



EZEMVELO KZN WILDLIFE

BID DOCUMENT

REFURBISHMENT OF 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE RESORT FOR EZEMVELO KZN WILDLIFE

Employer:

Head Office
Ezemvelo KZN Wildlife
Queen Elizabeth Park

No. 1 Peter Brown Drive
Montrose, Pietermaritzburg
3202

Tel Number: 033 - 845 1912
Bongiwe.mazibuko@kznwildlife.com

Bid Number: EKZNW 19/2022/23

Document Date: As Per Bid Advert

CIDB Grading: 3GB or higher

Contract Period: 6 Calendar Months

Contracting Party:

CIDB Registration number:

Central Suppliers Database Registration
Number:



INVITATION TO BID

BID NUMBER:	EKZNW 19/2022/23
DESCRIPTION OF WORK REQUIRED:	REFURBISHMENT OF 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE RESORT FOR EZEMVELO KZN WILDLIFE
CIDB GRADING REQUIREMENT	3GB OR HIGHER
COMPULSORY BRIEFING SESSION DATE & ADDRESS:	Date: Tuesday, 16 May 2023 Time: 11h00 Venue: Thendele Resort
CLOSING DATE AND TIME:	Wednesday, 31 May 2023 11:00am
BID VALIDITY PERIOD:	120 calendar days (commencing from the Closing Date)
BID DOCUMENTS DELIVERY ADDRESS:	Ezemvelo KZN Wildlife, Head Office Queen Elizabeth Park No. 1 Peter Brown Drive Montrose, Pietermaritzburg 3202

NAME OF BIDDER:	
BID PRICE IN RSA CURRENCY WITH ALL APPLICABLE TAXES INCLUDED:	R
BID PRICE IN WORDS:
BIDDERS SIGNATURE:	

TABLE OF CONTENT

PART A		Page No:
	Special instructions and notices to bidders regarding the completion of bidding forms	4
	Registration on the Central Suppliers Database	5
	Official Briefing Session /Site Inspection Certificate	6
	SBD 1: Invitation to Bid	7-8
	SBD 4: Bidder's disclosure	9-10
	SBD 6.1: Preference points claim form in terms of the preferential procurement regulations 2022	11-14
PART B		
	Special conditions of Contract	15-17
	Authority to sign a bid	18
	Contractor's Health and Safety Declaration	19-20
	Pre-construction Health and Safety Specification	21-33
	Environmental Management Plan (EMP)	34-36
	Contractor Standing Orders	37-39
PART C1	AGREEMENT AND CONTRACT DATA	
	C1.1 Form of Offer	40-45
	C1.2 Contract Data	46-57
	C1.3 Form of Guarantee	58-61
PART C2	PRICING DATA	
	C2.1 Pricing Instructions	62-65
	C2.2 Preliminaries	P1-P25
	C2.3 Bills of Quantities	B1-B25
	C2.4 Final Summary Page	B26
PART C3	SCOPE OF WORKS	
	C3.1 Scope of Works	SOW 1-2
	C3.2 Specification for HIV/AIDS awareness	S 1-5
	C3.3 HIV/STI Compliance report	S 6-7
PART C4	SITE INFORMATION	
	C4.1 Site Information	SI 1-2
ANNEXURES		
	Model Preambles of Trades 2008	51 Pages

SPECIAL INSTRUCTIONS AND NOTICES TO BIDDERS REGARDING THE COMPLETION OF BIDDING FORMS

PLEASE NOTE THAT THIS BID IS SUBJECT TO TREASURY REGULATIONS 16A ISSUED IN TERMS OF THE PUBLIC FINANCE MANAGEMENT ACT, 1999, THE KWAZULU-NATAL SUPPLY CHAIN MANAGEMENT POLICY FRAMEWORK, EZEMVELO KZN WILDLIFE SUPPLY CHAIN MANAGEMENT POLICY AND ALL OTHER PRESCRIPTS THAT REGULATE PUBLIC PROCUREMENT IN THE REPUBLIC OF SOUTH AFRICA.

1. Unless inconsistent with or expressly indicated otherwise by the context, the singular shall include the plural and visa versa and with words importing the masculine gender shall include the feminine and the neuter.
2. Under no circumstances whatsoever may the bid forms be retyped or redrafted. Photocopies of the original bid documentation may be used, but an original signature must appear on such photocopies.
3. The bidder is advised to check the number of pages and to satisfy himself that none are missing or duplicated.
4. Bids submitted must be accurately completed. Bidders must ensure that all questions are answered. If questioned are "not applicable", bidders must ensure that "N/A" is indicated in the relevant space. It is not permissible to leave blank spaces or unanswered questions. Bidders will only be considered if the bid document is accurately completed and accompanied by all relevant certificates and other necessary applicable information. Original signature must appear on all relevant Sections of the bid document. Failure to comply with the same will invalidate your bid.
5. Bids shall be lodged at the address indicated not later than the closing time specified for their receipt, and in accordance with the directives in the bid documents.
6. Each bid shall be addressed in accordance with the directives in the bid documents and shall be lodged in a separate sealed envelope, with the name and address of the bidder, the bid number and closing date indicated on the envelope. The envelope shall not contain documents relating to any bid other than that shown on the envelope. If this provision is not complied with, such bids may be rejected as being invalid.
7. All bids received in sealed envelopes with the relevant bid numbers on the envelopes are kept unopened in safe custody until the closing time of the bids. Where, however, a bid is received open, it shall be sealed. If it is received without a bid number on the envelope, it shall be opened, the bid number ascertained, the envelope sealed and the bid number written on the envelope.
8. A specific box is provided for the receipt of bids, and no bid found in any other box or elsewhere subsequent to the closing date and time of bid will be considered.
9. No bid sent through the post will be considered if it is received after the closing date and time stipulated in the bid documentation, and proof of posting will not be accepted as proof of delivery.
10. No bid submitted by telefax, telegraphic or other electronic means will be considered.
11. Bidding documents must not be included in packages containing samples. Such bids may be rejected as being invalid.
12. Any alteration made by the bidder must be initialed and use of correcting fluid is prohibited.
13. Bids will be opened in public as soon as practicable after the closing time of bid.
14. Where practical, prices are made public at the time of opening bids.
15. If it is desired to make more than one offer against any individual item, such offers should be given on a photocopy of the page in question. Clear indication thereof must be stated on the schedules attached.
16. Bidders must ensure that during a briefing session, the certificate is stamped and signed, also ensure that the attendance register is signed. Failure to comply with any of these will result to disqualification.
17. Ezemvelo will not reimburse bidders for any expenses incurred in the preparation of the bids and submission of a bid offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.
18. All bids must remain binding for a minimum period of (120) calendar days the date of the bid closing date.

REGISTRATION ON THE CENTRAL SUPPLIERS DATABASE

1. In terms of the National Treasury Instruction Note, all suppliers of goods and services to the State are required to register on the Central Suppliers Database.
2. Prospective suppliers should self-register on the CSD website www.csd.gov.za
3. If a business is registered on the Database and it is found subsequently that false or incorrect information has been supplied, then the Ezemvelo KZN Wildlife may, without prejudice to any other legal rights or remedies it may have;
 - 3.1 cancel a bid or a contract awarded to such supplier, and the supplier would become liable for any damages if a less favorable bid is accepted or less favorable arrangements are made.
4. **The same principles as set out in paragraph 3 above are applicable should the supplier fail to request updating of its information on the Central Suppliers Database, relating to changed particulars or circumstances.**
5. IF THE SUPPLIER IS NOT REGISTERED AT THE CLOSING TIME OF BID, THE SUPPLIER WILL BE DISQUALIFIED AT THE BID EVALUATION PROCESS.

THIS IS TO CERTIFY THAT I (name of bidder/authorized representative)
....., WHO

REPRESENTS (state name of bidder)CSD
Registration

Number.....

AM AWARE OF THE CONTENTS OF THE CENTRAL SUPPLIER DATABASE WITH RESPECT TO THE BIDDER'S DETAILS AND REGISTRATION INFORMATION, AND THAT THE SAID INFORMATION IS CORRECT AND UP TO DATE AS ON THE DATE OF SUBMITTING THIS BID.

AND I AM AWARE THAT INCORRECT OR OUTDATED INFORMATION MAY BE A CAUSE FOR DISQUALIFICATION OF THIS BID FROM THE BIDDING PROCESS, AND/OR POSSIBLE CANCELLATION OF THE CONTRACT THAT MAY BE AWARDED ON THE BASIS OF THIS BID.

.....
SIGNATURE OF BIDDER OR AUTHORISED REPRESENTATIVE

DATE:

OFFICIAL BRIEFING SESSION/SITE INSPECTION CERTIFICATE

N. B.: THIS FORM IS ONLY TO BE COMPLETED WHEN APPLICABLE TO THE BID.

Site/Building/Institution Involved:

BID No: EKZNW 19/2022/23

Service: REFURBISHMENT TO 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE RESORT FOR
EZEMVELO KZN WILDLIFE

This is to certify that (bidder's representative name) _____

On behalf of (company name) _____

Visited and inspected the site on ____/____/____ (date) and is therefore familiar with the circumstances and the scope of the service to be rendered.

Signature of Bidder or Authorized Representative
(PRINT NAME)

DATE: ____/____/____

Name of Public Entity Representative
(PRINT NAME)

Official stamp with signature

--

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO QUOTE FOR REQUIREMENTS OF THE EZEMVELO KZN WILDLIFE					
BID NUMBER:	EKZNW19/2022/23	CLOSING DATE:	31 May 2023	CLOSING TIME:	11:00
DESCRIPTION	REFURBISHMENT TO 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE RESORT FOR EZEMVELO KZN WILDLIFE				
BID RESPONSE DOCUMENTS MUST BE DEPOSITED TO THE FOLLOWING ADDRESS:					
Ezemvelo KZN Wildlife, Head Office					
Queen Elizabeth Park					
No. 1 Peter Brown Drive, Montrose					
Pietermaritzburg, 3202					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Sthabiso Sithole		CONTACT PERSON	Bongiwe Mazibuko	
TELEPHONE NUMBER	033 845 1225		TELEPHONE NUMBER	033 845 1913	
FACSIMILE NUMBER			FACSIMILE NUMBER		
E-MAIL ADDRESS	Sthabiso.Sithole@kznwildlife.com		E-MAIL ADDRESS	mazibukb@kznwildlife.com	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?		<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?				<input type="checkbox"/> YES <input type="checkbox"/> NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?				<input type="checkbox"/> YES <input type="checkbox"/> NO	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?				<input type="checkbox"/> YES <input type="checkbox"/> NO	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?				<input type="checkbox"/> YES <input type="checkbox"/> NO	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?				<input type="checkbox"/> YES <input type="checkbox"/> NO	
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER.3 BELOW.					

**PART B
TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:

.....

(Proof of authority must be submitted e.g. company resolution)

DATE:

.....

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

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

Full Name	Identity Number	Name of State institution

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

2.2.1. If so, furnish particulars:

.....

2.3. Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

.....

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

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.5 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.
- 3.6 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.
- 3.7 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.

..... Signature Date
..... Position Name of bid der

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

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

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

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

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

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

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

a) The applicable preference point system for this tender is the 80/20 preference point system.

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

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

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

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

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

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

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20	or	90/10
$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$	or	$P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$

Where

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

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20	or	90/10
$P_s = 80 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$	or	$P_s = 90 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$

Where

- P_s = Points scored for price of tender under consideration
- P_t = Price of tender under consideration
- P_{max} = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
At least 51% owned by black people who are women	10	
At least 51% owned by black people who reside within uThukela District	10	

DECLARATION WITH REGARD TO COMPANY/FIRM

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

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

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

SPECIAL CONDITIONS OF CONTRACT

This bid is subject to the Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations, 2022; the General Conditions of Contract (GCC) and the following applicable other Special Conditions of Contract.

The offers must remain valid for a period of 120 calendar days from the closing date of the submission of bids.

1. CONTRACT PERIOD

- 1.1. The contract shall be for the period of 6 months.

2. EVALUATION CRITERIA

The evaluation process will be conducted in phase as follows:

PHASE 1	PHASE 2	PHASE 3	PHASE 4
Compliance and Completeness Screening	Mandatory Requirements	Functionality Criteria	Price and Preference goals
Compliance and completeness of proposal per the set of bid conditions.	Required CIDB grading is 3GB or higher	The threshold score for functionality which bidders are eliminated from further consideration, is 60%	Bids evaluated in terms of Preferential Procurement Regulations, 2022

2.1 Phase 1: Compliance and completeness screening

- Bidders must be fully registered on the National Treasury Central Supplier Database (CSD) at the closing time of the bid.
- Bid documents must be properly received on the bid closing date and time specified on the invitation.
- Bidders must ensure compliance with their tax obligations. No tender may be awarded to any tenderer whose tax matters have not been declared by the SARS to be in order.
- In bids where consortia / joint ventures / sub-contractors are involved; each party must submit a separate Tax compliance status.
- Bid documents must be properly fully completed, dated, signed in ink, and initial every page of the bid.

2.2 Phase 2: Mandatory Requirement

Bidders are to provide the required documents as per all mandatory requirements stipulated in this document.

NOTE: It is **MANDATORY** for the Bidder to submit relevant documentation in respect of the below and failure to do so will result in the bid being regarded as incomplete and **THUS NOT BE CONSIDERED**.

Bidders are to provide full and accurate answers to all mandatory questions posed in this document and are required to explicitly state "Comply" or "Do not comply" (with a ✓ or an X) regarding compliance with the requirements.

TICK WITH "X" UNDER APPROPRAITE COLUMN TO INDICATE COMPLIANCE WITH MANDOTORY REQUIREMENTS AND SUBMIT RELEVENT PROOF THEREOF			
No.	Requirements	Comply	Non-Comply
1.	3GB CIDB grading or higher		

2.3 Phase 3: Functionality Criteria

The threshold score, below which bidders are eliminated from further consideration, is 60%

TENDER EVALUATION CRITERIA AND SCORING

The weighting for functionality 48 out of 80 sub-points is as follows:

	Evaluation Criteria	Deliverables	Points	Sub-Points		Sub-Criteria
1.	Financial Standing		25 Points			
	Tenderer to demonstrate their financial capacity in order to undertake the project	Latest 3 months stamped bank statement as proof of working capital	20	20 of 20	Sub-points	Proof of working capital of at least 10% of project value
				10 of 20	Sub-points	Proof to cover working capital of at least 5% of project value
				5 of 20	Sub-points	Proof to cover working capital of at least 2,5% of project value
		AND Signed and dated Bank verification code letter	5	5 of 5	Sub-points	Proof of signed Bank verification code rated A
				2.5 of 5	Sub-points	Proof of signed Bank verification code rated B
				1 of 5	Sub-points	Proof of signed Bank verification code rated C
2.	Competency, Experience and Resource Capacity		30 Points			
	Tenderer to demonstrate their competency and capacity to undertake the project	List of 5 or more projects of R 600 000 or higher within the last 5 years. List per project must be supported by signed letters of appointments, Practical completion certificate and Final completion certificate signed by the awarding institution. Contactable reference letters from an institution for all the above listed projects stating the tenderers showing: workmanship, technical skills, time/programme management	30	30 of 30	Sub-points	5 Sets of documents
				20 of 30	Sub-points	3 Sets of documents
				10 of 30	Sub-points	1 Set of documents

3.	Tenderer’s Project Management Structure and Organogram and Experience of Resources Proposed for the Project		30 Points			
	Demonstration of the tenderer's human resource capacity and technical competency for the project - Contracts Manager - Site foreman - Safety officer	Contracts Manager: • relevant qualification • minimum 5 years of experience minimum of 3 contactable references.	10	3	Sub-points	NQF level 6 qualification in the built environment
				4	Sub-points	2-3 years =2 points 3-4 years =3 points 5 years = 4 points
				3	Sub-points	Contactable references 1 point will be allocated per contactable reference up to a maximum of 3 points
	Detailed proposed project team organogram that sets out the roles and responsibilities of each proposed team member, which is backed up by their curriculum vitae; demonstrating extensive experience in projects in the Built environment.	Site Foreman •relevant qualification •minimum 5 years of experience •minimum of 3 contactable references	10	3	Sub-points	NQF level 4 qualification in the built environment
				4	Sub-points	2-3 years =2 points 3-4 years =3 points 5 years = 4 points
				3	Sub-points	Contactable references 1 point will be allocated per contactable reference up to a maximum of 3 points
		Safety Officer • Relevant qualification • minimum of 5 years’ experience minimum of 3 contact	10	3	Sub-points	NQF level 5 qualification in the built environment
				4	Sub-points	2-3 years =2 points 3-4 years =3 points 5 years = 4 points
				3	Sub-points	Contactable references 1 point will be allocated per contactable reference up to a maximum of 3 points
TOTAL POINTS			85			

2.4 Phase 4: Price and Preference goals

80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate on SBD6.1 how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Documents to be submitted by bidders to claim points.
51% owned by Black people who are women	Proof of B-BBEE status level of contributor and completed SBD 6.1. In the case of B-BBEE certificates, the bidder must also submit the full verification report which shows the percentage of Black women or Black Youth ownership.
Geographical Location (Enterprises located in uThukela District)	Utility bill/letter from the ward councilor/ lease agreement and completed SBD 6.1

AUTHORITY TO SIGN A BID

The bidder must indicate the enterprise status by signing the appropriate box hereunder.

(I) CLOSE CORPORATION	(II) COMPANIES	(III) SOLE PROPRIETOR	(IV) PARTNERSHIP	(V) CO- OPERATIVE	(VI) JOINT VENTURE / CONSORTIUM	
					Incorporated	
					Unincorporated	

I/We, the undersigned, being the Member(s) of Cooperative/ Sole Owner (Sole Proprietor)/ Close Corporation/ Partners (Partnership)/ Company (Representative) or Lead Partner (Joint Venture / Consortium), in the enterprise trading as:

.....

hereby authorise Mr/Mrs/Ms

acting in the capacity of

whose signature is

to sign all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise.

NAME	ADDRESS	SIGNATURE	DATE

(if the space provided is not enough please list all the director in the resolution letter)

Note:

The following document must be attached to this form according to the status of the enterprise, in the form of a resolution authorising the signatory to sign all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise, and **such resolution shall include a specimen signature of the signatory.**

Co-operative:	Resolution letter from the directors
Close Corporation:	Resolution letter from the directors
Company:	Resolution letter from the director/s
Sole Proprietor:	Resolution letter from the director
Partnership:	Resolution letter from the director
Joint Venture / Consortium:	Resolution/agreement passed/reached' signed by the authorised representatives of the enterprises

Note: Director/s may appoint themselves if they will be the one signing all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise.

Failure to complete, sign and date this form or failure to provide the certificate(s) in the form of a resolution as described above shall result in the tender being considered non-responsive and rejected.

GENERAL CONDITIONS OF BID

Unless inconsistent with or expressly indicated otherwise by the context, the singular shall include the plural and vice versa and words importing the masculine gender shall include the feminine and the neuter.

1. Definitions and Interpretations

- 1.1 "Employer" shall mean The KwaZulu Natal Nature Conservation Board (Herein after referred to as the Board)
- 1.2 Employer's representative shall be: - Mr. Sihle Mkhize – Acting Chief Executive Officer, Telephone No. - (033) 845 1511.

2. Issuing of Documents and Cost of Bidding

The Employer will not reimburse bidders for any expenses incurred in the preparation of the bids and submission of a bid offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

3. Bid validity period

Unless a longer period is stipulated, all bids must remain binding for a minimum period of (120) calendar days the date of the bid closing date.

4. Submission of Bids

The bid shall be signed by a person duly authorized to do so. Bids submitted by Joint Ventures of two or more firms shall be accompanied by the document of formation of the Joint Venture, authenticated by a notary public or other official deputed to witness sworn statements, in which is defined precisely the conditions under which the Joint Venture will function, its period of duration, the persons authorized to represent, the participation of the several firms forming the Joint Venture, and any other information necessary to permit a full appraisal of its functioning. It shall state which of the signatories the lead partner is and whom the employer shall hold liable for the purpose of the bid offer.

A Bid submitted by:

- a) A registered Company may not be considered unless accompanied by a resolution of a Board of Directors of the Company authorizing the Bid to be made and the signatory to sign the bid on the Company's behalf;
- b) A registered Close Corporation may not be considered unless accompanied by written authority from all the signatory members of the Close Corporation authorizing the bid to be made and the signatory to sign the bid on the Close Corporation's behalf;
- c) A Partnership may not be considered unless duly signed by all partners or more parties duly authorized thereto to Power of Attorney by the parties, copy of which should accompany this bid document;
- d) A trust may not be considered unless duly signed by all trustees authorizing the bid to be made and the signatory to sign the bid on the Trust's behalf.

Bids are to be submitted in a sealed envelope addressed to the Supply Chain Manager and must be placed in the bid box. This envelope should be endorsed with the following:

➤ **Bid Number: EKZNW 19/2022/23.**

Description of Services: REFURBISHMENT OF 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE RESORT FOR EZEMVELO KZN WILDLIFE

➤ **Closing date: TBA**

The employer shall not assume any responsibility for the misplacement or premature opening of the bid offer if the outer package is not sealed and marked as stated.

Failure to identify the envelope with the relevant and individual bid reference number may lead to the bid being disregarded. The envelope shall not contain documents relating to any bid other than that shown on the envelope.

No bid submitted by post, fax or other electronic means will be considered. Bids sent, via courier services will only be accepted if placed into the Bid Box. It is the Bidder's responsibility to ensure that this is done.

A specific bid box is provided for the receipt of bids, and no bid found in any other box or elsewhere subsequent to the closing date and time of bid will be considered.

The employer shall return bid offer received after the closing time stated in the advertisement, unopened, (unless it is necessary to open a bid submission to obtain a forwarding address), to the bidder concerned.

Bids must be submitted on the documentation provided by the Ezemvelo KZN Wildlife (original bid documents). Submitting a copy of the original bid document will invalidate your bid.

5. Notices to Bidders

Prior to the date for submission of bids, the Employer's Representative may issue notices to bidders in the form of circulars/addenda or modify the bid documents. A copy of each notice will be issued to every Bidder, who shall duly acknowledge receipt thereof. The "Notice to Bidder" circulars shall become part of the bid documents and shall be signed by the Bidder and submitted with other bid documents.

6. Amendments to Bid by Employer

The Employer will adjust arithmetical errors in the extension of rates and totals in the bid and the Bidder will be informed of the effect of any corrections on its bid sum prior to the award of the contract. In such cases the unit will be taken as being correct.

7. Bidder to satisfy itself as to Conditions and Circumstances of Bid

The Bidder shall be deemed to have satisfied itself as to all the conditions and circumstances affecting the bid, **including the physical aspects of working areas**, and by the submission of a bid will confirm acceptance of the conditions and circumstances applicable to any subsequent contract.

Bidders are advised to check the number of pages and to satisfy themselves that none are missing or duplicated. No liability whatsoever will be recognised by KZN Wildlife in regard to any claim thereof.

8. Alternative Bids

Bidders who submit alternative bids may do so only after having submitted bids strictly in accordance with the Technical Specification, Scope of Work and Price Schedule. Should the Bidders wish to offer any alternative it shall state such alternative fully in covering documentation attached to its bid. Such documentation shall include a fully priced Price Schedule and precise details of such offer and any change in financial, constructional, maintenance or other risk between the base offer and the alternative.

9. Qualification of Bids

Bids which are qualified may be rejected and all other things being equal, will lead to rejection of the qualified bid in favour of any other non-qualified bid.

10. Offering of a Commission or Gratuity

If the Bidder, or any employee, is found to have either directly or indirectly offered, promised or given to any office bearer of the Employer any commission, gratuity, gift or other consideration, the Employer shall have the right to disqualify the bid and cancel any existing contracts without paying any compensation to the Bidder.

11. Method of Award

The Employer may award any contract to any one or more Suppliers at its discretion. The basis for any adjudication will be on consideration of a combination of the price/rates offered, functionality/technical and commercially acceptable bid(s). Black Economic Empowerment Achievements will also be taken into account.

12. Acceptance of Bid

The lowest, or any bid will not necessarily be accepted and the Employer reserves the right to accept any bid either in whole, or in part or to withdraw.

Notification of acceptance of bid (an award of a contract) will be in writing signed by or on behalf of the Chief Executive Officer of the KZN Wildlife. Oral advice on the acceptance of a bid will not constitute any obligation towards, nor a contract between, a bidder and KZN Wildlife.

13. Rejection of Bids

Any bid which does not comply with the Conditions of Bid may be regarded as incomplete and may be rejected.

14. Ownership of Documentation

All documents relating to the bid remain the property of the Employer and a copy of the contract will be sent to the successful Bidder.

15. Undertaking in Event of Withdrawal of Bid.

Should the Bidder withdraw its bid during the specified period for which it holds good, or if when notified that its bid has been accepted, fails to provide the security required under this contract within the period stipulated in the contract, it shall pay to the Employer upon demand any increased amount between the breached bid and the bid that the Employer finally accepts, without prejudice to any other rights which the Employer may have in law against the Bidder.

The Employer shall have the right to recover such sums by set-off against any money which may be due or become due to the Bidder, under any other contract, or against any guarantee or deposit which may have been furnished by or on behalf of the Bidder for the due fulfillment of any other Contract between the Employer and the Bidder. Pending the ascertainment of the amount of the Bidder's liability to the Employer in terms of this Conditions of Bid, the Employer may retain such monies, guarantee or deposit as security for any loss which the Employer may sustain by reason of the Bidder's default.

16. Precedence of Documentation

Should there be a conflict within the contract documentation, the following shall be order of precedence: -

1. Form of Agreement (Contract)
2. Technical Specification/Terms of Reference
3. Price Schedule
4. Special Conditions of Contract
5. General Conditions of Contract
6. General Conditions of Bid

17. Alterations or Corrections

No unauthorised alteration or addition shall be made to the Agreement, Price Schedule, or any portion of the original text in the Bid Documents. If such addition or alteration is made, or if the Price Schedule is not properly completed, the Bid may be rejected.

Any amendment or correction in the Bid document of bided amount/sum/rate or other entry must be affected only by deleting the incorrect entry and writing the correct amount/sum/rate/entry just above it in **INK**. Each and every amendment/correction must be initialed by all signatories to the Bid.

The use of "TIPPEX" correcting fluid or any other similar substance to make corrections and/ or alterations **ANYWHERE** in the Bid Document is **NOT** permitted and any Bid altered/amended in such a manner may be declared invalid. The use of any erasable ink i.e., pencil will invalidate your bid.

18. Confidentiality of Bid Documents

All recipients of the bid documents shall, whether a bid is submitted or not, treat the details of the document as private and confidential and the general content shall not be disclosed or discussed with third parties without the prior approval of the Employer.

19. Copyright

No part of this document and any document enclosed with this enquiry may be copied, photographed or repeated in any manner or by any process without the written consent of the Employer. Copyright is reserved on specifications, system and processes contained in the document. Any person, firm, body or consultant shall be responsible jointly and severally, in their personal and corporate capacities, for any contravention of this requirement for bidding and/ or any copyright clauses contained in the document.

20. False Declarations

All information requested in this document and provided by the Bidder is accepted in good faith as being true and accurate. Any false declaration or intentional omission of relevant facts will be viewed in a serious light by The Board, and should the true facts be established, that may disqualify the Bidder concerned.

21. Consent to Risk Analysis and Access to Information

The Bidder agrees that the Employer may use the services and records of specialists or a registered credit bureau and other suppliers for information required in the original and future assessment risk, both technical and

commercial.

If the Bidder is a private or unlisted public company, close corporation, or other artificial person, then it undertakes to advise the Employer immediately in writing of any agreement concluded for the change of its shareholding, membership or ownership. In such event (or if the Bidder fails to advise the Employer as required in terms hereof), the Employer reserves the right to re-assess any risk.

22. Prices quoted in bid documents

All prices quoted in bid documents must be in South African currency and be inclusive of Value-Added Tax. Unless the price is broken down into separate components of (a) net price, (b) total price, (c) total price (i.e. including the tax consideration), the price quoted on a document will be DEEMED inclusive of value – Added Tax. No bid document which has not been priced (i.e., Bid prices not inserted in the spaces on the form/s provided therefore) will be admitted.

23. Compulsory meeting (If applicable)

Confirmation of attendance of compulsory inspection will be recorded on site. Non-attendance of compulsory site inspection/information/clarification meeting will invalidate your bid. Late entries will not be allowed. Bidder must be represented at the meeting by a person who is suitably qualified and experienced to comprehend the implications of the work.

24. Tax Clearance Certificate

A Valid Original Tax Clearance Certificate (or in the case of a Joint Venture, of all partners in the Joint Venture) must be submitted with the bid document.

Please note that your Tax Clearance Certificate will be verified with SARS prior to the award of this bid, you are therefore requested to ensure that your Tax Clearance Certificate is valid until the finalization.

25. Certificates

The following certificates must be provided with the bid document. If they are not provided the bidder's offer may be considered as non-responsive:

1. Company/CC/Trust/Partnership/Co-operative registration certificates
2. Joint Venture Agreement and Power of attorney in case of Joint Ventures
3. ID certificates in case of one-man concerns

26. Eligibility

A bidder will not be eligible to submit a bid if:

1. the bidder submitting the bid is under restrictions or has principals who are under restriction to participate in the Employer's procurement due to corrupt or fraudulent practices;
2. the bidder submitting the bid is insolvent, bankrupt, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceeding in respect of the foregoing;
3. the bidder does not comply with the legal requirements stated in the Employer's procurement policy;
4. the bidder cannot demonstrate that he possesses the necessary professional and technical qualifications and competent, financial resources, equipment and other physical facilities, managerial capacity, personnel, experience and reputation to perform the contract.

27. Arithmetical errors

Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.

28. Submitting a bid offer

Bidder must submit one bid only, either as a single bidding entity or as a member in a Joint Venture to provide the whole of works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data. The bid must be only in the original bid document as obtained from Ezemvelo KZN Wildlife. Copied bid document will be disregarded.

CONTRACTOR'S HEALTH AND SAFETY DECLARATION

In terms of Clause 5 (h) of the OHSA 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2014

To that effect a person duly authorised by the Tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No181 of 1993), and the OHSA 1993 Construction Regulations 2014.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
3. I propose to achieve compliance with the Regulations by one of the following:
 - a) From my own competent resources as detailed in 4(a) hereafter:*Yes/No
 - b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter:*Yes/No
 - c) From outside sources by appointment of competent specialist subcontractors as detailed in 3(c) hereafter:*Yes/No

(* = delete whatever is not applicable)

4. Details of resources I propose:

(Note: Competent resources shall include safety personnel such as a construction supervisor and construction safety officer as defined in Regulation 8, and competent persons as defined in the OHSA 1993 Construction Regulations 2014, as applicable to this contract)

- a) Details of the competent and qualified key persons from my company's own resources, who will form part or the contract team:

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

(b)Detail of training of persons from my company's own resources (or to be hired) who still have to be trained to achieve the necessary competency:

(i) By whom will training be provided?

.....

(ii) When will training be undertaken?

(iii) List the positions to be filled by persons to be trained or hired:

.....

.....

.....

(c) Details of competent resources to be appointed as subcontractors if competent persons cannot be supplied from own company:

Name of proposed subcontractors:

.....

.....

.....

.....

.....

5. I hereby undertake, if my tender is accepted, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Employer.
6. I confirm that copies of my company's approved Health and safety plan, the employer's safety specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the contractor's personnel, the Employer's personnel, the Engineer, Visitors, and officials and inspectors of the Department of Labour.
7. I hereby confirm that adequate provision has been made in my tendered rates and prices in the schedule of quantities to cover the cost of all resources, action, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations (Regulation 33) for failure on the Contractor's part to comply with the provisions of the Act and the Regulations.
8. I agree that my failure to complete and execute this declaration to the satisfaction of the employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2014, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.

SIGNATURE:

DATE:

.....

(Of person authorised to sign on behalf of the Tenderer



PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

Project:

TABLE OF CONTENTS

Pages

1.	Introduction and Background	4
1.1	Background to the Pre-construction Health and Safety Specification	
1.2	Purpose of the Pre-construction Health and Safety Specification	
1.3	Implementation of the Pre-construction Health and Safety Specification	
2.	Pre-construction Health and Safety Specification	4
2.1	Scope	
2.2	Interpretation	
2.2.1	Application	
2.2.2	Definitions	
2.3	Minimum Administrative Requirements	
2.3.1	Notification of Intention to Commence Construction Work	
2.3.2	Assignment of Contractor's Responsible Person to Supervise Health and Safety on Site	5
2.3.3	Competency for Contractor's Responsible Persons	
2.3.4	Compensation of Occupational injuries and Diseases Act (COIDA) Act 130 of 1993	
2.3.5	Occupational Health and Safety Policy	
2.3.6	Health and Safety Organogram	
2.3.7	Preliminary Hazard Identification and Risk Assessment and Progress Hazard Identification and Risk Assessment	
2.3.8	Health and Safety Representative(s)	6
2.3.9	Health and Safety Committee(s)	
2.3.10	Health and Safety Training	
2.3.10.1	Induction	
2.3.10.2	Awareness	

2.3.10.3	Competency	
2.3.11	General Record Keeping	
2.3.12	Health & Safety Audits, Monitoring and Reporting	
2.3.13	Emergency Procedures	7
2.3.14	First Aid Box and First Aid Equipment	
2.3.15	Accident / Incident Reporting and Investigation	
2.3.16	Hazards and Potential Situations	
2.3.17	Personal Protection Equipment and Clothing	
2.3.18	Occupational Health and Safety Signage	
2.3.19	Permits	8
2.3.20	Sub-contractors	
2.3.21	Incentives and Penalties	
2.4	Physical Requirements	8
2.4.1	Demolition Work	
2.4.2	Excavations, Shoring, Dewatering or Drainage	
2.4.3	Edge Protection and Penetrations	
2.4.4	Explosives and Blasting	
2.4.5	Piling	9
2.4.6	Stacking of Materials	
2.4.7	Speed Restrictions and Protection	
2.4.8	Hazardous Chemical Substances (HCS)	
2.4.9	Asbestos	
2.5	Plant and Machinery	9
2.5.1	Construction Plant	
2.5.2	Vessels under Pressure (Gas bottles including Operations)	
2.5.3	Fire Extinguishers and Fire Fighting Equipment	
2.5.4	Hired Plant and Machinery	10
2.5.5	Scaffolding / Working on Heights	
2.5.6	Falsework for Structures	
2.5.7	Lifting Machine and Tackle	
2.5.8	Ladders and Ladder work	
2.5.9	General Machinery	

2.5.10	Portable Electrical Tools / Explosive Power Tools	11
2.5.11	High Voltage Electrical Equipment (Not maintained by CDC)	
2.5.12	Public Health and Safety	
2.5.13	Night Work	
2.5.14	Facilities for Safekeeping and Eating Areas (Mess Area) for workers	
2.5.15	Transport of Workers	
2.6	Occupational Health	12
2.6.1	Occupational Hygiene	
2.6.2	Welfare Facilities	
2.6.3	Alcohol and Other Drugs	
3.	Annexure A	13
	Task Completion Form	
4.	Annexure B	14
	Principal Contractor's Responsible Persons	
5.	Annexure C	16
	Other Requirements	
6.	Annexure D	17
	Initial Hazard Identification and Risk Assessment	
7.	Annexure E	23
	Acknowledgement of Receipt of Document	

1. INTRODUCTION AND BACKGROUND

1.1 Background to the Pre-construction Health and Safety Specification

The Construction Regulations (2014) place the onus on the Client to prepare a pre-construction health & safety specification, highlighting all risks not successfully eliminated during design.

1.2 Purpose of the Pre-construction Health and Safety Specification

To assist in achieving compliance with the Occupational Health & Safety Act 85/1993 and the now promulgated Construction Regulations (2014) in order to reduce incidents and injuries. This pre-construction specification shall act as the basis for the drafting of the construction phase health & safety plan.

The pre-construction specification sets out the requirements to be followed by the Principal Contractor and other Contractors so that the health & safety of all persons potentially at risk may receive the same priority as other facets of the project e.g. cost, programme, environment, etc.

1.3 Implementation of the Pre-construction Health and Safety Specification

This specification forms an integral part of the contract, and the Contractor is required to use it at pre-tender phase when drawing up its project-specific construction phase health & safety plan. The Principal Contractor shall forward a copy of this specification to all Contractors at their bidding stage so that they can in turn prepare health & safety plans relating to their operations.

2. PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

2.1 Scope

This Specification covers the requirements for eliminating and mitigating incidents and injuries on the particular project

The scope also addresses legal compliance, hazard identification and risk assessment, risk control, and promoting a health and safety culture amongst those working on the project. The specification also makes provision for the protection of those persons other than employees.

2.2 Interpretations

2.2.1 Application

This specification is a compliance document drawn up in terms of South African legislation and is therefore binding. It must be read in conjunction with relevant legislation as noted previously.

2.2.2 Definitions

The definitions as listed in the Occupational Health & Safety Act 85/1993 and Construction Regulations (2014) shall apply.

2.3 Minimum Administrative Requirements

2.3.1 Notification of Intention to Commence Construction Work

The Contractor shall notify the Provincial Director of the Department of Labour in writing before construction work commences. A copy of this notification must be forwarded to the Client on appointment.

2.3.2 Assignment of Contractor's Responsible Persons to Supervise Health and Safety on Site

The Contractor shall submit supervisory appointments as well as any relevant appointments in writing (as stipulated by the OHSA and Construction Regulations), prior to commencement of work. Proof of competency must be included. See annexure B.

2.3.3 Competency for Contractor's Appointed Competent Persons

Contractors' competent persons for the various risk management portfolios shall fulfil the criteria as stipulated under the definition of Competent in accordance with the Construction Regulations (2014). Proof of competence for the various appointments must be included.

2.3.4 Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The Principal Contractor shall submit a letter of good standing with its Compensation Insurer to the Client as proof of registration. Contractors shall submit proof of registration to the Principal Contractor before they commence work on site.

2.3.5 Occupational Health and Safety Policy

The Principal Contractor and all Contractors shall submit a Health and Safety Policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / Contractor.

2.3.6 Health and Safety Organogram

The Principal Contractor and all Contractors shall submit an organogram, outlining the Health and Safety Site Management Structure including the relevant appointments/competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the Site Management Structure.

2.3.7 Preliminary Hazard Identification and Risk Assessment and Progress Hazard Identification and Risk Assessment

The Contractor shall cause a hazard identification to be performed by a competent person before commencement of construction work, and the assessed risks shall form part of the construction phase health and safety plan submitted for approval by the Client. The risk assessment must include;

- a) A list of hazards identified as well as potentially hazardous tasks;
- b) A documented risk assessment based on the list of hazards and tasks;
- c) A set of safe working procedures (method statements) to eliminate, reduce and/or control the risks assessed;
- d) A monitoring and review procedure of the risks assessment as the risks change.

The Principal Contractor shall ensure that all Contractors are informed, instructed and trained by a competent person regarding any hazards, risks and related safe work procedures before any work commences and thereafter at regular intervals as the risks change and as new risks develop.

The Principal Contractor shall be responsible for ensuring that all persons who could be negatively affected by its operations are informed and trained according to the hazards and risks and are conversant with the safe work procedures, control measures and other related rules (tool box talk strategy to be implemented).

2.3.8 Health and Safety Representative(s)

The Principal Contractor and all Contractors shall ensure that where required Health and Safety Representative(s) are appointed under consultation and trained to carry out their functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report all findings to the Responsible Person forthwith and at health & safety meetings

2.3.9 Health and Safety Committees

The Principal Contractor shall ensure that project health and safety meetings are held monthly and minutes are kept on record. Meetings must be organised and chaired by the Principal Contractor's Responsible Person. All Contractors' Responsible Persons and Health & Safety Representatives shall attend the monthly health & safety meetings. Contractors shall also have their own internal health & safety committees in accordance with the OHS Act 85/1993 and minutes of their meetings shall be forwarded to the Principal Contractor on a monthly basis.

2.3.10 Health and Safety Training

2.3.10.1 Induction

The Principal Contractor shall ensure that all site personnel undergo a risk-specific health & safety induction training session before starting work. A record of attendance shall be kept in the health & safety file. **A suitable venue must be supplied to house this training.**

2.3.10.2 Awareness

The Principal Contractor shall ensure that, on site, periodic toolbox talks take place at least once per week. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the health & safety file. All Contractors have to comply with this minimum requirement.

2.3.10.3 Competency

All competent persons shall have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, carry out. This will have to be assessed on a regular basis e.g. periodic audits by the Client, progress meetings, etc. The Principal Contractor is responsible to ensure that competent Contractors are appointed to carry out construction work.

2.3.11 General Record Keeping

The Principal Contractor and all Contractors shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the OHS Act 85/1993; and with the Construction Regulations (2014). The Principal Contractor shall ensure that all records of incidents/accidents, training, inspections, audits, etc. are kept in a health & safety file held in the site office. The Principal Contractor must ensure that every Contractor opens its own health & safety file, maintains the file and makes it available on request.

2.3.12 Health & Safety Audits, Monitoring and Reporting

The Client shall conduct monthly health & safety audits of the work operations including a full audit of physical site activities as well as an audit of the administration of health & safety. The Principal Contractor is obligated to conduct similar audits on all Contractors appointed by it. Detailed reports of the audit findings and results shall be reported on at all levels of project management meetings/forums. Copies of the Client audit reports shall be kept in the Primary Project Health & Safety File while the Principal Contractor audit reports shall be kept in their file, a copy being forwarded to the Client. Contractors have to audit their sub-contractors and keep records of these audits in their health & safety files, available on request.

2.3.13 Emergency Procedures

The Principal Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following key elements:

- List of key competent personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the specific types of emergencies;
- Information on hazardous material/situations.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, bomb threats, major incidents/accidents, etc. The Principal Contractor shall advise the Client in writing forthwith, of any emergencies, together with a record of action taken. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc) must be maintained and available to site personnel.

2.3.14 First Aid Boxes and First Aid Equipment

The Principal Contractor and all Contractors shall appoint in writing First Aider(s). The appointed First Aider(s) are to be sent for accredited first aid training. Valid certificates are to be kept on site. The Principal Contractor shall provide an on-site First Aid Station with first aid facilities, including first aid boxes adequately stocked at all times. All Contractors with more than 5 employees shall supply their own first aid box. Contractors with more than 10 employees shall have a trained, certified first aider on site at all times.

2.3.15 Accident / Incident Reporting and Investigation

Injuries are to be categorised into first aid; medical; disabling; and fatal. The Principal Contractor must stipulate in its construction phase health & safety plan how it will handle each of these categories. When reporting injuries to the Client, these categories shall be used. All injuries shall be investigated by the Principal Contractor, with a report being forwarded to the Client forthwith. All Contractors have to report on the 4 categories of injuries to the Principal Contractor at least monthly. The Principal Contractor must report all injuries to the Client in the form of a detailed injury report at least monthly.

2.3.16 Hazards and Potential Situations

The Principal Contractor shall immediately notify other Contractors as well as the Client of any hazardous or potentially hazardous situations that may arise during performance of construction activities.

2.3.17 Personal Protective Equipment (PPE) and Clothing

The Principal Contractor shall ensure that all workers are issued and wear hard hats, safe footwear and overalls. The Principal Contractor and all Contractors shall make provision and keep adequate quantities of SABS approved PPE on site at all times. The Principal Contractor shall clearly outline procedures to be taken when PPE or Clothing is:

- Lost or stolen;
- Worn out or damaged.

The above procedure applies to Contractors and their Sub-contractors, as they are all Employers in their own right.

2.3.18 Occupational Health and Safety Signage

The Contractor shall provide adequate on-site OHS signage. Including but not limited to: 'no unauthorised entry', 'report to site office', 'site office', 'beware of overhead work', 'hard hat area'. Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations.

2.3.19 Permits

Permits may include the following:

- Use of Explosives and Blasting
- Work for which a fall prevention plan is required
- Use of cradles

2.3.20 Contractors and Sub-contractors

The Principal Contractor shall ensure that all Contractors under its control comply with this Specification, the OHS Act 85/1993, Construction Regulations (2014), and all other relevant legislation that may relate to the activities directly or indirectly. The Contractor, when appointing other Contractors as 'Sub-contractors', shall mutatis mutandis ensure compliance.

2.3.21 Incentives and Penalties

Certain incentives will be provided for ongoing compliance to the provisions of the construction phase health & safety plan submitted by the Principal Contractor.

Penalties will be implemented for ongoing non-compliance to the provisions of the construction-phase health & safety plan as submitted by the Principal Contractor.

2.4 Physical Requirements

2.4.1 Demolition Work

Prior to any demolition work being carried out, the Principal Contractor shall submit a safe working procedure and a detailed engineering survey for approval by the Client. Acceptance will then be issued to the Principal Contractor to proceed with the demolition work. The Principal Contractor shall ensure that demolition work complies with the Construction Regulations (2014).

2.4.2 Excavations, Shoring, Dewatering or Drainage

The Principal Contractor and any relevant Contractors shall make provision in their tender for shoring, dewatering or drainage of any excavation as per this specification.

The Contractor shall make sure that:

- a) The excavations are inspected before every shift and a record is kept;
- b) Safe work procedures have been communicated to the workers;
- c) The safe work procedures are enforced and maintained by the Contractor's Responsible Persons at all times;
- d) The requirements as per section 13 of the Construction Regulations are adhered to.

2.4.3 Edge Protection and Penetrations

The Principal Contractor must ensure that all exposed edges and openings are guarded and demarcated at all times until permanent protection has been erected. The Principal Contractor's risk assessment must include these items.

E.g. protection of decking edges, finished floor slab edges, stairways, floor penetrations, lift shafts, and all other openings and areas where a person may fall.

2.4.4 Explosives and Blasting

The Principal Contractor shall ensure that the use of explosives and blasting (where required) be undertaken by a competent Contractor. A Safe Work Procedure (SWP) must be submitted to the Client for approval before commencement of blasting work. The Client will issue a permit to authorise the operation.

2.4.5 Piling

The Contractor shall ensure that piling is undertaken by a competent Contractor. A SWP shall be submitted to the Client for approval before commencement of this work.

2.4.6 Stacking of Materials

The Principal Contractor and other relevant Contractors shall ensure that there is an appointed staking supervisor and all materials, formwork and all equipment is stacked and stored safely.

2.4.7 Speed Restrictions and Protection

The Principal Contractor shall ensure that all persons in its employ, all Contractors, and all those that are visiting the site are aware and comply with the site speed restriction(s), especially in big 5 game reserves. Separate vehicle and pedestrian access routes shall be provided, maintained, controlled, and enforced.

2.4.8 Hazardous Chemical Substances (HCS)

The Principal Contractor and other relevant Contractors shall provide the necessary training and information regarding the use, transport, and storage of HCS. The Principal Contractor shall ensure that the use, transport, and storage of HCS is carried out as prescribed by the HCS Regulations. The Contractor shall ensure that all hazardous chemicals on site have a Material Safety Data Sheet (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS and how to treat HCS incidents appropriately.

2.4.9 Asbestos

Not applicable

2.5 Plant and Machinery

2.5.1 Construction Plant

“Construction Plant” includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.

The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations (July 2014). The Principal Contractor and all relevant Contractors shall inspect and keep records of inspections of the construction plant used on site. Only authorised/competent persons are to use machinery under proper supervision. Appropriate PPE and clothing must be provided and maintained in good condition at all times.

2.5.2 Pressure Equipment Regulations and Gas Bottles

The Principal Contractor and all relevant Contractors shall comply with the Vessels under Pressure Regulations, including:

- Providing competency and awareness training to the operators;
- Providing PPE or clothing;
- Inspect equipment regularly and keep records of inspections;
- Providing appropriate fire fighting equipment (Fire Extinguishers) on hand.

2.5.3 Fire Extinguishers and Fire Fighting Equipment

The Principal Contractor and relevant Contractors shall provide adequate, regularly serviced fire fighting equipment located at strategic points on site, specific to the classes of fire likely to occur. The appropriate notices and signs must be posted up as required.

2.5.4 Hired Plant and Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (2014) shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file. All relevant Contractors must ensure the same.

2.5.5 Scaffolding / Working at Heights

Working at heights includes any work that takes place in an elevated position. The Contractor must submit a risk-specific fall prevention plan in accordance with the Construction Regulations (2014) before this work is undertaken. The fall prevention plan must be approved by the Client before work may commence, and a permit to operate will be issued.

2.5.6 Formwork and Support work for Structures

The Principal Contractor shall ensure that the provisions of section 10 of the Construction Regulations (2014) are adhered to. These provisions must include but not be limited to ensuring that all equipment used is examined for suitability before use; that all formwork and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed. Records of all inspections must be kept in a register on site.

2.5.7 Lifting Machines and Tackle

The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (section 22). There must be a competent lifting machinery and tackle inspector who must inspect the equipment daily or before use, taking into account that:

- All lifting machinery and tackle has a safe working load clearly indicated;
- Regular inspection and servicing is carried out;
- Records are kept of inspections and of service certificates;
- There is proper supervision in terms of guiding the loads that includes a trained banksman to direct lifting operations and check lifting tackle;
- The tower crane bases have been approved by an engineer;
- The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site.

2.5.8 Ladders and Ladder Work

The Principal Contractor shall ensure that all ladders are inspected monthly, are in good safe working order, are the correct height for the task, extend at least 1m above the landing, fastened and secured, and at a safe angle. Records of inspections must be kept in a register on site. Contractors using their own ladders must ensure the same.

2.5.9 General Machinery

The Principal Contractor and relevant Contractors shall ensure compliance with the Driven Machinery Regulations, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing, and training those who use machinery

2.5.10 Portable Electrical Tools and Explosive Powered Tools

The Contractor shall ensure that use and storage of all explosive powered tools and portable electrical tools are in compliance with relevant legislation. The Contractor shall ensure that all electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. personal protection equipment, guards, etc.

The Contractor shall consider the following:

- A competent person undertakes routine inspections and records are kept;

- Only authorised trained persons use the tools;
- The safe working procedures apply;
- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing is provided and maintained.
- A register indicating the issue and return of all explosive round;
- Signs to be posted up in the areas where explosive powered tools are being used.

2.5.11 High Voltage Electrical Equipment

No high voltage electrical equipment is present on, under or above the construction area.

2.5.12 Public and Site Visitor Health & Safety

The Principal Contractor shall ensure that every person working on or visiting the site, as well as the public in general, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimise those dangers. Appropriate health and safety notices and signs shall be posted up, but shall not be the only measure taken.

Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities.

Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these 'inductions' must be kept on site in accordance with the Construction Regulations.

2.5.13 Night Work

The Principal Contractor must ensure that adequate lighting is provided to allow for work to be carried out safely.

2.5.14 Transport of Workers

The Principal Contractor and other Contractors shall not:

- Transport persons together with goods or tools unless there is an appropriate area or section to store them;
- Transport persons in a non-enclosed vehicle, e.g. truck; there must be a proper canopy (properly covering the back and top) with suitable sitting area. Workers shall not be permitted to stand or sit at the edge of the transporting vehicle.
- Transport workers in bakkies unless they are closed/covered and have the correct number of seats for the passengers.

2.6 Occupational Health

2.6.1 Occupational Hygiene

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, absorption, and noise induction. Site-specific health risks are tabled in Annexure C e.g. cement dust, wet cement, wood-dust, noise, etc.

2.6.2 Welfare Facilities

The Principal Contractor must supply Sufficient toilets (1 toilet per 30 workers), showers (1 for every 15 workers), changing facilities, hand washing facilities, soap, toilet paper, and hand drying material must be provided. Waste bins must be strategically placed and emptied regularly. Safe, clean storage areas must be provided for workers to store personal belongings and personal protective equipment. Workers should not be exposed to hazardous materials/substances while eating and must be provided with sheltered eating areas.

2.6.3 Alcohol and other Drugs

No alcohol and other drugs will be allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suffering from any illness/condition that may have a negative effect on his/her safety performance must report this to his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. A full disciplinary procedure must be followed by the Contractor concerned and a copy of the disciplinary action must be forwarded to the Principal Contractor for his records.

Project name:
Date:

PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION (HSS)

Project:

ANNEXURE A

The Principal Contractor and Contractors must submit proof of compliance with Annexure A with the construction phase H&S plan where applicable.

HSS Item No.	Requirement	OHS Act Requirement	Submission Date
2.3.1	Notification of Intention to Commence Construction / Building Work	Complete Schedule 1 (Construction Regulations)	Before commencement on site
2.3.2	Assignment of Responsible Person to Supervise Construction Work	All relevant appointments, as per OHS Act and Construction Regs.	Before commencement on site
2.3.3	Competence of Responsible Persons	Client Requirement & OHS Act	Together with H&S plan
2.3.4	Compensation of Occupational Injuries and Diseases Act (COIDA) 130 of 1993	COIDA Requirement	Together with H&S plan
2.3.5	Occupational Health and Safety Policy	OHS Act	Together with H&S plan
2.3.6	Health and Safety Organogram	Client Requirement	Together with H&S plan
2.3.7	Initial Hazard Identification and Risk Assessment based on the Client's assessment	Construction Regs.	Together with H&S plan
2.3.8	Health and Safety Representative	OHS Act	Submit as soon as there are more than 20 employees on site
	Other		

ASSIGNMENT OF PRINCIPAL CONTRACTOR'S RESPONSIBLE PERSONS

Project:

ANNEXURE B

The Principal Contractor shall make the following appointments according to the initial risk assessment: (further appointments could become necessary as project progresses)

Appointment	OHSA Reference	Requirement
CEO Assignee	Section 16(2)	A competent person to assist with the on-site H&S overall responsibility – Contractor's Responsible Person
Construction Work Supervisor	CR 8.7	A competent person to supervise and be responsible of Health & Safety related issues on site. The person is appointed to assist the CEO with his/her overall duties.
Subordinate Construction Work Supervisors	CR 8.8	A competent person to assist with daily supervision of construction / building work. The person assists the Construction Work Supervisor.
Health & Safety Representative(s)	Section 17	A competent person(s) to inspect H&S in reference to plant, machinery and Health & Safety of persons in the workplace.
Health & Safety Committee Member(s)	Section 19	A competent person(s) representing the employer to assist with the on site Health & Safety matters.
Incident Investigator	GAR 8	A competent person to investigate incidents / accidents on site and could be: <ul style="list-style-type: none"> • The employer • H&S Representative • Designated person • Member of the H&S Committee
Risk assessment co-ordinator	CR 9	A competent person to co-ordinate all risk assessments on behalf of the Principal Contractor. The same applies to Contractors.
Fall protection plan co-ordinator	CR 10	A competent person to prepare & amend the fall protection plan.
First Aiders	GSR 3	A qualified person to address all on site first aid cases.
Machinery Inspector	GSR 2.1	A competent person to supervise machinery.
Lifting machine & equipment inspector	DMR 18	A competent person to inspect lifting machines, equipment & tackle.
Scaffolding Inspector	SABS 085	A competent person to inspect scaffolding before use and every time after bad weather, etc.
Scaffolding erector	GSR 13D	A competent person to erect scaffolding.
Scaffolding supervisor	SABS 085	A competent person to supervise scaffolding.
Formwork & support work inspector	CR 12	A competent person to inspect formwork & support work.
Excavation Inspector	CR 13	A competent person to inspect excavation work and ensure that approved safe working procedures. Are followed at all times.

Ladder Inspector	GSR 13A	A competent person to inspect ladders daily and ensure they are safe for use, keeping monthly record.
Stacking Supervisor	CR 28	A competent person to supervise all stacking and storage operations.
Explosive powered tools inspector/supervisor	CR 21	A competent person to inspect & clean the tool daily and controlling all operations thereof.
Temporary electrical installations supervisor	CR 24	A competent person to control all temporary electrical installations.
Fire-fighting equipment inspector	CR 29	A competent person to inspect fire-fighting equipment.

OTHER REQUIREMENTS

Project:

ANNEXURE C

The Principal Contractor shall comply but not be limited to the following requirements: report on these to the Client at progress meetings or at least monthly which ever is sooner.

What	When	Output	Accepted by Client & date
Induction training	Every worker before he/she starts work.	Attendance registers	
Awareness Training (Tool Box Talks)	At least weekly	Attendance registers	
Health & Safety Reports	Monthly	Report covering: <ul style="list-style-type: none"> Incidents / accidents and investigations Non conformances by employees & contractors Internal & External H&S audit reports 	
Emergency procedures	Ongoing evaluation of procedure	Table procedure in writing as well as tel. numbers	
Risk assessment	Updated and signed off at least monthly	Documented risk assessment	
Safe work procedures	Drawn up before workers are exposed to new risks	Documented set of safe work procedures (method statements), updated and signed off.	
General Inspections	Weekly & daily	Report OHS Act compliance: <ul style="list-style-type: none"> Scaffolding Excavations Formwork & support work Explosive tools 	
General Inspections	Monthly	<ul style="list-style-type: none"> Fire fighting equipment Portable electrical equipment Ladders Lifting equipment/slings 	
List of contractors	List to be updated weekly	Table list, number of workers and Company tel. numbers	
Workman's Compensation	Ongoing	Table a list of Contractors' workman's compensation proof of good standing.	
Construction site rules & Section 37.2 Mandatary Agreement	Ongoing	Table a report of all signed up Mandataries.	



**EZEMVELO KZNWILDLIFE
- ROYAL NATAL NATIONAL PARK-
CONTRACTOR
STANDING ORDERS**

The following are the Contractor standing orders For the **Royal Natal National Park** Reserve as they pertain to contractors that work within the borders of the Park their staff and visitors.

TO: _____

FROM: Project Manager

DATE: _____ Tender / Quotation Number: **EKZNW 19/2022/23**

1. FAUNA AND FLORA

1. 1. All plants and animals inside the park are protected. Anyone found in possession of any plant or animal material, or interferes with any plant or animal, will be charged criminally. Plant or animal material includes bark, leaves, thorns, suckers, seeds and roots of any plant (excluding alien invasive species), as well as meat, feathers, eggs or egg shell, skin, hair, hoof, claw, tooth, bone or horn of any animal. This includes animals such as snakes and chameleons.
1. 2. No contractor staff, sub contractors and their staff, suppliers or visitors may feed any wild animals.
1. 3. Any trap or snare found in the reserve must be left alone and reported to the CM or Field Rangers immediately.
1. 4. Any animal found in a snare is to be left alone and reported to the CM or Field Rangers immediately.
1. 5. No contractor staff, sub contractors and their staff, suppliers or visitors may be in possession of any trap, weapon or snare at any time.
1. 6. No fire wood may be collected from inside the reserve.

2. FIRE

2. 1. No open fires are permitted in the park for any reason and at any time.

3. LITTER

3. 1. No litter is to be left in the reserve; all litter is to be removed by the contractor to the nearest municipal dump. This includes cement bags, plastic packets, boxes, building rubble, solid waste and all other rubbish.
3. 2. Contractor staff found littering or ignoring litter whether theirs or not, will be removed from the park with immediate effect.

4. LIQUID WASTE AND SEWERAGE

4. 1. The provision of chemicals toilets is the responsibility of the contractor.
4. 2. No contractor staff, sub contractors and their staff and suppliers will be permitted to use the toilets in the staff quarters or anywhere else within the park.
4. 3. Contractor staff, sub contractors and their staff and suppliers found urinating or defecating anywhere in the park will be removed from the park with immediate effect.
- 4.4. No contractor staff, sub contractors and their staff and suppliers will be permitted to use the showers or baths in the staff quarters or anywhere else within the park.

5. TOOLS AND EQUIPMENT

5. 1. All tools and equipment are the property of the state.
5. 2. No tools and equipment will be leant or borrowed to contractor staff, sub contractors and their staff and suppliers at any time.
5. 3. Contractor staff, sub contractors and their staff and suppliers found near or in the workshop area without permission or a valid reason will be removed from the park and may be charged with trespassing.
5. 4. Your personal items are your responsibility, should any of your personal items be destroyed or damaged due to fire, flood or any other reason, you will not be compensated for the loss of those items by EKZN Wildlife.

6. ALCOHOL AND DRUGS

6. 1. No contractor staff, sub contractors and their staff and suppliers are to be in possession of or under the influence of alcohol or illegal drugs whilst within the park.

6. 2. No contractor staff, sub contractors and their staff and suppliers are to be in possession of illegal drugs on the reserve at any time.
6. 3. Spot checks on contractor staff, sub contractors and their staff and suppliers for alcohol and drugs will be carried out routinely, this will include breathalyzer tests.

7. EKZN WILDLIFE STAFF LIVING QUARTERS

7. 1. The staff living quarters and all residential infra-structure in **Imfolozi Game Reserve** are out of bounds to contractor staff, sub contractors and their staff and suppliers.
7. 2. The private properties are out of bounds to contractor staff, sub contractors and their staff and suppliers.
7. 3. Contractor staff, sub contractors and their staff and suppliers found within any of these restricted areas will be removed from the park immediately and may be charged with trespassing.

8. RESORTS AND VISITORS

8. 1. No contractor staff, sub contractors and their staff and suppliers or may interfere with tourists or EKZN Wildlife staff at any time.
8. 2. No contractor staff, sub contractors and their staff and suppliers or may enter the Resorts or curio shop/tea garden area at any time.

9. ENTRY AND EXIT TO/FROM THE PARK

9. 1. The main entrance gate opens at 06h00 every morning and closes at 18h00 every evening.
9. 2. All contractor staff, sub contractors and their staff and suppliers that for some reason are on the park outside of these hours will respect these gate times.
9. 3. No contractor staff, sub contractors and their staff and suppliers will be allowed to enter or exit the park outside of the official gate times.

10. DISHONESTY

10. 1. No contractor staff, sub contractors and their staff and suppliers may give, receive or attempt to give or receive any bribe or induce or attempt to induce any person to perform any corrupt act.
10. 2. No contractor staff, sub contractors and their staff and suppliers may deliberately give untrue or misleading information or testimony, whether verbally or in writing.
10. 3. No contractor staff, sub contractors and their staff and suppliers or may falsify or change a document with fraudulent intent or attempt to do so.
10. 4. No contractor staff, sub contractors and their staff and suppliers may falsify any records or keep inaccurate records.

11. AREA OF OPERATION

11. 1. The area of operation for all contractor staff, sub contractors and their staff and suppliers will be the construction site and the entrance and exit road only.
11. 2. Any contractor staff, sub contractors and their staff and suppliers found in any other area of the park without authority or a valid reason will be removed from the park immediately and may be charged with trespassing.

12. GENERAL

12. 1. Contractor staff, sub contractors and their staff and suppliers found fighting with each other will be removed from station with immediate effect.
12. 2. Insubordination to the authority of the conservation manager of any form will not be tolerated.
12. 3. Spot checks will be carried out randomly during the day.
12. 4. No contractor staff, sub contractors and their staff and suppliers may be in possession of any weapon whilst on station. This includes firearms, knives, knob kierries or spears.
12. 5. Movement on the park at night is prohibited. Contractor staff, sub contractors and their staff and suppliers found moving around at night with or without vehicles will be removed from the park immediately and charged with trespassing.
12. 6. No contractor staff, sub contractors and their staff and suppliers are permitted to sell any products at any time including alcohol or drugs to any other person on station this includes EKZN Wildlife staff or members of the public.
12. 7. No contractor staff is permitted to have visitors while living within the reserve during the course of the project.
12. 8. Should the Contractor and contractor staff be found in contravention of any of the above mentioned rules they will no longer be permitted to live on site and will have to be commuted into the reserve every day at the Contractors expense.

13. DECLARATION.

I the undersigned have read or have been explained the entire document "Imfolozi Game Reserve contractor standing orders" and fully understand the contents of the said document.

I fully understand that in signing this standing order I take full responsibility of my staff, suppliers, sub-contractors or any other persons or group associated with my business within the Imfolozi Game Reserve.

I fully understand that if I contravene any provisions of the contractor standing orders, I may be liable to face immediate eviction from the Park and or cancellation of the contract.

Contractors name:

Signature:

Date:

Witness 1: **Witness2:**

EZEMVELO Project Manager

C1.1 FORM OF OFFER

FORM OF OFFER AND ACCEPTANCE

Agreement

17/2022/2023

OFFER

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

ROYAL NATAL NATIONAL PARK: REFURBISHMENT OF TWO COTTAGES AT THENDELE RESORT FOR EZEMVELOKZN WILDLIFE

The Bidder, identified in the Offer signature block, has examined the documents listed in the Tender Data and Addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender and complies fully with the requirements of Clause F.3.13 in the Bid Data.

By the representative of the Bidder, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Bidder offers to perform all of the obligations and liabilities of the Contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

Amount (in words):	
Amount in figures:	R

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Bidder before the end of the period of validity stated in the Tender Data, whereupon the Bidder becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

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

OR	Company or Close Corporation:	Natural Person or Partnership:
	And: Whose Registration Number is:	Whose Identity Number(s) is/are:
	And: Whose Income Tax Reference Number is:	Whose Income Tax Reference Number is/are:

AND WHO IS (if applicable):

Trading under the name and style of:

AND WHO IS:

Represented herein, and who is duly authorised to do so, by:	Note:
Mr/Mrs/Ms:	A Resolution / Power of Attorney, signed by all the Directors / Members / Partners of the Legal Entity must accompany this Offer, authorising the Representative to make this offer.
In his/her capacity as:	

SIGNED FOR THE BIDDER:

Name of authorised representative	Signature	Date

WITNESSED BY:

Name of authorised representative	Signature	Date

Bid no: EKZNW

This Offer is in respect of the official documentation.

GUARANTEE OPTIONS:

The Bidder agrees to provide a bank or insurance guarantee in accordance with clauses 11.1.1 or 11.1.2 of the JBCC Edition 6.2 Principal Building Agreement within the period stated in the Contract Data. This guarantee shall be for a sum equal to an amount stated in the Contract Data.

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

(a) the Bidder accepts that in respect of contracts up to R1 million, a payment reduction of 5% of the contact value will be applicable and will be reduced by the Employer in terms of the applicable conditions of contract.

(b) in respect of contracts above R1 million, the Bidder offers to provide security as indicated below:

- (i) cash deposit of 10 % of the Contract Price
- (ii) bank or insurance Performance Guarantee of 10 % of the Contract Price
- (iii) payment reduction of 10% of the value certified in the payment certificate (excluding VAT)
- (iv) cash deposit of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)
- (v) bank or insurance guarantee of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)

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

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

Other Contact Details of the Bidder are:

Telephone No:

Cell Phone No:

Fax No:

Email Address:

Postal address:

Banker :

Branch:

UIF Registration Number:

CIDB Registration Number:

Provincial Suppliers Database
Registration Number:

ECDP Number:

ACCEPTANCE (For Official use only)

Bid no: EKZNW17/2022/2023

By signing this part of this Form of Offer and Acceptance, the Employer identified below, accepts the Bidder's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Bidder's offer shall form an agreement between the Employer and the Bidder upon the terms and conditions contained in this Agreement and in the contract that is the subject of this Agreement.

The terms of the contract, are contained in:

Part 1	Agreement and Contract Data, (which includes this agreement)
Part 2	Pricing data
Part 3	Scope of work.
Part 4	Site information

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the Offer agreed by the Bidder and the Employer during this process of Offer and Acceptance, are contained in the *Changes made to JBCC documentation* 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 authorised representative(s) of both parties.

The Bidder shall within 10 days after receiving a completed copy of this Agreement, including the Changes made to JBCC documentation (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the

delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the

Conditions of Contract identified in the Contract Data at, or just after, the date this **Agreement comes into effect**. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Bidder receives one fully completed original copy of this document, including the *Changes made to JBCC documentation* (if any). Unless the Bidder (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

For the Employer:

Name of delegated signatory	Signature	Rank	Date

Name of Organisation:	Ezemvelo KZN Wildlife
Address of Departmental Office:	1 Peter Brown Street, PIETERMARITZBURG, 3201

WITNESSED BY:

Name of witness	Signature	Rank	Date

17/2022/2023

Changes made to JBCC documentation

Notes:

1. The extent of deviations from the bid documents issued by the Employer prior to the bid closing date is limited to those permitted in terms of the Conditions of Bid.
2. A Bidder's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid become the subject of agreement reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the bid document and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.
4. Any change or addition to the bid documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1.1.1. Subject:

Detail:

1.1.2. Subject:

Detail:

1.1.3. Subject:

Detail:

1.1.4. Subject:

Detail:

1.1.5. Subject:

Detail:

1.1.6. Subject:

Detail:

By the duly authorised representatives signing this *Changes made to JBCC documentation* , the Employer and the Bidder agree to and accept the foregoing *Changes made to JBCC documentation* as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Bid Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder 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 Bid documents and the receipt by the Bidder 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 Contractor:

Name of delegated signatory	Signature	Position in Entity	Date

For the Employer:

Name of delegated signatory	Signature	Rank	Date

WITNESSED BY:

Name of witness	Signature	Rank	Date

C1.2 CONTRACT DATA

C 1.2 CONTRACT DATA: JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)											
CONTRACT DATA FOR: ROYAL NATAL NATIONAL PARK: REFURBISHMENT OF TWO COTTAGES AT THENDELE RESORT FOR EZEMVELO KZN WILDLIFE											
Bid no:	EKZNW 17/2022/2023										
	The Conditions of Contract are clauses 1 to 30 of the JBCC Principal Building Agreement (Edition 6.2 of May 2018) prepared by the Joint Building Contracts Committee.										
	Copies of these conditions of contract may be obtained through most regional offices of the Association of South African Quantity Surveyors, Master Builders Association, South African Association of Consulting Engineers, South African Institute of Architects, Association of Construction Project Managers, Building Industries Federation South Africa, South African Property Owners Association or Specialist Engineering Contractors Committee.										
	CONTRACT SPECIFIC DATA The following contract specific data are applicable to this contract:										
	CONTRACT VARIABLES The Principal Building Agreement Contract Data contains all variables referred to in this document. The Employer or his Agent need to complete section A-Tender Information, B-Contract Data, C-Tender Closing in full and include it in the Bid documents. Section D-Tenderer's Selection must be left blank by the Employer or his Agent for the Contractor to fill in. The Contract Data categories form part of this agreement. Spaces requiring information must be filled in, shown as 'not applicable' or deleted but not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [] brackets. The Principal Agent, in accordance with Clause 1.1, shall obtain the specific approval from the Employer before executing any of his functions according to the "Conditions under which Consultants are appointed", or in the event where an employee of the Employer represents the Employer, the relevant General Delegations applicable at the time of executing his/her duties as described in Clause 6.2.										
Part 1: CONTRACT DATA PROVIDED BY THE EMPLOYER:											
	A - TENDER INFORMATION										
A1	Project Name										
	ROYAL NATAL NATIONAL PARK:										
	Works Description										
	REFURBISHMENT OF TWO COTTAGES AT THENDELE RESORT FOR EZEMVELO KZN WILDLIFE										
A2	Site Description										
	Erf No/Township	Bergville									
	Local Authority	Okhahlamba Municipality									
	Street Address	Royal Natal National Park, 3340 Okhahlamba									
A3	CONTRACTING AND OTHER PARTIES										
[1.1]	Employer: (Ezemvelo KZN Wildlife) Postal address: Private Bag 13053 PIETERMARITZBURG 3201										
	Practice Registration Number: VAT/GS T: Email: Contact Person:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"> N/A </td> <td style="width: 50%;"></td> </tr> <tr> <td style="text-align: center;"> N/A </td> <td></td> </tr> <tr> <td colspan="2"> mazibukb@kznwildlife.com </td> </tr> <tr> <td colspan="2"> Ms. Bongiwe Mazibuko </td> </tr> </table>		N/A		N/A		mazibukb@kznwildlife.com		Ms. Bongiwe Mazibuko	
N/A											
N/A											
mazibukb@kznwildlife.com											
Ms. Bongiwe Mazibuko											

[2.4]	Tel: 033 - 845 1912 Registered street address: 1 Peter Brown Street PIETERMARITZBURG 3201	Fax: N/A																																																												
Bid no: EKZNW 17/2022/2023																																																														
B - CONTRACT DATA																																																														
Clause references apply to the JBCC Principal Building Agreement Edition 6.2 (PBA) published May 2018. Only clauses in the PBA requiring the provisions of information, indicated as [CD], are quoted below.																																																														
2.0	Law, regulations and notices:																																																													
[2.1]	The law applicable to this agreement: <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;"> South Africa </div>																																																													
5.0	Contract documents:																																																													
[5.2]	Signed contract documents held by the principal agent, or: <div style="float: right; border: 1px solid black; padding: 2px;"> Employer </div>																																																													
[5.6]	Number of copies of documents issued free to the contractor: <div style="float: right; border: 1px solid black; padding: 2px;"> 3 (Three) </div> <div style="float: right; margin-top: -20px;"> <i>number of copies</i> </div>																																																													
Priced document																																																														
Lump sum priced document: <div style="display: inline-block; border: 1px solid black; padding: 2px 10px; margin: 0 10px;"> No </div> Yes or No <div style="display: inline-block; border: 1px solid black; padding: 2px 10px; margin: 0 10px;"> Priced Bill of Quantities (BoQ): </div> <div style="display: inline-block; border: 1px solid black; padding: 2px 10px;"> Yes </div>																																																														
System method of measurement <div style="display: inline-block; border: 1px solid black; padding: 2px 10px; margin-left: 20px;"> Standard System of Measuring Building Works 7th Edition </div>																																																														
Contract Documents comprising:																																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Description</th> <th style="text-align: center;">Marked</th> <th style="text-align: center;">Notes</th> </tr> </thead> <tbody> <tr> <td>JBCC Principal Building Agreement - Ed 6.2 (May 2018)</td> <td style="text-align: center;">A</td> <td></td> </tr> <tr> <td>JBCC PBA Contract Data - Ed 6.2 (May 2018)</td> <td style="text-align: center;">B</td> <td></td> </tr> <tr> <td>JBCC General Preliminaries for use with the JBCC Principal Building Agreement - Ed 6.2 (May 2018)</td> <td style="text-align: center;">C</td> <td></td> </tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> <tr><td> </td><td></td><td></td></tr> </tbody> </table>			Description	Marked	Notes	JBCC Principal Building Agreement - Ed 6.2 (May 2018)	A		JBCC PBA Contract Data - Ed 6.2 (May 2018)	B		JBCC General Preliminaries for use with the JBCC Principal Building Agreement - Ed 6.2 (May 2018)	C																																																	
Description	Marked	Notes																																																												
JBCC Principal Building Agreement - Ed 6.2 (May 2018)	A																																																													
JBCC PBA Contract Data - Ed 6.2 (May 2018)	B																																																													
JBCC General Preliminaries for use with the JBCC Principal Building Agreement - Ed 6.2 (May 2018)	C																																																													
<i>Note: If insufficient space, please see annexure:</i>																																																														
Contract Drawings - description:																																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Description</th> <th style="text-align: left;">Date</th> <th style="text-align: center;">Marked</th> <th style="text-align: center;">Number</th> <th style="text-align: center;">Revision</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>N/A</td> <td></td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> </tbody> </table>			Description	Date	Marked	Number	Revision	N/A	N/A		N/A	N/A																																																		
Description	Date	Marked	Number	Revision																																																										
N/A	N/A		N/A	N/A																																																										

	Note: If insufficient space, please see annexure:				
6.0	Employer's agents				
[6.3]	Description of interest of agents in the project other than professional services, if applicable:	N/A			
10.0	Insurances				
OR	By the employer in the joint names of the parties, yes/no ?	no	Obligation	Currency	Insured amount
	Contract Works Insurance (CWI) (including materials and goods, temporary works)				not applicable
	Allowance for professional fees and escalation of the insured value at 25% pa, or ? %			%	not applicable
	Free issue material at new replacement value, added to CWI, where applicable				not applicable
	Employer owned surrounding property (care, custody, control or worked on)				not applicable
	Public Liability Insurance (each and every claim OR unlimited / value)		every claim		not applicable
	Supplementary Insurance (incl CWI extensions)				per CWI
	Removal of Lateral Support		employer	ZAR	nil
	Other: <div>N/A</div>			N/A	N/A
	Policy deductibles			Currency	Insured amount
	Works / free issue		contract or contract or contract or contract or contract or contract or contract or	ZAR	nil
	Employer owned surrounding properties				not applicable
	Public Liability			ZAR	nil
	Supplementary Insurance			ZAR	nil
	Removal of Lateral Support				Not applicable
	Other: <div>N/A</div>			N/A	N/A
	By the contractor in the joint names of the parties, yes/no ?	yes		Currency	Insured amount
	Contract Works Insurance (CWI) (including materials and goods, temporary works)			ZAR	Contract Sum
	Allowance for professional fees and escalation of the insured value at 25% pa, or ? %			%	30% of the Contract Sum
	Free issue material at new replacement value			ZAR	N/A
Public Liability Insurance (each and every claim OR unlimited for the period)		every claim		R 4 000 000,00	
Supplementary Insurance (incl CWI extensions)				per CWI	
Policy deductibles			ZAR	N/A	
Other: <div>N/A</div>			ZAR	N/A	
11.0	Security				

[11.1.1 to 5]	The contractor shall provide a Guarantee for Construction to the employer>D11.2-3	yes/no	Yes
12.1 Duties of parties = employer = site			
[9.2.7]	Alterations and additions to existing premises?	Yes	
[12.1.2]	Premises occupied - yes/no? identify area?	No	
[12.1.3]	Relevant natural features to be retained / relocated / removed	Trees and buildings	
[12.1.4]	Areas the contractor may not occupy?	N/A	
[12.1.5]	Statutory and/or other notices to be complied with by the contractor before possession of site can be given	Construction permit issued by Department of Labour	
[12.1.5]	Possession of the site - intended date	<div>To be determined</div> <div>Due date / yyyymm dd</div>	
[12.1.5]	Possession of the site will be given within 10 calendar days after the contractor has fulfilled the conditions (2.1; 12.2.2-3; 12.2.5-6) and received the notification from the Employer of Site Hand Over where the contractor will receive one fully signed copy of the Form of Offer and Acceptance from the employer.		
[12.1.10]	Description of free issue by employer (attach separate page for multiple items)	N/A	
	Note: If insufficient space, please see annexure:	N/A	
14.0 Nominated subcontractors			
[14.1.4]	Specialisation:	N/A	
[14.1.4]	Specialisation:	N/A	
[14.1.4]	Specialisation:	N/A	
[14.1.4]	Specialisation:	N/A	
[14.1.4]	Specialisation:	N/A	
	Note: If insufficient space, please see annexure:	N/A	
16.0 Direct contractors			
	Employer to define extent of work by a direct contractor [12.1.2]		
[16.1]	Specialisation:	N/A	
[16.1]	Specialisation:	N/A	

[16.1]	Specialisation:	N/A			
	Note: If insufficient space, please see annexure:	N/A			
19.0 / 20.0 / 24.0	Practical completion / penalty for late completion				
	The Practical Completion date is:	<div style="border: 1px solid black; padding: 2px;"> A time measured from the Commencement date. </div>			
		Inspection=working days	Date for practical completion - yyyymmdd	Penalty currency	penalty amount per day
	Practical Completion of the works as a whole:	7	TBA	ZAR	0.04% of the Contract Sum, rounded to the nearest R10
OR	only 1 option can apply				
[19/20/24]	Practical Completion of the works in sections: 1	N/A	N/A	ZAR	0.04% of the Contract Price, rounded to the nearest R10
[19/20/24]	Practical Completion of the works in sections: 2	N/A	N/A	ZAR	0.04% of the Contract Price, rounded to the nearest R10
[19/20/24]	Practical Completion of the works in sections: 3	N/A	N/A	ZAR	0.04% of the Contract Price, rounded to the nearest R10
[19/20/24]	Practical Completion of the works in sections: 4	N/A	N/A	ZAR	0.04% of the Contract Price, rounded to the nearest R10
[19/20/24]	Practical Completion of the works in sections: 5	N/A	N/A	ZAR	0.04% of the Contract Price, rounded to the nearest R10
[21.1]	The defects liability period is: Shall commence on the calendar day following the date for Practical completion and end at midnight, of the period indicated below, from the date of Practical Completion. Defects Liability Period is 12 Months for Electrical, Mechanical, Industrial and Civil works Defects Liability Period is 90 Calendar Days for building works <u>Latent Defect Period</u>				
[22]	The latent defect period is:	<div style="border: 1px solid black; padding: 2px;"> 5 years after the Final Completion certificate. (Clause 22) </div>			
	<u>Documentation required before Commencement of the Works:</u>				
[12.2.2 to 12.2.6]	The time to submit the documentation required before commencement with Works execution is:	<div style="border: 1px solid black; padding: 5px; display: inline-block;">10</div>		calendar days	-
[12.2]	The documentation required before commencement with the Works execution are;				
[2.1]	Health and Safety Plan	<div style="border: 1px solid black; padding: 2px;"> The Contractor shall deliver his Health and Safety Plan of the Works within 10 calendar days after notice from the Principal Agent prior to the Commencement Date. </div>			

[12.2.6]	Initial Programme	The Contractor shall deliver his programme of work within 15 working days after notice from the Principal Agent, prior to the Commencement Date.(cl 12.2.6)		
[12.2.3]	Guarantee	The Contractor shall deliver his chosen Guarantee (security) for this Works within 10 calendar days after notice from the Principal Agent prior to the Commencement Date.		
[12.2.5]	Insurance	The Contractor shall deliver his insurance for the Works within 10 calendar days after notice from the Principal Agent prior to the Commencement Date.		
	Cash flow by contractor	The Contractor shall deliver his cash flow for the Works within 10 calendar days after notice from the Principal Agent, prior to the Commencement Date.		
[12.2.2]	Priced Bill of Quantity	The Contractor shall deliver his Priced Bill of Quantity within 10 calendar days after notice from the Principal Agent, prior to the Commencement Date.		
	Other requirements			
	Other requirements			
	Note: If insufficient space, please see annexure:		N/A	
19.0	Practical Completion			
[19.1.1]	Items that do not have to be complete to achieve practical completion			
	N/A			
	Note: If insufficient space, please see annexure:		N/A	
[19.1.1]	Criteria to achieve practical completion (the BoQ may contain a more detailed description)			
	Per specification			
	Note: If insufficient space, please see annexure:		N/A	
25.0	Payment			
[25.0]	Currency:	ZAR	South African Rand	
[25.2]	Issue of regular payment certificates on	26th	day of the month	N/A day of the week
[25.3.2]	Materials and goods off site - paid subject to ...	Guarantee for Advance Payment provided ?		No
[25.3.4]	Contract price adjustment provisions	Method?	Haylett Formule	
[26.9.5]	Base Month (If Applicable)	N/A		
	Alternative Indices:	Not Applicable		
	Where CPAP is applicable, the contract sum will be adjusted in accordance with the P0151 indices published by Statistics South Africa as set out in the Contract Price Adjustment Provisions (CPAP) Indices Application Manual as published by Statistics South Africa, dated 1 January 2018 and any amendments thereto:			

	<p>1) Glass etc. measured in specialist section Metalwork, will be adjusted in terms of the index for that work group unless specifically stated otherwise in the bills of quantities.</p> <p>2) All electrical installations in buildings and power distribution systems shall be adjusted in terms of the index for Work Group 160 Electrical Installation. In case of uninterruptible power supplies, elevators, escalators and hoists, generating sets, motor-alternator sets and intercommunication systems shall be adjusted in accordance with Work Group 170.</p> <p>3) Further to clause 3.4.6 of the CPAP Indices Application Manual, the listing of additional items for exclusion by Bidder's, will not be permitted. Notwithstanding anything to the contrary contained in the General conditions of Contract and Preliminaries, this contract could only, when the construction period exceeds 6 months and the contract exceeds R1,000,000.00, be subject to a Contract Price Adjustment Factor.</p>	
	<i>Note: If insufficient space, please see annexure:</i>	N/A
30.0	Dispute Resolution	
[30.7.4]	Alternative Dispute Resolution nominating body	Association of Arbitrators (South Africa)
	Changes made to JBCC documentation	
[1.1]	The following definitions have been amended or added to this agreement.	
	<p>ADVERSE WEATHER CONDITIONS - in clause 23.1.1 means conditions over and above what could reasonably be expected for the specific locality where the Works are being executed and include inter alia excessive rain, heat, cold, wind and any other climatic condition that would not normally be experienced during the season that the Works are executed in that area. The South African Weather Service's (http://www.weathersa.co.za) 10 year average climatic conditions statistics would be what could be reasonably expected for the specific locality where the Works are executed.</p> <p>COMMENCEMENT DATE – means the date of possession of the site by the contractor (site handover) which shall not occur before the Bidder have fully complied with submitting documents required in terms of clause 12.2.2 to 12.2.6 and when the Bidder can receive one fully signed copy of the Offer and Acceptance in terms of the Form of Offer and Acceptance.</p> <p><u>The Agreement comes into effect on the date when; The tenderer receives one fully completed original copy of this document, including the Changes made to JBCC documentation (if any)</u></p> <p><u>The agreement</u> ("this document") consists of;</p> <ol style="list-style-type: none"> 1. Agreement and Conditions of Contract. 2. Form of Offer and Acceptance including the Changes made to JBCC documentation. 3. Contract Data. 4. Scope of Works. 5. Site Information. 6. Drawings & documents referred to in the 1 to 5 above. <p>(See Form of Offer and Acceptance)</p>	
	CORRUPT PRACTICE – means the offer, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.	
	FRAUDULENT PRACTICE – means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any Bidder and includes collusive practice among Bidders (prior to or after the Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Bidder of the benefits of free and open competition.	
	INTEREST – the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in particular:	
(a)	in respect of interest owed by the Employer, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and	
(b)	in respect of interest owed to the Employer, 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.	

PREFERRED PARTY - means a responsive Bidder, who scored the most preferential points and receives notification from the employer to provide the documentation as stated in the contract data, within the period stated in the contract data, prior to the site hand over and commencement of the project.

PRINCIPAL AGENT – means the person or entity appointed by the Employer and named in the contract data. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the Employer as named in the contract data.

Clause 6.1 should be amended to include the following addition to the first sentence "except in clauses 23.7 and 23.8; 26.7 and 26.12 in terms of which the Employer has retained its authority and has not given a mandate to the principal agent and in terms of which the Employer shall make all decisions and sign all documents."

clause 10.2 and 10.10 - Replace the word "employer" with the word "contractor".

Delete clause 11.4.1 and 11.4.2

Delete clause 11.5

Delete clause 11.10

Delete clause 12.1

Add to clause 12.2.13 "The contractor shall supply, at his own cost, and keep an original of the JBCC Principal Building Agreement (Edition 6.2) and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times."

Amend clause 21.6 as follows "The 90 calendar days are replaced with the period indicated in the Contract Data for building work and for electrical, mechanical and civil work." - see Practical completion / penalty for late completion above for periods.

Delete clause 25.12.3

Add the following clauses to clause 27.2;

clause 27.2.11 - "the contractor's failure or neglect to commence with the works on the dates prescribed in the contract."

clause 27.2.12 - "the contractor's failure or neglect to proceed with the works in terms of the contract."

clause 27.2.13 - "the contractor's failure or neglect for any reason to complete the works in accordance with the contract."

clause 27.2.14 - "the contractor's refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract."

clause 27.2.15 - "the contractor's estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa."

Delete clause 28.1.1

Delete clauses 29.14.1

Delete clause 29.17.6

Delete clause 29.24

Clause 21.1 and 21.6 - The "90 calendar days" are replaced with the period indicated in the Contract Data for building work and for electrical, mechanical and civil work.

C - TENDER CLOSING

Tender closing:	To be determined	date	Tender closing: time	11:00	time
Tender closing place:	Ezemvelo KZN Wildlife				
Submission address	Queen Elizabeth Park Office, 1 Peter Brown Street Pietermaritzburg 3201				
Email address	N/A				
Delivered in electronic format?	no	yes / no	Alternative offer considered?	no	yes / no
			Only if original tender submitted	no	yes / no

D - TENDER'S SELECTION (To be completed by the tenderer)							
11.0	Securities						
				Obligation			
[11.1.1]	Guarantee for Construction (variable)		If specified,				yes / no
[11.1.2]	or Guarantee for Construction (fixed)		If specified,				yes / no
	or						
	(i) cash deposit of 10 % of the Contract Price						yes / no
	(ii) bank or insurance Performance Guarantee of 10 % of the Contract Price						yes / no
	(iii) payment reduction of 10% of the value certified in the payment certificate (excluding VAT)						yes / no
	(iv) cash deposit of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)						yes / no
	(v) bank or insurance guarantee of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)						yes / no
	Note: The Contractor to ensure that the guarantee is valid at all times, in terms of the Agreement with the Employer.						
[11.2.2; 11.3]	Guarantee for Advance Payment		Provided by contractor				yes / no
	(where the contractor requests the employer to pay an advance for materials and goods)			Currency			Amount
	Purpose						
[11.5.1]	Guarantee for Payment		Provided by the employer			no	yes / no
		n/a		Currency		n/a	Amount
19.0	Contractor's holiday periods during the construction period ?						
	Contractor's annual holiday period - year 1	from	13/12/2023	until	14/01/2024		
	Contractor's 'other' holiday period - year 1	from	15/12/2024	until	10/01/2025		
	Contractor's annual holiday period - year 2	from	12/12/2025	until	09/01/2026		
	Contractor's 'other' holiday period - year 2	from		until			
	Contractor's annual holiday period - year 3	from		until			
	Contractor's 'other' holiday period - year 3	from		until			
	Note: If insufficient space, please see annexure:						
26.0	Payment / Adjustment of Preliminaries						
Option A	Payment of Preliminaries Assessed by Principal Agent, an amount pro rated to the value of the works executed in the same ratio as the Preliminaries to the Contract Sum, (including tax); shall exclude the amount of preliminaries, all Contingency Sum(s) and any allowance for CPAP or					yes	yes / no
Option B	An amount agreed by the Principal Agent and the contractor in terms of the Bills of Quantities or the priced document to identify an initial establishment charge / a monthly charge / and a final dis-establishment charge						yes / no
	Where the Contractor does not indicate option 'A' or option 'B' - option 'A' shall apply						
	Adjustment of Preliminaries [26.9.4]						

**Option
A**

For the adjustment of Preliminaries both the Contract Sum and the Contract Value (including tax) shall exclude the amount of Preliminaries, all Contingency Sum(s) and any provision for Cost Price Adjustment Provisions:-

- An amount which shall not be varied.
 - An amount varied in proportion to the contract value as compared to the Contract Sum.
 - An amount varied in proportion to the Construction Period as compared to the initial Construction Period (excluding revisions to the Construction Period to which the Contractor is not entitled) to adjustment of the Contract Value in terms of the agreement.
- The Contractor shall provide a breakdown of charges (including tax) within 15 working days of the date of acceptance of tender and, where applicable, an apportionment of Preliminaries per section

If the Contractor and the Principal Agent cannot agree, within 10 Working Days from the Commencement Date, on such a division then the Principal Agent shall make a division of the Preliminaries to be incorporated in the valuations for each monthly payment certificate as follows;

10% of the amount shall not be varied

15% varied in proportion of the Contract Value to the Contract Sum

yes / no

75% varied in proportion to the revised Construction Period compared with the initial Construction Period.

Where sectional completion is required in terms of the agreement, the Contractor shall provide the Principal Agent with the division of the above categorized amounts into sections. Should the Contractor fail to provide such information within the period stipulated the categorized amounts shall be prorated to the value of each section.

or

**Option
B**

The Contractor shall within 15 working days of the date of possession of the site provide the Principal Agent with a detailed breakdown of Preliminaries amounts for the works as a whole, or per section where applicable, including administrative and supervisory staff charges and for the use of construction equipment in terms of the programme.

yes / no

Where the Contractor does not indicate option 'A' or option 'B' - option 'A' shall apply

1. By submission of this tender to the Employer the tenderer offers and agrees to execute and complete the works and remedy any defects in conformity with the specification for the tender sum stated - to be paid in instalments as work is completed.
2. The tender shall remain in full legal force for forty five (45) calendar days from the closing date of the tender. The Tenderer accepts liability for damages that may be suffered by the Employer should the tender validity period not be honoured.
3. The lowest or any offer will not necessarily be accepted by the Employer - nor need reasons be given for such a decision.
4. Any provision in this agreement that may confer any benefit or right in favour of any Sub Contractor shall be binding on the parties and be capable of acceptance by such Sub Contractor at any time.
5. Annexures marked as;

A	
B	
C	

TENDER SUM COMPILATION

		Currency	
Tenderer's work excluding tax		<input type="text" value="ZAR"/>	Amount <input type="text"/>
Tax 15% at percentage	<input type="text" value="15"/> %	<input type="text" value="ZAR"/>	Amount <input type="text"/>
Total TENDER SUM inclusive of tax		<input type="text" value="ZAR"/>	Amount <input type="text"/>

Tender sum in words

Waiver of the Contractors lien or right of continuing possession is required.

Yes

SPECIAL CONDITIONS OF CONTRACT

Duties and functions of the **Principal Agent** requiring the specific approval of the **Employer** BEFORE execution of any part of these duties are as follows:

- (a) Determinations of contractors claims for extension of time (revision of the contract completion date). All claims for extension of time shall be submitted by the **Principal Agent**, together with the **Principal Agent's** recommendations, to the **Employer** for determination. (see clauses 23.7 and 23.8).
- (b) Drawings, instructions or communications of any kind requiring variations of the works and involving EXTRA's shall NOT be given effect by the **Contractor** UNTIL BOTH the "Official Variation Order" and the "Financial Request for Variation Order and Additional Funds" form, as issued by the Department of Public Works, have been approved and signed by the **Employer**.
- (c) Insurance policies to be approved by the **Employer** within 21 days of the date of the **Commencement** of the Works.
- (d) Any notice of disagreement raised by the **Contractor** or written Dispute Notice given by the **Contractor** to the **Principal Agent** shall be submitted by the **Principal Agent**, together with the **Principal Agent's** recommendations, to the **Employer** for determination.
- (e) The issue of the certificate of practical completion, certificate of completion and the final approval certificate shall be signed and submitted by the **Principal Agent**, to the **Employer** for final approval and signature. The certificates shall not be considered as officially issued until signed by the **Employer**.

MANAGING PROJECT DURATION

- (a) The Contractor shall co-ordinate his programme with all other contractors whose work may precede or be executed simultaneously to his own.
The Contractor will be called upon to plan and control the project using the Project Evaluation and Review Technique (PERT) or other approved Critical Path Method (CPM) network analysis of his events and activities and those of the Sub Contractors in his employ and must co-ordinate his planning with any other contractor employed on the project. A fortnightly project control report will be expected from the Contractor in writing, evaluating any gains or delays against the critical path and he should allow for all costs involved in planning reviewing and updating the programme to the satisfaction of the Principal Agent against this item.
- (b) Activity-and total float shall belong to the Employer.
- (c) The Contractor shall deliver his programme of work within 15 working days after notice from the Principal Agent, prior to the Commencement Date.(cl 12.2.6)
It is a condition of this contact that, the Contractor submit to the Principal Agent a detailed CPM Programme which shall be to the approval of the Principal Agent. In this regard tenderers are advised to consult with the Principal Agent as to the format and requirements of the programme as no claim whatsoever will entertained should the programme fail to meet the requirements of the Principal Agent. Failure to submit the programme within the stipulated time may result in the Contractor being held in breach of contract.
The approved programme will form the basis of time management of the project and extension of time will not be guaranteed unless the Contractor has strictly complied with this provision.
The programme shall make allowance for rain and the number of rain days allowed within the critical path shall be on the provisions of the clause dealing with adverse weather conditions and claiming for delays in performance in this bill.
Allowance for the above must be made under this item as no claims for failing to comply with this precondition will later be entertained.

ADVERSE WEATHER CONDITIONS AND CLAIMS FOR DELAYS IN PERFORMANCE

- (a) The Contract Sum includes a monthly allowance of 3 working days for adverse weather conditions during which rainfall exceeds 10mm per day for

the months as indicated in the Scope of Works. These days shall be reflected on the critical path of the Contractor's programme as specified in MANAGING PROJECT DURATION above.

(b) Claims for delays in performance due to adverse weather conditions shall be calculated separately for each calendar month and for the project as a whole. Delays or gains to the critical path shall be reflected in all revisions of the programme. An extension of time will only be granted where the following conditions are met:

(i) The criteria to be used for WORK stoppages shall be for safety hazards or poor quality of work.

(ii) The Employer's site representative or the Employer's Principal Agent, if the site representative is not available shall be notified, in terms of clause 23.4.2 of the JBCC PBA Ed 6.2, when the Contractor stops the work and intends to claim performance delays. The Employer representative shall inspect the situation together with the Contractor and give an immediate decision.

1. The stoppage claimed must cause a delay in the practical completion of work. If the critical activities can proceed and a non-critical activity is delayed due to adverse weather conditions no claims for delay shall be granted.
2. No claims for stoppages less than 2 (two) hours per day shall be considered.
3. Claims granted for more than 2 (two) hours, but less than 10 (ten) hour (lunch included) day, shall be added together and expressed as full days.
4. All claims shall be submitted in writing to the principal agent in terms of clause 23.5 of the JBCC PBA Ed 6.2.
5. The total delay in performance granted to the Contractor expressed in days shall be added to the contractual completion date of each section of the works. The contractual penalty clause shall only come into effect after this newly arrived date.
6. Total delays (in hours) will be rounded up or down to the nearest integer for the calculation of working days. The total hours (including lunch) per working day shall be 10 unless otherwise indicated on the Contractor's programme
7. Where the programmed delays for adverse weather conditions exceed the actual delays incurred the completion date(s) will not be adjusted.
8. Where the project includes builder' holidays the programmed durations for adverse weather conditions shall be adjusted pro-rate to the actual working days
9. The total of all monthly delays due to adverse weather conditions shall be calculated in accordance with the example given below:

Description		Months					Total
		Sept	Oct	Nov	Dec	Jan	
		Hour s	Hours	Hours	Hours	Hours	Hours
Programm ed	Rai n day s	0	30	30	15	15	90
Actual	Rai n day s	16	22	35	15	18	106
Difference		-16	8	-5	0	-3	-16
Estimated Extension of time - in Working Days							2

8 hrs/day*

See point 5.2 in the Scope of Works for the specific days the bidder must allow for in this contract.

TENDERER'S DETAILS

Name

Business

eg: public
company

Business registration number	<input type="text"/>	VAT/GS T	<input type="text"/>
Contact person	<input type="text"/>	Mobile	<input type="text"/>
E-mail	<input type="text"/>		
Registered street address	<input type="text"/>		
Postal address	<input type="text"/>	Code	<input type="text"/>
Telephone	<input type="text"/>	Fax	<input type="text"/>

SIGNATURES OF THE CONTRACTING PARTIES

Thus done and signed at.....on
.....of.....20.....

Name of signatory

for and behalf of the **Employer**
who by signature hereof warrants
authorisation hereto.

Capacity of
signatory

as
Witness
.

Thus done and signed at.....on
.....of.....20.....

Name of signatory

for and behalf of the **Contractor**
who by signature hereof warrants
authorisation hereto.

Capacity of signatory

as
Witness
.

C1.3 FORM OF GUARANTEE

C1.3 GUARANTEE FOR CONSTRUCTION
for use with JBCC Principal Building Agreement (Edition 6.2)

Head Office
Ezemvelo KZN Wildlife
Queen Elizabeth Park
No. 1 Peter Brown Drive
Montrose, Pietermaritzburg

Date:

Sir,

GUARANTEE FOR CONSTRUCTION

Bid Number EKZNW 17/2022/2023

For use with the JBCC Principal Building Agreement, Edition 6.2

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

Physical Address:

Guarantor's signatory
1: Capacity

Guarantor's signatory
2: Capacity

"Employer" means: Ezemvelo KZN Wildlife

"Contractor" means:

"Principal Agent" means:

"Works" means:

"Site" means:

Name of Signatory

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

"Contract Sum" means: The accepted amount inclusive of tax of: **ZAR**

Amount in Words:

"Guaranteed Sum" means: The maximum aggregate amount
of: 10% **ZAR**
Of Contract Sum

Amount in Words:

Security for Construction "Expiry Date" means:
(Insert variable or fixed)

AGREEMENT DETAILS

Sections	Total number / not applicable	<input type="text"/>	Last section	<input type="text"/>
Principal Agent Issues: JBCC® format Interim Payment Certificates, the Final Payment Certificate, the Certificate of Practical Completion and the Certificate of Final Completion				

1.0 GUARANTEE FOR CONSTRUCTION (Variable)

1.1	Where a Guarantee for Construction (Variable) in terms of the Agreement has been selected this clause 1.0 and 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the diminishing amounts of the Guaranteed Sum as follows:--	
	GUARANTOR'S LIABILITY	PERIOD OF LIABILITY
1.1.1	Maximum Guaranteed Sum (not exceeding 10.0% of the contract sum) in the amount of:	From and including the date of issue of this Guarantee for Construction and up to and including the date of issue of the interim payment certificate certifying in excess of 50% of the contract sum.
	<div>ZAR <input type="text"/></div>	
	Amount in words <div><input type="text"/></div>	
1.1.2	Reducing to the Guaranteed Sum (not exceeding 6.0 % of the contract sum) in the amount of:	From and including the day after the date of the aforesaid interim payment certificate and up to and including the date of issue of the only Certificate of Practical Completion or last Certificate of Practical Completion where there are sections.
	<div>ZAR <input type="text"/></div>	
	Amount in words <div><input type="text"/></div>	
1.1.3	Reducing to the Guaranteed Sum (not exceeding 4.0% of the contract sum) in the amount of:	From and including the day after the date of the applicable Certificate of Practical Completion and up to and including the date of issue of the only Certificate of Final Completion or the last Certificate of Final Completion where there are sections.
	<div>ZAR <input type="text"/></div>	
	Amount in words <div><input type="text"/></div>	
1.1.4	Reducing to the Guaranteed Sum (not exceeding 2.0% of the contract sum) in the amount of:	From and including the day after the date of the applicable Certificate of Final Completion and up to and including the date of issue of the Final Payment Certificate where payment is due to the Contractor, whereafter this Guarantee for Construction shall expire. Where the Final Payment Certificate reflects payment due to the Employer this Guarantee for Construction shall expire upon payment of the full amount certified.
	<div>ZAR <input type="text"/></div>	
	Amount in words <div><input type="text"/></div>	

- 1.2 The Guarantor's liability limits set out in 1.1.1 to 1.1.4 shall apply in respect of any claim received by the Guarantor during the Security validity

2.0 GUARANTEE FOR CONSTRUCTION (Fixed)

- 2.1 Where a Guarantee for Construction (Fixed) in terms of the Agreement has been selected this clause 2.0 and 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows: --

GUARANTOR'S LIABILITY

Maximum Guaranteed Sum (not exceeding 5.0% of the contract sum) in the amount of:

PERIOD OF LIABILITY

From and including the date of issue of this Guarantee for Construction and up to and including the date of the only Certificate of Practical Completion or the last Certificate of Practical Completion where there are sections, whereafter this Guarantee for Construction shall expire.

ZAR

Amount in words

- 3.0 The GUARANTOR acknowledges that;
- 3.1 Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
- 3.2 its obligation under the Performance Guarantee is restricted to the payment of money.
- 3.3 Reference to a recovery statement or an Interim or Final Payment Certificate, or a Certificate(s) of Practical or Final Completion shall mean such certificate issued by the Principal Agent.
- 4.0 Subject to the Guarantor's maximum liability referred to in clauses 1.0 or 2.0, the Guarantor undertakes to pay the Employer the sum certified on receipt of the documents identified in 4.1 to 4.3:--
- 4.1 A copy of a first written demand notice 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 4.2.
- 4.2 A first written demand notice 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 issue of the first written demand notice in terms of 4.1 and that the sum certified has not been paid to date. The Employer herewith calls up this Guarantee for Construction and demands payment of the sum certified from the Guarantor.
- 4.3 A copy of the applicable payment advice which entitles the Employer to receive payment in terms of the Agreement of the sum certified in 4.0.
- 5.0 Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0 , the Guarantor undertakes to pay the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand notice from the Employer to the Guarantor at the Guarantor's physical address calling up this Guarantee for Construction stating that:--
- 5.1 The Agreement has been terminated due to the Contractor's default and that the Security for Construction is called up in terms of 5.0. The demand notice shall enclose a copy of the notice of termination; or

- 5.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Guarantee for Construction is called up in terms of 5.0. The demand notice shall enclose a copy of the court order.
- 6.0 The aggregate amount of payment to be made by the Guarantor in terms of 4.0 and 5.0 shall not exceed the Guarantor's maximum liability in terms of 1.0 or 2.0.
- 7.0 Where the Guarantor is a registered insurer and has made payment in terms of 5.0, the Employer shall within one hundred and eighty (180) calendar days of receipt of payment submit an expense account to the Guarantor showing how all monies received in terms of the Guarantee for Construction have been expended, or will be expended, and shall refund to the Guarantor any surplus amount. All monies refunded to the Guarantor in terms of this Guarantee for Construction shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date of payment by the Guarantor to the Employer until the date of refund.
- 8.0 Payment by the Guarantor in terms of 4.0 or 5.0 shall be made within seven (7) calendar days upon receipt of the first written demand notice to the Guarantor.
- 9.0 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 for Construction on account of any conduct alleged to be prejudicial to the Guarantor.
- 10.0 The Guarantor chooses the physical address stated above for all transactions in relation to this security.
- 11.0 This Guarantee for Construction is neither negotiable nor transferable and shall expire in terms of either 1.1.4 or 2.1, or on payment in full of the Guaranteed Sum or on the Security expiry date, whichever is the earlier, where after no claims will be considered by the Guarantor. The original Guarantee for Construction form shall be returned to the Guarantor after it has expired.
- 12.0 This Guarantee for Construction, with the required demand notices in terms of 4.0 or 5.0, shall be regarded as a liquid document for the purpose of obtaining a court order.
- 13.0 Where this Guarantee for Construction is issued in the Republic of South Africa the Guarantor hereby consents to the jurisdiction of a court in the area where the project is located.

Signed at	<input type="text"/>	Date	<input type="text"/>
Guarantor's signatory (1)	<input type="text"/>	Capacity	<input type="text"/>
Guarantor's signatory (2)	<input type="text"/>	Capacity	<input type="text"/>
Witness signatory (1)	<input type="text"/>	Witness signatory (2)	<input type="text"/>

Guarantor's seal or stamp:

C2.1 PRICING INSTRUCTIONS

PRICING INSTRUCTIONS
with JBCC Principal Building Agreement (Edition 6.2)

Project title:	ROYAL NATAL NATIONAL PARK: REFURBISHMENT OF TWO COTTAGES AT THENDELE RESORT FOR EZEMVELO KZN WILDLIFE		
Bid no:	EKZNW 17/2022/2023		

C2.1 Pricing Instructions

1	<p>Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not")</p> <p>The adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories by insertion of "F", "V", "T" as the case may be against the price in the "rate" column immediately preceding the "amount" column, where "F" denotes a fixed amount (amount not varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount variable in proportion to time.</p> <p>MASSES AND MEASURING UNITS</p> <p>These shall be in accordance with the Measuring Units and National Measuring Standards Act No. 76 of 1973 and amendments thereto.</p> <p>The pages of each of these documents are numbered consecutively and before the Bidder submits his bid he should check the number of pages, and if any are found missing or duplicated, or the figures or writing indistinct, or the documents contain any obvious error, he should apply to the Project Manager AT ONCE and have same rectified as no liability whatsoever will be admitted by the Administration in respect of errors in Tender due to the foregoing.</p>
	<p>PRICES FOR VARIATIONS</p> <p>Where prices or quotations for variations are submitted by the Contractor during the currency of the Contract, it is to be clearly understood that these are for the purpose of consideration by the Project Manager and that there is no assumption of acceptance. The Contractor will be notified of acceptance of prices or quotations either by insertion of the amount on the variation order or by written intimation.</p>
	<p>SCALE</p> <p>The scale to which the Drawings are made is only to be made use of when no figured dimensions are given either on the Drawings or in the tender documents and the figured dimensions are always to be followed though they may not coincide with the scale of the Drawings, but dimensions where possible are to be taken from the buildings.</p>
	<p>PROVISIONAL ITEMS</p> <p>All items described as "Provisional" shall be used as directed by the Employer and measured and valued or paid for.</p> <p>No work for which "Provisional" items are allowed shall be commenced without written instructions from the Project Manager.</p>

5	<p>TIMELY ORDERING OF MATERIALS</p> <p>The Contractor is warned to place all orders for materials or special articles as early as possible, as he will be held solely responsible for any delay in the delivery of such goods.</p> <p>Nevertheless this tender is conditional upon no liability being attached to the Contractor if delivery of materials is rendered impossible by reason of any act of the Government.</p>
6	<p>ELECTRICAL LIGHTING, POWER AND WATER</p> <p>The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Employer.</p> <p>The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.</p> <p>Bidders are advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.</p> <p>IMPORT PERMITS, DUTIES AND SURCHARGES.</p> <p>All bids by means of which imported products are being called for, must use the rate of exchange 14 days prior to the closing date indicated in the bid documents. If this day falls on a weekend or public holiday, the next working day must be used.</p> <p>Furthermore, Bidders must submit documentary proof (in the form of a certified copy) from their bank or legally recognised financial institution, clearly indicating what the rate of exchange was 14 days prior to the closing date, as mentioned above.</p> <p>Together with this, the Bidder must confirm that the tender price relating to an imported product, was based on the rate of exchange 14 days prior to the closing date as mentioned above.</p>
8	<p>STANDARD SYSTEM OF MEASUREMENT WHERE BILLS OF QUANTITIES FORM PART OF THE BID DOCUMENTS</p> <p>The work executed under this Contract has been measured in accordance with the:</p> <p style="text-align: center;">Standard System of Measuring Building Works 7th Edition</p> <p>including all amendments unless descriptions of items indicate a deviation, and it shall be understood that the system of measurement which is herein adopted is the only system of measurement which will be recognized in connection with this contract. Any contradictions to this system of measurement contained in the "Model Preambles for Trades 2008" shall be disregarded (unless same have been accommodated in the system of measurement) but applicable rates shall be included for all requirements stated and not measured separately in compliance with this system.</p>

BILLS OF QUANTITIES/LUMP SUM DOCUMENT

The Bills of Quantities document forms part of and must be read and priced in conjunction with all the other documents forming part of the contract documents, the Standard Conditions of Bid, Conditions of Contract, Standard Preambles to all Trades, Specifications, Drawings and all other relevant documentation.

VALUE ADDED TAX

The bid price must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the Bills of Quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.

FIXED PRICE CONTRACT

Should the Bills of Quantities/Lump Sum Document be a fixed price contract, the following clause must be inserted in the Pricing Instructions:

Bidders are to take note that the contract price adjustments are not applicable to this contract. Bidders should therefore make provision in the Contract Sum, schedule of rates, etc. for possible price increases during the contract period, as no claims in this regard shall be entertained.

**REFURBISHMENT OF 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE
RESORT FOR EZEMVELO KZN WILDLIFE**

C2.2 PRELIMINARIES

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION 1 – PRELIMINARIES</u></p> <p><u>BILL NO 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these bills of quantities, amended as hereinafter described</p> <p>The contractor is deemed to have referred to the above mentioned documents for the full intent and meaning of each clause</p> <p>The clauses in the above mentioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"</p> <p>Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the above mentioned documents</p> <p><u>PREAMBLES FOR TRADES</u></p>				

The Model Preambles for Trades (2008 Edition) 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 General Preambles will be entertained

Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles

The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications

STRUCTURE OF THIS PRELIMINARIES BILL

Section A: A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement

Section B: A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries

Section C: Any special clauses to meet the particular circumstances of the project

PRICING OF PRELIMINARIES

Should the contractor select Option A in the contract data for the adjustment of preliminaries, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

SECTION A: PRINCIPAL BUILDING AGREEMENT

Interpretation (A1-A7)

1

Clause 1.0 - Definitions and interpretation
Pricing of bills of quantities

The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities. Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained.

Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary.

Abbreviated descriptions The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the Principal Agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice.

	<p>Legal status of contractor If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then: 1.These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement 2.These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons 3.The contractor shall not alter its composition or legal status without the prior written consent of the employer</p> <p>F:..... V:.....T:.....</p>	Item			
2	<p>Clause 2.0 - Law, regulations and notices</p> <p>F:..... V:.....T:.....</p>	Item			
3	<p>Clause 3.0 - Offer and acceptance</p> <p>F:..... V:.....T:.....</p>	Item			
4	<p>Clause 4.0 - Cession and assignment</p> <p>F:..... V:.....T:.....</p>	Item			
5	<p>Clause 5.0 - Documents</p> <p>F:..... V:.....T:.....</p>	Item			
6	<p>Clause 6.0 - Employer's agents</p> <p>F:..... V:.....T:.....</p>	Item			
7	<p>Clause 7.0 - Design responsibility</p> <p>F:..... V:.....T:.....</p>	Item			
8	<p>Clause 8.0 - Works risk</p> <p>Insurances and securities (A8-A11)</p>	Item			

	F:..... V:.....T:.....	Item			
9	Clause 9.0 - Indemnities				
	F:..... V:.....T:.....	Item			
10	Clause 10.0 - Insurances				
	F:..... V:.....T:.....	Item			
11	Clause 11.0 - Securities				
	Guarantee for payment				
	The Employer shall not provide to the contractor with a guarantee for payment By virtue of the contractor submitting a tender offer, he is deemed to have waived his lien or right of continuing possession of the works [11.10]				
	Sub-clause 11.10 has been amended to read as follows: "The contractor shall waive his lien or right of continuing possession of the works."				
	Clause 11.0 has been amended to include the following new sub-clauses:Sub-clause 11.11 The guarantee provided by the contractor's Guarantor shall have an expiry date (if stated) no less than 3 months after the practical completion date and shall be extended accordingly should the practical completion date be extended. The cost for same shall be included on the contractor's tender price as no claims for additional cost shall be entertained				
	Sub-clause 11.12 The contractor is required to provide the Employer with a variable construction guarantee with twenty-one (21) calendar days of acceptance of the contractor's tender				

	<p>Sub-clause 11.13 Extension of waiver of lien The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times</p> <p>F:..... V:.....T:.....</p> <p>Execution (A12 - A17)</p>				
12	<p>Clause 12.0 - Obligations of the parties</p> <p>Sub-clause 12.2.6 has been amended to include the following: The programme for the works must be prepared and issued in Microsoft Project Programming Software The contractor shall include a float of 15 working days within the contract period for project delays such as, but not limited to adverse weather conditions, etc., in the programme. Such provisions shall initially be included at the end of the contract period or proportionally allocate at the end of each section for contracts with sectional completion, and shall be monitored by the contractor and agreed with the Principal Agent as and when such delays takes place and shall be recorded in the programme based on actual stoppages when incurred. Revision of the date for Practical Completion shall only be considered once the 15 working days has been fully utilised</p> <p>Sub-clause 12.2.10 has been amended to include the following: The contractor shall be required to maintain, in addition to the approved programme, a comprehensive fortnightly bar-chart programme expanded to reflect anticipated daily activities for the ensuing fourteen (14) days</p>	Item			

	<p>Sub-clause 12.2.18 has been amended to include the following: Office accommodation The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18] The contractor's site camp shall be equipped with Wi-Fi internet connection which shall be utilised by the contractor's staff, the client and members of professional team</p> <p>Notice board The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the Principal Agent listing the names and logos of the Employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p> <p>F:..... V:.....T:.....</p>				
13	<p>Clause 13.0 - Setting out</p> <p>F:..... V:.....T:.....</p>	Item			
14	<p>Clause 14.0 - Nominated subcontractors</p> <p>F:..... V:.....T:.....</p>	Item			
15	<p>Clause 15.0 - Selected subcontractors</p> <p>F:..... V:.....T:.....</p>	Item			
16	<p>Clause 16.0 - Direct contractors Attendance on direct contractors In respect of direct contractors the contractor shall:</p> <p>1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials</p>	Item			

	<p>2. Allow the use of personnel welfare facilities, where provided</p> <p>3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation</p> <p>4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1]</p> <p>F:..... V:.....T:.....</p>	Item				
17	<p>Clause 17.0 - Contract instructions</p> <p>F:..... V:.....T:.....</p>	Item				
18	<p>Completion (A18 - A24)</p> <p>Clause 18.0 - Interim completion</p>					
19	<p>F:..... V:.....T:.....</p> <p>Clause 19.0 - Practical completion</p>	Item				

Practical CompletionIn respect of practical completion:1.The following certificates of compliance, as applicable shall be required (excluding others that may be required by the local/national authority, etc.) from the contractor to achieve practical completion1.1 Certificates from the contractor that all aspects of the Construction Regulations of 2014 have been complied with1.2Certificates from the contractor that the National Building Regulations have beencomplied with1.3Certificates of compliance with respect to plumbing and drainage installations1.4Certificates of compliance with respect to electrical and electronic installations1.5Certificates of compliance with respect to all glazing1.6Certificates of compliance with respect to structural and civil engineering1.7Certificates of compliance with respect to roof installation1.8Certificates of compliance with respect to mechanical installation1.9Certificate of compliance and fire clearance certificate from the contractor and fire chief respectively1.10Any other compliance documentation deemed necessary as instructed by the Principal Agent1.11Three complete sets of approved maintenance and operating manuals together with all workmanship and material warranties and guarantees (to be compiled and

Clause 19.0 has been amended to include the following new sub-clauses: Sub-clause 19.2.3 The contractor shall within five (5) calender daysof receipt of the list for practical completion issuea program indicating dates for completion for all listed items

	<p>Sub-clause 19.2.4 In the event that such inspection does not result in the work being accepted as Practically complete then the costs of such inspection and subsequent inspections shall be for the account of the contractor, at a rate of Ten Thousand Rand (R10 000.00) per man hour or part thereof, calculated by multiplying the total of the number of Employer's agents and Employer's staff present at each abortive practical completion inspection meeting, i.e. Where practical completion is not achieved, by the time taken for such an inspection until practical completion is achieved. In this regard, the Employer reserves the right to recover such costs in addition to any other remedies it may have in accordance with Clause 27</p> <p>F:..... V:.....T:.....</p>	Item			
20	Clause 20.0 - Completion in sections				
21	<p>F:..... V:.....T:.....</p>	Item			
22	<p>Clause 21.0 - Defects liability period and final completion</p> <p>Clause 21.0 has been amended to include the following new sub-clauses: Sub-clause 21.13 In the event that the certificate of Final Completion is not issued due to the contractors work not being sufficiently complete then the costs of such inspection and subsequent inspections shall be for the account of the contractor, at a rate of Ten Thousand Rand (R10 000.00) per man hour or part thereof, calculated by multiplying the total of the number of Employer's agents and Employer's staff present at each abortive final completion inspection meeting, i.e. Where final completion is not achieved in terms of 21.6, by the time taken for such an inspection until final completion is achieved. In this regard, the Employer reserves the right to recover such costs in accordance with Clause 27</p>				

	<p>Sub-clause 21.14 Notwithstanding [21.2], where the contractor fails to rectify/attend to outstanding works or defects on the list for completion, list for final completion or latent defects that appear before the issue of certificate of final completion and where the contractor remains in default, the Employer may engage others to carry out said outstanding works or defects and recover expense and/or loss incurred [27]</p> <p>F:..... V:.....T:.....</p>	Item			
23	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:.....T:.....</p>	Item			
24	<p>Clause 23.0 - Revision of the date for practical completion Sub-clause 23.1 has been amended to include the following new sub-clause: Sub-clause 23.1.7 Delayed possession of site [12.1.5]</p> <p>Sub-clause 23.2 has been amended to omit the following sub-clause: Sub-clause 23.2.1 Delayed possession of the site [12.1.5]</p> <p>Clause 23.0 has been amended to include the following new sub-clauses: Sub-clause 23.9 Notwithstanding, sub-clause(s) 23.1 to 23.8 a revision to the practical completion date will only be considered for work on the critical path of the contractual programme or the revised contractual programme, as applicable Any revised programme, in order to be considered as a contractual programme, must be approved by the Principal Agent in writing, prior to it becoming effective</p>				
25	<p>F:..... V:.....T:.....</p> <p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:.....T:.....</p>	Item			
		Item			

26	<p>Clause 25.0 - Payment</p> <p>Sub-clause 25.1 has been amended to include the following: The contractor shall submit the following information on a monthly basis to the Principal Agent and Quantity Surveyor in order to assist with the processing of the payment certificate and the preparation of the empowerment report: B7A detailed breakdown of the work done. (The work breakdown must be referenced strictly in accordance with the Tender Document or the detailed Priced Bills of Quantities, as applicable.) B7A detailed breakdown of all variation order costs claimed (With specific reference to work done by the Principal Building Contractor) in the certificate concerned, together with copies of the relevant contract instructions B7A detailed breakdown of the work done by each sub-contractor. (The work breakdown must be referenced strictly in accordance with the Tender Document or the detailed Priced Bills of Quantities, as applicable.) B7A detailed breakdown of all variation order costs claimed in the certificate concerned for sub-contract work, together with copies of the relevant contract instructions B7A written declaration authenticated by the contracts manager confirming, that the payment claims for work done by sub-contractors has been audited and amended by the contractor's quantity surveyor,</p> <p>Sub-clause 25.4 has been amended to include the following: Where the Employer agrees to pay for materials on/off site, the contractor shall be required to provide the Principal Agent with the necessary forms for cession of ownership for such materials, with the necessary delivery notes and invoices (where applicable)</p> <p>Sub-clause 25.10 has been amended as follows: Replace the words fourteen (14) calendar days with forty (40) calendar days</p> <p>F:..... V:.....T:.....</p>	Item				
27	<p>Clause 26.0 - Adjustment of the contract value and final account</p>					

	<p>Sub-clause 26.1 has been amended to include the following: Contract Instructions Instructions given by the Employer's agents in relation to the contract works, shall, irrespective of the format or wording of such instructions, not indicate that the work involved represents an extra or variation and shall not be deemed to be acceptance of any prices or quotations contained in any correspondence It is recorded that only the quantity surveyor where appointed by the employer for quantity surveying services is empowered, to rule whether any instructions issued constitutes an extra or not and, to resolve cost aspects of any matter pertaining to this contract</p> <p>F:..... V:.....T:.....</p>	Item			
28	<p>Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:.....T:.....</p>	Item			
29	<p>Suspension and termination (A28 - A29)</p> <p>Clause 28.0 - Suspension by the contractor</p>				
30	<p>F:..... V:.....T:.....</p> <p>Clause 29.0 - Termination</p>	Item			
31	<p>F:..... V:.....T:.....</p> <p>Dispute resolution (A30)</p> <p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:.....T:.....</p> <p>Agreement The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties</p>	Item			

	F:..... V:.....T:..... Contract data Tenderer's selections Before submission of his Tender the contractor is to complete the Tenderer's selections in the contract data F:..... V:.....T:.....	Item			
	<u>SECTION B: GENERAL PRELIMINARIES</u> Definitions and interpretation (B1) 32 Clause 1.1 - Definitions F:..... V:.....T:.....	Item			
	33 Clause 1.2 - Interpretation F:..... V:.....T:.....	Item			
	34 Documents (B2) Clause 2.1 - Checking of documents				

	<p>Sub-clause 2.1 refers b the following is to be added after the words written directive b:</p> <p>The items in these Bills of Quantities are to be read and priced in conjunction with, and the descriptions regarded as amplified by the Model Preambles for Trades (2008 Edition) as recommended and published by the Association of South African Quantity Surveyors, 2017 edition, and no claim arising from brevity of description of items fully described in the said General Preambles for Trades 2017 and Supplementary documentation will be entertained. Notwithstanding the issue of the tender drawings, it will remain the responsibility of the Tenderer to study all available drawings at the offices of the Principal Agent during normal working hours in order to acquaint himself with all the cost implications of the design, programming, phasing, etc</p>				
	<p>F:.....</p> <p>V:.....T:.....</p>	Item			
35	<p>Clause 2.2 - Provisional bills of quantities</p>				
	<p>F:.....</p> <p>V:.....T:.....</p>	Item			
36	<p>Clause 2.3 - Availability of construction information</p>				
37	<p>F:.....</p> <p>V:.....T:.....</p>	Item			
	<p>Clause 2.4 - Ordering of materials and goods</p>				
	<p>F:.....</p> <p>V:.....T:.....</p>	Item			
38	<p>Previous work and adjoining properties (B3)</p>				
39	<p>Clause 3.1 - Previous work - dimensional accuracy</p>				
	<p>F:.....</p> <p>V:.....T:.....</p>	Item			
	<p>Clause 3.2 - Previous work - defects</p>				

	F:..... V:.....T:.....	Item			
40	Clause 3.3 - Inspection of adjoining properties				
	F:..... V:.....T:.....	Item			
41	The site (B4) Clause 4.1 - Handover of site in stages	Item			
42	F:..... V:.....T:.....	Item			
	Clause 4.2 - Enclosure of the works				
43	F:..... V:.....T:.....	Item			
44	Clause 4.3 - Geotechnical and other investigations				
	F:..... V:.....T:.....	Item			
45	Clause 4.4 - Encroachments				
	F:..... V:.....T:.....	Item			
	Clause 4.5 - Existing premises occupied				
46	F:..... V:.....T:.....	Item			
	Clause 4.6 - Services - known The contractor shall consult the Principal Agent before disconnecting any services. The contractor shall take special care not to damage any existing services that could have been foreseen or what have been shown to him by the Principal Agent. Damage to this services shall be for the contractorb s account				
	F:..... V:.....T:.....	Item			
	Management of contract (B5)				

47	<p>Clause 5.1 - Management of the works</p> <p>F:..... V:..... T:.....</p>				
48	<p>Clause 5.2 - Progress meetings</p> <p>F:..... V:..... T:.....</p>	Item			
49	<p>Clause 5.3 - Technical meetings</p> <p>F:..... V:..... T:.....</p>	Item			
	<p>Clause 5 has been amended to include the following new sub-clause: Sub-clause - 5. The contractor shall keep daily records of people and equipment employed as well as a site diary in respect of work performed on site. At the end of each week the contractor shall provide the Principal Agent with a record written in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all sub-contractors on the workday. At the end of each week the contractor shall provide the Principal Agent with a written record in schedule form, reflecting the number, type, capacity of all plant, excluding hand tools, currently used on the works.</p> <p>F:..... V:..... T:.....</p>	Item			

50	<p>Clause 6.1 - Samples of materials All material samples and colour samples must be submitted to the Principal Agent for selections and approval of the colour, shape and finish including mechanical, electrical and plumbing equipment that will be visible. The samples shall be provided in A4 size unless otherwise agreed. General samples shall be provided for Principal Agent/Employer to choose from each type of finish The Principal Agent/Employer may reject all or part of the submitted samples and request for additional selections if the first submission are not acceptable All samples must be kept in a sample room to be provided by the contractor for reference Sample Board: The contractor shall provide a board(s) of approved samples and make available one set at the site (sample room) and one for the Employer</p> <p>F:..... V:..... T:.....</p>	Item				
51	<p>Clause 6.2 - Workmanship samples Sub-clause 6.2 has been amended to include the following: The contractor shall provide a mock-up of all finished surfaces prior to commencement of the relevant work. The contractor shall only be permitted to commence with the relevant scope of work, on approval of the mock-up by the Principal Agent or its designated representative</p> <p>F:..... V:..... T:.....</p>	Item				
52	Clause 6.3 - Shop drawings					

	<p>Sub-clause 6.3 refers the following is to be added after the words 'and/or approval' Shop drawings shall be submitted to the principal agents for approval at least ten (10) working days weeks prior to the date on which such approval is required in order to comply with the programme All submissions shall be prepared in accordance with the contract drawings and specifications and/or any Principal Agents instructions and any deviation shall be specifically highlighted in writing, with a detailed explanation of the reason for such deviation, together with any cost and/or time implications. Delays in approval of shop drawings due to non compliance with drawings, specifications and/or Principal Agentb s instruction shall not constitute grounds for any claims for delay, extension of time and the like.</p> <p>Sub-clause 6.3.1 has been amended as follows: Replace the words btwo (2) copiesb with bfour (4) copiesb under bullet point number 6</p> <p>F:..... V:.....T:.....</p>				
53	<p>Clause 6.4 - Compliance with manufacturer's instructions</p> <p>F:..... V:.....T:.....</p>	Item			
54	<p>Deposits and fees (B7)</p> <p>Clause 7.1 - Deposits and fees</p> <p>F:..... V:.....T:.....</p>	Item			
55	<p>Temporary services (B8)</p> <p>Clause 8.1 - Water</p>				
56	<p>F:..... V:.....T:.....</p> <p>Clause 8.2 - Electricity</p>	Item			

	F:..... V:.....T:.....	Item			
57	Clause 8.3 - Ablution and welfare facilities				
	F:..... V:.....T:.....	Item			
58	Clause 8.4 - Communication facilities				
	F:..... V:.....T:.....	Item			
59	Prime cost amounts (B9) Clause 9.1 - Responsibility for prime cost amounts				
60	F:..... V:.....T:.....	Item			
	Attendance on subcontractors (B10) Clause 10.1 - General attendance				
61	F:..... V:.....T:.....	Item			
62	Clause 10.2 - Special attendance Sub-clause 10.2 has been amended to include the following: The Tenderer shall examine all drawings and information pertaining to the works as a whole and shall provide all necessary special attendance resources required for the due and proper execution and completion of all sub-contract works				
	F:..... V:.....T:.....	Item			
63	General (B11) Clause 11.1 - Protection of the works				
	F:..... V:.....T:.....	Item			
	Clause 11.2 - Protection/isolation of existing works and works occupied in sections				

	F:..... V:.....T:.....	Item			
64	Clause 11.3 - Security of the works				
	F:..... V:.....T:.....	Item			
65	Clause 11.4 - Notice before covering work				
	F:..... V:.....T:.....	Item			
66	Clause 11.5 - Disturbance				
	F:..... V:.....T:.....	Item			
67	Clause 11.6 - Environmental disturbance				
	F:..... V:.....T:.....	Item			
68	Clause 11.7 - Works cleaning and clearing Disposal of Waste Material, etc. The contractor shall provide appropriate equipment (such as chutes, if required), etc., for the rapid removal of waste material, etc., at points as agreed with the Principal Agent in writing. In addition, the contractor is to provide for adequate waste skips for the disposal of such material to be located in positions as advised by the Principal Agent in writing The contractor shall ensure that there is a maximum of a twenty four (24) hour turn-around time for the removal of all full waste skips from site. The contractor further acknowledges that the Employer reserves the right to appoint others to remove waste material and waste skips from site, should the contractor fail to meet the twenty four (24) hour turn-around time and that such costs shall be deducted from amounts due to the contractor				
69					
	F:..... V:.....T:.....	Item			
	Clause 11.8 - Vermin				
	F:..... V:.....T:.....	Item			

70	<p>Clause 11.9 - Overhand work</p> <p>F:..... V:.....T:.....</p>	Item				
71	<p>Clause 11.10 - Tenant installations</p> <p>F:..... V:.....T:.....</p>	Item				
72	<p>Clause 11.11 - Advertising</p> <p>F:..... V:.....T:.....</p>	Item				
<p><u>SECTION C: SPECIFIC PRELIMINARIES</u></p>						
73	<p>Health and Safety Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works (annexed to these bills of quantities) and that the Employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for</p> <p>compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1] The contractor shall:</p> <p>1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the Employer's health and safety specification 6. The contractor shall price section D of the preliminaries and allow opposite each item for all costs associated in connection</p>					

74	<p>As Built Drawings The contractor shall accurately record the details of the electrical, mechanical, security, fire installation, water reticulation details, construction breaks, etc., on drawings and issue same to the Principal Agent and the relevant agent for record purposes F:..... V:.....T:.....</p>	Item				
75	<p>Personal Protective EquipmentThe contractor shall provide and keep on site an adequate supply of clean safety helmets and reflective vests for the use of all professional personnel and all authorised visitors F:..... V:.....T:.....</p>	Item				
76	<p>Site Access for and Management of Direct Contracts The contractor shall allow direct contractors appointed by the Employer to access the site to execute work which does not form part of the Principal Building Agreement, concurrently with that of its (the principal building contractor), work. In this regard, the contractor shall provide any necessary assistance (e.g. ensuring placement of material orders, monitoring the manufacturing process, monitoring of raw materials availability, programming of works, etc.), to the principal agent in respect of management of any direct contracts. In this regard, it shall be deemed that all allowances have been made in the contract amount to ensure compliance with this clause F:..... V:.....T:.....</p>	Item				
77	<p>Precontract Engagement Contractors shall be engaged prior to issuance of site possession to facilitate all necessary precontract work which shall include the construction work permit application, procurement of specialist sub-contractors, finalisation of contract and any design coordination between the contractor and the professional team. Contractors will be required to make the necessary allowances for such work during this period as no claims for additional preliminaries will be entertained F:..... V:.....T:.....</p>	Item				

78	Community Liaison Officer (CLO)	Item			
	Contract Provisions				
79	Tender Data Schedule F:..... V:.....T:.....	Item			
80	General Conditions of Contract F:..... V:.....T:.....	Item			
81	Special Conditions of Contract F:..... V:.....T:.....	Item			
82	Contract Data F:..... V:.....T:.....	Item			
	SUMMARY OF CATEGORIES				
	Category: Fixed R:.....				
	Category: Value R:.....				
	Category: Time R:.....				
	Total for Preliminaries carried to Final Summary				

BILL OF QUANTITIES

Item	Description	Unit	Quantity	Rate	Amount
	<p><u>SECTION NO. 2:</u></p> <p><u>- BUILDERS WORK</u></p> <p><u>BILL NO. 1: ALTERATIONS</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Tenderer is referred to the "Model Preambles for Trades (2008 Edition) and the Supplementary Preambles" and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>- View site:</u></p> <p>- Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained</p> <p><u>General Notes:</u></p> <p>- The contractor shall carry out the whole of the works with as little mess and noise as possible and with minimum disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.</p> <p>Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary.</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such</p>				

dimensions where used in the manufacture of new items (doors, windows, fittings, etc).

All floors, doors, windows, fittings, etc must be adequately protected from damage during the progress of the works and any damage resulting from the building work must be made good by the contractor at his own expense.

Carried Forward

Brought Forward

The contractor must not remove or interfere with any furniture, furnishings, fittings or similar moveable articles belonging to the Client and must give adequate notice to the Representative/Agent if the removal of any such articles from parts of the building to be altered are necessary, so that they may have same removed before the contractor commences work.

Old materials to be carted away

Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, etc., must be regularly carted from the site and not be allowed to accumulate on or around the site.

Old materials not to be re-used

None of the old materials are to be used for new work except where specifically described to be set aside for re-use.

Site Access

The contractor is to note that access to the site is restricted and that the buildings are to remain functional at all times. The Contractor is to allow for this in his pricing.

REMOVAL OF EXISTING WORK INCLUDING MAKING GOOD TO EXISTING

Taking out and removing doors, windows, etc including thresholds, sills, etc:

Timber single door 813 x 2032mm high overall from one brick wall including door frame, etc.

Taking out and removing air vents, etc, including thresholds, sills, etc:

No.

16

2	Air ventilation brick.	No.	2		
	<u>Taking down and removing panelling, ceilings, partitions, etc:</u>				
3	Gypsum plasterboard ceilings, including cornices, etc	m2	140		
	<u>Taking out and remove joinery fittings, etc:</u>				
4	Floor cupboard 1500mm long x 800mm wide x 800mm high, with worktop, etc.	No.	6		
	Carried Forward				
	Brought Forward				
5	Sink cupboard 1000mm long x 800mm wide x 800mm high with sink, mixers, traps, etc.	No.	6		
6	Bedroom cupboard 1200mm long x 800mm wide x 2400mm high, etc.	No.	6		
	<u>Hacking up/off and removing carpets, ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes:</u>				
7	Carpets to floors.	m2	102		
8	Tiles to floors.	m2	140		
9	Tiles to walls.	m2	165		
	<u>Taking out and removing sanitary fittings, tanks, geysers, etc, including disconnecting from pipes, traps, etc and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u>				
10	Stainless steel sink, drainer, traps and mixer, etc.	No.	6		
11	Bath tub, drainer, mixers, shower arm and shower head, etc. and prepare to receive shower enclosure (elsewhere measured)	No.	2		
12	Vitreous china wash hand basin	No.	2		
13	Vitreous china WC pan with cistern and flush pipe	No.	2		
	<u>Taking out and removing sanitary fittings etc, setting aside for re-use and later refixing in same position:</u>				
14	Vitreous china wash hand basin	No.	2		
	<u>Taking out/off and removing bath tub accessories</u>				

15	Shower screen	No.	2	
16	Shower rose	No.	2	
	<u>MAKING GOOD OF FINISHES, ETC.</u>			
	<u>Making good internal cement plaster:</u>			
17	Walls in patches and narrow widths. (PROVISIONAL).	m2	5	
	<u>SERVICING, REPAIRING, CLEANING, ETC</u>			
18	Examine door handles, hinges and windows, etc, carefully and repair as necessary.	Item	1	
	Carried to Section No. 2 Summary			
	<u>BILL NO. 2: BRICKWORK</u>			
	The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	a) Any and all additional supports, brackets, etc. required that is deemed necessary for the proper manufacture and installation of the windows, doors and shop fronts.			
	BRICKWORK SUNDRIES			
	<u>Air bricks, etc.</u>			
1	229 x 152mm Clay vermin proof air brick. (PROVISIONAL).	No.	2	
	Carried to Section No. 2 Summary			

BILL NO. 3: CARPENTRY AND JOINERY

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES**General**

The following cupboard fittings are given as complete units i.e. the components of the units have not been given separately. Descriptions of such units shall, therefore, be deemed to include all components, assembling, housing, notching, glueing, blocking, planting-on and screwing with countersunk screws, edge strips, thermosetting plastic laminate, glass, ironmongery, metalwork, paint or varnish finishes, etc
Prices are to include for all necessary filler pieces against walls etc

SKIRTINGS

Wrought meranti:

- | | | | |
|---|---|---|-----|
| 1 | 20 x 70mm Skirting including 19mm quadrant bead nailed. (PROVISIONAL) | m | 101 |
|---|---|---|-----|

FRAMED DOORS, ETC

Wrought saligna doors hang to steel frames:

- | | | | |
|---|---|-----|---|
| 2 | 40mm Framed, ledged and braced batten door 813 x 2032mm high. | No. | 4 |
|---|---|-----|---|

FLUSH DOORS

Solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames:

- | | | | |
|---|------------------------------|-----|----|
| 3 | 40mm Door 813 x 2032mm high. | No. | 12 |
|---|------------------------------|-----|----|

CUPBOARDS TO KITCHENS, BEDROOMS, ETC

Kitchen cupboards with hinges, handles, drawer slides and paint, etc:

- | | | | |
|---|--|-----|---|
| 4 | Wall cupboard type "Mahogany" 900mm Long x 500mm wide x 600mm high overall kitchen cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, three drawers handles to be Brushed Satin Nickel mild steel bar handles 126mm square complete with screw, including drawers complete with handles must be Brushed Satin Nickel mild steel bar handle 126mm square, sides, bottom, division, shelves, paint, etc. | No. | 2 |
|---|--|-----|---|

Carried Forward

Brought Forward					
5	Wall cupboard type "Mahogany" 1000mm Long x 700mm wide x 750mm high overall kitchen cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, three drawers handles to be Brushed Satin Nickel mild steel bar handles 126mm square complete with screw, including drawers complete with handles must be Brushed Satin Nickel mild steel bar handle 126mm square, sides, bottom, division, shelves, paint, etc.	No.	1		
6	Wall cupboard type "Mahogany" 1800mm Long x 350mm wide x 720mm high overall kitchen cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, three drawers handles to be Brushed Satin Nickel mild steel bar handles 126mm square complete with screw, including drawers complete with handles must be Brushed Satin Nickel mild steel bar handle 126mm square, sides, bottom, division, shelves, paint, etc.	No.	2		
7	Floor cupboard type "Mahogany" 500mm Long x 560mm wide x 870mm high overall kitchen cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, three drawers handles to be Brushed Satin Nickel mild steel bar handles 126mm square complete with screw, including drawers complete with handles must be Brushed Satin Nickel mild steel bar handle 126mm square, sides, bottom, division, shelves, paint, etc. including a granite countertop of approved colour.	No.	2		
8	Floor cupboard type "Mahogany" 1800mm Long x 560mm wide x 870mm high overall kitchen cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, three drawers handles to be Brushed Satin Nickel mild steel bar handles 126mm square complete with screw, including drawers complete with handles must be Brushed Satin Nickel mild steel bar handle 126mm square, sides, bottom, division, shelves, paint, etc. including a granite countertop of approved colour.	No.	2		
9	Floor cupboard type "Mahogany" 2500mm Long x 700mm wide x 750mm high overall kitchen cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, three drawers handles to be Brushed Satin Nickel mild steel bar handles 126mm square complete with screw, including drawers complete with handles must be Brushed Satin Nickel mild steel bar handle 126mm square, sides, bottom, division, shelves, paint, etc. including a granite countertop of approved colour.	No.	1		
Carried Forward					

Brought Forward

10	Sink cupboard (sink elsewhere) type "Mahogany" 2500mm Long x 560mm wide x 870mm high overall with 30mm thick granite countertop, double doors, shelves, doors, drawers, etc to kitchen.	No.	2
11	Sink cupboard (sink elsewhere) type "Mahogany" 2500mm Long x 700mm wide x 750mm high overall with with 30mm thick granite countertop, double doors, shelves, doors, drawers, etc to kitchen.	No.	1
<u>Bedroom cupboards with hinges, handles, drawer slides and paint, etc:</u>			
12	1000mm Long x 560mm wide x 2800mm high overall bedroom cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, drawers, sides, bottom, division, shelves, paint, etc.	Item	6
<u>Passage cupboards with hinges, handles, drawer slides and paint, etc:</u>			
13	1500mm Long x 560mm wide x 2000mm high overall bedroom cupboard with double doors hanging on rustproof concealed self-closing hinges and shall be fitted with magnetic catches, drawers, sides, bottom, division, shelves, paint, etc.	Item	2

Carried to Section No. 2 Summary

BILL NO. 4: IRONMONGERY

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES**Finishes to ironmongery:**

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.

HINGES, BOLTS, ETC

Approved:

1	100mm Brass butt hinges.	No.	32
---	--------------------------	-----	----

LOCKS

Union' - or other approved:

2	CZ 682-24/L2277-78 SC three lever lockset with striking plate fixed to metal.	No.	12
---	---	-----	----

3	CZ 682-24/L2247-78 SC four lever lockset with striking plate fixed to metal.	No.	4
---	--	-----	---

SUNDRIES

APPROVED:

4	38mm Diameter rubber door stop plugged.	No.	16
---	---	-----	----

BATHROOM FITTINGS (PROVISIONAL)

Franke' - or other approved:

5	19mm Diameter chromium plated towel rail 916mm long with a pair of end brackets plugged.	No.	2
---	--	-----	---

6	Stratos STRX 672 code 359716' toilet roll holder plugged.	No.	2
---	---	-----	---

7	Chronos BS6467 Soap dish wall mounted.	No.	4
---	--	-----	---

8	Paper towel dispenser, plugged	No.	2
---	--------------------------------	-----	---

9	Tumbler holder.	No.	2
---	-----------------	-----	---

Carried to Section No. 2 Summary

BILL NO. 5: METALWORK

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Descriptions of bolts, anchors, etc

Descriptions of bolts shall be deemed to include nuts and washers

Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described

Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres

Aluminium doors, windows, etc

Windows, doors, etc shall be manufactured by an approved firm of specialists and shall be of best quality material and workmanship and of approved design. Windows, doors, etc., shall meet with the minimum recommended performance requirements as set out by the Association of Architectural Aluminium Manufacturers of South Africa (AAMSA) and NBR SANS 10400 - N: 2006 Code of Practice.

The Contractor is to submit all relevant certificates regarding glazing, window frames, powder coated finish, etc.

Rates shall include for the following:

a) All opening and fixed lights, coupling mullions and transoms, fittings, standard ironmongery, factory fitted burglar proofing, etc. as required and specified

b) Complete glazing as specified with and including glazing beads and gaskets as specified and glazed in accordance with the manufacturer's written instructions. All glazing to comply with NBR of SABS 0400

c) Building in and fixing into preformed openings. All opening sizes must be verified on site before manufacture commences. Costs for additional packing etc. must be included in the overall rates

d) Suitably protecting all exposed aluminum and glass surfaces with an approved tape and durable plastic sheeting. Such protection is to be removed at completion of the contract and the surface cleaned

down and left perfect. Any damage, scratches, etc. to the finished product will definitely be unacceptable.

Carried Forward

Brought Forward

e) Silicone pointing with an approved silicone sealant recommended by AAAMSA on all external window, door, etc.

f) Any and all additional supports, brackets, etc. required that is deemed necessary for the proper manufacture and installation of the windows, doors and shop fronts.

The following certificates shall be provided prior to commencement of site work:

1. A Certificate of Conformance confirming that anodizing or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively

2. A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process

3. A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years

Note: All prices to include supply and installation of the relevant ironmongery

GALVANISED PRESSED STEEL DOOR FRAMES INCLUDING SETTING UP AND BUILDING IN

1,2mm Double rebated frames suitable for one brick walls:

1	Frame for door 813 x 2032mm high.	No.	16
---	-----------------------------------	-----	----

ALUMINIUM FRAMED AND UNFRAMED SHOWER DOORS ETC

Chrome anodised aluminium framed shower enclosure with frames, sliding gear, pivot hinges, cleats, stops, etc and 4mm toughened obscure safety glass, plugged to tiled walls and sealed with silicone sealant:

4	1850 x 900 x 900mm Pivot & panel silver shower enclosure combo.	No.	2
---	---	-----	---

Carried to Section No. 2 Summary

BILL NO. 6: CEILINGS, PARTITIONS AND ACCESS FLOORING

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Fixing

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete

Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere

Ceilings

Unless otherwise described ceilings shall be deemed to be horizontal

Bulkheads

Unless otherwise described bulkheads shall be deemed to be horizontal along the length

Steel components

All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121

INSULATION

Glass fibre wool insulation:

- 1 100mm Insulation closely fitted and laid on top of bracker between roof member etc. (PROVISIONAL).

m2

215

Carried Forward

Brought Forward

NAILED-UP CEILINGS

Prices for openings for light fittings, ventilation grilles, air conditioning diffusers, etc are to include for any necessary additional support, trimming around, etc

6,4mm Rhino gypsum plasterboard with H-type pressed steel jointing strips:

2	Ceilings including 38 x 50mm sawn softwood brander fixed to timber rafters at 400mm centres in one direction and cross brander at 600mm centres and around edges for fixing of cornices.	m2	215
3	Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wrought softwood rebated framing with one 32 x 44mm sawn softwood cross brander with 38 x 114mm sawn softwood kerb spiked to rafters, etc and covered with ceiling board and fitted flush in opening. (PROVISIONAL)	m2	2
4	4mm Thick fibre-cement boards with H-type pressed steel jointing strips: Ceilings including 50 x 50mm sawn softwood brander at 400mm centres in one direction and cross brander at 600mm centres and around edges for fixing of cornices. (PROVISIONAL)	m2	25
5	Rhino gypsum plasterboard cornices: 75mm Coved cornices.	m	117

Carried to Section No. 2 Summary

BILL NO. 7: FLOOR COVERINGS

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Carpet sheeting and carpet tiles to be fitted in strict accordance with the code of practice for the installation of textile floorcoverings (SABS 10186) and SABS Code of Practice No. 1375 - 2000.

Carpets shall be laid under a five (5) year guarantee against any latent defects.

Fixing

Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc

FLOOR COVERINGS

Begotex Nexus Berber Point 920' or similar approved plainback medium commercial structured needlepunch face fibre - Blend of Stain proof miracle fibre & stainproof miracle fibre stainproof miracle fibre carpet tiles with felt underlay

1	On floors.	102
---	------------	-----

Carried to Section No. 2 Summary

BILL NO. 8: TILING

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES**Descriptions:**

Unless described as fixed with adhesive to plaster (plaster elsewhere), descriptions of tiling on brick or concrete walls, columns, etc., shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc. shall be deemed to include 1:3 plaster bedding.

M Trim' Grade 430 stainless steel straight edge trim:

- 1 M Trim' heavy duty stainless steel tile listello 10mm high (code SL1200) to suit tiling 8 to 9mm thick, fixed with adhesive to edges of tiling on walls.

m

4

WALL TILING

200 x 200 x 5mm White glazed ceramic tile fixed with an adhesive to plaster:

- 2 On walls.

m2

165

- 3 On narrow widths.

m2

3

FLOOR TILING

- 4 On floors and landings.

m2

215

Glazed ceramic floor mosaics, fixed with adhesive to existing prepared surfaces and flush pointed with tinted waterproof jointing compound:

- 5 On shower floors.

m2

5

- 6 Circular cutting.

m

10

Carried to Section No. 2 Summary

BILL NO. 9: PLUMBING AND DRAINAGE

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

Note:

All notes and supplementary preambles in the various trades shall apply equally to this trade insofar as they are relevant.

SUPPLEMENTARY PREAMBLES**General**

Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)

Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)

SANITARY FITTINGS

Franke' - or other approved - stainless steel:

Stainless steel basins, quality sinks, wash troughs, institutional equipment, etc shall be type 304.

- 1 Curvline inset sink and drainer 1500 x 435mm wide with double bowl fitted to cupboard (cupboard elsewhere measured).

No. 2

Vaal' - or other approved:

- 2 510 x 405mm white vitreous china basin with two tapholes and with brackets.

No. 4

- 3 Top-flush close-coupled WC suite 825 x 365 x 665mm white suite comprising pan with double flap heavy duty plastic seat and matching 9 litre cistern.

No. 2

WASTE UNIONS ETC

Cobra Watertech' - or similar approved:

- 4 32mm 301 Chromium plated waste union.

No. 4

- 5 38mm 316 Chromium plated bath or sink waste union.

No. 2

Carried Forward

Brought Forward**TRAPS ETC**

Marley' - or similar approved:

6	40mm Deep seal 'P' or 'S' trap.	No.	4
---	---------------------------------	-----	---

7	40 x 300mm Sink combination for double bowl with deepseal 'P' trap.	No.	2
---	---	-----	---

Cobra Watertech' - or similar approved:

8	32mm 345/50 CP Bottle trap. (PROVISIONAL)	No.	2
---	---	-----	---

TAPS, VALVES, ETC

Chromium plated' - or similar approved:

9	15mm Plumblin Lyra underwall shower mixer CP	No.	4
---	--	-----	---

10	15mm Chrome plated raised-nose basin pillar tap.	No.	8
----	--	-----	---

11	15mm Chrome plated wall-type sink mixer with overarm swivel spout	No.	2
----	---	-----	---

12	15mm 027 CP shower arm with sliding flange.	No.	2
----	---	-----	---

13	Plumblin shower rose 3-function CP 100mm	No.	2
----	--	-----	---

Carried to Section No. 2 Summary

BILL NO. 10: GLAZING

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES**MIRRORS, ETC.**

6mm Thick silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete:

1	Mirror 300 x 450mm high with four screws.	No.	2
2	Mirror 450 x 600mm high with four screws.	No.	2
3	Mirror 500 x 600mm high with four screws.	No.	3

Carried to Section No. 2 Summary

BILL NO. 11: PAINTWORK

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

Note:

A colour scheme comprising colours and the blending of colours approved by the Principal Agent shall be used for the paintwork, therefor please note that there will be no adjustment of rates for any colour what so ever specified.

SUPPLEMENTARY PREAMBLES

PREPARATORY WORK TO EXISTING WORK

Previously painted plastered surfaces:

Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth

Previously painted metal surfaces:

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal.

Previously painted wood surfaces:

Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth.

PAINTWORK ETC

ON FLOATED PLASTER:

Prepare and make good with 'Sika DIN 18550' - or other approved - skim coat, apply one coat merit alkali resistant plaster primer to spot prime defects as necessary and two coats 'Double Velvet - Interior Velvet Sheen' - or other approved - acrylic emulsion paint.

1	On internal walls. (Provisonal).	m2	780
2	On internal ceilings and beams.	m2	215
3	Wall reveals	m	6

Carried Forward

Brought Forward

ON WOOD SURFACES

Prepare, spot prime defects with wood primer and
apply three coats superior quality clear gloss varnish:

4	Window frames.	m2	20
5	On skirtings, rails, etc not exceeding 300mm girth.	m	117
6	On external timber structure	m2	10

Carried To Final Summary

SECTION NO. 3:**ELECTRICAL INSTALLATION****BILL NO. 1: ELECTRICAL WORK (PROVISIONAL)**

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES**Switches, socket outlets, etc**

Rates for switches, socket outlets, etc are to include for screwing to outlet boxes, connecting up, cover plates and chasing.

- 1 Allow for the provision and /or cost shop drawings, schematic diagrams, requirements of any regulations and by-laws, certificate of compliance, etc, all as described.

Item

1

LIGHT SWITCHES, SOCKET OUTLETS, ETC

- 2 16A Flush mounted socket outlet, combo (Provisional).

No.

8

LUMINARIES AND EQUIPMENT

Luminaries or equipment installed and mounted to round boxes in brickwork or ceiling including all fixings, brackets, supports, connectors, connections and lamps:

- 3 Full patterned glass modern wall light

No.

12

- 4 Ceiling lighting

No.

4

Carried to Section No. 3 Summary

Section Total

SECTION SUMMARY - ELECTRICAL WORKS

1 Electrical Work

46

Carried To Final Summary

SECTION NO. 4:

MECHANICAL WORKS

BILL NO. 10: MECHANICAL WORK (PROVISIONAL)

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

All equipment as measured shall be deemed to be complete as described in the specifications and include fixing on mounting brackets if so required, connection to water supplies, waste and or overflow pipe work, etc.

Electrical work shall be carried out in accordance with SABS 0142 code of practice as described.

EQUIPMENT

- | | |
|---|---|
| 1 | Wall mounted 120mm diameter extractor fan complete with wiring and fittings, etc. |
|---|---|

No.

2

Carried to Section No. 4 Summary

FINAL SUMMARY

1 Preliminary and General

25

2 Builders Work

45

3 Electrical Installation

47

4 Mechanical Works

49

Sub Total**10% Contingency**

Provide the sum of **10%** for contingencies to be used as directed and deducted in whole or in part if not required by the Project Manager.

Item

Sub Total (Excl. Contingencies)**Sub Total (Incl. Contingencies)****Tax (15%)**

0,15

Carried To Form of Offer

C3.1 SCOPE OF WORKS

REFURBISHMENT OF 2 COTTAGES AT ROYAL NATAL NATIONAL PARK, THENDELE RESORT FOR EZEMVELO KZN WILDLIFE

1. Background

The Ezemvelo KZN Wildlife is responsible for the management of nature conservation within KZN and the protected areas and the development and promotion of ecotourism facilities within the protected areas.

Thendele Camp is in the northern Drakensberg Mountains in KZN, and it is part of the uKhahlamba Drakensberg Park, a World Heritage Site. Thendele Camp has an Upper and Lower Camp, the two Cottages are located slightly away from the Lower Camp.

The camp has views of the Drakensberg Amphitheatre, the Mount-Aux Sources peak is where the Tugela and Orange Rivers have their sources. The camp offers trails for hiking and San Rock Art Shelters to visit.

Co-ordinates: 28°42'36.63"S

28°56'2.58"E

2. Scope of Work

The project entails the refurbishment of two cottages to modernise and refresh the cottages for the visiting guests.

Each cottage consists of 3 bedrooms, a separate toilet and bathroom, an enclosed kitchen and an open lounge and dining area with a central fireplace.

Majority of the work will be internal which will include carpentry, tiling, plumbing, and painting. The bathrooms will receive new sanitary fittings and the baths to be totally replaced by a shower. The kitchen will be stripped, and new cabinets will be installed.

3. Extent of the Works

- a) Ceiling
- b) Tiling
- c) Plumbing and Drainage
- d) Carpentry - doors and built cupboards.
- e) Paintwork
- f) Sanitary fittings
- g) Floor covering - carpet.

C4.1 SITE INFORMATION

SITE INFORMATION
JBCC Principal Building Agreement (Edition 6.2)

Project title:	ROYAL NATAL NATIONAL PARK: REFURBISHMENT OF TWO COTTAGES AT THENDELE RESORT FOR EZEMVELO KZN WILDLIFE		
Bid No.	EKZNW 17/2022/2023		
Site Information			
C4.1	GENERAL		
(a)	The site is occupied by the employer and the resort is in operation during the day from Monday to Sunday. The buildings are in use and the tenderer will be expected to programme the work in such a way as to minimize interruptions of the smooth running of the facility.		
(b)	The tenderer will be expected to liaise closely with the resort management regarding decanting, etc.		
C4.2	GEOTECHNICAL INVESTIGATION REPORT		
(a)	Not applicable		

LIST OF DRAWINGS/ANNEXURES

ROYAL NATAL NATIONAL PARK: REFURBISHMENT OF TWO COTTAGES AT THENDELERESORT FOR EZEMVELO KZN WILDLIFE

Bid No.:	EKZNW 17/2022/2023		
----------	--------------------	--	--

(Where drawings/annexure's are issued, document compilers must insert the following paragraph and list the applicable drawings/annexure's below.)

The following drawings/annexure's shall be issued during the bid period to form part of the bid documentation. Where applicable, drawings/annexure's could be re-issued to the Contractor at commencement of the construction phase.

The following drawings/annexure's shall be issued during the bid period to form part of the bid documentation. Where applicable, drawings/annexure's could be re-issued to the Contractor at commencement of the construction phase.

Drawings Numbers	Description of drawing	Date	Revision
N/A	N/A	N/A	N/A

<u>ANNEXURES</u>

[illegible]



MODEL PREAMBLES FOR TRADES

2008

*forming part of
the bills of quantities*

Project: ROYAL NATAL NATIONAL PARK: REFURBISHMENT

OF TWO COTTAGES AT THENDELE RESORT

FOR EZEMVELO KZN WILDLIFE

Contract Reference Number: EKZNW 17/2022/2023

EXPLANATORY NOTES AND INSTRUCTIONS ON THE USE OF THESE MODEL PREAMBLES

1. The document

- 1.1 This document is published by and is available from the Association of South African Quantity Surveyors, P.O. Box 3527, Halfway House, 1685. Telephone (011) 315 4140. E-mail: administration@asaqs.co.za
- 1.2 The contents of this document are intended to cover workmanship and materials encountered in a significant majority of projects. If a material is not encountered in a significant majority of projects, its preamble will in all likelihood not be included in this document
- 1.3 By its very nature, this document is a "Model" document and one that is designed to act as a basis upon which to build. It is anticipated that it will be supplemented by a "Supplementary Preambles" document included in the text of the bills of quantities that will include, *inter alia*, the following:
 - 1.3.1 supplementary clauses of a general nature that practitioners may deem necessary to cover their own individual requirements,
 - 1.3.2 additional clauses pertaining to specific materials incorporated in a project and not covered by the Model Preambles,
 - 1.3.3 amendments to anything contained in the Model Preambles. A clause has been incorporated in the "General" section of the document stipulating that anything contained in the "Supplementary Preambles" which is at variance to that which is contained in the Model Preambles, will take precedence over the Model Preambles and apply to the works in hand
- 1.4 It is intended that this document will be used by reference only in the text of the bills of quantities and will NOT be bound or reproduced therein

2. The basic philosophy

- 2.1 Wherever possible, reference has been made throughout the preambles to South African National Standards (SANS) to describe materials and methods respectively. It is therefore incumbent on the users of these preambles to have ready access to the relevant Specifications and Codes. Where such Specifications or Codes do not exist, suitable preambles have been compiled
- 2.2 These preambles have been designed to assist in abbreviating descriptions in the text of the bills of quantities and practitioners are encouraged to make use of this facility. e.g. The description of a stormwater catchpit would read: "Brick stormwater catchpit size internally 600 x 400 x 1 200mm deep to invert fitted with and including a 450 x 300mm x 59kg cast iron grating and frame"
- 2.3 Wherever alternatives exist in respect of materials or workmanship, specific choices have been made in these preambles. Should users require different choices to specific items, these should be referred to in the Supplementary Preambles as outlined in clause 1.3

3. Additional notes in the use of these Model Preambles

3.1 Concrete, Formwork and Reinforcement

The Project Specification embodied in these preambles was compiled in collaboration with the Authors of SANS 1200G, which forms the basis for the Concrete, Formwork and Reinforcement model preambles. Users of these preambles are advised to submit a copy of the Model Preambles to the Engineers involved in a project for their scrutiny. Any amplifications, amendments, etc required by individual Engineers would then be incorporated in the Supplementary Preambles referred to in item 1.3

3.2 Roof Coverings

The roof coverings included in these Model Preambles are limited in their content and therefore any roofing material not included in these Preambles will need to have its full preamble included in the Supplementary Preambles

3.3 Structural Steelwork

The comments made under item 3.1 apply equally to Structural Steelwork

Note that the protective treatment of the structural steel covers only the treatment up to and including the primer (and patching after erection). The finishing coats of paint must be fully described and included either in the "Structural Steelwork" or in the "Paintwork" trade, as the practitioner wishes

MODEL PREAMBLES FOR TRADES

CONTENTS

REFERENCE	TRADE	PAGE
A	General	2
B	Alterations	3
C	Earthworks	4
D	Concrete, Formwork and Reinforcement	6
E	Precast Concrete	10
F	Masonry	11
G	Waterproofing	14
H	Roof Coverings etc	15
I	Carpentry and Joinery	17
J	Ceilings, Partitions and Access Flooring	20
K	Floor Coverings, Wall Linings, etc	22
L	Ironmongery	23
M	Structural Steelwork	24
N	Metalwork	25
O	Plastering	29
P	Tiling	31
Q	Plumbing and Drainage	32
R	Glazing	41
S	Paintwork	42
T	Paperhanging	44
U	External Works	45

A. GENERAL

A.1 APPLICATION OF CLAUSES

These Model Preambles for Trades, and any Supplementary Preambles, shall be read in conjunction with and shall form part of the descriptions of items in the bills of quantities

Where descriptions or Supplementary Preambles in the bills of quantities differ from these Model Preambles for Trades, the descriptions or Supplementary Preambles in the bills of quantities shall take precedence. Where supplementary preambles differ from descriptions in the bills of quantities, the descriptions in the bills of quantities shall take precedence

Except where otherwise stated, all preambles contained in any individual Trade Preamble shall apply equally to any work of a similar nature in all other trades

A.2 ABBREVIATIONS

The following abbreviations shall apply:

AASHTO	–	American Association of State Highway and Transportation Officials
AISI	–	American Institute of Steel Industries
BS	–	British Standard
CKS	–	Coordinating Specifications issued by the Central Coordinating Committee under the auspices of the South African Bureau of Standards
CSIR	–	Council for Scientific and Industrial Research
SANS	–	South African National Standards and the number following shall refer to the relevant specification or code of practice as the case may be

A.3 MATERIALS AND WORKMANSHIP

Materials and workmanship shall be the best of their respective kinds. Only new and undamaged materials shall be used in the Works. Materials to be permanently installed into the works shall not be used for any temporary purposes on site. Work shall be to the approval of the Principal Agent and shall be executed in accordance with the relevant manufacturer's written recommendations and instructions where applicable

A.4 PROPRIETARY PRODUCTS

For the purposes of submission of tenders, rates for items described in the bills of quantities by trade names, catalogue references, etc shall be for the particular type and manufacture specified

The approval of the Principal Agent shall be obtained prior to any substitution and where products or materials etc other than those specified are used, adjustments in the rates will be made if necessary

A.5 ASSEMBLING

Rates for manufactured items shall include assembling complete and handing over in proper working order

A.6 REFERENCES IN DESCRIPTIONS

Any references given in brackets at the end of certain descriptions shall refer to the relevant references on the drawings or schedules

A.7 WATER

Water shall be clean and free from injurious amounts of acids, alkalis, organic matter and other substances and shall be suitable for its intended use

A.8 APPLICATION OF THE NATIONAL BUILDING REGULATIONS

All work shall be executed in accordance with the requirements of SANS 10400

A.9 ACCURACY IN BUILDINGS

The dimensional and positional accuracy of the buildings and their component parts shall comply with Grade II requirements of SANS 10155 unless otherwise stated

A.10 REFERENCES TO OTHER DOCUMENTS

References in these "Model Preambles for Trades" to other documents, including SANS, CKS and BS, shall pertain to the latest edition thereof including all amendments thereto at the date for submission of the tender

B. ALTERATIONS

B.1 ALTERATIONS

In taking down and removing existing work the utmost care shall be observed to prevent any structural or other damage to remaining portions of the building. The Contractor shall ensure the stability of all structures during alteration work

Special care shall be exercised during the progress of the work to ensure that any electrical installations, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Principal Agent if any disconnection or alterations become necessary

The Contractor shall take all precautions necessary to prevent any nuisance from dust whilst carrying out the work

B.2 MATERIALS FROM THE ALTERATIONS, CREDIT, ETC

Materials recovered from the alterations (except where described as to be re-used or to be handed over to the Employer) will become the property of the Contractor, who may allow credit in respect thereof where provided for in the bills of quantities. Such materials shall not be re-used in new work without written permission from the Principal Agent

Materials described as "removed" shall be removed from the site immediately.

Materials described as "handed over to the Employer" shall be carefully dismantled where necessary, neatly stored under cover on the site where directed and protected from damage, until required

Materials described as "set aside for re-use" shall be carefully dismantled where necessary, cleaned, neatly stored under cover and protected from damage until required for re-use. Any damage caused to such materials during removal, storage or refixing shall be made good at the Contractor's expense

B.3 DISPOSAL OF DEBRIS ETC

The Contractor shall be responsible for the removal from the site of all materials, debris and rubbish resulting from the alterations

B.4 MAKING GOOD DAMAGED WORK

The Contractor shall make good in all trades to existing work where damaged or disturbed through the alterations with all necessary new materials to match the existing

B.5 FORMING NEW OPENINGS OR ALTERING OPENINGS IN EXISTING WALLS

Where new openings are formed or openings altered in existing walls, the wall above the opening shall be broken out and a new brick, in situ concrete or prestressed concrete lintel inserted, complete with all necessary reinforcement, formwork, turning piece, etc, the jambs and portions of openings as described shall be built up with new brickwork or blockwork properly toothed and bonded to existing, cavities of hollow walls shall be closed where necessary and finishes shall be made good all round and into reveals

B.6 BUILDING UP OPENINGS

Where existing openings are given in number as built up, the existing surfaces all round shall be prepared as necessary, brickwork or blockwork properly toothed and bonded to existing, wedged up to underside of existing lintel and finishes shall be made good on both sides

C. EARTHWORKS

C.1 DEMOLITIONS

C.1.1 Nature and extent

Descriptions of demolitions give a rough guide only as to the scope of the work. Tenderers are therefore advised to visit the site before submitting a tender and to acquaint themselves with the nature and extent of the work to be done and the value of recoverable materials which are not to be re-used or handed over to the Employer. Unless otherwise stated, loose furniture, kitchen and other equipment, apparatus, machinery, etc shall remain the property of the Employer and the removal thereof does not fall within the scope of this Contract

The Contractor shall completely demolish the buildings etc in a careful, skilful, practical and safe manner down to 150mm below ground level

Demolitions shall include breaking up and removing: all floors and surface

beds;

all external screen walls, steps, ramps, aprons, surface water channels, rainwater sumps, gulleys, etc attached to the building to be demolished;

all services, manholes, etc in ground to a point not less than 1m beyond the perimeter of the building including plugging off ends of all remaining pipes, drains, etc, filling in holes where necessary and ramming and levelling to ground level

Where only a portion of a building is to be demolished, it shall be done without damage to the remaining portion of the building. Any such damage shall be made good by the Contractor at his own expense

C.1.2 Notices etc

The Contractor shall, before commencing work, obtain all necessary authorisation for carrying out the work, by whatever means including the use of pneumatic equipment or blasting, give all necessary notices and pay all charges and fees in connection therewith. He shall also comply with all regulations pertaining to rodent extermination and he shall obtain the requisite Rodent Extermination Clearance Certificate and pay all necessary fees. All receipts and certificates shall be left in the safekeeping of the Principal Agent. All the abovementioned charges and fees shall be paid by the Contractor and included in his prices

The Contractor shall give ample notice to the Principal Agent and Local Authorities regarding any disconnections necessary prior to the removal or interruption of electrical or telephone cables, water and sanitary services etc

C.1.3 Loss

After the handing over of the site to the Contractor, the full risk of any loss or damage to buildings to be demolished shall be the responsibility of the Contractor and he shall take such precautions as he deems necessary against such loss or damage

C.1.4 Materials from the demolitions, credit, etc

Materials recovered from the demolitions will become the property of the Contractor, who may allow credit in respect thereof where provided for in the bills of quantities. Such materials shall not be re-used in any new work without written permission from the Principal Agent

C.1.5 Disposal of debris etc

The Contractor shall be responsible for the removal from the site of all materials, rubble, debris and rubbish resulting from the demolitions

C.2 SOIL INSECTICIDES

The application of soil insecticides shall be carried out in accordance with "The application of soil insecticides for the protection of buildings" - SANS 10124

C.3 FILLING ETC

C.3.1 Filling generally

Filling over site shall be spread, levelled, watered and consolidated in layers not exceeding 300mm

Filling under floors and backfilling to excavations shall be suitable inert material, free from clay, vegetable matter, large stones, etc, having a maximum plasticity index of 10, spread, levelled and compacted to a density of at least 90% Mod. AASHTO

C.3.2 Hardcore

Hardcore shall be broken stone or other approved hard material graded from 25mm to 75mm with the finer material on top and shall be spread, levelled and consolidated

C.4 EXCAVATIONS

C.4.1 Classification of excavated material

“Hard rock” shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which requires drilling, wedging and splitting or the use of explosives

“Soft rock” shall mean hard material the removal of which warrants the use of pneumatic tools and includes hard shale, ferricite, compact outcrop and material of similar hardness

“Earth” shall mean all ground other than that classified as “hard rock” or “soft rock” and shall include³ made-up ground and any loose stones or pieces of concrete not exceeding 0,03m³ in volume

D. CONCRETE, FORMWORK AND REINFORCEMENT

D.1 SPECIFICATION FOR CONCRETE WORK GENERALLY

All in situ concrete work (plain and reinforced) shall comply with SANS 1200G supplemented by the following Project Specification. Where SANS 1200G and the Project Specification are in conflict, the Project Specification shall take precedence

Wherever the term "Engineer" appears in SANS 1200G or in the following Project Specification this shall be deemed to mean the Principal Agent's representative responsible for this section of the Works

PROJECT SPECIFICATION

The following amplifications, additions and amendments to SANS 1200G shall constitute the Project Specification. Clause numbers refer to either the existing clauses in SANS 1200G or to new clauses, which are related to the existing clauses

1. SCOPE

This clause is amended to include:

- 1.1 This specification does not cover the methods by which the finished structure is to be measured for the purpose of payment and the "Standard System of Measuring Building Work" shall apply

2. INTERPRETATIONS

2.1 SUPPORTING SPECIFICATIONS

Clause 2.1(b) shall not apply

2.2 APPLICATION

This clause shall not apply

4. PLANT

4.5 FORMWORK

4.5.2 Finish

Unless otherwise stated the quality of all formwork shall be such that the finished surface of the concrete is "Rough" in terms of clause 5.2.1(a)

5. CONSTRUCTION

5.2 FORMWORK

5.2.1 Classification of Finishes

- (a) **Rough.** No treatment of the surface of the concrete will be required after the striking of the formwork. The finish of the concrete need not be more accurate than Degree of Accuracy III
- (b) **Smooth.** Imperfections such as small fins, bulges, irregularities, surface honeycombing and surface discolorations shall be made good and repaired by approved methods. The finish of the concrete shall be accurate to Degree of Accuracy II
- (c) **Special**

- (i) **Smooth and fair**

This class of finish requires the highest standard of concrete work, formwork, accuracy and technique

Concrete placed in any one structure to give this finish shall be made from cement and aggregates from the same source. The grading of the aggregate shall be kept constant

Formwork shall be metal, wrot timber or other approved material in new condition designed and constructed to suit the particular job in hand and with shutter bolts and joints between panels in a regular pattern approved by the Principal Agent. Joints between panels shall be watertight, but the use of sealing tape which will mark the concrete shall not be permitted

Designated joints shall be in the position and of the details shown upon the working drawings. Should the Contractor wish to incorporate further construction joints or amend the position of those shown to suit his own requirements or technique, this may be allowed provided that all design considerations are met, that the prior approval of the Engineer is obtained and that any extra costs are borne by the Contractor

In the case of horizontal construction joints, the top edge of the concrete on the smooth and fair finished side shall be struck true and level with a trowel

Special care shall be taken to ensure that forms are clean and free of all pieces of tying wire, nails and other debris at the time of concreting

The standard of finish shall be such that upon removal of the formwork, no further treatment, other than treatment of bolt holes if required, shall be found necessary to provide a straight, smooth and uniform finish of good quality and consistent colour and texture, free of all honeycombing etc. Any defect shall be made good by either removing and replacing the defective concrete or, in certain instances only, by patching

5.5 CONCRETE

5.5.1.6 Prescribed mix concrete

Where prescribed mix concrete is specified the proportions of constituents, the maximum size of coarse aggregate and the estimated minimum compressive strength shall be as specified in the following table:

Class of Concrete	Estimated minimum compressive strength in MPa at 28 days	Maximum nominal size of coarse aggregate in mm	Proportions of Constituents		
			Cement (Parts)	Fine aggregate (Parts)	Coarse aggregate (Parts)
A	7	37,5	1	4	8
B	15	19	1	3	5
C	20	19	1	2,5	3,5

Cement shall comply with SANS 50917-1 of strength 32,5N or higher

Should cement and aggregates be mixed by volume, the contents of a 50kg sack of cement shall be taken to be 0,033m

3

Notwithstanding the requirements contained in SANS 1200G, the Principal Agent may permit certain items of non-structural concrete to be mixed by hand

If the concrete is mixed by hand, it shall first be mixed in a dry state on a clean non-absorbent surface until it is of uniform colour and consistency. Just enough water shall then be added to permit mixing and working, at which stage the concrete shall continue to be mixed until it is of uniform colour and consistency

5.5.1.7 Strength concrete

Where strength concrete is specified it shall be designated by its specified strength followed by the size of stone used in its manufacture, eg 30 MPa/19mm

The water/cement ratio shall be as Table 5 of clause 5.5.1.5 for moderate exposure conditions

5.5.1.8 "No-Fines" concrete

"No-fines" concrete shall consist of one part cement to eight parts aggregate graded from minimum 6mm to maximum 13mm size

The quantity of water used shall be just sufficient to form a smooth grout which shall completely coat every particle of aggregate and also to ensure that the grout is just wet enough to form a small fillet at each point of contact between the stones. "No-fines" concrete mixed with excessive water, which results in a thin grout, which drops off the aggregate, will be rejected

"No-fines" concrete shall be placed in its final position within 20 minutes of mixing and shall be placed in continuous horizontal layers. Concrete shall be spade worked sufficiently to ensure that it fills the forms but vibrating, tamping or ramming will not be permitted

5.5.3.2 **Ready-mixed concrete**

The use of ready-mixed concrete and the acceptability of test results from a central concrete production facility shall be subject to the written approval of the Engineer

6. TOLERANCES

Degree of Accuracy II shall apply for all work unless otherwise stated

7. TESTS

7.1 FACILITIES AND FREQUENCY OF SAMPLING

7.1.2 Frequency of sampling

7.1.2.5 The frequency of sampling shall be as directed by the Engineer, but not less than one set of cubes from every 50m³ cast

8. MEASUREMENT AND PAYMENT

This clause shall not apply

D.2 AGGREGATES OF LOW DENSITY

Aggregates of low density shall comply with SANS 794

D.3 HOLLOW BLOCKS, PREFABRICATED BLOCK BEAMS AND PLANKS, ETC

Blocks, block beams, planks, etc shall be fixed and supported in such a manner that no movement can take place before or during the casting of concrete. No broken components shall be used

D.4 SUPERVISION

A competent and experienced foreman shall superintend personally the whole of the concrete construction and pay special attention to:

- (a) The quality, testing and mixing of materials,
- (b) The placing and compaction of concrete,
- (c) The construction and removal of formwork and
- (d) The sizes and position of reinforcement

The Contractor shall obtain the permission of the Principal Agent before commencing concreting of foundations or reinforced structure

No inspection, approval, authorisation to proceed, comment or instructions following from such an inspection, or failure of the Principal Agent to comment on any particular aspect of the work, shall be deemed to relieve the Contractor in any way from his obligation to ensure through his own supervision that the work is constructed in every way in accordance with the Drawings, Specification and Conditions of Contract, nor relieve him from his obligations to make good any fault or defect, nor shall it be deemed that there is any obligation on the Principal Agent to inspect all or any part of the Works or that such inspection is necessarily complete in every respect

D.5 GENERAL

Concrete

Rates for concrete work shall include all "construction joints" other than "designated joints" as defined in SANS 1200G clause 2.4.3 which are measured separately, and for the design of strength concrete mixes and all testing of concrete and materials other than compressive strength testing of concrete samples taken from concrete being placed in the Works. The Contractor shall only be entitled to payment for those samples and compressive strength tests called for by the Engineer and which pass the test requirements

Surface beds cast in panels shall be cast in panels approximately 9m²

Formwork

Formwork to slabs and beams shall be cambered where required

Rates for formwork to soffits shall include propping not exceeding 3,5m high unless otherwise described. Formwork to walls and columns is not exceeding 3,5m high above bearing level unless otherwise described

Reinforcement

Standard welded steel fabric reinforcement shall be as included in Table 1 of SANS 1024 and shall have 300mm wide laps.

The mass of binding wire is not included in the mass of the reinforcement and the cost thereof shall be included in the rates for the reinforcement

E. PRECAST CONCRETE

E.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Precast concrete paving slabs

SANS 541

Cement, water, aggregates and reinforcement shall be as described under D. CONCRETE, FORMWORK AND REINFORCEMENT

E.2 CONCRETE

Concrete shall be as described under D. CONCRETE, FORMWORK AND REINFORCEMENT and unless otherwise stated shall be prescribed mix concrete Class C but with coarse aggregate of an appropriate size

E.3 MOULDS

Before each casting, moulds shall be coated with a suitable release agent which will not in any way discolour the surface of the finished product or impair its strength. Where items are described as "finished smooth from the mould" or as "precast terrazzo", moulds shall be made to a high degree of accuracy and shall be such as to leave even and smooth surfaces

E.4 FINISHES TO BLOCKS

Where described as "precast terrazzo", such surfaces shall have a facing of terrazzo described under O. PLASTERING. The facing shall be poured into the moulds in a wet state (not dry pressed) and thoroughly worked up against finished faces to ensure that it finishes smooth from the mould

Projections shall be rubbed off and faces shall be of even colour and free from blemishes, cracks and other imperfections. Salient angles shall be arris rounded

E.5 CASTING ETC

Items shall be suitably cured, shall not be handled whilst still green and shall not be built in within 21 days of casting

E.6 REINFORCEMENT

Unspecified reinforcement required for manufacturing, handling and erection purposes and for reinforcing projecting and other unwieldy portions of blocks shall be provided by the Contractor at his discretion

E.7 BEDDING, JOINTING AND POINTING

Blocks shall be bedded and jointed solidly in Class I mortar as described under F. MASONRY and shall be pointed with slightly keyed joints

Blocks finished with "precast terrazzo" shall have joints raked out and pointed with slightly keyed joints in tinted waterproofed mortar composed of one part cement and three parts sand to match terrazzo facing

E.8 GENERAL

Precast concrete work shall include reinforcement required for manufacturing, handling and erection purposes, steel rod or wire hooks and/or mortices for lewis bolts required for handling and transporting, any necessary temporary propping and strutting and bedding, jointing and pointing

F. MASONRY

F.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Burnt clay masonry units	SANS 227
Limes for use in building	SANS 523 {Slaked (hydrated) limes}
Aggregates from natural sources – fine aggregates for plaster and mortar	SANS 1090
Concrete masonry units	SANS 1215
Prestressed concrete lintels	SANS 1504
Burnt clay paving units	SANS 1575
Metal ties for cavity walls	SANS 28
Common cement	SANS 50197-1 (Class 32,5N)
Masonry cement	SANS 50413-1 (Class 22,5X)
Concrete masonry construction	SANS 10145
The structural use of masonry	SANS 10164-1
Masonry walling	SANS 10249
Concrete floors	SANS 10109-1&2

F.2 SAND

Sand shall be washed where necessary and screened through a 2,4mm mesh sieve

F.3 BURNT CLAY BRICKS

Burnt clay bricks shall be of nominal size 222 x 106 x 73mm unless otherwise stated Common

bricks shall be General Purpose bricks

Extra hard burnt bricks shall be General Purpose (Special) bricks

Facing bricks shall exhibit a liability to efflorescence not in excess of "Slight" and water absorption when tested in conformity with the requirements of SANS 227 shall not exceed 14%

Particular care shall be taken to preserve arrisses and faces of facing and paving bricks during transit and handling

F.4 CONCRETE BRICKS

Concrete bricks shall have a nominal compressive strength of 8 MPa

F.5 QUARRY TILES ETC

Quarry, cement and similar tiles shall be of approved manufacture, even in shape and size, free from cracks, twists or blemishes and uniform in colour

F.6 WIRE TIES

Wire ties shall be of galvanized steel of the single wire type for solid walls and either the "Butterfly" or Modified PWD type for hollow walls. Ties shall be of sufficient length to allow not less than 75mm of each end to be built into brickwork or embedded in concrete

F.7 BRICKWORK REINFORCEMENT

Brickwork reinforcement shall be manufactured from hard drawn steel wire conforming to BS 785 and shall consist of two 2,8mm diameter main wires with 2,5mm diameter cross wires at 300mm centres welded at intersections

Brickwork reinforcement shall be lapped not less than 300mm at end joints and for a length equal to the width of the widest reinforcement at intersections

F.8 MORTAR

Mortar shall comply with the following table:

1	2	3	4
Mortar Class	Minimum compressive strength MPa	Cement:sand (common cement)	Cement:sand (masonry cement)
I	10	1:4 or 50kg to 130 litres	1:3 or 50kg to 100 litres
II	5	1:6 or 50kg to 200 litres	1:5 or 50kg to 170 litres
III	1,5	1:9 or 50kg to 300 litres	1:6 or 50kg to 200 litres

Mortar shall be Class II unless otherwise specified

Mortar plasticizers may only be used with the approval of the Principal Agent

The materials shall be mixed dry until of uniform colour, water added and the mixture turned over until the ingredients are thoroughly incorporated

Mortar shall be produced in such quantities as can be used before commencement of set and no mortar that has set shall be used

F.9 COMPO MORTAR

Compo mortar shall be Class III mortar in accordance with clause F.8 but with a lime content of 80 litres

The lime and sand shall be mixed dry until of uniform colour, water added and the mixture turned over until the ingredients are thoroughly incorporated. Immediately before use, the cement shall be mixed in and the requisite amount of water added. Compo mortar shall be produced in such quantities as can be used before commencement of set and no compo mortar that has set shall be used

F.10 BRICKWORK

Wherever practicable, brickwork shall be built in stretcher bond. Unless legitimately required to form bond, no false headers shall be used. English bond shall only be used where specifically so indicated or where stretcher bond is not practicable

Brickwork, unless otherwise described, shall be built in Class II mortar

Bricks shall be laid on a solid bed of mortar and all joints shall be grouted up solid

The brickwork shall be carried up in a uniform manner, no part being raised more than 1,2m above adjoining work

Where necessary, bricks shall be wetted before being laid and the course of bricks last laid shall be well wetted before laying a fresh course upon it

Walls in thicknesses of more than one skin shall have at least five wire ties per square metre. Linings to concrete, unless otherwise specified, shall be tied to the concrete with at least five wire ties per square metre

Hollow walls, unless otherwise specified, shall be built of two half brick skins with cavity between, tied together with at least five wire ties per square metre. The cavities shall be kept free of all rubbish, mortar droppings and projecting mortar. Mortar joints to brickwork shall be not less than 8mm or more than 12mm thick

F.11 BLOCKWORK

Unless otherwise described, all blockwork shall be built in stretcher bond. Whole blocks shall be used except where bats or closers are required to form bond. Blockwork, unless otherwise described, shall be built in Class II mortar

Solid blocks shall be laid on a solid bed of mortar and all joints shall be grouted up solid

Hollow blocks shall be laid in shell bedding, ie only the inner and outer shells of the blocks shall be covered with mortar. Vertical joints shall be similarly formed

The blockwork shall be carried up in a uniform manner, no part being raised more than 1,2m above adjoining work

Clay blocks shall be wetted before being laid and the course of blocks last laid shall be well wetted before laying a fresh course upon it

F.12 CENTRES AND TURNING PIECES

Centres and turning pieces to soffits of arches and lintels shall be left in position for not less than 14 days

F.13 FACE BRICKWORK

Face brickwork shall be built in stretcher bond, unless otherwise specified, to a true and fair face. Perpend shall be vertically aligned

Facing bricks shall be mixed to ensure that the proper blending of bricks within the colour range of each facing brick being used is obtained

F.14 PAVINGS, SILLS, COPINGS, ETC

Clay bricks and tiles shall be wetted before fixing and shall be solidly bedded and jointed in Class I mortar and pointed with slightly keyed joints

G. WATERPROOFING

G.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Bituminous damp-proof courses	SANS 248 (Type FV)
Polyolefin film for damp- and waterproofing in buildings (walls, sills, etc)	SANS 952 (Type B)
Polyolefin film for damp- and waterproofing in buildings (floors and basements)	SANS 952 (Type C)
Mastic asphalt for roofing	SANS 297
Mastic asphalt for damp-proof courses and tanking	SANS 298
Bituminous roofing felt	SANS 92 (Type 60)
Polyolefin film for damp- and waterproofing in buildings (flat roofs)	SANS 952 (Type A)
Chloroprene rubber sheet (for waterproofing)	SANS 580
Sealing compounds for the building industry, two-component, polysulphide base	SANS 110 (Type 2 - Gun Grade)
Sealing compounds for the building and construction industry, two- component, polyurethane base	SANS 1077
The waterproofing of buildings (including damp-proofing and vapour barrier installation)	SANS 10021

G.2 WATERPROOFING TO ROOFS, BASEMENTS, ETC

Waterproofing to roofs, basements, etc shall be carried out by workmen who are experienced in this type of work

G.3 DAMP-PROOF COURSE TO WALLS

All joints in damp-proof course to walls shall be lapped a minimum of 150mm except at junctions and corners where the lap shall equal the full thickness of the wall

H. ROOF COVERINGS ETC

H.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Concrete roofing tiles	SANS 542
Clay roofing tiles	SANS 632
Sawn softwood timber battens	SANS 1783-4
Fibre-cement sheets (flat and profiled)	SANS 685
Aluminium alloy corrugated and troughed sheets	SANS 903 Continuous hot-
dip zinc-coated carbon steel sheet of commercial, lock-forming and drawing qualities	SANS 3575
Continuous hot-dip zinc-coated carbon steel sheet of structural quality	SANS 4998
Polyolefin film for damp- and waterproofing in buildings	SANS 952
Metal roofing tiles	SANS 1022
Glass-reinforced polyester (GRP) laminated sheets (profiled or flat)	SANS 1150
Fasteners for roof and wall coverings in the form of sheeting	SANS 1273
Materials for thermal insulation of buildings	SANS 1381-1&4
Expanded polystyrene thermal insulation boards	SANS 1508
Fixing of concrete interlocking roofing tiles	SANS 10062
Roof and side cladding	SANS 10237
Sheet zinc	BS 849
Sheet lead	BS 1178
Sheet aluminium	BS 1470
Sheet copper	BS 2870

H.2 GALVANIZED STEEL PROFILED SHEETS ETC

Galvanized steel profiled sheets, ridge and hip coverings, etc shall be coated with a minimum of 275 g zinc per m² and shall be free of white rust

H.3 GALVANIZED SHEET IRON

Galvanized sheet iron shall be rolled steel sheet coated on both sides with a minimum of 275 g of zinc per m² and shall be free from white rust

H.4 NAILING AND SCREWING

Where nailing and screwing is required:

- galvanized iron nails and screws shall be used for galvanized sheet iron and sheet zinc
- copper or copper alloy nails and screws for sheet copper and sheet lead
- aluminium alloy or stainless steel nails and screws for sheet aluminium

H.5 LAPS

Sheet metal flashings shall have minimum 100mm laps and linings to valleys, secret gutters, etc minimum 225mm laps

H.6 GENERAL

Rates for profiled sheet roofing and rolled edges, ridge and hip coverings, flashing pieces, etc of metal, fibre- cement, plastic, etc shall include fixing accessories

I. CARPENTRY AND JOINERY

I.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Sawn softwood timber : General requirements	SANS 1783-1
Sawn softwood timber : Stress-graded structural timber and timber for frame wall construction	SANS 1783-2
Sawn softwood timber : Brandering and battens	SANS 1783-4
Softwood flooring boards	SANS 629
Hardwood furniture timber	SANS 1099
Hardwood block and strip flooring	SANS 281
Wooden ceiling and panelling boards	SANS 1039
Laminated timber (glulam)	SANS 1460
Gypsum plasterboard	SANS 266
Fibreboard products	SANS 540
Wood-wool panels (cement bonded)	SANS 637
Fibre-cement sheets (flat and profiled)	SANS 685
Fibre-cement boards	SANS 803
Plywood and composite board	SANS 929
Wooden ceiling and panelling boards	SANS 1039
Particle boards	SANS 50312-1to7
Decorative laminates	SANS 4586
Wooden doors	SANS 545
Fire doors	SANS 1253
Materials for thermal insulation of buildings	SANS 1381-1,2,4&6
Expanded polystyrene thermal insulation boards	SANS 1508
Mild steel nails	SANS 820
Metal screws for wood	SANS 1171
Wood-preserving creosote	SANS 539

Softwood shall bear the relevant SABS mark and shall be ordered in the sizes in which it will be used as no scantlings of marked timber will be allowed. Should SABS marked timber be unavailable, the Principal Agent's prior permission shall be obtained before using unmarked timber

I.2 HARDWOODS

All hardwoods shall be specially selected, well seasoned, free from sapwood and well kiln dried. Meranti shall be Red or Medium Brown Meranti, even in grain and colour, selected from "Standard and Better" quality from Malaysia

I.3 INFECTION AND PRE-TREATMENT OF TIMBER

All timber used on the site, whether for permanent or temporary work, shall be free of borer or other beetle and termite infection. If the work under this contract falls within an area designated under Government Notice R2577 of 1978/12-29, permanent softwood fixed in the building shall be treated against borer etc in accordance with Government Notice R451 of 1969-03-28 using Class B or C preservative

When treated timbers are cut, the cut surfaces shall be effectively brushed with at least two coats of preservative solution

I.4 CONSTRUCTION IN GENERAL

Where applicable, construction methods shall comply with SANS 10082. Wood and laminate flooring shall be installed in accordance with SANS 10043. Roof trusses shall be manufactured, erected and braced in accordance with SANS 10243

I.5 STRUCTURAL TIMBER

Timbers generally shall be in single lengths and jointing of timbers will only be permitted when the required length is unobtainable. Only the absolute minimum of joints to obtain a particular length will be permitted and such joints are to be evenly spaced along the length of the timber

Finger-jointing of structural timber will be permitted, in which case it shall be manufactured in accordance with SANS 10096

I.6 PLATE NAILED TIMBER ROOF TRUSSES

Plate nailed timber roof trusses shall be of approved design and manufacture and constructed with softwood structural timber by a truss Fabricator holding a current Certificate of Competence awarded by the Institute of Timber Construction

Each roof truss shall have all its members accurately cut and closely butted together and rigidly fixed by CSIR approved patented galvanized metal spiked connectors, precision pressed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions

The design, manufacture and transportation of the roof trusses, bracing, etc shall be under the control of a registered Structural Engineer in accordance with SANS 1900, SANS 10160 and SANS 10163, who shall, after erection, provide a certificate confirming that the design, manufacture, transportation, erection and bracing has been carried out in accordance with this specification

The design shall include for all live loads, wind loads and for dead loads imposed by roof covering, purlins, ceilings, etc

Fully detailed shop drawings of all trusses etc, indicating sizes, bracing, loading, etc, shall be submitted to the Principal Agent for approval prior to fabrication

Unless specific erection instructions are given, erection shall be carried out in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber Roof Trusses" published by the Institute for Timber Construction and the Council for Scientific and Industrial Research or as detailed by the designer

Roof trusses and bracing shall include design and preparation of shop drawings

I.7 TONGUED AND GROOVED BOARDING

Tongued and grooved boards for floors, panelling, etc shall be in long varying lengths with joints tightly cramped up and secret nailed. Flooring boarding shall be flush jointed with staggered heading joints and machine sanded after fixing

I.8 JOINERY

Skirtings, cornices, rails, etc shall be in single lengths wherever practicable and shall have splayed heading joints where necessary. Skirtings shall be trenched at back

All horns of door frames shall be checked and splayed back where frames are fixed projecting or flush with surface and built in

Heads of screws in exposed faces of hardwood joinery shall be sunk and match potted. Joinery shall

have arris rounded angles and shall be blocked and planted on

I.9 VENEERS

All face veneers shall be of kiln dried timber, free from knots, cracks, patchwork, sapwood and other defects, selected and glued, dried and machine-sanded to a smooth finish. All veneers shall be applied under hydraulic pressure

I.10 DOORS

Flush doors shall have solid timber edge strips with concealed edges. Where doors are to be finished with a transparent finish, the veneer and the edge strips shall be timber of the same species and as far as possible of matching colour. Unless otherwise described all flush doors shall be of interior quality, but where exterior quality doors are specified the glue used shall be of the WBP type

Framed and ledged batten doors described as filled in with V-jointed boarding shall be filled in flush on one side with tongued and grooved vertical boarding, V-jointed on one or both sides and of the thickness stated. The boarding shall be in narrow widths, closely cramped up, rebated or tongued on outer edges and housed to grooves in stiles and rails and twice countersunk brass screwed at each intersection with ledges and braces and the inner edges of the abutting stiles and rails shall be chamfered to form a V-joint at junction with the board

Unless otherwise described double doors shall have rebated meeting stiles

I.11 FIXING

All nails and screws shall be of the size, length and type appropriate to their respective uses. All screws for hardwood joinery work shall be brass

Items described as "plugged" shall be screwed to fibre, plastic or metal plugs at not exceeding 600mm centres. Where items are described as "bolted", the bolts have been given separately

I.12 ADHESIVES

Adhesives shall comply with BS 1204 and 4071 where applicable. Adhesives used in the manufacture of external joinery exposed to excessive moisture (eg kitchen and laboratory worktops) shall be of the WBP type

J. CEILINGS, PARTITIONS AND ACCESS FLOORING

J.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Gypsum plasterboard	SANS 266
Fibreboard products	SANS 540
Gypsum cove cornice	SANS 622
Wood-wool panels (cement-bonded)	SANS 637
Sawn softwood timber : Brandering and battens	SANS 1783-4
Sawn softwood timber : Timber for frame wall Construction	SANS 1783-2
Fibre-cement boards	SANS 803
Plywood and composite board	SANS 929
Wooden ceiling and panelling boards	SANS 1039
Materials for thermal insulation of buildings	SANS 1381-1&4
Expanded polystyrene thermal insulation boards	SANS 1508
Raised access flooring	SANS 1549

J.2 TONGUED AND GROOVED BOARDING

Tongued and grooved boarding for ceilings shall be in long varying lengths, V-jointed one side and with joints tightly cramped up and secret nailed

J.3 CEILINGS ETC

J.3.1 Brandering

Brandering for ceilings and eaves soffit coverings shall be symmetrically arranged with necessary smaller panels. Main branders shall be at right angles to roof timbers, with cross branders cut in between and branders shall be fixed with galvanized wire nails driven in on skew alternately in opposite directions

J.3.2 Ceiling boards

Ceiling boards shall be in long lengths symmetrically arranged with necessary smaller panels, closely butted and secured at 150mm centres to brandering with galvanized or cadmium-plated clout-headed nails

J.4 GYPSUM SKIM PLASTER

Gypsum skim plaster shall be pure gypsum plaster finished with a steel trowel

J.5 EXPOSED TEE-SYSTEM SUSPENDED CEILINGS

The ceiling panels shall be as described in the items and the panels shall be stiffened at back as recommended by the manufacturer to prevent bowing or sagging

The exposed surfaces of all ceiling panels and supporting members shall be uniform in colour and free from surface blemishes

The suspension grid system shall be an approved patent suspension system comprising 38mm galvanized steel main and cross tee bearers spaced in both directions at centres to suit sizes of ceiling panels used, with the cross bearers fitted between and notched to form flush fit with main bearers. The exposed flange of the tees shall be 25mm wide, covered with a rolled aluminium cap painted a low sheen satin white. Cornices etc shall be as described in the items and shall be finished to match the exposed tees

The main tee bearers shall have holes for cross tees at 300mm centres and holes for hangers at 50mm centres. In addition, main and cross tee bearers shall be holed as necessary for and provided with timber wedges or steel clips where recommended by the manufacturer to prevent ceiling panels from lifting

The web of the exposed cross tee bearers shall extend to form a positive interlock with the main tee bearers and the lower flange shall be cut back to provide a joint free appearance

All hangers shall be galvanized and shall be at centres to meet the requirements of the specification with one end fixed to the suspension grid main bearers and the other end fitted with suitable galvanized fixing cleat securely fixed to the structure. Fixing points shall be agreed to by the Principal Agent before any power shot fixings are made. Hangers shall not be suspended from air-conditioning ducts. Where recommended by the manufacturer, hangers shall be of the rigid type

Component parts and fixings shall be non-corrosive and able to withstand atmospheric pollution. Surfaces of aluminium which are in contact with other materials when fixed, particularly metals, shall be suitably insulated to prevent electrolytic corrosion

Ceilings shall comprise hangers, suspension grid system and ceiling panels, shall be constructed in a manner suitable for carrying air-conditioning diffusers and light fittings in the positions required, shall be set out to layouts approved by the Principal Agent and shall have the standard suspension systems modified as necessary to work around any pipes or light fittings

J.6 FLUSH PLASTERED SUSPENDED CEILINGS

Gypsum plasterboard panels of the specified thickness generally in 1200mm widths and in long lengths shall be fixed grey side down with self-tapping screws to the suspension system with the joints between boards loosely butt jointed and covered with 50mm wide strips of self-adhesive fibre tape

The plasterboard panels shall be finished with gypsum skim plaster trowelled to a smooth polished surface to the thickness etc recommended by the manufacturer

The suspension system shall be an approved patent concealed suspension system consisting of galvanized mild steel bearers suspended on approved non-rusting metal hangers spaced generally at 1200mm centres or to suit layout of air-conditioning ducts and other services etc above ceiling with one end bolted to the bearer and the other end fitted with a galvanized fixing cleat securely fixed to the structure as required

Fixing points shall be agreed to by the Principal Agent before any power shot fixings are made. Hangers shall not be suspended from air-conditioning ducting

Ceilings shall comprise hangers, suspension system, ceiling panels and plaster finish, shall be constructed in a manner suitable for carrying air-conditioning diffusers and light fittings in the positions required, shall be set out to layouts approved by the Principal Agent and shall have the standard suspension system modified as necessary to work around any pipes or light fittings

K. FLOOR COVERINGS, WALL LININGS, ETC

K.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Semi-flexible vinyl floor tiles	SANS 581
Resin modified vinyl floor tiles	SANS 586
Flexible vinyl flooring	SANS 786
Hardwood block and strip flooring	SANS 281
Wood mosaic flooring	SANS 978
Textile floor coverings (pile construction)	SANS 1375
Textile floor coverings (needle-punched construction)	SANS 141
Carpet underlays	SANS 1419
The installation of wood and laminate flooring	SANS 10043
The installation of resilient thermoplastic and similar flexible floor covering materials	SANS 10070
The installation of textile floor coverings	SANS 10186
Sheet linoleum (calendered types), cork, carpet and linoleum tiles	BS 810
Solid rubber flooring	BS 1711
Felt backed linoleum	BS 1863

K.2 LAYING OF MATERIAL

Floor tiles shall be laid with continuous joints in both directionsPatterned

floor coverings shall be matched at joints

K.3 GENERAL

Floor coverings, wall linings, skirtings, nosings, etc shall include all preparatory work to screeded or plastered surfaces etc, priming coats and adhesives

Floor coverings and wall linings shall be dressed around and into corners. Wood block and wood mosaic flooring shall be sanded with a sanding machine and sealed with a coat of approved penetrating sealer

Plastic handrails shall have welded and polished butt joints

L. IRONMONGERY

L.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Locks, latches and associated furniture for doors. (Domestic type)	SANS 4
Kitchen cupboards: Built-in and free-standing	SANS 1385
Single action closers	SANS 1510
Padlocks	SANS 1533
Fasteners	SANS 1700
Chalk writing boards for schools	CKS 36

L.2 KEYS

Locks shall have the minimum possible number of interchangeable keys. Cylinder locks and locks described as “en suite” shall be clearly marked with consecutive numbers and each key shall be punched with the corresponding number of the relative lock

L.3 FIXING

Unless otherwise described, ironmongery is to be fixed to wood

Items described as “plugged” shall be screwed to fibre, plastic or metal plugs

Screws, bolts, etc for fixing of ironmongery shall be of matching metal and finish, except for aluminium ironmongery or ironmongery fixed to aluminium in which cases stainless steel screws may be used

All necessary preparation of pressed steel door frames for the fixing of ironmongery to the frames has been included with the pressed steel door frames

L.4 KITCHEN CUPBOARDS

Steel cupboards shall be finished with baked enamel. Tops of floor cupboards shall have laminated plastic covering

Cupboards shall be fitted with all necessary hinges, handles, catches, etc. Cupboards shall be securely fixed with all necessary screws and fibre, plastic or metal plugs

Where cupboards are described as a “series”, tops shall be continuous and cupboards shall be bolted or screwed together, including bolts, screws, holes, etc

M. STRUCTURAL STEELWORK

M.1 SPECIFICATION

All structural steelwork shall comply with SANS 1200H or 1200HA as applicable. Structural fasteners shall comply with SANS 1700

Whenever the term “Engineer” appears in SANS 1200H or 1200HA or in the following Project Specification this shall be deemed to mean the Principal Agent’s representative responsible for this section of the Works

M.2 PROJECT SPECIFICATION INCORPORATING AMPLIFICATIONS, ADDITIONS AND AMENDMENTS TO SANS 1200H AND 1200HA

The following amplifications, additions and amendments to SANS 1200H and SANS 1200HA shall apply and clause numbers refer to either the existing clauses in the relevant SANS or to new clauses which are related to the clauses therein

SANS 1200H

3.1.1 Weldable structural steel

Weldable structural steel shall comply with SANS 1431

5.1.2 Contractor provides shop details

The Contractor shall be responsible for the preparation of all shop detail drawings

5.1.3 Engineer provides shop details

This clause shall not apply

5.3.9 Protective treatment

Structural steelwork shall be cleaned and prepared by wire brushing in accordance with SANS 10064 and all surfaces shall be primed as specified to a minimum dry film thickness of 30 micrometres before leaving the workshop. Upon delivery to the site and again after erection all bared surfaces shall be made good with similar primer

8. Measurement and

payment This clause shall not apply SANS 1200HA

5.2.10 Protective treatment

Structural steelwork shall be cleaned and prepared by wire brushing in accordance with SANS 10064 and all surfaces shall be primed as specified to a minimum dry film thickness of 30 micrometres before leaving the workshop. Upon delivery to the site and again after erection all bared surfaces shall be made good with similar primer

5.3.7 Repairs to paint and site painting

This clause shall not apply

8. Measurement and payment

This clause shall not apply

N. METALWORK

N.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Fasteners	SANS 1700
Expanded metal	SANS 190-1&2
Windows and doors made of rolled mild steel sections	SANS 727
Hot-dip galvanized zinc coatings on fabricated iron and steel articles	SANS 121
Strongroom and vault doors	SANS 949
Anodized coatings on aluminium (for architectural applications)	SANS 999
Steel door frames	SANS 1129
Mushroom- and countersunk-head bolts and nuts	SANS 1143
Welding of metalwork	SANS 1044
Adjustable glass-louvred windows	CKS 413
Aluminium sheet and strips	BS 1470
Aluminium extruded tube and hollow sections	BS 1474
Aluminium bars and sections	BS 1476

N.2 STEEL

Steel shall be mild steel of approved commercial quality. Steelwork shall be cleaned and prepared by wire brushing in accordance with SANS 10064 and given one coat of primer as specified before leaving the workshop

N.2.1 Galvanizing of steel

Steelwork described as "galvanized" shall be galvanized by means of the hot-dip process after fabrication. Where welding on site is unavoidable, such welded joints shall be cleaned down and cold galvanized to approval

N.3 STAINLESS STEEL

Stainless steel shall be AISI Type 304 stainless steel and shall be buffed to an even satin finish. Stainless steel screws shall be used for fixing stainless steel

N.4 ALUMINIUM

Aluminium extrusions shall be of 6063-T6 alloy and temper. Aluminium sheet and strips shall be of 1200-H4 alloy and temper. Joints in all aluminium members shall be formed in an approved manner so that the joints are practically invisible. Screw heads, pins, rivets, etc shall be concealed as far as possible. 300 Series stainless steel screws and bolts shall be used for jointing and fixing aluminium work

The surfaces of all aluminium which are in contact with other materials when fixed shall be suitably insulated with a non-absorbent insulating material to prevent corrosion. All aluminium work shall be suitably protected against damage, deterioration or discolouration caused by mortar droppings, paint, etc by taping with removable tape, covering with temporary casings or by covering with motor oil

N.4.1 Anodizing of aluminium

Aluminium described as "anodized" shall be treated with Grade 25 coating thickness for exterior use or Grade 15 for interior use as specified, to the required finish. All alloys to be anodized shall be suited to anodizing

N.5 BOLTS AND NUTS

Nuts shall be of at least the strength grade appropriate to the grade of bolt or other threaded element with which they are used

N.6 SCREWING OF METALWORK TO STEEL, WOOD, CONCRETE, ETC

Metalwork described as “screwed” to steel, wood, etc or “plugged” to brickwork, concrete, etc shall be fixed at not exceeding 500mm centres, with necessary holes, countersinking, threading, screws, set screws, self-tapping screws and fibre, plastic or metal plugs

N.7 BOLTING OF METALWORK

Where metalwork is described as “bolted” to steel, wood, brickwork, concrete, etc the bolts are measured elsewhere

N.8 WELDING OF METALWORK

All welds shall be cleaned and filed or ground off smooth to approval. All welded joints shall be continuous

N.9 METALWORK GENERALLY

Metalwork shall have all sharp edges ground smooth. Tubular and pipe work shall include running joints. Rails etc described as “continuous” shall be in long lengths with welded joints

N.10 PRESSED STEEL DOORS, FRAMES, ETC

N.10.1 Door frames

Frames shall project not less than 20mm into floor finish. Except where described as galvanized, frames shall be primed as specified before leaving the factory. Frames are to jambs and heads of openings. Frames for single doors shall be provided with two 100mm steel butt hinges and an adjustable striking plate for a mortice lock and frames for double doors shall be provided with four 100mm steel butt hinges. Butt hinges shall be steel butts with loose pins, welded to frames. Where necessary mortar caps shall be welded to frames and back plates shall be welded on behind tappings for screws

N.10.2 Cupboard door frames

Cupboard door frames shall be as described in N.10.1, but with thresholds of unequal channel section, two 100mm steel butt hinges to hanging stiles, two 75mm steel butt hinges to hanging stiles above transoms, necessary striking plates for mortice locks and keeps for barrel bolts

N.10.3 Combination doors and frames

Combination doors and frames shall be manufactured of 1,6mm thick steel plate. Frames shall be as described in N.10.1. Doors shall be standard design and required profile, with a 44mm wide edge all round, vertical reinforcing ribs pressed in and with two reinforcing rails welded on. The door shall be provided with two lever mortice lock with lock box welded to inside. Doors shall be welded to steel butts

N.10.4 Transformer room doors and frames

Transformer room doors and frames shall be manufactured of 1,6mm thick steel plate. Frames shall be as described in N.10.1. Doors shall be of standard design with a 44mm wide edge all round, vertical reinforcing ribs pressed in and with three reinforcing rails welded on. Single doors shall be fitted with a padlock cleat and two 100mm brass pintle hinges and double doors shall be fitted with a padlock cleat, two 150mm bolts and four 100mm brass pintle hinges. Each leaf shall be fitted with a louvered ventilation panel of standard design backed with 6mm mesh galvanized wire vermin proof screen

N.10.5 Sizes

The frame widths given refer to unfinished wall thicknesses

N.10.6 Glazing beads

Where specified, glazing beads shall be 12 x 12mm standard metal glazing beads mitred at angles and countersunk screwed on at not exceeding 300mm centres with self-tapping screws

N.11 STEEL WINDOWS, DOORS, ETC

N.11.1 Windows, doors, etc

All fittings to windows, doors, etc shall be chromium plated. Fixed lights and opening sashes shall be in single squares. Windows etc of single unit construction shall have weather bars at transoms above opening sashes

Composite windows not of single piece construction shall be coupled with standard coupling mullions and transoms that correspond with the window section used

Kicking plates and panels shall be 1,6mm metal plate fixed with standard metal glazing beads mitred at angles and countersunk screwed on at not exceeding 300mm centres with self-tapping screws

Except where described as galvanized, windows, doors, burglar bars, etc shall be primed as specified before leaving the factory

N.11.2 Burglar bars and flyscreens

Where windows are described as fitted with burglar bars or flyscreens, these shall be standard type fitted over opening sashes

N.12 ADJUSTABLE LOUVRE UNITS

Adjustable louvre units shall be suitable for hand or long arm operation

Louvre units shall include glass louvres with polished edges and installation, including holes, screws, rivets, preparation of openings, etc

N.13 ALUMINIUM WINDOWS AND DOORS

The foregoing preambles "N.4 – ALUMINIUM" shall apply to aluminium windows, doors, etc in all respects in so far as they are applicable. Aluminium windows and doors shall be manufactured from extruded aluminium members of 6063T6, 6261-T6 or 6082-T6 alloy and temper

Ancillary members such as sills, flashings, infill panels and the like formed from flat sheet material shall be of an appropriate alloy selected from 1200, 3004 or 5251 complying with BS 1470 of a temper suitable for the method of forming and a composition suitable for anodizing or painting as required

Windows, doors, etc shall be of an approved standard system, manufactured by an approved firm experienced in this type of work, and shall meet with the minimum recommended performance requirements as set out by the Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA) in the latest edition of the Selection Guide

The fittings for all opening sashes shall be substantial and, unless otherwise described, shall be of high quality aluminium alloy finished to match the windows, doors, etc on which they occur. Samples of all fittings shall be supplied to the Principal Agent for approval

Top, side and bottom hung opening sashes shall be hung on two aluminium hinges with 300 Series stainless steel pins, nylon bushes and stainless steel washers. Side hung sashes shall have fasteners and sliding stays, top hung sashes shall have peg stays and bottom hung sashes shall have spring catches and concealed arms

Projected out sashes shall have aluminium fasteners and concealed arms of a non-corrosive material compatible with aluminium

The frames which are to be built into openings in brickwork shall be fitted with the manufacturer's standard type fixing lugs, not less than 20 x 3 x 150mm long, screwed to frame and placed one near each corner and intermediately not more than 450mm apart to sides, top and bottom and where fixed to concrete reveals, wood sub-frames or to preformed openings in brickwork shall have countersunk holes for screws, one near each corner and intermediately not more than 450mm apart to sides, top and bottom

N.13.1 Glazing beads

Where so described, openings and sashes of windows and doors shall be fitted with approved channel section aluminium glazing beads sufficient in size and profile to suit the method of glazing employed, finished to match the windows, doors, etc and neatly mitred. Screws where necessary shall be of aluminium or 300 Series stainless steel and have pan or raised heads finished to match the beads

N.13.2 Finishes

Windows, doors, etc described as “anodized” shall be treated with Grade 25 coating thickness. Windows, doors, etc described as “factory painted” shall have an electrostatically applied oven baked polyester paint coating not less than 25 micrometres thick

N.13.3 General

Aluminium windows, doors, etc shall include glass as described, fixing in position, sealing and protection against damage, deterioration or discolouration by taping with removable tape or covering with temporary casings or motor oil and removing same on completion

N.14 STRONGROOM AND RECORD ROOM DOORS

Strongroom and record room doors shall not be built in as the work proceeds, but shall be fixed later in the openings provided. The Contractor shall ensure that the lock or other important parts of the door are not tampered with. Should any such tampering occur, the Contractor will be held responsible and at the Principal Agent's discretion shall provide a new door or lock and keys at his own expense. The keys shall not be delivered together with the doors to the building site. The Contractor shall arrange for the manufacturer to send the keys direct to the Principal Agent per registered post. If these instructions are not complied with, a new lock and keys shall be provided by the Contractor at his own expense

N.15 STEEL ROLLER SHUTTERS

Roller shutters shall be of approved manufacture comprising curtain, vertical channel guides and top mechanism. The curtain shall be constructed of 1mm thick machine-rolled galvanized interlocking slats with mildsteel end locks spot welded to alternate strips. The bottom shall be provided with a galvanized rail riveted on and vertical edges shall slide in galvanized channel guides formed of steel not less than 2,5mm thick bolted to sides of openings

The mechanism shall be covered in a galvanized sheet iron box. The ungalvanized sections shall be primed as specified before leaving the factory

O. PLASTERING

O.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Common cement	SANS 50197-1(Class 32,5N)
Masonry cement	SANS 50413-1(Class 225X)
Limes for use in building	SANS 523 {Slaked (hydrated) limes}
Aggregates from natural sources – Fine aggregates for plaster and mortar	SANS 1090

O.2 PREPARATORY WORK

Surfaces shall be clean and free of oil and thoroughly wetted directly before any plastering or other in situ finishes are commenced. Concrete surfaces shall be slushed with a mixture of one part cement and one part coarse sand or otherwise treated to form a proper key. Preparatory coats shall be thoroughly scored and roughened to form a proper key

O.3 FINISH

All coats of paving and plastering shall be executed in one operation without any blemishes

O.4 SCREEDS

Screeds shall be composed of one part cement and four parts sand

O.5 CEMENT RENDER

Cement render shall be composed of one part cement and three parts sand finished with a steel trowel to a smooth polished surface and cured for at least seven days after laying

Cement render finish shall be divided into panels not exceeding 6m² with V-joints and deep trowel cuts

O.6 GRANOLITHIC

Granolithic shall be composed of one part cement, one part fine sand, two parts coarse sand and one part granite or other approved stone aggregate that will pass through a 5mm sieve, finished with a steel trowel to a smooth polished surface and cured for at least seven days after laying

Coloured granolithic shall be carried out in two coats in one operation and shall be tinted to the required colour with approved colouring pigment mixed into the finishing coat. Under no circumstances is the pigment to be sprinkled on and trowelled in after the granolithic is laid

Granolithic shall be divided into panels not exceeding 6m² with V-joints and deep trowel cuts

O.7 TERRAZZO

Terrazzo shall be applied in two coats. The undercoat shall be composed of one part cement and three parts sand and shall be finished with a wooden float. The finishing coat shall be composed of one part cement and two parts marble or stone aggregate of a colour and size to obtain the required colour and texture and shall be at least 12mm thick, and applied before the undercoat has dried out. The finishing coat shall be compacted by tamping or rolling until superfluous water has been expelled, finished with a steel trowel and cured for at least seven days after laying. The finished surface shall show at least 80% of the aggregate

Surfaces described as “polished” shall be polished by machine using various grades of abrasive and grouting with tinted cement as necessary between polishings

Surfaces described as “polished” shall be polished by machine using various grades of abrasive and grouting with tinted cement as necessary between polishings

Surfaces described as “brushed” shall be brushed with a steel wire brush on the day the terrazzo has been laid to expose the aggregate as required

Where required, brass or other dividing strips shall be embedded in the undercoat to finish flush with the finished surface

Three sample blocks, each size 300 x 300mm, as separately measured shall be prepared for approval by the Principal Agent and kept in an accessible place on the site until the completion of the contract

O.8 SKIRTINGS

Skirtings shall not exceed 25mm thick and shall have a fair edge with arris or rounded external angle at top edge or V-joint to finish flush with plaster and coved or square junction with floor finish

O.9 THICKNESS OF PLASTER

All plaster, other than skim plaster, shall be not less than 10mm and not more than 20mm thick

O.10 CEMENT PLASTER

Cement plaster shall comply with the following table:

1	2	3
Plaster Class	Cement:sand (common cement)	Cement:sand (masonry cement)
I	1:4 or 50kg to 130 litres	1:3 or 50kg to 100 litres
II	1:6 or 50kg to 200 litres	1:5 or 50kg to 170 litres
III	1:9 or 50kg to 300 litres	1:6 or 50kg to 200 litres

O.11 COMPO PLASTER

Compo plaster shall be composed of one part cement, two parts lime and nine parts sand

O.12 GYPSUM SKIM PLASTER

Gypsum skim plaster shall be pure gypsum plaster finished with a steel trowel

O.13 TWO COAT PLASTER WITH GYPSUM FINISH

Two coat plaster with gypsum finish shall comprise an undercoat of Class II cement plaster finished with a wooden float and a finishing coat of gypsum skim plaster

O.14 ROUGH-CAST PLASTER

Rough-cast plaster shall be applied in two coats. The undercoat shall be composed of one part cement and five parts sand finished with a wooden float. The finishing coat shall be composed of one part cement and three parts stone aggregate that will pass through a 4mm sieve. The finishing coat shall be flicked on with a machine before the undercoat has set to obtain an even texture

O.15 FINE ROUGH-CAST PLASTER

Fine rough-cast plaster shall be as for rough-cast plaster but the finishing coat shall be composed of one part cement and three parts coarse sand

O.16 GENERAL

Rates for plastering described as being on vertical surfaces of brickwork or blockwork shall include concrete columns, beams and lintels flush with the face of the wall

P. TILING

P.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Glazed ceramic wall tiles and fittings	SANS 22
Ceramic wall and floor tiles	SANS 1449
Common cement	SANS 50197-1(Class 32,5N)
Masonry cement	SANS 50413-1(Class 22,5X)
Aggregates from natural sources – Fine aggregates for plaster and mortar	SANS 1090
The design and installation of ceramic tiling	SANS 10107

P.2 TILES, MOSAICS, ETC

Tiles, mosaics, etc shall be even in shape and size, free from cracks, twists or blemishes and uniform in colour

P.3 PREPARATORY WORK

Surfaces shall be clean and free of oil and thoroughly wetted directly before any tiling is commenced. Concrete surfaces shall be slushed with a mixture of one part cement and one part coarse sand or otherwise treated to form a proper key

P.4 CERAMIC WALL AND FLOOR TILING

Where tiles are fixed to plaster or screeds with an adhesive, the adhesive shall be as recommended by the manufacturer of the tiles. Joints shall be straight, continuous and flush pointed with an approved grouting compound

P.5 GENERAL

Tiling described as “on walls” is on brick walls or block walls unless otherwise stated and shall include concrete columns, beams and lintels flush with the face of the wall

Q. PLUMBING AND DRAINAGE

Q.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Sheet metal

Sheet zinc	BS 849
Sheet aluminium	BS 1470
Sheet copper	BS 2870

Rainwater systems

Unplasticized poly(vinyl chloride) (PVC-U) components for external rainwater systems	SANS 11
--	---------

Pipes and fittings

Steel pipes : Pipes suitable for threading and of nominal size not exceeding 150mm	SANS 62
Plain-ended solid drawn copper tubes for Potable water	SANS 460
Malleable cast iron fittings threaded to ISO 7-1	SANS 4
Polyethylene (PE) pipes for water supply – Specifications	SANS 4427
Cast iron fittings for asbestos cement pressure pipes	SANS 546
Vitrified clay sewer pipes and fittings	SANS 559
Reinforced concrete pressure pipes	SANS 676
Concrete non-pressure pipes	SANS 677
Cast iron pipes and pipe fittings for use above ground in drainage installations	SANS 746
Unplasticized poly(vinyl chloride) (PVC-U) sewer and drain pipes and pipe fittings	SANS 791
Fibre-cement pipes, couplings and fittings for sewerage, drainage and low-pressure irrigation	SANS 819
Pitch-impregnated fibre pipes and fittings and jointing	SANS 921
Unplasticized poly (vinyl chloride) (PVC-U) pressure pipe systems	SANS 966-1
Unplasticized poly(vinyl chloride) (PVC-U) soil, waste and vent pipes and pipe fittings	SANS 967
Rubber joint rings (non-cellular)	SANS 974-1
Copper-based fittings for copper tubes	SANS 1067-1&2
Fibre-cement pressure pipes and couplings	SANS 1223
Polypropylene pressure pipes	SANS 1315
Non-metallic waste traps	SANS 1321-1&2
Vent valves for drainage installations	SANS 1532

Heavy duty cast iron pipe fittings for drainage
and gas and water supplies

BS 78

Lead pipes	BS 602
Cast iron pressure pipes for use in drainage and gas and water supplies	BS 1211
Stainless steel pipes for use with compression fittings	BS 4127
Sanitary fittings etc	
Stainless steel sinks with draining boards (for domestic use)	SANS 242
Stainless steel wash-hand basins and wash troughs	SANS 906
Stainless steel sinks for institutional use	SANS 907
Stainless steel stall urinals	SANS 924
Acrylic sanitary ware : Baths	SANS 1402-1
Glazed ceramic sanitary ware	SANS 497
WC flushing cisterns	SANS 821
Flush valves for WC flushing cisterns	SANS 1509
Taps, valves etc	
Water taps (metallic bodies)	SANS 226
Water taps (plastic bodies)	SANS 1021
Single control mixer taps	SANS 1480
Float valves	SANS 752
Plastic floats for ball valves	SANS 1006
Functional control valves and safety valves for Domestic hot and cold water supply systems	SANS 198
Cast iron gate valves for waterworks	SANS 664
Automatic shut-off flush valves for water closets and urinals	SANS 1240
Check valves (flanged and wafer types)	SANS 1551-1&2
Fire extinguishers	
Portable refillable fire extinguishers	SANS 1910
Portable rechargeable fire extinguishers : Halogenated hydrocarbon type extinguishers	SANS 1151
Water heaters and fire hose reels	
Fixed electric storage water heaters	SANS 151
Fire hose reels (with semi-rigid hose)	SANS 543
Drainage covers, gratings, etc	
Cast iron surface boxes and manhole and inspection covers and frames	SANS 558
Cast iron gratings for gullies and stormwater drains	SANS 1115
The installation of polyethylene and poly (vinyl chloride) (PVC-U and PVC-M) pipes	SANS 10112

Q.2 GENERAL**Q.2.1 Excavations**

Excavations shall be deemed to be in "earth". Backfilling to excavations shall be executed in 300mm thick layers, watered and compacted. Surplus excavated material shall be spread and levelled over site as directed

Q.2.2 Concrete

Unreinforced concrete shall be Class B prescribed mix concrete and reinforced and precast concrete shall be Class C prescribed mix concrete

Q.2.3 Brickwork

Brickwork shall be of extra hard burnt bricks built in Class I mortar

Q.2.4 Plaster

Plaster shall be 1:3 cement plaster finished smooth with a steel trowel. All angles shall be rounded

Q.2.5 Diameters of pipes etc

Diameters stated for pipes, traps, valves, etc are internal diameters except PVC, polyethylene, stainless steel and copper pipes and traps for which external diameters are stated

Q.3 SHEET METAL WORK**Q.3.1 Galvanized sheet iron**

Galvanized sheet iron shall be rolled steel sheet coated on both sides with Class Z275, unless otherwise specified, zinc coating complying with SANS 3575/4998. Sheets shall be free from white rust

Q.4 EAVES GUTTERS**Q.4.1 Galvanized sheet iron gutters**

Galvanized sheet iron gutters shall have beaded edges and all joints shall be riveted and soldered. Angles shall be strengthened with 50 x 0,6mm galvanized sheet iron strips soldered on over the internal faces of mitres

Gutters shall be fixed with falls to outlets on 30 x 3mm galvanized mild steel brackets, bent to the shape of gutters, with front ends taken up to the underside of beaded edge of gutter and each screwed to roof timbers or bolted to fibre-cement fascias with 6mm galvanized gutter bolts. Gutters shall be bolted to brackets at front with 6mm galvanized gutter bolts, one to each bracket

Brackets shall be positioned at joints of gutters and intermediately at not exceeding 1,25m centres

Q.4.2 Fibre-cement gutters

Fibre-cement gutters shall have spigot and socket joints. Gutters shall be fixed with falls to outlets on standard aluminium alloy brackets, screwed or bolted to roof timbers or fascias

Q.4.3 Unplasticized polyvinyl chloride (UPVC) gutters

Gutters shall be fixed with falls to outlets on brackets as supplied by the manufacturer, screwed or bolted to roof timbers or fascias

Q.4.4 Aluminium gutters

Aluminium gutters shall be roll formed on site to required lengths and profiles from 3003H14-3SH4 alloy strip not less than 0,7mm thick factory coated on both sides with baked enamel and two coats of silicone modified polyester to a total minimum thickness of 20 micrometres. Angles, stopped ends, etc shall be prefabricated units pop riveted to gutters with joints sealed with mastic. The guttering shall be in continuous lengths between angles, stopped ends, etc

Q.5 RAINWATER PIPES

Q.5.1 Galvanized sheet iron pipes

Galvanized sheet iron pipes shall have seams at the back and shall be jointed with soldered slip joints. Pipes shall be fixed to walls etc with galvanized mild steel holderbats spaced at not exceeding 2m centres with tails driven in or cut and pinned in 1:3 cement mortar

Q.5.2 Fibre-cement pipes

Fibre-cement pipes shall have spigot and socket joints. Pipes shall be fixed to walls etc with standard aluminium alloy holderbats with tails driven in or cut and pinned in 1:3 cement mortar

Q.5.3 Unplasticized polyvinyl chloride (UPVC) pipes

Pipes shall be fixed to walls etc with patented UPVC or aluminium clips and holderbats as supplied by the manufacturer of the pipe

Q.5.4 Aluminium pipes

Aluminium pipes and fixing straps shall be formed from 3003H14-3SH4 alloy strip not less than 0,7mm thick factory coated on both sides as described for aluminium gutters. Pipes shall be in continuous lengths with formed angles, offsets, shoes, etc. Pipes shall be fixed to walls etc with 20 x 0,6mm straps at not exceeding 1,5m centres screwed to 25 x 75 x 100mm hardwood chamfered and oiled blocks plugged to walls

Q.6 STORMWATER CHANNELS

In-situ concrete stormwater channels shall be constructed of unreinforced concrete with segmental channel formed in top. Channels shall be laid to falls on a well rammed earth bottom and finished smooth on exposed surfaces

Precast concrete channels shall be of 25 MPa concrete, generally in 1m lengths, finished smooth from the mould on exposed surfaces, laid to falls on a well rammed earth bottom, jointed in 1:3 cement mortar and pointed with keyed joints

JOINTS

Joints of pipes not covered by SANS shall be as follows:

Pipes

Fibre-cement, concrete, pitch-impregnated fibre and vitrified clay pipes for use under ground in non-pressure pipe lines

Cast iron for use above ground

Cast iron for use below ground

Galvanized mild steel

Joints between pipes of different materials shall be as follows:

Between cast iron and mild steel

Between cast iron and clay

Between mild steel or copper and clay

Joints

Flexible joints in accordance with the manufacturer's instructions

Spigot and socket joints with tarred rope yarn and caulking compound

or

Plain ended joints with stainless steel couplings with neoprene rubber sleeves

Spigot and socket joints with tarred rope yarn and caulking compound

Joints of screwed galvanized steel sockets or bolted galvanized iron flanges

Screwed joints with plastic jointing tape or hemp

Flanged joints which shall be bolted and provided with rubber gaskets and with flanges screwed to pipes

Spigot and socket joints with tarred rope yarn and caulking compound

Spigot and socket joint with semi-dry cement caulking and 1:2 cement mortar fillet

Spigot and socket joint with either bitumen or semi-dry cement caulking and 1:2 cement mortar fillet

Q.7 FIXING OF PIPES

Pipes shall be fixed as follows:

Q.8.1 Galvanized mild steel (except those stated in
Q.8.3)

To walls with galvanized mild steel brackets for pipes not exceeding 80mm diameter and with galvanized cast iron hinged holderbats with brass pins or bolts for pipes exceeding 80mm diameter; both types with tails cut and pinned in 1:3 cement mortar

Q.8.2 Copper and stainless steel

To woodwork with screw-on type galvanized mild steel holderbats
To walls with brass holderbats or screw-on type two-piece spacing clips for pipes not exceeding 75mm diameter and with purpose made holderbats for pipes exceeding 75mm diameter; both types with tails cut and pinned in 1:3 cement mortar

Q.8.3 Cast iron and galvanized mild steel for soil, waste
and vent pipes

To woodwork with screw-on type brass holderbats

To walls with hinged cast iron holderbats with brass bolts and with tails cut and pinned in 1:3 cement mortar

To woodwork with screw-on type galvanized mild steel holderbats

Q.8.4 Polyethylene, polypropylene and patented UPVC
or unplasticized polyvinyl chloride

To walls, woodwork, etc with aluminium clips and holderbats as supplied by the manufacturer of the pipes

Q.8.5

Fibre-cement

To walls with aluminium alloy holderbats with tails cut and pinned in 1:3 cement mortar

Q.8 PIPES LAID IN GROUND**Q.8.1 Water pipes etc**

Water pipes, gas pipes, etc laid in ground shall be at least 400mm deep from the crown of the pipe to the finished surface

Q92 Drain pipes

Excavations taken out too deep shall be filled in with selected soil and compacted. Backfilling to sides and up to 300mm above plastic pipes shall be free from stone or hard substances which will not pass a 10mm mesh

Q.9 CLEANING EYE LIDS

Cleaning eye lids for drain pipe fittings shall be fixed and sealed as follows:

Pipe fittings	Method of sealing and fixing
Fibre-cement	Sealed with synthetic rubber or bituminousmastic packing and fixed with screws
Vitrified clay	Polypropylene lid sealed with synthetic rubberpacking and pressed into position
Polypropylene and unplasticized polyvinyl chloride	Sealed with synthetic rubber packing andscrewed on or pressed into position
Cast iron	Sealed with tallow or putty and fixed with non-ferrous metal screws
Galvanized malleable cast iron and cast brass	Sealed with synthetic rubber packing andscrewed in

Q.10 CLEANING EYES

Cleaning eyes shall consist of cast iron frames and lids with letters "CE" (or "SO") cast in lids. The lids shall be secured with non-ferrous metal screws. Frames shall be jointed to vertical drain pipes. Cleaning eyes shall be encased in unreinforced concrete taken up to ground level and plastered on exposed surfaces

Q.11 INSPECTION EYE MARKER SLABS

Inspection eye marker slabs shall be 350 x 350 x 50mm thick precast concrete finished smooth from the mould, with letters "IE" (or "IO") formed in top and placed flush in ground or paving

Q.12 GULLEYS

Gulleys shall be built up of traps, vertical piping and gulley heads with loose gratings, all encased in unreinforced concrete to finish flush with gulley head top and taken up to at least 50mm above surrounding finished surfaces. The outer top edge of the concrete encasing shall be splayed and the exposed surfaces plastered

Q.13 DISHED GULLEYS

Dished gulleys shall be built up of traps, vertical piping and gulley heads with loose gratings, all encased in unreinforced concrete and with dished unreinforced concrete hopper size 450 x 450mm overall around gulley head with rounded kerb 50mm wide to front and sides and 25mm wide at back, 100mm high above top of dishing and the hopper plastered on exposed surfaces. Top of hopper shall be taken up to at least 50mm above surrounding finished surfaces

Q.14 SUMPS, CATCHPITS, INSPECTION CHAMBERS, ETC

Q.14.1 Rainwater sumps

Rainwater sumps shall be built with half-brick sides on 100mm thick unreinforced concrete bottom, plastered internally on walls and with 80mm high unreinforced concrete kerb at top rebated for grating or cover and plastered on exposed surfaces

Q.14.2 Stormwater catchpits and inspection chambers

Brick catchpits and inspection chambers shall be built with one-brick sides on 150mm thick unreinforced concrete bottom projecting 100mm beyond walls all round, plastered internally on walls and with 100mm thick reinforced concrete cover slab with opening rebated for frame of grating or cover and plastered on exposed surfaces

Precast concrete catchpits and inspection chambers shall be constructed in accordance with the applicable details shown on Drawing LE-1 of SANS 1200LE. Precast concrete manhole sections and slabs shall comply with SANS 1294 and pipes shall be SC type and in accordance with SANS 677

Q.14.3 Sewer inspection chambers

Brick inspection chambers shall be built as for brick stormwater inspection chambers and with the bottom of the chamber well benched around half round channels, bends, junctions, etc up to sides of chamber in unreinforced concrete finished smooth

Precast concrete inspection chambers shall be constructed in accordance with the applicable details shown on Drawing LD-5 of SANS 1200LD. Precast concrete manhole sections and slabs shall comply with SANS 1294 and the pipes shall be SC type in accordance with SANS 677

Q.14.4 Stormwater drain junction boxes

Junction boxes shall be formed of 150mm thick unreinforced concrete bottom and sides to suit the various sizes of the drain pipes and built after the pipes have been laid, with the sides taken up slightly higher than the highest pipe and finished level on top for and covered with a 75mm thick loose precast concrete slab

Q.14.5 Step irons

Where inspection chambers exceed 1,2m deep, cast iron step irons shall be provided, built into the wall at 300mm centres and staggered regularly in vertical rows spaced at 200mm centres horizontally

Q.15 STOPCOCK AND METER BOXES

Stopcock and meter boxes shall be built with half-brick sides with a cast iron box and lid complying with SANS 558 set in 75mm wide unreinforced concrete kerb for the full depth of the cast iron box and plastered on exposed surfaces

Q.16 VALVE CHAMBERS

Valve chambers shall be built with half-brick sides with 100mm thick unreinforced concrete kerb to top with rebate for cover and frame to finish flush with adjacent paving or finished ground level and plastered on exposed surfaces

Q.17 CAST IRON COVERS, GRATINGS, ETC

All cast iron covers, gratings, frames and surface boxes shall be coated with preservative solution. Frames shall be cast into concrete. Covers, except covers to stormwater drainage or electrical cable inspection chambers, shall be set in grease

Q.18 CONCRETE ENCASING

Concrete encasing for pipes, bends, traps, gulleys, grease traps, etc shall be unreinforced concrete not less than 100mm thick all round

Q.19 SANITARY FITTINGS

Q.19.1 General

Glazed ceramic, acrylic and porcelain enamelled sanitary fittings and component parts shall be white. Accessories for sanitary fittings shall be chromium plated brass

Waste outlets for baths, basins, etc shall comprise chromium plated brass waste union with grating, rubber washers and locknut, fitted with rubber or vulcanite plug on a chromium plated brass chain and stay

Q.19.2 Stainless steel sanitary fittings

Stainless steel sinks and draining boards, basins, wash troughs and urinals shall be AISI Type 304 satin finished stainless steel. All stainless steel fittings shall be treated on the back with a vermin proof sound deadening coating. Sinks, basins and wash troughs shall be provided with 40mm diameter screwed waste outlets

Q.19.3 Precast concrete wash troughs

Reinforced precast concrete wash troughs shall have a sloping front with ribbed rubbing surface and shall be finished smooth on exposed faces with top edges and inner angles rounded. Each compartment shall be fitted with a 40mm diameter waste outlet. Wash troughs shall each be supported on two reinforced precast concrete pedestals finished smooth on exposed faces

Q.19.4 Steel baths

Steel baths shall be porcelain enamelled internally and painted externally and fitted with waste outlet and overflow grating with coupling

Q.19.5 Acrylic resinous baths

Acrylic resinous baths shall be fitted with waste outlet and overflow grating with coupling

Q.19.6 Acrylic resinous wash hand basins

Acrylic resinous wash hand basins and vanity units shall have a smooth high gloss finish, with outlet openings, soap recesses, tap-holes and integral overflow and shall be fitted with waste outlet and overflow grating with coupling

Q.19.7 Glazed ceramic sanitary fittings

Sinks shall be provided with integral weir overflows

Washdown closet pans shall have washdown action and be provided with smooth finished injection moulded polypropylene heavy duty double flap seats fixed with non-ferrous bolts. Urinal channels shall be provided with outlet gratings fitted in bitumen

Q.19.8 Flush and sparge pipes

Flush pipes for high level cisterns shall be of plastic or drawn galvanized steel Flush pipes for low

level cisterns shall be of plastic

Flush and sparge pipes for urinals with high level cisterns shall be of chromium plated copper piping and of the sizes recommended by the manufacturer of the urinal

Q.20 INSTALLATION OF SANITARY FITTINGS

Sanitary fittings shall be installed as follows:

Q.20.1 Precast concrete wash troughs

Precast concrete wash troughs shall be bedded on top of pedestals which shall be bedded on floors in 1:3 cement mortar

Q.20.2 Stainless steel wash troughs and wash hand basins

Stainless steel wash troughs and wash hand basins shall be fixed to walls on a pair of galvanized mild steel gallow brackets bolted to wall with 6mm diameter expanding bolts

Q.20.3 Acrylic resinous wash hand basins

Acrylic resinous wash hand basins shall be fixed to walls on a pair of standard painted cast iron brackets screwed to underside of basin and bolted to wall with 6mm diameter expanding bolts

Q.20.4 Ceramic wash hand basins

Ceramic wash hand basins shall be fixed to walls on a pair of standard painted steel or cast iron brackets bolted to wall with 6mm diameter expanding bolts

Q.20.5 Acrylic resinous baths

Acrylic resinous baths shall be bedded in 1:5 cement mortar on three cross rows of bricks or bedded solid on a layer of dry river sand and fixed to wall with galvanized steel brackets under edges (in the middle of the sides against walls) bolted to wall with 6mm diameter expanding bolts and sealed along top against wall finishes with patent mildew resistant silicone rubber

Q.20.6 Washdown closet pans and cisterns

Washdown closet pans shall be bedded on floors in 1:3 cement mortar. Cisterns shall be fixed to walls with 6mm diameter expanding bolts

Q.20.7 Ceramic urinals

Ceramic stall and slab urinals shall be bedded on floors and against walls in 1:3 cement mortar. Slabs, channels, treads, etc shall be jointed in 1:3 cement mortar and pointed in white cement

Ceramic bowl urinals shall be fixed to walls on standard steel brackets bolted to wall with 6mm diameter expanding bolts. Cisterns shall be fixed to walls on standard brackets bolted to wall with 6mm diameter expanding bolts

Q.20.8 Stainless steel urinals

Stainless steel stall and slab urinals shall be bedded on floors in 1:3 cement mortar and with backs and sides against walls filled in with fine unreinforced concrete. Cisterns shall be fixed as cisterns for ceramic urinals

Q.21 FIRE HOSE REELS

Fire hose reels shall each be fitted with a 30m long hose of internal diameter not less than 19mm with a 4,8mm internal diameter chromium plated brass nozzle

Q.22 FIRE EXTINGUISHERS

All fire extinguishers shall be fully charged

Q.23 TESTS

Sewerage pipe lines, sanitary plumbing including fittings and hot and cold water supply and fire service shall be tested to the approval of the Principal Agent and Local Authority

The Contractor shall provide all testing apparatus, material and labour required for the tests and inspections

R. GLAZING

R.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Glass in building	SANS 50572-1 to 5
Glazing putty for wooden and metal window frames	SANS 680
Silvered glass mirrors for general use	SANS 1236
Safety and security glazing materials for buildings	SANS 1263-1 to 3
Sealing compounds for the building industry, one Component, silicone-rubber based	SANS 1305
The installation of glazing materials in buildings	SANS 10137
Work on glass for glazing	SANS 1817

R.2 PUTTY ETC

Glazing putty shall be Type I for wooden sashes and Type II for steel sashes. Putty for glazing to unpainted hardwood shall be tinted to match the colour of the wood

Back putty shall not exceed 3mm thick. Putty shall not be painted until it has formed a surface crust, and if the putty does not form a surface crust it shall be replaced

Butyl putty shall be used where glass is to be fixed in aluminium sashes with glazing beads

Non-setting compounds shall be used where laminated glass is fixed in sashes with glazing beads

S. PAINTWORK

S.1 MATERIALS AND WORKMANSHIP

Materials and workmanship shall comply with the following standards:

Decorative paint for interior use	SANS 515
Decorative high gloss enamel paints	SANS 630
Primers for wood (for external work)	SANS 678
Primers for wood (for internal work)	SANS 678
Zinc phosphate primer for steel	SANS 1319
Undercoats for paints (except emulsion paint)	SANS 681
Aluminium paint	SANS 682
Varnish for interior use	SANS 887
Emulsion paints	SANS 1586

Materials for paintwork shall be delivered to the site in unopened containers and applied in accordance with the manufacturer's instructions. Materials shall be suitable for application to the surfaces concerned. Undercoats shall be as recommended by the manufacturer of the finishing coats

S.2 PREPARATORY WORK

S.2.1 Plastered surfaces etc

Plastered surfaces shall be thoroughly inspected and, if necessary, washed down and brushed in order to remove any traces of efflorescence and allowed to dry completely before any paint finish is applied. Before any paint is applied, holes, cracks and irregularities in plaster and other surfaces shall be filled with a suitable filler and finished smooth. Unfinished concrete surfaces shall have all projections rubbed off and shall be thoroughly cleaned with a spirits-of-salts solution (1 part concentrated spirits- of-salts to 4 parts water)

S.2.2 Metal surfaces

Metal surfaces shall be sanded, where necessary, washed with a suitable cleaning agent and left smooth

Protective coatings applied by manufacturers to galvanized metal surfaces shall be removed with a suitable agent and the surfaces washed down

Rust, grease and defective factory primers on metal surfaces, as well as pitch on cast iron pipes, shall be removed

S.2.3 Wood surfaces

Knots in woodwork shall be treated with knotting. Minor blemishes shall be filled with a suitable filler. Wood surfaces shall be sanded smooth

S.3 APPLICATION OF PAINT

Primers to wood surfaces shall be applied by brush. Primers to other surfaces may be applied by roller with the approval of the Principal Agent. Undercoats and finishing coats may be applied by brush or roller

Paint shall not be sprayed on except in the case of cellulose and other special paints where spray painting is the accepted method of application

Before subsequent coats of paint are applied the previous coat shall be properly dry and shall be sanded down where necessary

S.4 COLOUR SCHEME

A colour scheme comprising colours and the blending of colours approved by the Principal Agent shall be used for the paintwork. The tints of the undercoats shall closely match the finishing coat but nevertheless differ sufficiently to indicate the number of undercoats. Colour samples of the finishing coats shall be provided in all cases

S.5 GENERAL

Paintwork shall include the preparation of surfaces, filling, stopping, sanding and priming of nail heads and screws. Where windows, sashes, etc are to be painted, the rebates of the openings to be glazed shall be primed

T. PAPERHANGING

T.1 PREPARATORY WORK

Plaster surfaces to be papered shall be dry, thoroughly cleaned down, filled with a suitable filler as necessary to obtain a smooth surface and painted thereafter with a single coat of emulsion paint

Wood surfaces to be papered shall be knotted, stopped and sanded

T.2 PAPERHANGING

Wallpaper shall be hung in vertical long lengths. Vertical joints shall be close-fitted and plumb and the paper shall be tightly fitted to skirtings, ceilings, door frames, windows, etc. Horizontal joints will not be allowed

U. EXTERNAL WORKS

U.1 GENERAL

U.1.1 Excavations

Excavations shall be deemed to be in "earth"

U.2 LANDSCAPING

U.2.1 Topsoil

Topsoil shall vary between sandy loamy soil and sandy clayey soil with an ideal composition of 15% to 25% clay, 10% silt/sludge and 65% to 75% sand, with a minimum ratio of organic material of 2%. All material shall be free of harmful deposits as well as unwanted seeds

U.2.2 Compost

Compost shall be composed of properly decayed organic material, free from harmful deposits, salts, seeds and other waste material and shall have a pH of more than 4 and less than 7

U.2.3 Mulch

Mulch shall be approved organic material free from small particles of bark residue, fungus, disease, etc

U.2.4 Lime

Lime shall be agricultural lime of an approved manufacture

U.2.5 Fertilizer

Fertilizer shall be of the type specified, mixed thoroughly into the soil as prescribed. No fertilizer shall be added more than two weeks prior to planting

U.2.6 Backfilling

Backfilling in plant and tree holes shall be composed of two parts topsoil to one part compost mixed thoroughly together and compacted by foot in 100mm layers. Fertilizer shall only be added if pre-scribed

U.2.7 Pebbles

Pebbles shall be smooth with a uniform colour and form and ranging in size from 50mm to 75mm diameter. Removal of pebbles from river beds shall be done selectively to avoid any major disruption to the ecology of the river and environment

U.2.8 Plant material

U.2.8.1 General

All plant material (plants, shrubs, trees, etc) shall be obtained from a registered nursery and shall be free from damaged parts, parasites, fungus, other plant diseases or insects. No container-bound plants will be acceptable

U.2.8.2 Trees

The height of trees described in the bills of quantities shall be measured from the top of the root ball to the top of the tree. Where trees are pruned, such prune wounds shall not be more than 25mm in diameter and be sealed with an approved sealing compound

U.2.8.3 Shrubs and small plants

Shrubs and small plants shall meet the requirements for height and spread as specified. Thin or sparsely branched plants shall not be accepted. Branches shall be well spread with ample young branches and the plant as a whole shall be growing well

U.2.8.4 Groundcover

Groundcover shall be dense and healthy and shall comply with the minimum requirements for leaf density as specified

Formal grass shall be planted as runners in 50mm deep drills at 150mm centres unless otherwise described

U.2.9 Cultivation and preparation of planting areas etc

All surface rocks and stones larger than 50mm shall be removed before commencing cultivation and preparation. The entire area shall be ripped and rotavated using approved machinery by breaking up the earth to a depth of 300mm at 600mm centres in both directions, unless otherwise described, and then levelled. Where fertilizer or compost is specified, it shall be worked into the topsoil after ripping and rotavation to a depth of 300mm and finished to final levels

All fertilizer to areas to be grassed shall be strewn on the final layer before final finishing is commenced and worked mechanically into the top 150mm soil

U.2.10 Planting procedure

Holes for shrubs and groundcover shall be as follows:

Shrubs – 500 x 500 x 500mm deep

Groundcover – 300 x 300 x 300mm deep (if not planted in drills)

Holes for trees shall be square, of adequate size to accommodate the root system and suitable for the height of the tree

All plant material shall be watered thoroughly before careful removal from the container and planted in the prescribed planting medium with the top of the soil in the container finishing level with the surrounding area. Water dams size 800mm diameter x 150mm deep and 500mm diameter x 150mm deep shall be formed around trees and shrubs respectively and all planting material shall be watered immediately after planting. Trees, shrubs, etc shall be properly staked or stayed, depending on their size, on the prevailing windy side with patent tree ties

U.2.11 Maintenance

All planted areas shall be maintained for a period of three months after practical completion as defined in the contract with the exception of hydroseeded areas which shall be maintained for 12 months after an acceptable cover has been obtained

This maintenance shall consist of keeping clear of weeds and litter, loosening soil where necessary every two weeks, replacing damaged, diseased or dead plants, pruning, cutting and mowing as necessary and watering so as to keep the plant material in a healthy growing condition

U.3 ROADWORK

U.3.1 Filling

Filling under roads etc shall be of inert material having a maximum plasticity index of 10, free from large stones etc spread, levelled, watered and compacted in layers not exceeding 200mm thick to a density of 98% Mod AASHTO

U.3.2 Preparation of sub-grade

The sub-grade shall be prepared by scarifying for a depth of 150mm and compacting to a density of 98% Mod. AASHTO, including trimming to the correct levels and grades

U.3.3 Base course

The base course shall consist of crusher run stone compacted to a density of 98% Mod. AASHTO and finished to the correct levels and grades

U.3.4 Weed killer

The completed sub-grade shall be treated with an approved total weed killer

U.3.5 Bituminous premix road surfacing

Before spreading the premix material, the base course shall be swept clean and free from all dust, dirt and loose particles, lightly wetted and sprayed with a prime coat of cutback bitumen complying with SANS 308 at the rate of 1 litre/m²

The material shall consist of semi-gap graded crushed stone aggregate having the following grading:

Sieve size (mm)	% By mass passing sieve
13,2	100
4,75	45-60
2,36	42-55
1,18	40-52
0,3	25-45
0,075	5-12

The aggregate shall be mixed with bituminous road tar binder complying with SANS 748 at the rate of 1m³ of stone to 120 litre of emulsion at atmospheric temperature

The binder shall be added to the stone and mixed until the stone is uniformly coated. Thereafter 5% of clean, dry quartzitic sand shall be added and mixed until evenly distributed through the mixture

The premix shall be applied only after the primer has dried out completely and shall be spread immediately after mixing and rolled on the same day

Spreading shall be done evenly over the prepared base course to a loose depth sufficient to ensure the consolidated thickness specified

Rolling shall commence as soon as the binder has set sufficiently, followed after three days by a final rolling

U.3.6 Precast concrete block road surfacing

Paving blocks shall be precast concrete blocks complying with SANS 1058

Blocks shall be laid to true levels and grades on and including a 25mm thick layer of river sand with joints exceeding 2mm and not exceeding 6mm wide

After laying, the paving shall be compacted by means of a vibrating plate compactor, with joints between the blocks filled in, after compaction, by sweeping in fine sand

Infill areas at edges of paving constituting less than 25% of a full block unit and of 25mm minimum dimension shall be filled with Class C prescribed mix unreinforced concrete with top surface trowelled smooth to match blocks. Smaller areas shall be filled with 1:4 cement mortar

U.3.7 Precast concrete kerbs and channels

Precast concrete kerbs and channels shall comply with SANS 927, generally in 1m lengths and finished smooth from the mould on exposed surfaces. Kerbs and channels shall be bedded on and jointed in 1:3 cement mortar and pointed with keyed joints. Bases to kerbs shall be Class B prescribed mix unreinforced concrete

U.3.8 Process control tests

The Contractor shall be responsible for carrying out all necessary process control tests on the density and moisture content of the compacted sub-grade, base course, etc to ensure that the required compaction is being attained

U.4 FENCING ETC

U.4.1 Materials

Materials and workmanship shall comply with the following specifications and requirements :

Wooden poles, droppers, guardrail posts and spacer blocks	SANS 457-2&3
Zinc-coated fencing wire	SANS 675
Prefabricated concrete components for fencing	SANS 1372
Chain-link fencing and its wire accessories	SANS 1373

Fasteners	SANS 1700
Anti-intruder fences	CKS 451
Metal droppers and standards	CKS 451

U.4.2 Galvanized wire

All galvanized wire shall be zinc coated wire with Class B zinc coating. Straining wire shall be 4mm diameter galvanized mild steel wire. Tie wire shall be 1,6mm diameter galvanized mild steel wire

U.4.3 Plastic coated wire

Plastic coated straining wire shall be 3,15mm diameter Class C galvanized mild steel wire plastic coated to an overall diameter of 3,95mm

Plastic coated tie wire shall be 1,8mm diameter Class C galvanized mild steel wire plastic coated to an overall diameter of 2,5mm

U.4.4 Galvanized barbed wire

Galvanized barbed wire shall be 2,5mm diameter mild steel double strand reverse twist zinc coated barbed wire with Class A zinc coating

U.4.5 Galvanized wire mesh

Galvanized wire mesh shall be 50mm mesh chain link netting of 2,5mm diameter Class C galvanized mild steel wire

U.4.6 Plastic coated wire mesh

Plastic coated wire mesh shall be 50mm mesh chain link netting of 2,5mm diameter Class C galvanized mild steel wire plastic coated to an overall diameter of 3,25mm

U.4.7 Galvanized welded wire mesh

Galvanized welded wire mesh shall be fabricated from pre-galvanized wires to rectangular pattern welded together at each intersection using a welding method which forms a zinc oxide protective coating at each intersection

U.4.8 Razor wire

Razor wire shall be fabricated from 2,5mm diameter galvanized high tensile steel wire fitted with razor barbs formed of 0,5mm galvanized steel strip clipped on at 37,5mm centres

U.4.9 Metal droppers and standards

Droppers shall be of ridged T-section mild steel with a mass of not less than 0,55kg/m. Standards shall be of I-section mild steel with a mass of not less than 3kg/m or of ridged edge Y-section mild steel with a mass of not less than 2,5kg/m, and shall be driven 600mm deep into the ground

Droppers and standards shall have either galvanized, sprayed metal or painted finish as described in the items and in accordance with CKS 451. In addition, those surfaces of standards embedded in the ground shall be coated with bitumen

U.4.10 Metal posts and stays

Posts and stays shall comply with CKS 451 and shall be of black galvanized mild steel tubing as specified

Straining posts shall be of 108mm outside diameter x 3mm wall thickness tubing, each with a 300 x 300 x 5mm thick mild steel sole plate and a steel cap welded on

Intermediate posts shall be of 50mm outside diameter x 2,5mm wall thickness tubing, each with a 230 x 230 x 5mm thick mild steel sole plate and a steel cap welded on

Stays for straining posts shall be of 50mm outside diameter x 2,5mm wall thickness tubing, each with a 230 x 230 x 5mm thick mild steel sole plate welded on and fixed raking with top end flattened, bent, holed and bolted to straining post with and including a 5mm diameter galvanized mild steel bolt with nut and washer

Posts and stays shall have either galvanized or painted finish as described in the items and in accordance with CKS 451. In addition, sole plates and portions of posts and stays embedded in ground shall be coated with bitumen

U.4.11 Timber posts, stays and droppers

Timber posts shall be 125mm diameter, timber stays shall be 100mm diameter and timber droppers shall be 30mm diameter

U.4.12 Prestressed concrete posts and stays

Prestressed concrete posts and stays shall be finished smooth from the mould and uniformly stressed by means of high tensile longitudinal prestressing wires with concrete cover to wires of not less than 20mm

Corner and straining posts shall be 100 x 100mm and intermediate posts and stays shall be 75 x 75mm. Stays shall be fixed raking with top end splayed and glued to posts with a suitable epoxy compound

U.4.13 Bolts, nuts and washers

Straining eye bolts, hinge bolts, bolts, nuts and washers shall be galvanized

U.4.14 Precast concrete fencing

Precast concrete fencing over sloping terrain shall be stepped to suit terrain, including the use of in- creased lengths of posts as necessary, excavation, etc

U.4.15 Concrete bases

Bases in ground for posts, stays, etc shall be of Class B prescribed mix concrete with tops 100mm below surface of ground

Sizes of concrete bases for posts, stays, etc shall be as follows:

Straining and gate posts	–	450 x 450 x 700mm deep
Intermediate posts	–	300 x 300 x 600mm deep
Stays	–	600 x 300 x 500mm deep

U.4.16 Security overhangs

Where fencing is described as having a security overhang, the posts and standards shall have angular (single arm) extension arms

Extension arms shall be attached to the posts and standards by welding in the case of steel and by spiking in the case of timber

Concrete extension arms shall be cast integrally with the post or standard

Barbed wire to security overhangs shall be tightly strained and wired at each intersection with extension arms and shall have barbed wire braces at 450mm centres between standards, posts, etc wired onto the barbed wire and the top straining wire

U.4.17 Gates

Gates shall be formed of 40mm outside diameter x 2,5mm wall thickness mild steel tubular framework with welded joints, strongly braced as necessary and filled in with wire mesh as described above, properly strained and securely bound to framework with tie wire

