFS AND RAINWATER GOODS				_

Item No		Quantity	Rate	Amount
	BILL NO. 3 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
1	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	6		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	40		
3	On internal plastered walls (White colour group).	40		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint			
4	On internal gypsum plaster board ceilings and cornices (White colour group).	36		
	PAINT ON WOOD			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
5	On exposed timbers at eaves and verges (White colour group).	5		
	Carried to Collection		R	
	SECTION NO. 8 BILL NO. 3 PAINTWORK			

	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On battened doors (White colour group).	m2	4		
2	On frames and linings (White colour group).	m2	2		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint				
3	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	29		
	Carried to Collection	n		R	
	SECTION NO. 8 BILL NO. 3 PAINTWORK				

SECTION NO. 8				
BILL NO. 3				
PAINTWORK				
COLLECTION				
	Page No		Amount	
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SECTION NO. 8 BILL NO. 3 PAINTWORK				<del>-</del>

Item No		Quantity	Rate	Amount
	BILL NO. 4 SUNDRIES			
	SANITARY IRONMONGERY			
1	Budgetary allowance of R2 000.00 (Two Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier	Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls			
2	Toilet roll holder.	1		
3	Shower caddy. No	1		
4	Soap dish holder.	1		
5	Towel rail.	2		
	MIRRORS			
6	6mm SmartGlass Images Silver Backed Mirror With Palladium Backing And Sloped And Polished Edges All Around  Mirror size 450 x 600mm four times holed for and screwed with chromium plated brass two piece cover headed screws fitted with 8mm thick neoprene gaskets to and including wall plugs.  No.	1		
	Carried Forward to Summary of Section No. 8 SECTION NO. 8 BILL NO. 4 SUNDRIES		R	

Bill No	SECTION SUMMARY - SECTION 8 : MVUBU LODGE : UNIT 04	Page No		Amount	
1	ALTERATIONS	147			
2	ROOFS AND RAINWATER GOODS	150			•
3	PAINTWORK	153			•
4	SUNDRIES	154			
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	Carried to Final Summary		R		=
	SECTION NO. 8				
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Item No		Quantity	Rate	Amount
	SECTION NO. 9 MVUBU LODGE: KITCHEN			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection SECTION NO. 9		R	
	BILL NO. 1 ALTERATIONS			

	Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
	Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
	Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
	All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
	Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
	Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
	When pricing, Tenderers are to allow as follows:			
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	SECTION NO. 9			
	BILL NO. 1 ALTERATIONS			1
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, gut, toothed and bonded into existing brickwork and				
	cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild				
	steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps,				
	dowels, etc.				
	Carried to Collection		R		
	SECTION NO. 9				_
	BILL NO. 1 ALTERATIONS				
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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 9 BILL NO. 1 ALTERATIONS		

SECTION NO. 9				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	156			
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	158			
	159			
Carried Forward to Summary of Section No. 9 SECTION NO. 9		R		_
BILL NO. 1 ALTERATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	METAL ROOF SHEETING				
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6				
1	Roof covering with pitch at 45 degrees.	m2	30		
2	Standard ridge slates.	m	1		
3	Standard hip slates.	m	16		
4	Intersection slate of ridge with two hips.	No	2		
5	38 x 38mm Cross batten at hips.	m	32		
6	Extra over roof coverings for 38 x 50mm sawn Pine splayed eaves tilting fillet.	m	19		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
7	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	30		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
8	225 x 3mm Fascia.	m	19		
	Carried to Collection			R	
	SECTION NO. 9 BILL NO. 2 ROOFS AND RAINWATER GOODS				

	Sour Bine					
	Sawn Pine					
1	38 x 114mm Wall plate.	m	19			
	Ties, Cramps, Etc.					
2	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	No	38			
	RAINWATER GOODS					
	<u>GUTTERS</u>					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions					
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.					
	S	m	19			
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4			
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2			
	DOWNPIPES					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions					
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6			
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 100mm projection formed of and including two bends and approximately 100mm length of pipe.	No	2			
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2			
	Carried to Collection SECTION NO. 9 BILL NO. 2 ROOFS AND RAINWATER GOODS			R		_

SECTION NO. 9				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
COLLECTION  Total Brought Forward from Page No.	Page No 161 162		Amount	
Carried Forward to Summary of Section No. 9		R		_
SECTION NO. 9 BILL NO. 2 ROOFS AND RAINWATER GOODS				<del></del>

Item No		Quantity	Rate	Amount
	BILL NO. 3 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
1	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	4		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	35		
3	On internal plastered walls (White colour group).	35		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint			
4	On internal gypsum plaster board ceilings and cornices (White colour group).	26		
	PAINT ON WOOD			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
5	On exposed timbers at eaves and verges (White colour group).	4		
	Carried to Collection		R	
	SECTION NO. 9 BILL NO. 3 PAINTWORK			

	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On battened doors (White colour group).	m2	4		
2	On frames and linings (White colour group).	m2	2		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint				
3	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	17		
	Carried to Collection	1		R	
	SECTION NO. 9 BILL NO. 3 PAINTWORK				

SECTION NO. 9				
BILL NO. 3				
PAINTWORK				
COLLECTION				
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SECTION NO. 9 BILL NO. 3				=
PAINTWORK				

Item No		Quantity	Rate	Amount
	BILL NO. 4 SUNDRIES			
1	SANITARY IRONMONGERY  Budgetary allowance of R1 000.00 (One Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier  Take Delivery, Store Until Required And Fix The	Item		
2	Following Sanitary IronmongeryTo Walls	1		
3	Soap dish holder. No Towel rail. No			
	Carried Forward to Summary of Section No. 9 SECTION NO. 9 BILL NO. 4 SUNDRIES		R	

Bill	SECTION SUMMARY - SECTION 9 : MVUBU LODGE : KITCHEN	Page		Amount
No		Page No		Amount
1	ALTERATIONS	160		
2	ROOFS AND RAINWATER GOODS	163		
3	PAINTWORK	166		
4	SUNDRIES	167		
	Carried to Final Summary		R	
	SECTION NO. 9			

	Quantity	Rate	Amount
SECTION NO. 10			
MVUBU STAFF : MANAGERS HOUSE			
Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG400/Rev 0 issue these Bills of Quantities to assist in pricing this sec of the works.			
BILL NO. 1 ALTERATIONS			
NOTE:			
The Standard Preambles and the Notes in the vari trade bills are to, and do, apply equally to this sect			
Tenderers are advised to visit the site and to inspet works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to done. The work is to be carried out in sections in accordance with the Architect's instructions in such manner as to cause the minimum of nuisance and and the various sections are to be handed over for	o be n a delay		
occupation as soon as they are completed and Tenderers must allow accordingly for this in their p			
The Contractor will be held solely responsible for checking all floor levels and dimensions in the exist building in order that the new extensions may be correctly lined up. Should any discrepancies be for the Architect's drawings he or she should be asked decision before continuing with the work.	und in		
The Contractor will be held solely responsible for a damage to persons and property, for the safety of new and existing structure throughout the whole of contract and must make good at his own expense damage that may occur.	the f the		
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SECTION NO. 10 BILL NO. 1 ALTERATIONS			
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Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
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SECTION NO. 10 BILL NO. 1 ALTERATIONS			
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.				
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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 10 BILL NO. 1 ALTERATIONS		

SECTION NO. 10				
BILL NO. 1				
ALTERATIONS				
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SECTION NO. 10 BILL NO. 1				
ALTERATIONS				
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Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
1	Roof covering with pitch at 5 degrees.	m2	83		
2	0,80mm Headwall flashing 660mm girth three times bent in length.	m	22		
3	0,80mm Sidewall flashing 660mm girth three times bent in length.	m	10		
4	0,80mm Counter flashing 660mm girth two times bent in length.	m	32		
5	0,80mm Serrated flute closer.	m	22		
6	Sondor flute polycloser sealed with sealing compound.	m	22		
	FLASHING				
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
7	Bandage flashing not exceeding 300mm wide.	m	22		
	0,5mm Colomet Valley Lining With 75mm Wide Laps				
8	Standard valley lining with riveted and soldered joints.	m	7		
	INSULATION				
	Carried to Collection			D	
	SECTION NO. 10 BILL NO. 2 ROOFS AND RAINWATER GOODS			R	

	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
1	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	83		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
2	225 x 3mm Fascia.	m	12		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	12		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for internal angle.	No	1		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	2		
6	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	3		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
7	100 x 75mm Rectangular downpipes fixed to brick wall.	m	9		
	Carried to Collection			R	
	SECTION NO. 10 BILL NO. 2 ROOFS AND RAINWATER GOODS				
	NOO! O / WE IV WITH COODS				

1	Extra over 100 x 75mm rainwater polinth offset 900mm projection forn two bends and approximately 900r	oipe for eaves or ned of and including nm length of pipe.	No	3		
2	Extra over 100 x 75mm rainwater pand including bend.	oipe for shoe, with	No	3		
	SECTION NO. 40	Carried to Collection	ı		R	<b> </b>
	SECTION NO. 10 BILL NO. 2 ROOFS AND RAINWATER GOODS					
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SECTION NO. 10				ı
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ROOFS AND RAINWATER GOODS				Ì
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BILL NO. 2 ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 3 INTERNAL FINISHES			
	FLOORS AND SKIRTINGS			
	WATERPROOFING TO SHOWERS			
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc			
1	Shower floors. m2	1		
	FLOOR TILES			
	Supply Only Non Slip Porcelain Floor Tiles PC R300.00 (Three Hundred Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)			
2	On floors. m2	6		
	Take Delivery, Store Until Required And Fix 300 x 300mm Porcelain Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout			
3	On floors. m2	6		
	Supply Only Mosaic Floor Tiles PC R450.00 (Four Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Nett Area Of Tiling)			
4	On shower floors. m2	1		
	Carried to Collection		R	
	SECTION NO. 10 BILL NO. 3 INTERNAL FINISHES			

		1	ı		I	ı
	Take Delivery, Store Until Required And Fix 50 x 50mm Mosaic Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout					
1	On shower floors.	m2	1			
	FLOOR COVERINGS					
	2,5mm Marley 'Marleyflex' Thru Flash Semi-Flexabl Vinyl Floor Tiles Size 300 x 300mm Of Specified Colour Laid With Adhesive To Approved Pattern					
2	On floors.	m2	66			
	<u>Sundries</u>					
3	Clean down vinyl surfaces with one coat water based floor stripper and apply three coats non-slip acrylic emulsion dressing complying with SANS 1042 buffed to an approved finish.	m2	66			
	SKIRTINGS					
	Wrot Meranti					
4	16 x 69mm Arris rounded skirting.	m	59			
	WALL FINISHES					
	WATERPROOFING TO SHOWERS					
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc					
5	Shower walls.	m2	6			
	WALL TILING					
	Carried to Collection			R		
	SECTION NO. 10 BILL NO. 3					T
	INTERNAL FINISHES					

	Supply Only Ceramic Wall Tiles PC R250.00 (Two Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)				
1	On walls.	m2	20		
	Take Delivery, Store Until Required And Fix 300 x 300mm Ceramic Wall Tiles (Supply Of Tiles Elsewhere Measured) To Existing Plastered Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout				
2	On walls.	m2	20		
	SUNDRIES				
	Corner Protectors, Expansion Joint Edging, Etc				
3	M-trim natural anodised aluminium straight edge trim to external corner.	m	10		
	CEILINGS AND CORNICES				
	NAILED UP CEILINGS				
	9,5mm Rhino Gypsum Plasterboard Sheets With 63mm Wide Strips Of Wire Scrim Nailed Over Joints, Surface Of Ceiling Finished With 6mm Thick Rhinolite Plaster To A Smooth Even Surface				
4	Horizontal ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	m2	72		
	CORNICES				
	Polystyrene Cornice				
5	RhinoArt decor polystyrene mouldings cornice plugged to walls.	m	59		
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	BILL NO. 3 INTERNAL FINISHES				

SECTION NO. 10				
BILL NO. 3				
INTERNAL FINISHES				
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SECTION NO. 10 BILL NO. 3				=
INTERNAL FINISHES				
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Item No		Quantity	Rate	Amount
	BILL NO. 4 EXTERNAL FINISHES			
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails			
1	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.  m2	11		
	CORNICES			
	Wrot Meranti			
2	22 x 44mm Twice rebated cornice, plugged on. m	24		
	Carried Forward to Summary of Section No. 10		R	
	SECTION NO. 10 BILL NO. 4 EXTERNAL FINISHES			

Item No		Quantity	Rate	Amount
	BILL NO. 5 DOORS AND WINDOWS			
	DOORS, FRAMES AND IRONMONGERY			
	IRONMONGERY			
	Locks And Handles			
1	UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC.	7		
	SHOWER DOORS			
	<u>NOTE</u>			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	The following Provisional Sums are net and do not include any discount for the Main Contractor			
2	Provide the sum of R5 000.00 (Five Thousand Rand) for Shower Doors supplied and fixed complete.	Item		5 000,00
3	Allow for general attendance on ditto.	Item		
4	Allow for profit if required.	Item		
	WINDOWS			
	GLAZING TO WOODED WINDOWS WITH PUTTY AND BEADS			
	Carried to Collection  SECTION NO. 10 BILL NO. 5 DOORS AND WINDOWS		R	

	Approved Thickness Glass In Various Size Panes				
1	Obscure glass to window size 600 x 600mm high overall.	No	1		
2	Clear glass to window size 900 x 900mm high overall.	No	5		
3	Clear glass to window size 1200 x 900mm high overall.	No	3		
	Carried to Collection			R	
	SECTION NO. 10 BILL NO. 5 DOORS AND WINDOWS				

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BILL NO. 5				
DOORS AND WINDOWS				1
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SECTION NO. 10 BILL NO. 5 DOORS AND WINDOWS				
DOCKONIAD WINDOWS				

Item No		Quantity	Rate	Amount
	BILL NO. 6 PLUMBING AND DRAINAGE			
	SUPPLEMENTARY PREAMBLES			
	'Polycop' polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.			
	Pipes shall be firmly fixed to walls etc with coloured			
	nylon snap-in pipe clips with provision for accommodating thermal			
	movement and jointed and fixed strictly in accordance with the manufacturer's instructions.			
	All pipe diameters are nominal external.			
	'Polylink' polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.			
	Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.			
	Reducers shall include jointing to pipes with PVC rubber			
	ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.			
	All pipes shall be jointed and fixed strictly in accordance			
	Carried to Collection SECTION NO. 10		R	
	BILL NO. 6 PLUMBING AND DRAINAGE			

with the manufacturer's instructions.		
All pipe diameters are nominal external.		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.		
Vitrified clay pipes etc:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.		
uPVC pipes and fittings:		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.		
Soil, waste and vent pipes and fittings shall be solvent weld		
jointed.		
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-	R	

only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.		
Fixing of pipes:		
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.		
Lead pipes and traps:		
All soldered joints shall be wiped and brass unions shall		
be used for jointing lead to steel.		
Reducing fittings:		
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.		
Wire gratings:		
Descriptions of gutter outlets etc shall be deemed to		
include wire balloon gratings.		
Septic tanks:		
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.		
Exposed concrete surfaces:		
Exposed surfaces of concrete stormwater channels, cover		
slabs, inspection eye marker slabs, gulley tops, cleaning eye		
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BILL NO. 6 PLUMBING AND DRAINAGE		

tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.		
Excavations:		
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. 'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.		
Laying, backfilling, bedding, etc of pipes:		
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.		
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS.		
Flush pans:		
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.		
Stainless steel basins, sinks, wash troughs, urinals, etc:		
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.		
Waste unions:		
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.		
Steel sectional water tanks:		
Tanks shall comply with SANS CKS 114.		
'Densyl' petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd:		
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SECTION NO. 10 BILL NO. 6 PLUMBING AND DRAINAGE		

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	Pipes to be taped shall be coated with the appropriate primer				
	and the tape shall be applied with minimum 15mm lap per				
	spiral unless otherwise described.				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions				
	including all mastic, tape, 'Layflat' sheeting, securing of same, etc.				
	Prices for wrapping of pipes shall include for all work as described to couplings in the length.				
	User note: Dependent on soil or environmental conditions laps may require to be increased to a maximum of 55% (which results in a double layer).				
	SANITARY FITTINGS				
	Note:				
	All fittings butting up against wall, floor, cupboard				
	finishes are to be sealed with an approved silicone sealer to the Representative/ Agent's satisfaction.				
	Vitreous China Wash Hand Basins With Accessories				
	Lecico Sanaa wall-hung cloakroom basin size 458 x 302 x 207mm deep with two tap-hole for and including two Ghohe Eurosmart basin taps with popout waste (code: 831880110), Ghohe plug and chain (code: 2894000) and 32mm bottle trap (code: 28920000).				
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	PLUMBING AND DRAINAGE				
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	Vitreous China WC Suites With Accessories				
1	Vaal Hibiscus Elite vitreous china suite, pan and front flush cistern close coupled 90° outlet open rim front single flush suite complete with top dual flush suite (code: 032057) with and including Wirquin SSO15WH Sonata Thermodur toilet seat with stainless steel hinge (code: 028920).				
		No	1		
	Shower With Accessories				
2	Single-function wall mounted standard fixed showerhead with Katalyst spray polished crome and standard crome shower trap cover, complete.	No	1		
	TAPS, VALVES, ETC.				
	<u>Brass</u>				
3	15mm Brass stop valve.	No	4		
4	22mm Ditto.	No	1		
5	15mm Fullway gate valve.	No	1		
6	22mm Rough brass stoptap.	No	1		
7	22mm Fullway Gate valve with non-rising spindle.	No	1		
	SANITARY PLUMBING				
	Rigid PVC Soil And Waste Pipes Complying With SABS 967				
8	110mm Pipe fixed to walls.	m	1		
9	32mm Pipe chased in walls.	m	3		
10	40mm Ditto.	m	2		
11	50mm Ditto.	m	2		
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	PLUMBING AND DRAINAGE				
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1	32mm Pipe chased into concrete.	m	2		
	Extra Over PVC Pipes For				
2	32mm Bend.	No	6		
3	40mm Ditto.	No	2		
4	50mm Ditto.	No	2		
5	110mm Ditto.	No	1		
6	40mm Junction.	No	1		
7	50mm Ditto.	No	2		
8	110mm End cap.	No	1		
9	50mm Reducing junction.	No	1		
10	110mm Ditto.	No	1		
11	50mm Straight reducer.	No	1		
12	40mm Access Bend.	No	2		
13	50mm Ditto.	No	2		
14	40mm Access junction.	No	1		
15	50mm Ditto.	No	1		
16	110mm Ditto.	No	1		
17	110 x 50mm Double inspection eye reducing junction.	No	1		
18	110mm Pan connector and neoprene joint to outlet of pan.	No	1		
	WATER SUPPLIES				
	Class 2 Copper Pipes				
19	15mm Pipe fixed to walls.	m	10		
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1	22mm Ditto.	m	4		
2	15mm Pipe chased into walls.	m	14		
3	22mm Ditto.	m	3		
4	15mm Pipe chased into concrete.	m	3		
	Extra Over Class 2 Copper Pipes For Capillary Fittings				
5	15mm Fittings.	No	17		
6	22mm Fittings.	No	8		
	Extra Over Class 2 Copper Pipes For Brass CompressionFittings				
7	15mm Fittings.	No	10		
8	22mm Fittings.	No	4		
	Flexible Hose Fittings				
9	15mm Reinforced flexible hose pipe 300mm girth.	No	4		
	TESTING				
	Testing Of Plumbing And Drainage				
10	Allow for testing water supplies, sanitary plumbing and fittings.		Item		
	HOT WATER CYLINDER				
	<u>Geysers</u>				
11	150 Litre Kwikot or other approved horizontal type ceiling mounted water heater with 22mm connections and fitted with 2KW nickel plated copper electric element, pressure gauge, 400 kpa safety valve, 400 kpa pressure relief valve, 20mm air relief valve/vacuum breaker, including all joints to copper pipes and hoisting into position in roof space and placing on platform (elsewhere measured) and connect up.	No	1		
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	SECTION NO. 10 BILL NO. 6 PLUMBING AND DRAINAGE				

	<u>Sundries</u>				
1	Plastic driptray with 100mm high upstand all round to suit 150 litre horizontal geyser including connecting to 50mm diameter overflow pipe, (overflow pipe elsewhere measured) in roof space.	No	1		
2	50mm PVC overflow and fixing to falls.	m	2		
3	Extra for 50mm bend.	No	2		
4	38mm Sawn Pine boarding for geyser platform formed of 38 x 228mm boards butt-jointed and nailed to bearers.	m2	2		
5	38 x 114mm Sawn Pine bearers.	m	3		
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BILL NO. 6 PLUMBING AND DRAINAGE				

Item No		Quantity	Rate	Amount
	BILL NO. 7 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint			
1	On internal gypsum plaster board ceilings and cornices (White colour group).	72		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	83		
3	On internal plastered walls (White colour group).	83		
4	On cladit fibre reinforced cement ceiling with PVC cover			
	strips and cornices (White colour group).  m2	11		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
5	On external plastered walls (White colour group).	83		
6	On internal plastered walls (White colour group).	83		
7	On dry walls partitioning (White colour group).	26		
	PAINT ON METAL			
	Prepare, Three Coats Plascon Nuroof			
8	On corrugated roof sheeting (Deep colour group).	83		
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	SECTION NO. 10 BILL NO. 7			
	PAINTWORK			
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	PAINT ON WOOD				
	Prime Or Oil				
1	Backs of frames not exceeding 300mm girth.	m	59		
	Prepare, Three Coats Plascon Sealer Paint				
2	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	59		
	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Two Coats Plascon Velvaglo				
3	On windows (measured on flat over both sides) (Deep colour group).	m2	16		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Timbavarnish				
4	On doors (Deep colour group).	m2	28		
5	On frames and linings (Deep colour group).	m2	14		
	Carried to Collection SECTION NO. 10 BILL NO. 7 PAINTWORK	on		R	_

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BILL NO. 7				
PAINTWORK				
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SECTION NO. 10 BILL NO. 7 PAINTWORK				

Item No			Quantity	Rate	Amount
	BILL NO. 8 SUNDRIES				
	SANITARY IRONMONGERY				
1	Budgetary allowance of R2 000.00 (Two Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier		Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls				
2	Toilet roll holder.	No	1		
3	Shower caddy.	No	1		
4	Soap dish holder.	No	1		
5	Towel rail.	No	1		
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	BILL NO. 8 SUNDRIES				

	SECTION SUMMARY - SECTION 10 : MVUBU STAFF : MANAGER			
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8	SUNDRIES	199		
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Item No		Quantity	Rate	Amount
	SECTION NO. 11 MVUBU STAFF: BOARDING HOUSE			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG400/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
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	BILL NO. 1 ALTERATIONS			

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	Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.				
	Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.				
	Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.				
	All materials in this section are measured as new except where old material is specifically mentioned as being reused.				
	Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.				
	Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.				
	When pricing, Tenderers are to allow as follows:				
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	BILL NO. 1 ALTERATIONS				

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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and				
	pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and				
	including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps,				
	dowels, etc.				
	Carried to Collection		R		
	SECTION NO. 11				_
	BILL NO. 1 ALTERATIONS				

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
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SECTION NO. 11 BILL NO. 1 ALTERATIONS		

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ALTERATIONS				
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BILL NO. 1 ALTERATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
1	Roof covering with pitch at 5 degrees.	m2	109		
2	0,80mm Headwall flashing 660mm girth three times bent in length.	m	25		
3	0,80mm Sidewall flashing 660mm girth three times bent in length.	m	11		
4	0,80mm Counter flashing 660mm girth two times bent in length.	m	36		
5	0,80mm Serrated flute closer.	m	25		
6	Sondor flute polycloser sealed with sealing compound.	m	25		
	FLASHING				
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
7	Bandage flashing not exceeding 300mm wide.	m	25		
	0,5mm Colomet Valley Lining With 75mm Wide Laps				
8	Standard valley lining with riveted and soldered joints.	m	8		
	INSULATION				
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	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires					
1	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	109			
	EAVES AND VERGES					
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions					
2	225 x 3mm Fascia.	m	15			
	RAINWATER GOODS					
	<u>GUTTERS</u>					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions					
3	125 x 85mm Ogee profile eaves gutters with beaded front edge.					
		m	15			
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for internal angle.	No	1			
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	2			
6	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	3			
	DOWNPIPES					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions					
7	100 x 75mm Rectangular downpipes fixed to brick wall.	m	9			
	Carried to Collection			R		
	SECTION NO. 11 BILL NO. 2 ROOFS AND RAINWATER GOODS					
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1	Extra over 100 x 75mm rainwater polinth offset 940mm projection forn two bends and approximately 940r	oipe for eaves or ned of and including nm length of pipe.	No	3		
2	Extra over 100 x 75mm rainwater pand including bend.	pipe for shoe, with	No	3		
		Carried to Collection	1		R	
	SECTION NO. 11 BILL NO. 2 ROOFS AND RAINWATER GOODS					

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ROOFS AND RAINWATER GOODS			
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SECTION NO. 11 BILL NO. 2 ROOFS AND RAINWATER GOODS			
TOOLS AND IVAIIWATER GOODS			

Item No			Quantity	Rate	Amount
	BILL NO. 3 INTERNAL FINISHES				
	FLOORS AND SKIRTINGS				
	WATERPROOFING TO SHOWERS				
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc				
1	Shower floors.	m2	2		
	FLOOR TILES				
	Supply Only Non Slip Porcelain Floor Tiles PC R300.00 (Three Hundred Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)				
2	On floors.	m2	11		
	Take Delivery, Store Until Required And Fix 300 x 300mm Porcelain Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout				
3	On floors.	m2	11		
	Supply Only Mosaic Floor Tiles PC R450.00 (Four Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Nett Area Of Tiling)				
4	On shower floors.	m2	2		
	Carried to Collection			R	
	SECTION NO. 11 BILL NO. 3 INTERNAL FINISHES				

		1	I		1	l
	Take Delivery, Store Until Required And Fix 50 x 50mm Mosaic Tiles (Supply Of Tiles Elsewhere					
	Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive					
	And Flush Point In Tinted Tile Grout					
1	On shower floors.	m2	2			
	FLOOR COVERINGS					
	2,5mm Marley 'Marleyflex' Thru Flash Semi-Flexabl Vinyl Floor Tiles Size 300 x 300mm Of Specified Colour Laid With Adhesive To Approved Pattern					
2	On floors.	m2	78			
	<u>Sundries</u>					
3	Clean down vinyl surfaces with one coat water based floor stripper and apply three coats non-slip acrylic					
	emulsion dressing complying with SANS 1042 buffed to an approved finish.	m2	78			
		1112	70			
	SKIRTINGS					
	Wrot Meranti					
4	16 x 69mm Arris rounded skirting.	m	99			
	WALL FINISHES					
	WATERPROOFING TO SHOWERS					
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc					
5	Shower walls.	m2	12			
	WALL TILING					
						$\perp$
	Carried to Collection			R		
	SECTION NO. 11 BILL NO. 3					
	INTERNAL FINISHES					

	Supply Only Ceramic Wall Tiles PC R250.00 (Two Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)				
1	On walls.	m2	32		
	Take Delivery, Store Until Required And Fix 300 x 300mm Ceramic Wall Tiles (Supply Of Tiles Elsewhere Measured) To Existing Plastered Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout				
2	On walls.	m2	32		
	SUNDRIES				
	Corner Protectors, Expansion Joint Edging, Etc				
3	M-trim natural anodised aluminium straight edge trim to external corner.	m	14		
	CEILINGS AND CORNICES				
	NAILED UP CEILINGS				
	9,5mm Rhino Gypsum Plasterboard Sheets With 63mm Wide Strips Of Wire Scrim Nailed Over Joints, Surface Of Ceiling Finished With 6mm Thick Rhinolite Plaster To A Smooth Even Surface				
4	Horizontal ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	m2	89		
	CORNICES				
	Polystyrene Cornice				
5	RhinoArt decor polystyrene mouldings cornice plugged to walls.	m	99		
	Operated to Callegation				
	Carried to Collection SECTION NO. 11			R	+
	BILL NO. 3 INTERNAL FINISHES				

SECTION NO. 11			
BILL NO. 3			
INTERNAL FINISHES			
COLLECTION			
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SECTION NO. 11 BILL NO. 3			
INTERNAL FINISHES			
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Item No		Quantity	Rate	Amount
	BILL NO. 4 EXTERNAL FINISHES			
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails			
1	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.	20		
	CORNICES			
	Wrot Meranti			
2	22 x 44mm Twice rebated cornice, plugged on.	30		
	Carried Forward to Summary of Section No. 11		R	
	SECTION NO. 11 BILL NO. 4			
	EXTERNAL FINISHES			

Item No			Quantity	Rate	Amount
	BILL NO. 5 DOORS AND WINDOWS				
	DOORS, FRAMES AND IRONMONGERY				
	BRICKWORK				
	Ties, Cramps, Etc.				
1	2 x 30mm Galvanised hoop iron cramp 450mm long with one end twice screwed to timber frame and other end built into brickwork and turned up into joint.	No	12		
	DOORS, ETC.				
	Framed And Ledged Braced Battened Selected Wrot Meranti Exterior Doors				
2	44mm Framed, ledged and braced vertical battened infill door, (Hung) size 813 x 2032mm.	No	2		
	DOOR FRAMES				
	Wrot Meranti				
3	44 x 69mm Door frame with cill for door size 813 x 2032mm.	No	2		
	IRONMONGERY				
	Hinges, Etc.				
4	100mm Solid brass hinges.	No	6		
	Locks And Handles				
5	UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ				
	(Standard), with rebate conversion set 2799SC.	Sets	7		
	Carried to Collection			R	
	SECTION NO. 11 BILL NO. 5 DOORS AND WINDOWS				
	DOOKS AIND WINDOWS				

	SHOWER DOORS					
	<u>NOTE</u>					
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.					
	The following Provisional Sums are net and do not include any discount for the Main Contractor					
1	Provide the sum of R10 000.00 (Ten Thousand Rand) for Shower Doors supplied and fixed complete.		Item		10 000,	00
2	Allow for general attendance on ditto.		Item			
3	Allow for profit if required.		Item			
	WINDOWS					
	GLAZING TO WOODED WINDOWS WITH PUTTY AND BEADS					
	Approved Thickness Glass In Various Size Panes					
4	Obscure glass to window size 950 x 600mm high overall.	No	2			
5	Clear glass to window size 950 x 900mm high overall.	No	3			
6	Clear glass to window size 1460 x 920mm high overall.	No	8			
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	SECTION NO. 11					
	BILL NO. 5 DOORS AND WINDOWS					
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SECTION NO. 11	[		
BILL NO. 5			
DOORS AND WINDOWS			
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SECTION NO. 11 BILL NO. 5 DOORS AND WINDOWS			

Item No		Quantity	Rate	Amount
	BILL NO. 6 PLUMBING AND DRAINAGE			
	SUPPLEMENTARY PREAMBLES			
	'Polycop' polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.			
	Pipes shall be firmly fixed to walls etc with coloured			
	nylon snap-in pipe clips with provision for accommodating thermal			
	movement and jointed and fixed strictly in accordance with the manufacturer's instructions.			
	All pipe diameters are nominal external.			
	'Polylink' polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.			
	Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.			
	Reducers shall include jointing to pipes with PVC rubber			
	ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.			
	All pipes shall be jointed and fixed strictly in accordance			
	Carried to Collection SECTION NO. 11		R	
	BILL NO. 6 PLUMBING AND DRAINAGE			

with the manufacturer's instructions.		
All pipe diameters are nominal external.		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.		
Vitrified clay pipes etc:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.		
uPVC pipes and fittings:		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.		
Soil, waste and vent pipes and fittings shall be solvent weld jointed.		
	1	
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets		
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Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-	R	
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only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.		
Fixing of pipes:		
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.		
Lead pipes and traps:		
All soldered joints shall be wiped and brass unions shall		
be used for jointing lead to steel.		
Reducing fittings:		
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.		
Wire gratings:		
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.		
Septic tanks:		
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.		
Exposed concrete surfaces:		
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye		
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BILL NO. 6 PLUMBING AND DRAINAGE		

tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.		
Excavations:		
No claim for rock excavation will be entertained unless		
the Contractor has timeously notified the quantity surveyor		
thereof prior to backfilling.  'Soft rock' and 'hard rock' shall be as defined in		
'Earthworks'.		
Laying, backfilling, bedding, etc of pipes:		
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.		
Where no manufacturers' instructions exist pipes shall		
be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe		
trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SANS.		
Flush pans:		
Flush pans shall have straight or side outlets and 'P' or		
'S' traps as necessary.		
Stainless steel basins, sinks, wash troughs, urinals, etc:		
Units shall have standard aprons on all exposed edges and		
tiling keys against walls where applicable.		
Waste unions:		
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.		
Steel sectional water tanks:		
Tanks shall comply with SANS CKS 114.		
<u>'Densyl' petrolatum anti-corrosion tape as</u> manufactured		
by Denso SA (Pty) Ltd:		
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Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described.			
Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of same, etc.			
Prices for wrapping of pipes shall include for all work as described to couplings in the length.			
User note: Dependent on soil or environmental conditions laps may require to be increased to a maximum of 55% (which results in a double layer).			
SANITARY FITTINGS			
Note:			
All fittings butting up against wall, floor, cupboard finishes are to be sealed with an approved silicone sealer to the Representative/ Agent's satisfaction.			
Vitreous China Wash Hand Basins With Accessories			
Lecico Sanaa wall-hung cloakroom basin size 458 x 302 x 207mm deep with two tap-hole for and including two Ghohe Eurosmart basin taps with popout waste (code: 831880110), Ghohe plug and chain (code: 2894000) and 32mm bottle trap (code: 28920000).			
No	2		
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PLUMBING AND DRAINAGE			
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	Vitreous China WC Suites With Accessories				
1	Vaal Hibiscus Elite vitreous china suite, pan and front flush cistern close coupled 90° outlet open rim front single flush suite complete with top dual flush suite (code: 032057) with and including Wirquin SSO15WH Sonata Thermodur toilet seat with stainless steel hinge (code: 028920).				
		No	2		
	Shower With Accessories				
2	Single-function wall mounted standard fixed showerhead with Katalyst spray polished crome and standard crome shower trap cover, complete.	No	2		
	Single Bowl Sink With Accessories				
3	Budgetary allowance of R5 000.00 (Five Thousand Rand) net for the supply and delivery to site of Double Bow Sinkl With Tap by a Selected Supplier		Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary Fittings				
4	Single bowl sink, including taps, etc.	No	1		
	TAPS, VALVES, ETC.				
	<u>Brass</u>				
5	15mm Brass stop valve.	No	10		
6	22mm Ditto.	No	2		
7	15mm Fullway gate valve.	No	2		
8	22mm Rough brass stoptap.	No	2		
9	22mm Fullway Gate valve with non-rising spindle.	No	2		
	SANITARY PLUMBING				
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	BILL NO. 6 PLUMBING AND DRAINAGE				

	Rigid PVC Soil And Waste Pipes Complying With SABS 967				
1	110mm Pipe fixed to walls.	m	2		
2	32mm Pipe chased in walls.	m	6		
3	40mm Ditto.	m	4		
4	50mm Ditto.	m	4		
5	32mm Pipe chased into concrete.	m	4		
	Extra Over PVC Pipes For				
6	32mm Bend.	No	12		
7	40mm Ditto.	No	4		
8	50mm Ditto.	No	4		
9	110mm Ditto.	No	2		
10	40mm Junction.	No	2		
11	50mm Ditto.	No	4		
12	110mm End cap.	No	2		
13	50mm Reducing junction.	No	3		
14	110mm Ditto.	No	2		
15	50mm Straight reducer.	No	1		
16	40mm Access Bend.	No	4		
17	50mm Ditto.	No	4		
18	40mm Access junction.	No	3		
19	50mm Ditto.	No	2		
20	110mm Ditto.	No	2		
21	110 x 50mm Double inspection eye reducing junction.	No	2		
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	SECTION NO. 11 BILL NO. 6 PLUMBING AND DRAINAGE	n		R	

1	110mm Pan connector and neoprene joint to outlet of pan.	No	2		
	WATER SUPPLIES				
	Class 2 Copper Pipes				
2	15mm Pipe fixed to walls.	m	20		
3	22mm Ditto.	m	8		
4	15mm Pipe chased into walls.	m	28		
5	22mm Ditto.	m	6		
6	15mm Pipe chased into concrete.	m	6		
	Extra Over Class 2 Copper Pipes For Capillary Fittings				
7	15mm Fittings.	No	34		
8	22mm Fittings.	No	16		
	Extra Over Class 2 Copper Pipes For Brass CompressionFittings				
9	15mm Fittings.	No	20		
10	22mm Fittings.	No	8		
	Flexible Hose Fittings				
11	15mm Reinforced flexible hose pipe 300mm girth.	No	10		
	TESTING				
	Testing Of Plumbing And Drainage				
12	Allow for testing water supplies, sanitary plumbing and fittings.		Item		
	HOT WATER CYLINDER				
	Carried to Collection	,		R	
	SECTION NO. 11 BILL NO. 6 PLUMBING AND DRAINAGE	•		, r	

	Geysers				
1	150 Litre Kwikot or other approved horizontal type ceiling mounted water heater with 22mm connections and fitted with 2KW nickel plated copper electric element, pressure gauge, 400 kpa safety valve, 400 kpa pressure relief valve, 20mm air relief valve/vacuum breaker, including all joints to copper pipes and hoisting into position in roof space and placing on platform (elsewhere measured) and connect up.	No	2		
	<u>Sundries</u>				
2	Plastic driptray with 100mm high upstand all round to suit 150 litre horizontal geyser including connecting to 50mm diameter overflow pipe, (overflow pipe elsewhere measured) in roof space.	No	2		
3	50mm PVC overflow and fixing to falls.	m	4		
4	Extra for 50mm bend.	No	4		
5	38mm Sawn Pine boarding for geyser platform formed of 38 x 228mm boards butt-jointed and nailed to bearers.	m2	4		
6	38 x 114mm Sawn Pine bearers.	m	6		
	Carried to Collection			R	
	SECTION NO. 11 BILL NO. 6 PLUMBING AND DRAINAGE				

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BILL NO. 6				
PLUMBING AND DRAINAGE				
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SECTION NO. 11 BILL NO. 6 PLUMBING AND DRAINAGE				

Item No		Quantity	Rate	Amount
	BILL NO. 7 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint			
1	On internal gypsum plaster board ceilings and cornices (White colour group).	2 89		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	113		
3	On internal plastered walls (White colour group).	113		
4	On cladit fibre reinforced cement ceiling with PVC cover			
	strips and cornices (White colour group).	2 20		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
5	On external plastered walls (White colour group).	113		
6	On internal plastered walls (White colour group).	113		
	PAINT ON METAL			
	Prepare, Three Coats Plascon Nuroof			
7	On corrugated roof sheeting (Deep colour group).	109		
	PAINT ON WOOD			
	SECTION NO. 11 BILL NO. 7 PAINTWORK		R	

	Prime Or Oil					
1	Backs of frames not exceeding 300mm girth.	m	99			
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint					
2	On battened doors (White colour group).	m2	8			
3	On frames and linings (White colour group).	m2	4			
	Prepare, Three Coats Plascon Sealer Paint					
4	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	99			
	REDECORATION OF PREVIOUSLY PAINTED WOOD					
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Two Coats Plascon Velvaglo					
5	On windows (measured on flat over both sides) (Deep colour group).	m2	28			
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Timbavarnish					
6	On doors (Deep colour group).	m2	20			
7	On frames and linings (Deep colour group).	m2	10			
	Carried to Collection			R		
	SECTION NO. 11 BILL NO. 7					
	PAINTWORK					
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BILL NO. 7				
PAINTWORK				
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SECTION NO. 11 BILL NO. 7 PAINTWORK				
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Item No		Quantity	Rate	Amount
	BILL NO. 8 SUNDRIES			
1	SANITARY IRONMONGERY  Budgetary allowance of R4 000.00 (Four Thousand Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier  Take Delivery, Store Until Required And Fix The	ltem		
_	Following Sanitary IronmongeryTo Walls			
2	Toilet roll holder.			
3	Shower caddy. No	2		
4	Soap dish holder. No	3		
5	Towel rail.	2		
6	MIRRORS  6mm SmartGlass Images Silver Backed Mirror With Palladium Backing And Sloped And Polished Edges All Around  Mirror size 450 x 600mm four times holed for and screwed with chromium plated brass two piece cover headed screws fitted with 8mm thick neoprene gaskets to and including wall plugs.	2		
	Carried Forward to Summary of Section No. 11 SECTION NO. 11 BILL NO. 8 SUNDRIES		R	

	SECTION SUMMARY - SECTION 11 : MVUBU STAFF : BOAR	DING HOUSE	
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8	SUNDRIES	231	
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Item No		Quantity	Rate	Amount
	SECTION NO. 12 MVUBU STAFF: ROUNDAVELE			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG400/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection SECTION NO. 12		R	
	BILL NO. 1 ALTERATIONS			

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Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
Carried to Collection		R	
SECTION NO. 12			_
BILL NO. 1 ALTERATIONS			
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Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.		
Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.		
Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.		
The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.		
The term "make good" is to include all labour and material required to match existing work.		
The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.		
Carried to Collection SECTION NO. 12	R	—
BILL NO. 1 ALTERATIONS		

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection SECTION NO. 12 BILL NO. 1 ALTERATIONS	R	

SECTION NO. 12				ĺ
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
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	234			
	235			
	236			
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BILL NO. 1 ALTERATIONS				

Item No		Quantity	Rate	Amount
	BILL NO. 2 MASONRY AND PLASTERING			
	MASONRY			
	BRICKWORK			
	NOTE:			
	All cavity walls shall be tied together with 5 Butterfly type wire ties per square metre.			
	b) Bricks used in loadbearing walls shall have a minimum compression strength of 10MPa and shall comply with SANS.			
	c) Mortar shall have a minimum compression strength of 10MPa.			
	Brickwork In Clay Bricks In Cement Mortar In			
1	One brick wall circular on plan in beam filling, each brick skin built up separately with internal skin built first.	2 10		
	<u>Sundries</u>			
2	Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry.	2 10		
3	Two coats ABE brikseal on cement sand slurry to outside face of internal skin all as per manufacturer's specifications	2 10		
	Reinforcement			
4	Brick reinforcement 160mm wide.	n 38		
	PLASTERING			
	Carried to Collection		R	
	SECTION NO. 12 BILL NO. 2 MASONRY AND PLASTERING			

	SCREED				
	3.1 Cement Screed On Concrete				
1	25mm Thick on floors to receive vinyl flooring.	m2	28		
	<u>Sundries</u>				
2	Powerfloat or steel-trowel top of cement screed to a dead level surface and apply scrapper coat screed to receive vinyl.	m2	28		
	EXTERNAL PLASTER				
	Cement Plaster On Brickwork On				
3	Walls circular on plan.	m2	10		
	Cement Plaster On Existing Brickwork On				
4	Walls circular on plan.	m2	28		
5	Narrow widths.	m2	1		
	INTERNAL PLASTER				
	Cement Plaster On Brickwork On				
6	Walls circular on plan.	m2	10		
	Cement Plaster On Existing Brickwork On				
7	Walls circular on plan.	m2	28		
8	Narrow widths.	m2	1		
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	SECTION NO. 12	n		R	
	BILL NO. 2 MASONRY AND PLASTERING				
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SECTION NO. 12				
BILL NO. 2				
MASONRY AND PLASTERING				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	238			
	239			
Carried Forward to Summary of Section No. 12		R		_
SECTION NO. 12 BILL NO. 2				_
MASONRY AND PLASTERING				

Item No		Quantity	Rate	Amount
	BILL NO. 3 ROOFS AND RAINWATER GOODS			
	ROOF COVERINGS			
	METAL ROOF SHEETING			
	Metrotile Woodshake profile pressed Aluzinc steel roofing with galvanised and coated nails to meet AS 3566 Class 3 with and including 38 x 38mm sawn softwood battens at maximum 250mm centres on E2/AS1 8.3.6			
1	Roof covering to circular shaped building with pitch at 45 degrees.	2 45		
	INSULATION			
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires			
2	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	2 45		
	EAVES AND VERGES			
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions			
3	225 x 3mm Fascia circular on plan.	n 20		
	Sawn Pine			
4	38 x 114mm Wall plate circular on plan.	n 20		
	<u>Ties, Cramps, Etc.</u>			
5	2 x 30mm Galvanised hoop iron tie 750mm long with one end built 340mm deep into top of brickwork and other end wrapped around rafter and spiked to plate.	40		
	Carried to Collection		R	
	SECTION NO. 12 BILL NO. 3 ROOFS AND RAINWATER GOODS			

	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
1	125 x 85mm Ogee profile eaves gutters circular on plan with beaded front edge.				
		m	20		
2	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
3	100 x 75mm Rectangular downpipes fixed to brick wall.	m	6		
4	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 150mm projection formed of and including two bends and approximately 150mm length of pipe.	No	2		
5	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2		
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	SECTION NO. 12 BILL NO. 3				_
	ROOFS AND RAINWATER GOODS				

SECTION NO. 12				ĺ
BILL NO. 3				
ROOFS AND RAINWATER GOODS				
COLLECTION				
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SECTION NO. 12 BILL NO. 3 ROOFS AND RAINWATER GOODS				
ROOFS AND KAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 4 INTERNAL FINISHES			
	FLOORS AND SKIRTINGS			
	FLOOR COVERINGS			
	2,5mm Marley 'Marleyflex' Thru Flash Semi-Flexabl Vinyl Floor Tiles Size 300 x 300mm Of Specified Colour Laid With Adhesive To Approved Pattern			
1	On floors. m2	28		
	<u>Sundries</u>			
2	Clean down vinyl surfaces with one coat water based floor stripper and apply three coats non-slip acrylic emulsion dressing complying with SANS 1042 buffed to an approved finish.	28		
	SKIRTINGS			
	<u>Wrot Meranti</u>			
3	16 x 69mm Arris rounded skirting circular on plan.	19		
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
4	9,5mm Rhino Gypsum Plasterboard Sheets With 63mm Wide Strips Of Wire Scrim Nailed Over Joints, Surface Of Ceiling Finished With 6mm Thick Rhinolite Plaster To A Smooth Even Surface  Sloping ceilings to cicular shaped building fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	40		
	CORNICES			
	Carried to Collection SECTION NO. 12		R	
	BILL NO. 4 INTERNAL FINISHES			

1	RhinoArt decor polystyrene mouldings cornice plugged				
	to walls circular on plan.	m	19		
	INSULATION				
	Isolation Laid On Ceiling				
2	Isotherm 100 insulation laid on top of ceilings between brandering.	m2	40		
	Carried to Collection	on		R	
	SECTION NO. 12 BILL NO. 4				
	INTERNAL FINISHES				

SECTION NO. 12				
BILL NO. 4				
INTERNAL FINISHES				
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SECTION NO. 12 BILL NO. 4				
INTERNAL FINISHES				

Item No		Quantity	Rate	Amount
	BILL NO. 5 EXTERNAL FINISHES			
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails			
1	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.  m2	5		
	CORNICES			
	Wrot Meranti			
2	22 x 44mm Twice rebated cornice circular on plan, plugged on.	40		
	Carried Forward to Summary of Section No. 12		R	
	SECTION NO. 12 BILL NO. 5 EXTERNAL FINISHES		· ·	

Item No			Quantity	Rate	Amount
	BILL NO. 6 DOORS AND WINDOWS				
	DOORS, FRAMES AND IRONMONGERY				
	BRICKWORK				
	Ties, Cramps, Etc.				
1	2 x 30mm Galvanised hoop iron cramp 450mm long with one end twice screwed to timber frame and other end built into brickwork and turned up into joint.	No	6		
	DOORS, ETC.				
	Stable Door Selected Wrot Meranti Exterior Doors				
2	44mm Stable door with and including weatherboard, (Hung) overall size 813 x 2032mm.	No	1		
	DOOR FRAMES				
	Wrot Meranti				
3	44 x 69mm Door frame with cill for door size 813 x 2032mm.	No	1		
	IRONMONGERY				
	Hinges, Etc.				
4	100mm Solid brass hinges.	No	4		
	Locks And Handles				
5	UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS (Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC.	ets	1		
	Carried to Collection			R	
	SECTION NO. 12 BILL NO. 6 DOORS AND WINDOWS			K	

	WINDOWS				
	ALUMINIUM WINDOWS				
	<u>NOTE</u>				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
1	Provide the sum of R5 000.00 (Five Thousand Rand) for Aluminium Windows supplied and fixed complete.	Item		5 000,	00
2	Allow for general attendance on ditto.	Item			
3	Allow for profit if required.	Item			
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	SECTION NO. 12 BILL NO. 6 DOORS AND WINDOWS				

SECTION NO. 12			
BILL NO. 6			
DOORS AND WINDOWS			
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SECTION NO. 12 BILL NO. 6 DOORS AND WINDOWS			

Item No		Quantity	Rate	Amount
	BILL NO. 7 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint			
1	On internal gypsum plaster board ceilings and cornices (White colour group).	40		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group). m2	39		
3	On internal plastered walls (White colour group). m2	39		
4	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	5		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
5	On external plastered walls (White colour group).	29		
6	On internal plastered walls (White colour group).	29		
	PAINT ON WOOD			
	Prime Or Oil			
7	Backs of frames not exceeding 300mm girth.	19		
	Carried to Collection		R	
	SECTION NO. 12 BILL NO. 7 PAINTWORK			

	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On doors (White colour group).	m2	4		
2	On frames and linings (White colour group).	m2	2		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
3	On exposed timbers at eaves and verges.	m2	2		
	Prepare, Three Coats Plascon Sealer Paint				
4	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	19		
	Carried to Collecti	on		R	
	SECTION NO. 12	OII		K	
	BILL NO. 7 PAINTWORK				

SECTION NO. 12				
BILL NO. 7				
PAINTWORK				
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SECTION NO. 12 BILL NO. 7 PAINTWORK				=

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Bill No		Page No		Amount	
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2	MASONRY AND PLASTERING	240			
3	ROOFS AND RAINWATER GOODS	243			
4	INTERNAL FINISHES	246			
5	EXTERNAL FINISHES	247			
6	DOORS AND WINDOWS	250			
7	PAINTWORK	253			
	Carried to Final Summary		R		
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Item No		Quantity	Rate	Amount
	SECTION NO. 13 MVUBU STAFF : BRAAI AREA			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG400/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection		R	
	SECTION NO. 13 BILL NO. 1 ALTERATIONS			

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.				
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.				
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.				
All materials in this section are measured as new except where old material is specifically mentioned as being reused.				
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.				
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.				
When pricing, Tenderers are to allow as follows:				
Carried to Collection SECTION NO. 13		R		
BILL NO. 1 ALTERATIONS				
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	Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.				
	Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.				
	Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.				
	The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.				
	The term "make good" is to include all labour and material required to match existing work.				
	The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.				
	Carried to Collection		R		_
	SECTION NO. 13 BILL NO. 1 ALTERATIONS				
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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
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SECTION NO. 13			
BILL NO. 1			
ALTERATIONS			
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SECTION NO. 13 BILL NO. 1 ALTERATIONS			

Item No		Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS			
	ROOF CONSTRUCTION			
	PREFABRICATED TRUSSES			
	<u>Note</u>			
	Prices are to include for the design and supply of the trusses complete including bolts, connectors, connections, temporary and permanent bracing, sprockets, rafter extensions, etc. The truss manufacturer will be responsible for providing a written guarantee, to be issued by a registered Structural Engineer on completion, confirming that the design, manufacture, fixing, bracing and installation complies with the relevant National Building regulations and SANS standards.			
	Prices are to include for trusses to either side of fire walls.			
	Double Pitch Prefabricated Connector Plate Roof Trusses For Sheeting Centres With A Pitch Of 45 Degrees And Suitable For Corrugated Roof Sheeting			
1	Roof construction to suit rectangular shaped free standing building size 4000mm long x 2800mm wide overall, complete with two hips, temporary and permanent bracing.	1		
	Allow For Taking Delivery, Storing, Protecting From Damage, Hoisting, Placing, Assembling And Fixing In Position Approximately 3000mm Above Ground Level, The Following Roof Trusses, Etc, Including Supplying, Fixing And Later Removing Temporary Braces, Etc.			
2	Roof construction to suit rectangular shaped free standing building size 4000mm long x 2800mm wide overall, complete with two hips, temporary and permanent bracing.	1		
	Carried to Collection		R	
	SECTION NO. 13 BILL NO. 2 ROOFS AND RAINWATER GOODS			

1	Temporary and permanent bracing to suit roof truss				
	design.		Item		
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
2	Roof covering with pitch at 45 degrees.	m2	29		
3	0,80mm Ridge capping 660mm girth three times bent in length.	m	1		
4	0,80mm Hip capping 660mm girth three times bent in length.	m	14		
5	0,80mm Serrated flute closer.	m	30		
6	Sondor flute polycloser sealed with sealing compound.	m	30		
7	Intersection of ridge with two hips.	No	2		
	Sawn Pine				
8	50 x 76mm Purlin.	m	51		
9	76 x 76mm Splayed purlin.	m	19		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
10	225 x 3mm Fascia.	m	19		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	Carried to Collection			R	
	SECTION NO. 13 BILL NO. 2				
	ROOFS AND RAINWATER GOODS				
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	O,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions					
1	125 x 85mm Ogee profile eaves gutters with beaded front edge.					
		m	19			
2	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4			
3	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2			
	DOWNPIPES					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions					
4	100 x 75mm Rectangular downpipes fixed to gumpoles.	m	6			
5	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 550mm projection formed of and including two bends and approximately 550mm length of pipe.	No	2			
6	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2			
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	BILL NO. 2 ROOFS AND RAINWATER GOODS					

SECTION NO. 13				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
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SECTION NO. 13 BILL NO. 2 ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 3 EXTERNAL FINISHES			
	WALL FINISHES			
	<u>GUMPOLES</u>			
	Treated Timber Gumpoles For External Exposure			
1	150mm Diameter gumpoles in lengths exceeding 3900mm and not exceeding 6600mm with portion cast in concrete.	290		
	Carried Forward to Summary of Section No. 13		R	
	SECTION NO. 13 BILL NO. 3 EXTERNAL FINISHES			

Item No		Quantity	Rate	Amount
	BILL NO. 4 PAINTWORK			
	PAINT ON METAL			
	Prepare, Three Coats Plascon Nuroof			
1	On corrugated roof sheeting (Deep colour group). m2	29		
	PAINT ON WOOD			
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Wood Preservative Paint			
2	On timber gumpole screen (Deep colour group). m2	59		
	Carried Forward to Summary of Section No. 13		R	
	SECTION NO. 13 BILL NO. 4 PAINTWORK			
	LAINIWOM			

SECTION SUMMARY - SECTION 13 : MVUBU STAFF : BRAAI AREA				
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3	EXTERNAL FINISHES	264		
4	PAINTWORK	265		
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Item No		Quantity	Rate	Amount
	SECTION NO. 14 MVUBU STAFF: TOILETS AND STORE			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG400/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection SECTION NO. 14		R	
	BILL NO. 1 ALTERATIONS			

Old materials described as "carefully take out, set aside			
for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be			
replaced by the Contractor at his or her own expense.  Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
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Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
Carried to Collection			
SECTION NO. 14		R	
BILL NO. 1 ALTERATIONS			
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Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.  Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly		
reinforced but with 20mm diameter mild steel rods.  Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.		
The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.		
The term "make good" is to include all labour and material required to match existing work.		
The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.		
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SECTION NO. 14 BILL NO. 1 ALTERATIONS	R	

The terms "take out and remove sink unit", "take out and remove lavalory basin", carefully take out, set aside for re-use and later refax W.C. suile in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include after one of the cutting back and stopping off of supply and waste pipes.  Carried to Collection  R  SECTION NO. 14  BILL NO. 1  ALTERATIONS			
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.  Carried to Collection  R  SECTION NO. 14  BILL NO. 1	remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
SECTION NO. 14 BILL NO. 1	valves, flush pipes, etc and are to include for the cutting		
SECTION NO. 14 BILL NO. 1			
SECTION NO. 14 BILL NO. 1			
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	SECTION NO. 14 BILL NO. 1		

SECTION NO. 14				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
	Page No		Amount	
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	269			_
	270			-
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Carried Forward to Summary of Section No. 14 SECTION NO. 14		R		=
BILL NO. 1 ALTERATIONS				

ltem No			Quantity	Rate	Amount
	BILL NO. 2 MASONRY AND PLASTERING				
	PLASTERING				
	SCREED				
	3.1 Cement Screed On Concrete				
1	25mm Thick on floors to receive vinyl flooring.	m2	10		
2	25mm Thick on floors to receive porcelain or ceramic tiling.	m2	6		
	<u>Sundries</u>				
3	Powerfloat or steel-trowel top of cement screed to a dead level surface and apply scrapper coat screed to receive vinyl.	m2	6		
	EXTERNAL PLASTER				
	Cement Plaster On Existing Brickwork On				
4	Walls.	m2	30		
5	Narrow widths.	m2	2		
	INTERNAL PLASTER				
	Cement Plaster On Existing Brickwork On				
6	Walls.	m2	30		
7	Narrow widths.	m2	2		
	Carried Forward to Summary of Section No. 14			R	
	SECTION NO. 14 BILL NO. 2				
	MASONRY AND PLASTERING				
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Item No			Quantity	Rate	Amount
	BILL NO. 3 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
1	Roof covering with pitch at 5 degrees.	m2	20		
2	0,80mm Headwall flashing 660mm girth three times bent in length.	m	5		
3	0,80mm Sidewall flashing 660mm girth three times bent in length.	m	8		
4	0,80mm Counter flashing 660mm girth two times bent in length.	m	13		
5	0,80mm Serrated flute closer.	m	5		
6	Sondor flute polycloser sealed with sealing compound.	m	5		
	FLASHING				
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
7	Bandage flashing not exceeding 300mm wide.	m	5		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
8	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	20		
	Carried to Collection			R	
	SECTION NO. 14 BILL NO. 3 ROOFS AND RAINWATER GOODS				

	EAVES AND VERGES					
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions					
1	225 x 3mm Fascia.	m	5			
	RAINWATER GOODS					
	<u>GUTTERS</u>					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions					
2	125 x 85mm Ogee profile eaves gutters with beaded front edge.					
		m	5			
3	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	2			
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	1			
	DOWNPIPES					
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions					
5	100 x 75mm Rectangular downpipes fixed to brick wall.	m	3			
6	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 500mm projection formed of and including two bends and approximately 500mm length of pipe.	No	1			
7	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	1			
	Carried to Collection			R		
	SECTION NO. 14 BILL NO. 3 ROOFS AND RAINWATER GOODS					
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SECTION NO. 14			
BILL NO. 3			
ROOFS AND RAINWATER GOODS			
COLLECTION			
Total Brought Forward from Page No.	Page No 273 274		Amount
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SECTION NO. 14 BILL NO. 3 ROOFS AND RAINWATER GOODS			

Item No		Quantity	Rate	Amount
	BILL NO. 4 EXTERNAL FINISHES			
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails			
1	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.	4		
	CORNICES			
	Wrot Meranti			
2	22 x 44mm Twice rebated cornice, plugged on.	10		
	Carried Forward to Summary of Section No. 14 SECTION NO. 14 BILL NO. 4		R	
	BILL NO. 4 EXTERNAL FINISHES			
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Item No			Quantity	Rate	Amount
	BILL NO. 5 DOORS AND WINDOWS				
	DOORS, FRAMES AND IRONMONGERY				
	BRICKWORK				
	<u>Ties, Cramps, Etc.</u>				
1	2 x 30mm Galvanised hoop iron cramp 450mm long with one end twice screwed to timber frame and other end built into brickwork and turned up into joint.	No	12		
	DOORS, ETC.				
	Framed And Ledged Braced Battened Selected Wrot Meranti Exterior Doors				
2	44mm Framed, ledged and braced vertical battened infill door, (Hung) size 813 x 2032mm.	No	2		
	DOOR FRAMES				
	Wrot Meranti				
3	44 x 69mm Door frame with cill for door size 813 x 2032mm.	No	2		
	IRONMONGERY				
	Hinges, Etc.				
4	100mm Solid brass hinges.	No	6		
	Locks And Handles				
5	UNION mortice lockset comprising zinc Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish, 3 lever upright lock 2295-76SS				
	(Standard) with stainless steel forend, keyed to differ (Standard), with rebate conversion set 2799SC.	Sets	4		
	Carried to Collection			R	
	SECTION NO. 14				
	BILL NO. 5 DOORS AND WINDOWS				

	WINDOWS			
	GLAZING TO WOODED WINDOWS WITH PUTTY AND BEADS			
	Approved Thickness Glass In Various Size Panes			
1	Obscure glass to window size 480 x 590mm high overall.	2		
2	Clear glass to window size 945 x 600mm high overall.	1		
	Carried to Collection		R	
	SECTION NO. 14			<u>—</u>
	BILL NO. 5 DOORS AND WINDOWS			
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SECTION NO. 14			
BILL NO. 5			
DOORS AND WINDOWS			
COLLECTION			
Total Brought Forward from Page No.	Page No 277 278		Amount
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SECTION NO. 14 BILL NO. 5 DOORS AND WINDOWS		K	

Item No		Quantity	Rate	Amount
	BILL NO. 6 PAINTWORK			
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.			
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint			
1	On internal gypsum plaster board ceilings and cornices (White colour group).	16		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint			
2	On external plastered walls (White colour group).	32		
3	On internal plastered walls (White colour group).	32		
4	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).			
	m2	4		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC			
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint			
5	On external plastered walls (White colour group).	32		
6	On internal plastered walls (White colour group).	32		
	PAINT ON METAL			
	Prepare, Three Coats Plascon Nuroof			
7	On corrugated roof sheeting (Deep colour group).	20		
	PAINT ON WOOD			
	Carried to Collection		R	
	SECTION NO. 14 BILL NO. 6 PAINTWORK			

Backs of frames not exceeding 300mm girth.  Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint	
And Three Coats Plascon Velvaglo Matt Enamel Paint	
2 On betterned deem (M/bite colour grasses)	
2 On battened doors (White colour group). m2 8	
3 On frames and linings (White colour group). m2 4	1
Prepare, Three Coats Plascon Sealer Paint	
4 On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	
REDECORATION OF PREVIOUSLY PAINTED WOOD	
Clean Down And Remove All Loose And Flaking Varnish, Prepare And Two Coats Plascon Velvaglo	
On windows (measured on flat over both sides) (Deep colour group).	
Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Timbavarnish	
6 On doors (Deep colour group). m2 8	
7 On frames and linings (Deep colour group). m2 4	
Carried to Collection	
SECTION NO. 14 BILL NO. 6	
PAINTWORK	

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BILL NO. 6				
PAINTWORK				
COLLECTION				
Total Brought Forward from Page No.	Page No 280 281		Amount	
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SECTION NO. 14 BILL NO. 6 PAINTWORK				

Item No		Quantity	Rate	Amount
	BILL NO. 7 SUNDRIES			
	SANITARY IRONMONGERY			
1	Budgetary allowance of R2 500.00 (Two Thousand Five Hundred Rand) net for the supply and delivery to site of sanitary ironmongery by a Selected Supplier	Item		
	Take Delivery, Store Until Required And Fix The Following Sanitary IronmongeryTo Walls			
2	Toilet roll holder.	2		
3	Soap dish holder. No	2		
4	Towel rail.	2		
	MIRRORS			
5	6mm SmartGlass Images Silver Backed Mirror With Palladium Backing And Sloped And Polished Edges All Around  Mirror size 450 x 600mm four times holed for and screwed with chromium plated brass two piece cover headed screws fitted with 8mm thick neoprene gaskets to and including wall plugs.  No.	2		
	Carried Forward to Summary of Section No. 14 SECTION NO. 14 BILL NO. 7 SUNDRIES		R	

	SECTION SUMMARY - SECTION 14 : MVUBU STAFF : TOILETS A	ND STORE	<b>L</b>	
Bill No		Page No		Amount
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3	ROOFS AND RAINWATER GOODS	275		
4	EXTERNAL FINISHES	276		
5	DOORS AND WINDOWS	279		
6	PAINTWORK	282		
7	SUNDRIES	283		
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	Carried to Final Summary SECTION NO. 14		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 15 MVUBU LODGE : SUNDRY ITEMS			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG300/Rev 0 and 22022-04-10/WG400/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 PROVISIONAL SUMS			
	REFURBISHMENT OF EXISTING SWIMMING POOL			
	<u>NOTE</u>			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	The following Provisional Sums are net and do not include any discount for the Main Contractor			
1	Provide the sum of R100 000.00 (One Hundred Thousand Rand) for Refurbishment Of Existing Swimming Pool supplied and fixed complete.	Item		100 000,00
2	Allow for general attendance on ditto.	Item		
3	Allow for profit if required.	Item		
	WATER SYSTEM UPGRADE			
	<u>NOTE</u>			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	Carried to Collection		R	
	SECTION NO. 15 BILL NO. 1 PROVISIONAL SUMS			

	The following Provisional Sums are net and do not include any discount for the Main Contractor				
1	Provide the sum of R100 000.00 (One Hundred Thousand Rand) for Water System Upgrade Complete With All Fittings supplied and fixed complete.	Item		100 000,	00
2	Allow for general attendance on ditto.	Item			
3	Allow for profit if required.	Item			
	Carried to Collection		R		
	SECTION NO. 15				
	BILL NO. 1 PROVISIONAL SUMS				

SECTION NO. 15	
BILL NO. 1	
PROVISIONAL SUMS	
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Carried to Final Summary	R
SECTION NO. 15 BILL NO. 1 PROVISIONAL SUMS	

Item No		Quantity	Rate	Amount
	SECTION NO. 16 NEW DOUBLE DRIFT CAMP SITE: ABLUTION BLOCK			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG900/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.  The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection  SECTION NO. 16 BILL NO. 1 ALTERATIONS		R	

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.			
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.			
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.			
All materials in this section are measured as new except where old material is specifically mentioned as being reused.			
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.			
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.			
When pricing, Tenderers are to allow as follows:			
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Carried to Collection SECTION NO. 16 BILL NO. 1	R		
ALTERATIONS			
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Where door and window openings, etc, are specified to			
be filled in, or where jambs, cills, etc are specified to be			
built up, brickwork shall be of hard burnt clay stock			
bricks in 5.1 cement mortar unless otherwise specified,			
cut, toothed and bonded into existing brickwork and			
pinned up as required with slates or other hard			
1 ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			
materials. Brickwork built to fair face or in facings is to			
be of bricks and pointed to match existing. Plaster is to			
be 5.1 cement plaster unless otherwise specified.			
Where lintols are specified as reinforced concrete the			
prices are to include for breaking out brickwork over for			
and inserting cement concrete (20MPa) lintol with			
230mm bearing on each end and 254mm deep and			
reinforced with and including one 12mm diameter mild			
steel rod for each half brick thickness of wall and			
including formwork. The steel rods are to be hooked at			
ends and embedded 25mm up from bottom of lintols.			
Lintols exceeding 1370mm span to be similarly			
reinforced but with 20mm diameter mild steel rods.			
remorced but with zomin dameter mild steer rods.			
Where lintols are specified as precast concrete the			
prices are to include for breaking out brickwork over for			
and inserting precast prestressed cement concrete			
(30MPa) lintol with 230mm bearing on each end size			
108 x 75mm deep for each half brick thickness of wall.			
The term "take out" includes all work taken out, taken			
up, taken down, taken off, etc; the term "break up"			
includes all work broken up, broken down, broken off,			
etc and the term "hack off" includes all work hacked off,			
hacked up, hacked down, etc.			
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The term "make good" is to include all labour and			
material required to match existing work.			
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The terms "take out and remove door", "take out and			
remove window", "carefully take out, set aside for re-use			
and later refix window in new position", etc are to			
include all materials connected with such door or			
window such as doors, windows, fanlights, frames,			
ironmongery, glass, architraves, beads, fillets, cramps,			
dowels, etc.			
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SECTION NO. 16		R	_
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SECTION NO. 16		R	_

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 16 BILL NO. 1 ALTERATIONS		

	SECTION NO. 16				
	BILL NO. 1				
	ALTERATIONS				
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	SECTION NO. 16 BILL NO. 1				
	ALTERATIONS				
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nount	Amou	ite	Rate	Quantity			Item No
						BILL NO. 2 FOUNDATIONS	
						All foundations are subject to remeasurement as executed.	
						<u>TESTS</u>	
				2	Sets	Provide and have a set of three concrete test cubes size 150 x 150 x 150mm overall tested at an approved Engineer's Laboratory and deliver the results to the Representative/Agent within 24 hours of the tests being completed.	1
						EARTHWORKS	
						Excavations, Filling, Etc.	
						Excavate in earth for bases, not exceeding 2000mm deep.	2
				28	m3	чоср.	
				3	m3	Extra over excavations in earth to bases, ground beams and trenches for excavation in soft rock.	3
				1	m3	Ditto in hard rock.	4
				28	m3	Extra over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor.	5
				100	m2	Allow for risk of collapse to sides of trenches, ground beams and bases excavations not exceeding 1500mm deep.	6
				Item		Allow for keeping excavations free from water or mud.	7
				6	m3	Approved G5 filling, supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and compacted to 95% modified AASHTO density in backfilling to bases.	8
		R				Carried to Collection SECTION NO. 16 BILL NO. 2 FOUNDATIONS	
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	CONCRETE			1
	Plain Cement Concrete (10MPa) In			1
1	Blinding cast against excavated surfaces. m3	2		Ì
	Reinforced Cement Concrete (30MPa) In			Ì
2	Bases cast against excavated surfaces. m3	10		
				]
				1
	Carried to Collection SECTION NO. 16		R	_
	BILL NO. 2 FOUNDATIONS			1
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SECTION NO. 16				
BILL NO. 2				
FOUNDATIONS				
COLLECTION				
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SECTION NO. 16 BILL NO. 2 FOUNDATIONS				

Item No			Quantity	Rate	Amount
	BILL NO. 3 SURFACE BEDS				
1	SITE CLEARANCE  Allow for clearing the site of all shrubs and trees not exceeding 200mm girth, rubbish, debris, vegetation,				
	drains, etc, that may be encountered and roughly level	n2	102		
	Excavations, Filling, Etc.				
2	Excavate in earth to reduce levels under floors not exceeding 2000mm deep.	n3	18		
3	Extra over excavations in earth to trenches and bases for excavation in soft rock.	n3	2		
4	Ditto in hard rock.	n3	1		
5	Extra over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor.	n3	18		
6	Approved G7 filling, supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and compacted to 98% modified AASHTO density under floors, paving, etc.	n3	9		
7	Approved G5 filling, supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and compacted to 98% modified AASHTO density under floors, paving, etc.	n3	9		
8	50mm Layer of clean dry sand spread and levelled over filling to receive damp proof course (elsewhere measured) under floors and paving including SABS approved termite poison treatment.	n2	60		
	Operate data Operations				
	SECTION NO. 16 BILL NO. 3 SURFACE BEDS			R	

	CONCRETE				
	Reinforced Cement Concrete (30MPa) In				
1	Surface beds on waterproof sheeting.	m3	12		
	MESH REINFORCEMENT				
	Fabric Reinforcement To Concrete Work				
2	Welded high tensile steel fabric mesh reinforcement, Reference No. 395 laid in concrete surface beds and slabs, including laps and spacer blocks (measured net).	m2	60		
	DAMP PROOFING TO FLOORS				
	One Layer Of 250 Micron Thick Green Polyethylene Damp Proof Sheeting Laid				
3	On sand bed under solid floors.	m2	60		
	Carried to Collection			R	
	SECTION NO. 16 BILL NO. 3				_
	SURFACE BEDS				

SECTION NO. 16				
BILL NO. 3				
SURFACE BEDS				
COLLECTION				
Total Brought Forward from Page No.	Page No 296 297		Amount	
Carried Forward to Summary of Section No. 16 SECTION NO. 16 BILL NO. 3 SURFACE BEDS		R		

Item No		Quantity	Rate	Amount
	BILL NO. 4 MASONRY AND PLASTERING			
	PLASTERING			
	SCREED			
	3.1 Cement Screed On Concrete			
1	25mm Thick on floors to receive porcelain or ceramic tiling. m2	60		
	Carried Forward to Summary of Section No. 16 SECTION NO. 16 BILL NO. 4 MASONRY AND PLASTERING		R	

Item No		Quantity	Rate	Amount
	BILL NO. 5 ROOFS AND RAINWATER GOODS			
	ROOF CONSTRUCTION			
	PREFABRICATED TRUSSES			
	<u>Note</u>			
	Prices are to include for the design and supply of the trusses complete including bolts, connectors, connections, temporary and permanent bracing, sprockets, rafter extensions, etc. The truss manufacturer will be responsible for providing a written guarantee, to be issued by a registered Structural Engineer on completion, confirming that the design, manufacture, fixing, bracing and installation complies with the relevant National Building regulations and SANS standards.			
	Prices are to include for trusses to either side of fire walls.			
	Double Pitch Prefabricated Connector Plate Roof Trusses For Sheeting Centres With A Pitch Of 45 Degrees And Suitable For Corrugated Roof Sheeting			
1	Roof construction to suit rectangular shaped free standing building size 18200mm long x 3300mm wide overall, temporary and permanent bracing.	1		
	Allow For Taking Delivery, Storing, Protecting From Damage, Hoisting, Placing, Assembling And Fixing In Position Approximately 3000mm Above Ground Level, The Following Roof Trusses, Etc, Including Supplying, Fixing And Later Removing Temporary Braces, Etc.			
2	Roof construction to suit rectangular shaped free standing building size 18200mm long x 3300mm wide overall, temporary and permanent bracing.	1		
	Carried to Collection		R	
	SECTION NO. 16 BILL NO. 5 ROOFS AND RAINWATER GOODS			

1	Temporary and permanent bracing to suit roof truss design.		Item		
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
2	Roof covering with pitch at 15 degrees.	m2	69		
3	0,80mm Headwall flashing 660mm girth three times bent in length at junction of 30 degree sheeting with 10 degree sheeting.	m	18		
4	0,80mm Counter flashing 660mm girth two times bent in length.	m	18		
5	0,80mm Serrated flute closer.	m	18		
6	Sondor flute polycloser sealed with sealing compound.	m	18		
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
7	Bandage flashing not exceeding 300mm wide.	m	18		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
8	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	69		
	Sawn Pine				
9	50 x 76mm Purlin.	m	55		
10	76 x 76mm Splayed purlin.	m	18		
	EAVES AND VERGES				
					<u></u>
	Carried to Collection			R	
	SECTION NO. 16 BILL NO. 5 ROOFS AND RAINWATER GOODS				

	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
1	225 x 3mm Fascia.	m	18		
	Everite Nutec Pressed Fibre Reinforced Cement Bargeboards Cut To Lengths, Jointed With PVC H- Profile Joiner And Fixed With 12 x 40mm Countersunk Brass Screws				
2	10 x 225mm Bargeboard.	m	8		
	Ties, Cramps, Etc.				
3	2 x 30mm Galvanised hoop iron tie 750mm long with one end fixed to timber beams and other end wrapped around rafter and spiked to plate.	No	36		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
4	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	18		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	2		
6	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	2		
	DOWNPIPES				
	Carried to Collection	,		R	$\top$
	SECTION NO. 16	•		K	+
	BILL NO. 5 ROOFS AND RAINWATER GOODS				

			ı		1	l
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions					
1	100 x 75mm Rectangular downpipes fixed to gumpoles.	m	6			
2	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 650mm projection formed of and including two bends and approximately 650mm length of pipe.	No	2			
3	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	2			
	Carried to Collection SECTION NO. 16	1		R		
	BILL NO. 5 ROOFS AND RAINWATER GOODS					

SECTION NO. 16				
BILL NO. 5				
ROOFS AND RAINWATER GOODS				
COLLECTION				
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BILL NO. 5 ROOFS AND RAINWATER GOODS				

Item No		Quantity	Rate	Amount
	BILL NO. 6 INTERNAL FINISHES			
	FLOORS AND SKIRTINGS			
	WATERPROOFING TO SHOWERS			
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc			
1	Shower floors. m2	4		
	FLOOR TILES			
	Supply Only Non Slip Porcelain Floor Tiles PC R300.00 (Three Hundred Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)			
2	On floors. m2	56		
	Take Delivery, Store Until Required And Fix 300 x 300mm Porcelain Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout			
3	On floors. m2	56		
	Supply Only Mosaic Floor Tiles PC R450.00 (Four Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Nett Area Of Tiling)			
4	On shower floors. m2	4		
	Carried to Collection		R	
	SECTION NO. 16 BILL NO. 6 INTERNAL FINISHES			

					1	
	Take Delivery, Store Until Required And Fix 50 x 50mm Mosaic Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout					
1	On shower floors.	m2	4			
	SKIRTINGS					
	Wrot Meranti					
2	16 x 69mm Arris rounded skirting.	m	1			
	WALL FINISHES					
	CORRUGATED SHEETING					
	0.6mm Chromadeck Corrugated Profile Sheeting ith Accessories					
3	Sheeting with framework or fixed to timber gumpoles.	m2	166			
	CEILINGS AND CORNICES					
	NAILED UP CEILINGS					
	9,5mm Rhino Gypsum Plasterboard Sheets With 63mm Wide Strips Of Wire Scrim Nailed Over Joints, Surface Of Ceiling Finished With 6mm Thick Rhinolite Plaster To A Smooth Even Surface					
4	Horizontal ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	m2	60			
	CORNICES					
	Polystyrene Cornice					
5	RhinoArt decor polystyrene mouldings cornice plugged to walls.	m	56			
						$\perp$
	Carried to Collection			R		
	SECTION NO. 16 BILL NO. 6					
	INTERNAL FINISHES					
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SECTION NO. 16			
BILL NO. 6			
INTERNAL FINISHES			
COLLECTION			
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SECTION NO. 16 BILL NO. 6 INTERNAL FINISHES			

Item No		Quantity	Rate	Amount
	BILL NO. 7 EXTERNAL FINISHES			
	WALL FINISHES			
	GUMPOLES			
	Treated Timber Gumpoles For External Exposure			
1	150mm Diameter gumpoles in lengths exceeding 3900mm and not exceeding 6600mm with portion cast in concrete.	441		
	CILLS			
	Fibre Reinforced Cement Cill			
2	15mm Thick x 150mm wide cill set flat and slightly projecting.	6		
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails			
3	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.	9		
	CORNICES			
	Wrot Meranti			
4	22 x 44mm Twice rebated cornice, plugged on.	37		
	Carried Forward to Summary of Section No. 16		R	
	SECTION NO. 16 BILL NO. 7 EXTERNAL FINISHES			
	EXTERNAL FINISHES			

Item No			Quantity	Rate	Amount
	BILL NO. 8 DOORS AND WINDOWS				
	DOORS, FRAMES AND IRONMONGERY				
	DOORS, ETC.				
	Framed And Ledged Braced Battened Selected Wrot Meranti Exterior Doors				
1	44mm Framed, ledged and braced vertical battened infill door, (Hung) size 813 x 2032mm. (D1)	No	3		
	FLUSH DOORS				
	Semi-Solid Core Flush Doors Finished On Both Faces With Commercial Veneer				
2	40mm Door, (Hung) size 813 x 2032mm. (D2)	No	10		
	IRONMONGERY				
	Locks And Handles				
3	Solid blesbok 460/313 3 lever lockset.	Sets	3		
4	BB-179S brass barrel bolt toilet lockset.	Sets	9		
	SHOWER DOORS				
	<u>NOTE</u>				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
5	Provide the sum of R12 000.00 (Twelve Thousand Rand) for Shower Doors supplied and fixed complete.		Item		12 000,00
	Carried to Collection SECTION NO. 16 BILL NO. 8 DOORS AND WINDOWS			R	

1	Allow for general attendance on ditto.		Item		
2	Allow for profit if required.		Item		
	HOT-DIP GALVANISED PRESSED STEEL DOOR FRAMES				
	Frames To Suit 150mm Gumpoles				
3	Frame for door type D1 and D2 size 813 x 2032mm high with and including three number medium duty hinges.	No	12		
	WINDOWS				
	HOT-DIP GALVANISED STEEL WINDOWS				
	Steel Residential Type Windows Top Hung Open Out Frames (EXM7H) Fitted With And Including 10mm Diameter Solid Round Burglar Bars At 160mm Centres To Entire Window				
4	Window type W1, size 1022 x 654mm.	No	1		
5	Window type W2, size 533 x 654mm.	No	10		
	GLAZING				
	Normal Glass				
6	4mm Clear float glass and glazing to steel sashes in panes exceeding 0,1 and not exceeding 0,5 square metres in area.	m2	3		
	Laminated Safety Glass				
	Note:				
	All glazing of laminated safety glass is to be glazed strictly in accordance with the manufacturer's instructions.				
	All safety glass is to be clearly marked as such in accordance with the latest safety regulations.				
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	Carried to Collection SECTION NO. 16			R	
	BILL NO. 8 DOORS AND WINDOWS				

1	6,5mm Normal strength clear laminated safety glass and glazing to steel sashes in panes in panes exceeding 0,1 and not exceeding 0,5 square metres in area.	m2	1		
	Carried to Collection			R	
	SECTION NO. 16 BILL NO. 8 DOORS AND WINDOWS				

SECTION NO. 16			
BILL NO. 8			
DOORS AND WINDOWS			
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SECTION NO. 16 BILL NO. 8 DOORS AND WINDOWS			
DOONS AND WINDOWS			

Item No		Quantity	Rate	Amount
	BILL NO. 9 PLUMBING AND DRAINAGE			
	SUPPLEMENTARY PREAMBLES			
	'Polycop' polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.			
	Pipes shall be firmly fixed to walls etc with coloured			
	nylon snap-in pipe clips with provision for accommodating			
	thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.			
	All pipe diameters are nominal external.			
	'Polylink' polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.			
	Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.			
	Reducers shall include jointing to pipes with PVC rubber			
	ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.			
	All pipes shall be jointed and fixed strictly in accordance			
	Carried to Collection SECTION NO. 16		R	
	BILL NO. 9			
	PLUMBING AND DRAINAGE			

with the manufacturer's instructions.		
All pipe diameters are nominal external.		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.		
Vitrified clay pipes etc:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.		
uPVC pipes and fittings:		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.		
Soil, waste and vent pipes and fittings shall be solvent weld		
jointed.		
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-	R	

only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.		
Fixing of pipes:		
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.		
Lead pipes and traps:		
All soldered joints shall be wiped and brass unions shall		
be used for jointing lead to steel.		
Reducing fittings:		
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.		
Wire gratings:		
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.		
Septic tanks:		
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.		
Exposed concrete surfaces:		
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye		
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BILL NO. 9 PLUMBING AND DRAINAGE		

tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.		
Excavations:		
No claim for rock excavation will be entertained unless		
the		
Contractor has timeously notified the quantity surveyor thereof prior to backfilling.		
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.		
Laying, backfilling, bedding, etc of pipes:		
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.		
Where no manufacturers' instructions exist pipes shall		
be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure		
pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with		
clause 3, 5.5, 5.6, 5.7 and 7 of SANS.  Flush pans:		
· ·		
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.		
Stainless steel basins, sinks, wash troughs, urinals, etc:		
Units shall have standard aprons on all exposed edges		
and tiling keys against walls where applicable.		
Waste unions:		
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.		
Steel sectional water tanks:		
Tanks shall comply with SANS CKS 114.		
'Densyl' petrolatum anti-corrosion tape as manufactured		
by Denso SA (Pty) Ltd:		
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SECTION NO. 16 BILL NO. 9		
PLUMBING AND DRAINAGE		

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Pipes to be taped shall be coated with the appropriate			
primer and the tape shall be applied with minimum 15mm lap			
per spiral unless otherwise described.			
Couplings and fittings to pipes shall be taped in strict			
accordance with the manufacturer's instructions including all			
mastic, tape, 'Layflat' sheeting, securing of same, etc.			
Prices for wrapping of pipes shall include for all work as described to couplings in the length.			
User note: Dependent on soil or environmental conditions laps may require to be increased to a			
maximum of 55% (which results in a double layer).			
SANITARY FITTINGS			
Note:			
All fittings butting up against wall, floor, cupboard finishes are to be sealed with an approved silicone			
sealer to the Representative/ Agent's satisfaction.			
Vitreous China Wash Hand Basins With Accessories			
Lecico Sanaa wall-hung cloakroom basin size 458 x 302			
x 207mm deep with two tap-hole for and including two Ghohe Eurosmart basin taps with popout waste (code:			
831880110), Ghohe plug and chain (code: 2894000) and 32mm bottle trap (code: 28920000).			
No	4		
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BILL NO. 9 PLUMBING AND DRAINAGE			

1

	Vitreous China WC Suites With Accessories				
1	Vaal Hibiscus Elite vitreous china suite, pan and front flush cistern close coupled 90° outlet open rim front single flush suite complete with top dual flush suite (code: 032057) with and including Wirquin SSO15WH Sonata Thermodur toilet seat with stainless steel hinge (code: 028920).				
		No	5		
	Shower With Accessories				
2	Single-function wall mounted standard fixed showerhead with Katalyst spray polished crome and standard crome shower trap cover, complete.	No	4		
	<u>Urinal With Accessories</u>				
3	Durafit Katya consealed inlet (code: 0832320000), complete with water inlet mechanism (code: 695800000), and consealed urinal trap (code: 005120000) and fixing set for urina (code: 0067131000) with GHOHE nova cosmopolitan wall plate (code: 38804000) including GHOHE Papido U Housing (code: 37338000).	No	1		
					•
	TAPS, VALVES, ETC.				
	TAPS, VALVES, ETC.  Brass				
4		No	25		
4 5	<u>Brass</u>	No No	25 5		
	Brass 15mm Brass stop valve.				
5	Brass 15mm Brass stop valve. 22mm Ditto.	No	5		
5	Brass 15mm Brass stop valve. 22mm Ditto. 15mm Fullway gate valve.	No	5		
5	Brass  15mm Brass stop valve.  22mm Ditto.  15mm Fullway gate valve.  SANITARY PLUMBING  Rigid PVC Soil And Waste Pipes Complying With	No	5		
5	Brass  15mm Brass stop valve.  22mm Ditto.  15mm Fullway gate valve.  SANITARY PLUMBING  Rigid PVC Soil And Waste Pipes Complying With SABS 967	No No	5		
5	Brass  15mm Brass stop valve.  22mm Ditto.  15mm Fullway gate valve.  SANITARY PLUMBING  Rigid PVC Soil And Waste Pipes Complying With SABS 967	No No	5		
5	Brass  15mm Brass stop valve.  22mm Ditto.  15mm Fullway gate valve.  SANITARY PLUMBING  Rigid PVC Soil And Waste Pipes Complying With SABS 967	No No	5	R	
5	Brass  15mm Brass stop valve.  22mm Ditto.  15mm Fullway gate valve.  SANITARY PLUMBING  Rigid PVC Soil And Waste Pipes Complying With SABS 967  110mm Pipe fixed to walls.  Carried to Collection  SECTION NO. 16	No No	5	R	
5	Brass  15mm Brass stop valve.  22mm Ditto.  15mm Fullway gate valve.  SANITARY PLUMBING  Rigid PVC Soil And Waste Pipes Complying With SABS 967  110mm Pipe fixed to walls.  Carried to Collection	No No	5	R	

1	32mm Pipe chased in walls.	m	15		
2	40mm Ditto.	m	13		
	Extra Over PVC Pipes For				
3	32mm Bend.	No	30		
4	40mm Ditto.	No	10		
5	110mm Ditto.	No	5		
6	40mm Junction.	No	5		
7	110mm End cap.	No	5		
8	110mm Ditto.	No	5		
9	40mm Access Bend.	No	10		
10	50mm Ditto.	No	10		
11	40mm Access junction.	No	8		
12	110mm Ditto.	No	5		
13	110 x 50mm Double inspection eye reducing junction.	No	5		
14	110mm Pan connector and neoprene joint to outlet of pan.	No	5		
	WATER SUPPLIES				
	Class 2 Copper Pipes				
15	15mm Pipe fixed to walls.	m	50		
16	22mm Ditto.	m	20		
17	15mm Pipe chased into walls.	m	70		
18	22mm Ditto.	m	15		
19	15mm Pipe chased into concrete.	m	15		
	Carried to Collection			R	
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	Extra Over Class 2 Copper Pipes For Capillary Fittings				ĺ
1	15mm Fittings.	No	85		l
2	22mm Fittings.	No	40		l
	Extra Over Class 2 Copper Pipes For Brass CompressionFittings				l
3	15mm Fittings.	No	50		l
4	22mm Fittings.	No	20		l
	Flexible Hose Fittings				l
5	15mm Reinforced flexible hose pipe 300mm girth.	No	25		İ
	TESTING				l
	Testing Of Plumbing And Drainage				İ
6	Allow for testing water supplies, sanitary plumbing and fittings.		ltem		1
	HOT WATER CYLINDER				1
	<u>Geysers</u>				l
7	150 Litre Kwikot or other approved horizontal type ceiling mounted water heater with 22mm connections and fitted with 2KW nickel plated copper electric element, pressure gauge, 400 kpa safety valve, 400 kpa pressure relief valve, 20mm air relief valve/vacuum breaker, including all joints to copper pipes and hoisting into position in roof space and placing on platform (elsewhere measured) and connect up.	No	2		
	<u>Sundries</u>				İ
8	Plastic driptray with 100mm high upstand all round to suit 150 litre horizontal geyser including connecting to 50mm diameter overflow pipe, (overflow pipe elsewhere measured) in roof space.	No	2		
9	50mm PVC overflow and fixing to falls.	m	4		l
	Carried to Collection			R	_
	SECTION NO. 16				_
	BILL NO. 9				1
	PLUMBING AND DRAINAGE				ì
					ı

1	Extra for 50mm bend.	No	4		
2	38mm Sawn Pine boarding for geyser platform formed of 38 x 228mm boards butt-jointed and nailed to bearers.	m2	4		
3	38 x 114mm Sawn Pine bearers.	m	6		
	BUDGETARY ALLOWANCES				
	The Following Are Budgetary Allowances For Work To Be Carried Out By The Main Contractor				
	Note:				
	The following Budgetary Allowances are to be remeasured and priced at Bill rates/negotiated/proven cost as the case may be.				
4	Provide the sum of R50 000.00 (Fifty Thousand Rand) for Two Septic Tanks as required.		ltem		50 000,00
	PROVISIONAL SUMS				
	NOTE				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
5	Provide the sum of R10 000.00 (Ten Thousand Rand) for Two 5 000 Litre Water Tank and Water Supply supplied and fixed complete.		ltem		10 000,00
6	Allow for general attendance on ditto.		Item		
7	Allow for profit if required.		Item		
	Carried to Collection			R	
	SECTION NO. 16 BILL NO. 9 PLUMBING AND DRAINAGE				

SECTION NO. 16				1
BILL NO. 9				
PLUMBING AND DRAINAGE				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	313			
	314			
	315			
	316			   
	317			
	318			   
	319			
	320			   
	321			
Carried Forward to Summary of Section No. 16		R		
SECTION NO. 16 BILL NO. 9				
PLUMBING AND DRAINAGE				

Item No			Quantity	Rate	Amount
	BILL NO. 10 PAINTWORK				
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.				
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint				
1	On internal gypsum plaster board ceilings and cornices (White colour group).	m2	60		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
2	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	m2	9		
3	On fascias and barge boards (White colour group).	m2	4		
4	On cills not exceeding 300mm girth (White colour group).	m	6		
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC				
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint				
5	On external plastered walls (White colour group).	m2	55		
6	On internal plastered walls (White colour group).	m2	55		
	PAINT ON METAL				
	Prepare, Three Coats Plascon Nuroof				
7	On corrugated roof sheeting (Deep colour group).	m2	69		
	Carried to Collection SECTION NO. 16 BILL NO. 10 PAINTWORK			R	

1	On sheeting (White colour group).	m2	166		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Velvaglo Matt Enamel Paint				
2	On windows (White colour group).	m2	8		
3	On door frames (White colour group).	m2	24		
	PAINT ON WOOD				
	Prime Or Oil				
4	Backs of frames not exceeding 300mm girth.	m	1		
	Prepare, Three Coats Plascon Sealer Paint				
5	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	1		
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint				
6	On doors (Deep colour group).	m2	36		
7	On battened doors (White colour group).	m2	12		
	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Wood Preservative Paint				
8	On timber gumpole screen (Deep colour group).	m2	84		
	Commind to Callestian			5	
	Carried to Collection SECTION NO. 16			R	
	BILL NO. 10 PAINTWORK				

SECTION NO. 16				
BILL NO. 10				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	323			
	324			
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Carried Forward to Summary of Section No. 16		R		<u>_</u>
SECTION NO. 16 BILL NO. 10 PAINTWORK				
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	SECTION SUMMARY - SECTION 16 : NEW DOUBLE DRIFT CAME	<u>Ļ</u>		
Bill No		Page No		Amount
1	ALTERATIONS	292		
2	FOUNDATIONS	295		
3	SURFACE BEDS	298		
4	MASONRY AND PLASTERING	299		
5	ROOFS AND RAINWATER GOODS	304		
6	INTERNAL FINISHES	307		
7	EXTERNAL FINISHES	308		
8	DOORS AND WINDOWS	312		
9	PLUMBING AND DRAINAGE	322		
10	PAINTWORK	325		
	Carried to Final Summary SECTION NO. 16		R	

Item No		Quantity	Rate	Amount
	SECTION NO. 17 GRASSLANDS RESEARCHERS ACCOMMODATION: MAIN LODGE HOUSE			
	Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG600/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 ALTERATIONS			
	NOTE:			
	The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<del></del>			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
	The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
	Carried to Collection  SECTION NO. 17 BILL NO. 1 ALTERATIONS		R	

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.		
Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.		
Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.		
All materials in this section are measured as new except where old material is specifically mentioned as being reused.		
Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.		
Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.		
When pricing, Tenderers are to allow as follows:		
	_	
Carried to Collection SECTION NO. 17	R	
BILL NO. 1 ALTERATIONS		

	1		
Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.			
Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.			
Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.			
The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.			
The term "make good" is to include all labour and material required to match existing work.			
The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.			
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Carried to Collection		R	
SECTION NO. 17 BILL NO. 1 ALTERATIONS			

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing		
valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes.		
Carried to Collection	R	
SECTION NO. 17 BILL NO. 1 ALTERATIONS		

SECTION NO. 17					
BILL NO. 1					
ALTERATIONS					
COLLECTION					
		Page No		Amount	
Total Brought Forward fr	om Page No.	327			
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SECTION NO. 17 BILL NO. 1					
ALTERATIONS					
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Item No			Quantity	Rate	Amount
	BILL NO. 2 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
1	Roof covering with pitch at 15 degrees.	m2	46		
2	Roof covering with pitch at 45 degrees.	m2	51		
3	0,80mm Ridge capping 660mm girth three times bent in length.	m	39		
4	0,80mm Hip capping 660mm girth three times bent in length.	m	35		
5	0,80mm Headwall flashing 660mm girth three times bent in length.	m	6		
6	0,80mm Sidewall flashing 660mm girth three times bent in length.	m	10		
7	0,80mm Counter flashing 660mm girth two times bent in length.	m	16		
8	0,80mm Serrated flute closer.	m	16		
9	Sondor flute polycloser sealed with sealing compound.	m	16		
10	Intersection of ridge with two hips.	No	2		
11	Intersection of ridge with two valleys.	No	1		
	FLASHING				
	Carried to Collection			R	
	SECTION NO. 17 BILL NO. 2 ROOFS AND RAINWATER GOODS				

	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
1	Bandage flashing not exceeding 300mm wide.	m	16		
	0,5mm Colomet Valley Lining With 75mm Wide Laps				
2	Standard valley lining with riveted and soldered joints.	m	14		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
3	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	97		
	Sawn Pine				
4	50 x 76mm Purlin.	m	297		
5	76 x 76mm Splayed purlin.	m	101		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
6	225 x 3mm Fascia.	m	51		
	Everite Nutec Pressed Fibre Reinforced Cement Bargeboards Cut To Lengths, Jointed With PVC H- Profile Joiner And Fixed With 12 x 40mm Countersunk Brass Screws				
7	10 x 225mm Bargeboard.	m	21		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
					+
	Carried to Collection SECTION NO. 17	<b>1</b>		R	+
	BILL NO. 2 ROOFS AND RAINWATER GOODS				

	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
1	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	36		
2	Extra over 125 x 85mm Ogee or other approved eaves gutter for external angle.	No	4		
3	Extra over 125 x 85mm Ogee or other approved eaves gutter for internal angle.	No	4		
4	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	10		
5	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	14		
	DOWNPIPES				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
6	100 x 75mm Rectangular downpipes fixed to brick wall.	m	27		
7	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 200mm projection formed of and including two bends and approximately 200mm length of pipe.	No	14		
8	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	14		
	Carried to Collection			R	T
	SECTION NO. 17	'		К	+
	BILL NO. 2 ROOFS AND RAINWATER GOODS				

SECTION NO. 17				
BILL NO. 2				
ROOFS AND RAINWATER GOODS				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	332			
	333			
	334			
Carried Forward to Summary of Section No. 17		R		
SECTION NO. 17 BILL NO. 2 ROOFS AND RAINWATER GOODS				

Item No			Quantity	Rate	Amount
	BILL NO. 3 PAINTWORK				
	REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC				
	Clean Down With Approved Chemicals And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Acrylic PVA Paint				
1	On internal gypsum plaster board ceilings and cornices (White colour group).	m2	137		
	Clean Down And Remove All Loose And Flaking Paint, Prepare Previously PVA Painted Surfaces, Stop And Two Coats Plascon Polvin Wall And All Paint				
2	On external plastered walls (White colour group).	m2	123		
3	On internal plastered walls (White colour group).	m2	123		
4	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	m2	60		
	PAINT ON METAL				
	Prepare, Three Coats Plascon Nuroof				
5	On corrugated roof sheeting (Deep colour group).	m2	97		
	REDECORATION OF PREVIOUSLY PAINTED WOOD				
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Sealer Paint				
6	On skirtings, surrounds, rails, etc., not exceeding 300mm girth (Deep colour group).	m	118		
	Carried to Collection			R	
	SECTION NO. 17 BILL NO. 3 PAINTWORK				

	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Two Coats Plascon Velvaglo				
1	On windows (measured on flat over both sides) (Deep colour group).	m2	20		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Velvaglo Matt Enamel Paint				
2	On doors (White colour group).	m2	20		
3	On frames and linings (White colour group).	m2	10		
	Clean Down And Remove All Loose And Flaking Varnish, Prepare And Three Coats Plascon Timbavarnish				
4	On timber floors (Deep colour group).	m2	88		
5	On doors (Deep colour group).	m2	26		
6	On frames and linings (Deep colour group).	m2	13		
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	Carried to Collection SECTION NO. 17			R	+
	BILL NO. 3 PAINTWORK				

SECTION NO. 17				Ī
BILL NO. 3				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	336			
	337			
Carried Forward to Summary of Section No. 17		R		
SECTION NO. 17 BILL NO. 3				
PAINTWORK				

	SECTION SUMMARY - SECTION 17 : GRASSLANDS RESEARCH	ERS ACCO	<u> </u>	
Bill No		Page No		Amount
1	ALTERATIONS	331		
2	ROOFS AND RAINWATER GOODS	335		
3	PAINTWORK	338		
	Carried to Final Summary		R	
	SECTION NO. 17			
	Carried to Final Summary SECTION NO. 17		R	

	Quantity	Rate	Amoun
SECTION NO. 18 GRASSLANDS RESEARCHERS ACCOMMODATION : ABLUTION BLOCK			
Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG600/Rev 0 issued with these Bills of Quantities to assist in pricing this section of the works.			
BILL NO. 1 ALTERATIONS			
NOTE:			
The Standard Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.			
The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he or she should be asked for a decision before continuing with the work.			
The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.			
Carried to Collection SECTION NO. 18		R	
BILL NO. 1			
ALTERATIONS			

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	Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his or her own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.				
	Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.				
	Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the work persons carrying out this work.				
	All materials in this section are measured as new except where old material is specifically mentioned as being reused.				
	Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, brandering, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.				
	Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.				
	When pricing, Tenderers are to allow as follows:				
	Carried to Collection		R		
	SECTION NO. 18				
	BILL NO. 1 ALTERATIONS				

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be		
built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.		
Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.		
Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.		
The term "take out" includes all work taken out, taken up, taken down, taken off, etc; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.		
The term "make good" is to include all labour and material required to match existing work.		
The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.		
Carried to Collection	R	
SECTION NO. 18 BILL NO. 1 ALTERATIONS		

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting		
back and stopping off of supply and waste pipes.		
Carried to Collection SECTION NO. 18	R	
BILL NO. 1 ALTERATIONS		

SECTION NO. 18				
BILL NO. 1				
ALTERATIONS				
COLLECTION				
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	343			
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SECTION NO. 18 BILL NO. 1				
ALTERATIONS				
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Item No			Quantity	Rate	Amount
	BILL NO. 2 FOUNDATIONS				
	All foundations are subject to remeasurement as executed.				
	<u>TESTS</u>				
1	Provide and have a set of three concrete test cubes size 150 x 150 x 150mm overall tested at an approved Engineer's Laboratory and deliver the results to the Representative/Agent within 24 hours of the tests being completed.	Sets	5		
	<u>EARTHWORKS</u>				
	Excavations, Filling, Etc.				
2	Excavate in earth for trenches, not exceeding 2000mm deep.				
	ισομ.	m3	43		
3	Extra over excavations in earth to bases, ground beams and trenches for excavation in soft rock.	m3	4		
4	Ditto in hard rock.	m3	2		
5	Extra over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor.	m3	43		
_		1113	43		
6	Allow for risk of collapse to sides of trenches, ground beams and bases excavations not exceeding 1500mm deep.	m2	109		
7	Allow for keeping excavations free from water or mud.		Item		
8	Approved G5 filling, supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and compacted to 95% modified AASHTO density in backfilling to trenches.	m3	34		
	Carried to Collection SECTION NO. 18 BILL NO. 2 FOUNDATIONS			R	

	CONCRETE					
	Plain Cement Concrete (10MPa) In					
1	Blinding cast against excavated surfaces.	m3	1			
	Reinforced Cement Concrete (30MPa) In					
2	Footings cast against excavated surfaces including steppings.	m3	9			
						<u></u>
	Carried to Collectio	n		R		<u>_</u>
	SECTION NO. 18 BILL NO. 2 FOUNDATIONS					
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SECTION NO. 18				
BILL NO. 2				
FOUNDATIONS				
COLLECTION				
	Page No		Amount	
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	346			
Carried Forward to Summary of Section No. 18		R		
SECTION NO. 18 BILL NO. 2 FOUNDATIONS				

ltem No			Quantity	Rate	Amount
	BILL NO. 3 SURFACE BEDS				
	SITE CLEARANCE				
1	Allow for clearing the site of all shrubs and trees not exceeding 200mm girth, rubbish, debris, vegetation, drains, etc, that may be encountered and roughly level site.	m2	142		
	<u>EARTHWORKS</u>				
	Excavations, Filling, Etc.				
2	Excavate in earth to reduce levels under floors not exceeding 2000mm deep.	m3	17		
3	Extra over excavations in earth to trenches and bases for excavation in soft rock.	m3	2		
4	Ditto in hard rock.	m3	1		
5	Extra over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor.	m3	17		
6	Approved G7 filling, supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and compacted to 98% modified AASHTO density under floors, paving, etc.	m3	10		
7	Approved G5 filling, supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and compacted to 98% modified AASHTO density under floors, paving, etc.	m3	10		
8	50mm Layer of clean dry sand spread and levelled over filling to receive damp proof course (elsewhere measured) under floors and paving including SABS approved termite poison treatment.	m2	70		
	Carried to Collection SECTION NO. 18 BILL NO. 3 SURFACE BDES			R	

	CONCRETE				
	Reinforced Cement Concrete (30MPa) In				
1	Surface beds on waterproof sheeting.	m3	14		
	MESH REINFORCEMENT				
	Fabric Reinforcement To Concrete Work				
2	Welded high tensile steel fabric mesh reinforcement, Reference No. 395 laid in concrete surface beds and slabs, including laps and spacer blocks (measured net).	m2	70		
	DAMP PROOFING TO FLOORS				
	One Layer Of 250 Micron Thick Green Polyethylene Damp Proof Sheeting Laid				
3	On sand bed under solid floors.	m2	70		
	Carried to Collection			R	
	SECTION NO. 18 BILL NO. 3				
	SURFACE BDES				

SECTION NO. 18				
BILL NO. 3				
SURFACE BDES				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	348			
	349			
Carried Forward to Summary of Section No. 18		R		
SECTION NO. 18 BILL NO. 3 SURFACE BDES				

		Quantity	Rate	Amount
BILL NO. 4 MASONRY AND PLASTERING				
MASONRY				
BRICKWORK				
NOTE:				
a) All cavity walls shall be tied together with 5 Butterfly				
type wire ties per square metre.				
b) Bricks used in loadbearing walls shall have a minimum				
compression strength of 10MPa and shall comply with SANS.				
c) Mortar shall have a minimum compression strength of 10MPa.				
Brickwork In Clay Bricks In Cement Mortar In				
Half brick wall.	m2	24		
One brick wall in beam filling, each brick skin built up separately with internal skin built first.	m2	13		
One brick wall, each brick skin built up separately with internal skin built first.	m2	33		
Half brick wall in shower kerb to 85mm high.	m	4		
<u>Sundries</u>				
Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry.	m2	78		
Reinforcement				
Brick reinforcement 80mm wide.	m	71		
Carried to Collection SECTION NO. 18 BILL NO. 4 MASONRY AND PLASTERING			R	
	MASONRY BRICKWORK NOTE:  a) All cavity walls shall be tied together with 5 Butterfly type wire ties per square metre.  b) Bricks used in loadbearing walls shall have a minimum compression strength of 10MPa and shall comply with SANS.  c) Mortar shall have a minimum compression strength of 10MPa.  Brickwork In Clay Bricks In Cement Mortar In Half brick wall.  One brick wall in beam filling, each brick skin built up separately with internal skin built first.  One brick wall, each brick skin built up separately with internal skin built first.  Half brick wall in shower kerb to 85mm high.  Sundries  Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry.  Reinforcement  Brick reinforcement 80mm wide.  Carried to Collection  SECTION NO. 18 BILL NO. 4	MASONRY BRICKWORK NOTE:  a) All cavity walls shall be tied together with 5 Butterfly type wire ties per square metre.  b) Bricks used in loadbearing walls shall have a minimum compression strength of 10MPa and shall comply with SANS.  c) Mortar shall have a minimum compression strength of 10MPa.  Brickwork In Clay Bricks In Cement Mortar In Half brick wall. m2 One brick wall in beam filling, each brick skin built up separately with internal skin built first. m2 One brick wall, each brick skin built up separately with internal skin built first. m2 Half brick wall in shower kerb to 85mm high. m  Sundries Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry. m2  Reinforcement Brick reinforcement 80mm wide. m	BILL NO. 4 MASONRY  MASONRY  BRICKWORK  NOTE:  a) All cavity walls shall be tied together with 5 Butterfly type wire ties per square metre. b) Bricks used in loadbearing walls shall have a minimum compression strength of 10MPa and shall comply with SANS. c) Mortar shall have a minimum compression strength of 10MPa.  Brickwork In Clay Bricks In Cement Mortar In Half brick wall. m2 24  One brick wall in beam filling, each brick skin built up separately with internal skin built first. m2 13  One brick wall, each brick skin built up separately with internal skin built first. m2 33  Half brick wall in shower kerb to 85mm high. m 4  Sundries  Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry. m2 78  Reinforcement  Brick reinforcement 80mm wide. m 71	BILL NO. 4 MASONRY  MASONRY  BRICKWORK  NOTE:  a) All cavity walls shall be tied together with 5 Butterfly type wire ties per square metre.  b) Bricks used in loadbearing walls shall have a minimum compression strength of 10MPa and shall comply with SANS.  c) Mortar shall have a minimum compression strength of 10MPa.  Brickwork in Clay Bricks in Cement Mortar in  Half brick wall.  Done brick wall in beam filling, each brick skin built up separately with internal skin built first.  M2  One brick wall, each brick skin built up separately with internal skin built first.  M2  All fibrick wall in shower kerb to 85mm high.  M3  Sundries  Bag down face of outside face of internal one brick wall skin with 4.1 cement sand slurry.  Reinforcement  Brick reinforcement 80mm wide.  Carried to Collection  R

1	Brick reinforcement 160mm wide.	m	125		
	Precast Prestressed Vibrated Cement Concrete (30Mpa) Lintols Including Moulds, Reinforcement, Propping, Etc.				
2	Lintol 110mm wide x 75mm deep in lengths not exceeding 3000mm.	m	35		
	DAMP PROOFING TO WALLS				
	One Layer Of 375 Micron Thick Black Embossed Polyethylene Damp Proof Course				
3	On walls.	m2	27		
	PLASTERING				
	SCREED				
	3.1 Cement Screed On Concrete				
4	25mm Thick on floors to receive porcelain or ceramic tiling.	m2	70		
5	65mm Thick (average) on shower floors graded to falls and currents.	m2	4		
	EXTERNAL PLASTER				
	Cement Plaster On Brickwork On				
6	Walls.	m2	48		
7	Narrow widths.	m2	5		
	INTERNAL PLASTER				
	Cement Plaster On Brickwork On				
8	Walls.	m2	95		
9	Narrow widths.	m2	7		
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	Carried to Collection			R	
	SECTION NO. 18 BILL NO. 4				
	MASONRY AND PLASTERING				

SECTION NO. 18				
BILL NO. 4				
MASONRY AND PLASTERING				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	351			
	352			
Carried Forward to Summary of Section No. 18 SECTION NO. 18		R		
BILL NO. 4 MASONRY AND PLASTERING				

Item No			Quantity	Rate	Amount
	BILL NO. 5 ROOFS AND RAINWATER GOODS				
	ROOF COVERINGS				
	CORRUGATED ROOF SHEETING				
	0.6mm Chromadeck Corrugated Profile Roof Sheeting ith Accessories				
1	Roof covering with pitch at 15 degrees.	m2	63		
2	0,80mm Headwall flashing 660mm girth three times bent in length at junction of 30 degree sheeting with 10 degree sheeting.	m	17		
3	0,80mm Sidewall flashing 660mm girth three times bent in length.	m	10		
4	0,80mm Counter flashing 660mm girth two times bent in length.	m	27		
5	0,80mm Serrated flute closer.	m	17		
6	Sondor flute polycloser sealed with sealing compound.	m	17		
	A.B.E. Superlaycryl Bandage Flashing (Colour To Match Metal Roof Sheeting) By Specialist As Per Manufacturers Specifications And Recommendations				
7	Bandage flashing not exceeding 300mm wide.	m	17		
	INSULATION				
	Sisalation 405 Reinforced Aluminium Foil Insulation Fixed With PVC Coated Straining Wires				
8	Insulation laid with 150mm wide laps at all joints under timber purlins to manufacturer's instructions.	m2	63		
	Carried to Collection SECTION NO. 18 BILL NO. 5			R	
	ROOFS AND RAINWATER GOODS				

	( <u> </u>	I	1	Ш	1
	Sawn Pine				
1	50 x 76mm Purlin.	m	68		
2	76 x 76mm Splayed purlin.	m	17		
	EAVES AND VERGES				
	PVC Fascia Fixed To Rafter Ends With Stainless Steel Screws As Per Manufacturer Specifications And Instructions				
3	225 x 3mm Fascia.	m	17		
	Ties, Cramps, Etc.				
4	2 x 30mm Galvanised hoop iron tie 750mm long with one end fixed to timber beams and other end wrapped around rafter and spiked to plate.	No	34		
	RAINWATER GOODS				
	<u>GUTTERS</u>				
	0,6mm Watertite Aluminium Seamless White Epoxy Powder Coated Gutters, Secured To PVC Fascia With Approved Brackets At 600mm Centres Using Aluminium Peeled Rivets, Including Expanded Aluminium Mesh Leaf Guard Set Over Gutter All Installed In Strict Accordance With The Manufacturers Instructions				
5	125 x 85mm Ogee profile eaves gutters with beaded front edge.				
		m	17		
6	Extra over 125 x 85mm Ogee or other approved eaves gutter for stop end.	No	2		
7	Extra over 125 x 85mm Ogee or other approved eaves gutter for outlet for 100 x 75mm pipe.	No	3		
	DOWNPIPES				
	Carried to Collectio	n		R	
	SECTION NO. 18 BILL NO. 5 ROOFS AND RAINWATER GOODS				

	0,6mm Watertite Aluminium Seamless White Epoxy				
	Powder Coated Downpipe All Installed In Strict Accordance With The Manufacturers Instructions				
1	100 x 75mm Rectangular downpipes fixed to brick wall.	m	9		
2	Extra over 100 x 75mm rainwater pipe for eaves or plinth offset 550mm projection formed of and including two bends and approximately 550mm length of pipe.	No	3		
3	Extra over 100 x 75mm rainwater pipe for shoe, with and including bend.	No	3		
	Carried to Collection			R	
	SECTION NO. 18 BILL NO. 5 ROOFS AND RAINWATER GOODS				

SECTION NO. 18				
BILL NO. 5				
ROOFS AND RAINWATER GOODS				
COLLECTION				
COLLECTION  Total Brought Forward from Page No.	Page No 354 355 356		Amount	
Carried Forward to Summary of Section No. 18 SECTION NO. 18 BILL NO. 5 ROOFS AND RAINWATER GOODS		R		_

Item No		Quantity	Rate	Amount
	BILL NO. 6 INTERNAL FINISHES			
	FLOORS AND SKIRTINGS			
	WATERPROOFING TO SHOWERS			
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc			
1	Shower floors. m2	4		
	FLOOR TILES			
	Supply Only Non Slip Porcelain Floor Tiles PC R150.00 (One Hundred and Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)			
2	On floors.	70		
	Take Delivery, Store Until Required And Fix 300 x 300mm Porcelain Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout			
3	On floors.	70		
	Supply Only Mosaic Floor Tiles PC R150.00 (One Hundred And Fifty Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Nett Area Of Tiling)			
4	On shower floors. m2	4		
	Carried to Collection		R	
	SECTION NO. 18 BILL NO. 6			
	INTERNAL FINISHES			

	Take Delivery, Store Until Required And Fix 50 x 50mm Mosaic Tiles (Supply Of Tiles Elsewhere Measured) To Screeded Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout				
1	On shower floors.	m2	4		
	WALL FINISHES				
	WATERPROOFING TO SHOWERS				
	One Coat ABE Duraflex Waterproofing System  1.5mm Thick Complete With Membrane Applied In  Strict Accordance With The Manufacturer's  Instructions, Including Laps, Turn-Ups, Turn-Downs,  Etc				
2	Shower walls.	m2	22		
	WALL TILING				
	Supply Only Ceramic Wall Tiles PC R200.00 (Two Hundred Rand) Per Square Metre Net Including All Necessary Waste (Rate To Include For Waste) (Area Measured Is Net Area Of Tiling)				
3	On walls.	m2	37		
	Take Delivery, Store Until Required And Fix 300 x 300mm Ceramic Wall Tiles (Supply Of Tiles Elsewhere Measured) To Existing Plastered Surface Unless Otherwise Described With Cement Based Powder Adhesive And Flush Point In Tinted Tile Grout				
4	On walls.	m2	37		
	SUNDRIES				
	Corner Protectors, Expansion Joint Edging, Etc				
5	M-trim natural anodised aluminium straight edge trim to external corner.	m	45		
	CEILINGS AND CORNICES				
	Carried to Collection			R	
	SECTION NO. 18				
	BILL NO. 6 INTERNAL FINISHES				

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	NAILED UP CEILINGS					
	9,5mm Rhino Gypsum Plasterboard Sheets With 63mm Wide Strips Of Wire Scrim Nailed Over Joints, Surface Of Ceiling Finished With 6mm Thick Rhinolite Plaster To A Smooth Even Surface					
1	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edges of rooms and along joints of ceiling plates.	m2	70			
	CORNICES					
	Polystyrene Cornice					
2	RhinoArt decor polystyrene mouldings cornice plugged to walls.	m	94			
	Carried to Collection			R		T
	SECTION NO. 18 BILL NO. 6			.`		$\dagger$
	INTERNAL FINISHES					
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SECTION NO. 18			
BILL NO. 6			
INTERNAL FINISHES			
COLLECTION			
	Page No		Amount
Total Brought Forward from Page No.	358		
	359		
	360		
Carried Forward to Summary of Section No. 18		R	
SECTION NO. 18 BILL NO. 6			
INTERNAL FINISHES			
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Item No		Quantity	Rate	Amount
	BILL NO. 7 EXTERNAL FINISHES			
	WALL FINISHES			
	CILLS			
	Fibre Reinforced Cement Cill			
1	15mm Thick x 150mm wide cill set flat and slightly projecting.	18		
	CEILINGS AND CORNICES			
	NAILED UP CEILINGS			
	9.5mm Cladit Fibre Reinforced Cement Sheets With H-Profile PVC Jointing Cover Strips Along Both Edges And Over Joints, Fixed With Galvanised Mild Steel Clout Nails			
2	Sloping ceilings fixed to and including 38 x 38mm sawn Pine brandering at 600mm centres in one direction only and with additional brandering at outer edge perimeter, fixed to soffit of timber trusses.  m2	13		
	CORNICES			
	Wrot Meranti			
3	22 x 44mm Twice rebated cornice, plugged on.	35		
	Carried Forward to Summary of Section No. 18		R	
	SECTION NO. 18 BILL NO. 7			
	EXTERNAL FINISHES			

Item No			Quantity	Rate	Amount
	BILL NO. 8 DOORS AND WINDOWS				
	DOORS, FRAMES AND IRONMONGERY				
	BRICKWORK				
	<u>Ties, Cramps, Etc.</u>				
1	2 x 30mm Galvanised hoop iron cramp 450mm long with one end twice screwed to timber frame and other end built into brickwork and turned up into joint.	No	39		
	DOORS, ETC.				
	Framed And Ledged Braced Battened Selected Wrot Meranti Exterior Doors				
2	44mm Framed, ledged and braced vertical battened infill door, (Hung) size 813 x 2032mm. (D1)	No	3		
	FLUSH DOORS				
	Semi-Solid Core Flush Doors Finished On Both Faces With Commercial Veneer				
3	40mm Door, (Hung) size 813 x 2032mm. (D2)	No	10		
	IRONMONGERY				
	Locks And Handles				
4	Solid blesbok 460/313 3 lever lockset.	Sets	3		
5	BB-179S brass barrel bolt toilet lockset.	Sets	10		
	Carried to Collection			R	
	SECTION NO. 18 BILL NO. 8				
	DOORS AND WINDOWS				

	SHOWER DOORS				
	<u>NOTE</u>				
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.				
	The following Provisional Sums are net and do not include any discount for the Main Contractor				
1	Provide the sum of R10 000.00 (Ten Thousand Rand) for Shower Doors supplied and fixed complete.		Item		10 000,00
2	Allow for general attendance on ditto.		Item		
3	Allow for profit if required.		Item		
	HOT-DIP GALVANISED PRESSED STEEL DOOR FRAMES				
	Frames To Suit One Brick Wall Plastered Both Sides				
4	Frame for door type D1 size 813 x 2032mm high with and including three number medium duty hinges.	No	3		
	Frames To Suit Half Brick Wall Plastered Both Sides				
5	Frame for door type D2 size 813 x 2032mm high with and including three number medium duty hinges.	No	10		
	WINDOWS				
	HOT-DIP GALVANISED STEEL WINDOWS				
	Steel Residential Type Windows Top Hung Open Out Frames (EXM7H) Fitted With And Including 10mm Diameter Solid Round Burglar Bars At 160mm Centres To Entire Window				
6	Window type W1, size 1022 x 654mm.	No	5		
7	Window type W2, size 533 x 654mm.	No	10		
	GLAZING				
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	BILL NO. 8 DOORS AND WINDOWS				

	Normal Glass				
1	4mm Clear float glass and glazing to steel sashes in panes exceeding 0,1 and not exceeding 0,5 square metres in area.	m2	3		
	Laminated Safety Glass				
	Note:				
	All glazing of laminated safety glass is to be glazed strictly in accordance with the manufacturer's instructions.				
	All safety glass is to be clearly marked as such in accordance with the latest safety regulations.				
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2	6,5mm Normal strength clear laminated safety glass and glazing to steel sashes in panes in panes exceeding 0,1 and not exceeding 0,5 square metres in area.	m2	3		
	Carried to Collection			R	
	SECTION NO. 18 BILL NO. 8				_
	DOORS AND WINDOWS				
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SECTION NO. 18				
BILL NO. 8				
DOORS AND WINDOWS				
COLLECTION				
	Page		Amount	
Total Brought Forward from Done No	No			
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Carried Forward to Summary of Section No. 18		R		
SECTION NO. 18 BILL NO. 8				
DOORS AND WINDOWS				
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Item No		Quantity	Rate	Amount
	BILL NO. 9 PLUMBING AND DRAINAGE			
	SUPPLEMENTARY PREAMBLES			
	'Polycop' polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.			
	Pipes shall be firmly fixed to walls etc with coloured			
	nylon snap-in pipe clips with provision for accommodating thermal			
	movement and jointed and fixed strictly in accordance with the manufacturer's instructions.			
	All pipe diameters are nominal external.			
	'Polylink' polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.			
	Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.			
	Reducers shall include jointing to pipes with PVC rubber			
	ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.			
	All pipes shall be jointed and fixed strictly in accordance			
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	SECTION NO. 18 BILL NO. 9 PLUMBING AND DRAINAGE			

with the manufacturer's instructions.		
All pipe diameters are nominal external.		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.		
Vitrified clay pipes etc:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.		
uPVC pipes and fittings:		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.		
Soil, waste and vent pipes and fittings shall be solvent weld jointed.		
uPVC pressure pipes and fittings:		
uPVC pressure pipes and fittings:  Pipes for water supply shall be of the class stated.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-		
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-	R	
Pipes for water supply shall be of the class stated.  Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.  Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall	R	

only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.		
Fixing of pipes:		
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.		
Lead pipes and traps:		
All soldered joints shall be wiped and brass unions shall		
be used for jointing lead to steel.		
Reducing fittings:		
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.		
Wire gratings:		
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.		
Septic tanks:		
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.		
Exposed concrete surfaces:		
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye		
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BILL NO. 9 PLUMBING AND DRAINAGE		
FLUIVIDING AND DRAINAGE		

	tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.		
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	Excavations:		
	No claim for rock excavation will be entertained unless the		
	Contractor has timeously notified the quantity surveyor		
	thereof prior to backfilling. 'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.		
	Laying, backfilling, bedding, etc of pipes:		
	Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.		
	Where no manufacturers' instructions exist pipes shall		
	be laid in accordance with clauses 5.1 and 5.2 of each of the following: SANS 1200 L : Medium pressure		
	pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with		
	clause 3, 5.5, 5.6, 5.7 and 7 of SANS.		
	Flush pans:		
	Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.		
	Stainless steel basins, sinks, wash troughs, urinals, etc:		
	Units shall have standard aprons on all exposed edges		
	and tiling keys against walls where applicable.		
	Waste unions:		
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.		
	Steel sectional water tanks:		
	Tanks shall comply with SANS CKS 114.		
	'Densyl' petrolatum anti-corrosion tape as manufactured		
	by Denso SA (Pty) Ltd:		
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	Dings to be toned shall be sented with the surrounds to	ı	1	ı	II	1
	Pipes to be taped shall be coated with the appropriate primer					
	and the tape shall be applied with minimum 15mm lap per					
	spiral unless otherwise described.					
	Couplings and fittings to pipes shall be taped in strict					
	accordance with the manufacturer's instructions including all					
	mastic, tape, 'Layflat' sheeting, securing of same, etc.					
	Prices for wrapping of pipes shall include for all work as described to couplings in the length.					
	User note: Dependent on soil or environmental conditions laps may require to be increased to a					
	maximum of 55% (which results in a double layer).					
	SANITARY FITTINGS					
1	Budgetary allowance of R10 000.00 (Ten Thousand					
	Rand) net for the supply and delivery to site of Sanitary Fittings by a Selected Supplier					
			Item			
	TAPS, VALVES, ETC.					
	<u>Brass</u>					
2	15mm Brass stop valve.	No	25			
3	22mm Ditto.	No	5			
	SANITARY PLUMBING					
	Rigid PVC Soil And Waste Pipes Complying With SABS 967					
4	110mm Pipe fixed to walls.	m	5			
5	32mm Pipe chased in walls.	m	15			
6	40mm Ditto.	m	13			
	Extra Over PVC Pipes For					
7	32mm Bend.	No	30			
'	January Dend.	140	30			
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	SECTION NO. 18 BILL NO. 9					
	PLUMBING AND DRAINAGE					

1	40mm Ditto.	No	10		
2	110mm Ditto.	No	5		
3	40mm Junction.	No	5		
4	110mm End cap.	No	5		
5	110mm Ditto.	No	5		
6	40mm Access Bend.	No	10		
7	40mm Access junction.	No	8		
8	110mm Ditto.	No	5		
9	110 x 50mm Double inspection eye reducing junction.	No	5		
10	110mm Pan connector and neoprene joint to outlet of pan.	No	6		
	WATER SUPPLIES				
	Class 2 Copper Pipes				
11	15mm Pipe fixed to walls.	m	50		
12	15mm Pipe chased into walls.	m	70		
	Extra Over Class 2 Copper Pipes For Capillary Fittings				
13	15mm Fittings.	No	85		
	Extra Over Class 2 Copper Pipes For Brass CompressionFittings				
14	15mm Fittings.	No	50		
	Flexible Hose Fittings				
15	15mm Reinforced flexible hose pipe 300mm girth.	No	10		
	TESTING				
					+
	Carried to Collectio SECTION NO. 18	n		R	+
	BILL NO. 9 PLUMBING AND DRAINAGE				

Testing Of Plumbing And Drainage			
Allow for testing water supplies, sanitary plumbing and ittings.	Item		
uings.	illoini		
Carried to Collection		R	
ECTION NO. 18		'` <b> </b> =	
BILL NO. 9			
LUMBING AND DRAINAGE			

SECTION NO. 18				
BILL NO. 9				
PLUMBING AND DRAINAGE				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	367			
	368			
	369			
	370			
	371			
	372			
	373			
		_		
Carried Forward to Summary of Section No. 18 SECTION NO. 18		R		-
BILL NO. 9 PLUMBING AND DRAINAGE				

Item No			Quantity	Rate	Amount
	BILL NO. 10 PAINTWORK				
	PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.				
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Acrylic PVA Paint				
1	On internal gypsum plaster board ceilings and cornices (White colour group).	m2	70		
	Prepare, One Coat Universal Undercoat Or Primer And Two Coats Plascon Polvin Wall And All Paint				
2	On external plastered walls (White colour group).	m2	53		
3	On internal plastered walls (White colour group).	m2	65		
4	On cladit fibre reinforced cement ceiling with PVC cover strips and cornices (White colour group).	m2	13		
5	On cills not exceeding 300mm girth (White colour group).	m	18		
	PAINT ON METAL				
	Prepare, Three Coats Plascon Nuroof				
6	On corrugated roof sheeting (Deep colour group).	m2	63		
	<u>Prepare, One Coat Universal Undercoat Or Primer</u> <u>And Two Coats Plascon Velvaglo Matt Enamel Paint</u>				
7	On windows (White colour group).	m2	12		
8	On door frames (White colour group).	m2	39		
	PAINT ON WOOD				
	Carried to Collection			R	
	SECTION NO. 18 BILL NO. 10 PAINTWORK				

	Prepare, One Coat Universal Undercoat Or Primer And Three Coats Plascon Velvaglo Matt Enamel Paint				
1	On doors (Deep colour group).	m2	40		
1 2	On doors (Deep colour group).  On battened doors (White colour group).	m2 m2	40		
	Carried to Collection  SECTION NO. 18 BILL NO. 10 PAINTWORK			R	

SECTION NO. 18				
BILL NO. 10				
PAINTWORK				
COLLECTION				
	Page No		Amount	
Total Brought Forward from Page No.	375			
	376			
				<u> </u>
Carried Forward to Summary of Section No. 18		R		<u>_</u>
SECTION NO. 18 BILL NO. 10 BANTWORK				
PAINTWORK				

	SECTION SUMMARY - SECTION 18 : GRASSLANDS RESEARCHERS ACCO				
Bill No		Page No		Amount	
1	ALTERATIONS	344			
2	FOUNDATIONS	347			
3	SURFACE BDES	350			
4	MASONRY AND PLASTERING	353			
5	ROOFS AND RAINWATER GOODS	357			
6	INTERNAL FINISHES	361			
7	EXTERNAL FINISHES	362			
8	DOORS AND WINDOWS	366			
9	PLUMBING AND DRAINAGE	374			
10	PAINTWORK	377			
	Carried to Final Summary SECTION NO. 18		R		

Item No		Quantity	Rate	Amount
	SECTION NO. 19 GRASSLANDS: SUNDRY ITEMS  Note: Tenderers are referred to the Architectural drawing number 22022-04-10/WG600/Rev 0 issued with			
	these Bills of Quantities to assist in pricing this section of the works.			
	BILL NO. 1 PROVISIONAL SUMS			
	WATER SYSTEM UPGRADE			
	NOTE			
	The following Nominated Sub-Contract amounts are for work to be carried out by Nominated Sub-Contractors in terms of The Principal Building Agreement.			
	The following Provisional Sums are net and do not include any discount for the Main Contractor			
1	Provide the sum of R200 000.00 (Two Hundred Thousand Rand) for Water System Upgrade Complete With All Fittings supplied and fixed complete.	Item		200 000,00
2	Allow for general attendance on ditto.	Item		
3	Allow for profit if required.	Item		
	Carried to Final Summary SECTION NO. 19 BILL NO. 1 PROVISIONAL SUMS		R	

Item No		Quantity	Rate	Amount
	SECTION 20 ELECTRICAL INSTALLATION			
	BILL NO. 1 ELECTRICAL INSTALLATION			
	ELECTRICAL INSTALLATION			
1	Total Electrical Installation price (excluding VAT) to be brought forward as per the attached Electrical Installation Bills of Quantities, installed complete.	Item		
2	Allow for profit.	Item		
3	Allow for attendance.	Item		
	Carried to Final Summary SECTION NO. 20		R	
	BILL NO. 1 ELECTRICAL INSTALLATION			

FINAL SUMMARY			
	Page No		Amount
SECTION 1 : PRELIMINARIES	25		
SECTION 2 : MVUBU CHALETS : UNIT 01	70		
SECTION 3 : MVUBU CHALETS : UNITS 3 & 4	88		
SECTION 4 : MVUBU LODGE : DINING AREA	103		
SECTION 5 : MVUBU LODGE : UNIT 01	116		
SECTION 6 : MVUBU LODGE : UNIT 02	129		
SECTION 7 : MVUBU LODGE : UNIT 03	142		
SECTION 8 : MVUBU LODGE : UNIT 04	155		
SECTION 9 : MVUBU LODGE : KITCHEN	168		
SECTION 10 : MVUBU STAFF : MANAGERS HOUSE	200		
SECTION 11 : MVUBU STAFF : BOARDING HOUSE	232		
SECTION 12 : MVUBU STAFF : ROUNDAVELE	254		
SECTION 13 : MVUBU STAFF : BRAAI AREA	266		
SECTION 14 : MVUBU STAFF : TOILETS AND STORE	284		
SECTION 15 : MVUBU LODGE : SUNDRY ITEMS	287		
SECTION 16 : NEW DOUBLE DRIFT CAMPSITE : ABLUTION BLOCK	326		
SECTION 17 : GRASSLANDS RESEARCHERS ACCOMMODATION : MAIN LODGE HOUSE	339		
SECTION 18 : GRASSLANDS RESEARCHERS ACCOMMODATION : ABLUTION BLOCK	378		
SECTION 19 : GRASSLANDS : SUNDRY ITEMS	379		
SECTION 20 : ELECTRICAL INSTALLATION	380		
Carried Forward		R	
	SECTION 2: MVUBU CHALETS: UNIT 01  SECTION 3: MVUBU CHALETS: UNITS 3 & 4  SECTION 4: MVUBU LODGE: DINING AREA  SECTION 5: MVUBU LODGE: UNIT 01  SECTION 6: MVUBU LODGE: UNIT 02  SECTION 7: MVUBU LODGE: UNIT 03  SECTION 8: MVUBU LODGE: UNIT 04  SECTION 9: MVUBU LODGE: KITCHEN  SECTION 10: MVUBU STAFF: MANAGERS HOUSE  SECTION 11: MVUBU STAFF: BOARDING HOUSE  SECTION 12: MVUBU STAFF: BOARDING HOUSE  SECTION 13: MVUBU STAFF: BRAAI AREA  SECTION 14: MVUBU STAFF: TOILETS AND STORE  SECTION 15: MVUBU LODGE: SUNDRY ITEMS  SECTION 16: NEW DOUBLE DRIFT CAMPSITE: ABLUTION BLOCK  SECTION 17: GRASSLANDS RESEARCHERS ACCOMMODATION: MAIN LODGE HOUSE  SECTION 19: GRASSLANDS RESEARCHERS ACCOMMODATION: ABLUTION BLOCK  SECTION 19: GRASSLANDS: SUNDRY ITEMS	Page No	SECTION 1 : PRELIMINARIES  SECTION 2 : MVUBU CHALETS : UNIT 01  SECTION 3 : MVUBU CHALETS : UNIT 3 & 4  SECTION 3 : MVUBU CHALETS : UNIT 3 & 4  SECTION 4 : MVUBU LODGE : DINING AREA  SECTION 5 : MVUBU LODGE : UNIT 01  SECTION 6 : MVUBU LODGE : UNIT 02  SECTION 7 : MVUBU LODGE : UNIT 03  SECTION 8 : MVUBU LODGE : UNIT 04  SECTION 9 : MVUBU LODGE : UNIT 04  SECTION 9 : MVUBU LODGE : KITCHEN  SECTION 10 : MVUBU STAFF : MANAGERS HOUSE  SECTION 11 : MVUBU STAFF : BOARDING HOUSE  SECTION 12 : MVUBU STAFF : BOARDING HOUSE  SECTION 13 : MVUBU STAFF : BRAAI AREA  SECTION 14 : MVUBU STAFF : TOILETS AND STORE  SECTION 15 : MVUBU LODGE : SUNDRY ITEMS  SECTION 16 : NEW DOUBLE DRIFT CAMPSITE : ABLUTION BLOCK  SECTION 17 : GRASSLANDS RESEARCHERS ACCOMMODATION : MAIN LODGE HOUSE  SECTION 18 : GRASSLANDS RESEARCHERS ACCOMMODATION : ABLUTION BLOCK  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS  SECTION 19 : GRASSLANDS : SUNDRY ITEMS

Section No	FINAL SUMMARY	Page No		Amount
	Brought Forward		R	
	SUB-TOTAL 1		R	
	ADD: CONTINGENCIES (10%)		R	
	SUB-TOTAL 2		R	
	ADD: VALUE ADDED TAX (15%)		R	
	CARRIED TO FORM OF TENDER			

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