



IKHALA TVET COLLEGE

Tender No.: ITVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS

PROCUREMENT DOCUMENT

February 2023

BIDDER:

CLOSING DATE: 23 February 2023

CLOSING TIME: 11H00 AM

BID PRICE:

Issued by:

Ikhala TVET College

Business Address:

Zone D Gwadana Drive
Ezibeleni, Queenstown
5326

Postal Address:

Private Bag X 7110
Queenstown
5320

Contact Details:

Name: K. Tabo
Tel: (047) 873 8817
Email: khayaletu.tabo@ikhala.edu.za

Name: F. Dlwati
Tel: (047) 873 8840
Email: fuzile.dlwati@ikhala.edu.za

Prepared by:

MMPA Quantity Surveyors & Project
Managers (Pty) Ltd.

Business Address:

14 Bonza Bay Rd.
Bonza Bay, East London
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P.O. Box 19325
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5241

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Tel: (043) 721 0077
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Tender No.: ITVETC-INFRA001/09/2022



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THE TENDER

PART T1: TENDERING PROCEDURES



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS

T1.1 Tender notice and invitation to tender

Bid Number	Services	Evaluation Criteria	Tender Closing	Compulsory Site Briefing
TVETC-INFRA001/09/2022	PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS	80/20	11:00 AM, 23 February 2023 at Ikhala Admin Centre, Ezibeleni	10:00 AM, 08 February 2023, at Ikhala Admin Centre, Ezibeleni

Ikhala TVET College hereby invites suitable qualified Built Environment Contractors for Ezibeleni Campus Water Supply.

Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation for a **4CE or higher** class of construction work, are eligible to have their tenders evaluated.

Preference will be given to Service Providers located or with offices within the region where the campus is situated.

Documents can be purchased from Supply Chain Management Section, Ikhala TVET College, at a Non-Refundable fee of R150.00 each. Purchase documents at Zone D, Gwadana Drive, Ezibeleni, 5326 between 08:00 and 16:00 from Monday to Thursday and between 08:00 and 13:00 on Friday. All compulsory documents must be completed: SBD 1, SBD 4, SBD 6.1, SBD 8 and SBD 9, compulsory enterprise questionnaire, certificate of authority for joint ventures which form part of the BID documents. The suppliers must be registered on National Treasury Central Supplier Database (CSD) and must have the relevant active registration on CIDB.

Please note: A compulsory briefing sessions will be held on the date and time as indicated above. No special arrangements will be made for interested parties who arrived late for site briefing session.

Additional Requirements for Bids: B-BBEE Verification Certificate and Valid Tax Clearance Certificate – Login pin for verification, Company Registration (CIPRO), Municipal Account.

Enquiries may be addressed to Mr. K. Tabo @ (047) 873 8817 or Mr. F. Dlwati @ (047) 873 8840.

Completed documents (clearly marked with the relevant reference number and placed in a sealed envelope) must be deposited in the tender box at Ikhala TVET College: Administration Centre, Zone D, Gwadana Drive, Ezibeleni, 5326 by specified date. Faxed, electronic or late submissions will not be accepted.

Only companies who have submitted all of the above information will be considered for evaluation. Ikhala TVET College is under no obligation to give reasons for non-acceptance/rejection of any submission. All shortlisted bidders will be subjected to undergo a security screening in terms of Section 2(1) (b) of the National Strategic Intelligence Act 67 of 2002 as amended.



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS

T1.2 Tender data

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity for Construction Procurement as published in Government Gazette No 38960, Board Notice 136 of 10 July 2015. (See www.cidb.org.za).

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

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

Clause number	Tender Data
F.1.1	The employer is Ikhala TVET College .

F.1.2	<p>The Tender Documents issued by the Employer comprise the following documents:</p> <p>THE TENDER</p> <p>Part T1: Tendering procedures</p> <p>T1.1 - Tender notice and invitation to tender</p> <p>T1.2 - Tender data</p> <p>Part T2: Returnable documents</p> <p>T2.1 - List of returnable documents</p> <p>T2.2 - Returnable schedules</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and Contract data</p> <p>C1.1 - Form of offer and acceptance</p> <p>C1.2 - Contract data</p> <p>C1.3 - Forms of securities</p> <p>Part C2: Pricing data</p> <p>C2.1 - Pricing instructions</p> <p>C2.2 - Bill of quantities</p> <p>Part C3: Scope of work</p> <p>C3.1 - Scope of work</p> <p>C3.2 - Health and safety specification</p> <p>Part C4: Site Information</p> <p>C4 - Site Information</p>
F.1.4	<p>The employer's agent is :</p> <p><u>Business Address</u></p> <p>Name: IKHALA TVET COLLEGE Address: Zone D Gwadana Drive; Ezibeleni, Queenstown; 5326 Tel: (047) 873 8800 E-mail: fuzile.dlwati@ikhala.edu.za</p> <p><u>Postal Address</u></p> <p>Name: IKHALA TVET COLLEGE Address: Private Bag X 7110; Queenstown, 5320</p>

F.2.1	<p>Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 4CE or Higher class of construction work, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the CE class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations. 4. Joint ventures must sign a joint venture agreement between parties. 5. Joint ventures must have a combined B-BBEE certificates.
F.2.7	<p>The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.</p> <p>Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.</p>
F.2.9	The employer does not provide insurance for this contract. The Contractor is responsible for providing full insurance cover on the contract.
F.2.11	<p>Add the following to the clause:</p> <p>To correct errors made, draw a line through the incorrect entry and write the correct entry above in BLACK INK and place the initial of the authorised signatories next to the correct entry.</p>
F.2.12	No alternative tender offers will be considered.
F.2.13.2	<p>Replace the contents of the clause with the following:</p> <p>Return all volumes of the bid document to the Employer after completion of the relevant sections of each volume in their entirety, by writing in BLACK INK. All volumes are to be left intact in its original format and no pages shall be removed or re-arranged.</p>
F.2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 (zero) copies.
F.2.13.5	<p>The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p>Location of tender box: ADMINISTRATION CENTRE Physical address: IKHALA TVET COLLEGE; ZONE D; GWADANA DRIVE; EZIBELANI; QUEENSTOWN; 5326 Identification details: TVETC-INFRA001/09/2022, Provision of Adequate Water Supply to Ikhala TVET College: Ezibeleni Campus, closing on 15 December 2022 at 11H00 AM.</p>
F.2.13.6	A two-envelope procedure is required.
F.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

F.2.15	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
F.2.16	The tender offer validity period is 6 (six) months.
F.2.18	The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the Labour Intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
F.2.22	The Bidder is required to return all bid documents, prior to the closing time for the submissions as stated in the Tender Notice and Invitation to Tender.
F.2.23	<p>The tenderer is required to submit with his tender:</p> <ul style="list-style-type: none"> • Relevant construction works experience on previous contracts of a similar nature, scope and/or complexity • References from clients/consultants for projects of similar in nature and scope • Experience of key personnel • Certificate of authority for signatory • Certificate of contractor registration issued by the construction industry board (CIDB) • Certificate of contractor registration with the National Treasury Central Suppliers Database (CSD) • Company Registration Documents (CIPRO/CIPC) • SARS Tax Compliance Status (TCS Pin) • Original bank stamped letter from the bank indicating bank rating code • Proof of Eastern Cape domicile in the form of a Municipal Account or Lease Agreement • A certified copy of the BBBEE certificate from SANAS accredited body/ Sworn Affidavit must be attached to the bid for BBBEE points to be allocated. In the case of a Joint Venture, or Consortium, a consolidated certified copy of BBBEE certificate for the parties involved should be attached in order for points to be allocated • Surety – A letter of intent is required for bidding purposes. A formal performance guarantee will be requested from winning bidder • Letter of good standing from the Department of Labour for workmen's compensation
F.3.2	<p>Add the following to the clause:</p> <p>Notwithstanding any requests for confirmation of receipt of Addenda issued, the bidder shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.</p>
F.3.11	<p>The 80/20 point system will be applicable to the evaluation of each bid.</p> <p>Method 2 will be used to evaluate all responsive bid offers as amended below.</p> <p>The financial offer will be scored using Formula 2 (Option 1) where the value of W1 is 80 where the financial value inclusive of VAT of all responsive bids received have a value not greater than R50 000 000.00</p> <p>The Preferential Procurement Regulations, 2017 pertaining to the Preferential Policy Framework Act, Act No 5 of 2000, the act including all related circulars and amendments at date of bid will apply to the evaluation of this bid.</p> <p>Preference Points will be awarded to a bidder for attaining a B-BBEE Status Level of contributor in accordance with the act and as stated in Section T2.2 (SBD 6.1) for the 80/20 preference points system.</p>

F.3.11.3	The functionality evaluation criteria and maximum score in respect of each of the criteria are as follows:			
	Criteria		Sub-Criteria	Maximum Number of Points
	Company Profiling			30
	Company Profile	Provide company details stating company's core business activities.	15	
	Skill Mix of Team	Provide Organogram	15	
	Qualifications of Key Personnel			20
	Site Agent / Foreman (B Tech / Degree in Built Environment)	Provide certified proof	20	
	Site Agent / Foreman (ND Diploma in Built Environment)	Provide certified proof	15	
	Site Agent / Foreman (Matric, N3)	Provide certified proof	10	
	Methodology			10
	Methodology and approach to completing similar projects to achieve the three Programme Management dimensions of scope, quality and time. Submit detailed documentation on how the above was achieved on previous completed projects. Points will be allocated based on the detailed approach with proven reference. E.g., detail of project stages from stage 1 (start) to 6 (close out).	Provide Method Statement addressing the following: Scope, Quality and Time	10	
	Experience			30
	5 completed projects or more on similar projects	Provide 5 completion certificates or reference letters	30	
	4 completed projects or more on similar projects	Provide 4 completion certificates or reference letters	20	
	3 completed projects or more on similar projects	Provide 3 completion certificates or reference letters	10	
	1 – 2 completed projects or more on similar projects	Provide 2 completion certificates or reference letters	5	
	Form of Offer and Acceptance			10
Correct and Complete signed Form of Offer and Acceptance	Signed Form of Offer and Acceptance	10		
Total Points			100	

	<p>The minimum number of evaluation points required for functionality is 60 Tender offer that score less than 60 (sixty) points out of 100 (one hundred) points in respect of the functionality evaluation criteria, will be regarded as non-responsive and be excluded from further evaluation in terms of clause F.3.11</p> <p>The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality.</p>
F.3.12	<p>Replace the contents of the clause with the following: Full insurances to be provided by the Contractor. The contractor must provide the Employer with the insurance policy information and certificates of insurance prior to the commencement of the contract.</p>
F.3.13	<p>Tender offers will only be accepted if:</p> <ul style="list-style-type: none"> the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; the tenderer has not: <ul style="list-style-type: none"> abused the Employer's Supply Chain Management System; or failed to perform on any previous contract and has been given a written notice to this effect; the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract; the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer.
F.3.17	<p>The number of paper copies of the signed contract to be provided by the employer is 1 (one).</p>

PART T2: RETURNABLE DOCUMENTS



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

**PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE:
EZIBELENI CAMPUS**

T2.1 List of returnable documents

Returnable Schedules required for tender evaluation purposes

The tenderer must complete the following returnable schedules:

- SBD 1 – Invitation of bid & terms and conditions for bidding
- SBD 4 – Declaration of interests
- SBD 6.1 – Preference points claim form
- SBD 8 – Declaration of bidder's past supply chain management practice
- SBD 9 – Certificate of independent bid determination
- Compulsory enterprise questionnaire
- Certificate of authority for joint ventures
- Relevant construction works experience on previous contracts of a similar nature, scope and/or complexity
- References from clients/consultants for projects of similar in nature and scope
- Financial capacity
- Experience of key personnel
- Methodology and approach
- Record of addenda to tender document

Other documents required for tender evaluation purposes

The tenderer must provide the following returnable documents:

- Certificate of authority for signatory
- Certificate of contractor registration issued by the construction industry board (CIDB)
- Certificate of contractor registration with the National Treasury Central Suppliers Database (CSD)
- Company Registration Documents (CIPRO/CIPC)
- SARS Tax Compliance Status (TCS Pin)
- Original bank stamped letter from the bank indicating bank rating code
- Proof of Eastern Cape domicile in the form of a Municipal Account or Lease Agreement
- A certified copy of the BBBEE certificate from SANAS accredited body/ Sworn Affidavit must be attached to the bid for BBBEE points to be allocated. In the case of a Joint Venture, or Consortium, a consolidated certified copy of BBBEE certificate for the parties involved should be attached in order for points to be allocated
- Surety – A letter of intent is required for bidding purposes. A formal performance guarantee will be requested from winning bidder
- Letter of good standing from the Department of Labour for workmen's compensation

Other documents that will be incorporated into the contract

- C1.1 Form of offer and acceptance
- C1.2 Contract data
- C2.2 Bills of quantities

T2.2 Returnable schedules

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE IKHALA TVET COLLEGE					
BID NUMBER:	TVETC-INFRA001/09/2022	CLOSING DATE:	23 February 2023	CLOSING TIME:	11H00 AM
DESCRIPTION	PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELANI CAMPUS				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
Ikhala TVET College; Administration Centre					
Zone D; Gwadana Drive					
Ezibeleni; 5326					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Mr. K. Tabo		CONTACT PERSON	Mr. F. Dlwati	
TELEPHONE NUMBER	(047) 873 8817		TELEPHONE NUMBER	(047) 873 8840	
FACSIMILE NUMBER			FACSIMILE NUMBER		
E-MAIL ADDRESS	khayaletu.tabo@ikhala.edu.za		E-MAIL ADDRESS	fuzile.dlwati@ikhala.edu.za	
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 2.3 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, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
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:

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

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

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

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number:

2.3 Position occupied in the Company (director, trustee, shareholder²):

2.4 Company Registration Number:

2.5 Tax Reference Number:

2.6 VAT Registration Number:

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

¹"State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

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

2.7.1 If so, furnish the following particulars:

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

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

Position occupied in the state institution:

Any other particulars:

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

2.7.2 If you are presently employed by the state, did you obtain
the appropriate authority to undertake remunerative
work outside employment in the public sector? **YES / NO**

2.7.2.1 If yes, did you attached proof of such authority to the bid
document? **YES / NO**

Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

.....

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

2.8.1 If so, furnish particulars:

.....

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

2.9.1 If so, furnish particulars.

.....

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

2.10.1 If so, furnish particulars.

.....

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

2.11.1 If so, furnish particulars.

.....

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

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

4 **Declaration**

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable.

1.3 Points for this bid shall be awarded for:

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

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

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

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

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

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

- (e) “**EME**” means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) “**functionality**” means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) “**prices**” includes all applicable taxes less all unconditional discounts;
- (h) “**proof of B-BBEE status level of contributor**” means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) “**QSE**” means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

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

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

80/20

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

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{\min} = Price of lowest acceptable bid

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

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

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

5. **BID DECLARATION**

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

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

6.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. **SUB-CONTRACTING**

7.1 Will any portion of the contract be sub-contracted?

(**Tick applicable box**)

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

7.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted.....%

ii) The name of the sub-contractor.....

iii) The B-BBEE status level of the sub-contractor.....

iv) Whether the sub-contractor is an EME or QSE

(**Tick applicable box**)

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

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

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

8. **DECLARATION WITH REGARD TO COMPANY/FIRM**

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 **TYPE OF COMPANY/ FIRM**

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 **DESCRIBE PRINCIPAL BUSINESS ACTIVITIES**

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

8.6 **COMPANY CLASSIFICATION**

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional service provider
- ☐ Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

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

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

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

WITNESSES	
1.
2.

.....	
SIGNATURE(S) OF BIDDERS(S)	
DATE:
ADDRESS

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

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

4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME).....

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

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

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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

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

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

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

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. 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.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS

Compulsory enterprise questionnaire

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

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- | | |
|--|---|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | <input type="checkbox"/> an employee of Parliament or a provincial legislature |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | |
| <input type="checkbox"/> an official of any municipality or municipal entity | |

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- | | |
|--|---|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | <input type="checkbox"/> an employee of Parliament or a provincial legislature |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | |
| <input type="checkbox"/> an official of any municipality or municipal entity | |

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

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

- authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____

Date _____

Name _____

Position _____

Name of Bidder _____



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELANI CAMPUS

Certificate of authority for joint ventures

This Returnable Schedule is to be completed by joint ventures.

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

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner CIDB registration no		Signature _____ Name _____ Designation _____
 CIDB registration no		Signature _____ Name _____ Designation _____
 CIDB registration no		Signature _____ Name _____ Designation _____
 CIDB registration no		Signature _____ Name _____ Designation _____



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

**PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE:
EZIBELENI CAMPUS**

Record of addenda to tender document

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		

6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed

Date

Name

Position

Name of Bidder

THE CONTRACT

PART C1: AGREEMENTS AND CONTRACT DATA



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS

C1.1 Form of Offer and Acceptance

Offer

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of: **PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS**

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

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

THE TOTAL OFFER INCLUSIVE OF ALL APPLICABLE TAXES (ALL APPLICABLE TAXES" INCLUDES VALUE-ADDED TAX, PAY AS YOU EARN, INCOME TAX, UNEMPLOYMENT INSURANCE FUND CONTRIBUTIONS AND SKILLS DEVELOPMENT LEVIES) IS:

(in words)Rand;

R.....(in figures)

This Offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document including the schedule of deviations (if any) to the tenderer before the end of the period of validity stated in the tender data, or other period as agreed, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

.....
(Insert name and address of organisation)

Name &
signature of
witness

Date

Acceptance

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

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work
Part C4	Site Information

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

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

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

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Schedule of Deviations

1 Subject	
Details	
.....	
.....	
.....	
2 Subject	
Details	
.....	
.....	
.....	
3 Subject	
Details	
.....	
.....	
.....	
4 Subject	
Details	
.....	
.....	
.....	
5 Subject	
Details	
.....	
.....	
.....	

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

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



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELANI CAMPUS

C1.2 Contract Data

The Conditions of Contract are clauses 1 to 41 of the JBCC Series 2000 Principal Building Agreement (Edition 4.1 of March 2005) 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.

The schedule contains all variables referred to in this document and is divided into part 1: contract data completed by the employer and part 2: contract data completed by the contractor. Part 1 must be completed in full and included in the tender documents. Both the part 1 and part 2 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

Part 1 – Contract Data provided by the Employer:

42.1.1	Employer: Ikhala TVET College
[1.2]	Postal Address: Private Bag x 7110, Queenstown, 5320
	Tel No. 047 873 8800
	Email: khaya lethu.tabo@ikhala.edu.za
	Physical Address: Ikhala TVET College, Zone D Gwadana Drive, Ezibeleni, Queenstown, 5326
42.1.2	Principal Agent: MMPA Quantity Surveyors & Project Managers (Pty) Ltd.
[1.1, 5.1]	Postal Address: 14 Bonza Bay Rd., Beacon Bay, East London, 5205
	Tel No. 043 721 0077
	Email: luyolo@mmpaqs.co.za
[1.1]	Representative of the Employer: Fuzile Dlwati
	Postal Address: Private Bag x 7110, Queenstown, 5320
	Tel No. 047 873 8800/40
	Email: fuzile.dlwati@ikhala.edu.za

42.1.3	Agent (1): Mariswe (Pty) Ltd.
[1.1, 5.2]	Agent's service: Engineer
	Postal Address: Clevedon House, 2 Clevedon Rd., Selborne, East London, 5213
	Tel No. 043 721 0186
	Email: waynek@mariswe.com
42.1.4	Agent (2): Sustainable Safety Management Systems
[1.1, 5.2]	Agent's service: OHS Agent
	Tel No. 076 279 4223
	Email: d4safety@hotmail.com
42.1.5	Agent (3): MMPA Quantity Surveyors & Project Managers (Pty) Ltd.
[1.1, 5.2]	Agent's service: Quantity Surveyor
	Postal Address: 14 Bonza Bay Rd., Beacon Bay, East London, 5205
	Tel No. 043 721 0077
	Email: luyolo@mmpaqs.co.za
42.1.6	Agent (4): SRK Consulting (Pty) Ltd.
[1.1, 5.2]	Agent's service: Geohydrologist Specialist
	Postal Address: 38 Bonza Bay Rd, Beacon Bay North, East London, 5241
	Tel No. 043 748 6292
	Email: eastlondon@srk.co.za
42.2.1 [1.1]	Works description: Refer to document C3 – Scope of Work.
42.2.2 [1.1]	Site description: Refer to document C4 – Site Information.
42.2.4 [41.0]	Specific options that are applicable to a State organ only Where so:
[1.1 #] [31.11.2 #] [31.12.2#]	1) Interest rate legislation: The interest rate applicable will be 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)
[11.2.#]	2) Lateral support insurance to be effected by the contractor: No
[31.4.2 #]	3) Payment will be made for materials and goods: Yes
[40.2.2.#]	4) Dispute resolution by litigation: Yes
[26.1.2 #]	5) Extended defects liability period applicable to the following elements: None
42.2.6 [15.3]	Period for the commencement of the works after the contractor takes possession of the site: One (1) working days.
42.2.7	For the works as a whole:
[24.3.1] [30.1]	The date for practical completion shall be 6 MONTHS from the commencement date and the penalty per calendar day shall be 0.05% of the contract value.

42.2.9 [1.2]	The law applicable to this agreement shall be that of the: Republic of South Africa
42.3.1 [10.1 #, 10.2 # 12.1 #]	Contract works insurance to be effected by the contractor To the minimum value of the contract sum plus 10% With a deductible not exceeding 5% of each and every claim
42.3.2 [10.1 #, 10.2 #, 12.1 #]	Supplementary insurance is required: No
42.3.3 [11.1 #, 12.1 #]	Public liability insurance to be effected by the contractor For the sum of R 5 million With a deductible not exceeding 5% of each and every claim
42.3.4 [11.2 #, 12.1 #]	Support insurance to be effected by the contractor
42.4.2 [3.7]	Three (3) copies of the construction documents will be supplied to the contractor free of charge
42.4.3	Bills of quantities / Lump sum document schedule of rates drawn up in accordance with: Standard System of Measuring Building Work
42.4.6 [31.5.3]	The contract value is to be adjusted using CPAP indices: No
42.4.7 [3.10]	Details of changes made to the provisions of JBCC standard documentation Clause 1.1 COMMENCEMENT DATE – means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect CONSTRUCTION GUARANTEE – means a guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the schedule CONSTRUCTION PERIOD – means the period commencing on the commencement date and ending on the date of practical completion CORRUPT PRACTICE – means the offering, 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 tenderer, and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer 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 the 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) PRINCIPAL AGENT – means the person or entity appointed by the employer and named in the schedule. 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 schedule SECURITY – means the form of security provided by the employer or contractor, as stated in the schedule, from which the contractor or employer may recover expense or loss 1.6 Any notice given may be delivered by hand, sent by prepaid registered post or telefax. Notice shall be presumed to have been duly given when: 1.6.4 No clause

- 3.2.1 A construction guarantee in terms of 14.0, where so elected in his/her tender.
- 3.7 Add at the end thereof:
- The contractor shall supply and keep a copy of the JBCC applicable to this contract on site, to which the employer, principal agent and agents shall have access to at all times.
- 3.10 Replace the second reference to "principal agent" with the word "employer"
- 4.3 No clause
- 5.1.2 Under clause 41- Include reference to 32.6.3; 34.3 and 34.4 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 sign all documents.
- 10.5 Add the following as 10.5
- Damage to the works
- (1) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary
 - (2) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works
 - (3) The employer shall carry the risk of damage to or destruction of the works and materials paid for by the employer that is the result of the excepted risks as set out in 10.6
 - (4) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof
- 10.6 Add the following as 10.6
- Injury to Persons or loss of or damage to Properties
- (1) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable
 - (2) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or negligence of any person for whose actions the employer is legally liable
 - (3) The contractor shall upon receiving a contract instruction from the principal agent cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the employer shall be entitled to cause it to be made good and to recover the cost thereof from the contractor or to deduct the same from amounts due to the contractor
 - (4) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion
 - (5) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor, shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed

- (6) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works
- 10.7 Add the following as 10.7
- HIGH RISK INSURANCE
- In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:
- 10.7.1 Damage to the works
- The contractor shall, from the commencement date of the works until the date of the certificate of practical completion, bear the full risk of and hereby indemnifies and holds harmless the employer against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The contractor shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary
- When so instructed to do so by the principal agent, the contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works, at the contractor's own costs
- 10.7.2 Injury to persons or loss of or damage to property
- The contractor shall be liable for and hereby indemnifies and holds harmless the employer against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above
- The contractor shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract
- 10.7.3 It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so
- 10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole
- 14.0 Replace the entire clause 14.0 with the following:
- 14.0 SECURITY
- 14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)
- 14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)
- 14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor

- 14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.
- 14.3 Where the security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:
- 14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date
- 14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor
- 14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor
- 14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor
- 14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor
- 14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party
- 14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:
- 14.4.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date
- 14.4.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender
- 14.4.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring
- 14.4.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall issue a written demand in terms of the variable construction guarantee
- 14.5 Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:
- 14.5.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT)
- 14.5.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion
- 14.5.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring
- 14.5.4 The payment reduction of the value certified in a payment certificate shall be in terms of 31.8(A) and 34.8

- 14.5.5 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both
- 14.6 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:
 - 14.6.1 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date
 - 14.6.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor
 - 14.6.3 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)
 - 14.6.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both
- 14.7 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:
 - 14.7.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(B)
 - 14.7.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the contractor
- 14.8 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement
- 14.9 Should the contractor fail to furnish the security in terms of 14.2 the employer, in his sole discretion, and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), where after 14.7 shall be applicable
- 15.1.1 No clause
- 15.1.2 The security selected in terms of 14.0
- 15.1.4 Add 15.1.4 as follows:

An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) calendar days of commencement date
- 15.2.1 Under 41: Amend to read as follows:

"Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.4
- 17.1.11 Delete the words "and the appointment of nominated and selected subcontractors"
- 20.1.3 No clause
- 21.0 No clause
- 26.1.2 Add # next to 26.1.2
- 29.2.5 No clause
- 31.5.2 Security adjustments in terms of 14.0 or 31.8
- 31.8 Amend as follows:

- 31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, the value of the works in terms of 31.4.1 and of the materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:
- 31.8(A).1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion
- 31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion
- 31.8(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6
- 31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.
- 31.8(B) Where security is a payment reduction in term of 14.7 has been selected the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:
- 31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion
- 31.8(B).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion
- 31.8(B).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6
- 31.8(B).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate
- 31.12 Delete the following: "Payment shall be subject to the employer giving the contractor a tax invoice for the amount due."
- 32.5.1 Add the following to the end of each of these clauses: "...due to no fault of the contractor"
- 32.5.4
- and
- 32.5.7
- 34.1 Remove #
- 34.2 Add # next to 34.2
- 34.8 The principal agent shall certify one hundred per cent (100%) of the amount of the final account in the final payment certificate
- 34.13 Replace "seven (7) calendar days" with "twenty one (21) calendar days" and delete the words: "subject to the employer giving the contractor a tax invoice for the amount due"
- 36.1 Add the following clauses 36.1.3 to 36.1.5. under 36.1 to read as follows:
- 36.1.3 refuses or neglects to comply strictly with any of the conditions of contract
- 36.1.4 estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa
- 36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract
- 36.3 Remove reference to "No clause", and replace "principal agent" with "employer"
- 36.7 Add the following: "Notwithstanding any clause to the contrary, on cancellation of this agreement
- 37.5 either by the employer or the contractor; or for any reason whatsoever, and the contractor shall on
- and written instruction, discontinue with the works on a date stated and withdraw himself from the site.
- 38.7 The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever"

- 37.3.5 Replace “ninety (90)” with “one hundred and twenty (120)”
and
38.5.4
- 39.3.5 Add the following words at the end thereof: “within one hundred and twenty (120) working days of completion of such a report”
- 40.2.2 under clause 41 – Replace “one (1) year” with “three (3) years”
- 40.6 under clause 41 – Remove reference to no clause
- 40.7.1 Change “(10)” to “(15)”
- Add the following to the end thereof:
- Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the mediator and related costs.
-

Part 2 – Contract Data provided by the Contractor:

42.5.1 **Contractor:**

Postal address:

Tel: _____ E-mail: _____

TAX / VAT Registration No: _____

Physical address:

42.5.2

The accepted contract sum inclusive of tax is R _____

Amount in words: _____

42.5.3

[31.3]

The latest day of the month for the issue of an interim payment certificate: _____

42.5.4

[32.12]

The preliminaries amounts shall be paid in terms of: **Alternative A / Alternative B**

42.5.5

[32.12]

The preliminaries amounts shall be adjusted in terms of: **Alternative A / Alternative B**

42.5.7 [14] The security to be provided by the contractor:

(a) in respect of contracts up to R1 million, the contractor will provide security in terms of 14.1

(b) in respect of contracts above R1 million, the contractor will provide, as security, one of the following:

(1) cash deposit of 10 % of the contract sum (excluding VAT): **Yes / No**

(2) variable construction guarantee of 10 % of the contract sum (excluding VAT): **Yes / No**

(3) payment reduction of 10% of the value certified in the payment certificate (excluding VAT): **Yes / No**

(4) cash deposit of 5% of the contract sum (excluding. VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding. VAT): **Yes / No**

(5) fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT): **Yes / No**

NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Short-Term Insurance Act, 1998 (Act 53 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.

42.5.8 [29.7.2] The annual building holiday period after the commencement of the construction period:

From: _____ to _____

42.6 DOCUMENTS

42.6.1 Contract documents marked and annexed hereto:

Priced bills of quantities: **Yes / No** Document marked as: _____

Lump sum document: : **Yes / No** Document marked as: _____

Guarantees: **Yes / No** Document marked as: _____

Contract drawings: **Yes / No** Document marked as: _____

Other documents: **Yes / No** (Attach additional pages if more space is required)



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

**PROVISION OF ADEQUATE WATER SUPPLY TO
IKHALA TVET COLLEGE: EZIBELANI CAMPUS**

C1.3 Forms of Securities

FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF JBCC 2000 (4.1 EDITION MARCH 2005)

1. With reference to the contract between _____
 _____ (hereinafter referred to as the "**contractor**") and the Government of the Republic of South Africa in its Department of Public Works (hereinafter referred to as the "**employer**"), Tender No.: TVETC-INFRA002/11/2020, for the PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELANI CAMPUS (herein after referred to as the "contract") in the amount of
 R _____,
 _____ (in words),
 (herein after referred to as the **contract sum**.)
 I / We, _____
 in my/our capacity as _____ and hereby
 representing _____ (herein after referred to as the "**guarantor**") advise that the **guarantor** holds at the **employer's** disposal the sum of
 R _____,
 _____, (in words)
 being 5% of the **contract sum** (excluding VAT), for the due fulfilment of the contract.
2. The **guarantor** hereby renounces the benefits of the exceptions non numeratae pecunia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed, on receipt of a written demand from the **employer** to do so, stating that the **employer** has a right of recovery against the **contractor** in terms of 33.0 of the contract.
3. Subject to the above, but without in any way detracting from the **employer's** rights to adopt any of the procedures provided for in the contract, the said demand can be made by the **employer**, at any stage prior to the expiry of this guarantee.
4. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last **final payment certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.

5. 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 on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the foregoing, any compromise, extension of the **construction period**, indulgence, release or variation of the **contractor's** obligation shall not affect the validity of this guarantee.
6. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the guarantor's liability ceases.
7. This guarantee is neither negotiable nor transferable, and
 - (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 4 above, or
 - (b) shall lapse on the date of the last **certificate of practical completion**.
8. This guarantee shall not be interpreted as extending the **guarantor's** liability to anything more than payment of the amount guaranteed.

SIGNED AT _____ ON THIS _____ DAY OF _____ 20____

AS WITNESS

1. _____
2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorised thereto by resolution attached marked Annexure A)

DATE: _____

- A. No alterations and/or additions of the wording of this form will be accepted.
- B. The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's domicilium citandi et executandi, for all purposes arising from this guarantee.
- C. This GUARANTEE must be returned to:

VARIABLE CONSTRUCTION GUARANTEE - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 4.1 of March 2005)

1.	<p>With reference to the contract between _____</p> <p>_____ (hereinafter referred to as the "contractor") and the Government of the Republic of South Africa in its Department of Public Works (hereinafter referred to as the "employer"), Tender No.: TVETC-INFRA002/11/2020, for the PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS (herein after referred to as the "contract") in the amount of</p> <p>R _____,</p> <p>_____ (in words),</p> <p>(herein after referred to as the contract sum.)</p> <p>I / We, _____</p> <p>in my/our capacity as _____ and hereby</p> <p>representing _____ (herein after referred to as the "guarantor") advise that the guarantor holds at the employer's disposal the sum of</p> <p>R _____,</p> <p>_____ (in words)</p> <p>being 10% of the contract sum (excluding VAT), for the due fulfilment of the contract.</p>
2.	<p>I / We advise that the guarantor's liability in terms of this guarantee shall be as follows:</p> <p>(a) From and including the date on which this guarantee is issued and up to and including the date of payment of the amount in the last final payment certificate, the guarantor will be liable in terms of this guarantee to the maximum amount of 10% of the contract sum (excluding VAT);</p> <p>(b) The guarantor's liability shall reduce to 3 % of the contract value (excluding VAT) as determined at the date of the last certificate of practical completion, subject to such amount not exceeding 10% of the contract sum (excluding VAT).</p> <p>(c) The guarantor's liability shall reduce to 1 % of the contract value (excluding VAT) as determined at the date of the last certificate of final completion, subject to such amount not exceeding 10 % of the contract sum (excluding VAT).</p> <p>(d) This guarantee shall expire on the date of the last final payment certificate.</p> <p>(e) The practical completion certificate and the final completion certificate referred to in this guarantee shall mean the certificates issued in terms of the contract.</p>
3.	<p>The guarantor hereby renounces the benefits of the exceptions non numeratae pecunia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the employer the amount guaranteed, on receipt of a written demand from the employer to do so, stating that the employer has a right of recovery against the contractor in terms of 33.0 of the contract.</p>
4.	<p>Subject to the above, but without in any way detracting from the employer's rights to adopt any of the procedures provided for in the contract, the said demand can be made by the employer, at any stage prior to the expiry of this guarantee.</p>

5.	The amount paid by the guarantor in terms of this guarantee may be retained by the employer on condition that upon the issue of the last final payment certificate , the employer shall account to the guarantor showing how this amount has been expended and refund any balance due to the guarantor .
6.	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 on account of any conduct alleged to be prejudicial to the guarantor . Without derogating from the foregoing, any compromise, extension of the construction period , indulgence, release or variation of the contractor's obligation shall not affect the validity of this guarantee.
7.	The guarantor reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the employer , whereupon the guarantor's liability ceases.
8.	This guarantee is neither negotiable nor transferable, and <ul style="list-style-type: none"> (a) must be surrendered to the guarantor at the time when the employer accounts to the guarantor in terms of clause 4 above, or (b) shall lapse on the date of the last certificate of practical completion.
9.	This guarantee shall not be interpreted as extending the guarantor's liability to anything more than payment of the amount guaranteed.

SIGNED AT _____ ON THIS _____ DAY OF _____ 20____

AS WITNESS

1. _____

2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
 (duly authorised thereto by resolution attached marked Annexure A)

DATE: _____

A. No alterations and/or additions of the wording of this form will be accepted.

B. The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's domicilium citandi et executandi, for all purposes arising from this guarantee.

C. This GUARANTEE must be returned to: _____

PART C2: PRICING DATA



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

**PROVISION OF ADEQUATE WATER SUPPLY TO
IKHALA TVET COLLEGE: EZIBELANI CAMPUS**

C2.1 Pricing Instructions

BILLS OF QUANTITIES / LUMP SUM DOCUMENT

The **bills of quantities** 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 Tender, Conditions of Contract, Specifications, Drawings and all other relevant documentation.

VALUE ADDED TAX

The contract sum must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the **bills of quantities** document must however be net (exclusive of VAT) with VAT calculated and added to the total value thereof in the Final Summary.

FIXED PRICE CONTRACT

Tenderers are to take note that contract price adjustments are not applicable to this contract. Tenderers 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.

LABOUR-INTENSIVE WORKS

Those parts of the works to be constructed using labour-intensive methods are marked in the **bills of quantities** with the letters **LI** either in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a deviation from the contract. The items marked with the letters **LI** are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification.

Where minimum labour intensity is specified by the design the **contractor** is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity target.

Payment for items which are designated to be constructed labour-intensively will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

C2.2 Bills of quantities

<u>Item No</u>		<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
	<p><u>BILL No. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>MEANING OF TERMS "TENDER / TENDERER"</u></p> <p>Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"</p> <p><u>PRELIMINARIES</u></p> <p>The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked "N/A" signifying "Not Applicable".</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item</p> <p>Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.</p> <p><u>SECTION A - JBCC PRINCIPAL BUILDING AGREEMENT</u></p> <p><u>DEFINITIONS</u></p>			
1	A1.0 DEFINITIONS AND INTERPRETATION			
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Clause 1.0

Clause 1.1 Definition of "**Commencement Date**" is added:

"**COMMENCEMENT DATE**" means the date that the **agreement**, made in terms of the Form of Offer and Acceptance, comes into effect

Clause 1.1 Definition of "**Construction Guarantee**" is amended by replacing it with the following:

"**CONSTRUCTION GUARANTEE**" means a guarantee at call obtained by the **contractor** from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the **schedule**

Clause 1.1 Definition of "**Construction Period**" is amended by replacing it with the following:

"**CONSTRUCTION PERIOD**" means the period commencing on the **commencement date** and ending on the date of **practical completion**

Clause 1.1 Definition of "**Corrupt Practice**" is added:

"**CORRUPT PRACTICE**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

Clause 1.1 Definition of "**Fraudulent Practice**" is added:

"**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 tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.

Clause 1.1 Definition of "**Interest**" is amended by replacing it with the following:

"**INTEREST**" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the

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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).

Clause 1.1 Definition of "**Principal Agent**" is amended by replacing it with the following:

"**PRINCIPAL AGENT**" means the person or entity appointed by the **employer** and named in the **schedule**. 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 **schedule**

Clause 1.1 Definition of "**Security**" is amended by replacing it with the following:

"**SECURITY**" means the form of security provided by the **employer** or **contractor**, as stated in the **schedule**, from which the **contractor** or **employer** may recover expense or loss

Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "pre-paid registered post or telefax"

Clause 1.6.4 is amended by replacing it with the following:

No clause

Fixed:_____ Value:_____ Time:_____

OBJECTIVE AND PREPARATION

1 A2.0 OFFER, ACCEPTANCE AND PERFORMANCE

Clause 2.0

Fixed:_____ Value:_____ Time:_____

Item

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1	<p>A3.0 DOCUMENTS</p> <p>Clause 3.0</p> <p>Clause 3.2.1 is amended by replacing "14.1" with 14.0"</p> <p>Clause 3.7 is amended by the addition of the following:</p> <p>The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times</p> <p>Clause 3.10 is amended by replacing the second reference to "principal agent" with the word "employer"</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
2	<p>A4.0 DESIGN RESPONSIBILITY</p> <p>Clause 4.0</p> <p>Clause 4.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
3	<p>A5.0 EMPLOYER'S AGENTS</p> <p>Clause 5.0</p> <p>Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
4	<p>A6.0 SITE REPRESENTATIVE</p> <p>Clause 6.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
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1	<p>A7.0 COMPLIANCE WITH REGULATIONS</p> <p>Clause 7.0</p> <p>Note: A separate clause has been included in Section C: Specific Preliminaries of the bills of quantities / lump sum document for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
2	<p>A8.0 WORKS RISK</p> <p>Clause 8.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
3	<p>A9.0 INDEMNITIES</p> <p>Clause 9.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
4	<p>A10.0 WORKS INSURANCES</p> <p>Clause 10.0</p> <p>Clause 10.0 is amended by the addition of the following clauses:</p> <p>10.5 Damage to the Works</p> <p>(a) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary</p> <p>(b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the</p>		
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works

- (c) The **employer** shall carry the risk of damage to or destruction of the **works** and materials paid for by the **employer** that is the result of the excepted risks as set out in 10.6
- (d) Where the **employer** bears the risk in terms of this contract, the **contractor** shall, if requested to do so, reinstate any damage or destroyed portions of the **works** and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof

10.6 Injury to Persons or loss of or damage to Properties

- (a) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable
- (b) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable
- (c) The **contractor** shall, upon receiving a **contract instruction** from the **principal agent**, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor**
- (d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue

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of the **certificate of practical completion**

- (e) Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed
- (f) The **contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the **works**

10.7 High risk insurance

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that may result in catastrophic ground movement evident by sinkhole or do line formation the following will apply:

10.7.1 Damage to the works

The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion** bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he me deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works** at the **contractor's** own costs

10.7.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against

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any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immoveable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic movement, a mentioned above, which occurred during the period of the contract

10.7.3 It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty one (21) **calender days** of the **commencement date** but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

Fixed: _____ Value: _____ Time: _____

Item

1 A11.0 LIABILITY INSURANCES

Clause 11.0

Fixed: _____ Value: _____ Time: _____

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1	<p>A12.0 EFFECTING INSURANCES</p> <p>Clause 12.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>				
2	<p>A13.0 No Clause</p>	Item			
3	<p>A14.0 SECURITY</p> <p>Clause 14.0</p> <p>Clauses 14.1 - 14.8 are amended by replacing them with the following:</p> <p>14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)</p> <p>14.1.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(A)</p> <p>14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor</p> <p>14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calender days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calender days from commencement date, the security in terms of 14.7 shall be deemed to have been selected.</p> <p>14.3 Where security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:</p> <p style="text-align: right;">Carried To Trade Summary</p> <p>Bill No. 1 Preliminaries MMPA QS & PM - JOB NO. 20/012</p>	Item			
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14.3.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calender days** from **commencement date**

14.3.2 Within twenty-one (21) **calender days** of the day of **practical completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to three per cent (3%) of the **contract value** (excluding VAT), and refund the balance to the **contractor**

14.3.3 Within twenty-one (21) **calender days** of the date of **final completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to one per cent (1%) of the **contract value** (excluding VAT) and refund the balance to the **contractor**

14.3.4 On the date of payment of the amount in the final **payment certificate**, the **employer** shall refund the remainder of the cash deposit to the **contractor**

14.3.5 The **employer** shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the cash deposit **security** or portions thereof to the **contractor**

14.3.6 The parties expressly agree that neither the **employer** nor the **contractor** shall be entitled to cede the rights to the deposit to any third party

14.4 Where **security** as a variable **construction guarantee** of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

14.4.1 The **contractor** shall furnish the **employer** with an acceptable variable **construction guarantee** equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calender days** from **commencement date**

14.4.2 The variable **construction guarantee** shall reduce and expire in terms of the Variable **Construction Guarantee** form included in the invitation to tender

14.4.3 The **employer** shall return the variable **construction guarantee** to the **contractor** within

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fourteen (14) **calender days** of it expiring

14.4.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall issue a written demand in terms of the variable **construction guarantee**

14.5 Where **security** as a fixed **construction guarantee** of five per cent (5%) of the **contract sum** (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.5.1 The **contractor** shall furnish a fixed **construction guarantee** to the **employer** equal in value to five per cent (5%) of the **contract sum** (excluding VAT)

14.5.2 The fixed **construction guarantee** shall come into force on the date of issue and shall expire on the date of the last certificate of **practical completion**

14.5.3 The **employer** shall return the fixed **construction guarantee** to the **contractor** within fourteen (14) **calender days** of it expiring

14.5.4 The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8 (A) and 34.8

14.5.5 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall be entitled to issue a written demand in terms of the fixed **construction guarantee** or may recover from the payment reduction or may do both

14.6 Where **security** as a cash deposit of five per cent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.6.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to five per cent (5%) of the **contract sum** (excluding VAT) within twenty-one (21) **calender days** from **commencement date**

14.6.2 Within twenty-one (21) **calender days** of the date of **practical completion** of the **works** the **employer** shall refund the cash deposit in total to the

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contractor

14.6.3 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)

14.6.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.7 Where **security** as a payment reduction of ten per cent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.7.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B)

14.7.2 The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the **contractor**

14.8 Payments made by the guarantor to the **employer** in terms of the fixed or variable **construction guarantee** shall not prejudice the rights of the **employer** or **contractor** in terms of this **agreement**

14.9 Should the **contractor** fail to furnish the **security** in terms of 14.2, the **employer**, in his sole discretion and without notification to the **contractor**, is entitled to change the **contractor's** selected form of **security** to that of a ten per cent (10%) payment reduction of the value certified in the **payment certificate** (excluding VAT), whereafter 14.7 shall be applicable

Fixed: _____ Value: _____ Time: _____

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	<p><u>EXECUTION</u></p> <p>1 A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS</p> <p>Clause 15.0</p> <p>Clause 15.1.1 is amended by replacing it with:</p> <p>No clause</p> <p>Clause 15.1.2 is amended by replacing it with:</p> <p>The security selected in terms of 14.0</p> <p>Clause 15.1 is amended by the addition of the following clause:</p> <p>15.1.4 An acceptable health and safety plan, required in terms of the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) calendar days of commencement date</p> <p>Clause 15.2.1 is amended by replacing it with the following clause:</p> <p>Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.4</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p>2 A16.0 ACCESS TO THE WORKS</p> <p>Clause 16.0</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p>3 A17.0 CONTRACT INSTRUCTIONS</p> <p>Clause 17.0</p> <p>Clause 17.1.11 is amended by deleting the words "and the appointment of nominated and selected subcontractors"</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p>Carried To Trade Summary</p> <p>Bill No. 1 Preliminaries MMPA QS & PM - JOB NO. 20/012</p>			
		Item		
		Item		
		Item		
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1	<p>A18.0 SETTING OUT OF THE WORKS</p> <p>Clause 18.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
2	<p>A19.0 ASSIGNMENT</p> <p>Clause 19.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
3	<p>A20.0 NOMINATED SUBCONTRACTORS</p> <p>Clause 20.0</p> <p>Clause 20.1.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under provisional sums</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
4	<p>A21.0 SELECTED SUBCONTRACTORS</p> <p>Clause 21.0</p> <p>Clause 21 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
5	<p>A22.0 EMPLOYER'S DIRECT CONTRACTORS</p> <p>Clause 22.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
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1	<p>A23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS</p> <p>Clause 23.0</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p><u>COMPLETION</u></p>	Item		
2	<p>A24.0 PRACTICAL COMPLETION</p> <p>Clause 24.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
3	<p>A25.0 WORKS COMPLETION</p> <p>Clause 25.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
4	<p>A26.0 FINAL COMPLETION</p> <p>Clause 26.0</p> <p>Clause 26.1.2 is amended by inserting "#" next to 26.1.2</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
5	<p>A27.0 LATENT DEFECTS LIABILITY PERIOD</p> <p>Clause 27.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
6	<p>A28.0 SECTIONAL COMPLETION</p> <p>Clause 28.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
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1	<p>A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION</p> <p>Clause 29.0</p> <p>Clause 29.2.5 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed: _____ Value: _____ Time: _____</p>			
2	<p>A30.0 PENALTY FOR NON-COMPLETION</p> <p>Clause 30.0</p> <p>Fixed: _____ Value: _____ Time: _____</p> <p><u>PAYMENT</u></p>	Item		
3	<p>A31.0 INTERIM PAYMENT TO THE CONTRACTOR</p> <p>Clause 31.0</p> <p>Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"</p> <p>Clause 31.8 is amended by replacing it with the following two alternative clauses:</p> <p>Alternative A</p> <p>31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:</p> <p>31.8(A).1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion</p> <p>31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion</p> <p>31.8(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6</p> <p>Carried To Trade Summary</p> <p>Bill No. 1 Preliminaries MMPA QS & PM - JOB NO. 20/012</p>	Item		
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31.8(A).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**

Alternative B

31.8(B) Where **security** as a payment reduction in terms of 14.7 has been selected, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(B).1 Ninety per cent (90%) of such value in interim **payment certificates** issued up to the date of **practical completion**

31.8(B).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion**

31.8(B).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6

31.8(B).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**

Clause 31.12 is amended by deleting the following:

Payment shall be subject to the **employer** giving the **contractor** a tax invoice for the amount due

Fixed:_____ Value:_____ Time:_____

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1	<p>A32.0 ADJUSTMENT TO THE CONTRACT VALUE</p> <p>Clause 32.0</p> <p>Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:</p> <p>"due to no fault of the contractor"</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
2	<p>A33.0 RECOVERY OF EXPENSE AND LOSS</p> <p>Clause 33.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
3	<p>A34.0 FINAL ACCOUNT AND FINAL PAYMENT</p> <p>Clause 34.0</p> <p>Clause 34.1 is amended by removing "#" next to 34.1</p> <p>Clause 34.2 is amended by inserting "#" next to 34.2</p> <p>Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"</p> <p>Clause 34.13 is amended by replacing "seven (7) calender days" with "twenty-one (21) calender days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
4	<p>A35.0 PAYMENT TO OTHER PARTIES</p> <p>Clause 35.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
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CANCELLATION1 A36.0 CANCELLATION BY EMPLOYER -
CONTRACTOR'S DEFAULT

Clause 36.0

Clause 36.1 is amended by the addition of the following clauses:

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

36.1.5 in the judgement of the **employer**, has engaged in **corrupt** or **fraudulent practices** in competing for or in executing the contract

Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "**principal agent**" with "**employer**"

Clause 36.0 is amended by the addition of the following clause:

36.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

Fixed: _____ Value: _____ Time: _____

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1	<p>A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE</p> <p>Clause 37.0</p> <p>Clause 37.3.5 is amended by replacing "ninety (90) with "one hundred and twenty (120)"</p> <p>Clause 37.0 is amended by the addition of the following clause:</p> <p>37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
2	<p>A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT</p> <p>Clause 38.0</p> <p>Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"</p> <p>Clause 38.0 is amended by the addition of the following clause:</p> <p>38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
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1	<p>A39.0 CANCELLATION - CESSATION OF THE WORKS</p> <p>Clause 39.0</p> <p>Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one hundred and twenty (120) working days of completion of such a report"</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p><u>DISPUTE</u></p>	Item		
2	<p>A40.0 DISPUTE SETTLEMENT</p> <p>Clause 40.0</p> <p>Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"</p> <p>Clause 40.6 is amended by removing the reference to:</p> <p>No clause</p> <p>Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:</p> <p>Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the mediator and related costs</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p><u>SUBSTITUTE PROVISIONS</u></p>	Item		
3	<p>A41.0 STATE CLAUSES</p> <p>Clause 41.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
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CONTRACT VARIABLES

1 THE SCHEDULE

Clause 42.0

Tenderers are referred to the Contract Data for variables pertaining to this contract

Item

SECTION B - JBCC PRELIMINARIESB1.0 DEFINITIONS AND INTERPRETATION

2 B1.1 Definition and interpretation

See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section

Fixed: _____ Value: _____ Time: _____

Item

B2.0 DOCUMENTS

3 B2.1 Checking of documents

Fixed: _____ Value: _____ Time: _____

Item

4 B2.2 Provisional bills of quantities

Fixed: _____ Value: _____ Time: _____

Item

5 B2.3 Availability of construction documentation

Fixed: _____ Value: _____ Time: _____

Item

6 B2.4 Interest of agents

Fixed: _____ Value: _____ Time: _____

Item

7 B2.5 Priced documents

Fixed: _____ Value: _____ Time: _____

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1	<p>B2.6 Tender submission</p> <p>Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance"</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p><u>B3.0 THE SITE</u></p>	Item		
2	<p>B3.1 Defined works area</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
3	<p>B3.2 Geotechnical investigation</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
4	<p>B3.3 Inspection of the site</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p>No claims for extras arising from the contractor having failed to comply with this clause will be entertained</p>	Item		
5	<p>B3.4 Existing premises occupied</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
6	<p>B3.5 Previous work - dimensional accuracy</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
7	<p>B3.6 Previous work - defects</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
8	<p>B3.7 Services - known</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
9	<p>B3.8 Services - unknown</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
10	<p>B3.9 Protection of trees</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
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1	B3.10 Articles of value Fixed:_____ Value:_____ Time:_____	Item	
2	B3.11 Inspection of adjoining properties Fixed:_____ Value:_____ Time:_____	Item	
<u>B4.0 MANAGEMENT OF CONTRACT</u>			
3	B4.1 Management of the works Fixed:_____ Value:_____ Time:_____	Item	
4	B4.2 Programme for the works Fixed:_____ Value:_____ Time:_____	Item	
5	B4.3 Progress meetings Fixed:_____ Value:_____ Time:_____	Item	
6	B4.4 Technical meetings Fixed:_____ Value:_____ Time:_____	Item	
7	B4.5 Labour and plant records Fixed:_____ Value:_____ Time:_____	Item	
<u>B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u>			
8	B5.1 Samples of materials Fixed:_____ Value:_____ Time:_____	Item	
9	B5.2 Workmanship samples Fixed:_____ Value:_____ Time:_____	Item	
10	B5.3 Shop drawings Fixed:_____ Value:_____ Time:_____	Item	
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1	B5.4 Compliance with manufacturers' instructions Fixed: _____ Value: _____ Time: _____	Item		
	<u>B6.0 TEMPORARY WORKS AND PLANT</u>			
2	B6.1 Deposits and fees Fixed: _____ Value: _____ Time: _____	Item		
3	B6.2 Enclosure of the works Fixed: _____ Value: _____ Time: _____	Item		
4	B6.3 Advertising Fixed: _____ Value: _____ Time: _____	Item		
5	B6.4 Plant, equipment , sheds and offices Fixed: _____ Value: _____ Time: _____	Item		
6	B6.5 Main notice board Fixed: _____ Value: _____ Time: _____	Item		
7	B6.6 Subcontractors notice board Fixed: _____ Value: _____ Time: _____	Item		
	<u>B7.0 TEMPORARY SERVICES</u>			
8	B7.1 Location Fixed: _____ Value: _____ Time: _____	Item		
9	B7.2 Water Fixed: _____ Value: _____ Time: _____	Item		
10	B7.3 Electricity Fixed: _____ Value: _____ Time: _____	Item		
11	B7.4 Telecommunication facilities Fixed: _____ Value: _____ Time: _____	Item		
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1	B7.5 Ablution facilities Fixed:_____ Value:_____ Time:_____	Item		
	<u>B8.0 PRIME COST AMOUNTS</u>			
2	B8.1 Responsibility for prime cost amounts Fixed:_____ Value:_____ Time:_____	Item		
	<u>B9.0 ATTENDANCE ON N/S SUBCONTRACTORS</u>			
3	B9.1 General attendance Fixed:_____ Value:_____ Time:_____	Item		
4	B9.2 Special attendance Fixed:_____ Value:_____ Time:_____	Item		
5	B9.3 Commissioning - fuel, water and power Fixed:_____ Value:_____ Time:_____	Item		
	<u>B10.0 FINANCIAL ASPECTS</u>			
6	B10.1 Statutory taxes, duties and levies Fixed:_____ Value:_____ Time:_____	Item		
7	B10.2 Payment of preliminaries Fixed:_____ Value:_____ Time:_____	Item		
8	B10.3 Adjustment of preliminaries Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) working days of taking possession of the site " with "when submitting his priced bills of quantities / lump sum document " Fixed:_____ Value:_____ Time:_____	Item		
9	B10.4 Payment certificate cash flow Fixed:_____ Value:_____ Time:_____	Item		
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	<u>B11 GENERAL</u>			
1	B11.1 Protection of the works Fixed:_____ Value:_____ Time:_____	Item		
2	B11.2 Protection/isolation of existing/sectionally occupied works Fixed:_____ Value:_____ Time:_____	Item		
3	B11.3 Security of the works Fixed:_____ Value:_____ Time:_____	Item		
4	B11.4 Notice before covering work Fixed:_____ Value:_____ Time:_____	Item		
5	B11.5 Disturbance Fixed:_____ Value:_____ Time:_____	Item		
6	B11.6 Environmental disturbance Fixed:_____ Value:_____ Time:_____	Item		
7	B11.7 Works cleaning and clearing Fixed:_____ Value:_____ Time:_____	Item		
8	B11.8 Vermin Fixed:_____ Value:_____ Time:_____	Item		
9	B11.9 Overhand work Fixed:_____ Value:_____ Time:_____	Item		
10	B11.10 Instruction manuals and guarantees Fixed:_____ Value:_____ Time:_____	Item		
11	B11.11 As built information Fixed:_____ Value:_____ Time:_____	Item		
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1	<p>B11.12 Tenant installations</p> <p>Fixed: _____ Value: _____ Time: _____</p> <p><u>B12 SCHEDULE OF VARIABLES</u></p>	Item		
2	<p>B12.1 Schedule of variables</p> <p>This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries.</p> <p>Spaces requiring information must be filled in, shown as "not applicable" or deleted and 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</p> <p>Fixed: _____ Value: _____ Time: _____</p> <p>12.1 PRE-TENDER INFORMATION</p> <p>12.1.1 Provisional bills of quantities [2.2] The quantities are provisional YES</p> <p>12.1.2 Availability of construction documentation [2.3] Construction documentation is complete NO</p> <p>12.1.3 Interests of agents [2.4] Details: The professional team has no financial interest in this contract</p> <p>12.1.4 Defined works area [3.1] The works area is Zone D Gwadana Drive, Ezibeleni, Queenstown, 5326</p> <p>12.1.5 Geotechnical investigation [3.2] Details: No Geotechnical investigation was carried out.</p> <p>Carried To Trade Summary</p> <p>Bill No. 1 Preliminaries MMPA QS & PM - JOB NO. 20/012</p>	Item	R	

12.1.6 Existing premises occupied

[3.4] Specific requirements: The existing premises are occupied and tenderer's should take cognisance thereof when pricing this document.

12.1.7 Previous work - dimensional accuracy

[3.5] Details: The accuracy of the existing building work is accepted

12.1.8 Previous work - defects

[3.6] Details: The defects are accepted

12.1.9 Service - known

[3.7] Details: The services that are known will be pointed out to the successful tenderer at the Site Handover Meeting

12.1.10 Protection of trees

[3.9] Specific requirements:
None

12.1.11 Inspection of adjoining properties

[3.11] Specific requirements:
None

12.1.12 Enclosure of the works

[6.2] Specific requirements: The Contractor is to safely close-off the areas where construction is taking place as to ensure the safety of College staff and learners as well as members of the public during all hours

12.1.13 Offices

[6.4.3] Specific requirements: The Contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.

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12.1.14 Main notice board

[6.5] Specific requirements:

The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** a notice board size 3000 x 3598mm, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to a suitable supporting structure of timber or tubular posts and braces.

12.1.15 Subcontractors notice board

[6.6] A notice board is required

NO

Specific requirements:

NONE

12.1.16 Water

[7.2] Option A (by **contractor**)

YES

Option B (by **employer** - free of charge)

NO

Option C (by **employer** - metered)

NO

12.1.17 Electricity

[7.3] Option A (by **contractor**)

NO

Option B (by **employer** - free of charge)

NO

Option C (by **employer** - metered)

YES

12.1.18 Telecommunications

[7.4] Telephone

YES

Facsimile

NO

E-mail

YES

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12.1.19 Ablution facilities

[7.5] Option A (by **contractor**)
YES

Option B (by **employer**)
NO

12.1.20 Protection of existing/sectionally occupied works

[11.2] Protection is required
YES

12.1.21 Special attendance

[9.2] **Subcontractor** (1) details:
N/A

Subcontractor (2) details:
N/A

Subcontractor (3) details:
N/A

Subcontractor (4) details:
N/A

12.1.22 Protection of the works

[11.1] Specific requirements:

12.1.23 Disturbance

[11.5] Specific requirements:

The **contractor** shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the **works** all necessary temporary dust screens all to the satisfaction of the **principal agent**

12.1.24 Environmental disturbance

[11.6] Specific requirements:

12.2 POST-TENDER INFORMATION**12.2.1 Payment of preliminaries**

[10.2] Option A (prorated)
YES / NO

Option B (calculated)
YES / NO

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12.2.2 **Adjustment of preliminaries**

[10.3] Option A (three categories)

YES / NO

Option B (detailed breakdown)

YES / NO12.2.3 **Additional agreed preliminaries items**

Details:

SECTION C - SPECIFIC PRELIMINARIES

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item

1 C1 CONTRACT DRAWINGS

The drawings issued with this tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent**

Fixed:_____ Value:_____ Time:_____

Item

2 C2 PREAMBLES

The document Construction Works: Specifications: General Specification (PW371-A) Edition 2.0 as well as the (PW371-B) Edition 2.0 is obtainable on the Department's website (<http://www.publicworks.gov.za> under "Consultants Guidelines") and shall be read in conjunction with the **bills of quantities** and be referred to for the full descriptions of work to be done and materials to be used

Fixed:_____ Value:_____ Time:_____

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1	<p>C3 TRADE NAMES</p> <p>Wherever a trade name for any product has been described in the bills of quantities, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders</p> <p>If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
2	<p>C4 IMPORTED MATERIALS AND EQUIPMENT</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
3	<p>C5 VIEWING THE SITE IN SECURITY AREAS N/A</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
4	<p>C6 COMMENCEMENT OF WORKS IN SECURITY AREAS N/A</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
5	<p>C7 ENTRANCE PERMITS TO SECURITY AREAS N/A</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
6	<p>C8 SECURITY CHECK OF PERSONNEL N/A</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
7	<p>C9 PROHIBITION ON TAKING PHOTOGRAPHS N/A</p> <p>Fixed:_____ Value:_____ Time:_____</p> <p>C10 HIV/AIDS AWARENESS N/A</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item		
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1	C10.1 AWARENESS CHAMPION N/A Fixed:_____ Value:_____ Time:_____	Item		
2	C10.2 AWARENESS WORKSHOPS N/A Fixed:_____ Value:_____ Time:_____	Item		
3	C10.3 POSTERS, BOOKLETS, VIDEOS, ETC. N/A Fixed:_____ Value:_____ Time:_____	Item		
4	C10.4 ACCESS TO CONDOMS N/A Fixed:_____ Value:_____ Time:_____	Item		
5	C10.5 MONITORING N/A Fixed:_____ Value:_____ Time:_____	Item		
C11 OCCUPATIONAL HEALTH AND SAFETY ACT				
<p>The contractor shall comply with all the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act no 85 of 1993).</p> <p>It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this section of the Bills of Quantities.</p> <p>The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p>				
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Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

1. Preparation of Contractor's Project Specific Health and Safety Plan.

The rate for this item must cover all expenses incurred in preparing the Contractor's project specific Health and Safety Plan as required by the Client's project specific Health and Safety Specification in this document.

2. Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations.

The full amount will be paid in one instalment only when the Client's Agent has verified and approved the following

- (a) The Principal Contractor has made the required initial Appointments of Employees and Contractors.
- (b) The Client has approved the Principal Contractor's project Health and Safety Plan and File.
- (c) The Principal Contractor has set up his Health and Safety File.
- (d) The Principal Contractor has evidence of site lay-out requirements which will include signage, fire extinguisher(s) and First aid boxes.

3. Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations.

The amount shall represent full compensation for that part of the Principal Contractor's general obligations in terms of the Occupational Health and Safety Act and Regulations which are mainly a function of time. Payment will be made when the Client's Agent has verified the Principal Contractor's compliance as part of the audit. This will include the implementation, updating and administration of the Health and Safety file and SHE Plans.

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4. Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities.

The rates for these items shall include for the procurement, delivery, storage, distribution and all other actions required for the supply of PPE to the employees of the Principal Contractor, full or part time, requiring them. Sub-Contractors are responsible for their own costs in this regard. Any items of PPE not included on the list will be paid for only after the Client's Agent has agreed to their acquisition.

Items listed will include, among others which may be noted, are: hard hats, reflective vests, reflective bibs, high visibility overalls, protective foot wear, fall arrestor harness and tethers, gloves, ear muffs, earplugs and dust masks of appropriate type. Normal items such as standard overalls, waterproof clothing, gum boots and standard workshop safety equipment such as welding masks and goggles will not be paid for.

Payment will be based on the issues register for PPE as kept by the Construction Health and Safety Officer, backed up by paid invoices if requested.

5. Provision of full time Registered Construction Health and Safety Officer (Month)

The Tender sum shall include for the cost of a Construction Health and Safety Officer on a full time basis, his overheads, transport and all others items necessary for the proper carrying out of his duties, which include the induction and training of all persons on site. If a part time safety officer is appointed, by agreement with the Employer, then the amount Tendered will be prorated according to the amount of time spent on the project.

6. Costs of Medical Surveillance (Unit x employees)

This item shall covers all costs in involved in the obtaining of baseline medical examinations of Temporary labour, including operators for mobile plant as contemplated in CR 21(d) (ii): for temporary workers and workers exposed to noises at or above the limits given in the NHLR.

Permanent workers costs will be paid if the fit for work certificate expires during the project.

6 a) Initial (baseline) medical examinations, including audiometric and lung function testing.

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Pricing schedule for OHS requirements.

- | | | | |
|---|--|------------------------------------|------|
| 1 | (a) Preparation of the Contractor's site specific Health and Safety Plan. | Fixed:_____ Value:_____ Time:_____ | Item |
| 2 | (b) Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations. | Fixed:_____ Value:_____ Time:_____ | Item |
| 3 | (c) Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations for the full duration of the project for Months 6. | Fixed:_____ Value:_____ Time:_____ | Item |
| 4 | (d) Provision of a full time Construction Health and Safety Officer registered with SACPCMP for the full duration of the project for Months 6. | Fixed:_____ Value:_____ Time:_____ | Item |
| 5 | (e) Submission of a Health and Safety File in electronic format. | Fixed:_____ Value:_____ Time:_____ | Item |

Provision of SABS approved Personal Protective Equipment (PPE)

- | | | | | |
|---|---|------------------------------------|----|----|
| 6 | (a) Reflective vests, marked with contractors name. | Fixed:_____ Value:_____ Time:_____ | No | 30 |
| 7 | (b) Hard hats. | Fixed:_____ Value:_____ Time:_____ | No | 30 |
| 8 | (c) Protective foot wear. | Fixed:_____ Value:_____ Time:_____ | No | 30 |

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1	(d) Earplugs.	Fixed:_____ Value:_____ Time:_____	No	60
2	(e) Dust masks.	Fixed:_____ Value:_____ Time:_____	No	60
3	(f) Gloves.	Fixed:_____ Value:_____ Time:_____	No	60
4	(g) High visibility overalls, marked with contractors name.	Fixed:_____ Value:_____ Time:_____	No	30
5	(h) Ear defenders.	Fixed:_____ Value:_____ Time:_____	No	30
6	(i) Safety harness.	Fixed:_____ Value:_____ Time:_____	No	2
7	(j) Certified lifeline.	Fixed:_____ Value:_____ Time:_____	No	2
8	(k) First aid boxes to GSR requirements.	Fixed:_____ Value:_____ Time:_____	No	2
<u>Sundry OHS requirements.</u>				
9	(a) Fire extinguishers.	Fixed:_____ Value:_____ Time:_____	No	2
10	(b) Spill kit.	Fixed:_____ Value:_____ Time:_____	No	1
11	(c) OHS and safety signage.	Fixed:_____ Value:_____ Time:_____	No	1
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1	(d) Wind speed meter. Fixed:_____ Value:_____ Time:_____	No	1		
2	(e) Alcohol tester. Fixed:_____ Value:_____ Time:_____	No	1		
<u>Cost of Medical Certificates and Medical Surveillance</u>					
3	(a) Initial baseline medical examinations (medical certificate of fitness). Fixed:_____ Value:_____ Time:_____	No	30		
<u>Training requirements.</u>					
4	(a) Legal liability training. Fixed:_____ Value:_____ Time:_____	No	2		
5	(b) First aid training. Fixed:_____ Value:_____ Time:_____	No	2		
6	(c) SHE representative training. Fixed:_____ Value:_____ Time:_____	No	2		
7	(d) Height at work training. Fixed:_____ Value:_____ Time:_____	No	10		
8	(e) Induction training including cards/tags. Fixed:_____ Value:_____ Time:_____	No	30		
9	(f) Scaffolding erector. Fixed:_____ Value:_____ Time:_____	No	2		
10	(g) Scaffolding inspector/supervisor. Fixed:_____ Value:_____ Time:_____	No	2		
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1	(h) Fire fighting training. Fixed:_____ Value:_____ Time:_____	No	2		
2	C12 COMMUNITY LIAISON OFFICER (CLO) The contractor shall employ a Community Liaison Officer (CLO) for the full duration of the contract. An amount of R5 000.00 (Five thousand rand) per month for 6 months is allowed for in this item as remuneration of the CLO Fixed:_____ Value:_____ Time:_____		Item		30 000.00
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1 C13 IMPLEMENTATION OF LABOUR INTENSIVE
INFRASTRUCTURE PROJECTS UNDER THE
EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

The **contractor** shall comply with all the requirements of the "Code of Good Practice for Employments and Conditions of Works for Special Public Works Programme" issued in terms of the "Basic Conditions of Employment Act, 1997 (Act No 75 of 1997)" and the related "Ministerial Determination", for the employment of locally employed temporary workers on a labour-intensive infrastructure project under the Expanded Public Works Programme (EPWP)

The **contractor** shall enter into an employment agreement with all workers and provide certified copies of such agreements and identity documents of the workers to the **principal agent** within 28 calender days

The **contractor** shall maintain daily records with regard to the workers employed and shall, on monthly basis, submit a report to the **principal agent** in the prescribed format. Compulsory indicators such as the project budget, actual project expenditure, number of job opportunities created, demographic characteristics of workers employed, minimum daily wage rate, number of person-days of employment created and number of training person-days, shall be included in the said report all as defined in the "Guidelines for the Implementation of Labour intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)"

Provision for pricing of compliance with the
aforementioned is made under this clause and it is
explicitly pointed out that all requirements in respect of
the aforementioned are deemed to be priced hereunder
and no additional claims in this regard shall be
entertained

Fixed:_____ Value:_____ Time:_____

Item

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1 C14 USE OF LOCAL SMME's

It is the requirement of the **employer** that the **contractor** enhances the use of local Small, Micro and Medium Enterprises (SMME's) involved in the project. This is required to be done through the use of both traditional building techniques and **labour intensive construction techniques** careful and considered construction planning

Provision for pricing of compliance with the aforementioned is made under this clause and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained

(a) SMME's involvement of at least 30% of the contract value to be sourced from within 50km of the project site

Fixed: _____ Value: _____ Time: _____

Item

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<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<u>BILL No. 2</u>			
<u>PLUMBING & DRAINAGE</u>			
<u>PREAMBLES</u>			
For Preambles refer to The documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.0" and "Construction Works: Specifications: General Specification (PW371-B) Edition 2.0" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Preambles</u>			
The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
<u>Excavations</u>			
No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling.			
<u>Laying, Backfilling, Bedding, Etc. Of Pipes</u>			
Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled.			
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Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following:

SANS 1200L : Medium-pressure pipelines

SANS 1200LD : Sewers

SANS 1200LE : Stormwater drainage

Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SANS 1200DB : Earthworks (Pipe trenches).

Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SANS 1200LB : Bedding (Pipes).

Unless otherwise described bedding of rigid pipes shall be Class B bedding.

uPVC Pipes And Fittings

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.

Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings.

Exposed Concrete Surfaces

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc. shall be finished smooth with plaster.

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).

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Reducing Fittings

Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained.

Waste Unions

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.

Sealing Of Edges

Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone.

Stainless Steel Basins, Sinks, Wash Troughs, Urinals, Etc.

Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8).

Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8).

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.

Fixing Of Pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc., casting in, building in or suspending not exceeding 1m below suspension level.

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uPVC Pressure Pipes And Fittings

Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.

Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.

High Density Polyethylene (HDPE) Pipes And Fittings

Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings.

Copper Pipes

Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-siphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016.

Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition.

Paper Wrapping To Pipes

Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings

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"Densyl" Petrolatum Anti-corrosion Tape As
Manufactured By Denso SA (Pty) Ltd.

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with minimum 15mm lap per spiral unless otherwise described.

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including mastic, tape, "Layflat" sheeting, securing of same, etc.

Prices for wrapping of pipes shall include for all work as described to couplings in the length.

Disinfection Of Water Pipework

Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).

As-Built Drawings

Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere).

ALTERATIONS

Take Out And Remove Piping, Sanitary Fittings, Etc.
Including Disconnecting Piping From Fittings

1	Take out and remove 15mm gate valve.	No	2
2	Take out and remove 40mm gate valve.	No	2
3	Take out and remove 15mm flow meter.	No	1
4	Take out and remove 25mm flow meter.	No	1

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1	Take out and remove 150 x 125 x 0,8mm Aluminium eaves gutter fixed to fibre cement fascia and make good fascia to receive new gutter.	m	50		
2	Take out and remove 75 x 100 x 0,6mm Rectangular section fluted rainwater pipe fixed 25mm clear of walls with galvanised sheet iron ears screwed to and including 200 x 70 x 22mm chamfered and oiled hardwood blocks plugged to wall and make good to receive new rainwater pipe.	m	15		
3	Take out and remove 100mm Diameter half round PVC gutter and accessories fixed to fibre cement fascia and make good fascia to receive new gutter.	m	50		
4	Take out and remove 80mm Diameter PVC rainwater pipe fixed to plastered wall and make good to receive new rainwater pipe.	m	15		
5	Take out and remove fire hose reel and make good to receive new fire hose reel.	No	8		
6	Clean out valve chamber of dirt, vegetation etc., chamber approximate size 500 x 650 x 300mm deep, including replacing pre-cast lid.	No	1		
<u>RAINWATER GOODS, ETC</u>					
<u>Marley Rigid PVC Rainwater Goods Including Short Lengths, Cutting And Jointing</u>					
7	Vynadeep half round eaves gutter including union clips and fixing to falls on patent brackets spaced at maximum 1000mm centres fixed to fibre reinforced cement fascia with brass bolts with nuts and washers.	m	50		
<u>Extra For</u>					
8	Stopped end.	No	4		
9	Internal angle.	No	4		
10	External angle.	No	4		
11	Outlet with 80mm diameter nozzle.	No	8		
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	(End of Extra For)			
1	80mm Diameter rainwater pipe and fixing to wall with clips plugged to wall.	m	15	
	Extra For			
2	Bend.	No	8	
3	Swanneck-ends.	Pairs	8	
4	Shoe.	No	8	
	Pre-Painted Seamless Aluminium Ogee Gutters, Rainwater Pipes And Accessories In Long Lengths			
5	150 x 125 x 0,8mm Eaves gutter fixed to fibre cement fascia.	m	50	
	Extra for			
6	Stopped end.	No	4	
7	Internal angle.	No	4	
8	External angle.	No	4	
9	Outlet with nozzle for 75 x 100mm rainwater pipe.	No	8	
	(End Of Extra For)			
10	75 x 100 x 0,6mm Rectangular section fluted rainwater pipe fixed 25mm clear of walls with galvanised sheet iron ears screwed to and including 200 x 70 x 22mm chamfered and oiled hardwood blocks plugged to wall.	m	15	
	Extra For			
11	Shoe.	No	8	
12	Bend.	No	8	
13	Spreader and fixing to bottom of rainwater pipe.	No	8	
	(End Of Extra For)			
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RAINWATER TANKS, ETC

1	5000 Litre plastic seamless water storage tank complete with fixing lugs and lid, set in position on concrete tankstand (elsewhere measured) with 2 x strands of 4mm galvanised steel wire fixed to the tanks fixing lugs and u-shaped anchors to be embedded into concrete tankstand at each corner of tank.	No	13
2	10 000 Litre plastic seamless water storage tank complete with fixing lugs and lid, set in position on concrete tankstand (elsewhere measured) with 2 x strands of 4mm galvanised steel wire fixed to the tanks fixing lugs and u-shaped anchors to be embedded into concrete tankstand at each corner of tank.	No	1
3	Hole through top of tank lid for rainwater pipe.	No	13
4	Purain rainwater filters PR100 model with non-return valve and chamber cover.	No	13
5	Adaptor from 75mm diameter aluminium rainwater pipe to 100mm diameter inlet of PR100 rainwater filter.	No	13
6	100mm Diameter PVC rainwater pipes.	m	26
7	100mm Diameter PVC bend.	No	26
8	High pressure brass float valve and connection to rainwater tank including all fittings and adaptors.	No	14
<u>The Following In Inspection Chambers</u>			
9	Excavate in earth not exceeding 2000mm deep for inspection chambers.	m3	28
10	Extra over excavations in earth to inspection chambers for excavation in soft rock.	m3	3
11	Ditto, but in hard rock.	m3	1

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1	Excavate in earth for working space (at Contractor's discretion) not exceeding 1500mm deep to sides of inspection chamber for building brick walls or for erection and removal of formwork to walls and return, fill and consolidate spoil on completion. (Distance from face of inspection chamber to side of excavation is 75mm).	m2	59		
2	Extra over ditto for excavation in soft rock.	m2	6		
3	Ditto, but for excavation in hard rock.	m2	3		
4	Extra over all excavations for carting away from the site all surplus excavated material.	m3	23		
5	Allow for risk of collapse to sides of trench and base excavations not exceeding 1500mm deep.	m2	30		
6	Allow for keeping excavations free from water.		Item		
7	Earth filling, selected by the Contractor from the excavated material, deposited in layers not exceeding 150mm thick, watered and consolidated as backfilling to trenches, bases, etc.	m3	5		
8	Cement concrete (15MPa) in blinding cast against excavated surfaces.	m3	1		
9	Cement concrete (25MPa) in bottoms cast against blinding.	m3	3		
10	Cement concrete (25MPa) in cover or reducer slab.	m3	3		
11	Cement concrete (30MPa) in filling to bottom of chamber, benched up from edges of channel to sides of chamber at an angle of 45 degrees and floated smooth.	m3	1		
12	Float top of concrete cover slab to falls, with a wood float and finish with a brushed non-skid surface whilst concrete is still green with the addition of 2.1 sand and cement as necessary.	m2	17		
13	Class F1 rough formwork to soffit of cover slabs and removing through opening in cover slab.	m2	10		
14	Ditto, but to edges, risers, ends and reveals not exceeding 300mm high or wide.	m	46		
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1	15mm Chamfer to edge of concrete slab.	m	21		
2	Extra over formwork to soffit of slab for forming rebated opening through 150mm thick concrete slab for 550mm diameter manhole cover and frame.	No	4		
3	Extra over formwork to soffit of slab for forming rebated opening through 150mm thick concrete slab, size 900 x 600mm for manhole and frame.	No	2		
4	Extra over formwork to soffit of slab for forming rebated opening through 150mm thick concrete slab, size 915 x 1100mm for manhole and frame.	No	1		
5	10mm Diameter high tensile steel bar reinforcement cast into concrete.	kg	288		
6	High tensile steel mesh Ref. 395 to concrete catchpit base.	m2	24		
7	One brick wall of extra hard burnt bricks in 3.1 cement mortar.	m2	31		
8	Brick reinforcement 155mm wide.	m	389		
9	End of 110mm diameter PVC pipe built into brickwork.	No	5		
10	End of 45mm diameter galvanised pipe built into brickwork.	No	14		
11	End of 45mm diameter HDPE pipe built into brickwork.	No	14		
12	550mm Diameter cast iron two piece cover and frame including locking bar and weatherproof lock bedded on top of concrete manhole cover slab.	No	4		
13	900 x 600mm cast iron two piece double seal manhole cover and frame including locking bar and weatherproof lock bedded on top of concrete manhole cover slab.	No	2		
14	Galvanised steel purpose made manhole cover size 915 x 1100mm including hinge, building in etc. all as per drawing 26126LW-108 bound to the back of these Bills of Quantities.	No	1		
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1	255 x 155mm Cast iron step iron and building both ends into brick wall in cement mortar.	No	6		
2	3.1 Cement plaster on walls of inspection chamber.	m2	26		
<u>WATER SUPPLY</u>					
<u>HDPE Class PN10 Pressure Water Supply Pipe Including Connectors, Short Lengths, Cutting And Jointing, Laid In Trenches Including Compacted Bedding Cradle And Fill Blanket As SABS 1200 LB (Flexible Pipe Bedding), Excavation, Risk Of Collapse, Keeping Excavations Free Of Water And Backfilling With Selected Material From The Excavations As SABS 1200 DB</u>					
3	40mm Pipe and laying in ground 675mm deep.	m	550		
4	50mm Pipe and laying in ground 675mm deep.	m	1 925		
5	75mm Pipe and laying in ground 675mm deep.	m	150		
6	90mm Pipe and laying in ground 675mm deep.	m	30		
7	100mm Pipe and laying in ground 675mm deep.	m	150		
<u>HDPE Class PN16 Pressure Water Supply Pipe Including Connectors, Short Lengths, Cutting And Jointing, Laid In Trenches Including Compacted Bedding Cradle And Fill Blanket As SABS 1200 LB (Flexible Pipe Bedding), Excavation, Risk Of Collapse, Keeping Excavations Free Of Water And Backfilling With Selected Material From The Excavations As SABS 1200 DB</u>					
8	45mm Pipe and laying in ground 675mm deep.	m	120		
<u>Extra For uPVC Fittings</u>					
9	40mm Tee.	No	4		
10	45mm Tee.	No	2		
11	50mm Tee.	No	36		
12	75mm Tee.	No	2		
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1	90mm Tee.	No	2		
2	100mm Tee.	No	4		
3	40mm Male Adaptor.	No	4		
4	45mm Male Adaptor.	No	2		
5	50mm Male Adaptor.	No	32		
6	75mm Male Adaptor.	No	2		
7	90mm Male Adaptor.	No	2		
8	100mm Male Adaptor.	No	4		
9	40mm Female Adaptor.	No	4		
10	45mm Female Adaptor.	No	2		
11	50mm Female Adaptor.	No	32		
12	75mm Female Adaptor.	No	2		
13	90mm Female Adaptor.	No	2		
14	100mm Female Adaptor.	No	4		
15	40mm Bend 90 degrees.	No	4		
16	45mm Bend 90 degrees.	No	2		
17	50mm Bend 90 degrees.	No	32		
18	75mm Bend 90 degrees.	No	2		
19	90mm Bend 90 degrees.	No	2		
20	100mm Bend 90 degrees.	No	4		
21	40mm Bend 45 degrees.	No	4		
22	45mm Bend 45 degrees.	No	2		
23	50mm Bend 45 degrees.	No	32		
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1	75mm Bend 45 degrees.	No	2		
2	90mm Bend 45 degrees.	No	2		
3	100mm Bend 45 degrees.	No	4		
4	40 x 15mm Straight reducer.	No	2		
5	40 x 25mm Straight reducer.	No	2		
6	50 x 25mm Straight reducer.	No	31		
7	50 x 40mm Straight reducer.	No	2		
8	75 x 50mm Straight reducer.	No	2		
9	80 x 75mm Straight reducer.	No	1		
10	90 x 80mm Straight reducer.	No	1		
11	100 x 50mm Straight reducer.	No	3		
12	100 x 75mm Straight reducer.	No	1		
13	15mm Kent Helix 4000 OEA mechanical water flow meter and joints to HDPE pipe.	No	1		
14	25mm Kent Helix 4000 OEA mechanical water flow meter and joints to HDPE pipe.	No	1		
<u>Galvanised Mild Steel Screwed And Socketed Pipes Including Short Lengths, Cutting, Jointing And Holderbats</u>					
15	40mm Pipe and fixing to walls, floors, in roofs, soffit of concrete slab, in chases (including chases and making good), in concrete, etc.	m	15		
16	45mm Pipe and fixing to walls, floors, in roofs, soffit of concrete slab, in chases (including chases and making good), in concrete, etc.	m	20		
17	50mm Pipe and fixing to walls, floors, in roofs, soffit of concrete slab, in chases (including chases and making good), in concrete, etc.	m	15		
Carried To Trade Summary				R	
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1	80mm Pipe and fixing to walls, floors, in roofs, soffit of concrete slab, in chases (including chases and making good), in concrete, etc.	m	20		
2	100mm Pipe and fixing to walls, floors, in roofs, soffit of concrete slab, in chases (including chases and making good), in concrete, etc.	m	30		
3	40mm Pipe and laying in ground 675mm deep including excavation, bedding, backfilling, etc.	m	10		
4	45mm Pipe and laying in ground 675mm deep including excavation, bedding, backfilling, etc.	m	250		
5	50mm Pipe and laying in ground 675mm deep including excavation, bedding, backfilling, etc.	m	10		
6	80mm Pipe and laying in ground 675mm deep including excavation, bedding, backfilling, etc.	m	10		
7	100mm Pipe and laying in ground 675mm deep including excavation, bedding, backfilling, etc.	m	20		
	<u>Extra For</u>				
8	40mm Wafer pattern non-return valve suitable for the working pressure.	No	2		
9	45mm Wafer pattern non-return valve suitable for the working pressure.	No	1		
10	50mm Wafer pattern non-return valve suitable for the working pressure.	No	26		
11	80mm Wafer pattern non-return valve suitable for the working pressure.	No	1		
12	100mm Wafer pattern non-return valve suitable for the working pressure.	No	2		
13	15mm Heavy duty galvanised spool piece flanged both ends 300mm long.	No	2		
14	40mm Heavy duty galvanised spool piece flanged both ends 150mm long.	No	1		
Carried To Trade Summary				R	
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1	40mm Heavy duty galvanised spool piece flanged both ends 300mm long.	No	1		
2	40mm Heavy duty galvanised spool piece flanged both ends 850mm long.	No	5		
3	40mm Heavy duty galvanised spool piece flanged both ends 900mm long.	No	1		
4	40mm Heavy duty galvanised spool piece flanged both ends 1000mm long.	No	8		
5	45mm Heavy duty galvanised spool piece flanged both ends 1000mm long.	No	1		
6	50mm Heavy duty galvanised spool piece flanged both ends 350mm long.	No	1		
7	50mm Heavy duty galvanised spool piece flanged both ends 450mm long.	No	1		
8	50mm Heavy duty galvanised spool piece flanged both ends 600mm long.	No	2		
9	50mm Heavy duty galvanised spool piece flanged both ends 1000mm long.	No	1		
10	50mm Heavy duty galvanised spool piece flanged both ends 1200mm long.	No	2		
11	50mm Heavy duty galvanised spool piece flanged both ends 1500mm long.	No	1		
12	50mm Heavy duty galvanised spool piece flanged both ends 2000mm long.	No	2		
13	50mm Heavy duty galvanised spool piece flanged both ends 3200mm long.	No	1		
14	80mm Heavy duty galvanised spool piece flanged both ends 450mm long.	No	2		
15	80mm Heavy duty galvanised spool piece flanged both ends 1000mm long.	No	5		
Carried To Trade Summary				R	
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1	100mm Heavy duty galvanised spool piece flanged both ends 1000mm long.	No	1		
2	40mm Heavy duty 150 x 10mm puddle flange piece.	No	8		
3	45mm Heavy duty 150 x 10mm puddle flange piece.	No	1		
4	50mm Heavy duty 150 x 10mm puddle flange piece.	No	1		
5	80mm Heavy duty 150 x 10mm puddle flange piece.	No	2		
6	100mm Heavy duty 150 x 10mm puddle flange piece.	No	1		
7	40mm Heavy duty threaded flange piece.	No	14		
8	45mm Heavy duty threaded flange piece.	No	1		
9	50mm Heavy duty threaded flange piece.	No	3		
10	80mm Heavy duty threaded flange piece.	No	6		
11	100mm Heavy duty threaded flange piece.	No	1		
12	40mm Heavy duty equal tee with flanged ends.	No	2		
13	45mm Heavy duty equal tee with flanged ends.	No	1		
14	50mm Heavy duty equal tee with flanged ends.	No	1		
15	80mm Heavy duty equal tee with flanged ends.	No	1		
16	100mm Heavy duty equal tee with flanged ends.	No	1		
17	40 x 15mm Heavy duty reducing tee.	No	2		
18	40 x 25mm Heavy duty reducing tee.	No	1		
19	45 x 25mm Heavy duty reducing tee.	No	1		
20	50 x 25mm Heavy duty reducing tee.	No	1		
21	80 x 25mm Heavy duty reducing tee.	No	1		
22	100 x 25mm Heavy duty reducing tee.	No	1		
Carried To Trade Summary				R	
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1	40mm Heavy duty bend 90 deg with flanged ends.	No	3		
2	45mm Heavy duty bend 90 deg with flanged ends.	No	1		
3	50mm Heavy duty bend 90 deg with flanged ends.	No	8		
4	80mm Heavy duty bend 90 deg with flanged ends.	No	1		
5	100mm Heavy duty bend 90 deg with flanged ends.	No	1		
6	40mm PVC to galvanised straight connector with flanged ends.	No	7		
7	45mm PVC to galvanised straight connector with flanged ends.	No	1		
8	50mm PVC to galvanised straight connector with flanged ends.	No	9		
9	80mm PVC to galvanised straight connector with flanged ends.	No	4		
10	100mm PVC to galvanised straight connector with flanged ends.	No	1		
11	40mm Heavy duty tee, complete with plug fitted to branch (for pressure switch on electrical installations).	No	1		
12	45mm Heavy duty tee, complete with plug fitted to branch (for pressure switch on electrical installations).	No	1		
13	50mm Heavy duty tee, complete with plug fitted to branch (for pressure switch on electrical installations).	No	1		
14	80mm Heavy duty tee, complete with plug fitted to branch (for pressure switch on electrical installations).	No	1		
15	100mm Heavy duty tee, complete with plug fitted to branch (for pressure switch on electrical installations).	No	1		
16	25mm Nipple or barrel nipple.	No	1		
17	40mm Nipple or barrel nipple.	No	1		
18	45mm Nipple or barrel nipple.	No	1		
Carried To Trade Summary				R	
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1	50mm Nipple or barrel nipple.	No	1		
2	80mm Nipple or barrel nipple.	No	1		
3	100mm Nipple or barrel nipple.	No	1		
4	40mm Kent Helix 4000 OEA flanged mechanical water meter and joints to galvanised pipe.	No	1		
5	45mm Kent Helix 4000 OEA flanged mechanical water meter and joints to galvanised pipe.	No	1		
6	50mm Kent Helix 4000 OEA flanged mechanical water meter and joints to galvanised pipe.	No	1		
7	80mm Kent Helix 4000 OEA flanged mechanical water meter and joints to galvanised pipe.	No	1		
8	100mm Kent Helix 4000 OEA flanged mechanical water meter and joints to galvanised pipe.	No	1		
9	40mm 0-1600 KPa glycerine filled pressure gauge with 100mm diameter face complete with 2 x 8 x 75mm long MGI pipe threaded both ends and 1 x 8mm female threaded ballo-stop isolating cock.	No	1		
10	45mm 0-1600 KPa glycerine filled pressure gauge with 100mm diameter face complete with 2 x 8 x 75mm long MGI pipe threaded both ends and 1 x 8mm female threaded ballo-stop isolating cock.	No	1		
11	50mm 0-1600 KPa glycerine filled pressure gauge with 100mm diameter face complete with 2 x 8 x 75mm long MGI pipe threaded both ends and 1 x 8mm female threaded ballo-stop isolating cock.	No	1		
12	80mm 0-1600 KPa glycerine filled pressure gauge with 100mm diameter face complete with 2 x 8 x 75mm long MGI pipe threaded both ends and 1 x 8mm female threaded ballo-stop isolating cock.	No	1		
13	100mm 0-1600 KPa glycerine filled pressure gauge with 100mm diameter face complete with 2 x 8 x 75mm long MGI pipe threaded both ends and 1 x 8mm female threaded ballo-stop isolating cock.	No	1		
14	15mm Gate valve with flanged ends.	No	1		
Carried To Trade Summary				R	
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1	25mm Gate valve with flanged ends.	No	1		
2	40mm Gate valve with flanged ends.	No	9		
3	45mm Gate valve with flanged ends.	No	1		
4	50mm Gate valve with flanged ends.	No	46		
5	80mm Gate valve with flanged ends.	No	4		
6	100mm Gate valve with flanged ends.	No	2		
7	40mm Pressure relief valve with flanged ends.	No	1		
8	45mm Pressure relief valve with flanged ends.	No	1		
9	50mm Pressure relief valve with flanged ends.	No	1		
10	80mm Pressure relief valve with flanged ends.	No	1		
11	100mm Pressure relief valve with flanged ends.	No	1		
12	15mm Brass fullbore ball valve, ff.	No	2		
13	15mm Non slam, air release and vacuum breaking air valve, skewed.	No	2		
14	50mm Heavy duty ventilation pipe, Type 1.	No	2		
15	75mm equilibrium float valve with cast iron body with flanged ends and glass fibre covered polyurethane float.	No	2		
16	Chlorinator including all PVC fittings and pipes as well as hook bolt, as per detail 1 (Tablet Chlorinator) on drawing 26126LW-105 bound to the back of these Bills of Quantities.	No	1		
17	Galvanised mild steel base plate 16mm thick as per drawing 26126LW-102 section AA and pipework schedules bound to the back of these Bills of Quantities.	No	1		
18	Cement concrete (15MPa) thrust block (approximately 0,05 cubic metres) at bends, etc., including casing.	No	25		
19	Cement concrete (15MPa) thrust block (approximately 0,1 cubic metres) at bends, etc., including casing.	No	25		
Carried To Trade Summary				R	
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	<u>Pipe protection</u>				
1	Petro Tape loosely wrapped with 25mm laps around 40mm diameter galvanised pipes including fittings.	m	10		
2	Petro Tape loosely wrapped with 25mm laps around 45mm diameter galvanised pipes including fittings.	m	23		
3	Petro Tape loosely wrapped with 25mm laps around 50mm diameter galvanised pipes including fittings.	m	10		
4	Petro Tape loosely wrapped with 25mm laps around 80mm diameter galvanised pipes including fittings.	m	10		
5	Petro Tape loosely wrapped with 25mm laps around 100mm diameter galvanised pipes including fittings.	m	30		
6	Petro Tape loosely wrapped with 25mm laps around 40mm diameter HDPE and PVC pipes including fittings.	m	1		
7	Petro Tape loosely wrapped with 25mm laps around 45mm diameter HDPE and PVC pipes including fittings.	m	3		
8	Petro Tape loosely wrapped with 25mm laps around 50mm diameter HDPE and PVC pipes including fittings.	m	1		
9	Petro Tape loosely wrapped with 25mm laps around 75mm diameter HDPE and PVC pipes including fittings.	m	1		
10	Petro Tape loosely wrapped with 25mm laps around 90mm diameter HDPE and PVC pipes including fittings.	m	1		
11	Petro Tape loosely wrapped with 25mm laps around 100mm diameter HDPE and PVC pipes including fittings.	m	1		
12	Petro Tape loosely wrapped with 25mm laps around 110mm diameter HDPE and PVC pipes including fittings.	m	1		
	<u>Sundries</u>				
13	Extra over excavation in earth as described for pipe trenches, chambers, etc., for excavation in soft rock.	m3	105		
14	Ditto, but in hard rock.	m3	66		
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1	Extra over all excavations for pipe trenches, etc for carting away from the site all surplus material from the excavations (measured net - no allowance for bulking).	m3	1 161
2	Imported Sabunga filling as backfill to pipe trenches and compact to 93% modified AASHTO.	m3	1 161
3	Excavate for and build valve chamber size 565 x 565 x 800mm deep formed of precast concrete valve chamber units and top with lid marked with "V", 19mm stone filling 30mm thick to bottom of chamber, including backfilling, ramming and carting away spoil as per drawing 26126LW-109 bound to the back of these Bills of Quantities.	No	48
4	Excavate for and build valve chamber size 305 x 670 x 380mm deep internally, formed of Cementile MS1220 precast concrete meter box and MS1225 lid including backfilling, ramming and carting away spoil on 20Mpa concrete base approximately 70mm high.	No	48
5	Precast concrete pipe marker size 150 x 150 x 1.5m high, with 750mm embedded in soil, including excavations, backfilling, ramming, carting away spoil etc. as per drawing number 26126LW-106 Rev.A bound to the back of these Bills of Quantities.	No	48

FIRE SERVICE**Galvanised Mild Steel Screwed And Socketed Pipes Including Short Lengths, Cutting, Jointing And Holderbats**

6	80mm Pipe vertical in fire hydrant pedestal.	m	2
	<u>Extra For</u>		
7	80 X 65mm Reducing bush.	No	1
8	80 X 65mm Reducing socket.	No	1
9	80mm Flange drilled for and including the required bolts and nuts and neoprene gasket.	No	1

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<u>Cast Brass</u>					
1	65mm Right angle hydrant landing valve with 80mm screwed male inlet and joint to steel pipe.	No	1		
2	65mm Double steamer connection with non-return valve and blank caps and joint to mild steel pipe.	No	1		
<u>Class 2 Medium Copper Pipes Including Short Lengths, Cutting, Jointing And Holderbats</u>					
3	28mm Pipe and laying in ground 1000mm deep including excavation, bedding and backfilling, etc.	m	48		
4	28mm Pipe and fixing to walls, floors, in roofs, soffit of concrete slab, in chases (including chases and making good), in concrete, etc.	m	24		
<u>Extra For Conex Brass Compression Type Fittings</u>					
5	28mm Fittings.	No	56		
<u>Prepare And Apply One Coat Primer, One Undercoat And One Coat Enamel On Copper Surfaces</u>					
6	On pipe not exceeding 300mm girth.	m	24		
<u>Sundries</u>					
7	"Chubb" or other approved turnable hosereel bearing SABS mark and brackets with patent swivel joints, fitted with 30m length of 19mm diameter SABS red PVC hose with gunmetal 'shut-off' control nozzle and chromium plated wheelhead valve and fix reel and nozzle bracket to plastered walls with and including 6 x 76mm expanding bolts in mortices in wall.	No	10		
8	Tempest or other equal approved mild steel hosereel cabinet size 800 x 800 x 300mm deep fixed to wall.	No	10		
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1	Cement concrete (25MPa) fire hydrant pedestal 1700mm high overall, tapering from 440 x 440mm at base to 240mm diameter octagonal top, finished smooth on exposed faces in 3.1 cement mortar with clean and sharp arises, including necessary casing, reinforcement, excavation for embedding 1000mm deep into ground, risk of collapse, filling and ramming, as per drawing number 26126LW-107 Rev.A bound to the back of these Bills of Quantities.	No	1		
2	Extra over all excavations for pipe trenches, etc for carting away from the site all surplus material from the excavations (measured net - no allowance for bulking).	m3	0.2		
<u>TESTING</u>					
3	Allow for testing all sewer drains, sanitary plumbing, water supplies and fire appliances and installations to the satisfaction of the Architect and to Municipal requirements and supply all necessary compliance certificates. All defective work is to be taken out and replaced at the Contractor's expense.			Item	
<u>DISINFECTION OF WATER PIPEWORK</u>					
4	Allow for disinfecting water pipework at completion in accordance with SABS 1200L.			Item	
<u>AS-BUILT DRAWINGS</u>					
5	The contractor shall prepare an updated set of as-built drawings at completion of the contract and hand these drawings to the Principal Agent for reproducing onto the originals for handing over to the Employer.			Item	
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<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<u>BILL No. 3</u>			
<u>EXTERNAL WORKS</u>			
<u>PREAMBLES</u>			
Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
<p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p>Before commencing any works under "Site Excavations", cross sections shall be taken by the contractor and these levels shall be compared with those given on the drawings. Failure by the contractor to report any discrepancy between the physical levels and those shown on the drawings will be construed as acceptance of the latter by him.</p>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Preambles</u>			
The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
<u>Proprietary Products In Descriptions</u>			
<p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p>			
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Checking Levels

Before commencing any works under "Site Excavations", cross sections shall be taken by the contractor and these levels shall be compared with those given on the drawings. Failure by the contractor to report any discrepancy between the physical levels and those shown on the drawings will be construed as acceptance of the latter by him.

Nature Of Ground

The nature of the ground is unknown and the contractor is to make his own assessment and due allowance for same.

Quantities

The quantities of excavations and concrete shall be the net sizes to be formed in accordance with the drawings and specifications and shall be not less than the horizontal area of the bottom of the relevant structures multiplied by the average depth or thickness.

Carting Away Of Excavated Material

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site.

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1 page 10 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.

Imported fill:

Filling and bedding to trenches etc. to be in compliance with SANS 1200 DB and LB respectively.
Site clearance and external paved areas earthworks to be in compliance with SANS 1200C and D respectively.

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Density Testing On Filling

Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally.

Formwork

Formwork to sides of footings, bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the engineer for design reasons.

Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations.

SITE EXCAVATIONS**DEMOLITIONS**

1	Hack up and remove tarmac surfaces.	m2	50
2	Hack up and remove paving formed of 200 x 100 x 80mm thick interlocking paving bricks.	m2	50
3	Hack up and remove 100mm thick concrete pavings and 150mm thick hardcore layer under.	m2	50
4	Hack up and remove 100mm wide x 250mm high concrete kerb.	m	10
5	Hack up and remove 300mm half round precast concrete surface water channel.	m	10
6	Hack up and remove 600mm wide x 85mm thick concrete apron or dished channel.	m	10
7	Hack up and remove domestic water supply pipes in ground not exceeding 1000mm deep including backfilling and making good grassed areas.	m	50

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1	Break down and remove existing rainwater tank stand approximate size 2000 x 2000 x 510mm high comprising concrete surface bed, brick walls and 5000l tank.	No	9		
2	Break down and remove existing steel rainwater tank stand and 5000l tank.	No	7		
3	Break down and remove existing water pump including all fitting, pipework and make good.	No	1		
<u>PAVINGS</u>					
<u>EARTHWORKS</u>					
<u>Excavations, Etc</u>					
4	Excavate in earth to reduce levels under pavings not exceeding 2000mm deep.	m3	2		
5	Extra over bulk excavations in earth for excavation in soft rock.	m3	0.2		
6	Ditto, but in hard rock.	m3	0.1		
7	Extra over all excavations for carting away from the site all surplus excavated material.	m3	2		
8	Allow for keeping excavations free from water.		Item		
<u>Layerworks, Etc Including Compaction Density Tests</u>					
9	G5 type material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 93% modified AASHTO density under pavings.	m3	1		
10	Scarify, mix and consolidate top 150mm of subgrade to 93% modified AASHTO density.	m2	6		
<u>Prescribed Density Tests As Check On Contractors Tests Included In Layerworks Above</u>					
11	Modified AASHTO density test and deliver the results to the Architect within 24 hours of the tests being completed.	No	1		
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CONCRETE

1	Set of three concrete test cubes size 150 x 150 x 150mm overall including testing (Provisional).	Sets	1		
	<u>Concrete</u>				
2	Cement concrete (15MPa) in stormwater channel/apron cast in panels not exceeding 3m ² .	m ³	1		
	<u>Concrete Sundries</u>				
3	Float top of concrete dished stormwater channel/apron to falls with a wood float whilst the concrete is still green with the addition of 2.1 sand and cement as necessary.	m ²	6		

BRICK AND BLOCK PAVING

Coloured Precast Cement Concrete (35MPa) Type SA Interlocking Bond Paving Bricks Size 200 x 100 x 80mm Thick Laid On And Including 30mm Thick Sand Bed With Joints Filled With Sand

4	Paving to falls to herringbone pattern including forming soldier course perimeter margin.	m ²	50		
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ROADWORKS

NOTE: Any defects which may become evident due to bad workmanship or materials within six months of completion shall be made good by the Contractor at his own expense. -----

EARTHWORKS

Excavations, Etc

5	Excavate in earth to open face over site to reduce levels.	m ³	43		
6	Extra over bulk excavations in earth for excavation in soft rock.	m ³	4		
7	Ditto, but in hard rock.	m ³	2		

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1	Extra over all excavations for carting away from the site all surplus excavated material.	m3	43		
2	Allow for keeping excavations free from water.		Item		
3	Earth filling, selected by the Contractor from the excavated material, deposited in layers not exceeding 150mm thick, watered and consolidated as backfilling behind kerbs, etc.	m3	1		
<u>Layerworks, Etc Including Compaction Density Tests</u>					
4	G5 type material, selected and supplied by the contractor, deposited, watered and consolidated to 95% modified AASHTO density in 150mm thick sub-base course under roads.	m3	16		
5	G7 type material, selected and supplied by the contractor, deposited, watered and consolidated to 93% modified AASHTO density in 150mm thick base course under roads	m3	15		
6	Scarify, mix and consolidate top 150mm of subgrade to 93% modified AASHTO density.	m2	106		
<u>Prescribed Density Tests As Check On Contractors</u> <u>Tests Included In Layerworks Above</u>					
7	Modified AASHTO density test and deliver the results to the Architect within 24 hours of the tests being completed.	No	4		
<u>CONCRETE</u>					
8	Set of three concrete test cubes size 150 x 150 x 150mm overall including testing (Provisional).	Sets	3		
<u>Concrete Cast Against Excavated Surfaces</u>					
9	Cement concrete (30MPa) in roads cast in panels not exceeding 5m2.	m3	8		
<u>Concrete Sundries</u>					
10	Float top of concrete smooth, to falls, with a wood float whilst concrete still green with the addition of 2.1 sand and cement as necessary.	m2	50		
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Bill No. 3 External Works MMPA QS & PM - JOB NO. 20/012					

1	25mm Diameter mild steel dowel 450mm long, one end cast 220mm deep into side of concrete at expansion joint and other end wrapped with polyethylene sheeting including holing formwork and closed cell polyethylene expansion joint, etc.	No	5		
	<u>FORMWORK</u>				
	<u>Class F1 Rough Formwork To</u>				
2	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	10		
	<u>Movement Joints, Etc</u>				
3	Expansion joint not exceeding 300mm high or wide formed of one layer 10mm thick softboard joint filler set between vertical concrete or brick surfaces.	m	20		
	<u>REINFORCEMENT</u>				
4	High tensile steel mesh reinforcement Ref. 193 to concrete surface beds, slabs, etc.	m2	50		
	<u>PRECAST CONCRETE</u>				
	<u>Precast Cement Concrete (20MPa) Kerbs And Channels Finished Smooth On Exposed Surfaces Including 15MPa Bedding 50mm Thick And 100 x 100mm Triangular Haunching Behind Kerb And Jointed And Pointed In 4.1 Cement Mortar</u>				
5	Fig. 4 kerb size 150 x 250mm high overall, laid in lengths not exceeding 1000mm on a well rammed earth bottom or base course.	m	10		
	<u>JOINT SEALING</u>				
	<u>Clean, Prime, Caulk, Tool And Smooth With Abe Flexothane 1H Elastomeric One Part Polyurethane Or Other Equal Approved Sealant Applied With A Pressure Caulking Gun Including Backing Cord</u>				
6	10 x 15mm Deep in joint on top surfaces of concrete floor including raking out expansion joint filler.	m	20		
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1	Road crossing formed of 600mm diameter class 75D concrete pipe, pipework under the road to be backfilled with 25MPa concrete and backfill to be stabilised imported selected backfill, including all excavations, ramming, risk of collapse etc.	m	40		
<u>ROAD SURFACING</u>					
<u>Reinstatement of Road Surface</u>					
2	Sweep off all loose material from base course, prime with MC 30 SP and apply two coat surface treatment comprising a first layer of 13.2mm aggregate, spread at a rate of 0.009 m3/m2 covered with a coat of cationic Grade 65 spray at a rate of 0.82 l/m2, the second layer of 6.7mm aggregate, spread at a rate of 0.005 m3/m2 covered with a coat of cationic Grade 65 spray at a rate of 0.98 l/m2 all in accordance with SANS 1200 M and SANS 1200 MG.	m2	50		
3	Junction of existing asphalt surface with new surface.	m	20		
<u>WATER TANK BASES, ETC</u>					
<u>EARTHWORKS</u>					
4	Excavate in earth for surface trenches not exceeding 2000mm deep.	m3	64		
5	Excavate in earth for bases not exceeding 2000mm deep.	m3	62		
6	Extra over excavation in earth to bases and trenches for excavation in soft rock.	m3	13		
7	Ditto, but in hard rock.	m3	6		
8	Extra over all excavations for carting away from the site all surplus excavated material.	m3	62		
9	Allow for risk of collapse to sides of trench and base excavations not exceeding 1500mm deep.	m2	269		
10	Allow for keeping excavations free from water.		Item		
Carried To Trade Summary				R	
Bill No. 3 External Works MMPA QS & PM - JOB NO. 20/012					

1	Earth filling, selected by the Contractor from the excavated material, deposited in layers not exceeding 150mm thick, watered and consolidated as backfilling to trenches, bases, etc.	m3	65		
2	Earth filling, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated as filling under floors, etc including compaction density tests.	m3	16		
	<u>CONCRETE</u>				
3	Set of three concrete test cubes size 150 x 150 x 150mm overall including testing (Provisional).	Sets	5		
	<u>Concrete</u>				
4	Reinforced cement concrete (25MPa) in water tank base.	m3	10		
5	Reinforced cement concrete (30MPa) in stub columns.	m3	1		
	<u>Concrete Cast Against Excavated Surfaces</u>				
6	Cement concrete (10MPa) in blinding.	m3	2		
7	Reinforced cement concrete (20MPa) in footings.	m3	16		
8	Reinforced cement concrete (25MPa) in water tank walls.	m3	2		
9	Reinforced cement concrete (30MPa) in bases.	m3	19		
	<u>CONCRETE SUNDRIES</u>				
10	40mm Thick 40 MPa non-shrink grout under base plates size 350 x 350mm including chamfered edge all around.	No	4		
11	Take delivery of set of four holding down bolts and cast into exact position in top of column or base including template, etc.	No	4		
12	Float top of concrete with a wood float and finish with a brushed non-skid surface whilst concrete is still green with the addition of 2.1 sand and cement as necessary.	m2	66		
	Carried To Trade Summary			R	
	Bill No. 3				
	External Works				
	MMPA QS & PM - JOB NO. 20/012				

1	25MPa Pre-cast concrete scour slab, size 500 x 500 x 75mm thick.	No	1		
	<u>FORMWORK</u>				
	<u>Class F1 Rough Formwork To</u>				
2	Sides of walls propped up not exceeding 3500mm high.	m2	18		
3	Sides of square or rectangular columns propped up not exceeding 3500mm high.	m2	8		
4	Edge, risers, ends and reveals not exceeding 300mm high or wide.	m	104		
5	Boxing in Class F1 formwork to form 20 x 20mm chamfer to horizontal edge of concrete.	m	7		
	<u>REINFORCEMENT</u>				
	<u>High Tensile Steel Bar Reinforcement To Structural Concrete Work</u>				
6	10mm Diameter bars.	T	1.51		
7	12mm Diameter bars.	T	1.45		
8	16mm Diameter bars.	T	1.58		
	<u>Fabric Reinforcement To Concrete Work</u>				
9	High tensile steel mesh Ref. 193 to concrete surface beds, slabs, etc.	m2	52		
10	High tensile steel mesh Ref. 500 to concrete surface beds, slabs, etc.	m2	14		
	<u>BRICKWORK</u>				
	<u>Brickwork In Clay Bricks In 6:1 Cement Mortar In</u>				
11	One brick wall.	m2	118		
	<u>Reinforcement</u>				
12	Galvanised brick reinforcement 155mm wide.	m	1 080		
	Carried To Trade Summary			R	
	Bill No. 3				
	External Works				
	MMPA QS & PM - JOB NO. 20/012				

	Allow The Prime Cost Of R 7 500.00 (Seven Thousand Five Hundred Rand) Per Thousand Face Bricks Delivered To Site And Pointed With Ruled-In Vertical And Horizontal Joints				
1	Extra over brickwork for face brickwork.	m2	71		
	<u>PLASTERING</u>				
	<u>Untinted Grano On Concrete</u>				
2	25mm Thick on floors.	m2	66		
3	25mm Thick on narrow widths.	m2	17		
	<u>DRINKING FOUNTAINS</u>				
	<u>EARTHWORKS</u>				
4	Excavate in earth for holes or bases not exceeding 2000mm deep.	m3	0.2		
5	Extra over all excavations for carting away from the site all surplus excavated material.	m3	0.2		
6	Allow for risk of collapse to sides of trench and base excavations not exceeding 1500mm deep.	m2	1		
7	Allow for keeping excavations free from water.		Item		
8	G5 type material, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 98% modified AASHTO density as filling under floors, etc. including compaction density tests.	m3	0.1		
	<u>PRE-CAST CONCRETE</u>				
9	Classic concrete exposed aggregate bollard drinking fountain by "Drinking Water Africa" size 320mm diameter x 1.2m high, installation as per manufacturers instructions.	No	5.00		
	<u>CONCRETE</u>				
10	Set of three concrete test cubes size 150 x 150 x 150mm overall including testing (Provisional).	Sets	1		
	Carried To Trade Summary			R	
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	External Works				
	MMPA QS & PM - JOB NO. 20/012				

<u>Concrete</u>					
1	Cement concrete (30MPa) in filling to 160mm stand pipe (elsewhere measured).	m3	0.02		
<u>Concrete Cast Against Excavated Surfaces</u>					
2	Blinding under bases (10MPa).	m3	0.1		
3	Reinforced cement concrete (30MPa) in drinking fountain slab.	m3	0.2		
<u>CONCRETE SUNDRIES</u>					
4	Float top of concrete, to falls, with a wood float and finish with a brushed non-skid surface whilst concrete is still green with the addition of 2.1 sand and cement as necessary.	m2	2		
5	Cut 25mm diameter hole in side of 160mm uPVC stand pipe (elsewhere measured).	No	2		
6	Y-shaped fence standard 1.2m long, embedded 450mm deep in ground and 750mm cast into drinking fountain post.	No	1		
<u>FORMWORK</u>					
<u>Class F1 Rough Formwork To</u>					
7	Edge, risers, ends and reveals not exceeding 300mm high or wide.	m	5		
<u>REINFORCEMENT</u>					
8	High tensile steel mesh Ref. 245 to concrete surface beds, slabs, etc.	m2	2		
<u>SUB-SOIL DRAINAGE</u>					
9	110mm PVC slotted core drain laid in and including trench not exceeding 1000mm deep, risk of collapse of sides, 19mm crushed stone encasing size 300 x 300mm, Kaytech Kaymat U24 geofabric filter blanket wrapped around stone encasing with 150mm side and 300mm end laps, backfilling, etc.	m	5		
Carried To Trade Summary				R	
Bill No. 3 External Works MMPA QS & PM - JOB NO. 20/012					

1	Extra for 110mm bend.	No	3		
<u>PLUMBING AND DRAINAGE</u>					
<u>uPVC Socketed Soil, Waste And Vent Piping And Fittings (SABS 967) Including Short Lengths, Cutting, Jointing And Holderbats</u>					
2	160mm Pipe 775mm long.	No	1		
3	50mm Pipe and excavation not exceeding 1000mm deep.	m	30		
<u>Extra For</u>					
4	50mm Bend.	No	6		
5	50 x 20mm Straight reducer.	No	6		
<u>Galvanised Mild Steel Screwed And Socketed Pipes Including Plain Sockets</u>					
6	20mm Pipe cast into concrete filling to drinking fountain pipe.	m	1		
7	20mm Pipe and laying in ground 675mm deep including excavation, bedding, backfilling, etc.	m	2		
<u>Extra Over Mild Steel Piping For</u>					
8	20mm Tee.	No	1		
9	20mm bend 90 degree..	No	1		
10	20 x 50mm Galvanised to PVC straight reducer.	No	1		
<u>Chromium Plated Brass Fittings Including Couplings To Mild Steel</u>					
11	"Cobra KM. 2-102' or other equal approved chromium plated demand pillar tap.	No	2		
Carried To Trade Summary				R	
Bill No. 3 External Works MMPA QS & PM - JOB NO. 20/012					

	<u>Sundries</u>				
1	Excavate for and build in "Aqua-loc" WDMS box size 284mm diameter x 334mm high, with 15 l/m flow restricted and turn tap (excluding meter).	No	6		
	<u>SCREED</u>				
	<u>3:1 Cement Screed On Concrete</u>				
2	20mm Thick (average) on floors graded to falls.	m2	2		
	<u>PUMP CONTROL KIOSK</u>				
	<u>EARTHWORKS</u>				
	<u>Excavation In Earth Not Exceeding 2m Deep For</u>				
3	Reducing levels under floors.	m3	0.3		
4	Foundation beam.	m3	0.4		
	<u>Back Excavation Of Vertical Sides Of Excavation In Earth For Working Space Including Backfilling And Compacting To 93% Mod. AASHTO Density</u>				
5	Exceeding 500mm and not exceeding 1500mm deep to side of ground beams for the erection and removal of formwork 500mm from face of excavation (at Contractor's discretion).	m2	2		
6	Extra over ditto for excavation in soft rock.	m2	0.1		
7	Ditto, but for excavation in hard rock.	m2	0.01		
	<u>Extra Over All Excavations For Carting Away Of</u>				
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	1		
	<u>Risk Of Collapse Of Excavations To</u>				
9	Sides of trench and base excavations not exceeding 1500mm deep.	m2	1		
	Carried To Trade Summary			R	
	Bill No. 3				
	External Works				
	MMPA QS & PM - JOB NO. 20/012				

	<u>Keeping Excavations Free Of Water</u>				
1	Allow for keeping excavations free from water.		Item		
	<u>Earth Filling Selected And Supplied By The Contractor, Deposited In Layers Not Exceeding 150mm Thick, Watered And Consolidated In</u>				
2	G5 earth filling to 93% modified AASHTO density under floors, etc. including compaction density tests.	m3	0.1		
	<u>Coarse River Sand Filling Supplied By The Contractor In</u>				
3	50mm Thick blinding layer under floors, etc.	m3	0.04		
	<u>Scarify, Mix And Consolidate Top 150mm Of Subgrade</u>				
4	Under floors to 93% modified AASHTO density.	m2	1		
	<u>Prescribed Density Tests As Check On Contractors Tests Included In Filling Above</u>				
5	Modified AASHTO density test and deliver the results to the Architect within 24 hours of the tests being completed.	No	1		
	<u>Termite Proofing Treatment Of Chlordane Or Aldrin Type To</u>				
6	Surfaces of ground under floors, etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	1		
7	Bottoms and sides of trenches, bases, etc.	m2	5		
	<u>CONCRETE</u>				
	<u>Concrete Cast Against Excavated Surfaces</u>				
8	Cement concrete (25MPa) in ground beams.	m3	0.4		
	<u>Concrete</u>				
9	Reinforced cement concrete (25MPa) in raft slab on dampproof sheeting.	m3	0.2		
	Carried To Trade Summary			R	
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1	Reinforced cement concrete (25MPa) in roof slab.	m3	1		
<u>CONCRETE SUNDRIES</u>					
2	Float top of concrete smooth with a wood trowel whilst concrete is still green with the addition of 2.1 sand and cement as necessary.	m2	3		
3	Power float top of concrete to a dead level, hardwearing, smooth surface in accordance with SABS 0100 Code of Practice.	m2	2		
4	50mm diameter long radius sleeve pipe bend (bend elsewhere measured) cast in raft slab.	No	1		
5	100mm diameter long radius sleeve pipe bend (bend elsewhere measured) cast in raft slab.	No	1		
<u>TEST BLOCKS</u>					
6	Set of three concrete test cubes size 150 x 150 x 150mm overall including testing (Provisional).	Sets	3		
<u>MOVEMENT JOINTS, ETC</u>					
<u>Slip Joints</u>					
7	Joint not exceeding 300mm wide formed of two layers 375 micron DPC, on and including bed of 3.1 cement mortar, on brick walls as bearing under concrete slabs, beams, etc.	m	6		
<u>FORMWORK</u>					
<u>Class F1 Rough Formwork To</u>					
8	Sides of foundation beams.	m2	2		
9	Formwork to soffit of slab propped up not exceeding 1.5m from bearing level.	m2	1		
10	Edge, risers, ends and reveals not exceeding 300mm high or wide.	m	14		
11	Boxing in Class F1 formwork to form 20 x 20mm chamfer to horizontal edge of concrete. (Estimate)	m	15		
Carried To Trade Summary				R	
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1	Labour and material in forming drip groove to underside of slab. (Estimate)	m	8		
<u>REINFORCEMENT</u>					
<u>Fabric Reinforcement To Concrete Work</u>					
2	High tensile steel mesh Ref. 395 to concrete surface beds, slabs, etc.	m2	5		
<u>BRICKWORK</u>					
<u>Brickwork In Clay Bricks In 6:1 Cement Mortar In</u>					
3	One brick wall.	m2	6		
<u>Reinforcement</u>					
4	Galvanised brick reinforcement 155mm wide.	m	24		
<u>Precast Prestressed Vibrated Cement Concrete (30MPa) Lintols Including Moulds, Reinforcement, Propping, Etc</u>					
5	Lintol 100mm wide x 75mm deep in lengths not exceeding 3000mm.	m	2		
<u>Allow The Prime Cost Of R 6 ,500.00 (Six Thousand Five Hundred Rand) Per Thousand Face Bricks Delivered To Site And Pointed With Ruled-In Vertical And Horizontal Joints</u>					
6	Extra over brickwork for face brickwork.	m2	6		
7	Extra over brickwork for cut brick-on-edge header course lintol including pointing to face and soffit.	m	2		
8	Fair cutting and fitting around pipework not exceeding 100mm diameter. (Estimate)	No	2		
Carried To Trade Summary				R	
Bill No. 3 External Works MMPA QS & PM - JOB NO. 20/012					

WATERPROOFING**DAMP PROOFING TO WALLS AND FLOORS****One Layer 250 Micron Waterproof Sheeting**

1	Under raft slab and around raft beam.	m2	6
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One Layer 375 Micron Embossed Dampproof Sheeting

2	On walls.	m2	1
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WATERPROOFING TO ROOFS, ETC**4mm Thick Derbigum SP Waterproofing Membrane
Including Laps, Turn-ups, Turn-downs, Etc And
Preparing And Priming Concrete Or Screeded Surfaces**

3	On flat roofs including turn-downs not exceeding 300mm high.	m2	3
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4	Additional membrane at turndowns.	m	8
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**Prepare And Apply Two Coats Bituminous Aluminium
Paint On**

5	Waterproofing membrane to roofs.	m2	3
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METALWORK**Galvanised Steel Security Louvred Door Including
Double Rebated Frame For One Brick Wall Complete
With Butts, Etc. And Including Setting Up, Building In,
filling Back of Frame With Cement Mortar, Etc.**

6	Double door in two equal leaves with vent type AV, size 1360 x 1440mm, complete with integral frame.	No	1
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EXTERNAL PLASTER**4:1 Cement Plaster On Concrete On**

7	Ceilings.	m2	2
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External Works

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INTERNAL PLASTER5:1 Cement Plaster On Brickwork On

1	Internal walls.	m2	3
2	Narrow widths.	m2	1

5:1 Cement Plaster On Concrete On

3	Ceilings.	m2	2
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PAINTWORKPrepare And Apply One Coat Bituminous Paint On

4	Backs of pressed steel door linings.	m2	1
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STORMWATER DRAINAGE

5	Form erosion control berm 500mm wide x 300mm high including all imported fill, compacting, shaping, etc.as per drawing number 26126LW-106 Rev.A bound to the back of these Bills of Quantities.	m	10
6	225mm Half round precast concrete (20MPa) open surface water channel laid to falls on a well rammed earth bottom, jointed in 3.1 cement mortar including excavation, ramming and depositing and levelling spoil on site.	m	10
7	Extra for angles, intersections, ends, dressing into sides of catchpits, etc.	No	2

Solid Wall uPVC Socketed Soil Piping (SABS 791)
Including Short Lengths, Cutting, Jointing, Laying In
Trenches, Compacted Bedding Cradle And Fill Blanket
As SABS 1200 LB (Flexible Pipe Bedding), Excavation,
Risk Of Collapse, Keeping Excavations Free Of Water
And Backfilling With Selected Material From The
Excavations As SABS 1200 DB

8	50mm Pipe and excavation not exceeding 675mm deep.	m	120
9	90mm Pipe and excavation not exceeding 675mm deep.	m	30

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	<u>Extra for</u>				
1	90mm Bend.	No	2		
2	50mm Bend.	No	8		
	<u>Sundries</u>				
3	Extra over excavation in earth as described for pipe trenches, chambers, etc., for excavation in soft rock.	m3	6		
4	Ditto, but in hard rock.	m3	3		
5	Extra over all excavations for pipe trenches, etc for carting away from the site all surplus material from the excavations (measured net - no allowance for bulking).	m3	61		
6	Imported Sabunga filling as backfill to pipe trenches and compact to 93% modified AASHTO.	m3	48		
	<u>Pipe protection</u>				
7	Petro Tape loosely wrapped with 25mm laps around 50mm uPVC pipes including fittings.	m	4		
8	Petro Tape loosely wrapped with 25mm laps around 90mm uPVC pipes including fittings.	m	1		
	<u>The Following In Catchpits, Manholes, Kerb Inlets And Junction Boxes</u>				
9	Excavate in earth not exceeding 2000mm deep.	m3	2		
10	Extra over excavations in earth to catchpits and manholes for excavation in soft rock.	m3	0.2		
11	Ditto, but in hard rock.	m3	0.1		
12	Excavate in earth for working space (at Contractor's discretion) exceeding 500mm and not exceeding 1500mm deep to side of manhole for building brick walls and return, fill and consolidate spoil on completion. (Distance from face of manhole to side of excavation is 75mm).	m2	11		
13	Extra over ditto for excavation in soft rock.	m2	1		
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1	Ditto, but for excavation in hard rock.	m2	1		
2	Extra over all excavations for carting away from the site all surplus excavated material.	m3	2		
3	Allow for risk of collapse to sides of trench and base excavations not exceeding 1500mm deep.	m2	7		
4	Allow for keeping excavations free from water.		Item		
5	Earth filling, selected by the Contractor from the excavated material, deposited in layers not exceeding 150mm thick, watered and consolidated as backfilling to trenches, bases, etc.	m3	1		
6	Cement concrete (15MPa) in blinding cast against excavated surfaces.	m3	0.3		
7	Cement concrete (30MPa) in headwall.	m3	2		
8	Float top of concrete to falls, with a wood float and finish with a brushed non-skid surface whilst concrete is still green with the addition of 2.1 sand and cement as necessary.	m2	6		
9	Class F1 rough formwork to sides of walls.	m2	6		
10	Ditto, but to edges, risers, ends and reveals not exceeding 300mm high or wide.	m	21		
11	Extra over formwork to walls for forming opening through 150mm thick concrete wall for opening for 50mm pipe.	No	4		
12	Extra over formwork to walls for forming opening through 150mm thick concrete wall for opening for 90mm pipe.	No	1		
13	6mm Diameter high tensile steel bar reinforcement built into brickwork.	T	0.2		
14	10mm Diameter high tensile steel bar reinforcement cast into concrete.	T	0.2		
15	High tensile steel mesh Ref. 395 to concrete headwall base.	m2	6		
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FENCING**Fencing, posts, gates. etc.**

"Cochrane ClearVu Invisible Wall" or other equal approved fusion bond coated security fencing with 2400mm long x 85mm wide taper posts at approximately 3510mm centres including locking recess mechanism to secure panel edge and sealed with a uv stabilised polymer cap and fitted with a 12mm base pin, the posts embedded in and including 400 x 400 x 600mm deep mass concrete (50 MPa/19mm stone) base

1	Fence, 2100mm high, including clearing for the width of 1000mm where fence runs are to be erected including removing trees, shrubs, etc. not exceeding 200mm girth, grubbing up roots and roughly levelling.	m	40		
	<u>Posts</u>				
2	Extra over fencing for end post, stay and concrete bases.	No	2		
3	Ditto, but for corner post, stays and concrete bases.	No	4		
	<u>Gates to match fencing</u>				
4	Single hinged pedestrian gate, size 1000mm wide x 2250mm high, including three 24mm diameter x 300mm long eyebolt hinges bolted to adjoining pier (Pier elsewhere), latch and keep with padlock as per detail on drawing 25708-016-012 attached to these Bills of Quantities.	No	1		
	<u>Accessories</u>				
5	100mm High, marine fusion bond coated, steel shark spikes in 1500mm lengths pre-drilled and bolted to top of fencing panels (elsewhere).	m	40		

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Concrete bases and kerbs

Cement concrete (15MPa19mm stone) in

- 1 150mm Wide x 300mm deep concrete under dig beam, including 5mm galvanised steel wire 525mm girth three times bent and cast into beam at 1100mm centres, including all necessary excavations, carting away etc.

m

40

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<u>Item No</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
<u>BILL No. 4</u>			
<u>PROVISIONAL SUMS</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>General</u>			
Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowances.			
Prime cost amounts and provisional sums are net. Prime cost amounts include for delivery to site of all articles concerned. Provisional sums are for material and equipment supplied and installed complete by firms of specialists.			
<u>Profit</u>			
Where stated, the contractor may allow for profit if required.			
<u>General Attendance On Nominated/Selected Subcontractors</u>			
The item "Attendance" which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following:			
1	The services as set out in clause B9.1 of the Preliminaries.		
2	Making good in all trades and cleaning down and removal of rubbish on completion.		
Carried To Trade Summary			R
Bill No. 4 Provisional Sums MMPA QS & PM - JOB NO. 20/012			

Special Attendance On Nominated/Selected Subcontractors

Where stated special attendance will be described in detail in the Schedule for Variables in the Preliminaries for the services as set out in clause B9.2.

The Following Nominated/Selected Sub-Contract Amounts Are For Work To Be Carried Out By Nominated Sub-Contractors:

Builder's Work

Builder's work in connection with specialist services is given elsewhere in these bills of quantities.

PROVISIONAL SUMS FOR NOMINATED OR SELECTED SUB-CONTRACT WORKS**ELEVATED STORAGE TANK, TANK STAND ETC.**

- 1 Provide the sum of R600 000.00 (Six Hundred Thousand Rand) for 110kl capacity storage tank including 12m high galvanised steel elevated tank stand, cat ladder supplied and fixed complete.
- 2 Allow for general attendance on ditto.
- 3 Allow for profit if required.

Item	600 000.00
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Item	
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Item	
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CHLORINE DOSING STATION

- 4 Provide the sum of R45 000.00 (Forty Five Thousand Rand) for the Chlorine Dosing Station supplied and fixed complete including floor slab.
- 5 Allow for general attendance on ditto.
- 6 Allow for profit if required.

Item	45 000.00
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Item	
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Item	
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Carried To Trade Summary

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Bill No. 4
Provisional Sums
MMPA QS & PM - JOB NO. 20/012

BOREHOLE

- 1 Provide the sum of R655 000.00 (Six Hundred and Fifty Five Thousand Rand) for Borehole drilling and equipping.

Item 655 000.00

- 2 Allow for general attendance on ditto.

Item

- 3 Allow for profit if required.

Item

BOREHOLE TESTING

- 4 Provide the sum of R50 000.00 (Fifty Thousand Rand) for Borehole Testing.

Item 50 000.00

- 5 Allow for general attendance on ditto.

Item

- 6 Allow for profit if required.

Item

BOREHOLE PUMP AND MOTOR CONTROL

- 7 Provide the sum of R75 000.00 (Seventy Five Thousand Rand) for Borehole Pump and Motor Control installation and fittings supplied and fixed complete.

Item 75 000.00

- 8 Allow for general attendance on ditto.

Item

- 9 Allow for profit if required.

Item

ELECTRICAL SUPPLY

- 10 Provide the sum of R100 000.00 (One Hundred Thousand Rand) for Electrical Pump Supply installation and fittings supplied and fixed complete.

Item 100 000.00

- 11 Allow for general attendance on ditto.

Item

- 12 Allow for profit if required.

Item

RESERVOIR PUMP

- 13 Provide the sum of R25 000.00 (Twenty Five Thousand Rand) for Reservoir Pump installation and fittings supplied and fixed complete.

Item 25 000.00

Carried To Trade Summary

R

Bill No. 4

Provisional Sums

MMPA QS & PM - JOB NO. 20/012

1	Allow for general attendance on ditto.	Item		
2	Allow for profit if required.	Item		
<u>RAINWATER HARVESTING PUMP</u>				
3	Provide the sum of R25 000.00 (Twenty Five Thousand Rand) for Rainwater Harvesting Pump installation and fittings supplied and fixed complete.	Item	25 000.00	
4	Allow for general attendance on ditto.	Item		
5	Allow for profit if required.	Item		
<u>WATER CONNECTION TO MAIN SUPPLY</u>				
6	Provisional Sum of R10 000.00 (Ten Thousand Rand) for the supply connection upgrade from the Local Municipal authority.	Item	10 000.00	
7	Allow for general attendance on ditto.	Item		
8	Allow for profit if required.	Item		
<u>FIRE WATER CONNECTION TO MAIN SUPPLY</u>				
9	Provisional Sum of R10 000.00 (Ten Thousand Rand) for the supply connection upgrade from the Local Municipal authority.	Item	10 000.00	
10	Allow for general attendance on ditto.	Item		
11	Allow for profit if required.	Item		
Carried To Trade Summary			R	
Bill No. 4				
Provisional Sums				
MMPA QS & PM - JOB NO. 20/012				

Bill No. 4

Provisional Sums

Trade Summary

Total Brought Forward From Page No.

Page
No

Amount

96

97

98

99

Carried To Final Summary

R

Bill No. 4

Provisional Sums

MMPA QS & PM - JOB NO. 20/012

Bill No		Page No	Amount
1	Preliminaries	45	
2	Plumbing & Drainage	70	
3	External Works	95	
4	Provisional Sums	100	
TOTAL OF BUILDING WORKS			R
<u>CONTINGENCIES</u>			
Provide the Sum of R300 000.00 (Three Hundred Thousand Rand) for Contingencies to be deducted in part or all if not required.			R 300 000.00
TOTAL OF BUILDING WORKS & CONTINGENCIES			R
VAT at the rate of 15%			R
CARRIED TO TENDER FORM			R
MMPA QS & PM - JOB NO. 20/012			

PART C3: SCOPE OF WORK



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

**PROVISION OF ADEQUATE WATER SUPPLY TO
IKHALA TVET COLLEGE: EZIBELENI CAMPUS**

C3.1: Scope of Work

1 DESCRIPTION OF THE WORKS

1.1 Employer's Objectives

The Ikhala TVET College is required to comply with the standards set out by the Department of Higher Education and Training in terms of water provision. The DHET requires a permanent and sustainable water source. Ikhala TVET College has therefore incorporated this item as a priority on their Annual Maintenance Plan for the year 2022. The project must comply with the NIAMMS (National Infrastructure Asset Maintenance Management System) standards as a prerequisite.

The College is looking to contract a qualified and registered Contractor to complete the implementation of the project.

1.2 Overview of the Works

- Borehole drilling to be done by sub-contractor.
- Construction of borehole pump manholes, kiosk and M&E installations.
- Construction of 12m Elevated Pressed Steel Water Tank.
- Construction of Bulk Water supply, various sizes.
- Construction of a 10kl ground water reservoir.
- Construction of drinking fountains.
- Construction of standpipe.
- Construction of fire hydrant.
- Construction of fire hose reels.
- Site establishment and de-establishment.

1.3 Location of the Works

Name	Municipality, Town, Village	Coordinates
Ikhala TVET College: Ezibeleni Campus	Zone D; Gwadana Drive; Ezibeleni; Queenstown; 5326	-31.902363, 26.970458

1.4 Temporary Works

The Contractor is responsible for the design, construction/erection, inspection and maintenance of all temporary works.

No major temporary works is expected for the completion of the works.

1.5 Skills Transfer

30% of the project to be allocated to local SMME's.

1.6 Local Labour

The contractor shall make use of local labour but they can bring their own skilled personnel. The contractor will be required to submit EPWP labour forms each end of month.

Labour Intensive work shall be undertaken using local workers who are temporarily employed in terms of the project specification.

2 CONSTRUCTION

2.1 Applicable Standardised Specifications

The Standardised Specifications listed below are applicable to the contract. It shall however be noted that reference is made in certain of the specifications to other standardised specifications which may or may not be included in the list below. Where such specifications are not included, they shall however be deemed to be included in the contract documents.

Specification of Materials and Methods to be used (PW371).

<http://www.publicworks.gov.za/consultantsdocs.html>

2.2 Material Compliance with SABS/SANS Requirements

Where materials to be used in the works are required to comply with a SABS/SANS specification, they will be accepted as complying with the SABS/SANS specification if one of the following is satisfied.

- The display of a SABS/SANS mark on the product with a copy of the SABS/SANS certificate that allows the manufacturer to use the mark, or
- All the criteria in the relevant SABS/SANS specification is measured and confirmed on site or in an approved laboratory.

The same will apply to materials specified to comply with ISO, BS, ASTM or other international specifications.

3 ADDITIONAL REQUIREMENTS AND CONSTRAINTS

3.1 Health and Safety Requirements

The contractor will be required to submit a Health and Safety File for approval and approval must be achieved before works may commence.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELANI CAMPUS

1. BACKGROUND

The Ikhala TVET College is required to comply with the standards set out by the Department of Higher Education and Training in terms of water provision. The DHET requires a permanent and sustainable water source. Ikhala TVET College has therefore incorporated this item as a priority on their Annual Maintenance Plan for the year 2022. The project must comply with the NIAMMS (National Infrastructure Asset Maintenance Management System) standards as a prerequisite.

The College is looking to contract a qualified and registered Contractor to complete the implementation of the project.

2. SCOPE OF WORK

- Borehole drilling to be done by sub-contractor.
- Construction of borehole pump manholes, kiosk and M&E installations.
- Construction of 12m Elevated Pressed Steel Water Tank.
- Construction of Bulk Water supply, various sizes.
- Construction of a 10kl ground water reservoir.
- Construction of drinking fountains.
- Construction of standpipe.
- Construction of fire hydrant.
- Construction of fire hose reels.
- Site establishment and de-establishment.

3. PROJECT LOCATION

This project is located at Zone D; Gwadana Drive; Ezibeleni; Queenstown; 5326.

4. PROJECT DURATION

The project expected duration is 6 months from date of award.

A better future with **IKHALA**

Administration Centre	047 – 873 8800	Queen Nonesi	047 – 873 8878
Aliwal North	051 – 634 1035	Queenstown	045 – 838 2593/4
Ezibeleni: Engineering	047 – 873 1293	Sterkspruit	051 – 6110 205

5. PROJECT TEAM STRUCTURE

The project team will consist of the Client (Ikhala TVET College) represented by the Project Manager and Admin Officer (Facilities Officer) as well as a 3 member Project Steering Committee (PSC) and the Community Liaison Officer (CLO).

The team will also consist of various Professional Service Providers employed by the Client.

6. SKILLS TRANSFER

30% of the project to be allocated to local SMME's.

7. PREFERENCE POINT SYSTEM

The contractor shall make use of local labour but they can bring their own skilled personnel. The contractor will be required to submit EPWP labour forms each end of month.

Labour Intensive work shall be undertaken using local workers who are temporarily employed in terms of the project specification.

8. PREFERENCE POINT SYSTEM

The tender will be evaluated on the 80/20 Preference Points system as prescribed by the Preferential Procurement Policy Framework Act 5 of 2000, and Points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with legislation.

9. EVALUATION PROCESS TO BE FOLLOWED

Evaluation of proposals – All proposals will be evaluated by a team for functionality, price and B-BBEE. Based on the results of the evaluation process, Ikhala College will approve the awarding of the contract to successful tenderer.

A two-phase evaluation process will be followed.

- a) The first phase will be evaluated based on technical proposal for functionality.

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Administration Centre	047 – 873 8800	Queen Nonesi	047 – 873 8878
Aliwal North	051 – 634 1035	Queenstown	045 – 838 2593/4
Ezibeleni: Engineering	047 – 873 1293	Sterkspruit	051 – 6110 205

- b) The second phase will be evaluated based on the pricing proposals and will only be considered after the first phase has been adjudicated and accepted. Only proposals that achieved a minimum qualification score of 60 points for functionality will be further evaluated using the preference points system.
- c) *The 80/20 preference point system will be used where 80 points will be dedicated to price and 20 points to B-BBEE status.*
- d) Proposals with functionality points of less than the pre-determined minimum overall of 60 points will be eliminated from further evaluation.

10. EVALUATION CRITERIA

Evaluation Criteria as stipulated in the Tender Document.

11. COST OF PROPOSAL

- a) Tenderers are expected to fully acquaint themselves with the conditions, requirements and specifications of this tender before submitting proposals.
- b) Each tenderer assumes all risks for resource commitment and expenses, direct or indirect, of proposal preparation and participation throughout the tender process.
- c) Ikhala College will not be responsible directly or indirectly for any costs incurred by tenderers.

12. VALIDITY PERIOD OF PROPOSAL

Each proposal shall be valid for a minimum period of six (6) months calculated from the closing date.

13. COMPULSORY BRIEFING SESSION

Compulsory site briefing is scheduled as follows:

SITE	DATE	TIME
Ikhala Admin Centre, Ezibeleni	30 NOVEMBER 2022	10:00 AM

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Administration Centre	047 – 873 8800	Queen Nonesi	047 – 873 8878
Aliwal North	051 – 634 1035	Queenstown	045 – 838 2593/4
Ezibeleni: Engineering	047 – 873 1293	Sterkspruit	051 – 6110 205

C3.2 Health and Safety Specifications



IKHALA TVET COLLEGE

TENDER NO: TVETC-INFRA001/09/2022

**PROVISION OF ADEQUATE WATER SUPPLY TO
IKHALA TVET COLLEGE: EZIBELENI CAMPUS**

C3.2 Health and Safety Specification

Site Specific Occupational Health and Safety Specification & Baseline HIRA. Cr5.(a)(b) and BoQ

This is a site-specific specification that fulfils the Client's responsibilities under CR 5(1) (a) (b) of the OHSA 85 of 93. (The Act) The focus lies in ensuring the Principal Contractor (PC) implements legal requirements with the focus on doing no harm by achieving a high level of compliance, at minimum legislative compliance, and understands the obligation to achieve and maintain a healthy, safe and environmentally sustainable construction site during the project's life cycle. Specified in "The Act" and the promulgated associated legislation, OHSA 85'93 Version 23, defines this specification requirements and definitions. The Client standard is one of "No-Tolerance" toward non-compliance and risk-taking construction methods. The PC must use this specification to plan for Health and Safety compliance on site. The cost of implementing the required controls to achieve the legislative standards and to fulfil the OHSA 85:93 requirements must be planned for by the Principal Contractor, and where he failed to plan, must be funded internally. The BoQ attached must be used to plan properly.



Health and Safety Environmental Specification

Baseline HIRA

1. Preamble

The Occupational Health and Safety Act 85 of 1993, and promulgated Regulations, specifically the Construction Regulations, provide for the relationships, responsibility and accountabilities of the contractual parties. Within the OHSA 85 of 1993, Section 44 incorporates other health and safety standards under the Regulations, and this includes NBR, JBCC Contract, SANS codes, standards and supplier data and guarantees that must be used to ensure legal compliance and advancement of safe practices.

The Appointed Contractor (PC) carries prime accountability and responsibility for the health, safety and welfare of all affected by the PC acts or omissions. The contractor takes full responsibility for the management of environmentally sustainable practices and legal compliance. The Client Agent shall not be liable for any civil claim because of anything contained in or omitted from this Health and Safety Specification. The Specification is not intended to supersede the Act, but to raise awareness with regard to the high standard of OHS required by the Client, risk and advanced practices.

Every effort had been made to ensure the specification is accurate in all respects, however, should it contain any errors or omissions it may not be considered as grounds for claims under the contract or for additional reimbursements or extension time. The specification is specific to this tender scope and is not a regurgitation of the applicable Law.

The Client specified that only Contractors registered at level **4CE or higher**, with CIBD may tender for the works, addressing the Client duty to ensure competency and resources for project completion.

The principal contractor will ensure Sub contractor agreements are also covered fully in a 37.2 agreement. This includes similar section 37(2) agreements with any SMME, labour only contractors and suppliers where the supplier manufactures, delivers and erects during the projects life cycle. It is the PC duty to develop a full understanding of the regulatory environment that affects the project and the construction projects that will be follow. The PC's supervisory duties toward any other contractors are enforceable under Cr.7.

The Designer must ensure that all applicable safety standards are complied with in the design, and ensure that cognitive assessment is made of the OHSA Specification submitted by the Client Agent and report knowledge of risks that cannot be mitigated or minimized during the design phase of the project. The Designer must report to the Client before going to tender on:

- Items that will impact on price
- Geotechnical studies
- Maintenance and residual risk aspects post construction.
- Awareness of Hazardous chemicals, HBA or any other such risk that becomes evident during the works.
- When mandated by the Client: do inspections aligned with CR6(1) (g)(j)
- Ensure ergonomic principles to avoid ergonomic hazards, are considered
- When mandated by the Client to STOP construction work that is not aligned with the relevant health and safety aspects, do so.
- The designer of temporary works (PC) must comply with CR.12 and 6.

The PC has the authority, liability and the responsibility to report to the Client team, any operation or deficiency that is in contravention with the OHSA specification or any other document listed in this document, in order to take a responsible and accountable action to remedy the situation. Furthermore, The CR clearly defines the responsibility to **stop work** not done in accordance with the PC health and safety plan, and by implication this OHSA Specification; to **stop work** that poses a threat to health and safety. The OHS Specification's main aim

is to prevent loss of life, limb or health, and covers every aspect of the construction works: people, equipment, materials, the micro and macro environment, quality as it relates to known and foreseeable health and safety risks.

The PC must be aware that work done on the campus must be done with respect for the Client's needs, activities and in no way impede the normal operations on campus. Where the segregation of works may not be possible and construction activities may impact on the Clients activities, consultation must be done to collaborate solutions timorously, to ensure pedestrian, student and all stakeholders safety is addressed. Prescribed hoarding, phasing and other must be included in the OHS systems inspections daily.

Covid 19 systems management must respectively be addressed and both parties have the duty to inform on Covid 19 cases and outbreak management. Any additional HBA noted to be a risk factor in the required construction HIRA, must be addressed accordingly.

2. Abbreviations and Definitions

Abbreviations

SHEM	- refers to Safety Health Environmental Management
DOL	- refers to Department of Labour
The Act	- refers to Occupational Health and Safety Act 85 of 93 as amended
REG	- refers to the Regulations (Promulgated)
CSO	- refers to Construction Safety Officer registered with SACPCMP
CIOD	- refers to Compensation Injury and Occupational Diseases Act 139/1993.
MSDS	- refers to Material Safety Data Sheet
HCS	- refers to Hazardous Chemical Substances
PC	- refers to Principal Contractor
AIA	- refers to Approved Inspection Authority
MHI	- refers to Major Hazard Installation
H&S	- refers to Health and Safety
OHSA	- refers to OHS Agent registered with SACPCMP
PC	- refers to Principal Contractor, In this case owner/developer and PC.
SubC	- refers to Sub contractors.
SANS	- refers to South African National Standards
JBCC	- refers to the building contract in use for this project
NBC	- refers to the National Building Council (NBR _ACT 103 or known as SANS 0400)
CE	- Civil Engineering
CIDB	- Construction Industry Development Board.

South African Bureau of Standards' Code of Practice for the

- SANS 10400: National Building Regulations
- SANS 100085: Scaffold
- Sans 1200: Engineering

- Applicable unit standards where legislated.
- Newly applicable regulations: Ergonomic
- Drawings and design meetings.

Definitions

The OHS Act 85:93 definitions will apply, and where no definition is available, the Standard Oxford Dictionary must be used to determine the meaning of a word. Definitions are to be referred to within the legal reference as defined in legislation wherever possible. Critical definitions: CR 2014.

It is noted that the use of employer and employee must be read specific to the legislator controls required under the relevant Act.

3. References

Contractors shall comply, as a minimum, with all relevant legislation, South Africa's National Standards or International Standards, the Client's SHE Specification, their own policies and procedures. The documents referred to in the design of the Specification is relevant and may be referred to.

Note: The applicable Regulations and Acts shall apply according to hazardous identification and risk management.

The specification is based on site visits and meetings which looked at the construction environment risks as visible and anticipated at stage 3.

4. General and specific Client site requirements: rules for enforcement.

- Client standard is that of No-Tolerance toward risk and non-compliance
- PC employees must all be identifiable with PC logo on their Overalls/reflector bibs.
- No works may commence without the assessment, negotiation and approval of the PC's OHS plan and evidence of the documentation to support the plan implementation in the SHE file, as based on the site specific specification.
- The PC must ensure competency and registration with the correct Council for the construction manager and construction health and safety officer. (SACPCMP)
- Notification is done to DOL and stamped by DOL. Allow adequate time: The Contract is 6 months: allow for some additional time to avoid multiple renewals. To be done before OHS file and plan approval.
- Current letter of Good Standing is mandatory throughout project life cycle.
- 37(2) signed between Client and PC.
- Acceptance of tender appointment must be on file.
- WORK STOPPAGES will follow if the approved plan as per specification is not implemented or if persons are put at risk
- Work Stoppages are incidents that must be fully investigated and closed out with corrective actions

- See Section on requirements for OHS plan and assure implementing documents are in the SHE file.

Furthermore:

- Principal Contractors, Sub-contractors and all employees under their control, including any visitor brought to site must adhere to the following rule of conduct on site:

You may not:

- Allow students or unauthorised visitors access to works area and may not impact unduly, unsafely or put at risk any Client activity
- Partake, possess or sell drugs or alcoholic beverages on site, or be under the influence of any intoxicating substance: Noncompliance will ensure removal from the site.
- Indulge in horseplay, practical jokes, fighting or gambling.
- Destroy or tamper with safety devices, symbolic signage or wilful unnecessary discharge of fire extinguishers.
- Remove safety devices such as tie –inns on scaffold structures, temporary works supports unless authorized to do so.
- Bring onto site or have in your possession a fire arm or lethal weapon.
- Assault, intimidate or abuse another person.
- Operate construction equipment without the necessary training, license or authorization or without a fitness for work certificate issued by a registered Occupational Practitioner on Annexure 3.
- Display insubordinate behaviour towards any site manager, professional team member or supervisor, in respect of carrying out instructions that are for compliance with Health and Safety Regulations.
- Enter a controlled access area unless authorized to do so.
- Negligently, carelessly or wilfully cause damage to property of others, or to the environment.
- Refuse to give evidence, or give false statements during investigations, not avail yourself.
- You may not use Campus facilities.

In addition, take note that the works may only proceed post daily assessments for hazards and safe work capacity, these hazards identifications must include, but is not limited to:

Overhead and underground services.

Site offices, storage and activities must happen behind a proper erected fence with poles and shade cloth and proper access control must occur at each access point within the site area. Parking and plant movement may not impact on campus activities and arrangements with the client must be in writing. All activities on campus premises must be done with the health and safety of all stakeholders in mind. PC activities may not be obstructive to any campus activities or emergency planning. The PC must be mindful that this is a professional academic institution and all conduct must be aligned with the correct code of conduct from PC employees, this includes compliance with basic precautionary & prevention controls.

All construction waste must be managed, separated, contained, stored in specific area, prevent windblown waste, and ensure removal from site to a licenced waste handler.

Employee toilets will be chemical toilets, with a weekly cleaning schedule. Proof of this must be in the SHE files.

Excavations and trenching for pipe laying must be managed and at no time left unsafe, not barricaded or open. Work scheduling will be vital. Dewatering and access to the works area must be planned for the employees.

Burning of refuse is not permitted. Refuse must be managed according to Chris Hani's municipal bye laws. No damage to fauna and flora will be tolerated and the planted gardens must be rehabilitated should the works impact on these areas.

Storing of pipes and equipment must be done in a safe, risk-free manner.

Should employees be transported to works areas, it must be done in accordance with legislation.

Employees must wear seat belts and materials and equipment may not be transported with employee sitting in the same area. Social distancing and mask wearing will be required.

All plant, equipment and tools to be correct for task, in good condition, address noise and dust reduction, ergonomically and inspected before use.

Plant Operators will need proof of competency, appointment letters, medicals and have licenced vehicles and the personal required permits and licences.

5. Scope

Description of the site and scope of works CR5 (1) (b)

Project No.	Type of Project	CIDB grading
TVETC-INFRA001/09/2022	PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS	4CE

- Borehole drilling to be done by sub-contractor.
- Construction of borehole pump manholes, kiosk and M&E installations.
- Construction of 12m Elevated Pressed Steel Water Tank.
- Construction of Bulk Water supply, various sizes.
- Construction of a 10kl ground water reservoir.
- Construction of drinking fountains.
- Construction of standpipe.
- Construction of fire hydrant.
- Construction of fire hose reels.
- Site establishment and de-establishment.

Important notice:

The Scope of works will require:

Work sequencing: Hoarding of works and all construction activities must be planned for not to impact on normal campus activities, access.

Baseline Hazardous Identification of tasks and work environment based on scope analysis:

Work amidst Client activities. (OHSA Sec.8)

Be mindful of client operations, traffic and HBA, SARS-CoV 2 variant Covid 19 risks when planning the works program. Stay informed about pandemic, endemic or local outbreaks. Manage Covid 19 & Vaccinations under legislative guidelines.

Contract

Part C3: Scope of works

Tender No.: TVETC-INFRA001/09/2022

Worker facilities to be provided by PC and employees to use only the provided facilities at the site camp. (Ablutions, Covid 19 monitoring, Eating facilities, Hand wash stations, Equipment controls and so on)

Workers to be identifiable as PC workers

No wondering around the campus.

Excavation of trenches and elevated tower bases: 700-1.2M deep. (Cr.13 will apply as applicable.)

Dewater, barricading, safe access and egress, communication of risk and supervision is primary. At no time may anyone be put at risk. Work scheduling is primary.

Laying pipes in trenches: the task will require planning as the trench, earth works, compaction must occur on same day, and every effort must be made to have no open trenches standing.

Plan to secure barricade against wind lift.

Elevated tank base excavations must be barricaded and controlled.

Stacking of pipes must be done in hoarded area and not create a rolling-crushing –caught in between hazard.

Awareness of local community paths and usage of works area

Work at height (CR 10, 11)

Maximum height is the height of the buildings and tank elevation, therefore safe work platforms and housekeeping is primary concerns. No balancing on drums, unsafe use of scaffold or trestles will be permitted. Plan for a decent safe work at heights platform. Where ladders are used to fix facia, replacing cutters and so on, it must be secured, level, with aids holding the ladder safely and supervision provided. Inspection registers must be for each ladder separately, noting the standards that is checked.

Elevated tank works must be planned for and a method statement is required from PC. If lifting equipment is used, the legally required inspections and competencies are required. The elevated tank must have access designed for maintenance and an area to safely check the tanks post construction. The elevated tank and tank stands must be secured against wind and fall over.

A fall protection plan for ladder work and work on the elevated tank is required to be done by a competent registered person.

Sub-contractors and suppliers. Cr 7.

It is critical that the CHSO is given 2 weeks prior to subbie getting to site to plan that the appointed Subbie can work according to the legally required compliance needed. The CHSO must **stop sub-contractors** from working if the legal requirements are not met.

Mandatory Sub Contractors register:

no	Contractor info	Tasks	COIDA	SHE Plan approved	Appointed and 37.2	Audit and score

Suppliers

Must at minimum: Inductions, Proof of COIDA, and Proof of competency on operators where required and have a signed 37.2 agreement that notes:

- Adherence to PC OHS rules
- PC 's willingness to administer first line first aid in case of an incident.
- Accountability where there is failure in being legally compliant.
- Plan for safe access and delivery, stacking and storing

HBA Regulations and Management of Covid 19 in the workplace guideline.

- Do a HIRA
- Classify the risk according to the HBA Regs
- Plan for those risks noted accordingly
- Have an employee Vaccination program
- Ensure POIPA procedure and management of personal information.

Core Principles:

- Prevention plan that covers:
- Informing employees of:
 - Protection of vulnerable employees
 - Medicals and medical monitoring that includes general health questions daily
 - Sanitation and hygiene stations
 - Provision free of charge of cloth masks
 - Social distancing and task barriers as required
 - Ventilation
 - Basic Precautions
 - Contact and social distancing of a minimum of 1.5 M
 - Isolation station with access for employee to be taken safely to care unit.
 - Reporting encouraged with no victimisation or stigma
 - Emergency procedures
 - Vulnerable employee policy
 - Sick leave policies
 - Employee refusal to be vaccinated Procedure
 - COIDA forms for reporting of cases.
 - Contracts
 - Employee time logs

Other Hazards:

- The other risks are fall into or on, blocking emergency path, impact on campus operations
- Noise and dust and must be address in SHE plans. Note that vibration and noise escalate hearing loss risks.
- This includes cement work for drinking fountains and manual handling.
- Steel supplies must be planned for timorously.
- Further hazards that may impact on the scope is discussed under risk identification later in this report.
- Other general works are concrete works.
- Ergonomic risks noted:
- Manual handling, repetitive movement, ungainly body positions, working at heights, stress and strain, dust and noise
- Be aware that where tie in to other water supplies: Pipes may be asbestos, water environment: water under pressure and flooding (Drowning can happen in a cup full of wate, so please do not address this risk!)

The PC is to display a site lay-out drawing to indicate at least the following (Not exclusive):

- PC site office, access and egress arrangements inclusive of delivery arrangements, employee facilities and highlighted “No-Go” areas.
- Emergency assembly points.
- Emergency contact numbers
- Covid 19 isolation point and access for ambulance if a risk according to the HBA R Hira
- Site office and stores
- Fire equipment and first aid box
- Ablutions and facilities
- Lay down areas
- Waste segregation areas
- This supports planning for safe movement to works areas on campus.
 - Display in site office:
 - COIDA
 - Notification
 - First aider
 - First Aid box
 - SHE Rep if more than 20 persons on site.
- Available in the site Office:
 - Records of all the persons on site daily
 - SHE files and planning, Section 5 data
 - Medicals for all persons on site on CR Annexure 3 by a registered occupational health Practitioner must be in file: note site office
 - A list of Sub-contractors active on site with contact details. Only the registered CHSO may do Subbie plan approval and compliance with CR 7 admin stipulations. 8.1 sign off is required. Documents must be available at relevant site.
 - Plant and material listings
 - SHE files to note where all drawings, plans and permits are stored for all the disciplines involved in the construction phase of the project.
 - HBA monitoring files and a file with mitigation plan and prevention strategies, policies and legislation.
 - Chemical inventory with MSDS if required.
 - Ergonomic surveys, other

If at any time after commencement of the project changes is brought about to the design or construction, sufficient health and safety information and appropriate resources are to be made available to the Principal Contractor to execute the work safely.

The Client has the duty to ensure stakeholders are informed on works processes and changes.

N.B Construction Regulation 7(2) (c) determines that potential contractors submitting tenders have made provision for the cost of health and safety measures during the construction process. The Principal Contractor shall on tendering make provision for the cost of health and safety measures in terms of his/her documented Health and Safety Plan and measures based on these Health and Safety Specifications during the period of the project. The cost shall be duly quantified and clearly identified for such identifiable purpose.

6. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

6.1 Structure and OH&S Roles and Responsibilities

Only the 16(1) and the 16(2)/ 8.1 may appoint others.

- Appoint a competent full time construction manager (8.1) with the duty of managing all construction work on a single site, inclusive of occupational health and safety compliance, *and in the absence of the construction manager, the PC must appoint and **alternative person** as an 8.1. Alternate.*

This person is liable and responsible for ensuring Health and safety implementation on the site.

- Appoint a registered CHSO, stipulating the hours to be worked if as “part time” in the SHE plan, understanding that risk escalates as the work progresses and the number of employees grows. This responsibility is one that requires competence, management skills and forms part of the project construction management team. **Must be registered with SACPCMP, have at minimum SAMTRAC and other short courses plus 3 years’ experience.** Resources to ensure compliance must be managed through the CHSO, who must be able to give evidence of resource allocation to SHEM. The CHSO must have administrative capacity and resources.
The CHSO should preferably have Fall Protection Plan competency.
The CHSO can be appointed Covid Controller if knowledgeable on Covid risks.
The CHSO can be the risk assessor, incident investigator, hazardous substance controller an emergency co-ordinator and should be appointed as such.
- The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 8.2, 8;7 & 8.8); to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).
- All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act and be appointed as part of the project specific OHSA committee. The responsibility of the PC to consult and inform the committee must have evidence of implementation/ consideration of proposals made by the committee.
- Scaffold erectors, supervisors and inspectors must have competency in that field
- Excavation supervisor, Temporary works inspector and Concrete works inspector should be appointed or be the competent 8.1 and appointed.
- Ladder inspector
- Hygiene and facilities inspection must be done with Covid 19 in mind.

6.2. Important information

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project. This is a dynamic process and should the construction program, creating knowledge base with the relevant persons before a process or task commences. The view is to focus on risk criticality, to keep the evaluation process simple so that is a useable resource for SHEM focus. The site manager should sign the HIRA and FPP document that is used as a tool for closing out risk, to ensure a construction activity, that may have a hidden hazard, is not over looked.

6.3 Fundamental HIRA principals to be applied: (Cr 9 applies)

It is to be noted that the identification of all possible and known hazards as they relate to a task and the task environment (man, equipment, material, weather conditions, space, location, loads and so on) are critical for good risk identification. The principle question that determines risk rating is: Could someone suffer a severe injury, die? If this is likely, it must be considered a high risk and receive critical planning and resources.

6.4 Potential sources of risk

CR 5 (1) and Cr 9 requires the Client to inform the PC of any known or anticipated hazards and risks associated with the location & scope of work. See the baseline critical elements under section 5 of this specification and read this section as an addition to the critical listing.

General examples of expected hazards that relate to risk on this project

Access and egress, Public access control, Emergency vehicle access and response times, Security
Working at height and use of fall protection and managing material handling.

Manual handling and manoeuvring heavy equipment and materials, pipes can roll.

Check for overhead and underground services hazards.

Noise, dust (Work to be scheduled and noise reduction is a requirement.)

Hazardous Chemicals exposure

Hazardous biological exposures

Housekeeping, stacking and storage practices and material handling procedures not in place.

Fire risks and fire precautions, emergency planning not identified and managed.

Lack of staff welfare facilities on the site and lack of drinking water.

Traveling and offloading and Loading of materials and equipment.

Dust, water pooling, weather, air pollution, wind, heat, reflection of sun from water tank sheeting, underfoot conditions are a collective hazard that must be factored into the HIRA.

Ergonomics

- Clearing & Grubbing of the Area/Site □ Site Establishment including:
 - Office/s
 - Secure/Safe Storage and storage areas for materials, plant & equipment
 - Ablution facilities (Must be chemical toilets)
 - Sheltered dining area
 - Vehicle access to the site
- Dealing with existing structures, Location of existing services,
- Installation & maintenance of temporary construction, electrical supply, lighting and equipment
- Adjacent land uses/surrounding property exposures. Site access is off a main street and the campus is situated in a build-up area.
- Boundary & access control/public liability exposures: Campus stakeholders.
- Health risks arising from neighbouring as well as own activities and from the environment e.g. Threats by wondering dogs, farm animals, plants, bees, snakes, ticks, lightning, allergies etc.
- Protection against dehydration and heat exhaustion

- Protection from wet & cold conditions
- Use of portable electrical equipment including, but not limited to:
 - Angle grinder, drills, electrical leads, generators, compaction equipment and such
- Excavations including:
 - Ground/soil conditions, Underground and over ground services
 - Trenching, Shoring, Drainage, Daily inspections
 - Emergency plan for excavation or trench collapse
- Loading & offloading of trucks
- Aggregate/sand and other materials delivery
- Manual and mechanical handling
- Lifting and lowering operations
- Driving & operation of construction vehicles:
 - Trenching machine
 - Use and storage of flammable liquids and other hazardous substances – the client and/or its Agent on its behalf to be informed of this prior to commencing of the project, will require inventory listing with Material; MSDS: Volume within the SHE file.
 - First Aid and Emergency plan
- Layering and bedding of excavations, compaction, Backfilling of excavations and trenches
- Protection against flooding (may not be left open and un barricaded)
- Plumbing, painting and finishing
- Protection from reviewed hazards due to:
 - As discovered by the Principal Contractor's hazard identification exercise
 - As discovered from any inspections and audits conducted by the Client and/or its Agent on its behalf or by the Principal Contractor or any other Contractor on site
 - As discovered from any accident/incident investigation

Construction activities will continue to dictate the requirement for ongoing HIRA reviews must include ergonomic challenges, facility requirements and other factors that become a risk Civil unrest and strikes.

- Emergency procedures require hazard analysis for rescuers: work at height and where work is in an isolated area
- Public safety inclusive of school stakeholders
- Traffic control safety where construction activities impact on access, public users and entering sites.
- Rehabilitating the site area post construction works completion: usually at practical completion.
- Wide and spread-out site works

6.5 Management of High Risk Activities

When a principal contractor or a sub-contractor are working where a **high risk** to safety, health or to the environment exists; the contractor shall:

- Ensure that full time, competent, appointed Site Manager is provided for the construction process.
- Ensure that full time, competent and appointed supervision is provided for the duration of the activity.
- The full time competent and appointed Construction Health and Safety Officer must inspect and ensure that work is done safely.
- Ensure compliance within the Construction Management Team and advance training and compliance from the employees and sub-contractors.
- That the Client Agent is notified before work is to commence, and that awareness of Legal compliance, better practice can be highlighted for implementation.
- A method statement has been provided to the Client Agent before work commences which adequately addresses the hazards and risks associated with the activity in a suitably and applicable fall protection plan as required when cutters are checked and fixed and with the elevated tank works.
- Ensure that all safety control equipment is erected/used to warn others of high risk activity (barriers, signs, lights).
- All safe work procedures, based on a method statement, assessed by the engineer must:
- Describe the method of work and human engineering risks established.
- Hazards must be listed and suitably controlled.
- Risk status determined.
- PPE and Safety Management controls listed.
- Employees trained and informed.
- Evidence of this available for verification, dated to before work commenced.
- Inspect
- Supervise and control
- Close out
- Good housekeeping is practiced

6.6 Client Baseline HIRA Procedure and HIRA: (See attached)

7. OHS management system; Critical aspects listed for inclusion in the SHE plan and file. Please follow listed format:

(Not conclusive. The system is dynamic.) Read the specification to ensure all Client stipulations are met and use the Regulations to assist legal compliance.

- Contractor contact details on file cover.
- Admin and statutory compliance
 - Client Specification, HIRA and BoQ
 - Offer of acceptance and contractor appointment letter
 - SHE plan and SHE plan approval when achieved
 - Current COIDA
 - UIF Registration
 - Tax clearance
 - Notification to DOL, signed and stamped with cover letter form DOL.
 - Employee list and copies of ID's, Medicals, Popia signatures on medical assessments
- PC OHS System:
 - OHS Policy statement and related social policies (HIV, Smoking, Stigmatization and victimization prevention, vulnerable employee management.)

- Organogram: Must have contact details and be aligned with appointments.
 - Legal appointments with competency and proof of professional registration
 - HIRA
 - Communications on risk awareness: Induction, toolbox talks, training plans
 - SWP
 - Method statements: Placement of elevated tanks.
 - Procedures: PPE issue, Sub contractor management, Incident management, Waste and hygiene management, Covid 19 Mitigation and related policies
 - Daily task analysis/ continuous HIRA
 - Inspection registers
 - Incident management documentation
 - Hazardous chemicals: Index and MSDS
 - Waste and storm water management
 - Sub-contractor management.
 - Communications and proof of services, expenditure on OHS and arrangements with principles
 - Annexure 3 Medicals
 - HBA File and Monitoring files.
- Register of Geotech, drawings and such.
 - COC's and proof of electrical installations controller DOL registration and on-site supervision program.
 - Close Out of OHS systems files: index, have documents in files, all incidents to be closed out.

1. Introduction

The baseline HIRA procedure as based on knowledge available at tender stage.

Legal, National and International Legislation and Standards further drive risk reduction and quality service to the construction industry. This baseline hazard identification and risk analysis is an introduction to risk mitigation and forms part of the employees training, access to information and SHEQ involvement. Although this baseline HIRA covers the current known and expected scope of works, systems to be used and implemented, one has to understand that risk is dynamic and hazards are linked to human behaviour, skill, time and capacity. Hazards are further complicated by the macro-environments impact on the work environment and the accumulative effect of many tasks being performed simultaneously. For this reason, it is the people on the ground, those involved directly in the processes and tasks that mitigate or advance the risk process and are therefore responsible under the OHSA to review, grow, communicate and implement risk control.

The hazard identification risk analysis process is the backbone of effective prevention of incidents and accidents. It sets the standard for management focus. The provided hazard identification risk analysis is a site specific baseline document that aims to address the roles and responsibilities regarding known, or reasonable expected hazards and risks on site and in areas where the construction process may have a negative risk. It is a simplistic system that focuses on the hazards the user may be exposed to.

2. Scope

This document applies to all who work on the project. Visitors and other stakeholders must be informed if exposed to hazards and access to restricted areas must be controlled and enforced. This is a living document and therefore must be reviewed as outlined later in the procedure.

3. Legal liability

As it is not possible to anticipate all the hazards the employer/ employees may encounter, the baseline should be reviewed and developed according to the reasonable man principal and the monitoring program. (CR 9) The responsibility and accountability lies with the CEO (16.1), (Client) however, the legislative framework under the OHSA 85 of 1993, stresses the general responsibilities of employees (Sec.14) and that of others to apply safe conduct at all times.

Only those working on site can know the expected behaviour of the people employed and their levels of competency. The equipment and material used is under the maintenance manager's control and must be maintained on a preventative maintenance schedule. Communication without victimization is therefore of prime importance. This advances SHEM practices in the micro work environment and completes the risk management legislative requirements.

4. References

- The site specific specification and related reference documents listed in the specification.
- OHSA 85 of 1993 with Promulgated Regulations. (CR9for procedural references)
- COIDA
- EEA
- Labour Relations Act 66; update 2009
- Risk Management. Frank Bird Theory. Emmett J. Vaughan
- Safety Health and Environmental management. Germaine Arnold Rowan Roane
- Managing Human Resources, 10e. Jackson-Schuler-Werner
- Disaster Management Regulations under Lock down1.
- CIDB registration guidelines.

5. Definitions and acronyms

- Hazard is simply the source of risks.
- Risk is the chance that a negative consequence will occur, it is dynamic and in this context, pure risk mismanagement has only a negative consequence that results in loss: affects all resource systems.
- Safety is the absence of danger or the control of risk.
- Health is the absence of disease and defined in construction as a “fit for work” status.
- Environment is defined as the micro work environment and the macro environmental impact on work activities. This includes the micro environmental impact on the macro environment; i.e. waste, energy usage and water use.
- HIRA refers to hazard identification risk analysis.
- SHEM refers to safety, health and environmental management.

Method

- A simple table format was used to list and number the processes and related activities. It is very much systems based as work method must be defined by the people doing the work planning. A task related HIRA should be used in conjunction with the baseline systems HIRA.
- The simplistic format is maintained so that employees can understand it and can relate to how it is used in the working environment.
- The hazards associated with those activities were anticipated as far reasonably practicable.
- The risk associated with the hazard, as per legal requirements- worse case scenarios, were determined and the level of risk was determined through a very basic table into high, medium and low with the purpose of ensuring focus goes to the correct risk and to hazard controls.
- If there is a chance that a risk outcome may result in a fatality or multiple fatalities, or loss of the business, it is regarded as a high risk.
- The controls legally required and those known as best practice were simply listed for the Principal Contractor's control formats.
 - CR.9
- Risk review is required annually if the work conditions do not change.
 - Incident documentation, BOP and new equipment or materials will initiate a review.
 - Risk Review Procedure is required from the Principal Contractor.
- Monitor through daily hazard awareness and control implementation.
 - Risk Monitoring Procedure is required from the Principal Contractor.
 - Transfer of knowledge:
 - This is the most important section of risk management.
 - The documents in this HIRA must be communicated and discussed with the relevant employees and the SHEQ committee.
 - Employees must sign and date the document when they understand its meaning and value.
 - Employees must be able to comment and give input to advance the HIRA and risk mitigation.

Note: The establishment of a level of risk is to ensure finance and focus is placed in the correct areas. It is not the calculation that counts, but the fact that significant risk- the consequence of an uncontrolled hazard; must be addressed as a priority.

Risk management always happens in an environment of uncertainty. People's attitude to risk affects the HIRA, therefore legislation requests us to examine worst case scenarios and to plan accordingly. It is this dynamic system of observation, planning, recording and implementing that save lives.

Risk review

Risk is reviewed on an annual basis if operations and process remain the same. This is important because legislative changes, new standards or the Companies strategies may have changed.

Other aspects that would require immediate risk review: ☐

Purchasing new equipment.

- Using new materials.
- New testing methods.
- Incidents inclusive of near misses, first aids, other.
- Post SHEQ meetings.
- Post audits if required.
- Lay-out or work scope changes.
- Post DOL visits.
- Post legislative changes.
- Client requirements.
- Stakeholder complaints.
- New role players.
- Employee capacity changes: work load, health and understanding of work are limited.
- Language barriers.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civil and construction	Hazards	Risk	Level	SHEM Control	Comment
1	<ul style="list-style-type: none"> Setting up site camp site offices and stores planning Allocation of stores Access and visitors and staff access controls Emergency planning Allocation of waste bins, Facilities, batch plant area Storage for trusses Pipes Equipment Storing & maintain Ladders Sub-contractor access/store. 	Campus stakeholders and activities Manual lifting Ground conditions Congestion Vermin, Snakes Security Fire risks Lack of facilities: Ablution Electrical power Water: storm and ground Haz chem. Build up Noise Weather impacts: Heat, cold, wind, rain Surrounding community impacts: Traffic, access to site on a busy road and Covid 19 community outbreaks	Loss of materials and equipment Injury Collapse delay Loss of finance Loss of time Fatality	M-H	Signage to establish controlled access: Campus stakeholder may have no access to site PC to remain in allocated works areas. Site camp away from campus parameters Monitor wind and weather conditions, veld fires Inform and educate employees regarding potential risks specify areas for facilities, storage Arrange facilities as per site lay-out plan and display. Create good neighbour relationships and communication with Campus head and community Consider total people needs of the site: Emergency; Access Stores and impact on emergency risk profile! Enough ablutions, water, other? Noise awareness, no shouting No accommodation on building site, Control smoking Access controls and site signage. No fires / Control dust. Fence off with fence polls. Security.	Electrical supply = from grounds, to be checked by engineer. All electrical equipment should be checked before use, correct current draw, where it may be plugged in. Employee Inductions to stress noise and dust management. Beware of other contractors in area. Control plant movement if applicable

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process	Hazards	Risk	Level	SHEM Control	Comment
2	General Civil works impacts This is a contract based on providing labour employment.	Dust, Noise Snakes, Ticks Heat cold waste materials, sharps Biohazard Covid 19 Use of school electricity: <i>Tripping</i> <i>Outages</i> Loss of water Spills Awkward body postures Vibration Hazardous chemical use Unknown hazards Underlying services Overhead /	Injury and OH Disease Loss of materials and equipment delay Loss of finance Loss of time Fatality	M-H	Good planning and Liaison with Client Good communication; inductions, Access and egress control Air and ventilation monitoring Adequate light for works Ensuring safe routes for emergency planning Minimize dust generation, work methodology Minimize noise through good sound engineering practices and task scheduling Employee identification Training in hygiene practices and contact distancing Training and control on use of masks during works Hygiene practices on tools and equipment issues Supervision Control of belongings and access: PPE: Overalls; Hardhats; safety shoes, appropriate hearing protection, Masks & gloves Signage to warn / direct Report all incidence PC staff must be identifiable.	Civil work is unique; exposure to the elements and the kind of tasks performed, Material and equipment used Sustains the need for dynamic risk management. Review.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process	Hazards	Risk	Level	SHEM Control	Comment
2	General Construction works impacts continued:	waste materials, Lack of water and electricity Spills Awkward body postures Loads Untrained labour Lack of work scheduling Lack of supervision Lack of safe access Lack of knowledge on rights, health and safety Lack of communication and explanations on hazards related to works	Injury and OH Disease Loss of materials and equipment delay Loss of finance Loss of time Fatality	H	Good planning Supervision Good communication; inductions, Access and egress control Air and ventilation monitoring Barrier controls Covid information posters Adequate light for works Ensuring safe routes for work and emergency planning Minimize dust generation, work methodology Minimize noise through good sound engineering practices and task scheduling Employee identification Training in hygiene practices Provide <i>safe</i> work platforms	

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civil and construction	Hazards	Risk	Level	SHEM Control	Comment
3	Facility management	<p>Lack of planning, lack of ablutions: - employees ablating wherever</p> <p>Lack of female secure toilets: rape and attack</p> <p>Lack of drinking water</p> <p>Lack of covered protected eating areas</p> <p>Men and woman eating everywhere;</p> <p>lack of waste control attracts vermin.</p> <p>Increased chance of spider, tick, bees and snake bites</p> <p>Lack of care leads to lack of trust, untidy site, difficult to control staff</p> <p>Theft is encouraged</p> <p>Encourages bad housekeeping practices</p> <p>Lack of good relationship between employer and employees.</p> <p>Lack of communication platforms</p> <p>Lack of Covid 19 hygiene stations, sanitation, masks, posters and education</p> <p>Angry Clients</p>	<p>Loss of time</p> <p>Injury and health impact</p> <p>Loss of reputation</p> <p>Loss of monies</p> <p>And stock</p> <p>Loss of control</p> <p>Environmental impact</p>	M -H	<p>Plan for decent clean facilities (CHEMICAL PORTA LOO's) that answer basic employee needs and hygiene.</p> <p>Ensure a communication board is available for communication and SHEQ promotions.</p> <p>Provide bins that are marked according to the waste requirements:</p> <p>Domestic, Cement bags, HCS containers and other</p> <p>Mark drinking water safe for human use and mark construction only usage if bringing in water or re-cycling at source.</p> <p>Encourage good hygiene, stock control and respect for employees needs.</p> <p>Santization stations with 705 alcohol no touch sprays, soap and water, hand drying paper, toilet paper. Bins.</p> <p>Allow SHE Reps to inspect and report on employee needs.</p> <p>External audits of accommodation.</p>	<p>Plan separate ablutions and FR requirements for employees away from campus, ensure cleaning schedule is noted, implemented and maintained.</p>

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civil and construction	Hazards	Risk	Level	SHEM Control	Comment
4 CR 9 &10 &11 12	Working at heights - - Potential to fall into excavations - All Ladder work for cutters and repairs at height. - Elevated water tank construction, placing of tank and maintenance planning on tank platform.	General failure to plan. Illness, Fear of heights Heat , Bad illumination/ glare, Lack of fall protection plan, gear and controls Lack of training Unsuitable access/egress Scaffold Failure Collapse of existing structures, weight and Ungainly materials Life lines or work platform unsafe Ladders not secured Equipment falling from height Materials falling from height Failure to check, use harnesses and belts, life lines, Failure to secure structures being erected Failure to brace scaffold adequately to take workers and equipment and material	Fall ,Fractures Fatality Damage to property Loss of material equipment Financial loss Downtime Loss of reputation Covid outbreak	H	Structural Engineers drawings and signed off designs and approvals. Supervision. Medical and Psychological evaluation before work starts Training and development Inspections and supervision Disciplinary rules regarding working at height conduct and information sharing Good housekeeping practices Equipment to manage tools and materials safely when working at height. SWP; FPP PPE : Fitted hardhat with tie Glare protective eye wear Visibility overall /vests, non-skid safety shoes, gloves, harness and life lines. Management of team work stability of structures used as work platforms CR 8; SANS 10085,SANS 50795, US 229994+5+8 Try to cover all openings, edges Make safe leading edge work Close all open work areas: Prevent trip & falls Monitor weather conditions Ground stability Lifting equipment compliance	Any use of electrical equipment, extension cords, and materials increase risk Electrical cord protection if used on roof sheeting. Barrier tasks planning.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civil & construction	Hazards	Risk	Level	SHEM Control	Comment
5	Electrical and mechanical equipment use Inclusive of generators Air compressors and compression hoses , generators Pumps Whackers Grinders Drills Saws	Failure to secure Incompetent use Electrical shorts Failure of safety devices Water environment and electrical cord integrity Cords can hook and cause fall hazards Failure to buy good quality, maintain or inspects Grinders used without guards Hoses not checked Fuel not organized or supplied Failure to check machinery Noise levels vibration Failure to disinfect between employee handling	Electrification Shock Injury Fatality Explosion Fire Damage to property Down time Loss	H	Appoint person to inspect electrical tools, equipment, plant Keep index of all equipment on site and do inspections Manage electrical cords integrity Store and maintain electrical equipment as per supplier's data Train employees to use equipment correctly. Explain risk and what to do if there is a problem. Adequate lighting and ventilation, Housekeeping, Supervision. SWP PPE as per task: Eyes, Ears, body, feet, hands, head. Signs, Access control, Underfoot conditions, Permits and licensing SHE arrangements with hire and leasing companies Use drip trays, prevent equipment cleaning water running into drains. Prevent pollution. Ensure make safe to electrical is done before electrical work commences Disinfect between employee use.	NUMBER and Index all plant, electrical cords, Tools, Equipment If items are used at height, a SWP should be addressed within the FPP scope.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civil & Construction	Hazards	Risk	Level	SHEM Control	Comment
6	Emergency Planning Fire internally or from surrounding area First aid or major incident Fall from heights Collapse of supports Vehicle accidents Plant tip over Other Strikes and labour action Bio hazard exposure Covid outbreak	Confusion No emergency numbers/ plan No first Aid box or trained personal No Firefighting equipment or abilities No data on total people on site No assemble area Or warning system Lack of emergency exercise	Death Fire Consequential losses Loss of property Reputation Finance Investigations Public and Civil liability	H	Ensure emergency plans address all hazards Communicate and train Do exercises Ensure first aider available and stock available Ensure Incident management procedures are in place Ensure competency to manage incidents and follow up investigations are done Ensure that emergency alarm is audible and can be heard from all areas of the site. Ensure Firefighting equipment are operable, ensure First Aid box is available Competent first aider Emergency Controller must be on site. Alarms SAFETY Rules: No fires Control smoking Covid isolation station	Grow and be constantly aware of what may impact on project, special attention to be given to Evacuation from heights. Note again how you will manage communication & emergencies where work teams are spread over a large area.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civils and construction	Hazards	Risk	Level	SHEM Control	Comment
7	Management of HAZCHEM Potential: Diesels Petrol Cleaning solutions Sealing compounds; Sika Cement Sanitizers disinfectants	Unknown substance No MSDS- No HIRA Volumes Mixing flammables and oxidizers No safe storage No warning No signage Exposure to corrosives, asphyxiates Explosion, Fire Emergency risks Spills and environmental pollution Polymerizing Injury form chemical burns, sensitizing Occupational diseases	Loss of material equipment Time Finance Reputation Injury, death Health impacts Public liability Consequential losses Environmental impact on Ozone layer Global warming penalties	H	Identify HAZCHEM; Get MSDS and do a risk analysis. Terminate where possible; Establish controls; Engineering Ventilation, spark and containment of spills and safe storage Administrative; signage and fire extinguishers Train and inform, Supervise Minimize volumes, store correctly, Good housekeeping PPE as specially required by MSDS Avoid spills. Mix cement on an impervious base and contain run off if mixed on site Plan for instant reporting and clean up if spills occur to avoid pollution Ensure permits for flammable liquids according to Volume and Municipal by-laws. Paint wastes management Empty container management No decanting into unmarked cool drink bottles.	Application of HAZCHEM at Height must be addressed with SWP within FPP scope. Note that Diesel fumes are now declared a carcinogenic.

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Construction	Hazards	Risk	Level	SHEM Control	Comment
8	<p>Building works</p> <ul style="list-style-type: none"> V- drain construction <p>Concrete and mortar</p> <p>Batching:-Mixing, Pouring concrete</p> <p>Pipes: Stack and store risk</p>	<p>Alkalinity of cement causes environmental pollution may cause sensitizing and burns when poured in high volumes, Cold weather may also have impact on concrete works: Large volumes. Delays in delivery or work not scheduled can lead to batching not used and drying out, causing losses' cause long-term problems in the structure of the building design. Taking cube tests incorrectly can lead to faulty information. Mixing on ground and not following mix design. Removing bricks from stack incorrectly and removing plastic causing collapse and loss of bricks, hand injuries</p> <p>Steep slopes.</p>	<p>Loss of health, injuries may be hand, feet, body, and head. Loss of time</p> <p>Loss of quality</p> <p>Loss of finance</p> <p>Loss of reputation.</p> <p>Environmental impact</p>	M to H	<p>Design drawings and professional team input</p> <p>Work scheduling and planning</p> <p>Competent supervision and personal</p> <p>Good quality suppliers and design</p> <p>Informed of risk and method with task observations on written SWP for employees</p> <p>PPE training and issue controls</p> <p>Always look at risk interphase: bricklaying, putting in services, windows etcetera can be done at leading edge or at heights. FPP then must be used to ensure controls are correct for task.</p> <p>Controlled batching area.</p> <p>Housekeeping is vital.</p> <p>Control dust: dampening.</p> <p>Stack pips carefully, do not stand on pipes that may role.</p>	<p>Building methods and working to design is done by the PC and the methodology is determined by him, build the HIRA around that.</p>
PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						

No	Activity/Process	Hazards	Risk	Level	SHEM Control	Comment
	Civil and construction works					
9	<p>Environmental impacts</p> <p>Pollution is defined as a nuisance to others;</p> <p>Construction noise Dust.</p> <p>Pollution sewer wastes</p> <p>HCS</p> <p>Building materials</p> <p>Cement</p> <p>Silica's</p> <p>Storm water management</p> <p>And run off</p> <p>Wild life migratory paths impeded or nesting grounds destroyed</p> <p>Increased traffic and population</p> <p>Carbon footprint is increased</p> <p>Waste is increased Trees routing into sewer and pipe line works</p>	<p>Noise, dust,</p> <p>Soil degrading</p> <p>Increased storm water flow Bio-accumulation</p> <p>Biological</p> <p>Decomposition</p> <p>Thermal Pollution</p> <p>Increased air pollution from fuels and energy uses.</p> <p>Destruction of Protected fauna and flora</p> <p>Waste build up, domestic: flies, rats</p> <p>Construction waste, rubble</p> <p>Mismanagement of top soil</p> <p>Killing animals, reptile's insects</p> <p>Tick bites</p> <p>Snake bites</p>	<p>Loss of habitat.</p> <p>Environmental liability</p> <p>Public complain</p> <p>Loss of time</p> <p>Loss of finance Long term health impact and lack of sustainability</p> <p>Ill health death</p>	H	<p>Training of employees:</p> <ul style="list-style-type: none"> ✓ Basic environmental awareness ✓ Prevention of soil erosion <p>Recycle, re-use; DO not over order, Use of environmentally sustainable materials</p> <p>Engineering designs to reduce electrical draw and water consumption, Planting carbon air cleaners like spekboom and such in garden areas. Maximize the use of natural light where possible, Recycle rain water.</p> <p>Plant roof gardens to break the flow into storm water systems.</p> <p>Keep areas clean and filter residues into storm water systems to create clean grey water, Use eco plumbing fittings and solar panels for hot water, Principles such as switch off and plug out. Not allow wastages of resources, well maintained equipment and plant, no over trafficking</p> <p>Manage waste</p> <p>No snares, No killing.</p>	<p>Cement batching must be under controlled conditions.</p> <p>Employees to be warned, trained in how to manage risks</p>

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Civil and construction works	Hazards	Risk	Level	SHEM Control	Comment
10	<p>Minor bulk earth works</p> <ul style="list-style-type: none"> ➤ Excavation ➤ Hand <p>Excavations 700cm to 1.2M Removing large finds: rocks from excavation material by hand Importing full Testing Compacting Lying pipes The work will be done by hand as this is a labour intensive contract.</p>	<p>Trenching, repetitive movement, Dust, noise, vibration Work load and weights Sun and weather impact Loss of top soil Soil degradation Not following design or engineer detail Not legally complaint Poor hand tools, fire Underground services not established Overhead services Fuel or oil spills Fall into marked Soil conditions: Clay/rock No barricade, overloading of bank Rain water pooling Fall into, suffocate in collapse No contact distancing.</p>	<p>Injury Loss of habitat. Public liability Loss of time Loss of finance Long term health impact and lack of sustainability</p>	H	<p>CR 13 applies. Engineers drawings and specifications CR Plant management if applicable If done with labour force: Supervise, Train and inform SWP, Tool Inspections and housekeeping controls Plant and machinery Competent appointee, trained and medical fitness on file for plant work, inspections, log book, maintenance schedules Ensure spoil does not cause dust problems for surrounding works. Work scheduling Supervision, training and observation Establish services if any, make safe. Inspect and report daily Barricade (NOT CANDY TAPE) and close within day wherever possible. Plan safe access. Plan to close same day.</p>	

PROVISION OF ADEQUATE WATER SUPPLY TO IKHALA TVET COLLEGE: EZIBELENI CAMPUS Baseline Hira.						
No	Activity/Process Construction and Civil works	Hazards	Risk	Level	SHEM Control	Comment
11	Works completion	Construction spoil, spill, Waste left on site Open or uneven foot conditions, Erosions Vegetation not completed Snagging and other contractor tasks amidst other stakeholders. Lack of supervision and control over remaining work force: injuries, theft. Customer complaints. SHE files not handed over to Client, Close out report not done Signage not removed Rehabilitation and cleaning of all works areas.	Injuries Material and equipment losses Loss of reputation Loss of finance: - penalties Environmental impacts and liability	M	Ensure that all aspects of work are completed and addressed Do walk about site and external site perimeter to ensure all waste and no ablutory materials are lying about. Check that drains are clean and flowing. Check for ponding and that downpipes are connected to storm water systems Check that vegetation has grown back Check that emergency equipment is provided and correctly placed and marked If part of the contract, Ensure employees doing snags are behaving according to SHEQ protocols. Hand over SHEQ files and close out report, operational manuals and so on once everyone is off site. Close out audits. Covid 19 incidents reported to the relevant regulatory authorities and DoH.	Residual risk must be checked and end users warned.

Note: Project specific means number of anticipated employees must be considered, equipment and materials to be used, tasks to be done and baseline HIRA reviewed for potential costs. The PC must complete this annexure for cost determination and a copy is to be placed in the SHE files, with the procedure of how costs will be monitored. This is a guideline for anticipated H&S costs: legislative changes, project demand and un-specified costs, like unforeseen hazard control, emergency, and over run of contract period have cost implications that must be agreed with Client and SPS before cost impact. The PC to be aware of cost.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	COST
A. Administrative costs					
01	Preparation of the Contractor's site-specific Health and Safety Plan and file, inclusive of review costs, including Covid 19 plan, and Inclusive of waste and storm water management planning	Lump sum	X1		
02	Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Lump sum	X1		
03	Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act, Construction Regulations and other as aligned with this project.	Month			
04	Provision of a full time REGISTERED (SACPCMP) Construction Health and Safety Officer	Month			
05	HBA/Covid Compliance Officer	Month			
06	Accountable, competent management and supervisory personal. (Cr. 8)	Month			
07	Other plans with competency requirements Fall protection plan (competent in specific unit standard) Demolition Temporary works Other as per scope: Asbestos if applicable (Not anticipated: but tie ins may show old pipes)	Lump sum	X1		
08	Cost of approving Subbies SHE plans, audits and OHS control as per Cr.7.	Lump sum	X1		
09	Close out of files: admin indexes and putting records on disk or electronic formats	Lump sum	X1		
10	Cost of COIDA for project period.	Months			
11	Administrative costs for CHSO and CCO to be able to do work: Phone, Computer, Printer and sundries	Lump sum.	X1		
12	Identification of workers: Labels or stickers	Lump sum	X1		

B. Control and Implementation of approved OHS plan.					
01. PPE per anticipated heads during project life span. Proof of purchase records to be available for audits.					
	(a) Reflective vests or Over- all with reflector stipes	No			
	(b) Hard hats as per SANS	No			
	(c) Protective foot wear	No			
	(d) Earplugs	No			
	(e) Dust masks/ Respirators SABS approved	No			
	(f) Gloves for specific tasks	No			
	(g)Attenuated Ear Defenders SABS approved	No			
	(h) Fall arrest harnesses/ Life belts/ life lines/ Barriers	No			
	(i) Safety goggles	No			
	Other: Considerations: a) Hardhats for visitors b) Reflective vests for visitors Other:	No No No			
02. Medical monitoring certificates and medical surveillance by Occupational Health Practitioner (OHP)					
	(a) Initial (baseline) medical examinations by (OHP)	prime cost (PC) sum			
	(b) Periodic and exit examinations (OHP)	prime cost (PC) sum			
	(c) Contractor's charges to allow for handling costs and profit in respect of sub-contractors, SMME's, other	%			
	d) medical vaccinations for example HEP A, B & C				
	e) close out medicals				
	f) Fit for work Medicals				
03. Training					
a)	Induction training	No			
b)	Competency training for project skills: Example Work at height OHS training for supervisors First aid Emergency and fire Legal requirements: for example, FPP SHE Rep HIV Awareness Covid Awareness.	Lump sum			
c)	DSTI and tool box talks	Lump sum			
0.4. OHS Systems material costs					
a)	Provision of First Aid Boxes to GSR requirements	No			
b)	Provision of fire extinguishers	No			
c)	Provision of signage: First aider, first aid station, fire extinguishers, assembly points, danger warning signs, site rules signage, Access and entry control, Deep excavations, Covid signs (Not limited too)	Lump sum	X1		

d)	H&S notice board and promotional materials	Lump sum	X1		
e)	Facilities, hand wash, drinking water facilitation, under cover eating area. (If not covered elsewhere in BoQ)	Lump sum	X1		
f)	Admin	Lump sum	X1		
05. Engineering controls (If not covered in B0Q elsewhere):					
a)	Air monitoring if applicable project	Lump sum	X1		
b)	Battering and shoring of excavations Dewatering if not covered elsewhere in BOQ	Lump sum	X1		
c)	Access and egress from excavations and work platforms	Lump sum	X1		
d)	Scaffold: materials for safe work platforms, trained competent personal (SANS 100085)	Lump sum	X1		
e)	Barrier Netting	Lump sum	X1		
f)	Noise monitoring if applicable to the project	Lump sum.	X1		
06. Public liability management					
a)	Hoarding and securing of works from public access and egress	Lump sum	X1		
b)	Specified signage	Lump sum	X1		
07. Other					
a)	Consider special access needs and provision	Lump sum	X1		
b)	Consider special costs for waste management: Bins	Lump sum	X1		
c)	Consider costs for legislative changes and requirements	Lump sum	X1		
d)	Project specific risks: Asbestos or other, if not noted in Quantity surveyor BOQ. HAZCHEM. Flammable stores Drip Trays Industrial extension cords Slings, chains Flag ladies Road safety signage Ambulant lighting checks and lights for works Calibration of equipment. HBA Management	Lump sum	X1		
e)	Ergonomic Costs	Lump sum	X1		

**HEALTH, SAFETY AND ENVIRONMENTAL AGREEMENT
BETWEEN EMPLOYER AND THE CONTRACTOR**

Person responsible for this contract:

.....

Contract:

WRITTEN AGREEMENT BETWEEN

.....

EMPLOYER

AND

.....

CONTRACTOR ((hereinafter referred to as “the Mandatary”))

AS ENVISAGED BY SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY
ACT, NO 85 OF 1993, AS AMENDED.

Irepresenting

(Mandatary) do hereby acknowledge that we as the Mandatary is an employer in its own right with duties as prescribed in the Occupational Health and Safety Act No (85 of 1993, as amended) and I agree to ensure that all work will be performed, or machinery and plant used in accordance with the provisions of the said Act. I further more agree to comply with all other relevant Acts while providing a service to the Employer/ Client.

I will ensure that all subcontractors are properly informed and adhere to all the rules and regulations and relevant legislation while on the premises. I will liaise with the person responsible, should I, for whatever reason, not be able to complete the task/project or perform in the terms of this agreement.

My company is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational and Diseases Act, 1993 (Act No. 130 of 1993). My registration number is.....

We/I also agree that; the Contractor or Sub-contractor, by their signatures hereto, do unreservedly and irrevocably indemnify **the Client/ Employer** and hold it harmless against

all the clause demands, actions, clauses of actions and suits at law, which may be made or instituted against it for:

- any death, injury or incident to the Contractor, Sub-contractor and/or their employees or any agent customer or visitor of the Contractor;
- any damage caused to property of the Contractor, Sub-contractor, and/or their employees or any agent customer or visitor of the Contractor, including any loss of such property from whatsoever, while on the premises; and
- any claims resulting from non-compliance with legislation.

Reporting

The Mandatary and/or his designated person, appointed in terms of Section 16(2) of the Occupational Health and Safety Act 85 of 1993 ("the OHS Act"), shall report to the representative designated by the Employer prior to commencing the work at the premises.

Warranty of compliance

In terms of this agreement the Mandatary warrants that he agrees to the arrangements and procedures as prescribed by the Employer and as provided for in terms of Section 37(2) of the OHS Act for the purposes of compliance with the Act.

The Mandatary acknowledges that this agreement constitutes an agreement in terms of Section 37(2) of the OHS Act, whereby all responsibility for health and safety matters relating to the work that the Mandatary and his employees are to perform on the premises shall be the obligation of the Mandatary.

The Mandatary further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of the above, nor from the provisions of the said agreement, the Mandatary shall ensure that the clauses as hereunder described, are at all times adhered to by himself and his employees.

The Mandatary hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct and/or activities of any of his employees while they are on the Employer's premises.

Mandatory an employer

The Mandatory shall be deemed to be an employer in his own right while on the Employer's premises. In terms of Section 16(1) of the OHS Act, the Mandatory shall accordingly ensure that the requirements of the OHS Act are complied with by himself and/or his nominated Chief Executive Officer.

Appointments and training

The Mandatory shall appoint competent persons as per Section 16(2) of the OHS Act. Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions that are pertinent to the work that is to be performed under his responsibility. Copies of any appointments made by the Mandatory shall immediately be provided to the Employer.

The Mandatory shall further ensure that all his employees are trained on the health and safety aspects relating to the work and that they understand the hazards associated with such work being carried out on the premises. Without derogating from the foregoing, the Mandatory shall, in particular, ensure that all his users of any materials or operators of any machinery or equipment are properly trained in the use of such materials, machinery or equipment.

Notwithstanding the provisions of the above, the Mandatory shall ensure that he, his appointed responsible persons and his employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

Supervision, discipline and reporting

The Mandatory shall ensure that all work performed on the Employer's premises is done under strict supervision and that no unsafe or unhealthy work-practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his employees regarding non-compliance by such employee, with any health and safety matters.

The Mandatory shall further ensure that his employees report to him all unsafe or unhealthy work situations immediately after they become aware of the same and that he in turn immediately reports these to the Employer and/or his representative.

Access to the OHS Act

The Mandatary shall ensure that he has an updated copy of the OHS Act on site at all times and that this is accessible to his appointed responsible persons and employees. However, the parties may make arrangements for the Mandatary and his appointed responsible persons and employees to have access to the Employer's updated copy/copies of the Act.

Cooperation

The Mandatary and/or his responsible persons and employees shall provide full cooperation and information if and when the Employer or his representative inquires into occupational health and safety issues concerning the Mandatary. It is hereby recorded that the Employer and his representative shall at all times be entitled to make such inquiry. Without derogating from the generality of the above, the Mandatary and his responsible persons shall make available to the Employer and his representative, on request, all and any checklists and inspection registers required to be kept by him in respect of any of his materials, machinery or equipment.

The mandatary must use the provided Site-Specific HIRA and Baseline to ensure the OHS Plan and implementing file addresses risks noted and remains liable to update the risk assessments and safe work procedures as the project progresses and advances.

Work procedures

The Mandatary shall implement safe work practices as assessed by the Employer and shall ensure that his responsible persons and employees are made conversant with, and adhere to, such safe work practices.

Health and safety meetings

If required in terms of the OHS Act, the Mandatary shall establish his own health and safety committee(s) and ensure that his employees, being the committee members, hold health and safety meetings as often as may be required and at least once every three (3) months. The Employer may elect to permit the Mandatary's health and safety representatives to attend the Employer's health and safety committee meetings.

Compensation registration

The Mandatary shall ensure that he has a valid registration with the Compensation Commissioner, as required in terms of the Compensation for Occupational Injuries and

Diseases Act 130 of 1993, and that all payments owing to the Commissioner are discharged. The Mandatary shall further ensure that the cover shall remain in force while any such employee is present on the premises.

Medical examinations

The Mandatary shall ensure that all his employees undergo routine medical examinations and that they are medically fit for the purposes of the work they are to perform.

Incident reporting and investigation

All incidents referred to in Section 24 of the OHS Act shall be reported by the Mandatary to the Department of Labour, COIDA and to the Employer. The Employer shall further be provided with copies of any written documentation relating to any incident. The Employer retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of Section 32 of the OHS-Act into such an incident.

Subcontractors

The Mandatary shall notify the Employer of any subcontractor he may wish to perform work on the Employer's premises. It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work. Without derogating from the generality of this paragraph:

1. The Mandatary shall ensure that training, as discussed under appointments and training, is provided prior to the subcontractor commencing work on the Employer's premises.
2. The Mandatary shall ensure that work performed by the subcontractor is done under strict supervision and discipline.
3. The Mandatary shall inform the Employer of any Health and Safety hazard and/or issue that the subcontractor may have brought to his attention.
4. The Mandatary shall inform the Employer of any difficulty encountered regarding compliance by the subcontractor with any health and safety instruction, procedure and/or legal provision applicable to the work the subcontractor performs on the Employer's premises.

Security and access

The Mandatary and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer. The Mandatary shall ensure that employees observe the security rules of the Employer at all times and shall not permit any person who is not directly associated with the work to enter the premises.

The Mandatary and his employees shall not enter any area of the premises that is not directly associated with the work.

The Mandatary shall ensure that all materials, machinery or equipment brought by himself onto the premises are recorded at the main gate(s) and/or checkpoint(s). A failure to do this may result in a refusal by the Employer to allow the materials, machinery or equipment to be removed from the premises.

Fire precautions and facilities

The Mandatary shall ensure that an adequate supply of fire-protection and first-aid facilities are provided for the work to be performed on the Employer's premises, save that the parties may mutually make arrangements for the provision of such facilities.

The Mandatary shall further ensure that all his employees are familiar with fire precautions at the premises, which include fire-alarm signals and emergency exits, and that such precautions are adhered to.

Hygiene and cleanliness

The Mandatary shall ensure that the work site and surrounding area is at all times maintained to a reasonably practicable level of hygiene and cleanliness. In this regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

No nuisance

The Mandatary shall ensure that neither he nor his employees undertake any activity that may cause environmental impairment or constitute any form of nuisance to the Employer and/or his surroundings. The Mandatary shall ensure that no hindrance, hazard, annoyance

or inconvenience is inflicted on the Employer, another Mandatary or any tenants. Where such situations are unavoidable, the Mandatary shall give prior notice to the Employer.

Intoxication not allowed

No intoxicating substance of any form shall be allowed on site. Any person suspected of being intoxicated shall not be allowed on the site. Any person required to take medication shall notify the relevant responsible person thereof, as well as of the potential side-effects of the medication.

Personal protective equipment

The Mandatary shall ensure that his responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform in accordance with the requirements of General Safety Regulation 2(1) of the OHS Act. The Mandatary shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.

Plant, machinery and equipment

The Mandatary shall ensure that all the plant, machinery, equipment and/or vehicles he may wish to utilize on the Employer's premises is/are of sound order at all times and fit for the purpose for which it/they is/are intended, and that it/they complies/comply with the requirements of Section 10 of the OHS Act. In accordance with the provisions of Section 10(4) of the OHS Act, the Mandatary hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the premises, or manufactures, sells or supplies to or for the Employer, complies with all the prescribed requirements and will be safe and without risks to health and safety when properly used.

No usage of the Employer's equipment

The Mandatary hereby acknowledges that his employees shall not be permitted to use any materials, machinery or equipment of the Employer's unless the prior written consent of the Employer has been obtained, in which case the Mandatary shall ensure that only those persons authorized to make use of same, have access thereto.

Transport

The Mandatary shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured. All drivers shall have relevant and valid driving

licenses and no vehicle shall carry passengers unless it is specifically designed to do so. All drivers shall adhere to the speed limits and road signs on the premises at all times.

In the event that any hazardous substances are to be transported on the premises, the Mandatary shall ensure that the requirements of the Hazardous Chemical Substances Act 15 of 1973 are complied with at all times.

Clarification

In the event that the Mandatary requires clarification of any of the terms or provisions of this agreement, he should contact the appointed Client Representative of the Employer.

Duration of agreement

This agreement shall remain in force for the duration of the work to be performed by the Mandatary and/or while any of the Mandatary's workmen are present on the Employer's premises.

Headings

The headings as contained in this agreement are for reference purposes only and shall not be construed as having any interpretative value in themselves or as giving any indication as to the meaning of the contents of the paragraphs contained in this agreement.

Confirmation and Acceptance	Initials
I _____ confirm that I have read and understood the appointment as set out above.	
I _____ confirm that I have read and understood the appendices and confirm my intention to comply with all the legal requirements.	
I _____ confirm my acceptance and understanding of the assigned responsibilities and duties involved.	
I _____ confirm that I have received training in the assigned responsibilities and duties required of me.	

THUS, AGREED TO AND SIGNED AT _____ on this the _____ day

of _____, in the presence of the undersigned witness:

Signature _____

Date _____

Witness Name _____

Signature _____

Signed on behalf of (Contractor)

THUS, AGREED TO AND SIGNED AT _____ on this the _____ day

of _____, in the presence of the undersigned witness:

Signature _____

Date _____

Witness _____ Name _____

Signature _____

Signed on behalf of the Client by:

Acknowledgement:

I, _____ representing
_____ Contractor have
satisfied myself with the content of the Occupational Health and Safety Specification (OHSS) and
shall ensure that the Contractor and his / her personnel comply with all relevant obligations in
respect thereof.

Signature of Contractor

Date

Signature of Client / OHS Agent

Date

Comments:

PART C4: SITE INFORMATION

C4 Site Information

SITE ASSESSMENT REPORT

1.	<u>Date of site visit:</u>	06 October 2020
2.	<u>Site visit attendance:</u>	<ul style="list-style-type: none"> • James Brown (MMPA QS, 079-990 6589) • Luyolo Kabeni (MMPA QS, 083-511 4124) • Fuzile Dlwati (Ikhala VTEC College, 073-827 1302) • Mfundo Mari (SRK Consulting, 083-785 0162) • Jaap van Wyk (Mariswe, 082-926 2279)
3.	<u>Water demand:</u>	<ul style="list-style-type: none"> • The population figures were forwarded by Mr. Dlwati to Mr. Brown. • There is no industrial water demands. There is however practical building work (concrete mixing, brick- and plaster work) but this done on a small scale. • The municipal meter readings were requested from Mr. Dlwati. It was however indicated that these will not be a true reflection of the water use, as the municipal water supply was very intermittent and could not supply in the full demand. • Mr. Dlwati request that should the water supply allow it, provision must be made for water supply for landscaping. • Mr. Dlwati also indicated that the water demand used for the current upgrading must be for the current population only and no allowance must be made for future growth. • Mr. Dlwati is not keen to use rainwater for domestic water supply unless it is thoroughly treated. • All sanitation fixtures were inspected, and a Summary is Attached as Annexure C.
4.	<u>Existing Infrastructure:</u>	<ul style="list-style-type: none"> • Buildings <ul style="list-style-type: none"> ○ The Main Administration Building is a double story building. All buildings other buildings are single story. • Municipal water connection <ul style="list-style-type: none"> ○ The College has one municipal connection. ○ The water connection is off Gwadana Drive (close to the bottom service entrance gate) ○ From the visual inspection, the connection consists of a 40mm dia galvanised steel pipe with 25mm dia water meter in a chamber without lid. ○ The internal water reticulation connects with a 50mm HDPE (unknown Class) to the water meter ○ There is also a 15mm domestic water meter connected to the municipal supply, but is disconnected from the internal reticulation. ○ There is a 40mm dia brass stop tap on the municipal side of the water meter. There is no non-return valve.

		<ul style="list-style-type: none"> ○ There is no separate fire flow connection visible. ○ No infrastructure other than what was visible could be confirmed by the facility operator. ○ It was confirmed by Chris Hani District Municipality that the water connection is on a 110mm diameter reticulation pipeline (assumed to be UPVC of unknown class) on the opposite side of Gwadana Drive. ○ See Annexure A for positions and Annexure B for photos. <ul style="list-style-type: none"> ● Municipal Supply <ul style="list-style-type: none"> ○ The municipal supply is reported to be very intermittent with very low pressures. Unable to measure pressures at time of site meeting. ○ No water supply was available at time of site visit. <ul style="list-style-type: none"> ● On-site reticulation <ul style="list-style-type: none"> ○ The position, size, type, and class of pipework of the on-site potable water reticulation pipes are unknown ○ The size of the connection pipe at each ablution / kitchen facility is indicated in Annexure B. ○ The position of the ablution and kitchen facilities are indicated in Annexure A. <ul style="list-style-type: none"> ● Fire water supply <ul style="list-style-type: none"> ○ The facility is generally equipped with fire extinguishers ○ Only two fire hose reels were visible, in the “new” carpentry workshop. ○ It is assumed that the hose reels are connected to the domestic reticulation (of unknown size and pressure class) and that no separate fire supply reticulation exists on site ○ It was confirmed by Chris Hani District Municipality that there are no existing fire hydrants at Ezibeleni <ul style="list-style-type: none"> ● Treatment <ul style="list-style-type: none"> ○ There is no on-site water treatment <ul style="list-style-type: none"> ● Plumbing <ul style="list-style-type: none"> ○ Plumbing to buildings are mainly copper pipes from a central connection point at each facility. ○ The plumbing configuration at each ablution facility is unknown. ○ Water supply to toilets and taps/wash basins are not separate. ○ Would need to re-plumb facility if untreated water /rainwater must be supplied to toilet cisterns. Can be viable at student ablution facility (A12/A13) <ul style="list-style-type: none"> ● Storage <ul style="list-style-type: none"> ○ There is no on-site storage, other than rainwater tanks.
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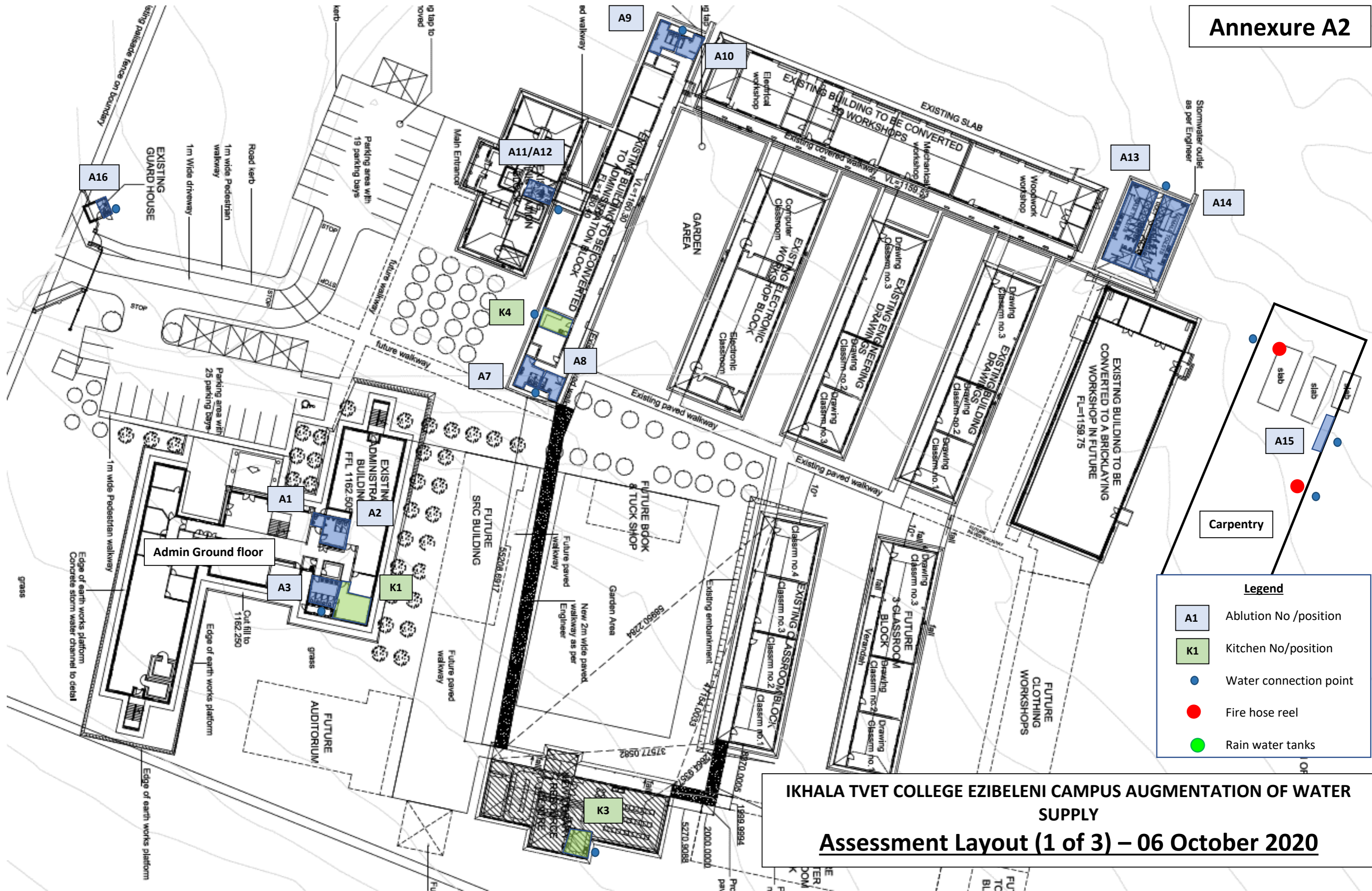
		<ul style="list-style-type: none"> • Rainwater harvesting <ul style="list-style-type: none"> ○ Rainwater harvesting is done in 7 No x 2 500 liter semi elevated tanks at the Main Administration Building. The tanks only collect a small portion (+-7%) of the roof's run-off. <ul style="list-style-type: none"> ▪ The tanks are connected via a 32mm dia HDPE Pipe to a small domestic pressure pump that is connected to the Main Administration Building only. ▪ The tanks also have inlet pipes, that is assumed to be connected to the domestic water supply (closed at time of site visit) ○ 6 No x 2500-liter rainwater tanks are also installed on other buildings, and only harvest portions of the roof areas: <ul style="list-style-type: none"> ▪ 2 No x 2500l at Administration building. ▪ 2 No x 2500l at Mechanical/Electrical workshop ▪ 1 No x 2500l at Prefabricated classrooms (there is 2 No additional tank bases casted – tanks removed) ▪ These tanks are not connected directly to the Municipal water supply or the internal reticulation system. From hose pipes laying on the ground next to the tanks, it is assumed that these tanks (especially the two at the administration building) are filled with water from the municipal supply, when available. ▪ Water from these tanks are used by the students, who collect water at the tanks ▪ The rainwater is not treated. ○ The Gutters of the facility are generally in good condition. ○ Some of the down pipes leading into the rainwater tanks are missing and must be replaced.
5.	<u>Proposed Infrastructure/positions:</u>	<ul style="list-style-type: none"> • See Annexure A5 for positions/layout of proposed infrastructure • <u>Boreholes</u> <ul style="list-style-type: none"> ○ Boreholes are to be identified by SRK Consulting ○ The development of the boreholes and rising mains will be finalised once the data/position(s) are available. ○ Treatment (if required) is recommended to be done on the College site next to the elevated tank. • <u>Storage</u> <ul style="list-style-type: none"> ○ An elevated storage tank to provide water to the facility is required. ○ Newly developed ground water sources will pump into the elevated tank. ○ It is proposed that the municipal water supply also be connected to the elevated water tank, to enable the facility to store Municipal water when available. ○ Due to low pressures, it might be required that a ground level reservoir/tank be installed, that can fill with the Municipal water at a low pressure when available. This water will then have to be boosted to the elevated tank.

		<ul style="list-style-type: none"> ○ The preferred position for access and maintenance is the south-eastern corner of the property (Site 1). Alternatively, the storage can be erected at Site 2 at the back of the Main Administration Block. Access for construction is however restricted. • <u>Electrical supply</u> <ul style="list-style-type: none"> ○ 3 -phase electricity is available on site ○ To be confirmed by electrical engineer once boreholes has been identified. • <u>Reticulation</u> <ul style="list-style-type: none"> ○ Domestic <ul style="list-style-type: none"> ▪ The existing reticulation system is reported to be in good condition: no leaks or pipe bursts. The system does not need an upgrade. ▪ An additional reticulation pipe with drinking fountains may be required (See Annexure E for position) on campus - it can be connected to the existing reticulation at the Main administration-, Administration- and Building Workshop buildings. ▪ A potential new water supply point (standpipe) can also be installed next to the carpentry workshop to supply water to the for practical building works. ○ Fire <ul style="list-style-type: none"> ▪ A fire hydrant must be installed on Campus, from the Municipal main (position to be determined). CHDM confirmed that the fire hydrant can be connected to their 110mm dia water reticulation pipe in Gwadana Drive. ▪ A separate on-site fire flow reticulation system is proposed. See proposed layout in Annexure E for position. ▪ Additional fire hose reels must also be installed. • <u>Connections</u> <ul style="list-style-type: none"> ○ The new on-site storage must have an inlet supply from the Municipal Connection to fill the storage if and when possible. ○ The Storage must supply water to the existing water reticulation network. ○ It is proposed that the inlet and outlet pipework of the storage reservoir be connected to the existing Municipal connection. ○ Isolation valves must be installed on the in- and outlet pipework at the connection, as well is in between the two connections ○ The fire reticulation must be connected to the elevated storage tank (separate outlet)
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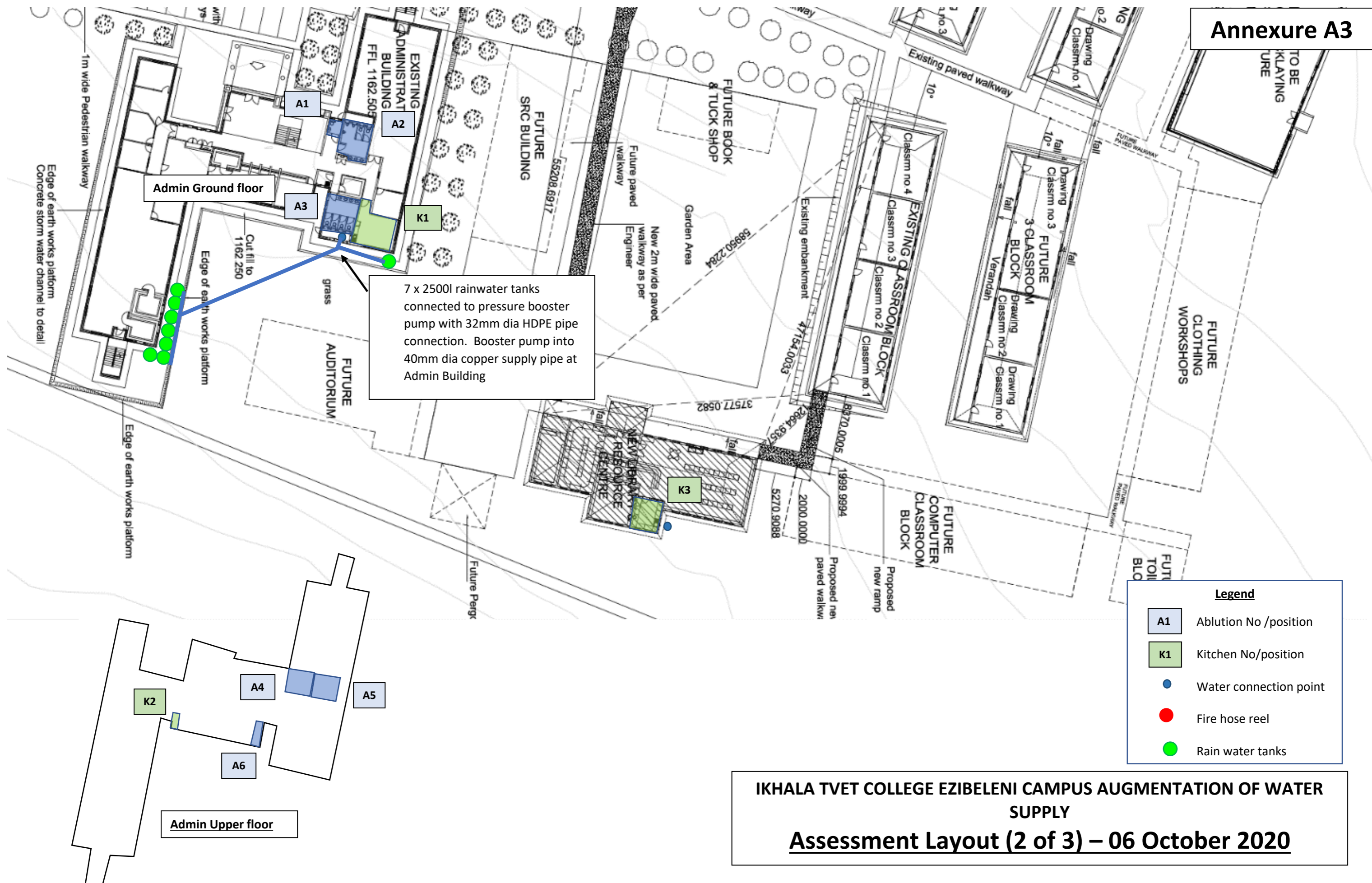
6.	<u>Alternative water sources:</u>	<ul style="list-style-type: none"> • Rainwater harvesting <ul style="list-style-type: none"> ○ Potential yield from rainwater must be quantified and feasibility evaluated. ○ Rainwater harvesting would require: <ul style="list-style-type: none"> ▪ Reconfiguration of down pipes to new tank positions; ▪ Rainwater tanks with stand/platform at each down pipe position; ▪ Connection pipe work with a booster pump(s) to pump rainwater to treatment facility or grey water use; ▪ Treatment of water if used for potable water.
7.	<u>Current or future projects:</u>	<ul style="list-style-type: none"> • Not specifically identified. • Not to be catered for
8.	<u>Annexures:</u>	<p>Annexure A – Layout map and drawings (existing)</p> <p>Annexure B - Photo report</p> <p>Annexure C - Summary of sanitation fixtures</p> <p>Annexure D – Water demand calculations</p> <p>Annexure E – Layout mapping (proposed)</p>

ANNEXURE A – LAYOUT MAP AND DRAWINGS (EXISTING)

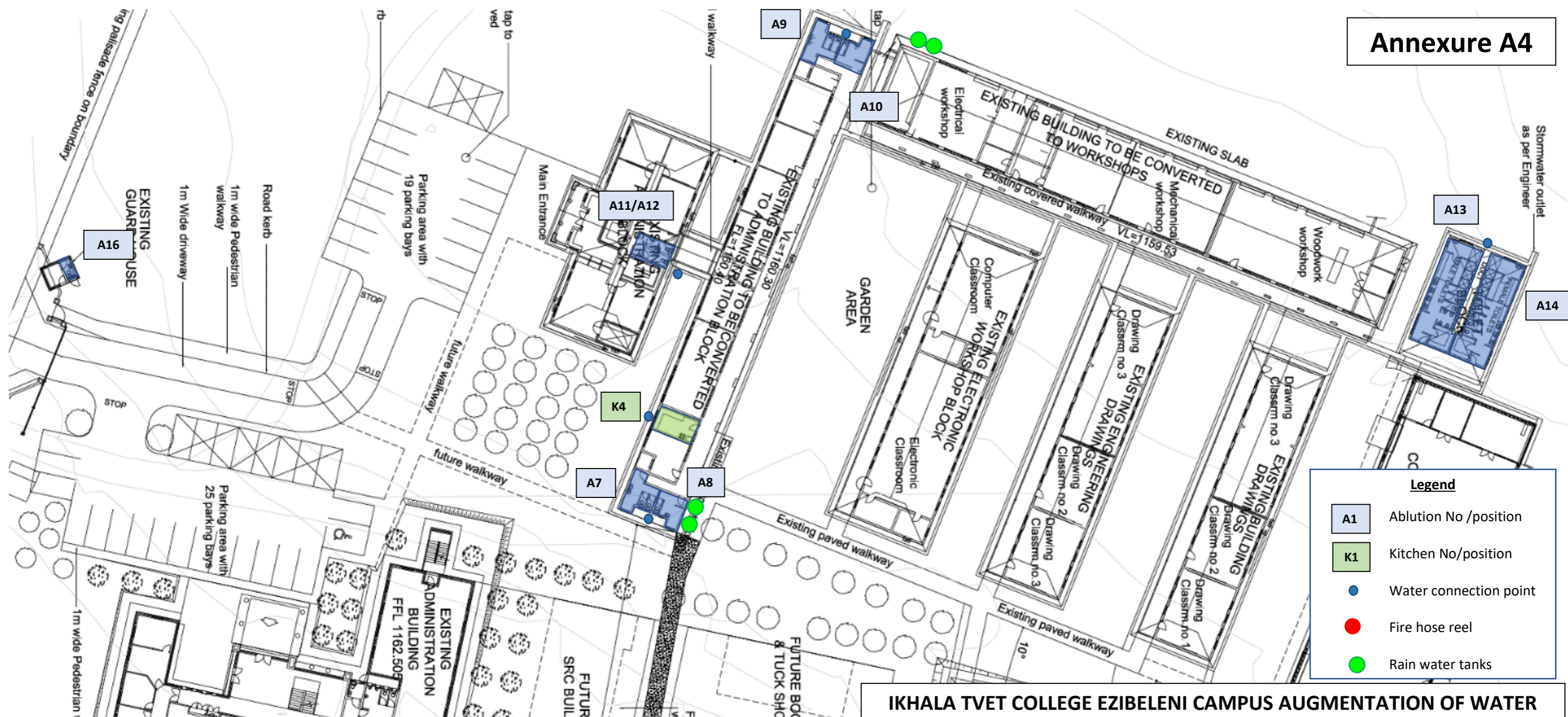
Annexure A2



Annexure A3



Annexure A4



IKHALA TVET COLLEGE EZIBELENI CAMPUS AUGMENTATION OF WATER SUPPLY

Assessment Layout (3 of 3) – 06 October 2020